Appendix 4.1-A

Route 24 Growth Projections

South Coast Rail Project
Route 24 Growth Projection Analysis
2030 No-Build and Build (Rapid Bus Alternative) Conditions

VHB Project No. 10111.31

		Existing Conditions		Freetown Background Traffic[1]		Taunton ETIP[1]		CTPS Annual Growth Forecast		2030 No Build Conditions		Vehicle Reduction[2]		Rapid Bus Trips[3]		2030 Rapid Bus[4]	
Location	Direction	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Off-Peak Direction	Peak Direction	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Weekday Morning Peak Hour	Weekday Evening Peak Hour
I-93 south of Route 3	NB	5950	4755	4	20	0	1	0.1%	0.5%	6645	4880	*944*	*89*	*22*	*4*	5701	4791
	SB	6985	7375	20	4	1	0	0.1%	0.5%	7160	8235	*64*	*893*	*4*	*22*	7096	7342
I-93 south of Furnace Brook Parkway	NB	7845	5310	4	20	0	1	0.1%	0.5%	8760	5450	*944*	*89*	*22*	*4*	7816	5361
	SB	5085	7255	20	4	1	0	0.1%	0.5%	5220	8100	*64*	*893*	*4*	*22*	5156	7207
Route 24, south of I-93	NB	5100	2770	7	40	1	3	0.1%	0.5%	5700	2875	*944*	*89*	*22*	*4*	4756	2786
	SB	3400	6110	40	9	3	1	0.1%	0.5%	3520	6830	*64*	*893*	*4*	*22*	3456	5937
Route 24, south of Pond Street	NB	5355	3330	7	40	1	3	0.1%	0.5%	5985	3445	*944*	*89*	*22*	*4*	5041	3356
	SB	3070	6010	40	9	3	1	0.1%	0.5%	3180	6715	*64*	*893*	*4*	*22*	3116	5822
Route 24, north of Route 123	NB	5405	3255	18	100	2	7	0.1%	0.5%	6050	3435	*944*	*89*	*22*	*4*	5106	3346
	SB	2350	5445	99	22	7	2	0.1%	0.5%	2510	6100	*64*	*893*	*4*	*22*	2446	5207
Route 24, north of I-495	NB	5260	3435	36	200	3	7	0.1%	0.5%	5910	3720	*944*	*89*	*22*	*4*	4988	3635
	SB	2630	4755	198	45	13	2	0.1%	0.5%	2900	5355	*57*	*893*	*4*	*22*	2847	4484
Route 24, north of Route 44	NB	3930	2475	196	1102	17	72	0.1%	1.0%	5105	3705	*944*	*89*	*22*	*4*	4183	3620
	SB	2110	3860	1091	246	72	19	0.1%	1.0%	3320	5070	*57*	*893*	*4*	*22*	3267	4199
Route 24, north of Route 140	NB	3795	2060	268	1503	30	130	0.1%	1.0%	5020	3740	*651*	*51*	*18*	*3*	4387	3692
	SB	1860	3910	1487	336	131	35	0.1%	1.0%	3520	5240	*38*	*619*	*3*	*18*	3485	4639
Route 24, south of Route 140	NB	2800	1600	339	1904	73	19	0.1%	0.5%	3535	3560	*32*	*26*	*6*	*1*	3509	3535
	SB	1355	2875	1884	426	16	72	0.1%	0.5%	3285	3705	*19*	*51*	*1*	*6*	3267	3660
Route 24, north of Route 79	NB	1835	1610	357	2004	71	18	0.1%	0.5%	2475	3670	*32*	*26*	*6*	*1*	2449	3645
	SB	1430	2390	1983	448	16	70	0.1%	0.5%	3460	3185	*19*	*51*	*1*	*6*	3442	3140
Route 24 at Fall River Freetown Line	NB	2030	1890	2505	636	69	18	0.1%	0.5%	4840	2585	*0*	*13*	*6*	*1*	4846	2573
	SB	1770	2590	917	2530	15	68	0.1%	0.5%	2740	5490	*13*	*0*	*1*	*6*	2728	5496
Route 138, south of Bay Street	-	1345	1565	0	0	0	0	0.1%	0.5%	1435	1670	*0*	*0*			1435	1670
Route 138, south of Route 106	-	1400	1555	0	0	0	0	0.1%	0.5%	1495	1660	*0*	*0*			1495	1660
Route 140, north of Hathaway Road	NB	2015	2085	21	120	31	140	0.1%	0.5%	2300	2390	*593*	*51*	*8*	*1*	1715	2340
	SB	2160	2225	119	27	140	37	0.1%	0.5%	2465	2545	*32*	*542*	*1*	*8*	2434	2011
Route 140, south of Route. 24	EB	830	1740	50	281	344	91	0.1%	0.5%	1320	2150	*32*	*542*	*1*	*8*	1289	1616
	WB	1595	1060	278	63	75	342	0.1%	0.5%	1985	1590	*593*	*51*	*8*	*1*	1400	1540

1 Vehicle trips represent projected Route 24 traffic associated with the background developments identified in section 3.1.2.
2 Reduction (in vehicles per hour) in the number of passenger vehicles using Route 24 under the Rapid Bus Alternative. Based on the CTPS travel demand model.
3 Number of Rapid Bus vehicles on Route 24 during the peak hour. *Note* : North of Route 123 the rapid bus travels in an exclusive bus lane and does not affect vehicle operations along the general purpose lanes on Route 24.
4 Expected 2030 Route 24 peak hour traffic volumes under the Rapid Bus Alternative.

Appendix 4.1-B

Crash Data and Rate Analysis

SAFETY ANALYSIS SUMMARY TABLES

Table 1: Accidents on Primary Study Area Highways

	2004	2005	2006	Annual Percent Change
Accidents				
Route 24	865	1021	1025	9.2%
Route 140	247	253	256	1.8%
Route 93	659	1002	1056	28.7%
Total	1771	2276	2337	15.6%
Injuries				
Route 24	428	487	533	11.6%
Route 140	134	116	118	-5.9%
Route 93	330	433	367	8.0%
Total	892	1016	1018	7.0%
Fatalities				
Route 24	7	9	6	-2.4%
Route 140	3	4	5	29.2%
Route 93	4	3	5	20.8%
Total	14	16	16	7.1%

Massachusetts Highway Department, Accident Database, 2006.

Table 2: I-93 - Vehicular Crash Summary

	Randolph 2.7 miles [1]	Braintree 1.8 miles	Quincy 2.6 miles	Milton 1.5 miles	Boston 8.3 miles
Year					
2004	84	153	143	119	154
2005	135	219	286	232	129
2006	131	215	326	220	162
Total	350	587	755	571	445
Collision Type					
Angle	32	54	70	36	30
Head-on	4	7	7	6	2
Rear-end	155	313	445	376	263
Rear-to-Rear	1	3	2	0	3
Sideswipe	56	72	86	59	54
Single-vehicle crash	85	113	103	61	41
Unknown	17	25	42	33	52
Total	350	587	755	571	445
Severity					
Fatal	0	2	5	1	3
Injury	96	196	242	162	128
Property-related	227	346	421	365	233
Unknown	27	43	87	43	81
Total	350	587	755	571	445
Time of day					
Weekday, 7:00 AM - 9:00 AM	43	53	90	80	63
Weekday, 4:00 PM - 6:00 PM	34	86	99	69	22
Saturday, 11:00 AM - 2:00 PM	10	11	16	12	9
Weekday, other time	181	311	398	310	250
Weekend, other time	82	126	152	100	101
Total	350	587	755	571	445
Pavement Conditions					
Dry	253	420	542	431	316
Wet	72	137	173	117	83
Snow	12	10	8	8	13
Ice/Slush	8	3	14	2	7
Other	1	3	3	3	3
Unknown	4	14	15	10	23
Total	350	587	755	571	445

Source: MassHighway Crash Data

1 Approximate segment lengths

Table 3: Route 24 - Vehicular Crash Summary

	Fall River 9.5 miles [1]	Freetown 1.2 miles	Assonet n/a	Berkley 3.1 miles	Taunton 2.7 miles	Raynham 3.4 miles	Bridgewater 3.1 miles	West Bridgewater 4.4 miles	Brockton 3.8 miles	Avon 2.4 miles	Stoughton 1.5 miles	Canton 0.4 miles	Randolph 2.6 miles
Year													
2004	153	55	2	34	79	104	79	67	104	61	53	8	62
2005	140	79	7	32	80	115	92	86	163	63	67	4	90
2006	139	52	2	29	115	135	90	75	128	63	78	11	103
Total	432	186	11	95	274	354	261	228	395	187	198	23	255
Collision Type													
Angle	42	18	3	9	28	39	37	28	55	17	14	3	21
Head-on	6	2	0	0	1	1	3	1	1	2	1	0	0
Rear-end	106	38	2	28	154	159	85	83	149	80	88	10	109
Rear-to-Rear	0	1	0	0	1	2	0	0	1	0	1	0	1
Sideswipe	29	13	0	3	22	27	23	30	53	23	24	1	41
Single-vehicle crash	238	110	5	52	60	109	107	79	119	59	59	6	64
Unknown	11	4	1	3	8	17	6	7	17	6	11	3	19
Total	432	186	11	95	274	354	261	228	395	187	198	23	255
Severity													
Fatal	6	3	0	2	0	0	2	1	3	1	3	0	0
Injury	157	64	3	46	80	105	89	80	153	86	78	6	83
Property-related	255	115	6	43	180	220	150	131	215	89	108	13	143
Unknown	14	4	2	4	14	29	20	16	24	11	9	4	29
Total	432	186	11	95	274	354	261	228	395	187	198	23	255
Time of day													
Weekday, 7:00 AM - 9:00 AM	41	16	1	14	36	41	36	26	49	26	30	2	36
Weekday, 4:00 PM - 6:00 PM	40	10	0	8	44	83	34	29	37	22	19	4	27
Saturday, 11:00 AM - 2:00 PM	22	11	0	1	3	11	4	4	6	4	2	0	5
Weekday, other time	217	99	6	50	141	154	125	122	219	92	95	12	127
Weekend, other time	112	50	4	22	50	65	62	47	84	43	52	5	60
Total	432	186	11	95	274	354	261	228	395	187	198	23	255
Pavement Conditions													
Dry	273	137	4	66	193	259	157	156	283	138	153	17	184
Wet	122	28	5	24	64	69	93	53	79	39	34	6	47
Snow	19	17	2	2	6	5	6	11	14	4	5	0	8
Ice/Slush	14	4	0	2	7	12	5	4	10	2	4	0	7
Other	2	0	0	0	1	1	0	2	4	0	2	0	1
Unknown	2	0	0	1	3	8	0	2	5	4	0	0	8
Total	432	186	11	95	274	354	261	228	395	187	198	23	255

Source: MassHighway Crash Data

1 Approximate segment lengths

Table 4: Route 140 - Vehicular Crash Summary

	New Bedford 8.0 miles [1]	Freetown 3.0 miles	Lakeville 4.8 miles	Taunton 11.2 miles
Year				
2004	120	11	20	101
2005	119	19	26	87
2006	144	12	10	89
Total	383	42	56	277
Collision Type				
Angle	42	6	3	46
Head-on	4	1	0	3
Rear-end	131	6	9	138
Rear-to-Rear	0	0	0	0
Sideswipe	29	3	2	22
Single-vehicle crash	167	26	40	58
Unknown	10	0	2	10
Total	383	42	56	277
Severity				
Fatal	7	2	2	0
Injury	139	14	18	88
Property-related	218	26	35	170
Unknown	19	0	1	19
Total	383	42	56	277
Time of day				
Weekday, 7:00 AM - 9:00 AM	47	5	6	40
Weekday, 4:00 PM - 6:00 PM	48	8	6	29
Saturday, 11:00 AM - 2:00 PM	10	1	0	6
Weekday, other time	198	19	28	145
Weekend, other time	80	9	16	57
Total	383	42	56	277
Pavement Conditions				
Dry	255	36	41	200
Wet	99	4	6	63
Snow	10	2	6	5
Ice/Slush	12	0	1	3
Other	2	0	1	0
Unknown	5	0	1	6
Total	383	42	56	277

Source: MassHighway Crash Data

1 Approximate segment lengths

Table 5: Park and Ride Intersection Crash Summary[1]

	West Center St. (Route 106)/ Pleasant Street	Mt. Pleasant St. at Park and Ride
Year		
2004	1	0
2005	0	1
2006	3	0
Total	4	1
Collision Type		
Angle	1	0
Head-on	1	0
Rear-end	0	0
Sideswipe	1	1
Single Vehicle Crash	1	0
Unknown	0	0
Total	4	1
Severity		
Property Damage	2	1
Personal Injury	2	0
Fatality	0	0
Hit and Run	0	0
Unknown	0	0
Total	4	1
Conditions		
Dry	4	0
Wet	0	1
Ice/snow	0	0
Other	0	0
Unknown	0	0
Total	4	1
Time of Day		
7:00 – 9:00 AM	1	0
4:00 – 6:00 PM	1	0
Remainder of day	2	1
Total	4	1
Avg. Crash Rate[2] (MEV[3])	0.16	0.07
MassHighway District 5 Crash Rates	0.59	0.59

[1]Source: MassHighway Crash database 2004-2006

[2]MassHighway District 5 average crash rate is 0.59 for unsignalized intersections. Both intersections do not exceed District average.

[3]MEV=Million entering vehicles

Table 6: New Bedford Vehicular Crash Summary – Whale's Tooth Station Area

	Acushnet St at Hillman St	Herman Melville Blvd at McArthur Dr	Hillman St at Purchase	Kempton St at Pleasant at Purchase at Mill St	Union St at Route 18
Year					
2004	2	0	4	1	4
2005	1	0	2	1	1
2006	1	1	1	1	8
Total	4	1	7	3	13
Collision Type					
Angle	2	0	1	1	5
Head-on	0	0	0	0	0
Rear-end	1	0	2	1	3
Sideswipe	0	0	2	0	2
Single-vehicle crash	1	1	1	1	2
Unknown	0	0	1	0	1
Total	4	1	7	3	13
Severity					
Fatality	0	0	0	0	0
Injury	3	0	2	0	0
Property-related	1	1	4	2	8
Unknown	0	0	1	1	3
Total	4	1	7	3	11
Time of day					
Weekday, 7:00 AM - 9:00 AM	0	0	0	0	1
Weekday, 4:00 PM - 6:00 PM	0	0	0	0	1
Saturday, 11:00 AM - 2:00 PM	0	0	0	1	2
Weekday, other time	3	0	7	2	7
Weekend, other time	1	1	0	0	2
Total	4	1	7	3	13
Pavement Conditions					
Dry	2	1	5	3	10
Wet	2	0	1	0	3
Snow	0	0	0	0	0
Ice/Slush	0	0	0	0	0
Unknown	0	0	1	0	0
Total	4	1	7	3	13
Calculated Crash Tables	0.65	0.13	0.38	0.11	0.36
MassHighway District 5 Crash Rates	0.59	0.59	0.84	0.84	0.84

Table 6: New Bedford Vehicular Crash Summary - Whale's Tooth Station Area (Continued)

	Purchase St at Coggeshall St	Coggeshall St at Route 18 NB	Coggeshall St at Route 18 SB	North Front St at Coggeshall St	Belleville Ave at Coggeshall St	Weld St at Purchase St	Logan St at North Front St	Logan St at Purchase St	Wamsutta St at Acushnet Ave/	Logan St at Acushnet Ave	Purchase St at Route 18 SB Exit Ramp
Year											
2004	6	2	24	4	4	2	4	9	1	0	0
2005	7	10	16	1	7	1	3	2	2	0	1
2006	1	4	11	3	6	3	2	3	3	1	4
Total	14	16	51	8	17	6	9	14	6	1	5
Collision Type											
Angle	9	7	36	5	8	5	4	4	0	0	1
Head-on	0	0	1	0	1	0	0	2	0	1	0
Rear-end	0	4	5	1	4	0	4	3	1	0	2
Sideswipe	1	1	5	1	2	0	1	2	1	0	0
Single-vehicle crash	3	3	2	0	2	1	0	3	4	0	1
Unknown	1	1	2	1	0	0	0	0	0	0	1
Total	14	16	51	8	17	6	9	14	6	1	5
Severity											
Fatality	0	0	0	0	0	0	0	0	0	0	0
Injury	6	3	14	3	6	3	4	4	1	0	1
Property-related	7	13	31	3	11	2	4	8	4	1	3
Unknown	1	0	6	2	0	1	1	2	1	0	1
Total	14	16	51	8	17	6	9	14	6	1	5
Time of day											
Weekday, 7:00 AM - 9:00 AM	0	2	1	2	1	1	4	0	0	0	0
Weekday, 4:00 PM - 6:00 PM	1	1	6	1	2	2	0	3	1	0	1
Saturday, 11:00 AM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0
Weekday, other time	8	7	29	4	11	3	4	9	4	1	3
Weekend, other time	5	6	15	1	3	0	1	2	1	0	1
Total	14	16	51	8	17	6	9	14	6	1	5
Pavement Conditions											
Dry	11	14	42	7	13	5	1	8	4	1	3
Wet	3	2	8	1	3	1	3	4	2	0	2
Snow	0	0	0	0	0	0	0	1	0	0	0
Ice/Slush	0	0	1	0	0	0	5	0	0	0	0
Unknown	0	0	0	0	1	0	0	1	0	0	0
Total	14	16	51	8	17	6	9	14	6	1	5
Calculated Crash Tables	1.01	0.86	2.92	0.58	0.63	0.49	1.18	1.18	3.20	0.23	0.46
MassHighway District 5 Crash Rates	0.59	0.84	0.84	0.59	0.84	0.59	0.59	0.59	0.59	0.59	0.59

Table 7: New Bedford Vehicular Crash Summary – King's Highway Station Area

	Ashley Blvd (Route 18) at Wood St	Church St at Nash Rd	Church St at Park Ave	Church St at Tarkiln Hill Rd	King's Highway at Route 140 NB Ramps	King's Highway/ Jones St at Mt Pleasant St	King's Highway at Shaw's driveway*	King's Highway at Stop & Shop driveway*	King's Highway at Tarkiln Hill Rd
Year									
2004	3	4	11	5	2	5	5	11	4
2005	3	4	6	4	2	6	2	4	1
2006	1	2	11	9	0	5	3	2	2
Total	7	10	28	18	4	16	10	17	7
Collision Type									
Angle	6	6	23	11	1	4	1	6	4
Head-on	0	1	0	0	0	0	1	0	1
Rear-end	0	2	2	3	3	12	5	9	0
Sideswipe	0	1	2	0	0	0	3	0	0
Single-vehicle crash	1	0	0	2	0	0	0	1	2
Unknown	0	0	1	2	0	0	0	1	0
Total	7	10	28	18	4	16	10	17	7
Severity									
Fatality	0	0	0	0	0	0	0	0	0
Injury	2	3	15	4	0	4	3	11	2
Property-related	5	7	12	11	4	9	6	3	4
Unknown	0	0	1	3	0	3	1	3	1
Total	7	10	28	18	4	16	10	17	7
Time of day									
Weekday, 7:00 AM - 9:00 AM	0	1	0	2	1	0	0	1	1
Weekday, 4:00 PM - 6:00 PM	0	2	8	2	1	4	2	4	1
Saturday, 11:00 AM - 2:00 PM	0	0	3	1	0	0	0	0	1
Weekday, other time	6	4	12	10	1	11	5	9	4
Weekend, other time	1	3	5	3	1	1	3	3	0
Total	7	10	28	18	4	16	10	17	7
Pavement Conditions									
Dry	2	7	20	12	2	10	6	12	4
Wet	4	3	7	3	2	6	4	4	3
Snow	1	0	0	1	0	0	0	0	0
Ice/Slush	0	0	0	1	0	0	0	0	0
Unknown	0	0	1	1	0	0	0	1	0
Total	7	10	28	18	4	16	10	17	7
Calculated Crash Rates	0.40	0.50	1.69	0.71	0.16	0.64	0.46	0.62	0.26
MassHighway District 5 Crash Rates	0.84	0.84	0.59	0.84	0.84	0.59	0.84	0.84	0.59

* Due to lack of information on the accident reports, the total number of crashes reported for these two intersections might account for crashes inside the King's Plaza parking Lot and Fieldston Market parking lot.

Table 8: Freetown Vehicular Crash Summary

	S Main St at High Street	S Main St at Narrows St	S Main St at Ridge Hill Rd	S Main St at Route 24 SB Ramps
Year				
2004	1	1	1	0
2005	0	1	2	1
2006	0	2	1	0
Total	1	4	4	1
Collision Type				
Angle	0	2	3	1
Rear-end	1	1	0	0
Single-vehicle crash	0	1	0	0
Unknown	0	0	1	0
Total	1	4	4	1
Severity				
Fatal Injury	0	0	0	0
Injury	1	1	1	1
Property-related	0	3	2	0
Unknown	0	0	1	0
Total	1	4	4	1
Time of day				
Weekday, 7:00 AM - 9:00 AM	1	0	0	0
Weekday, other time	0	4	3	1
Weekend, other time	0	0	1	0
Total	1	4	4	1
Pavement Conditions				
Dry	1	4	2	1
Wet	0	0	2	0
Total	1	4	4	1
Calculated Crash Rates	0.08	0.45	0.30	0.09
MassHighway District 5 Crash Rates	0.59	0.59	0.59	0.59

Table 9: Fall River Station Vehicular Crash Summary

	Anawan St/ Pocasset St at Davol St	Davol St at Central	N Davol St at President Ave	N Davol St at Turner St	N Main St at President Ave	S Davol St at President Ave	Water St at Anawan St	Ferry St at Water St
Year								
2004	3	0	17	2	15	1	3	1
2005	2	0	18	1	5	2	0	0
2006	2	6	25	1	9	1	1	0
Total	7	6	60	4	29	4	4	1
Collision Type								
Angle	3	4	27	0	14	1	1	0
Head-on	0	0	3	0	0	0	0	0
Rear-end	2	2	20	1	9	1	1	0
Rear-to-rear	0	0	0	0	0	0	0	0
Sideswipe	1	0	6	2	4	1	1	0
Single-vehicle crash	0	0	3	1	2	1	1	1
Unknown	1	0	1	0	0	0	0	0
Total	7	6	60	4	29	4	4	1
Severity								
Fatality	0	0	0	0	0	0	0	0
Injury	0	1	15	1	5	0	0	0
Property-related	7	5	45	3	24	2	3	1
Unknown	0	0	0	0	0	2	1	0
Total	7	6	60	4	29	4	4	1
Time of day								
Weekday, 7:00 AM - 9:00 AM	0	0	2	1	1	2	0	0
Weekday, 4:00 PM - 6:00 PM	2	2	7	1	3	0	0	0
Saturday, 11:00 AM - 2:00 PM	0	0	3	1	1	0	1	0
Weekday, other time	2	3	32	1	16	2	2	1
Weekend, other time	3	1	16	0	8	0	1	0
Total	7	6	60	4	29	4	4	1
Pavement Conditions								
Dry	4	3	50	4	25	3	2	0
Wet	2	3	8	0	3	1	2	0
Snow	1	0	2	0	1	0	0	0
Ice/Slush	0	0	0	0	0	0	0	1
Total	7	6	60	4	29	4	4	1
Calculated Crash Rates	0.47	0.37	2.42	0.34	1.14	0.16	0.63	0.17
MassHighway District 5 Crash Rates	0.59	0.59	0.84	0.59	0.84	0.84	0.59	0.59

Table 10: Easton Vehicular Crash Summary

	Elm St at North Main St	Lincoln St at Barrows St	Lincoln St at Center St at Main St	Route 138 at Belmont St / Route 123	Route 138/ Washington St at Elm St	Route 138 / Washington St at Main St	Route 138/Washington St at Union St	Route 138/Washington St at Roosevelt Circle
Year								
2004	1	1	4	3	5	5	2	1
2005	1	0	1	6	6	6	1	0
2006	3	0	4	3	6	13	5	2
Total	5	1	9	12	17	24	8	3
Collision Type								
Angle	0	1	4	8	12	15	6	1
Head-on	0	0	1	0	0	1	2	0
Rear-end	3	0	2	2	1	7	0	1
Sideswipe	1	0	1	2	3	1	0	0
Single-vehicle crash	1	0	1	0	0	0	0	0
Unknown	0	0	0	0	1	0	0	1
Total	5	1	9	12	17	24	8	3
Severity								
Fatality	0	0	0	0	0	0	0	0
Injury	0	0	3	4	4	5	3	2
Property-related	5	1	4	7	10	19	4	1
Unknown	0	0	2	1	3	0	1	0
Total	5	1	9	12	17	24	8	3
Time of day								
Weekday, 7:00 AM - 9:00 AM	1	0	2	1	4	4	2	0
Weekday, 4:00 PM - 6:00 PM	1	1	3	2	3	7	0	0
Saturday, 11:00 AM - 2:00 PM	0	0	0	1	0	0	0	0
Weekday, other time	3	0	3	6	8	11	2	1
Weekend, other time	0	0	1	2	2	2	4	2
Total	5		9	12	17	24	8	3
Pavement Conditions								
Dry	4	1	8	11	12	19	4	3
Wet	1	0	0	1	3	4	3	0
Snow	0	0	1	0	0	1	1	0
Unknown	0	0	0	0	2	0	0	0
Total	5	1	9	12	17	24	8	3
Calculated Crash Rates	0.68	0.09	0.50	0.43	0.56	0.78	0.34	0.18
MassHighway District 5 Crash Rates	0.59	0.59	0.59	0.84	0.59	0.84	0.59	0.59

Table 11: Raynham Vehicular Crash Summary

	Route 138 at I-495 NB Off-Ramp	Route 138 at I-495 SB Off-Ramp	Route 138 at I-495 SB On-Ramp	Route 138/ Broadway St at Britton St	Route 138/ Broadway St at Carver St	Route 138/ Broadway St at Center St	Route 138/ Broadway St at Elm St	Route 138/Turnpike Street at Robinson St.
Year								
2004	1	0	0	1	5	1	3	0
2005	1	1	0	1	3	1	1	2
2006	0	1	1	1	10	1	1	1
Total	2	2	1	3	18	3	5	3
Collision Type								
Angle	2	0	1	1	9	1	3	0
Rear-end	0	1	0	1	1	1	1	0
Sideswipe	0	1	0	1	3	0	1	0
Single-vehicle crash	0	0	0	0	1	0	0	2
Unknown	0	0	0	0	4	1	0	1
Total	2	2	1	3	18	3	5	3
Severity								
Fatality	0	0	0	0	0	0	0	0
Injury	0	1	1	0	8	1	0	1
Property-related	2	1	0	2	5	2	4	2
Unknown	0	0	0	1	5	0	1	1
Total	2	2	1	3	18	3	5	3
Time of day								
Weekday, 7:00 AM - 9:00 AM	1	1	1	1	1	0	1	0
Weekday, 4:00 PM - 6:00 PM	0	1	0	0	2	0	0	0
Weekday, other time	1	0	0	2	11	3	3	1
Weekend, other time	0	0	0	0	4	0	1	2
Total	2	2	1	3	18	3	5	3
Pavement Conditions								
Dry	0	2	1	0	12	3	4	1
Wet	2	0	0	2	3	0	1	1
Ice/Slush	0	0	0	1	0	0	0	0
Snow	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	3	0	0	0
Total	2	2	1	3	18	3	5	3
Calculated Crash Rates	0.07	0.06	0.03	0.13	0.53	0.11	0.18	0.15
MassHighway District 5 Crash Rates	0.59	0.59	0.59	0.59	0.84	0.59	0.84	0.59

Table 12: Taunton Stations Study Area Vehicular Crash Summary

	Route 140 at Route 24 NB Ramps	Hart St at County St/ Route 140	Stevens St at Galleria Mall Ramp	County St at Galleria Mall Dr	Taunton Depot Dr at Route 140	Broadway at Taunton Green	Kilmer St at Lowell St and Oak St	Wash. St at Frederick R. Martin Sr. Pkwy	Taunton Green at Cohanne t St	Taunton Green at Court St	Tremont St at Wash. St/ Oak St	Court St at Wash. St	Weir St at Taunton Green	Route 44 at Route 104	Union St/ Summer St at Main St	Dean St at Arlington St	Longmeadow Rd. at Dean St	Purchase St at Wash. St
Year																		
2004	0	15	6	1	4	2	2	0	4	3	1	4	13	4	3	1	13	14
2005	1	15	6	5	3	2	5	0	1	3	8	5	4	4	3	5	13	11
2006	1	16	5	3	1	5	5	1	6	8	12	3	6	4	1	3	12	11
Total	2	46	17	9	8	9	12	1	11	14	21	12	23	12	7	9	38	36
Collision Type																		
Angle	0	29	14	5	5	1	8	1	6	6	6	5	9	2	3	1	17	33
Head-on	0	3	1	1	0	0	0	0	0	0	1	0	0	1	0	0	2	1
Rear-end	2	9	0	3	2	3	1	0	1	1	10	1	8	5	4	7	14	1
Sideswipe	0	3	0	0	1	1	1	0	4	4	0	3	3	2	0	0	4	0
Single-vehicle crash	0	1	2	0	0	3	2	0	0	3	3	2	3	1	0	0		0
Unknown	0	1	0	0	0	1	0	0	0	0	1	1	0	1	0	1	1	1
Total	2	46	17	9	8	9	12	1	11	14	21	12	23	12	7	9	38	36
Severity																		
Fatality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Injury	1	14	9	2	1	2	3	0	0	2	6	1	8	5	4	1	14	11
Fatal Injury	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property-related	1	27	7	6	7	7	7	1	9	12	12	9	14	6	2	7	20	22
Unknown	0	5	1	1	0	0	2	0	2	0	3	2	1	1	1	1	4	3
Total	2	46	17	9	8	9	12	1	11	14	21	12	23	12	7	9	38	36
Time of day																		
Weekday, 7:00AM to 9:00AM	0	1	1	1	0	0	1	1	1	1	2	0	1	0	0	2	1	6
Weekday, 4:00PM to 6:00PM	0	5	3	1	0	3	1	0	1	3	2	0	4	1	1	0	4	6
Saturday, 11:00AM to 2:00PM	0	5	1	0	1	0	1	0	0	0	2	0	3	1	0	1	2	0
Weekday, other time	0	20	9	6	4	5	6	0	7	9	11	10	11	7	6	3	23	20
Weekend, other time	2	15	3	1	3	1	3	0	2	1	4	2	4	3	0	3	8	4
Total	2	46	17	9	8	9	12	1	11	14	21	12	23	12	7	9	38	36
Pavement Conditions																		
Dry	1	38	8	7	6	8	11	0	11	12	19	9	19	11	5	4	31	29
Wet	1	8	7	1	2	1	1	1	0	2	2	3	4	1	2	4	7	6
Ice	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Snow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Total	2	46	17	9	8	9	12	1	11	14	21	12	23	12	7	9	38	36
Calculated Crash Rates	0.04	1.37	1.19	0.52	0.26	0.38	1.33	0.04	0.46	0.64	0.77	0.52	0.68	0.39	0.33	0.37	0.91	3.77
MassHighway District 5 Crash Rates	0.59	0.84	0.84	0.84	0.84	0.84	0.59	0.59	0.59	0.59	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.59

Table 12: (Continued) Taunton Stations Study Area Vehicular Crash Summary

	School St at Arlington St	Spring St at Summer St	Winter St at Floral St at School St	Wash. St at Randall St	Wash. St at Mozzone Blvd.
Year					
2004	3	2	6	1	2
2005	12	1	9	0	0
2006	6	18	0	0	0
Total	21	21	15	1	2
Collision Type					
Angle	17	14	12	1	2
Head-on	1	3	0	0	0
Rear-end	1	2	1	0	0
Sideswipe	0	2	0	0	0
Single-vehicle crash	0	0	2	0	0
Unknown	2	0	0	0	0
Total	21	21	15	1	2
Severity					
Fatality	0	0	0	0	0
Injury	8	5	2	0	0
Fatal Injury	0	0	0	0	2
Property-related	12	13	12	1	0
Unknown	1	3	1	0	0
Total	21	21	15	1	2
Time of day					
Weekday, 7:00AM to 9:00AM	2	3	4	0	0
Weekday, 4:00PM to 6:00PM	1	2	4	0	0
Saturday, 11:00AM to 2:00PM	0	1	0	0	0
Weekday, other time	15	11	6	0	1
Weekend, other time	3	4	1	1	1
Total	21	21	15	1	2
Pavement Conditions					
Dry	17	18	11	1	2
Wet	3	3	4	0	0
Ice	0	0	0	0	0
Snow	1	0	0	0	0
Total	21	21	15	1	2
Calculated Crash Rates	2.00	1.23	1.01	0.04	0.02
MassHighway District 5 Crash Rates	0.59	0.84	0.59	0.84	0.59

Table 13: Norton Vehicular Crash Summary

	Dean St at John B. Scott Blvd	S Worcester St at John B. Scott Blvd	W. Main St at Old Colony Rd at N Worcester St
Year			
2004	0	0	0
2005	1	0	1
2006	1	1	1
Total	2	1	2
Collision Type			
Angle	1	0	2
Rear-end	1	0	0
Single-vehicle crash	0	1	0
Total	2	1	2
Severity			
Fatality	0	0	0
Injury	0	0	1
Property-related	2	1	1
Total	2	1	2
Time of day			
Weekday, 4:00 PM - 6:00 PM	0	0	1
Weekday, other time	1	1	1
Weekend, other time	1	0	0
Total	2	1	2
Pavement Conditions			
Dry	2	1	2
Total	2	1	2
Calculated Crash Rates	0.24	0.09	0.10
MassHighway District 5 Crash Rates	0.59	0.59	0.59

Appendix B – Crash Data & Rate Analysis

		TAUNTON	1/1/2004	12/31/2006	similar to: Summer Route							
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather
COUNTY STREET Rte 140	Rte 24	12/17/2006	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
COUNTY STREET Rte 140 N	Rte 24	9/17/2005	8:16:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain
COUNTY STREET	HART STREET	1/2/2004	9:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET Rte 140 N	HART STREET	1/6/2004	3:29:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear
COUNTY STREET Rte 140 S	HART STREET	1/17/2004	9:45:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET Rte 140 S	HART STREET	2/20/2004	1:04:00 PM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Daylight	Clear
COUNTY STREET	HART AVENUE	2/21/2004	11:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Cloudy
HART STREET	COUNTY STREET	2/28/2004	9:30:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET Rte 140 N	HART STREET	3/21/2004	10:10:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Cloudy
HART STREET	COUNTY STREET	4/17/2004	10:05:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear
COUNTY STREET Rte 140 N	HART STREET	5/7/2004	10:24:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear
COUNTY STREET	HART STREET	6/10/2004	9:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET	HART STREET	6/30/2004	3:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET	HART STREET	6/30/2004	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
COUNTY STREET Rte 140 N	HART STREET	8/10/2004	5:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COUNTY STREET	HART STREET	11/29/2004	12:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
HART STREET	COUNTY STREET	12/11/2004	11:00:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET Rte 140 N	HART STREET	1/22/2005	10:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
HART STREET	COUNTY STREET	2/15/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy
COUNTY STREET Rte 140	HART STREET	2/17/2005	12:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
COUNTY STREET Rte 140 N	HART STREET	3/4/2005	2:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
HART STREET	COUNTY STREET	3/5/2005	4:10:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
HART STREET	COUNTY STREET	3/5/2005	1:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COUNTY STREET Rte 140	HART STREET	4/19/2005	10:46:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
HART STREET	COUNTY STREET Rte 140 S	5/21/2005	12:59:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Rain
COUNTY STREET	HART STREET	6/2/2005	10:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear
COUNTY STREET Rte 140 S	HART STREET	6/4/2005	9:30:00 PM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear
COUNTY STREET Rte 140	HART STREET	7/8/2005	8:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain
COUNTY STREET Rte 140	HART STREET	9/19/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET	HART STREET	9/23/2005	9:10:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear
COUNTY STREET	HART STREET	10/8/2005	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain
COUNTY STREET Rte 140	HART STREET	12/30/2005	2:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear
COUNTY STREET	HART STREET	1/13/2006	5:27:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear
COUNTY STREET	HART STREET	1/28/2006	1:02:00 PM	Property damage only (none injured)	4	0	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET Rte 140	HART STREET	1/29/2006	7:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Rain
COUNTY STREET Rte 140	HART STREET	2/20/2006	2:33:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET Rte 140	HART STREET	3/20/2006	6:46:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET	HART STREET	4/9/2006	10:20:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear
COUNTY STREET	HART STREET	4/19/2006	10:45:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
HART STREET	COUNTY STREET	5/5/2006	9:37:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear
COUNTY STREET	HART STREET	5/13/2006	1:52:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain
HART STREET	COUNTY STREET Rte 140	7/29/2006	2:10:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET Rte 140 S	HART STREET	8/14/2006	9:32:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
COUNTY STREET	HART STREET	10/2/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
COUNTY STREET Rte 140 N	HART STREET	10/7/2006	12:00:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET	HART STREET	11/12/2006	5:47:00 PM	Non-fatal injury	2	2	0	Head-on	Head-on	Wet	Dark - lighted roadway	Clear
HART STREET	COUNTY STREET	11/16/2006	8:30:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET	HART STREET	11/28/2006	7:00:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Rain
STEVENS STREET	GALLERIA MALL DRIVE / Rte 140	12/22/2006	8:18:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Dark - lighted roadway	Rain
STEVENS STREET	GALLERIA MALL DRIVE	12/1/2006	9:39:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Severe crosswinds
GALLERIA MALL DRIVE	COUNTY STREET	9/29/2006	12:21:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
RAMP - RT 140 NB TO STEVENS ST	STEVENS STREET	8/2/2006	7:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
STEVENS STREET	GALLERIA MALL DRIVE	6/28/2006	12:34:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain
STEVENS STREET	GALLERIA MALL DRIVE / COUNTY STREET	12/29/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Wet	Dark - lighted roadway	Clear/Clear
STEVENS STREET	GALLERIA MALL DRIVE / Rte 140	12/10/2005	11:13:00 AM	Non-fatal injury	2	4	0	Angle	Angle	Wet	Dark - lighted roadway	Clear
STEVENS STREET	Rte 140 N	12/4/2005	8:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Snow/Cloudy
STEVENS STREET	Rte 140 N	11/12/2005	6:23:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
STEVENS STREET	GALLERIA MALL DRIVE / Rte 140 N	7/18/2005	5:45:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Cloudy
STEVENS STREET	Rte 140 N	3/8/2005	5:33:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Ice	Dusk	Sleet, hail (freezing rain or drizzle)
STEVENS STREET	Rte 140 N	11/19/2004	9:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
STEVENS STREET	GALLERIA MALL DRIVE	10/30/2004	9:30:00 PM	Not Reported	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain
STEVENS STREET	GALLERIA MALL DRIVE	8/20/2004	8:52:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Water (standing, moving)	Dark - lighted roadway	Clear/Clear
STEVENS STREET	Rte 140 N	4/30/2004	2:25:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear
STEVENS STREET	Rte 140 N	4/25/2004	5:30:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Cloudy
STEVENS STREET	Rte 140 N	1/16/2004	10:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COUNTY STREET	GALLERIA MALL DRIVE / Rte 140 S	10/14/2006	7:26:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET	GALLERIA MALL DRIVE	8/14/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy
COUNTY STREET	GALLERIA MALL DRIVE	6/27/2006	1:11:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Cloudy
STEVENS STREET	Rte 140 S	10/26/2005	6:35:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET	GALLERIA MALL DRIVE	5/20/2005	6:30:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear
COUNTY STREET	GALLERIA MALL DRIVE	3/11/2005	4:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Snow
COUNTY STREET	GALLERIA MALL DRIVE	2/22/2005	6:20:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear
COUNTY STREET	GALLERIA MALL DRIVE	1/17/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear
COUNTY STREET	GALLERIA MALL DRIVE	11/3/2004	11:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
COUNTY STREET	HOME DEPOT DRIVE	2/25/2006	9:45:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear
COUNTY STREET	TAUNTON DEPOT DRIVE / Rte 140	11/19/2005	9:05:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COUNTY STREET	TAUNTON DEPOT DRIVE	10/22/2005	2:05:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain
COUNTY STREET Rte 140 S	TAUNTON DEPOT DRIVE	3/21/2005	2:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COUNTY STREET	TAUNTON DEPOT DRIVE	11/26/2004	6:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET	TAUNTON DEPOT DRIVE	7/5/2004	10:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain
COUNTY STREET	TAUNTON DEPOT DRIVE	5/29/2004	9:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear
COUNTY STREET	TAUNTON DEPOT DRIVE	1/23/2004	6:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear
COUNTY STREET Rte 140 N	MOZZONE BOULEVARD	2/17/2006	8:21:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COUNTY STREET	MOZZONE BOULEVARD	12/2/2006	5:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear

EASTON	1/1/2004	12/31/2006	similar to: Washington Elm									
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection
1/19/2004	8:05:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Clear	WASHINGTON STREET Rte 138 N	MAIN STREET
1/28/2004	11:08:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow	DEPOT STREET Rte 123 E	PURCHASE STREET
1/31/2004	8:01:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Snow	Daylight	Clear	UNION STREET	WASHINGTON STREET Rte 138 N
2/1/2004	12:38:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	DEPOT STREET Rte 123 E	WASHINGTON STREET Rte 138
3/12/2004	10:57:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
3/15/2004	1:27:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	MAIN STREET	CENTER STREET
3/21/2004	7:21:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	DEPOT STREET	CENTER STREET
4/4/2004	5:37:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dusk	Rain/Cloudy	WASHINGTON STREET Rte 138 N	ELM STREET
4/8/2004	12:38:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	BELMONT STREET Rte 123 W	WASHINGTON STREET Rte 138 S
4/26/2004	3:12:00 PM	Not Reported	3	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	WASHINGTON STREET Rte 138 N	ELM STREET
5/4/2004	5:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	CENTRAL STREET	DEPOT STREET
5/20/2004	8:18:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138	MAIN STREET
5/22/2004	1:10:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	DEPOT STREET Rte 123 W	CENTER STREET
5/26/2004	4:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	MAIN STREET
6/7/2004	11:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	DEPOT STREET
6/20/2004	2:23:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	DEPOT STREET	CENTER STREET
6/22/2004	2:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	MAIN STREET	WASHINGTON STREET Rte 138 N
6/29/2004	12:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	CENTER STREET	MAIN STREET
7/3/2004	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	DEPOT STREET	CENTER STREET
7/15/2004	9:02:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear	ELM STREET	MAIN STREET
7/19/2004	4:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	PURCHASE STREET
7/22/2004	8:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	CENTER STREET	DEPOT STREET Rte 123
7/29/2004	11:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	PURCHASE STREET
8/17/2004	4:33:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	LINCOLN STREET	BARROWS STREET
8/25/2004	8:55:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	CENTRAL STREET	DEPOT STREET
9/4/2004	12:51:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	DEPOT STREET Rte 123	CENTER STREET
9/6/2004	7:54:00 PM	Non-fatal injury	2	6	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138	MAIN STREET
9/14/2004	4:30:00 AM	Unknown	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	ELM STREET
9/20/2004	4:17:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear	DEPOT STREET Rte 123 W	CENTER STREET
9/25/2004	6:10:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
9/27/2004	7:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	ELM STREET
10/7/2004	7:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
10/12/2004	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	DEPOT STREET Rte 123 E	CENTER STREET
10/18/2004	6:56:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	WASHINGTON STREET Rte 138 N	BELMONT STREET Rte 123
10/18/2004	7:45:00 PM	Non-fatal injury	2	2	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear	DEPOT STREET Rte 123	CENTER STREET
10/27/2004	4:22:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	PURCHASE STREET
10/28/2004	1:07:00 AM	Unknown	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	WASHINGTON STREET Rte 138 S	UNION STREET
11/16/2004	4:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S	DEPOT STREET
11/16/2004	5:12:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 N	BELMONT STREET Rte 123
11/16/2004	5:40:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	CENTER STREET	LINCOLN STREET / MAIN STREET
11/19/2004	5:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Dark - lighted roadway	Clear	CENTER STREET	MAIN STREET / LINCOLN STREET
12/7/2004	4:53:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain	DEPOT STREET Rte 123 W	PORTER STREET
12/9/2004	5:44:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S	ELM STREET
12/10/2004	1:52:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain	CENTER STREET	SUMMER STREET
12/18/2004	1:58:00 PM	Non-fatal injury	2	6	0	Angle	Angle	Wet	Daylight	Cloudy	WASHINGTON STREET Rte 138 S	PURCHASE STREET
1/9/2005	6:56:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain	WASHINGTON STREET Rte 38 N	UNION STREET
1/10/2005	4:38:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET	ELM STREET / WASHINGTON STREET Rte 138 N
1/15/2005	11:03:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
1/22/2005	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	MAIN STREET	WASHINGTON STREET / Rte 138
1/28/2005	7:05:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	DEPOT STREET Rte 123 E	PURCHASE STREET
2/1/2005	9:00:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	MAIN STREET	LINCOLN STREET
2/9/2005	7:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	DEPOT STREET	WASHINGTON STREET
2/15/2005	4:37:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear	WASHINGTON STREET	Rte 138 S / MAIN STREET
2/16/2005	8:21:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	WASHINGTON STREET	ELM STREET Rte 138
2/22/2005	8:00:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Wet	Daylight	Snow	WASHINGTON STREET Rte 138	MAIN STREET
3/2/2005	8:20:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Other	DEPOT STREET Rte 138	WASHINGTON STREET
3/10/2005	11:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	WASHINGTON STREET Rte 138	ELM STREET
3/31/2005	6:28:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	MAIN STREET	WASHINGTON STREET Rte 138 S
4/1/2005	11:43:00 AM	Non-fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	BELMONT STREET Rte 123	WASHINGTON STREET / Rte 138
4/6/2005	5:27:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S	ELM STREET
4/7/2005	3:24:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	DEPOT STREET Rte 123 W
4/22/2005	8:08:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
4/28/2005	12:01:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
5/1/2005	8:01:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain	WASHINGTON STREET Rte 138 N	WASHINGTON STREET Rte 138 N / PURCHASE STREET
5/2/2005	6:42:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	WASHINGTON STREET	WASHINGTON STREET Rte 138 N / BELMONT STREET Rte 123
5/29/2005	6:42:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy	WASHINGTON STREET	Rte 138 S / PURCHASE STREET
6/1/2005	5:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S	PURCHASE STREET
6/9/2005	5:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	WASHINGTON STREET Rte 138 N	BELMONT STREET Rte 123 E
6/11/2005	2:57:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Other	ELM STREET	WASHINGTON STREET / ELM STREET
6/17/2005	11:55:00 AM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Daylight	Clear/Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
6/30/2005	3:12:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy	WASHINGTON STREET Rte 138 S	DEPOT STREET Rte 123 E
7/11/2005	2:10:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
7/13/2005	7:54:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
7/17/2005	10:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy/Cloudy	WASHINGTON STREET Rte 138 N	BELMONT STREET
7/19/2005	5:34:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	WASHINGTON STREET Rte 138 N	MAIN STREET
8/2/2005	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	CENTRAL STREET	DEPOT STREET
8/19/2005	7:18:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	CENTER STREET	DEPOT STREET
8/19/2005	7:20:00 AM	Not Reported	1	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	DEPOT STREET Rte 123	CENTER STREET
8/30/2005	10:13:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	DEPOT STREET	CENTER STREET
9/6/2005	2:17:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	DEPOT STREET
9/12/2005	7:04:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	MAIN STREET
9/14/2005	2:45:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	BELMONT STREET Rte 123
10/28/2005	10:12:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 N	BELMONT STREET / Rte 123
11/20/2005	2:30:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	CENTRAL STREET	DEPOT STREET
11/20/2005	10:05:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138	DEPOT STREET Rte 123 W

EASTON	1/1/2004	12/31/2006	similar to: Washington Elm									
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection
11/23/2005	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy	MAIN STREET	ELM STREET
12/16/2005	4:23:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Cloudy	WASHINGTON STREET	DEPOT STREET
12/18/2005	1:11:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	PURCHASE STREET
12/29/2005	3:34:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	WASHINGTON STREET Rte 138 S	ELM STREET
1/10/2006	1:00:00 PM	Not Reported	2	0	0	Angle	Angle	Not reported	Daylight	Clear	WASHINGTON STREET Rte 138	ELM STREET
1/13/2006	8:54:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	DEPOT STREET
1/17/2006	7:16:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	MAIN STREET / Rte 138 S
1/23/2006	5:35:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	DEPOT STREET Rte 123 E	WASHINGTON STREET
1/23/2006	7:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Sleet, hail (freezing rain or drizzle)	LINCOLN STREET	MAIN STREET
1/25/2006	2:31:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	MAIN STREET	WASHINGTON STREET Rte 138
2/2/2006	9:44:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S	MAIN STREET
2/6/2006	5:41:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear	WASHINGTON STREET Rte 138 N	MAIN STREET
2/10/2006	5:30:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	CENTER STREET	MAIN STREET / LINCOLN STREET
2/17/2006	4:49:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy	WASHINGTON STREET Rte 138	DEPOT STREET
2/17/2006	5:55:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	WASHINGTON STREET Rte 138	MAIN STREET
2/20/2006	9:42:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	ELM STREET
2/26/2006	6:54:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S	UNION STREET
3/17/2006	1:39:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	DEPOT STREET	CENTER STREET
3/22/2006	9:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy	WASHINGTON STREET Rte 138 S	WASHINGTON STREET Rte 138 S / MAIN STREET
3/26/2006	9:04:00 AM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Daylight	Clear/Clear	CENTER STREET	MAIN STREET / LINCOLN STREET
3/28/2006	3:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	ELM STREET
3/31/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	MAIN STREET
4/1/2006	11:03:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy	WASHINGTON STREET Rte 138	PURCHASE STREET
4/1/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	BELMONT STREET
4/6/2006	4:06:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	CENTER STREET	DEPOT STREET Rte 123
4/15/2006	6:33:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S	MAIN STREET / Rte 138
4/27/2006	7:12:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S	WASHINGTON STREET Rte 138 S / PURCHASE STREET
5/19/2006	11:12:00 AM	Non-fatal injury	2	1	0	Head-on	Head-on	Wet	Daylight	Cloudy/Rain	WASHINGTON STREET Rte 138 S	UNION STREET
6/2/2006	10:07:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Wet	Dark - lighted roadway	Rain	WASHINGTON STREET Rte 138 S	ELM STREET
6/6/2006	4:00:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	CENTER STREET	DEPOT STREET
6/15/2006	2:31:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	WASHINGTON STREET	BELMONT STREET Rte 123
6/15/2006	9:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	WASHINGTON STREET Rte 138 N	MAIN STREET
6/16/2006	5:15:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	MAIN STREET
6/24/2006	12:00:00 PM	Not Reported	1	0	0	Angle	Angle	Dry	Daylight	Rain	WASHINGTON STREET Rte 138	DEPOT STREET Rte 123
7/10/2006	8:04:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	ELM STREET
7/12/2006	5:00:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy	DEPOT STREET	CENTER STREET
7/12/2006	8:47:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Cloudy	UNION STREET	WASHINGTON STREET Rte 138
7/26/2006	3:58:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	MAIN STREET	CENTER STREET
7/28/2006	4:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	WASHINGTON STREET	DEPOT STREET Rte 123 / WASHINGTON STREET Rte 138
8/3/2006	5:31:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	ELM STREET	MAIN STREET
8/31/2006	1:49:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	CENTER STREET	SUMMER STREET
9/8/2006	11:24:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	NORTH MAIN STREET	ELM STREET
9/16/2006	4:07:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	DEPOT STREET Rte 123	CENTER STREET
9/26/2006	10:16:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	WASHINGTON STREET Rte 138 S	MAIN STREET
9/28/2006	8:24:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET	WASHINGTON STREET Rte 138 / DEPOT STREET
10/1/2006	3:52:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy	WASHINGTON STREET Rte 138 N	BELMONT STREET Rte 123 E
10/6/2006	2:14:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	WASHINGTON STREET Rte 138 N	PURCHASE STREET
10/6/2006	8:26:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	MAIN STREET	WASHINGTON STREET Rte 138
10/17/2006	4:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain	DEPOT STREET Rte 123 W	CENTER STREET
10/20/2006	8:46:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy	WASHINGTON STREET Rte 138	UNION STREET
10/24/2006	5:10:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	PURCHASE STREET	WASHINGTON STREET Rte 138
10/29/2006	7:04:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	DEPOT STREET Rte 123 W	CENTER STREET
11/7/2006	7:04:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	ELM STREET	NORTH MAIN STREET
11/19/2006	4:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Cloudy	UNION STREET	WASHINGTON STREET
11/30/2006	7:38:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138	BELMONT STREET Rte 123
12/17/2006	11:03:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	WASHINGTON STREET	PURCHASE STREET
12/21/2006	7:40:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N	ELM STREET
12/22/2006	4:27:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear	WASHINGTON STREET Rte 138	MAIN STREET
12/27/2006	11:34:00 AM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy	WASHINGTON STREET	DEPOT STREET Rte 123
12/31/2006	6:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	WASHINGTON STREET Rte 138 N	WASHINGTON STREET Rte 138 / DEPOT STREET Rte 123

		FALL RIVER	1/1/2004	12/31/2006	is similar to:							
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather
AIRPORT ROAD	COMMERCE DRIVE	9/26/2006	3:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain
DAVOL STREET WEST	PRESIDENT AVENUE	10/29/2004	8:46:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	DAVOL STREET WEST	5/26/2005	6:22:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dawn	Rain/Cloudy
PRESIDENT AVENUE	DAVOL STREET WEST	11/8/2005	7:27:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	/ DAVOL STREET WEST	8/1/2006	1:10:00 AM	Not Reported	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Not reported	Clear
WATER STREET	ANAWAN STREET	5/15/2004	12:02:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
WATER STREET	ANAWAN STREET	5/31/2004	2:32:00 PM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear
WATER STREET	ANAWAN STREET	11/12/2004	2:43:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain
WATER STREET	ANAWAN STREET	7/22/2006	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain
ANAWAN STREET	BROADWAY EXTENSION	2/22/2004	2:40:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear
ANAWAN STREET	BROADWAY EXTENSION	4/13/2004	4:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain
ANAWAN STREET	BROADWAY EXTENSION	4/25/2004	3:11:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
ANAWAN STREET	BROADWAY EXTENSION	1/28/2005	1:03:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Snow	Daylight	Clear
ANAWAN STREET	BROADWAY EXTENSION	3/16/2006	10:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
CENTRAL STREET	DAVOL STREET EAST	12/31/2006	8:44:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
DAVOL STREET EAST	CENTRAL STREET	1/5/2006	3:12:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy
DAVOL STREET EAST	CENTRAL STREET	1/18/2006	4:56:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dusk	Rain
DAVOL STREET EAST	CENTRAL STREET	3/9/2006	9:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Clear
DAVOL STREET EAST	CENTRAL STREET	6/26/2006	5:09:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	CENTRAL STREET	8/14/2006	11:07:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	1/5/2004	2:13:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain
DAVOL STREET EAST	PRESIDENT AVENUE	2/7/2004	2:09:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain
PRESIDENT AVENUE	DAVOL STREET EAST	2/23/2004	12:21:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	4/5/2004	5:24:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	5/2/2004	6:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy
DAVOL STREET EAST	PRESIDENT AVENUE	6/13/2004	8:53:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	6/26/2004	12:21:00 AM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	6/29/2004	8:07:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy
DAVOL STREET EAST	PRESIDENT AVENUE	8/9/2004	5:26:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST Rte 6 W	PRESIDENT AVENUE	8/26/2004	1:06:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	10/2/2004	12:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Cloudy
PRESIDENT AVENUE	DAVOL STREET EAST	11/10/2004	6:38:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	11/17/2004	3:24:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	12/24/2004	6:41:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dawn	Cloudy
DAVOL STREET EAST	PRESIDENT AVENUE	12/25/2004	12:26:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	12/26/2004	9:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow
PRESIDENT AVENUE	DAVOL STREET EAST	12/28/2004	5:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Dark - lighted roadway	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	3/19/2005	1:04:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	3/20/2005	12:06:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	4/1/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	4/7/2005	2:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	5/9/2005	10:56:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	5/11/2005	2:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	5/28/2005	4:43:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Other
DAVOL STREET EAST	PRESIDENT AVENUE	6/2/2005	1:31:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	7/4/2005	7:13:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	7/17/2005	11:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain
PRESIDENT AVENUE	DAVOL STREET EAST	8/10/2005	2:43:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	9/21/2005	4:56:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	9/22/2005	3:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	10/12/2005	9:44:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain
DAVOL STREET EAST	PRESIDENT AVENUE	10/18/2005	4:16:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	11/2/2005	9:43:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	12/23/2005	11:41:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	1/6/2006	6:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	1/16/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	3/27/2006	10:11:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	4/10/2006	10:48:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Other
DAVOL STREET EAST	PRESIDENT AVENUE	4/16/2006	2:54:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	4/25/2006	4:29:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	5/21/2006	2:18:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	5/22/2006	7:28:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	5/31/2006	6:14:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy
PRESIDENT AVENUE	DAVOL STREET EAST	6/6/2006	2:38:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	6/9/2006	10:24:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	6/10/2006	12:34:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain
PRESIDENT AVENUE	DAVOL STREET EAST	6/15/2006	8:19:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	7/4/2006	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	8/12/2006	1:07:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	8/12/2006	9:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	8/13/2006	3:27:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	8/30/2006	10:21:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy
PRESIDENT AVENUE	DAVOL STREET EAST	9/4/2006	12:05:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	10/12/2006	10:24:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy
DAVOL STREET EAST	PRESIDENT AVENUE	10/18/2006	11:48:00 AM	Property damage only (none injured)	3	0	0	Head-on	Head-on	Dry	Daylight	Cloudy

		FALL RIVER	1/1/2004	12/31/2006	is similar to:							
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather
DAVOL STREET EAST	PRESIDENT AVENUE	11/5/2006	4:23:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear
DAVOL STREET EAST	PRESIDENT AVENUE	11/22/2006	9:22:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	DAVOL STREET EAST	12/19/2006	11:27:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
DAVOL STREET EAST	TURNER STREET	9/2/2004	3:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear
DAVOL STREET EAST	TURNER STREET	9/25/2004	11:41:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Dark - lighted roadway	Cloudy
DAVOL STREET EAST	TURNER STREET	5/8/2005	7:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy
TURNER STREET	DAVOL STREET EAST	6/28/2006	8:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear
WATER STREET	FERRY STREET	1/19/2005	9:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - lighted roadway	Snow
NORTH MAIN STREET	PRESIDENT AVENUE	1/12/2004	8:27:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Snow	Dark - lighted roadway	Snow
NORTH MAIN STREET	PRESIDENT AVENUE	1/17/2004	6:41:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
NORTH MAIN STREET	PRESIDENT AVENUE Rte 6 W	1/17/2004	1:17:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	2/17/2004	11:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	4/4/2004	7:16:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Rain
PRESIDENT AVENUE	NORTH MAIN STREET	5/25/2004	1:11:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
NORTH MAIN STREET	PRESIDENT AVENUE	5/29/2004	5:22:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	6/9/2004	7:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Other
PRESIDENT AVENUE	NORTH MAIN STREET	7/18/2004	10:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain
NORTH MAIN STREET	PRESIDENT AVENUE	7/20/2004	11:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	7/30/2004	6:41:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy
PRESIDENT AVENUE	NORTH MAIN STREET	9/19/2004	1:09:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	9/26/2004	5:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	9/27/2004	7:46:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
NORTH MAIN STREET	PRESIDENT AVENUE	11/12/2004	10:53:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	3/7/2005	6:14:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear
NORTH MAIN STREET	PRESIDENT AVENUE	3/22/2005	4:38:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Other
PRESIDENT AVENUE	NORTH MAIN STREET	4/25/2005	9:49:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear
NORTH MAIN STREET	PRESIDENT AVENUE	5/27/2005	9:47:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy
PRESIDENT AVENUE	NORTH MAIN STREET	9/19/2005	11:33:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	1/18/2006	7:20:00 PM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	2/17/2006	5:26:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear
NORTH MAIN STREET	PRESIDENT AVENUE	3/4/2006	3:03:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	3/13/2006	2:48:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	3/24/2006	2:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
PRESIDENT AVENUE	NORTH MAIN STREET	7/9/2006	7:17:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
PRESIDENT AVENUE	NORTH MAIN STREET	8/31/2006	11:10:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
NORTH MAIN STREET	PRESIDENT AVENUE	9/4/2006	10:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy
PRESIDENT AVENUE	NORTH MAIN STREET	10/30/2006	4:04:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear

FREETOWN	1/1/2004	12/31/2006	is similar to: Narrows									
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection
3/10/2004	7:39:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	SOUTH MAIN STREET	HIGH STREET
8/1/2004	4:19:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	SOUTH MAIN STREET	RIDGE HILL ROAD
11/5/2004	2:04:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Blowing sand, snow	NARROWS ROAD	SOUTH MAIN STREET
2/9/2005	8:46:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Cloudy	RIDGE HILL ROAD	SOUTH MAIN STREET
5/23/2005	5:43:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	SOUTH MAIN STREET	Rte 24 S / RAMP-RT 24 SB TO RT 79
10/28/2005	6:20:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - unknown roadway lighting	Clear	Rte 79	RIDGE HILL ROAD
11/11/2005	9:07:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	NARROWS ROAD	SOUTH MAIN STREET
4/10/2006	12:36:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Other	SOUTH MAIN STREET	NARROWS ROAD
7/19/2006	2:39:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	SOUTH MAIN STREET	NARROWS ROAD
11/24/2006	2:11:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	SOUTH MAIN STREET	RIDGE HILL ROAD

		NEW BEDFORD	1/1/2004	12/31/2006	or							
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicle	on-Fatal Injurie	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather
PURCHASE STREET	COGGESHALL STREET	3/24/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PURCHASE STREET	COGGESHALL STREET	3/28/2004	5:10:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Dry	Daylight	Clear
PURCHASE STREET	COGGESHALL STREET	4/16/2004	3:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PURCHASE STREET	COGGESHALL STREET	5/22/2004	1:30:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COGGESHALL STREET	PURCHASE STREET	7/4/2004	4:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear
PURCHASE STREET	COGGESHALL STREET	10/23/2004	2:01:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy
PURCHASE STREET	COGGESHALL STREET	3/18/2005	2:58:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
PURCHASE STREET	COGGESHALL STREET	5/18/2005	12:20:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear
COGGESHALL STREET	PURCHASE STREET	9/16/2005	11:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain
COGGESHALL STREET	PURCHASE STREET	10/20/2005	3:09:00 PM	Non-fatal injury	3	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
COGGESHALL STREET	PURCHASE STREET	10/21/2005	10:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear
COGGESHALL STREET	PURCHASE STREET	11/19/2005	3:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PURCHASE STREET	COGGESHALL STREET	12/5/2005	10:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear
PURCHASE STREET	COGGESHALL STREET	1/30/2006	12:16:00 PM	Non-fatal injury	2	1	0	deswipe, opposite directd	eswipe, opposite directi	Wet	Daylight	Cloudy
ACUSHNET AVENUE	COGGESHALL STREET	10/24/2004	10:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear/Clear
COGGESHALL STREET	ACUSHNET AVENUE	10/30/2004	3:30:00 AM	Property damage only (none injured)	2	0	0	deswipe, opposite directd	eswipe, opposite directi	Dry	Dark - lighted roadway	Clear/Clear
ACUSHNET AVENUE	COGGESHALL STREET	1/2/2005	3:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COGGESHALL STREET	Rte 18 N	1/20/2005	2:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear
ACUSHNET AVENUE	COGGESHALL STREET	4/2/2005	1:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy
COGGESHALL STREET	ACUSHNET AVENUE	4/9/2005	10:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
ACUSHNET AVENUE	COGGESHALL STREET	6/9/2005	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
ACUSHNET AVENUE	COGGESHALL STREET	6/15/2005	1:10:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COGGESHALL STREET	ACUSHNET AVENUE Rte 18	7/24/2005	12:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear
COGGESHALL STREET	ACUSHNET AVENUE	8/10/2005	1:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Unknown
ACUSHNET AVENUE	COGGESHALL STREET	8/11/2005	12:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear
COGGESHALL STREET	ACUSHNET AVENUE	9/11/2005	1:41:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
ACUSHNET AVENUE	COGGESHALL STREET	1/24/2006	3:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
ACUSHNET AVENUE Rte 18 N	COGGESHALL STREET	7/7/2006	7:30:00 AM	Non-fatal injury	3	2	0	Unknown	Unknown	Dry	Daylight	Clear/Clear
COGGESHALL STREET	ACUSHNET AVENUE	7/13/2006	6:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
ACUSHNET AVENUE	COGGESHALL STREET	8/3/2006	11:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	3/3/2004	10:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	3/20/2004	9:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	5/16/2004	3:00:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	5/18/2004	5:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
ASHLEY BOULEVARD	COGGESHALL STREET	5/21/2004	7:10:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear
ASHLEY BOULEVARD	COGGESHALL STREET	5/24/2004	9:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Daylight	Cloudy
ASHLEY BOULEVARD	COGGESHALL STREET	5/26/2004	12:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
ASHLEY BOULEVARD	COGGESHALL STREET	5/31/2004	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	6/10/2004	5:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	6/18/2004	2:10:00 PM	Non-fatal injury	2	5	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	6/19/2004	7:20:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET / Rte 18	7/6/2004	8:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy
ASHLEY BOULEVARD	COGGESHALL STREET	7/30/2004	12:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Dark - lighted roadway	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	8/1/2004	3:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
ASHLEY BOULEVARD	COGGESHALL STREET	8/1/2004	7:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	8/5/2004	2:10:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
COGGESHALL STREET	ASHLEY BOULEVARD	8/7/2004	8:20:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	9/5/2004	4:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	9/11/2004	3:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
ASHLEY BOULEVARD	COGGESHALL STREET	9/15/2004	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	10/11/2004	3:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear
ASHLEY BOULEVARD	COGGESHALL STREET	10/19/2004	2:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain
ASHLEY BOULEVARD	COGGESHALL STREET	11/28/2004	1:50:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	12/19/2004	11:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Rain
ASHLEY BOULEVARD	COGGESHALL STREET	2/20/2005	12:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Daylight	Clear/Clear
ASHLEY BOULEVARD	COGGESHALL STREET	2/23/2005	11:58:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	3/7/2005	4:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	3/7/2005	8:10:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COGGESHALL STREET	ASHLEY BOULEVARD	3/14/2005	9:45:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Other
ASHLEY BOULEVARD	COGGESHALL STREET	4/1/2005	5:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	4/17/2005	1:35:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear
COGGESHALL STREET	ASHLEY BOULEVARD	4/24/2005	9:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain
ASHLEY BOULEVARD	COGGESHALL STREET	7/24/2005	12:15:00 AM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	8/15/2005	4:50:00 PM	Not Reported	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	8/23/2005	6:06:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	10/26/2005	3:20:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Not Reported
ASHLEY BOULEVARD	COGGESHALL STREET	11/9/2005	6:50:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain
COGGESHALL STREET	ASHLEY BOULEVARD	11/16/2005	6:29:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	12/10/2005	9:15:00 AM	Not Reported	2	0	0	Not reported	Not reported	Ice	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	12/29/2005	9:50:00 PM	Property damage only (none injured)	4	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Clear
COGGESHALL STREET Rte 18 S	ASHLEY BOULEVARD	2/8/2006	12:00:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	3/7/2006	1:30:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Dry	Daylight	Clear
COGGESHALL STREET	ASHLEY BOULEVARD	4/18/2006	9:00:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy
ASHLEY BOULEVARD	COGGESHALL STREET	5/2/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-to-rear	Rear-to-rear	Wet	Daylight	Rain
COGGESHALL STREET	ASHLEY BOULEVARD Rte 18 S	6/7/2006	1:11:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain
COGGESHALL STREET	Rte 18 S	6/15/2006	9:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	6/26/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Other
ASHLEY BOULEVARD	COGGESHALL STREET	6/27/2006	6:30:00 PM	Not Reported	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	8/5/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
ASHLEY BOULEVARD	COGGESHALL STREET	8/7/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear/Other

		NEW BEDFORD	1/1/2004	12/31/2006	or							
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	on-Fatal Injurie	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather
ASHLEY BOULEVARD	COGGESHALL STREET	11/29/2006	7:15:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy
NORTH FRONT STREET	COGGESHALL STREET	6/7/2004	6:30:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Cloudy/Rain
NORTH FRONT STREET	COGGESHALL STREET	6/21/2004	7:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
NORTH FRONT STREET	COGGESHALL STREET	6/25/2004	7:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
NORTH FRONT STREET	COGGESHALL STREET	10/15/2004	9:10:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear
COGGESHALL STREET	NORTH FRONT STREET	11/1/2005	2:40:00 PM	Not Reported	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Daylight	Clear
COGGESHALL STREET	NORTH FRONT STREET	7/21/2006	5:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy
COGGESHALL STREET	NORTH FRONT STREET	7/27/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear
COGGESHALL STREET	NORTH FRONT STREET	12/31/2006	11:15:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
COGGESHALL STREET	BELLEVILLE AVENUE	6/6/2004	1:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain
BELLEVILLE AVENUE	COGGESHALL STREET	6/21/2004	7:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear
BELLEVILLE AVENUE	COGGESHALL STREET	7/6/2004	2:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear
COGGESHALL STREET	BELLEVILLE AVENUE	7/6/2004	6:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
BELLEVILLE AVENUE	COGGESHALL STREET	1/12/2005	1:15:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Clear
COGGESHALL STREET	BELLEVILLE AVENUE	3/3/2005	2:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy
BELLEVILLE AVENUE	COGGESHALL STREET	4/1/2005	7:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
BELLEVILLE AVENUE	COGGESHALL STREET	8/16/2005	4:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
BELLEVILLE AVENUE	COGGESHALL STREET	8/28/2005	1:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Unknown	Unknown	Unknown
BELLEVILLE AVENUE	COGGESHALL STREET	10/15/2005	11:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear
COGGESHALL STREET	BELLEVILLE AVENUE	11/28/2005	11:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
BELLEVILLE AVENUE	COGGESHALL STREET	4/18/2006	4:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
BELLEVILLE AVENUE	COGGESHALL STREET	9/14/2006	6:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dusk	Rain
BELLEVILLE AVENUE	COGGESHALL STREET	11/10/2006	9:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear
COGGESHALL STREET	BELLEVILLE AVENUE	11/11/2006	4:30:00 PM	Non-fatal injury	2	1	0	Sideswipe, opposite direct	Sideswipe, opposite directi	Dry	Daylight	Clear/Other
BELLEVILLE AVENUE	COGGESHALL STREET	11/29/2006	12:24:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Other
COGGESHALL STREET	BELLEVILLE AVENUE	12/8/2006	6:30:00 PM	Non-fatal injury	2	2	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear
WASHBURN STREET	BELLEVILLE AVENUE	2/19/2004	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Clear
WASHBURN STREET	BELLEVILLE AVENUE	4/12/2004	9:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
WASHBURN STREET	BELLEVILLE AVENUE	6/22/2004	7:25:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
WASHBURN STREET	BELLEVILLE AVENUE	8/6/2004	11:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear
BELLEVILLE AVENUE	WASHBURN STREET	12/22/2004	3:14:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
BELLEVILLE AVENUE	WASHBURN STREET	12/26/2004	2:05:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear
BELLEVILLE AVENUE	WASHBURN STREET	1/17/2005	11:00:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Ice	Daylight	Cloudy/Clear
WASHBURN STREET	BELLEVILLE ROAD	1/28/2005	11:25:00 AM	Not Reported	2	0	0	Angle	Angle	Snow	Daylight	Snow/Snow
BELLEVILLE AVENUE	WASHBURN STREET	11/21/2005	8:30:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear
BELLEVILLE AVENUE	WASHBURN STREET	11/25/2005	8:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
BELLEVILLE AVENUE	WASHBURN STREET	6/14/2006	6:01:00 PM	Non-fatal injury	3	3	0	Angle	Angle	Dry	Daylight	Clear
BELLEVILLE AVENUE	WASHBURN STREET	6/28/2006	5:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy
BELLEVILLE AVENUE	WASHBURN STREET	10/23/2006	3:30:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear
WASHBURN STREET	BELLEVILLE AVENUE	11/25/2006	6:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dawn	Clear
PURCHASE STREET	WELD STREET	2/10/2004	3:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
WELD STREET	PURCHASE STREET	4/13/2004	7:40:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain
PURCHASE STREET	WELD STREET	7/1/2005	1:54:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
PURCHASE STREET	WELD STREET	7/4/2006	9:14:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear
WELD STREET	PURCHASE STREET	8/4/2006	4:15:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
WELD STREET	PURCHASE STREET	8/9/2006	5:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
LOGAN STREET	NORTH FRONT STREET	2/19/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Ice	Daylight	Clear
LOGAN STREET	NORTH FRONT STREET	2/19/2004	8:27:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Ice	Daylight	Clear
NORTH FRONT STREET	LOGAN STREET	10/3/2004	6:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear
NORTH FRONT STREET	LOGAN STREET	12/21/2004	11:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear
LOGAN STREET	NORTH FRONT STREET	1/18/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Clear
LOGAN STREET	NORTH FRONT STREET	1/18/2005	9:05:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Ice	Daylight	Clear
NORTH FRONT STREET	LOGAN STREET	3/9/2005	8:14:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Ice	Daylight	Snow
NORTH FRONT STREET	LOGAN STREET	4/14/2006	11:05:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Wet	Dark - lighted roadway	Rain
NORTH FRONT STREET	LOGAN STREET	9/5/2006	9:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direct	Sideswipe, opposite directi	Wet	Dark - lighted roadway	Rain/Cloudy
LOGAN STREET	PURCHASE STREET	4/2/2004	11:35:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Not reported	Daylight	Clear/Unknown
PURCHASE STREET	LOGAN STREET	4/2/2004	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Daylight	Clear/Unknown
PURCHASE STREET	LOGAN STREET	5/29/2004	4:24:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear
LOGAN STREET	PURCHASE STREET	6/2/2004	4:00:00 PM	Non-fatal injury	1	1	0	Head-on	Head-on	Dry	Daylight	Clear
PURCHASE STREET	LOGAN STREET	6/28/2004	12:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy
PURCHASE STREET	LOGAN STREET	6/28/2004	12:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Not reported	Clear
LOGAN STREET	PURCHASE STREET	11/4/2004	6:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Rain
LOGAN STREET	PURCHASE STREET	11/18/2004	6:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same directio	Sideswipe, same directio	Dry	Dark - lighted roadway	Clear
PURCHASE STREET	LOGAN STREET	12/20/2004	2:18:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow
PURCHASE STREET	LOGAN STREET	7/27/2005	10:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear
PURCHASE STREET	LOGAN STREET	10/15/2005	7:11:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain
PURCHASE STREET	LOGAN STREET	6/15/2006	5:26:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear
PURCHASE STREET	LOGAN STREET	7/14/2006	10:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
PURCHASE STREET	LOGAN STREET	12/21/2006	5:00:00 PM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear/Clear
ACUSHNET AVENUE	WAMSUTTA STREET	8/5/2004	12:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Unknown
ACUSHNET AVENUE	WAMSUTTA STREET	2/2/2005	11:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direct	Sideswipe, opposite directi	Wet	Daylight	Clear
WAMSUTTA STREET	ACUSHNET AVENUE	10/25/2005	5:17:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain
ACUSHNET AVENUE	WAMSUTTA STREET	3/19/2006	2:33:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear
ACUSHNET AVENUE	WAMSUTTA STREET	7/20/2006	3:51:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy
WAMSUTTA STREET	ACUSHNET AVENUE	11/21/2006	2:54:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear
LOGAN STREET	ACUSHNET AVENUE	12/6/2006	11:10:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear

NEW BEDFORD	1/1/2004	12/31/2006	similar to: Kings Jones Park										
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Feet_From
2/19/2004	5:40:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dusk	Clear	NASH ROAD	CHURCH STREET	
4/1/2004	10:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain	PARK AVENUE	CHURCH STREET	
4/16/2004	5:15:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
7/8/2004	2:40:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	WOOD STREET	ASHLEY BOULEVARD	
7/26/2004	1:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Cloudy	CHURCH STREET	PARK AVENUE	
8/27/2004	9:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	CHURCH STREET	TARKILN HILL ROAD	
9/4/2004	2:15:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
9/30/2004	2:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	NASH ROAD	CHURCH STREET	
10/2/2004	2:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	PARK AVENUE	CHURCH STREET	
11/17/2004	5:50:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	PARK AVENUE	CHURCH STREET	
12/10/2004	5:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain	PARK AVENUE	CHURCH STREET	
1/5/2005	5:50:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy	KINGS HIGHWAY	MOUNT PLEASANT STREET	
3/25/2005	1:00:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
3/26/2005	5:45:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	WOOD STREET	ASHLEY BOULEVARD	
4/28/2005	5:00:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Cloudy	TARKILN HILL ROAD	CHURCH STREET	
4/29/2005	1:06:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	CHURCH STREET	PARK AVENUE	
6/20/2005	3:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	KINGS HIGHWAY	MOUNT PLEASANT STREET	
9/14/2005	7:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	PARK AVENUE	CHURCH STREET	
9/23/2006	2:00:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Rain	CHURCH STREET	PARK AVENUE	
9/29/2006	2:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	KINGS HIGHWAY	MOUNT PLEASANT STREET	
10/12/2006	4:40:00 PM	Non-fatal injury	2	1	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
10/28/2006	5:30:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Cloudy	NASH ROAD	CHURCH STREET	
11/3/2006	3:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	KINGS HIGHWAY	MOUNT PLEASANT STREET	
11/27/2006	1:00:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	TARKILN HILL ROAD	
12/4/2006	4:15:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dusk	Clear	CHURCH STREET	PARK STREET	
12/14/2006	3:46:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
12/23/2006	11:00:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain	CHURCH STREET	PARK AVENUE	
12/28/2006	9:30:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	CHURCH STREET	TARKILN HILL ROAD	
6/10/2004	5:40:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
6/18/2004	6:50:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy	KINGS HIGHWAY	MOUNT PLEASANT STREET	
9/16/2004	6:55:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dawn	Clear/Rain	KINGS HIGHWAY	MOUNT PLEASANT STREET	
12/22/2004	3:50:00 PM	Not Reported	2	0	0	Unknown	Unknown	Wet	Dusk	Clear	CHURCH STREET	TARKILN HILL ROAD	
1/20/2005	10:00:00 AM	Not Reported	2	0	0	Angle	Angle	Snow	Daylight	Clear	TARKILN HILL ROAD	CHURCH STREET	
2/2/2005	11:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear	KINGS HIGHWAY	MOUNT PLEASANT STREET	
5/11/2006	6:52:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy	TARKILN HILL ROAD	CHURCH STREET	
1/12/2004	11:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy	KINGS HIGHWAY	RTE 140N ON RAMP	
4/11/2004	12:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	KINGS HIGHWAY	MOUNT PLEASANT STREET	
5/23/2004	3:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	TARKILN HILL ROAD	
6/18/2004	7:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	PARK AVENUE	CHURCH STREET	
6/25/2004	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy	KINGS HIGHWAY	MOUNT PLEASANT STREET	
7/9/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	NASH ROAD	CHURCH STREET	
7/22/2004	1:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
8/2/2004	3:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	NASH ROAD	CHURCH STREET	
9/4/2004	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	TARKILN HILL ROAD	CHURCH STREET	
9/21/2004	9:17:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	CHURCH STREET	TARKILN HILL ROAD	
10/17/2004	12:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
11/12/2004	2:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy	KINGS HIGHWAY	MOUNT PLEASANT STREET	
12/21/2004	4:22:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dusk	Clear	KINGS HIGHWAY	OFF ON RAMP Rte 140 N	
12/21/2004	10:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear	WOOD STREET	ASHLEY BOULEVARD	
12/28/2004	10:18:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Clear	WOOD STREET	ASHLEY BOULEVARD	
2/1/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Ice	Daylight	Clear/Clear	CHURCH STREET	TARKILN HILL ROAD	
2/24/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	MOUNT PLEASANT STREET	Rte 140 S / RAMP - RT 140 SB TO MT PLEASANT ST	
3/8/2005	10:06:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	KINGS HIGHWAY	MOUNT PLEASANT STREET	
3/21/2005	5:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dawn	Cloudy/Rain	WOOD STREET	ASHLEY BOULEVARD	
5/9/2005	11:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	NASH ROAD	CHURCH STREET	
6/26/2005	9:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	NASH ROAD	CHURCH STREET	
8/20/2005	10:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
8/28/2005	3:40:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Dark - lighted roadway	Clear	NASH ROAD	CHURCH STREET	
9/7/2005	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	KINGS HIGHWAY	MOUNT PLEASANT STREET	
9/8/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	KINGS HIGHWAY Rte 140 N	Rte 140 / Rte 140	
10/15/2005	1:05:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain	CHURCH STREET	PARK AVENUE	
10/20/2005	11:15:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
10/31/2005	1:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	WOOD STREET	ASHLEY BOULEVARD	
11/16/2005	4:34:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Wet	Dusk	Cloudy	NASH ROAD	CHURCH STREET	
11/19/2005	10:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	TARKILN HILL ROAD	CHURCH STREET	
12/3/2005	6:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	KINGS HIGHWAY	Rte 140 / RAMP - KINGS HWY TO RT 140 NB	
1/31/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy	CHURCH STREET	PARK AVENUE	
2/13/2006	11:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear	TARKILN HILL ROAD	CHURCH STREET	
2/23/2006	3:17:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	KINGS HIGHWAY	MOUNT PLEASANT STREET	
3/8/2006	10:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	TARKILN HILL ROAD	CHURCH STREET	
3/9/2006	3:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy	CHURCH STREET	PARK AVENUE	
3/17/2006	3:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy	PARK AVENUE	CHURCH STREET	
3/24/2006	1:44:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	TARKILN HILL ROAD	CHURCH STREET	
3/29/2006	9:00:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	TARKILN HILL ROAD	CHURCH STREET	
4/3/2006	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	KINGS HIGHWAY	MOUNT PLEASANT STREET	
4/12/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	CHURCH STREET	TARKILN HILL ROAD	
5/11/2006	11:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Not reported	Daylight	Clear	PARK AVENUE	CHURCH STREET	
8/29/2006	1:56:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain	NASH ROAD	CHURCH STREET	
9/15/2006	6:24:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	KINGS HIGHWAY	MOUNT PLEASANT STREET	
10/18/2006	6:19:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain	WOOD STREET	ASHLEY BOULEVARD	526 CHURCH STREET
11/17/2006	4:23:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	CHURCH STREET	PARK AVENUE	
12/3/2006	10:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	TARKILN HILL ROAD	CHURCH STREET	
12/23/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain	CHURCH STREET	PARK AVENUE	

NEW BEDFORD	1/1/2004	12/31/2006	is similar to: Hillman Pleasant									
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection
3/20/2004	4:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy	HILLMAN STREET	ACUSHNET AVENUE
3/21/2004	12:55:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain	UNION STREET	Rte 18 S
3/26/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear	UNION STREET	ACUSHNET AVENUE
3/26/2004	9:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy	MACARTHUR BLVD	LEONARDS WHARF STREET
4/16/2004	12:26:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	ACUSHNET AVENUE	HILLMAN STREET
4/22/2004	1:45:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	ACUSHNET AVENUE	UNION STREET
4/22/2004	1:45:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	ACUSHNET AVENUE	UNION STREET
5/18/2004	3:26:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	UNION STREET	Rte 18
5/24/2004	12:01:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Unknown	Unknown	Unknown	HILLMAN STREET	PLEASANT STREET
6/28/2004	6:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	MILL STREET	PURCHASE STREET / Rte 6 W
7/19/2004	4:50:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	PURCHASE STREET	HILLMAN STREET
8/12/2004	1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy	HILLMAN STREET	PURCHASE STREET
12/9/2004	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	PLEASANT STREET	HILLMAN STREET
3/28/2005	1:25:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain	PURCHASE STREET	HILLMAN STREET
9/23/2005	10:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	KEMPTON STREET	PLEASANT STREET
12/2/2005	1:10:00 AM	Non-fatal injury	1	1	0	Angle	Angle	Wet	Dark - lighted roadway	Rain	HILLMAN STREET	ACUSHNET AVENUE
12/2/2005	2:00:00 AM	Not Reported	1	0	0	Unknown	Unknown	Wet	Dark - lighted roadway	Clear	UNION STREET	Rte 18
12/8/2005	2:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	PURCHASE STREET	HILLMAN STREET
1/28/2006	11:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	MACARTHUR DRIVE	ACUSHNET AVENUE
6/7/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Rain	UNION STREET	Rte 18
6/17/2006	11:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	UNION STREET	Rte 18
7/11/2006	10:23:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	UNION STREET	Rte 18
8/3/2006	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	UNION STREET	Rte 18 S
9/11/2006	12:00:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear	UNION STREET	ACUSHNET AVENUE
9/16/2006	1:39:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	UNION STREET	Rte 18 S
9/29/2006	11:51:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain	ACUSHNET AVENUE	HILLMAN STREET
10/21/2006	1:00:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	MILL STREET Rte 6 W	PURCHASE STREET / KEMPTON STREET
10/27/2006	3:30:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	HILLMAN STREET	PURCHASE STREET
11/30/2006	2:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	ACUSHNET AVENUE	UNION STREET
12/3/2006	1:10:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain	ACUSHNET AVENUE	UNION STREET
13-Jun-2004	5:20 PM	Non-fatal injury		2	0	Single vehicle crash		Dry	Daylight	Clear	1000 KINGS HIGHWAY	
20-Oct-2004	8:00 PM	Property damage only (none injured)		0	0	Angle		Dry	Dark - lighted roadway	Clear	1000 KINGS HIGHWAY	
23-Jan-2004	7:05 PM	Property damage only (none injured)		0	0	Angle		Dry	Dark - lighted roadway	Clear	1001 KINGS HIGHWAY	
11-Mar-2004	10:05 PM	Non-fatal injury		2	0	Not reported		Not reported	Not reported	Not Reported	1001 KINGS HIGHWAY	
14-May-2004	1:25 PM	Non-fatal injury		1	0	Rear-end		Dry	Daylight	Clear	1001 KINGS HIGHWAY	
04-Jun-2004	4:40 PM	Non-fatal injury		1	0	Rear-end		Dry	Daylight	Clear	1001 KINGS HIGHWAY	
08-Jul-2004	4:15 PM	Non-fatal injury		1	0	Rear-end		Dry	Daylight	Clear/Clear	1001 KINGS HIGHWAY	
28-Jul-2004	3:20 PM	Non-fatal injury		1	0	Rear-end		Dry	Daylight	Cloudy	1001 KINGS HIGHWAY	
17-Aug-2004	1:30 PM	Non-fatal injury		1	0	Angle		Dry	Daylight	Clear/Cloudy	1001 KINGS HIGHWAY	
30-Oct-2004	5:04 PM	Not Reported		0	0	Angle		Wet	Daylight	Rain	1001 KINGS HIGHWAY	
09-Dec-2004	11:30 AM	Not Reported		0	0	Rear-end		Wet	Daylight	Rain	1001 KINGS HIGHWAY	
02-Jan-2004	11:15 AM	Non-fatal injury		2	0	Rear-end		Dry	Daylight	Rain/Snow	500 KINGS HIGHWAY	
06-Feb-2004	5:00 PM	Property damage only (none injured)		0	0	Sideswipe, same direction		Wet	Dark - lighted roadway	Rain/Cloudy	500 KINGS HIGHWAY	
21-Feb-2004	4:35 PM	Property damage only (none injured)		0	0	Angle		Wet	Not reported	Clear	500 KINGS HIGHWAY	
08-Mar-2004	1:00 PM	Non-fatal injury		1	0	Rear-end		Wet	Daylight	Cloudy/Snow	500 KINGS HIGHWAY	
06-Jul-2004	5:00 PM	Non-fatal injury		1	0	Rear-end		Wet	Daylight	Cloudy/Rain	500 KINGS HIGHWAY	
07-Jan-2005	6:40 PM	Non-fatal injury		1	0	Rear-end		Dry	Dark - lighted roadway	Clear/Rain	1001 KINGS HIGHWAY	
15-Mar-2005	12:00 PM	Non-fatal injury		1	0	Angle		Dry	Daylight	Clear	1001 KINGS HIGHWAY	
11-Oct-2005	7:22 AM	Non-fatal injury		2	0	Rear-end		Wet	Daylight	Cloudy	1001 KINGS HIGHWAY	
15-Nov-2005	4:40 PM	Property damage only (none injured)		0	0	Rear-end		Wet	Dusk	Rain	1001 KINGS HIGHWAY	
16-Apr-2005	4:20 PM	Property damage only (none injured)		0	0	Rear-end		Dry	Daylight	Clear	500 KINGS HIGHWAY	
04-Nov-2005	2:15 PM	Not Reported		0	0	Sideswipe, same direction		Dry	Daylight	Clear	500 KINGS HIGHWAY	
06-Jul-2006	4:30 PM	Non-fatal injury		1	0	Rear-end		Dry	Daylight	Clear	1001 KINGS HIGHWAY	
22-Jul-2006	9:45 PM	Not Reported		0	0	Angle		Dry	Dark - lighted roadway	Cloudy	1001 KINGS HIGHWAY	
22-Feb-2006	2:45 PM	Property damage only (none injured)		0	0	Sideswipe, same direction		Dry	Daylight	Clear/Clear	500 KINGS HIGHWAY	
06-May-2006	10:30 AM	Property damage only (none injured)		0	0	Rear-end		Dry	Daylight	Clear	500 KINGS HIGHWAY	
05-Dec-2006	3:50 PM	Property damage only (none injured)		0	0	Head-on		Dry	Dusk	Clear	500 KINGS HIGHWAY	

NORTON	1/1/2004	12/31/2006	is similar to: Old Colony North									
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection
2/4/2005	4:27:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear	DEAN STREET	JOHN BRYSON SCOTT BOULEVARD
12/6/2005	5:30:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	EAST MAIN STREET Rte 123 W	WEST MAIN STREET
1/8/2006	12:09:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Cloudy	DEAN STREET	JOHN BRYSON SCOTT BOULEVARD
2/27/2006	2:24:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	SOUTH WORCESTER STREET	JOHN BRYSON SCOTT BOULEVARD
12/27/2006	2:52:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	WEST MAIN STREET	NORTH WORCESTER STREET

RAYNHAM	1/1/2004	12/31/2006	is similar to: Foundry W									
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection
1/16/2004	6:57:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dawn	Clear	BROADWAY Rte 138	ELM STREET EAST
2/9/2004	6:45:00 PM	Unknown	2	0	0	Angle	Angle	Dry	Dark - unknown roadway lighting	Clear	BROADWAY Rte 138	CARVER STREET
2/19/2004	1:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	BROADWAY Rte 138	ELM STREET WEST / ELM STREET EAST
4/14/2004	7:39:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain	BROADWAY Rte 138 N	Rte 495 N
7/16/2004	6:00:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	BROADWAY Rte 138 N	CARVER STREET
7/22/2004	8:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	BROADWAY Rte 138	CARVER STREET
9/1/2004	12:30:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Not reported	Not reported	Not Reported	BROADWAY Rte 138	CARVER STREET
11/4/2004	1:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	BROADWAY Rte 138	CENTER STREET
11/15/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear	BROADWAY Rte 138 S	BRITTON STREET
11/17/2004	2:57:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Not reported	Daylight	Clear	CARVER STREET	BROADWAY
11/24/2004	10:02:00 PM	Unknown	2	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Rain	BROADWAY Rte 138	ELM STREET EAST
1/12/2005	7:05:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Slush	Dawn	Snow	BROADWAY Rte 138	BRITTON STREET Rte 138
2/11/2005	9:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Clear	BROADWAY Rte 138	CARVER STREET
3/11/2005	11:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Clear	BROADWAY Rte 138 N	Rte 495 N
4/19/2005	12:20:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	CENTER STREET	BROADWAY
5/8/2005	8:07:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain	BROADWAY Rte 138	CARVER STREET
9/14/2005	9:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	CARVER STREET	BROADWAY
9/24/2005	4:49:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear	BROADWAY Rte 138	ELM STREET EAST
12/1/2005	8:30:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	BROADWAY Rte 138	Rte 495 S
2/15/2006	7:54:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear	BROADWAY Rte 138 N	Rte 495 S
2/20/2006	12:13:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	BROADWAY Rte 138 N	CARVER STREET
3/20/2006	12:00:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	BROADWAY Rte 138	CARVER STREET
4/1/2006	6:29:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy/Cloudy	BROADWAY Rte 138	CARVER STREET
4/8/2006	8:59:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Rain/Cloudy	BROADWAY Rte 138	CARVER STREET
4/19/2006	4:45:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	BROADWAY Rte 138	CARVER STREET
4/20/2006	7:19:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear	BROADWAY Rte 138	ELM STREET EAST
5/16/2006	3:37:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy	BROADWAY Rte 138 N	CARVER STREET
7/12/2006	6:54:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Cloudy	BROADWAY Rte 138 S	BRITTON STREET
7/13/2006	8:40:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Dry	Dusk	Cloudy/Cloudy	BROADWAY Rte 138 S	CARVER STREET
7/20/2006	3:46:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	BROADWAY Rte 138	CENTER STREET
8/14/2006	3:02:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	BROADWAY Rte 138	CARVER STREET
9/2/2006	5:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear	BROADWAY Rte 138 N	CARVER STREET
10/4/2006	5:06:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	BROADWAY Rte 138 N	RAMP - RT 495 SB TO RT 138
11/7/2006	12:04:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	BROADWAY Rte 138	CARVER STREET

TAUNTON (EAST TAUNTON)	1/1/2004	12/31/2006	similar to: rte 140 route 140										
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Address/Landmark	Exit Distance	Feet_From
8/22/2004	5:36:00 AM	Not Reported	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear/Clear	ROUTE 140 Rte 140 N		ROUTE 140 Rte 140 N
12/3/2004	5:45:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy	Rte 140		Rte 140 / Rte 140
9/30/2004	5:52:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear	Rte 140 N	Exit 12 on Rte 140	Rte 140 N
5/30/2006	6:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			SOUTH PRECINCT STREET Rte 140 / STRAWBERRY LANE Rte 140
10/15/2004	7:05:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	Rte 140 N	Exit 11 on Rte 140	Rte 140 N

FREETOWN 1/1/2004 12/31/2006 is similar to: rte 140 route

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
6/4/2005	2:00:00 AM	Fatal injury	2	0	2	Head-on	Head-on	Dry	Dark - roadway not lighted	Clear/Clear				200 feet S from Rte 140 N Milemarker 8.1	Rte 140 N
3/30/2006	5:07:00 AM	Fatal injury	1	1	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Exit 8 on Rte 140		Rte 140
6/3/2004	5:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear		Rte 140 S	1320 feet S from Exit 9 on Rte 140		Rte 140 S
10/8/2004	7:27:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear		Rte 140 N			Rte 140 N
12/20/2004	5:09:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Cloudy		Rte 140 S			Rte 140 S
4/30/2005	1:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 140 S
7/5/2005	9:04:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear					Rte 140 N
8/3/2005	9:11:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				100 feet S from Rte 140 S Milemarker 9.4	Rte 140 S
8/7/2005	7:48:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Rte 140 S Milemarker 8.3	Rte 140 S
10/9/2005	6:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain		NORTH OF EXIT 8 - Rte 140 N			Rte 140 N
1/11/2006	4:10:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear					Rte 140 S
2/12/2006	3:55:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Blowing sand, snow					ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / CHACE ROAD
4/20/2006	10:16:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				25 feet S from Rte 140 S Milemarker 8.7	Rte 140 S
4/20/2006	10:40:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 140
7/11/2006	8:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 140 N
12/26/2006	9:25:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear		SOUTH OF EXIT 8			Rte 140 S
1/12/2004	3:21:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear		Rte 140 N	5280 feet N from Exit 7 on Rte 140		Rte 140 N
6/19/2004	6:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear		Rte 140 S		150 feet N from Rte 140 S Milemarker 9.1	Rte 140 S
9/2/2004	12:29:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear		1125 feet E from RT 140 NORTH OVERPASS - WASHBURN ROAD			WASHBURN ROAD
9/20/2004	5:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 140 S				
12/11/2004	4:34:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear		Rte 140 S			Rte 140 S / Rte 140
12/22/2004	8:37:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		EXIT 8 - Rte 140 S			Rte 140 S
12/27/2004	7:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Snow		Rte 140 S		200 feet N from Rte 140 S Milemarker 8.3	Rte 140 S
12/28/2004	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear		ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S
1/5/2005	5:54:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear					320 feet W from Intersection WASHBURN ROAD Rte 140 / Rte 140
2/17/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy					Rte 140
5/14/2005	5:36:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear					Rte 140 N
5/23/2005	12:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				100 feet N from Rte 140 S Milemarker 10.5	Rte 140 S
6/21/2005	11:55:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Cloudy				Rte 140 S Milemarker 7.5	Rte 140 S
7/26/2005	5:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				2640 feet S from Rte 140 N Milemarker 10.0	Rte 140 N
8/22/2005	4:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear		ON RAMP TO 140N - CHACE ROAD Rte 140			CHACE ROAD Rte 140 / Rte 140
9/16/2005	2:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy					Rte 140 S
9/23/2005	2:39:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear		2500 feet N from ROUTE 140 SB NORTH OF CHACE RD - Rte 140 S	2500 feet S from Exit 8 on Rte 140		Rte 140 S
10/15/2005	6:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy					Rte 140 N
11/7/2005	4:29:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear					Rte 140 N
11/9/2005	7:32:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy					Rte 140 N
11/20/2005	2:36:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear					RAMP-CHACE RD TO RT 140 NB / Rte 140
10/5/2006	1:37:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		SOUTH OF EXIT 8			Rte 140 S
10/30/2006	3:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 140 S
10/30/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 140 S
10/30/2006	4:23:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear					Rte 140 N
10/30/2006	5:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear		OF EXIT 8 CHASE ROAD			Rte 140 S

LAKEVILLE	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 140 route 140													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
6/29/2004	8:00:00 PM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			NORTH OF EXIT 9 - Rte 140 N			Rte 140 N
5/3/2006	4:05:00 PM	Fatal injury	2	1	1	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Rain						Rte 140 S
2/8/2004	9:08:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N
3/26/2004	12:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 140 S	Exit 10 on Rte 140		Rte 140 S
6/21/2004	2:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 N			1500 feet N from Intersection Rte 140 N / COUNTY STREET
7/27/2004	5:29:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N / RAMP - COUNTY ST TO RT 140 SB Rte 18
10/14/2004	7:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 NB TO COUNTY ST
10/31/2004	4:30:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S
1/27/2005	6:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow			NORTH OF COUNTY. - ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S / RAMP - RT 140 SB TO COUNTY ST
3/6/2005	3:41:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear	Rte 140 S	RAMP - RT 140 SB TO COUNTY ST				
8/19/2005	5:10:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						COUNTY STREET Rte 140 N
10/1/2005	5:25:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 140 N Milemarker 15.2	Rte 140 N
10/18/2005	12:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 N
11/29/2005	7:53:00 AM	Non-fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			EXIT 10 - Rte 140 S			Rte 140 S
12/5/2005	9:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			SOUTH OF EXIT 10 - Rte 140 N			Rte 140 N
3/8/2006	1:05:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 N
4/5/2006	2:31:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 140 N Milemarker 14.9	Rte 140 N
7/20/2006	6:45:00 PM	Non-fatal injury	1	6	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 140 S
10/1/2006	2:45:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 N
11/23/2006	7:47:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			HIGHLAND ST OVERPASS			Rte 140 S
11/9/2005	7:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 140		Rte 140 N
1/17/2004	3:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 140 N	Exit 9 on Rte 140		Rte 140 N
2/6/2004	12:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Snow			CURB ON BRIDGE OVERPASS OF COUNT - COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N
2/18/2004	11:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy			Rte 140 S		200 feet S from Rte 140 S Milemarker 15.8	Rte 140 S
3/4/2004	1:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy			Rte 140 N			Rte 140 N
3/26/2004	12:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Rte 140 N			900 feet S from Intersection Rte 140 N / Rte 79
5/23/2004	8:33:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N
8/3/2004	5:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 S			Rte 140 S
9/12/2004	2:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N
10/29/2004	11:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Rte 140 N		Rte 140 N Milemarker 14.2	Rte 140 N
11/3/2004	2:53:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Not reported	Daylight	Clear/Clear			PICKENS STREET Rte 105			PICKENS STREET Rte 105 / Rte 140
11/17/2004	11:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP OFF TO COUNTY ROAD, LAKEVIL - ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 NB TO COUNTY ST
11/19/2004	2:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 140 N		Rte 140 N Milemarker 14.0	Rte 140 N
12/9/2004	4:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy			AT EXIT 9 - Rte 140 S			Rte 140 S
1/3/2005	10:52:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Dark - roadway not lighted	Rain						Rte 140
1/6/2005	5:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Fog, smog, smoke					Rte 140 N Milemarker 13.0	Rte 140 N
1/16/2005	10:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow						Rte 140 N
2/6/2005	3:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Dark - roadway not lighted	Cloudy/Cloudy			ON-RAMP TO RTE 140 N FROM COUNTY - ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 NB TO COUNTY ST
3/11/2005	7:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			JUST SOUTH OF RT 79. - Rte 140 N			Rte 140 N / Rte 79
5/6/2005	7:48:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 N
5/21/2005	5:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain					100 feet S from Rte 140 S Milemarker 12.2	Rte 140 S
5/23/2005	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					10 feet N from Rte 140 S Milemarker 14.6	Rte 140 S
6/17/2005	8:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AT RTE 79 - Rte 140 S			Rte 140 S / Rte 79
7/5/2005	6:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 N
8/18/2005	4:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 9 on Rte 140		Rte 140 S
8/26/2005	7:04:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						COUNTY STREET Rte 140 N
10/24/2005	11:44:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain						Rte 140 S
10/31/2005	4:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear						COUNTY STREET Rte 140 N
11/12/2005	8:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 S
12/9/2005	2:57:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Snow/Blowing sand, snow						COUNTY STREET / RAMP - RT 140 NB TO COUNTY ST
12/10/2005	8:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Clear			EXIT 9 - Rte 140 N			Rte 140 N
12/18/2005	11:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy			RAMP TO EXIT #9 - Rte 140 N			Rte 140 N
2/1/2006	2:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						1000 feet N from Intersection Rte 140 N / COUNTY STREET
3/5/2006	7:32:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 140 N Milemarker 14.3	Rte 140 N
4/20/2006	1:01:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					200 feet N from Rte 140 S Milemarker 11.6	Rte 140 S
12/30/2006	9:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - lighted roadway	Cloudy/Cloudy			ROUTE 140 ON RAMP			RAMP - COUNTY ST TO RT 140 SB

NEW BEDFORD 1/1/2004	12/31/2006	Where street or intersection is similar to: ex 140 route 140													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
8/16/2004	1:55:00 AM	Fatal injury	2	0	1	Angle	Angle	Dry	Dark - lighted roadway	Cloudy	Rte 140 S	KEMPTON STREET Rte 6 W				
8/16/2004	7:14:00 AM	Fatal injury	4	1	1	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			Rte 140 S		Rte 140 S Milemarker 8.6	Rte 140 S
4/26/2005	2:05:00 PM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			250 feet S from EXIT 3 (HATHAWAY RD) - Rte 140			Rte 140 / HATHAWAY ROAD
7/14/2005	12:30:00 AM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 7 on Rte 140 S	Rte 140 S Milemarker 7.5	Rte 140 S
6/21/2006	3:15:00 PM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			BETWEEN EXITS 4 & 5			Rte 140 N
8/11/2006	8:05:00 PM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			105 feet S from EXIT 3			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO HATHAWAY RD
10/19/2006	4:15:00 PM	Fatal injury	2	1	1	Head-on	Head-on	Dry	Daylight	Clear/Clear						Rte 140 S / CHURCH STREET
1/10/2004	8:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			BETWEEN 195 RAMPS - Rte 140 N		200 feet S from Rte 140 N Milemarker 1.1	Rte 140 N
1/16/2004	4:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear			Rte 140 S			1000 feet S from Intersection Rte 140 S / HATHAWAY ROAD
1/16/2004	5:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 140 S			1500 feet N from Intersection Rte 140 S / HATHAWAY ROAD
1/19/2004	3:25:00 PM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RTE 195 WEST ON RAMP - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			200 feet S from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO RT 195 WB
1/23/2004	6:35:00 AM	Non-fatal injury	1	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear			Rte 140 N	Exit 7 on Rte 140		Rte 140 N
2/6/2004	11:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Sleet, hail (freezing rain or drizz			Rte 140 S			Rte 140 S / Rte 195
2/10/2004	3:41:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 S			500 feet N from Intersection Rte 140 S / Rte 6
2/23/2004	1:15:00 PM	Non-fatal injury	2	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			NEW BEDFORD/FREETOWN LINE - Rte 140 N		Rte 140 N Milemarker 7.6	Rte 140 N
3/1/2004	1:15:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			JUST NORTH OF RTE. 6 - Rte 140 N			Rte 140 N / Rte 6
3/5/2004	7:20:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Cloudy/Rain			Rte 140 N		100 feet N from Rte 140 N Milemarker 1.1	Rte 140 N
3/9/2004	5:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 195 EB TO RT 140 NB
3/20/2004	2:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Unknown	Clear			ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S
3/23/2004	7:22:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			HATHAWAY RD. CONSTRUCTION AREA - Rte 140 S			Rte 140 S / HATHAWAY ROAD
3/24/2004	7:05:00 PM	Non-fatal injury	1	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy/Cloudy			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO MT PLEASANT ST
3/25/2004	11:34:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			HATHAWAY RD. CONSTRUCTION AREA - Rte 140 S			Rte 140 S / HATHAWAY ROAD
4/11/2004	1:22:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 140 S			Rte 140 S / MOUNT PLEASANT STREET
4/24/2004	5:45:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 140 N	Exit 4 on Rte 140	Rte 140 Milemarker 11.0	Rte 140 N
4/30/2004	10:45:00 AM	Non-fatal injury	5	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 140 N			Rte 140 N
4/30/2004	11:30:00 AM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Not reported	Daylight	Clear	Rte 140 N	ON RAMP Rte 195 E				
5/16/2004	11:35:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			RAMP - RT 195 EB TO RT 140 SB			RAMP - RT 195 EB TO RT 140 SB / Rte 195
6/3/2004	3:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 S		25 feet S from Rte 140 S Milemarker 2.0	Rte 140 S
6/3/2004	10:40:00 AM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			HATHAWAY ROAD			HATHAWAY ROAD / Rte 140
6/3/2004	11:35:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			KINGS HIGHWAY			KINGS HIGHWAY / RAMP - KINGS HWY TO RT 140 NB
6/4/2004	11:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N
6/23/2004	10:50:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 140 N			Rte 140 N
7/17/2004	3:48:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 140 N		25 feet S from Rte 140 N Milemarker 2.7	Rte 140 N
7/23/2004	12:33:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			RAMP - RT 195 EB TO RT 140 NB			RAMP - RT 195 EB TO RT 140 NB / Rte 140
7/27/2004	8:00:00 PM	Non-fatal injury	1	1	0	Not reported	Not reported	Not reported	Not reported	Not Reported			RAMP - RT 140 NB TO CHURCH ST			RAMP - RT 140 NB TO CHURCH ST / PHILLIPS ROAD
8/23/2004	12:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 140 S		10 feet S from Rte 140 Milemarker 10.9	Rte 140 S
8/25/2004	9:10:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			WEST OF RTE 140 SOUTH - Rte 195 E		Rte 195 E Milemarker 23.3	Rte 195 E
8/28/2004	6:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear			1212 KEMPTON STREET			1212 KEMPTON STREET / Rte 140
8/29/2004	8:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N / Rte 195
8/31/2004	7:30:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			20 feet S from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO MT PLEASANT ST
9/8/2004	2:35:00 PM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			ONRAMP FROM BRAILEY ROAD ONTO RTE - BRAILEY ROAD			BRAILEY ROAD / Rte 140
9/14/2004	8:59:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 140 N		50 feet N from Rte 140 N Milemarker 5.6	Rte 140 N
9/15/2004	3:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			Rte 140 N			Rte 140 N
9/29/2004	5:25:00 PM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140 S	KEMPTON STREET Rte 6				
9/30/2004	7:35:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Wet	Dark - lighted roadway	Rain			PHILLIPS ROAD Rte 140 N			PHILLIPS ROAD Rte 140 N / CHURCH STREET
10/1/2004	7:21:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 140 S			Rte 140 S
10/6/2004	8:18:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			400 feet S from EXIT 4 - Rte 140 S			Rte 140 S
10/14/2004	8:19:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain			Rte 140 S			Rte 140 S
10/28/2004	7:35:00 AM	Non-fatal injury	2	4	0	Rear-end	Rear-end	Dry	Daylight	Clear			KINGS HIGHWAY			4 feet E from Intersection KINGS HIGHWAY / RAMP - KINGS HWY TO RT 140 NB Rte 140 E
11/2/2004	3:55:00 PM	Non-fatal injury	5	2	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 140 S			700 feet N from Intersection Rte 140 S / Rte 6
11/12/2004	12:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Not reported	Cloudy/Rain			SOUTH OF CHURCH ST. - Rte 140 S		Rte 140 S Milemarker 4.6	Rte 140 S
11/19/2004	5:20:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 140 S			500 feet N from Intersection Rte 140 S / Rte 6
11/21/2004	6:25:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 140 S		20 feet S from Rte 140 S Milemarker 6.1	Rte 140 S
12/3/2004	4:11:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Cloudy			Rte 140 N		1000 feet N from Rte 140 N Milemarker 7.0	Rte 140 N
12/7/2004	6:20:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			HATHAWAY ROAD			HATHAWAY ROAD / RAMP - RT 140 NB TO HATHAWAY RD Rte 140
12/16/2004	5:30:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear			ON RAMP TO RTE 195 EAST - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO RT 195 EB
12/19/2004	11:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			20 feet N from ROUTE 195 OVERPASS - Rte 140 N			20 feet N from Intersection Rte 140 N / Rte 195
1/7/2005	4:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy						Rte 140 S / Rte 195
1/17/2005	6:15:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain					Rte 140 S Milemarker 1.0	ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / KEMPTON STREET Rte 6
1/17/2005	12:20:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Snow	Dark - roadway not lighted	Snow/Snow						Rte 140 S
2/3/2005	3:40:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Sleet, hail (freezing rain or drizzle)			AT RAMP FROM KINGS HIGHWAY - Rte 140 S			Rte 140 S / KINGS HIGHWAY Rte 18
3/3/2005	5:05:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 N
3/4/2005	2:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear					Rte 140 N Milemarker 7.3	Rte 140 N
3/4/2005	4:22:00 PM	Non-fatal injury	2	4	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						RAMP - RT 195 EB TO RT 140 NB
3/5/2005	4:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						BRAILEY ROAD Rte 140 N / RAMP - BRAILEY RD TO RT 140 NB
3/11/2005	3:45:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Snow						Rte 140 N
3/12/2005	1:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Sleet, hail (freezing rain or drizzle)						Rte 140 N / Rte 140
3/18/2005	3:10:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						INTERSTATE 195 Rte 195 E / RAMP - RT 195 EB TO RT 140 SB Rte 195 E
3/30/2005	5:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					100 feet S from Rte 140 N Milemarker 3.2	Rte 140 N
3/28/2005	6:55:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain					150 feet S from Rte 140 N Milemarker 2.4	Rte 140 N
4/9/2005	11:15:00 PM	Non-fatal injury	2	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			RAMP FROM ACUSHNET AVE - Rte 140 N		Rte 140 N Milemarker 5.9	Rte 140 N
4/17/2005	12:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 140 S Milemarker 6.8	Rte 140 S
5/30/2005	9:41:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			EXIT #3 (HATHAWAY ROAD) - Rte 140 N			Rte 140 N
5/31/2005	10:00:00 AM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Daylight	Clear						CHURCH STREET Rte 140 / RAMP - RT 140 NB TO CHURCH ST Rte 140
6/1/2005	6:30:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 7 on Rte 140		Rte 140 N
6/8/2005	12:32:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			BETWEEN EXIT 4 AND EXIT 5 - Rte 140 N			Rte 140 N
6/18/2005	3:00:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Other	Daylight	Clear/Clear			AT ROUTE 140 - Rte 195 E			Rte 195 E
6/30/2005	6:23:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy			RTE 18 - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO RT 18
7/23/2005	9:31:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 7 on Rte 140		Rte 140 N / BRAILEY ROAD
8/2/2005	2:50:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			@ RT 140 - Rte 195 W			Rte 195 W / Rte 140
8/3/2005	5:05:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	RAMP - RT 140 SB TO HATHAWAY RD	HATHAWAY ROAD				
8/9/2005	6:43:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					300 feet N from Rte 140 N Milemarker 5.7	Rte 140 N
8/29/2005	4:32:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy	Rte 140 S	Rte 6 W				
8/30/2005	8:35:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy						HILLMAN STREET / RAMP - RT 140 NB TO BRAYLEY RD Rte 18 N
9/5/2005	11:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			100 feet S from RAMP FROM RTE 195 WESTBOUND - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			100 feet S from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 195 WB TO RT 140 NB
9/7/2005	2:00:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 140 S Milemarker 3.2	Rte 140 S
9/8/2005	12:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			AT EXIT 4, KINGS HIGHWAY - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO KINGS HWY
9/22/2005	6:21:00 PM	Non-fatal injury	1	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			RTE 195 RAMPS EXIT # 2 - Rte 140 N			Rte 140 N
10/11/2005	6:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain			ON RAMP FROM CHURCH ST. TO 140 S - Rte 140 S			Rte 140 S / CHURCH STREET
10/13/2005	8:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain			@ HATHAWAY RD EXIT - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO HATHAWAY RD
10/17/2005	8:02:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear						RAMP - KINGS HWY TO RT 140 NB Rte 140 / Rte 140
10/19/2005	7:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						1000 feet S from Intersection Rte 140 S / MOUNT PLEASANT STREET
10/26/2005	7:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain					Rte 140 S Milemarker 5.5	Rte 140 S
11/3/2005	5:30:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 140 N
11/6/2005	11:40:00 PM	Non-fatal injury	3	3	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Clear			30 feet E from 140 S ON RAMP - BRAILEY ROAD			BRAILEY ROAD / RAMP - BRAYLEY RD TO RT 140 NB
11/9/2005	5:00:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain						Rte 140 N / Rte 18
11/9/2005	5:30:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Wet	Dusk	Rain					Rte 195 Milemarker 13.0	Rte 195 / Rte 140
11/11/2005	2:00:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					400 feet N from Rte 140 S Milemarker 6.9	Rte 140 S
11/11/2005	3:35:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			OFF RAMP - CHURCH STREET			CHURCH STREET / Rte 140
11/12/2005	10:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 N
11/15/2005	6:40:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Cloudy			BETWEEN RAMPS TO EXIT 5 - Rte 140 S			Rte 140 S
11/22/2005	9:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy					300 feet S from Rte 140 S Milemarker 2.1	Rte 140 S
12/13/2005	9:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 140 / Rte 6
12/20/2005	5:45:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			HATHAWAY RD EXIT 3 - Rte 140 N			Rte 140 N / HATHAWAY ROAD
12/28/2005	7:40:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy						Rte 140 S
1/4/2006	4:15:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				200 feet S from Exit 5 on Rte 140		Rte 140
1/30/2006	2:00:00 AM	Non-fatal injury	2	2	0	Unknown	Unknown	Dry	Daylight	Cloudy						Rte 140 / ACUSHNET AVENUE
3/1/2006	4:33:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear					Rte 140 N Milemarker 0.1	Rte 140 N
3/17/2006	4:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			200 feet N from MT. PLEASANT STREET OVERPASS			Rte 140 S
3/21/2006	10:09:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 N
3/23/2006	7:20:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			EXIT 4			Rte 140 N
4/7/2006	1:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain						HATHAWAY ROAD Rte 140 / MOUNT PLEASANT STREET
4/11/2006	1:28:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 N
4/26/2006	8:10:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			200 feet N from CHURCH STREET OFF RAMP			Rte 140 S
5/13/2006	2:45:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Rain/Cloudy			50 feet N from RAMP TO 195 WEST			50 feet N from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO RT 195 WB
5/15/2006	10:37:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	Rte 140 S	KEMPTON STREET				
5/18/2006	10:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			EXIT 5	255 feet S from Exit 5 on Rte 140 S		Rte 140 S
6/19/2006	8:55:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 140 S
6/26/2006	8:55:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	KEMPTON STREET Rte 140 S	KEMPTON STREET Rte 140 S				
6/27/2006	10:50:00 PM	Non-fatal injury	1	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear						BRAILEY ROAD Rte 140 N
7/7/2006	11:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			NORTH RAMP			RAMP - RT 140 NB TO KINGS HWY
7/18/2006	9:57:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 N
8/24/2006	7:49:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			NASH RD OVERPASS			Rte 140 N
9/2/2006	8:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 140 S Milemarker 7.6	Rte 140 S
9/13/2006	9:47:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140 N	3HURCH STREET / RAMP - RT 140 NB TO CHURCH ST				
9/14/2006	2:10:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain					100 feet S from Rte 140 N Milemarker 6.2	Rte 140 N
9/14/2006	9:09:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			SOUTH OF EXIT 4			Rte 140 S
9/16/2006	2:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy					Rte 140 S Milemarker 4.6	Rte 140 S
9/23/2006	6:38:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						KEMPTON STREET Rte 140 / Rte 140
10/1/2006	7:28:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy					300 feet N from Rte 140 S Milemarker 7.2	Rte 140 S
10/6/2006	8:15:00 PM	Non-fatal injury	1	4	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			JUST PRIOR TO EXIT #5	Exit 5 on Rte 140		Rte 140
10/15/2006	4:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			30 feet E from TELEPHONE POLE 373/99			KEMPTON STREET / Rte 140
10/18/2006	9:20:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy	Rte 140 S	KEMPTON STREET				
10/19/2006	4:20:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			KINGS HIGHWAY			Rte 140 N / KINGS HIGHWAY
10/19/2006	5:20:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dayl

NEW BEDFORD 1/1/2004 12/31/2006 Where street or intersection is similar to: 4x 140 route 140

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address Landmark	Exit Distance	Mile Marker Distance	Feet_From
11/1/2006	5:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain				Exit 7 on Rte 140 N		ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - BRAYLEY RD TO RT 140 NB
12/28/2006	4:22:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy						Rte 140 N / Rte 6
1/5/2004	3:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	RAMP - RT 140 SB TO BRAYLEY RD Rte 140 S	RAMP - RT 195 WB TO RT 140 SB Rte 195 W				
1/16/2004	8:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 140 S			Rte 140 S / HATHAWAY ROAD
1/17/2004	1:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RAMP - RT 140 NB TO RT 195 EB			RAMP - RT 140 NB TO RT 195 EB
1/19/2004	3:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / KEMPTON STREET Rte 6
1/19/2004	3:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N
1/21/2004	6:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear			Rte 140 S	87 feet S from Exit 7 on Rte 140		Rte 140 S
1/21/2004	9:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 140 S			Rte 140 S / HATHAWAY ROAD
2/2/2004	1:05:00 PM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Dry	Daylight	Clear			Rte 140 N	100 feet N from Exit 13A on Rte 140	100 feet E from Rte 140 Milemarker 23.9	Rte 140 N
2/22/2004	5:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dusk	Snow			EXIT 4 KINGS HIGHWAY - Rte 140 N			500 feet N from Intersection Rte 140 N
3/9/2004	10:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain			ENTRANCE TO FIELDSTONE MARKET PL - KINGS HIGHWAY Rte 140			KINGS HIGHWAY Rte 140
3/9/2004	7:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear			Rte 140 S		Rte 140 S Milemarker 1.3	Rte 140 S
3/17/2004	8:30:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Wet	Daylight	Clear			Rte 140 S			Rte 140 S
3/22/2004	2:25:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			MERGE WITH ACUSHNET AVENUE NORTH - Rte 140 N		Rte 140 N Milemarker 6.2	Rte 140 N
3/27/2004	12:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy			OFF RAMP - CHURCH STREET Rte 140 S			CHURCH STREET Rte 140 S / Rte 140
3/29/2004	7:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 140 S	50 feet S from Exit 4 on Rte 140		Rte 140 S
3/30/2004	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			RAMP - RT 140 NB TO RT 195 WB			RAMP - RT 140 NB TO RT 195 WB
4/14/2004	4:43:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain			Rte 140 N			Rte 140 N
4/16/2004	8:23:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy	KEMPTON STREET Rte 140					
4/26/2004	6:47:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 140 S		100 feet N from Rte 140 S Milemarker 1.9	Rte 140 S
4/30/2004	11:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			200 feet S from RTE 195 EAST RAMP - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			200 feet S from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO RT 195 EB
5/9/2004	1:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140	KEMPTON STREET Rte 6				
5/9/2004	9:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			RTE 140 NORTH - INTERSTATE 195 Rte 195 W			INTERSTATE 195 Rte 195 W / RAMP - RT 195 WB TO RT 140 NB
5/19/2004	8:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			2 RAMP - BRAYLEY RD TO RT 140 SB Rte 140 S	500 feet N from Exit 25 on Rte 140 S		2 RAMP - BRAYLEY RD TO RT 140 SB Rte 140 S
5/21/2004	10:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			600 feet N from CHURCH STREET EXIT - Rte 140 N			600 feet N from Intersection Rte 140 N / CHURCH STREET
5/31/2004	12:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 140 N		200 feet S from Rte 140 N Milemarker 4.4	Rte 140 N
6/4/2004	10:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 140 N		Rte 140 N			Rte 140 N
6/9/2004	1:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - CHURCH ST TO RT 140 NB
6/9/2004	4:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain			Rte 140 S			Rte 140 S
6/22/2004	2:39:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			BETWEEN HATHAWAY RD RAMPS - HATHAWAY ROAD Rte 140 N		Rte 140 N Milemarker 1.6	HATHAWAY ROAD 140 N
7/2/2004	5:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Rain			Rte 140 N			Rte 140 N
7/2/2004	6:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear			CHURCH STREET Rte 140 S			CHURCH STREET Rte 140 S
7/6/2004	4:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Fog, smog, smoke			Rte 140 N		75 feet S from Rte 140 N Milemarker 2.5	Rte 140 N
7/10/2004	5:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear	Rte 140 N	Rte 140 N				
7/30/2004	6:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	HATHAWAY ROAD	Rte 140 N / RAMP - HATHAWAY RD TO RT 140 NB				
8/3/2004	12:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			AT EXIT #2 - Rte 140 N			Rte 140 N
8/9/2004	6:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO RT 195 WB Rte 195 W
8/12/2004	2:30:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 140 N		13 feet N from Rte 140 N Milemarker 0.1	Rte 140 N
8/16/2004	9:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 140 S		1320 feet S from Rte 140 S Milemarker 1.3	Rte 140 S
8/31/2004	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			EXIT 4 - Rte 140 S			Rte 140 S
9/9/2004	5:20:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy			Rte 140 N		75 feet S from Rte 140 N Milemarker 1.6	Rte 140 N
9/18/2004	1:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Rte 140 N			Rte 140 N / CHURCH STREET
10/9/2004	2:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Daylight	Clear/Clear			RAMP - RT 195 EB TO RT 140 NB			RAMP - RT 195 EB TO RT 140 NB / Rte 140
10/9/2004	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140 S	KEMPTON STREET				
10/9/2004	9:16:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			RTE 195 EAST TO RTE 140 SOUTH - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			25 feet N from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 195 EB TO RT 140 SB
10/19/2004	12:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			RAMP - RT 195 EB TO RT 140 NB			RAMP - RT 195 EB TO RT 140 NB / Rte 140
10/22/2004	4:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			1320 feet S from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO BRAYLEY RD
10/29/2004	2:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			KEMPTON STREET Rte 6 W			KEMPTON STREET Rte 6 W / Rte 140
11/1/2004	5:10:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			500 feet N from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / KEMPTON STREET
11/7/2004	12:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Unknown	Rte 140 N	Rte 195 E				
11/23/2004	4:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			1000 feet N from BRALEY RD - Rte 140			1000 feet N from Intersection Rte 140 / BRALEY ROAD
11/26/2004	1:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			KINGS HIGHWAY			20 feet E from Intersection KINGS HIGHWAY / RAMP - KINGS HWY TO RT 140 NB Rte 140 E
12/3/2004	6:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			AT LAST CURVE IN RAMP - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO RT 195 WB
12/6/2004	6:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			CHACE RD. - Rte 140 N			Rte 140 N / CHACE ROAD
12/8/2004	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Other			HATHAWAY ROAD Rte 140			HATHAWAY ROAD Rte 140 / Rte 140
12/10/2004	2:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			Rte 140 S			2640 feet N from Intersection Rte 140 S / Rte 6
12/15/2004	10:02:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 140 S		100 feet S from Rte 140 S Milemaiker 4.9	Rte 140 S
12/17/2004	5:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	EXIT Rte 140 N	HATHAWAY ROAD				
12/21/2004	7:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Ice	Daylight	Clear/Clear			Rte 140 S		200 feet N from Rte 140 S Milemaiker 4.5	Rte 140 S
12/26/2004	3:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Sleet, hail (freezing rain or drizzle)			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO HATHAWAY RD
12/28/2004	7:50:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Slush	Daylight	Cloudy/Cloudy			200 feet S from CHURCH ST - Rte 140 S			200 feet S from Intersection Rte 140 S / CHURCH STREET
12/28/2004	3:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 140 S			Rte 140 S
1/17/2005	12:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow						Rte 140 S
1/19/2005	10:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow					200 feet N from Rte 140 N Milemarker 3.6	Rte 140 N
2/12/2005	12:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 140 S / Rte 6
2/13/2005	4:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			RAMP FROM 195 EB - Rte 140 S			Rte 140 S
2/19/2005	9:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO CHURCH ST
2/19/2005	12:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Other				150 feet S from Exit 6 on Rte 140		Rte 140 S
2/24/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	MOUNT PLEASANT STREET	Rte 140 S / RAMP - RT 140 SB TO MT PLEASANT ST				
2/25/2005	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow					200 feet S from Rte 140 N Milemarker 0.9	Rte 140 N
3/3/2005	12:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy						Rte 140
3/4/2005	3:45:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 140 S Milemarker 1.3	Rte 140 S
3/9/2005	4:37:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			N OF RTE 6 - Rte 140 S			Rte 140 S / Rte 6
3/10/2005	3:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	ROUTE 140 ON RAMP Rte 140 N	ACUSHNET AVENUE				
3/11/2005	3:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Snow	Not reported	Snow/Snow	Rte 140 S					
3/11/2005	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Snow/Snow					100 feet S from Rte 140 N Milemarker 1.8	HATHAWAY ROAD Rte 140 N
3/21/2005	6:04:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						RAMP - RT 140 NB TO CHURCH ST Rte 140 / Rte 140
3/23/2005	4:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				40.0 feet S from Exit 24B on Rte 140		Rte 140
3/23/2005	11:26:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow						Rte 140 N
3/25/2005	12:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						CHURCH STREET Rte 140 / Rte 140
3/26/2005	6:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - unknown roadway lighting	Clear					133 feet S from Rte 140 N Milemarker 7.1	Rte 140 N
3/27/2005	2:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						Rte 140 N
3/28/2005	3:26:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						Rte 140 S / Rte 6
3/29/2005	8:39:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dusk	Cloudy/Rain			HATHAWAY RD - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO HATHAWAY RD
4/4/2005	6:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain					Rte 140 N Milemarker 5.9	Rte 140 N
4/15/2005	2:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 140 S
4/15/2005	7:50:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / KEMPTON STREET
4/20/2005	5:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 N
4/27/2005	8:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy	Rte 195 W					Rte 140 N / Rte 18
4/30/2005	3:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 140 N / INTERSTATE 195
5/24/2005	2:54:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Not reported	Cloudy/Rain						50.0 feet N from Intersection Rte 140 S / Rte 6
5/26/2005	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain					200 feet N from Rte 140 S Milemarker 0.1	200 feet N from Intersection Rte 140 S / Rte 6
5/28/2005	2:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Fog, smog, smoke						ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 / RAMP - RT 140 NB TO RT 195 EB
5/30/2005	8:53:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			JUST PRIOR TO EXIT #4 - Rte 140 S			Rte 140 S
6/1/2005	8:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			RTE. 195 OFF-RAMP - RAMP - RT 195 EB TO RT 140 NB			RAMP - RT 195 EB TO RT 140 NB
6/7/2005	5:26:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						ACUSHNET AVENUE Rte 140 / Rte 140
6/9/2005	3:47:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			560 feet N from RTE 6 - Rte 140 S			560 feet N from Intersection Rte 140 S / Rte 6
6/13/2005	8:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			.5 MILE NORTH OF EXIT 3 - Rte 140 S			Rte 140 S
6/23/2005	2:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			SOUTH OF EXIT 4 - Rte 140 S	Exit 4 on Rte 140		Rte 140 S
7/6/2005	6:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy						Rte 140 / CHURCH STREET
7/14/2005	6:05:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Clear			@ RTE 195 - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 195 EB TO RT 140 NB
7/26/2005	7:17:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 140 N / BRALEY ROAD
8/3/2005	2:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear					200 feet S from Rte 140 S Milemaiker 6.5	Rte 140 S
8/5/2005	5:40:00 PM	Property damage only (none injured)	3	0	0	Unknown	Unknown	Dry	Daylight	Cloudy/Cloudy						Rte 140 S
8/16/2005	3:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						200 feet N from Intersection Rte 140 N / Rte 6
8/30/2005	7:29:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Rain/Rain			ON RAMP FOR EXIT 6 - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO RT 18
9/2/2005	4:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						RAMP - RT 140 SB TO RT 195 WB Rte 140 S
9/9/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	KINGS HIGHWAY Rte 140 N	Rte 140 / Rte 140				
9/17/2005	3:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					1000 feet S from Rte 140 S Milemarker 5.0	Rte 140 S
9/17/2005	11:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Fog, smog, smoke			RTE 195 W AT 140 N - Rte 195 W			Rte 195 W / Rte 140
9/29/2005	5:55:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Water (standing, moving)	Daylight	Rain			ON RAMP FROM 195 EAST TO 140 NOR - Rte 140			Rte 140
9/30/2005	9:00:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Cloudy			BRALEY RD EXIT 7 - Rte 140 S			Rte 140 S
10/8/2005	12:39:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			RT 140 N OFF RAMP - HATHAWAY ROAD Rte 18			HATHAWAY ROAD Rte 18 / Rte 18
10/13/2005	8:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain						Rte 140 S
10/14/2005	10:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain						Rte 140 S / ACUSHNET AVENUE
10/15/2005	9:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain						Rte 140 S
10/19/2005	3:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			100 feet S from EXIT 2B - Rte 140 N			Rte 140 N
10/26/2005	3:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 195 E / Rte 140
10/27/2005	1:30:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Dry	Dark - unknown roadway lighting	Clear				Exit 5 on Rte 140		Rte 140 S
11/3/2005	11:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	Rte 140 S	KEMPTON STREET Rte 6				
11/4/2005	10:55:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Cloudy			SOUTH OF EXIT 5 - Rte 140 S			
11/6/2005	8:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						2640 feet N from Intersection Rte 140 S / Rte 6
11/12/2005	4:59:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						3000 feet S from Intersection Rte 140 N / CHURCH STREET
12/3/2005	6:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	KINGS HIGHWAY	Rte 140 / RAMP - KINGS HWY TO RT 140 NB				
12/9/2005	10:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Rain/Snow					Rte 140 S Milemarker 6.9	Rte 140 S
12/12/2005	7:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Clear/Clear			RAMP TO HATHAWAY RD. - Rte 140 S			Rte 140 S
12/21/2005	7:15:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			RT 195 WEST ON RAMP - ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO RT 195 WB
1/4/2006	2:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			SB RT 140 @ EXIT 8 NBW BEDFORD			
1/24/2006	10:38:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 140 N Milemarker 2.4	Rte 140 N
1/25/2006	10:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			RAMP TO HATHAWAY RD			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO HATHAWAY RD
2/7/2006	3:10:00 AM	Property

NEW BEDFORD 1/1/2004 12/31/2006 Where street or intersection is similar to: 4x 140 route 140

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address Landmark	Exit Distance	Mile Marker Distance	Feet_From
6/7/2006	9:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	BRALEY ROAD	Rte 140 / RAMP - BRAYLEY RD TO RT 140 NB				
6/9/2006	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			OFF RAMP TO CHURCH ST.			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO CHURCH ST
6/10/2006	12:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						CHURCH STREET Rte 140 / RAMP - CHURCH ST TO RT 140 NB
6/15/2006	4:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Rain/Cloudy			CHURCH ST EXIT 5			Rte 140 S
6/15/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 140 N	KINGS HIGHWAY				
6/16/2006	4:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						RAMP - RT 140 NB TO HATHAWAY RD
6/24/2006	7:15:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			BETWEEN EXIT 3 AND 4			Rte 140 N
6/30/2006	8:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 140 S Milemarker 1.3	Rte 140 S
7/11/2006	2:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 140
7/13/2006	2:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain					Rte 140 N Milemarker 3.0	Rte 140 N
7/13/2006	2:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Not reported	Rain/Rain			UNDER MT PLEASANT ST OVERPASS			Rte 140 N
8/2/2006	7:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain/Severe cross winds						Rte 140 N
8/2/2006	7:26:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain/Severe cross winds						NASH ROAD Rte 140 N / MOUNT PLEASANT STREET
8/5/2006	7:00:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						HATHAWAY ROAD Rte 140 N
8/6/2006	8:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			BETWEEN EXITS 4&5			Rte 140 N
8/11/2006	8:58:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			JUST NORTH OF RT. 195			Rte 140 N / Rte 195
8/22/2006	4:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 140 S / Rte 195
8/25/2006	3:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy						15 feet N from Intersection Rte 140 N / MOUNT PLEASANT STREET
8/28/2006	3:22:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark - roadway not lighted	Rain/Cloudy			1/2 MILE SOUTH OF EXIT 7			Rte 140 N
8/29/2006	2:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain						ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO RT 195 WB
8/29/2006	2:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy				Exit 24B on Rte 140		Rte 140
9/1/2006	7:06:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			PRIOR TO RT 6			Rte 140 S
9/2/2006	1:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	Rte 140	Rte 140				ACUSHNET AVENUE / Rte 140
9/15/2006	3:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			MT. PLEASANT ST. OVERPASS			Rte 140 N
9/15/2006	10:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						Rte 140 N / Rte 195
9/16/2006	1:08:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	HATHAWAY ROAD	Rte 140 N / RAMP - HATHAWAY RD TO RT 140 NB				
9/16/2006	12:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 140 S Milemarker 2.5	Rte 140 S
9/16/2006	12:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 140 S
9/24/2006	11:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear						KEMPTON STREET Rte 140 E / Rte 140
10/3/2006	1:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			NEAR EXIT 4			Rte 140 N
10/4/2006	2:28:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						RAMP - CHURCH ST TO RT 140 NB / Rte 140
10/12/2006	7:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			@ EXIT 6 RTE 18 NEW BEDFORD			Rte 140 S
10/12/2006	8:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			RTE 6			Rte 140 S
10/13/2006	8:07:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 140 S / CHURCH STREET
10/15/2006	3:34:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			PRIOR TO EXIT 4		Rte 140 S Milemarker 3.8	Rte 140 S
10/21/2006	11:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			1000 feet N from ROUTE 6			1000 feet N from Intersection Rte 140 S / Rte 6
10/23/2006	7:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	PHILLIPS ROAD Rte 140	HERITAGE DRIVE / PURITAN WAY				
10/25/2006	8:00:00 AM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 140 / KINGS HIGHWAY
10/27/2006	7:02:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						BRALEY ROAD / RAMP - BRAYLEY RD TO RT 140 NB Rte 140 N
10/30/2006	8:50:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			EXIT 5			Rte 140 S
11/6/2006	1:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			RTE 195			300 feet S from Intersection Rte 140 N / Rte 195
11/8/2006	1:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 140 N / KINGS HIGHWAY
11/10/2006	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear	ROUTE 6 Rte 140 S	ROUTE 6 Rte 140 S				
11/10/2006	8:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 N
11/10/2006	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						50 feet S from Intersection Rte 140 S / CHURCH STREET
11/11/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear						Rte 140 S
11/13/2006	6:15:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dusk	Cloudy/Cloudy						ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 195 WB TO RT 140 NB
11/13/2006	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy						100 feet S from Intersection ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 SB TO RT 195 EB
11/13/2006	7:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy					200 feet N from Rte 140 N Milemarker 0.9	Rte 140 N
11/16/2006	10:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy					30 feet N from Rte 140 S Milemarker 2.1	Rte 140 S
11/18/2006	7:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						Rte 140 S
11/30/2006	9:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear			BETWEEN EXITS 6 & 5			Rte 140 S
12/1/2006	1:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain						300 feet S from Intersection INTERSTATE 195 Rte 195 E / RAMP - RT 195 EB TO RT 140 NB Rte 195 S
12/1/2006	6:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain						RAMP - RT 195 EB TO RT 140 NB / Rte 140
12/9/2006	5:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			NORTH OF RT 6			Rte 140 N / Rte 6
12/11/2006	5:14:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			PRIOR TO RT 6			Rte 140 S / Rte 6
12/12/2006	8:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			AT NASH RD OVERPASS			Rte 140 S / NASH ROAD
12/12/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						MOUNT PLEASANT STREET / Rte 140 S
12/14/2006	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RAMP FROM 140 S TO HATHAWAY RD			RAMP - RT 140 SB TO HATHAWAY RD Rte 140
12/14/2006	6:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 140 S	Rte 6				
12/14/2006	10:39:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			HATHAWAY RD			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 S / RAMP - RT 140 SB TO HATHAWAY RD
12/18/2006	6:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			SOUTH OF EXIT #6			Rte 140 S
12/23/2006	4:25:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear/Clear				Exit 3 on Rte 140		Rte 140
12/28/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 S / Rte 6
12/31/2006	3:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						RAMP - RT 140 SB TO BRAYLEY RD Rte 140
1/17/2004	5:05:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear	Rte 140 N				200 feet N from Rte 140 N Milemarker 4.0	Rte 140 N
1/16/2005	11:30:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Snow						HATHAWAY ROAD Rte 140 / Rte 6
8/12/2005	2:05:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				300 feet N from Exit 5 on Rte 140		Rte 140
5/14/2006	3:31:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain			RAMP TO BRALEY RD FROM 140 NB			ALFRED BESSETTE MEMORIAL HIGHWAY Rte 140 N / RAMP - RT 140 NB TO BRAYLEY RD
7/5/2006	9:45:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 6 S / Rte 140

TAUNTON	1/1/2004	12/31/2006	Intersection is similar to:														
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
1/2/2004	9:45:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 N			50 feet N f rom Intersection AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
1/5/2004	4:40:00 PM	Non-Fatal Injury	3	2	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear/Clear	Rte 140 N		Rte 140 N			Rte 140 N
2/6/2004	6:20:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Slush	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)			COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N
2/9/2004	1:05:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy			ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S / RAMP - RT 140 TO RT 24 NB
2/20/2004	6:45:00 AM	Non-Fatal Injury	2	2	0	Angle	Angle	Ice	Daylight	Clear/Clear			RAMP TO RT 140 FROM RT 24 SB. - ROUTE 140 Rte 140			ROUTE 140 Rte 140 / RAMP - RT 140 TO RT 24 SB
2/21/2004	9:05:00 AM	Non-Fatal Injury	2	1	0	Not reported	Not reported	Not reported	Daylight	Not Reported	Rte 140 N					
2/25/2004	2:30:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			COUNTY STREET Rte 140 S			COUNTY STREET Rte 140 S
3/26/2004	11:38:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			AT EXIT RAMP FROM RTE 140 SBL - RAMP - RT 140 SB TO COUNTY ST			RAMP - RT 140 SB TO COUNTY ST / STEVENS STREET
3/31/2004	1:26:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain	COUNTY STREET Rte 140 S					
4/8/2004	1:05:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N
4/28/2004	8:45:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N
4/29/2004	6:15:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 N		Rte 140 N Milemarker 16.5	Rte 140 N
5/1/2004	2:10:00 AM	Non-Fatal Injury	2	4	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear			ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S / RAMP - RT 140 TO RT 24 SB
5/16/2004	11:12:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Not reported	Cloudy/Cloudy			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 NB TO STEVENS ST
7/9/2004	2:55:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
7/23/2004	5:30:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear			STEVENS STREET			STEVENS STREET / RAMP - RT 140 NB TO STEVENS ST
7/24/2004	4:25:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
8/6/2004	7:15:00 AM	Non-Fatal Injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N / Rte 140
8/12/2004	7:50:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			RAMP FROM RT 140 TO RT 24 NB, TA - ROUTE 140 Rte 140			ROUTE 140 Rte 140 / RAMP - RT 140 TO RT 24 NB
8/27/2004	5:30:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N
8/31/2004	5:10:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N
9/9/2004	4:15:00 PM	Non-Fatal Injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S
9/14/2004	7:15:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 N		100 feet S f rom Rte 140 N Milemarker 19.2	Rte 140 N
9/23/2004	6:00:00 PM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N
10/7/2004	6:15:00 AM	Non-Fatal Injury	4	1	0	Rear-end	Rear-end	Dry	Dawn	Clear			Rte 140 N	500 feet N f rom Exit 12 on Rte 140		Rte 140 N
10/13/2004	6:50:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear	Rte 140 N		ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N
10/29/2004	9:28:00 PM	Non-Fatal Injury	2	6	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			COUNTY STREET Rte 140			COUNTY STREET Rte 140 / Rte 140
11/1/2004	11:38:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N / STEVENS STREET
11/9/2004	5:42:00 PM	Non-Fatal Injury	3	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Cloudy/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S / Rte 140
11/22/2004	8:30:00 PM	Non-Fatal Injury	2	2	0	Head-on	Head-on	Dry	Dark - roadway not lighted	Clear/Clear			JUST SOUTH OF STEVENS STREET - COUNTY STREET Rte 140 S			COUNTY STREET Rte 140 S / STEVENS STREET
12/6/2004	8:20:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy	Rte 140 N	RAMP - RT 24 NB TO RT 140 NB				
12/7/2004	7:15:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Rain	Rte 140 S		ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S
12/10/2004	3:25:00 PM	Non-Fatal Injury	3	2	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N
12/16/2004	1:44:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			RTE 140 SB AT LIGHTS FOR RTE 24 - Rte 140 S			Rte 140 S
12/30/2004	12:07:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear			COUNTY STREET Rte 140 S			COUNTY STREET Rte 140 S / LINDEN STREET
12/31/2004	11:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 140 N			Rte 140 N
1/9/2005	12:20:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 12 on Rte 140		Rte 140 S
1/27/2005	4:40:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			STEVENS STREET RAMP - ROUTE 140 Rte 140 N			1500 feet S f rom Intersection ROUTE 140 Rte 140 N / RAMP - RT 140 NB TO STEVENS ST
2/10/2005	11:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	COUNTY STREET Rte 140					
2/11/2005	6:20:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 S
2/12/2005	2:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 140
2/24/2005	11:36:00 AM	Non-Fatal Injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			SOUTH OF EXIT 11 - Rte 140 N		Rte 140 N Milemarker 18.4	Rte 140 N
3/11/2005	1:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Snow						Rte 140 N / Rte 24
3/16/2005	6:10:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			HOLLOWAY STREET OVERPASS. - Rte 140 N			50 feet S from Intersection Rte 140 N / HOLLOWAY STREET
3/19/2005	8:55:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						Rte 140 N
3/28/2005	3:50:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						10 feet N from Intersection GUSBE STREET - TREMONT STREET Rte 140 N
4/5/2005	9:28:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			REST AREA - Rte 140			Rte 140 / Rte 140
4/27/2005	4:45:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
4/29/2005	7:20:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 N
5/9/2005	5:50:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Dawn	Rain/Cloudy						Rte 140 N
6/10/2005	3:30:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			SILVER CITY GALLERIA MALL - STEVENS STREET Rte 140 S			STEVENS STREET Rte 140 S
6/13/2005	10:13:00 AM	Non-Fatal Injury	2	3	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy						ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
6/17/2005	7:25:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 140 S / MYRICKS STREET Rte 79
6/23/2005	1:40:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	Rte 140 S	RAMP - RT 140 TO RT 24 NB				
6/23/2005	7:00:00 AM	Non-Fatal Injury	1	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 140
9/17/2005	8:16:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain	COUNTY STREET Rte 140 N	Rte 24				
10/5/2005	6:20:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear						Rte 140 N
10/27/2005	4:38:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 N / RAMP - RT 140 NB TO RT 79
11/5/2005	11:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			140 SB EXIT - AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
11/8/2005	4:30:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 N
11/25/2005	9:23:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			OFF RAMP TO ROUTE 140 SB - Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
12/24/2005	5:30:00 PM	Non-Fatal Injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy/Cloudy						Rte 140 N
12/26/2005	12:28:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			EXIT 11B - Rte 140			Rte 140 / Rte 140
1/12/2006	8:13:00 PM	Non-Fatal Injury	2	5	0	Angle	Angle	Dry	Dark - lighted roadway	Clear						943 COUNTY STREET Rte 140 S
1/23/2006	7:58:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)/Clear						Rte 140 N
2/1/2006	12:10:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						ROUTE 140 Rte 140 / COUNTY STREET
2/10/2006	3:24:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear			OFF RAMP			STEVENS STREET Rte 140 / Rte 140
2/15/2006	7:58:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear			RTE 140 NB 1/2 MILE SOUTH EXIT			Rte 140 N
3/11/2006	4:10:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 S
3/30/2006	11:46:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			ROBERT STUDLEY BRIDGE			TREMONT AVENUE Rte 140 S / Rte 140
3/31/2006	12:40:00 PM	Non-Fatal Injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ON RAMP			MYRICKS STREET Rte 140 / Rte 140
4/17/2006	1:15:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			PRIOR TO EXIT 11			Rte 140 S
5/3/2006	4:00:00 AM	Non-Fatal Injury	2	3	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 140
6/5/2006	8:00:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Dusk	Clear						COUNTY STREET Rte 140 / Rte 140
6/17/2006	9:16:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy						COUNTY STREET Rte 140 S / RAMP - RT 24 SB TO RT 140
6/21/2006	7:10:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 140 S
7/1/2006	6:47:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			EXIT 12			ROUTE 140 Rte 140 / RAMP - RT 140 TO RT 24 NB
7/28/2006	7:48:00 PM	Non-Fatal Injury	2	2	0	Angle	Angle	Wet	Dusk	Cloudy/Rain						COUNTY STREET Rte 140 / TAUNTON DEPOT DRIVE Rte 140
8/4/2006	4:15:00 AM	Non-Fatal Injury	3	1	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 140 W / Rte 24
8/15/2006	10:12:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			RT 24 S OFF RAMP ONTO RT 140 S	Exit 12 on Rte 24 S		Rte 24 S / Rte 140
8/20/2006	4:15:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140	COUNTY STREET				
9/23/2006	2:05:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			OFF RAMP			RAMP - RT 24 NB TO RT 140 NB / Rte 140
9/27/2006	7:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N / Rte 140
10/7/2006	5:40:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 140 S	Rte 140 S				
10/20/2006	10:50:00 AM	Non-Fatal Injury	1	1	0	Head-on	Head-on	Wet	Daylight	Cloudy/Rain	MYRICKS STREET Rte 79 E	RAMP - RT 79 TO RT 140 SB Rte 140 S				
10/23/2006	1:05:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			MASS HWY			1000 COUNTY STREET Rte 140 N
10/25/2006	11:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP - RT 140 TO RT 24 NB
10/28/2006	3:15:00 PM	Non-Fatal Injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Severe cross winds			RTE 140 NB RAMP TO RTE24 N/B			RAMP - RT 140 TO RT 24 NB / Rte 24
6/12/2004	11:50:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 140 TO RT 24 SB Rte 140 S
8/22/2004	5:36:00 AM	Not Reported	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear/Clear			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N
10/30/2004	5:55:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy			AT EXIT # 10 OFF RAMP - Rte 140 S			Rte 140 S
12/3/2004	5:45:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy			Rte 140			Rte 140 / Rte 140
8/23/2005	4:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 140 N
10/10/2005	2:05:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						COUNTY STREET Rte 140 / Rte 140
12/4/2005	8:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow/Snow			GALLERIA MALL - COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N / STEVENS STREET
12/17/2005	7:30:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear						21 TREMONT STREET Rte 140
4/13/2006	4:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						HIGHWAY 24 Rte 24 S / Rte 140
6/4/2006	3:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear	Rte 140	COUNTY STREET				
7/8/2006	2:15:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain						ROUTE 140 Rte 140 / COUNTY STREET
8/21/2006	8:16:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			MASS HIGHWAY			ROUTE 140 Rte 140 N / COUNTY STREET
12/17/2006	10:12:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 140 S Milemarker 15.0	Rte 140 S
1/9/2004	7:29:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Rte 140 N			Rte 140 N
1/18/2004	12:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 140 S		10 feet N f rom Rte 140 S Milemarker 19.4	Rte 140 S
2/2/2004	7:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			RAMP - RT 140 TO RT 24 NB			RAMP - RT 140 TO RT 24 NB / Rte 140
2/2/2004	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			Rte 140 N		Rte 140 N Milemarker 18.4	Rte 140 N
2/2/2004	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			Rte 140 N		Rte 140 N Milemarker 18.4	Rte 140 N
4/16/2004	1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			RAMP - RT 140 TO RT 24 NB			RAMP - RT 140 TO RT 24 NB / Rte 140
4/16/2004	9:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Not reported	Clear			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - STEVENS ST TO RT 140 NB
4/28/2004	3:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear	Rte 24 N	RAMP - RT 24 NB TO RT 140 SB				
4/30/2004	5:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 140			Rte 140
5/2/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			100 feet W f rom STEVENS STREET - COUNTY STREET Rte 140 N			100 feet W f rom Intersection COUNTY STREET Rte 140 N / STEVENS STREET
5/5/2004	3:00:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
5/20/2004	6:20:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
6/7/2004	7:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			ROUTE 140 Rte 140			ROUTE 140 Rte 140 / COUNTY STREET
6/8/2004	9:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			END OF RAMP FROM RTE 140 NB - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
6/19/2004	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy			RAMP TO RT 24 NB - RAMP - RT 140 TO RT 24 NB			RAMP - RT 140 TO RT 24 NB / Rte 140
7/3/2004	9:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			NEAR RAMP FROM RT 140 NB. - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 140 NB
7/12/2004	8:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N
7/15/2004	4:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy			STEVENS STREET Rte 140			STEVENS STREET Rte 140 / Rte 140
8/3/2004	6:09:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N / Rte 140
8/5/2004	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 140 N			Rte 140 N
8/24/2004	7:26:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			COUNTY STREET			COUNTY STREET / Rte 140
9/8/2004	6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain/Cloudy			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
9/13/2004	12:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 140 S		ROUTE 140 Rte 140			ROUTE 140 Rte 140
9/15/2004	7:30:00 AM	Property damage only (none injured)	4	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 140			Rte 140 / Rte 24
9/21/2004	1:46:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear			COUNTY STREET Rte 140 S			COUNTY STREET Rte 140 S / Rte 140
9/30/2004	5:52:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear			Rte 140 N	Exit 12 on Rte 140		Rte 140 N
10/5/2004	2:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 140	Rte 24				
10/6/2004	5:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear			RAMP TO RTE 140 - AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
10/7/2004	7:27:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			COUNTY STREET Rte 140 S			COUNTY STREET Rte 140 S / LINDEN STREET
10/11/2004	9:52:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			COUNTY STREET Rte 140			COUNTY STREET Rte 140 / Rte 140
10/15/2004	7:55:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear	Rte 24 S	RAMP - RT 24 SB TO RT 140				
10/16/2004	2:25:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			COUNTY STREET Rte 140 S			COUNTY STREET Rte 140 S / STEVENS STREET
10/21/2004	2:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	COUNTY STREET Rte 140					
10/25/2004	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain			STEVENS STREET Rte 140 N			STEVENS STREET Rte 140 N
10/25/2004	6:30:00 AM	Property damage only (none injured)	3	0	0	Head-on	Head-on	Wet	Dawn	Cloudy/Rain	Rte 140					
10/25/2004	6:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dawn	Rain/Cloudy			1/2 MILE SOUTH OF RT 140 SB EXIT. - AMVETS MEMORIAL HIGHWAY Rte 24 N			2640 feet S from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 140 SB
10/25/2004	7:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dawn	Rain/Cloudy			SOUTH OF RAMP TO RT 140 SB EXIT. - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS ME

TAUNTON	1/1/2004	12/31/2006	Intersection is similar to:														
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
2/24/2005	3:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			ROUTE 79 OVER PASS - Rte 140 E			Rte 140 E
3/11/2005	7:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						140 STEVENS STREET Rte 140 N
4/21/2005	11:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						ROUTE 140 Rte 140 N / RAMP - RT 140 NB TO STEVENS ST
4/22/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
4/28/2005	4:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
4/28/2005	7:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 140 N	RAMP - STEVENS ST TO RT 140 NB				
5/2/2005	12:35:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						STEVENS STREET / RAMP - RT 140 NB TO STEVENS ST Rte 140 N
5/7/2005	5:52:00 PM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						COUNTY STREET Rte 140 S / Rte 140
5/10/2005	9:50:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						RAMP - RT 24 SB TO RT 140 / Rte 140
5/26/2005	6:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
6/1/2005	6:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 12A on Rte 140		Rte 140 N
6/17/2005	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 S
6/21/2005	6:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 N
6/30/2005	7:22:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy			50 feet E from MABS HIGHWAY - COUNTY STREET Rte 140 N			COUNTY STREET Rte 140 N
7/1/2005	1:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						COUNTY STREET Rte 140 / Rte 140
7/1/2005	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
7/1/2005	10:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear	Rte 140 N	COUNTY STREET				
7/10/2005	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 24		Rte 24 / Rte 140
7/12/2005	1:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						COUNTY STREET / Rte 140
7/15/2005	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140 N					
7/20/2005	1:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			GALLERIA MALL DRIVE - STEVENS STREET			STEVENS STREET / RAMP - RT 140 NB TO RT 79 Rte 140
7/26/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 N
7/27/2005	7:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 140 N	RAMP - RT 140 TO RT 24 SB				
8/2/2005	4:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	Rte 140 S					
8/12/2005	5:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						COUNTY STREET Rte 140 / Rte 140
8/19/2005	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						COUNTY STREET Rte 140 / Rte 140
8/28/2005	2:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						COUNTY STREET Rte 140 S / MOZZONE BOULEVARD
9/4/2005	9:37:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						1000 feet N from Intersection Rte 140 N / Rte 79
9/14/2005	6:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						COUNTY STREET Rte 140 N / STEVENS STREET
9/19/2005	4:09:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			STEVENS STREET OFF RAMP - Rte 140 S			Rte 140 S
9/26/2005	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			JUST PRIOR TO RAMP TO 24 NB - ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
9/30/2005	7:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					1 feet N from Rte 140 S Milemarker 16.0	Rte 140 S
10/4/2005	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140					
10/12/2005	11:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			END OF RAMP FROM RT 24SB TO RT 1 - RAMP - RT 24 SB TO RT 140			RAMP - RT 24 SB TO RT 140
10/14/2005	8:08:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Rain	RAMP - RT 140 TO RT 24 NB Rte 140 S					
10/23/2005	7:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 140 S
10/26/2005	12:02:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						COUNTY STREET Rte 140 N / MOZZONE BOULEVARD
10/28/2005	9:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Snow	Rte 140					
11/4/2005	7:02:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						1000 COUNTY STREET Rte 140 S
11/13/2005	11:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy						Rte 140 N
11/14/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Cloudy					Rte 140 S Milemarker 18.6	Rte 140 S
11/15/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 140	Rte 24				
11/22/2005	7:07:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain			PRIOR TO RAMP FOR RT 24NB. - ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
11/22/2005	9:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			TOP OF RAMP FROM 140 TO RT 24 NB - RAMP - RT 140 TO RT 24 NB			RAMP - RT 140 TO RT 24 NB
11/29/2005	8:51:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						COUNTY STREET Rte 140 / Rte 140
11/30/2005	8:39:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy						STEVENS STREET Rte 140 N
12/1/2005	7:45:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear			NORTH OF ROUTE 79 - Rte 140 N			Rte 140 N
12/3/2005	5:52:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear					200 feet S from Rte 140 N Milemarker 18.9	Rte 140 N
12/4/2005	2:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Cloudy			NEAR INTERSECTION FOR RT 24NB. - ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S / RAMP - RT 140 TO RT 24 NB
12/4/2005	12:10:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Snow						819 COUNTY STREET Rte 140
12/15/2005	8:04:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 N
12/20/2005	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 140 S	Rte 24 N				
12/26/2005	1:08:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	RAMP - RT 140 TO RT 24 NB Rte 140 S					
1/3/2006	5:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow			EXIT 10			2 feet W from Intersection Rte 140 N
1/4/2006	8:11:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 12A on Rte 140 N		Rte 140 N
1/7/2006	2:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			X10			33 feet E from Intersection Rte 140 S
1/8/2006	2:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Cloudy	RAMP - RT 24 SB TO RT 140 Rte 24 S	RAMP - RT 24 SB TO RT 140 Rte 24 S				
1/12/2006	5:16:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						COUNTY STREET Rte 140 N / Rte 140
1/14/2006	3:38:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			AT REST AREA			Rte 140 S
1/17/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 24 S / Rte 140
1/20/2006	3:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 140 N / Rte 24
1/25/2006	4:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy						Rte 24 S / Rte 140
1/31/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 140
2/13/2006	10:33:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Clear/Clear						Rte 140 N
2/15/2006	9:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 140 N Milemarker 16.3	Rte 140 N
3/7/2006	2:47:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						RAMP - RT 140 TO RT 24 NB Rte 140 / Rte 24
3/7/2006	2:47:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 12 on Rte 140		COUNTY STREET Rte 140
3/10/2006	7:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 140 N
3/25/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle) Sleet, hail (freezing rain or drizzle)			APPROX 150 FT PRIOR TO THE RT 79			Rte 140 S / Rte 79
4/4/2006	7:46:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						Rte 140 N
4/6/2006	7:38:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						ROUTE 140 Rte 140 / RAMP - RT 140 NB TO STEVENS ST
4/18/2006	1:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140	Rte 24 / RAMP - RT 140 TO RT 24 NB				Rte 140
4/24/2006	7:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 140	COUNTY STREET				
4/25/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			NECK			30 feet N from Intersection COUNTY STREET Rte 140 S / Rte 140
4/26/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 11 on Rte 24		Rte 24 / Rte 140
5/3/2006	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						Rte 140 N
5/4/2006	5:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear						Rte 140 N
5/5/2006	2:24:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						Rte 140 N
5/13/2006	9:37:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy				Exit 12 on Rte 24 S		RAMP - RT 24 SB TO RT 140 Rte 24 S
5/16/2006	2:42:00 PM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy			EXIT 10	Exit 10 on Rte 140 N		Rte 140 N
5/16/2006	4:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						10 feet N from Intersection Rte 24 N / Rte 140
5/16/2006	5:25:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						150 feet N from Intersection Rte 24 S / Rte 140
5/17/2006	5:06:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			MASS HIGHWAY DIST 5			COUNTY STREET Rte 140 N
5/20/2006	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 140 S	Rte 24 N				
5/24/2006	6:47:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy						ROUTE 140 Rte 140 / Rte 140
5/30/2006	10:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						ROUTE 140 Rte 140 / Rte 140
5/31/2006	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 S
6/10/2006	1:38:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 N
6/26/2006	10:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			ROUTE 24			5280 feet S from Intersection Rte 140 N / Rte 24
6/29/2006	6:53:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 140 S	RAMP - RT 140 TO RT 24 NB				
8/2/2006	7:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	RAMP - RT 140 NB TO STEVENS ST	STEVENS STREET				
8/11/2006	7:53:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM RTE 24SB TO RTE 140			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
9/7/2006	1:48:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						COUNTY STREET Rte 140 / TAUNTON DEPOT DRIVE Rte 140
9/12/2006	7:35:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 140 / Rte 140
9/18/2006	4:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			JUST NORTH OF ROUTE 140 RAMP			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
9/19/2006	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N / Rte 140
9/29/2006	3:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Cloudy/Cloudy						COUNTY STREET Rte 140 N / STEVENS STREET
10/10/2006	8:09:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 140 S
10/15/2006	8:34:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear	RAMP - RT 140 TO RT 24 NB	Rte 24 N / Rte 140				
11/6/2006	10:06:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 140 N
11/9/2006	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy						Rte 140 N
11/12/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain/Cloudy						100 feet N from Intersection 605 COUNTY STREET Rte 140 S / HART STREET
11/13/2006	1:19:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain	Rte 140 N	Rte 24 S				
11/27/2006	3:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 140 N
11/30/2006	12:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			REST AREA			Rte 140 N
12/1/2006	9:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dawn	Rain						ROUTE 140 Rte 140 / COUNTY STREET
12/5/2006	7:29:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						COUNTY STREET Rte 140 / Rte 24
12/13/2006	3:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain						COUNTY STREET Rte 140 / RAMP - COUNTY ST TO RT 140 SB Rte 24
12/17/2006	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	COUNTY STREET Rte 140	Rte 24	EXIT 12B RAMP			
12/17/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear						Rte 24 / Rte 140
12/20/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP - RT 140 TO RT 24 NB Rte 140
2/11/2004	2:10:00 PM	Unknown	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	Rte 140					
10/16/2004	7:05:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 140 N	Exit 11 on Rte 140		Rte 140 N
12/13/2004	5:57:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain			COUNTY STREET Rte 140			600 feet N from Intersection COUNTY STREET Rte 140 / Rte 24

FREETOWN (ASSONET)	1/1/2004	12/31/2006	is similar to: rte 24 route 24										
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Address/Landmark	Exit Distance	Feet_From
3/11/2005	2:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Snow	24 SB AT EXIT - 10. - Rte 24 S	Exit 10 on Rte 24 S	Rte 24 S
3/12/2005	9:00:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow			Rte 24 S / Rte 79
8/25/2006	3:00:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain		Exit 9 on Rte 24 S	Rte 24 S
8/13/2004	7:45:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Dusk	Cloudy	Rte 24 S		Rte 24 S
12/10/2004	10:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain	Rte 24 S		Rte 24 S
1/22/2005	4:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Snow	Dusk	Snow		Exit 10 on Rte 24	Rte 24
2/21/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Snow/Snow	END OF RAMP FROM 24S TO X-10. - Rte 24		Rte 24 / NORTH MAIN STREET Rte 24
3/12/2005	8:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Cloudy	24SB NO OF X -10. - Rte 24 S	Exit 10 on Rte 24 S	Rte 24 S
5/21/2005	9:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy	RT 24 NB, NO OF X-9. - Rte 24 N	Exit 9 on Rte 24	Rte 24 N
11/7/2006	3:30:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		Exit 9 on Rte 24 S	Rte 24 S
7/26/2005	6:15:00 AM	Unknown	1	0	0	Unknown	Unknown	Dry	Daylight	Clear			Rte 24 N

AVON	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 24 route 24												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Object_hit	Collision_with	Road_Surface	Lighting	Weather	Street	Address/Landmark	Exit Distance	Feet_From
10/20/2006	3:00:00 AM	Fatal injury	1	1	1	Single vehicle crash		Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain		EXIT 19	Exit 19 on Rte 24 S	Rte 24 S
1/9/2004	11:45:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear		Rte 24 S	Exit 19A on Rte 24 S	Rte 24 S / RAMP - RT 24 SB TO CENTRAL ST
3/10/2004	3:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear		Rte 24 S	Exit 19A on Rte 24 S	Rte 24 S
3/11/2004	11:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear		AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 19B on Rte 24 S	AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO HARRISON BLVD
3/14/2004	5:05:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Cloudy		Rte 24 N	Exit 19B on Rte 24 N	Rte 24 N / CENTRAL STREET
3/16/2004	5:30:00 PM	Non-fatal injury	4	1	0	Rear-end		Rear-end	Snow	Daylight	Snow		Rte 24 S		Rte 24 S
4/19/2004	3:15:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear/Clear		Rte 24 S	150 feet S from Exit 19B on Rte 24 S	Rte 24 S
5/3/2004	1:15:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Wet	Daylight	Rain		JORDANS FURNITURE - Rte 24 N		Rte 24 N
5/5/2004	7:45:00 AM	Non-fatal injury	3	1	0	Rear-end		Rear-end	Dry	Daylight	Clear		Rte 24 N	Exit 19A on Rte 24 N	Rte 24 N
5/11/2004	7:25:00 PM	Non-fatal injury	3	2	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear		Rte 24 N		Rte 24 N / HARRISON BOULEVARD
6/2/2004	3:15:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Wet	Daylight	Rain/Rain		BY JORDONS FURNITURE - Rte 24 S		Rte 24 S
6/20/2004	11:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear		Rte 24 S	10 feet S from Exit 19B on Rte 24 S	Rte 24 S
7/2/2004	1:05:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Not reported	Daylight	Clear		Rte 24 S	1000 feet N from Exit 19A on Rte 24 S	Rte 24 S
7/11/2004	9:45:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear		Rte 24 S	Exit 19A on Rte 24 S	Rte 24 S
7/26/2004	2:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear		Rte 24 S	800 feet S from Exit 19B on Rte 24 S	Rte 24 S
8/15/2004	10:40:00 PM	Non-fatal injury	3	3	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Dark - lighted roadway	Clear		AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO CENTRAL ST
8/17/2004	6:02:00 AM	Non-fatal injury	3	1	0	Rear-end		Rear-end	Wet	Dawn	Cloudy/Cloudy		Rte 24 N	5000 feet S from Exit 19A on Rte 24 N	Rte 24 N
8/27/2004	4:20:00 PM	Non-fatal injury	2	1	0	Angle		Angle	Dry	Daylight	Clear		Rte 24 S	5000 feet S from Exit 19A on Rte 24 S	Rte 24 S
9/12/2004	4:10:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear/Clear		Rte 24 S	Exit 19A on Rte 24 S	Rte 24 S
9/23/2004	4:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear		40 feet N from OF "ATTRACTIONS 18B SIGN (BLUE)" - Rte 24 S		Rte 24 S
9/27/2004	9:15:00 AM	Non-fatal injury	3	1	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear		Rte 24 N	Exit 19A on Rte 24 N	Rte 24 N
10/11/2004	3:04:00 PM	Non-fatal injury	1	6	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear		Rte 24 N	100 feet N from Exit 19B on Rte 24 N	Rte 24 N
10/17/2004	2:46:00 AM	Non-fatal injury	2	2	0	Rear-end		Rear-end	Wet	Dark - roadway not lighted	Rain/Cloudy		Rte 24 S	3000 feet S from Exit 19B on Rte 24 S	Rte 24 S
11/3/2004	7:45:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear		Rte 24	Exit 19A on Rte 24	Rte 24
11/13/2004	10:25:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Slush	Daylight	Cloudy/Snow		Rte 24 S	Exit 19B on Rte 24 S	Rte 24 S
12/1/2004	4:49:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear/Clear		TOP OF THE RAMP AT EXIT 19 A - Rte 24 N	Exit 19A on Rte 24 N	Rte 24 N
12/16/2004	1:25:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear		AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 19 on Rte 24 N	AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO HARRISON BLVD
12/22/2004	5:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy		Rte 24 S	1500 feet S from Exit 19A on Rte 24 S	Rte 24 S
12/28/2004	3:00:00 PM	Non-fatal injury	3	3	0	Not reported		Not reported	Dry	Daylight	Clear		Rte 24	Exit 19A on Rte 24	Rte 24
12/28/2004	11:00:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Not reported	Daylight	Clear		Rte 24	Exit 19A on Rte 24	Rte 24
1/25/2005	8:00:00 PM	Non-fatal injury	2	1	0	Angle		Angle	Wet	Dark - roadway not lighted	Cloudy				RAMP - HARRISON BLVD TO RT 24 NB / Rte 24
2/4/2005	6:08:00 PM	Non-fatal injury	2	2	0	Not reported		Not reported	Not reported	Not reported	Not Reported			Exit 19A on Rte 24 N	HARRISON BOULEVARD Rte 24 N
2/21/2005	10:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Snow	Daylight	Cloudy/Snow		2 MILES NORTH OF HARRISON BLVD - Rte 24 N	Exit 19B on Rte 24 N	Rte 24 N
3/14/2005	4:21:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19A on Rte 24 S	Rte 24 S
3/30/2005	6:10:00 AM	Non-fatal injury	2	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 N	Rte 24 N
4/15/2005	7:03:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear		1000 feet S from HARRISON BLVD. - Rte 24 S		1000 feet S from Intersection Rte 24 S / HARRISON BOULEVARD
4/28/2005	4:10:00 PM	Non-fatal injury	3	1	0	Rear-end		Rear-end	Dry	Daylight	Cloudy		1.5 MILES NORTH OF RT. 27 - Rte 24 S		7920 feet N from Intersection Rte 24 S / Rte 27
6/11/2005	8:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Not reported	Clear				Rte 24
6/14/2005	6:50:00 AM	Non-fatal injury	3	1	0	Rear-end		Rear-end	Dry	Daylight	Clear				AMVETS MEMORIAL HIGHWAY Rte 24 N / EDWARD S HARRISON BOULEVARD
6/17/2005	9:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			1000 feet S from Exit 19A on Rte 24 N	Rte 24 N
6/17/2005	10:32:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Exit 19B on Rte 24 N	Rte 24 N
6/18/2005	1:09:00 PM	Non-fatal injury	1	2	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Cloudy			20 feet S from Exit 19A on Rte 24 S	Rte 24 S
7/1/2005	3:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear				HARRISON BOULEVARD / Rte 24
8/11/2005	2:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 S	Rte 24 S
8/29/2005	4:15:00 PM	Non-fatal injury	3	1	0	Rear-end		Rear-end	Wet	Daylight	Rain/Cloudy			300 feet N from Exit 19A on Rte 24 S	Rte 24 S
8/30/2005	8:40:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Wet	Daylight	Rain		PRIOR TO SPLIT - Rte 24 N		Rte 24 N
8/31/2005	7:30:00 AM	Non-fatal injury	1	2	0	Single vehicle crash		Single vehicle crash	Wet	Daylight	Cloudy				AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO HARRISON BLVD
9/8/2005	8:45:00 AM	Non-fatal injury	3	2	0	Rear-end		Rear-end	Dry	Daylight	Clear			Exit 19A on Rte 24 N	Rte 24 N
9/16/2005	8:20:00 AM	Non-fatal injury	2	1	0	Not reported		Not reported	Wet	Daylight	Rain				Rte 24 / Rte 24
9/17/2005	5:45:00 AM	Non-fatal injury	2	1	0	Angle		Angle	Wet	Dark - roadway not lighted	Rain/Rain			5280 feet N from Exit 19A on Rte 24 S	Rte 24 S
10/3/2005	3:56:00 PM	Non-fatal injury	4	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear/Clear			500 feet N from Exit 19A on Rte 24 S	Rte 24 S
10/17/2005	9:20:00 AM	Non-fatal injury	3	2	0	Rear-end		Rear-end	Dry	Daylight	Clear		HIGHWAY SIGN RT 139 - AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-HARRISON BLVD TO RT 24 NB
10/18/2005	6:45:00 AM	Non-fatal injury	3	2	0	Rear-end		Rear-end	Wet	Daylight	Rain			Exit 19A on Rte 24	Rte 24 / Rte 24
10/31/2005	10:50:00 AM	Non-fatal injury	2	2	0	Rear-end		Rear-end	Dry	Daylight	Clear			100 feet S from Exit 19A on Rte 24 N	Rte 24 N
12/10/2005	1:00:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Unknown	Dark - roadway not lighted	Cloudy			Exit 19A on Rte 24	Rte 24
12/22/2005	7:05:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear			Exit 19A on Rte 24 N	Rte 24 N
12/25/2005	5:05:00 PM	Non-fatal injury	3	6	0	Angle		Angle	Dry	Dark - roadway not lighted	Cloudy/Cloudy		ON RAMP FROM HARRISSON BLVD. TO - Rte 24 N	Exit 19A on Rte 24 N	Rte 24 N
1/27/2006	5:27:00 PM	Non-fatal injury	1	2	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear				100 feet W from Intersection EDWARD S HARRISON BOULEVARD / Rte 24
2/4/2006	3:50:00 PM	Non-fatal injury	3	1	0	Rear-end		Rear-end	Dry	Daylight	Cloudy/Cloudy			Exit 19B on Rte 24 S	Rte 24 S
2/7/2006	5:39:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear			1500 feet N from Exit 19B on Rte 24 S	Rte 24 S
2/9/2006	11:50:00 AM	Non-fatal injury	1	4	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 S	Rte 24 S
2/16/2006	1:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 S	Rte 24 S
3/9/2006	1:02:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear				Rte 24 N
3/12/2006	9:24:00 PM	Non-fatal injury	4	7	0	Head-on		Head-on	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Exit 19A on Rte 24 N	Rte 24 N
3/18/2006	3:55:00 PM	Non-fatal injury	1	3	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear				Rte 24 S
3/19/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			1000 feet S from Exit 19B on Rte 24 N	Rte 24 N
3/28/2006	9:03:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Exit 19A on Rte 24 S	Rte 24 S
3/29/2006	8:05:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear			400 feet N from Exit 19B on Rte 24	Rte 24
4/10/2006	8:33:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24 N
4/23/2006	4:20:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Wet	Dark - roadway not lighted	Rain			Exit 19A on Rte 24	Rte 24
4/27/2006	8:29:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19A on Rte 24 N	Rte 24 N
5/3/2006	11:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Wet	Daylight	Rain/Cloudy			Exit 19A on Rte 24	AMVETS MEMORIAL HIGHWAY Rte 24 / EDWARD S HARRISON BOULEVARD
5/20/2006	9:20:00 PM	Non-fatal injury	2	1	0	Angle		Angle	Dry	Dark - roadway not lighted	Clear/Clear			Exit 19B on Rte 24 N	Rte 24 N
5/22/2006	7:30:00 AM	Non-fatal injury	2	3	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 N	Rte 24 N
5/28/2006	3:53:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear			Exit 19A on Rte 24 N	Rte 24 N
5/29/2006	4:20:00 PM	Non-fatal injury	2	5	0	Angle		Angle	Dry	Daylight	Clear/Clear				Rte 24 S
6/29/2006	11:42:00 PM	Non-fatal injury	2	2	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24 S
7/13/2006	6:32:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear				Rte 24 N
8/4/2006	10:32:00 AM	Non-fatal injury	1	2	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Cloudy			Exit 19B on Rte 24 S	AMVETS MEMORIAL HIGHWAY Rte 24 S
8/13/2006	1:55:00 PM	Non-fatal injury	2	2	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 S	Rte 24 S
8/29/2006	5:10:00 PM	Non-fatal injury	3	1	0	Sideswipe, same direction		Sideswipe, same direction	Wet	Daylight	Cloudy/Rain			Exit 19B on Rte 24 N	Rte 24 N
9/3/2006	6:29:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Wet	Dawn	Rain/Rain				Rte 24 N
10/23/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Wet	Dusk	Rain/Cloudy		ON RAMP	Exit 19B on Rte 24 N	CENTRAL STREET Rte 24 N
11/5/2006	2:38:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear			500 feet N from Exit 19B on Rte 24 S	Rte 24 S
11/21/2006	3:50:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear				EDWARD S HARRISON BOULEVARD / Rte 24
12/10/2006	1:42:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24
12/29/2006	12:30:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear				AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-HARRISON BLVD TO RT 24 NB
6/10/2004	12:00:00 AM	Not Reported	3	0	0	Rear-end		Rear-end	Wet	Daylight	Cloudy/Rain		Rte 24	Exit 19A on Rte 24	Rte 24
9/22/2004	6:00:00 AM	Not Reported	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		Rte 24 S	Exit 19B on Rte 24 S	Rte 24 S
1/29/2005	2:40:00 AM	Not Reported	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Dark - roadway not lighted	Clear			2500 feet S from Exit 19B on Rte 24 N	Rte 24 N
2/2/2005	8:45:00 AM	Not Reported	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear			Exit 19A on Rte 24 S	Rte 24 S
8/12/2005	3:00:00 PM	Not Reported	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear				Rte 24
11/23/2005	7:10:00 AM	Not Reported	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Daylight	Rain/Snow			2200 feet S from Exit 19A on Rte 24 N	Rte 24 N
1/23/2006	7:14:00 AM	Not Reported	1	0	0	Single vehicle crash		Single vehicle crash	Snow	Daylight	Snow		ENTER TO RAMP		94 feet W from Intersection RAMP-HARRISON BLVD TO RT 24 NB / HARRISON BOULEVARD
6/20/2006	9:36:00 PM	Not Reported	2	0	0	Angle		Angle	Wet	Dark - lighted roadway	Rain/Rain			1000 feet N from Exit 19A on Rte 24 S	Rte 24 S
6/30/2006	5:10:00 PM	Not Reported	2	0	0	Not reported		Not reported	Dry	Daylight	Clear			Exit 19A on Rte 24	Rte 24 / EDWARD S HARRISON BOULEVARD
1/5/2004	7:45:00 AM	Property damage only (none injured)	3	0	0	Not reported		Not reported	Wet	Dawn	Cloudy		Rte 24	Exit 19A on Rte 24	Rte 24
2/3/2004	6:45:00 AM	Property damage only (none injured)	4	0	0	Rear-end		Rear-end	Wet	Daylight	Cloudy		Rte 24 N	1000 feet N from Exit EXT 20 on Rte 24	Rte 24 N
2/5/2004	1:00:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear		Rte 24 S	Exit 19A on Rte 24 S	Rte 24 S
3/9/2004	11:36:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear		Rte 24 S	1500 feet N from Exit 19A on Rte 24 S	Rte 24 S
3/12/2004	3:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Daylight	Snow/Blowing sand, snow		AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 19A on Rte 24 N	AMVETS MEMORIAL HIGHWAY Rte 24 N
3/15/2004	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 19B on Rte 24 N	AMVETS MEMORIAL HIGHWAY Rte 24 N
3/23/2004	2:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear		Rte 24 N	Exit 19A on Rte 24 N	Rte 24 N
4/4/2004	8:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear		EDWARD S HARRISON BOULEVARD		EDWARD S HARRISON BOULEVARD / RAMP-HARRISON BLVD TO RT 24 NB
4/8/2004	5:25:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear/Clear		Rte 24 S	30 feet N from Exit 19B on Rte 24 S	Rte 24 S
5/8/2004	2:20:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear		Rte 24 S	1000 feet N from Exit 19 on Rte 24 S	1000 feet N from Intersection Rte 24 S / EDWARD S HARRISON BOULEVARD
5/11/2004	6:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		Rte 24 N		Rte 24 N
5/25/2004	7:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / EDWARD S HARRISON BOULEVARD
6/2/2004	3:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Wet	Daylight	Rain/Rain		Rte 24 S		Rte 24 S
6/2/2004	12:09:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Wet	Dark - lighted roadway	Cloudy/Fog, smog, smoke		Rte 24 S	1500 feet N from Exit 19A on Rte 24 S	Rte 24 S
6/3/2004	3:30:00 PM	Property damage only (none injured)	1	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy		Rte 24 S	Exit 19A on Rte 24 S	Rte 24 S
6/10/2004	3:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Cloudy/Cloudy		Rte 24 S		Rte 24 S

AVON	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 24 route 24													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Object_hit	Collision_with	Road_Surface	Lighting	Weather	Street	Address/Landmark	Exit Distance	Feet_From
6/21/2004	12:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Dark - lighted roadway	Clear/Clear		Rte 24 S	300 feet N from Exit 19 on Rte 24 S	Rte 24 S
6/21/2004	12:30:00 PM	Property damage only (none injured)	2	0	0	Head-on		Head-on	Dry	Dark - roadway not lighted	Clear		HARRISON BOULEVARD Rte 24		HARRISON BOULEVARD Rte 24 / Rte 1
6/24/2004	8:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear		Rte 24 S		Rte 24 S
7/29/2004	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Cloudy		Rte 24 S	5280 feet S from Exit 19A on Rte 24 S	Rte 24 S
7/29/2004	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear		Rte 24 S	150 feet S from Exit 19A on Rte 24 S	Rte 24 S
8/15/2004	7:50:00 AM	Property damage only (none injured)	2	0	0	Angle		Angle	Wet	Daylight	Rain/Rain		Rte 24	Exit 19B on Rte 24	Rte 24 / Rte 24
8/31/2004	5:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear	Rte 24 S			
9/16/2004	1:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		HARRISON BOULEVARD Rte 24 S		HARRISON BOULEVARD Rte 24 S
9/28/2004	12:15:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction		Sideswipe, same direction	Wet	Dark - roadway not lighted	Cloudy		Rte 24 N	5000 feet N from Exit 19B on Rte 24 N	Rte 24 N
10/28/2004	3:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear		Rte 24 S	2500 feet S from Exit 19A on Rte 24 S	Rte 24 S
11/2/2004	6:24:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear		Rte 24 S	2000 feet S from Exit 19A on Rte 24 S	Rte 24 S
12/16/2004	1:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 19 on Rte 24 N	AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO HARRISON BLVD
12/28/2004	11:38:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Daylight	Clear/Clear		Rte 24 N	Exit 19A on Rte 24 N	Rte 24 N
12/28/2004	11:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / EDWARD S HARRISON BOULEVARD
1/2/2005	6:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Dark - roadway not lighted	Rain				3000 feet N from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - CENTRAL ST TO RT 24 SB
1/8/2005	5:22:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Cloudy			2500 feet S from Exit 19B on Rte 24 S	Rte 24 S
1/13/2005	8:10:00 AM	Property damage only (none injured)	4	0	0	Rear-end		Rear-end	Dry	Daylight	Cloudy/Cloudy			Exit 19B on Rte 24 S	Rte 24 S
2/9/2005	7:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Exit 19B on Rte 24 S	Rte 24 S
2/19/2005	2:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear			3000 feet N from Exit 19B on Rte 24 S	Rte 24 S
2/21/2005	10:35:00 AM	Property damage only (none injured)	3	0	0	Angle		Angle	Snow	Daylight	Snow/Snow			1000 feet S from Exit 19A on Rte 24 S	Rte 24 S
2/27/2005	3:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy		ACROSS FROM COSTCO - Rte 24 N		Rte 24 N
2/28/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Ice	Daylight	Cloudy				AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO HARRISON BLVD
3/10/2005	12:55:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			500 feet S from Exit 19B on Rte 24 S	Rte 24 S
4/16/2005	9:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Cloudy		ACROSS FROM HOME DEPOT - Rte 24 S		Rte 24 S
5/4/2005	8:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Dusk	Cloudy		RAMP TO RTE 139 - Rte 24 N		Rte 24 N / Rte 139
5/14/2005	3:17:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy			5000 feet N from Exit 19B on Rte 24 S	Rte 24 S
5/15/2005	5:45:00 AM	Property damage only (none injured)	4	0	0	Rear-end		Rear-end	Dry	Dawn	Cloudy			15 feet N from Exit 19A on Rte 24 N	Rte 24 N
5/31/2005	1:35:00 PM	Property damage only (none injured)	4	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear/Clear		AT EXIT 18 N/B - Rte 24 N	Exit 18 on Rte 24	Rte 24 N
6/3/2005	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear				Rte 24 / Rte 24
6/10/2005	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear		ON RAMP TO 24 - Rte 24 S	Exit 19B on Rte 24 S	Rte 24 S
6/13/2005	2:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end		Rear-end	Dry	Daylight	Cloudy			1500 feet S from Exit 19A on Rte 24 N	Rte 24 N
6/25/2005	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 N	Rte 24 N
7/22/2005	5:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear			Exit 20 on Rte 24	Rte 24
7/30/2005	7:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			2640 feet S from Exit 19B on Rte 24 S	Rte 24 S
8/7/2005	4:45:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear/Clear		SOUTH EXIT 19 A - Rte 24 N	Exit 19A on Rte 24 N	Rte 24 N
9/2/2005	2:33:00 PM	Property damage only (none injured)	1	0	0	Unknown		Unknown	Dry	Daylight	Clear/Clear			5000 feet N from Exit 19A on Rte 24 N	Rte 24 N
9/24/2005	6:23:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear/Clear			Exit 19A on Rte 24 S	Rte 24 S
10/1/2005	1:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear			Exit 19B on Rte 24 S	Rte 24 S
10/8/2005	10:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			Exit 19B on Rte 24 N	Rte 24 N
10/31/2005	10:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			5280 feet S from Exit 19 on Rte 24 N	Rte 24 N
11/6/2005	4:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			700 feet N from Exit 19B on Rte 24 S	Rte 24 S
11/15/2005	1:16:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Exit 19B on Rte 24	Rte 24 / RAMP - RT 24 NB TO HARRISON BLVD
12/10/2005	6:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Wet	Dark - lighted roadway	Cloudy/Cloudy			400 feet S from Exit 19A on Rte 24 S	Rte 24 S
12/15/2005	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Not Reported			Exit 19B on Rte 24 N	Rte 24 N
12/19/2005	3:10:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear/Clear			Exit 19A on Rte 24 S	Rte 24 S
12/29/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Wet	Dark - lighted roadway	Rain/Rain			1500 feet N from Exit 19A on Rte 24 S	Rte 24 S
1/13/2006	1:28:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19A on Rte 24 N	Rte 24 N
2/9/2006	6:44:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear				EDWARD S HARRISON BOULEVARD Rte 24 S
2/14/2006	7:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			500 feet S from Exit 19B on Rte 24 N	Rte 24 N
2/14/2006	10:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			500 feet N from Exit 19B on Rte 24 S	Rte 24 S
2/21/2006	9:20:00 AM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear				Rte 24 N / EDWARD S HARRISON BOULEVARD
4/26/2006	1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 N	Rte 24 N
4/26/2006	4:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear			Exit 19A on Rte 24 S	Rte 24 S
4/27/2006	9:45:00 PM	Property damage only (none injured)	1	0	0	Angle		Angle	Dry	Dark - roadway not lighted	Clear/Clear			Exit 19B on Rte 24 N	Rte 24 N
5/13/2006	6:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Dusk	Cloudy/Rain			1000 feet S from Exit 19A on Rte 24 S	Rte 24 S
5/27/2006	11:47:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19A on Rte 24 S	Rte 24 S
6/6/2006	6:44:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			Exit 19A on Rte 24 N	Rte 24 N
7/10/2006	3:08:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			1500 feet S from Exit 19B on Rte 24 S	Rte 24 S
7/11/2006	7:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear				Rte 24 N
7/25/2006	8:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear			Exit 19A on Rte 24	Rte 24
8/7/2006	9:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Daylight	Cloudy/Cloudy			Exit 19B on Rte 24 N	Rte 24 N
8/16/2006	6:39:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			1000 feet N from Exit 19B on Rte 24 N	Rte 24 N
8/27/2006	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear			Exit 19A on Rte 24 S	Rte 24 S
9/11/2006	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear				EDWARD S HARRISON BOULEVARD Rte 24
9/29/2006	7:04:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear/Clear				Rte 24 N
10/8/2006	2:59:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear			Exit 19B on Rte 24 S	Rte 24 S
10/17/2006	11:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Wet	Dark - roadway not lighted	Rain		1000 feet N from EXIT 18B		Rte 24 S
10/18/2006	8:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end		Rear-end	Dry	Daylight	Cloudy				AMVETS MEMORIAL HIGHWAY Rte 24 N / EDWARD S HARRISON BOULEVARD
10/30/2006	5:03:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear			Exit 19A on Rte 24	EDWARD S HARRISON BOULEVARD Rte 24
11/16/2006	1:32:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Wet	Dark - roadway not lighted	Fog, smog, smoke/Rain			Exit 19A on Rte 24 S	Rte 24 S
11/26/2006	9:08:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Dark - lighted roadway	Clear/Clear		NORTH OF EXIT 18B	Exit 18 on Rte 24	Rte 24 N
12/4/2006	5:36:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Wet	Dark - roadway not lighted	Rain/Rain			Exit 19A on Rte 24 N	Rte 24 N
12/8/2006	6:51:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Wet	Daylight	Snow/Snow				Rte 24 N / EDWARD S HARRISON BOULEVARD
10/23/2006	9:20:00 PM	Unknown	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24 N
11/7/2006	3:55:00 PM	Unknown	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear/Clear				Rte 24 S

BERKLEY	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 24 route 24											
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Address/Landmark	Exit Distance	Mile Marker Distance	Feet From
8/18/2005	2:40:00 PM	Fatal injury	2	0	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear		Exit 10 on Rte 24		Rte 24 N
8/18/2006	7:34:00 AM	Fatal injury	2	2	1	Angle	Angle	Dry	Daylight	Clear/Clear	DRIVING NORTH	Exit 11 on Rte 24	Rte 24 Milemarker 13.1	Rte 24
1/17/2004	3:14:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy	Rte 24 S		Rte 24 S Milemarker 16.0	Rte 24 S
5/4/2004	11:28:00 PM	Non-fatal injury	3	3	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear	Rte 24 S		Rte 24 S Milemarker 15.8	Rte 24 S
5/6/2004	10:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	Rte 24 S	Exit 11 on Rte 24 S		Rte 24 S
6/4/2004	2:45:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	Rte 24 N			Rte 24 N
7/3/2004	2:58:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	Rte 24 N		Rte 24 N Milemarker 15.7	Rte 24 N
7/19/2004	8:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear/Clear	AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
7/22/2004	6:45:00 AM	Non-fatal injury	5	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 24 N			Rte 24 N
8/13/2004	5:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Cloudy/Cloudy	Rte 24 S	Exit 11 on Rte 24 S		Rte 24 S
8/13/2004	6:50:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 24 N			Rte 24 N
8/25/2004	5:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
8/27/2004	8:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear	Rte 24 S		Rte 24 S Milemarker 13.0	Rte 24 S
12/4/2004	8:01:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
12/6/2004	5:52:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dawn	Clear	Rte 24 N			1000 feet N from Intersection Rte 24 N / PADELFORD STREET
12/11/2004	11:45:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	Rte 24 S		Rte 24 S Milemarker 15.1	Rte 24 S
12/13/2004	9:35:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	Rte 24 S	Exit 11 on Rte 24 S		Rte 24 S
12/25/2004	3:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)/S	Rte 24 N			Rte 24 N
12/26/2004	6:42:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Snow	Dark - lighted roadway	Snow/Snow	BERKLEY FREETOWN LINE - Rte 24 S			Rte 24 S
1/1/2005	2:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy				Rte 24 S
4/12/2005	5:01:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Cloudy				PADELFORD STREET / Rte 24
4/12/2005	8:45:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear		1050 feet N from Exit 11 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP-PADELFORD ST TO RT 24 SB
5/17/2005	4:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear		Exit 11 on Rte 24 S		Rte 24 S
6/13/2005	7:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy	RT 24 NB FREETOWN/BERKLEY LINE. - Rte 24 N			Rte 24 N
6/27/2005	3:50:00 PM	Non-fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear		0 feet S from Exit 11 on Rte 24 S		Rte 24 S
6/27/2005	12:47:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear	PADEFORD - AMVETS MEMORIAL HIGHWAY Rte 24	Exit 11 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 / PADELFORD STREET
8/4/2005	4:17:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear/Clear		Exit 11 on Rte 24 S		Rte 24 S
8/8/2005	12:47:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24 N
9/17/2005	6:20:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	SOUTH OF PADELFORD STREET - Rte 24 S			Rte 24 S
9/17/2005	6:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	SOUTH OF PADELFORD STREET - Rte 24 S			Rte 24 S
9/27/2005	6:25:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear				Rte 24 N
12/4/2005	9:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Snow	AT PADELFORD STREET EXIT (EXIT 1 - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO PADELFORD ST
1/6/2006	1:37:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy				Rte 24 N / PADELFORD STREET
1/25/2006	12:50:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy	BERKLEY JUNCTION			BERKLEY STREET Rte 24 S / Rte 79
3/5/2006	6:17:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear		250 feet S from Exit 11 on Rte 24		Rte 24
3/22/2006	4:30:00 PM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear		Exit 11 on Rte 24 S		Rte 24 S
3/29/2006	11:10:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear		10000 feet N from Exit 11 on Rte 24 S		Rte 24 S
5/30/2006	7:26:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				100 feet S from Intersection Rte 24 N / PADELFORD STREET
6/10/2006	3:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain				RAMP-RT 24 SB TO PADELFORD ST Rte 24 / Rte 24
6/30/2006	2:10:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain		Exit 11 on Rte 24		Rte 24
7/14/2006	1:30:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear		Exit 11 on Rte 24 S		Rte 24 S
7/25/2006	11:35:00 AM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear		Exit 11 on Rte 24 S		Rte 24 S
7/30/2006	1:01:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear		Exit 11 on Rte 24 S		Rte 24 S
9/19/2006	2:25:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	HEADING NORTH	1500 feet N from Exit 11 on Rte 24		Rte 24
10/2/2006	7:28:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear	HEADING NORTH	2500 feet S from Exit 11 on Rte 24		Rte 24
10/16/2006	8:47:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Rte 24 N
11/6/2006	12:30:00 PM	Non-fatal injury	1	1	0	Angle	Angle	Dry	Daylight	Clear		Exit 12 on Rte 24		Rte 24
11/8/2006	8:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain		1 feet S from Exit 11 on Rte 24		Rte 24
3/24/2004	9:45:00 AM	Not Reported	1	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 24	100 feet N from Exit 11 on Rte 24		Rte 24
8/13/2005	11:25:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24 N
2/2/2004	7:40:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear	JUST SOUTH OF THE TAUNTON LINE. - Rte 24 N			Rte 24 N
2/12/2004	3:05:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	BETWEEN EXIT 10 AND 11 - Rte 24			Rte 24 / Rte 24
2/12/2004	3:57:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24 S	150 feet S from Exit 13 on Rte 24		Rte 24 S
4/15/2004	10:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy	Rte 24 N			Rte 24 N
5/17/2004	8:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy	Rte 24 S	Exit 11 on Rte 24 S		Rte 24 S
6/7/2004	7:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	50 feet N from FREETOWN TOWN LINE - Rte 24 S	Exit 11 on Rte 24 S		Rte 24 S
6/20/2004	5:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
7/3/2004	3:47:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	Rte 24	100 feet S from Exit 11 on Rte 24		Rte 24
7/13/2004	4:51:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	PADELFORD STREET			PADELFORD STREET / RAMP-PADELFORD ST TO RT 24 NB Rte 24
7/22/2004	6:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 24 N			Rte 24 N
8/13/2004	7:11:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	1/2 MILE SOUTH OF EXIT-11. - Rte 24 N			Rte 24 N
8/13/2004	12:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain	24 ELM STREET Rte 24			24 ELM STREET Rte 24 / Rte 79
9/11/2004	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear	Rte 24 N			Rte 24 N
9/16/2004	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain	Rte 24 S			Rte 24 S
9/16/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy	Rte 24 S	Exit 11 on Rte 24 S		Rte 24 S
11/1/2004	7:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	Rte 24 N			Rte 24 N
3/11/2005	3:59:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				PADELFORD STREET Rte 24 / Rte 24
3/14/2005	12:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N Milemarker 13.2	Rte 24 N
3/28/2005	2:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain		Exit 11 on Rte 24 S		Rte 24 S
3/28/2005	9:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain				Rte 24 S
4/20/2005	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Rte 24 S
4/27/2005	8:07:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain		Exit 11 on Rte 24 S		Rte 24 S
6/10/2005	1:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S Milemarker 13.5	Rte 24 S
6/13/2005	5:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Other				AMVETS MEMORIAL HIGHWAY Rte 24 S / BRYANT STREET
6/15/2005	6:38:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear		Exit 11 on Rte 24		Rte 24 / PADELFORD STREET
6/27/2005	12:47:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear		Exit 11 on Rte 24		Rte 24 / PADELFORD STREET
9/19/2005	12:40:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear		3000 feet S from Exit 11 on Rte 24 S		Rte 24 S
9/26/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				11 ELM STREET Rte 79 / Rte 24
9/27/2005	6:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain/Cloudy				Rte 24 N
11/5/2005	3:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Rte 24 N
12/3/2005	7:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Rte 24 N
12/10/2005	9:18:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Clear/Clear		50 feet S from Exit 11 on Rte 24 S		Rte 24 S
1/24/2006	9:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear		Exit 11 on Rte 24 S		Rte 24 S
2/6/2006	4:13:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S Milemarker 14.4	Rte 24 S
2/14/2006	9:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear		Exit 11 on Rte 24 S		Rte 24 S
5/13/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain		Exit 11 on Rte 24 S		Rte 24 S
6/7/2006	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain		Exit 11 on Rte 24		Rte 24
7/3/2006	10:30:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported				Rte 24
7/9/2006	1:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	3/4 MILE SOUTH OF TAUNTON/BERKLE			Rte 24 N
10/2/2006	7:28:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear	HEADING NORTH	2500 feet S from Exit 11 on Rte 24		Rte 24
10/5/2006	8:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Cloudy		Exit 11 on Rte 24		Rte 24
12/8/2006	3:32:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Rte 24 S
12/12/2006	1:29:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear		1000 feet S from Exit 11 on Rte 24 S		Rte 24 S
4/2/2005	12:38:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy	NORTH OF X 11 - AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 11 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-PADELFORD ST TO RT 24 NB
8/3/2006	4:10:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		Exit 10 on Rte 24		Rte 24

BRIDGEWATER	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 24 route 24													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
5/15/2005	1:55:00 AM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			NEAR RTE 24 - 659 ELM STREET			659 ELM STREET
12/23/2006	11:49:00 AM	Fatal injury	2	4	1	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Daylight	Rain/Rain			ON RAMP			AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP-RT 495 NB TO RT 24 NB
1/3/2004	3:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rearend	Wet	Dark- roadway not lighted	Fog, smog, smoke			Rte 24			Rte 24
1/6/2004	5:25:00 PM	Non-fatal injury	3	1	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	660 feet N from Exit 14B on Rte 24 S		Rte 24 S
1/7/2004	12:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP-RT 24 NB TO RT 495 NB			RAMP-RT 24 NB TO RT 495 NB / Rte 495
1/14/2004	5:07:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Cloudy			Rte 24 N	10 feet N from Exit 14 on Rte 24		Rte 24 N
2/6/2004	10:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Not reported	Snow/Cloudy			BETWEEN THE RTE 24 RAMPS - Rte 495 S	Exit 7 on Rte 495 S		Rte 495 S / Rte 24
2/28/2004	4:18:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	500 feet S from Exit 15 on Rte 24 S		Rte 24 S
3/6/2004	5:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark- roadway not lighted	Rain/Rain			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
4/2/2004	1:10:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Daylight	Cloudy			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
4/13/2004	12:35:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
6/2/2004	6:55:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Wet	Daylight	Rain/Fog, smog, smoke			Rte 24 N			Rte 24 N
6/4/2004	4:20:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			AT END OF RAMP FROM BURGER KING P - AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
6/10/2004	1:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 495 NB
6/15/2004	4:41:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14A on Rte 24 S		Rte 24 S
7/10/2004	8:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
7/31/2004	4:04:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
8/1/2004	11:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 N	300 feet S from Exit 15 on Rte 24 N		Rte 24 N
8/15/2004	6:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Rain/Rain			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
9/7/2004	7:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	Exit 14B on Rte 24 S		Rte 24 S
9/19/2004	1:15:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14A on Rte 24 S		Rte 24 S
9/19/2004	10:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
10/1/2004	4:45:00 PM	Non-fatal injury	2	2	0	Rear-end	Rearend	Dry	Daylight	Clear			Rte 24 N	20 feet N from Exit 17 on Rte 24		Rte 24 N
10/5/2004	5:53:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14A on Rte 24 S		Rte 24 S
10/21/2004	8:50:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
12/7/2004	12:25:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain			RTE 24S AT RTE 495 - Rte 24 S			Rte 24 S / Rte 495
12/21/2004	6:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark- roadway not lighted	Clear			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
12/28/2004	8:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Daylight	Cloudy	Rte 24 N					
12/30/2004	1:37:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			RAMP FROM RT 24 NORTH TO RT 104 - PLEASANT STREET Rte 104 E			PLEASANT STREET Rte 104 E / RAMP-RT 24 NB TO RT 104
1/4/2005	12:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark- roadway not lighted	Rain/Fog, smog, smoke					Rte 24 N Milemarker 25.0	Rte 24 N
1/25/2005	3:25:00 PM	Non-fatal injury	1	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24		Rte 24
2/5/2005	1:40:00 PM	Non-fatal injury	8	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
2/13/2005	5:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
2/16/2005	11:49:00 PM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
2/21/2005	11:25:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Snow/Cloudy			200 feet N from ROUTE 104 OVERPASS - Rte 24 N			Rte 24 N
3/10/2005	1:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 S
3/20/2005	12:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
4/3/2005	3:15:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
4/5/2005	11:04:00 AM	Non-fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				1250 feet N from Exit 15 on Rte 24 N		Rte 24 N
4/7/2005	11:30:00 PM	Non-fatal injury	3	4	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Cloudy	Rte 24 S	RAMP-RT 24 SB TO RT 104				
4/30/2005	6:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
5/18/2005	5:35:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Wet	Daylight	Clear/Clear				Exit 14A on Rte 24 S		Rte 24 S
5/27/2005	8:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear					Rte 24 S Milemarker 23.3	AMVETS MEMORIAL HIGHWAY Rte 24 S
6/5/2005	11:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 14B on Rte 24 S		Rte 24 S
6/14/2005	5:10:00 PM	Non-fatal injury	3	1	0	Rear-end	Rearend	Dry	Daylight	Cloudy				Exit 14B on Rte 24 S		Rte 24 S
6/16/2005	4:30:00 PM	Non-fatal injury	4	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 14A on Rte 24 S		Rte 24 S
6/17/2005	6:44:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
6/19/2005	2:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear/Clear			BURGER KING REST AREA - AMVETS MEMORIAL HIGHWAY Rte 24 N		Rte 24 N Milemarker 23.3	AMVETS MEMORIAL HIGHWAY Rte 24 N / Rte 495
7/5/2005	8:51:00 AM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Daylight	Clear						1000 feet E from Intersection 1348 PLEASANT STREET / Rte 24
8/7/2005	12:46:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N
8/18/2005	10:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 14A on Rte 24 S		Rte 24 S
8/26/2005	5:30:00 PM	Non-fatal injury	3	1	0	Rear-end	Rearend	Dry	Daylight	Clear	Rte 24					
9/2/2005	3:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				1000 feet N from Exit 15 on Rte 24 N		Rte 24 N
9/16/2005	6:25:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark- roadway not lighted	Cloudy/Cloudy				Exit 15 on Rte 24 S		Rte 24 S
9/29/2005	4:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Wet	Daylight	Cloudy/Rain						Rte 24 S
10/9/2005	5:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
11/17/2005	4:33:00 PM	Non-fatal injury	2	1	0	Rear-end	Rearend	Dry	Dusk	Clear/Cloudy						Rte 24 S
12/18/2005	3:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy						2640 feet W from Intersection Rte 24 N / RAMP - RT 24 NB TO RT 104
12/20/2005	4:55:00 PM	Non-fatal injury	3	1	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear/Clear				1000 feet N from Exit 15 on Rte 24 N		Rte 24 N
1/12/2006	6:13:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				500 feet N from Exit 15 on Rte 24 N		Rte 24 N
1/23/2006	12:06:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Sleet, hail (freezing rain or drizzle)/Snow				Exit 15 on Rte 24 N		Rte 24 N
1/25/2006	8:47:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				Exit 15 on Rte 24 S		Rte 24 S
1/25/2006	9:25:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Snow/Cloudy				Exit 15 on Rte 24 S		Rte 24 S
1/31/2006	2:29:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			RAMP 24 SB TO RTE 495 NB	Exit 14B on Rte 24 S		Rte 24 S / Rte 495
3/7/2006	8:45:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear				10000 feet N from Exit 15 on Rte 24 N		Rte 24 N
3/29/2006	8:04:00 AM	Non-fatal injury	5	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 24 N / Rte 104
5/1/2006	9:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Cloudy						Rte 24 N
5/4/2006	3:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
6/1/2006	9:10:00 PM	Non-fatal injury	4	4	0	Head-on	Head-on	Wet	Dark- roadway not lighted	Rain/Cloudy			BURGER KING REST AREA			1 ROUTE 24 SOUTH Rte 24 N
6/25/2006	8:24:00 AM	Non-fatal injury	3	2	0	Angle	Angle	Wet	Daylight	Rain						5280 feet N from Intersection Rte 24 N / Rte 104
6/25/2006	8:47:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain						Rte 24 S
6/28/2006	2:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain				Exit 15 on Rte 24		Rte 24
6/28/2006	4:53:00 PM	Non-fatal injury	3	1	0	Rear-end	Rearend	Wet	Daylight	Cloudy/Cloudy						Rte 24 S
6/30/2006	3:52:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain				Exit 15 on Rte 24 N		Rte 24 N
7/5/2006	4:03:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			JUST AFTER BURGER KING REST AREA	Exit 15 on Rte 24 N		Rte 24 N
7/20/2006	10:00:00 AM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Daylight	Clear						RAMP-RT 24 NB TO RT 104 / Rte 24
8/23/2006	5:20:00 AM	Non-fatal injury	5	1	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				250 feet N from Exit 15 on Rte 24 N		Rte 24 N
8/23/2006	12:55:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear/Clear				1000 feet N from Exit 15 on Rte 24 S		Rte 24 S
9/4/2006	2:05:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 S / Rte 495
9/11/2006	7:31:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				0 feet S from Exit 15 on Rte 24 S		Rte 24 S
9/14/2006	4:25:00 PM	Non-fatal injury	3	2	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy				Exit 15 on Rte 24 S		Rte 24 S
9/29/2006	2:15:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear						Rte 24 / Rte 106
10/14/2006	5:58:00 AM	Non-fatal injury	1	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear/Clear						Rte 24 N
10/15/2006	9:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						1200 feet N from Intersection Rte 24 N / Rte 104
11/3/2006	8:20:00 AM	Non-fatal injury	2	2	0	Rear-end	Rearend	Dry	Daylight	Clear						Rte 104 E / Rte 24
11/8/2006	11:15:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark- roadway not lighted	Rain/Rain				Exit 15 on Rte 24 N		Rte 24 N
11/14/2006	9:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
11/17/2006	6:30:00 AM	Non-fatal injury	2	2	0	Rear-end	Rearend	Wet	Dawn	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
12/4/2006	9:50:00 AM	Non-fatal injury	2	1	0	Rear-end	Rearend	Wet	Daylight	Clear/Clear						Rte 24 S
12/19/2006	5:00:00 AM	Non-fatal injury	3	2	0	Head-on	Head-on	Dry	Dark- lighted roadway	Clear				35 feet S from Exit 14A on Rte 24		Rte 24
12/23/2006	8:45:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain				2640 feet N from Exit 15 on Rte 24		Rte 24
1/19/2004	5:48:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark- roadway not lighted	Clear	Rte 24 S					
1/26/2004	12:15:00 PM	Not Reported	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			ON THE OVERPASS ABOVE RTE 495 - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO RT 495 NB
7/1/2005	9:00:00 AM	Not Reported	2	0	0	Rear-end	Rearend	Wet	Daylight	Rain				Exit 15 on Rte 24 S		RAMP-RT 104 TO RT 24 NB Rte 24 S
9/13/2005	5:30:00 PM	Not Reported	1	0	0	Angle	Angle	Dry	Daylight	Clear						Rte 24 S
9/30/2005	4:15:00 PM	Not Reported	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear						Rte 24
10/3/2005	8:00:00 AM	Not Reported	2	0	0	Rear-end	Rearend	Dry	Dawn	Fog, smog, smoke			BEFORE RTE 106 - Rte 24 N			Rte 24 N
12/9/2005	11:50:00 PM	Not Reported	2	0	0	Angle	Angle	Snow	Dark- lighted roadway	Snow			NORTH OF 106 EXIT - Rte 24			600 feet N from Intersection Rte 24 / Rte 106
1/25/2006	8:45:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow						Rte 24 S
3/3/2006	8:50:00 AM	Not Reported	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear			NEAR RT 106			Rte 24
5/21/2006	1:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP-RT 104 TO RT 24 NB
7/13/2006	6:00:00 PM	Not Reported	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 16 on Rte 24		123 Rte 24
7/14/2006	10:30:00 AM	Not Reported	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 13 on Rte 24		Rte 24 S
12/22/2006	10:00:00 AM	Not Reported	4	0	0	Unknown	Unknown	Wet	Dark- roadway not lighted	Rain			BEFORE 123 EXIT			Rte 24 N
1/3/2004	1:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			Rte 24 S		Rte 24 S Milemarker 23.0	Rte 24 S
1/14/2004	2:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
1/21/2004	9:14:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	Exit 14A on Rte 24 S		Rte 24 S
1/25/2004	5:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			Rte 24 N	1200 feet N from Exit 15 on Rte 24 N		Rte 24 N
1/31/2004	4:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			1320 feet N from BURGER KING NORTH REST AREA - Rte 24 N		Rte 24 N Milemarker 23.3	Rte 24 N
2/5/2004	8:02:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N
2/16/2004	11:10:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24			Rte 24
2/17/2004	2:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP TO BURGER KING REST AREA - Rte 24 N		Rte 24 N Milemarker 23.3	Rte 24 N
3/16/2004	7:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear			Rte 104			Rte 104 / Rte 24
3/17/2004	7:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Sleet, hail (freezing rain or drizz			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
4/1/2004	8:23:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			JUST SOUTH OF RAMP FROM 24 SOUTH - INTERSTATE 495 Rte 495 N			INTERSTATE 495 Rte 495 N / RAMP-RT 24 SB TO RT 495 NB
4/8/2004	12:01:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 24			Rte 24 / Rte 104
4/10/2004	5:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy			AT MOBIL GAS STATION - AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
4/13/2004	2:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Rain/Rain			Rte 24 N	Exit 14 on Rte 24		Rte 24 N
4/20/2004	5:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14B on Rte 24 S		Rte 24 S
4/24/2004	10:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
5/2/2004	5:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			ON ON RAMP TO ROUTE 24 NORTH - Rte 495 N	Exit 7B on Rte 495 N		Rte 495 N
5/17/2004	5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14 on Rte 24 S		Rte 24 S / Rte 495
5/17/2004	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24 S			1320 feet N from Intersection Rte 24 S / Rte 495
5/28/2004	11:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			ENTRANCE TO BURGER KING LOT - - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
6/1/2004	6:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain			Rte 24 S	5620 feet N from Exit 15 on Rte 24 S		Rte 24 S
6/2/2004	6:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Water (standing, moving)	Daylight	Rain/Rain			Rte 24 N			1320 feet N from Intersection Rte 24 N / Rte 104
6/10/2004	6:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dawn	Cloudy/Cloudy			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
6/11/2004	4:12:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear	PLEASANT STREET	PLEASANT STREET / RAMP-RT 104 TO RT 24 NB				
6/12/2004	3:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 15 on Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 104
6/20/2004	1:58:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
7/15/2004	2:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
7/16/2004	4:25:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24 S	200 feet N from Exit 14A on Rte 24 S		Rte 24 S
8/6/2004	4:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
8/15/2004	3:35:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain			Rte 24 N	Exit 15 on Rte 24 N		Rte 24 N
8/15/2004	6:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Dawn	Rain/Rain			Rte 24	Exit 15 on Rte 24		Rte 24
8/20/2004	5:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24 S			Rte 24 S / Rte 495
8/20/2004	5:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dusk	Clear	Rte 24	Rte 495				
8/30/2004	5:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Rain/Cloudy			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
9/2/2004	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24	Exit 14A on Rte 24		Rte 24

BRIDGEWATER 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
9/16/2004	7:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark- lighted roadway	Rain			Rte 495			500 feet S from Intersection Rte 495 / Rte 24
9/18/2004	7:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
9/30/2004	11:23:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- lighted roadway	Cloudy/Cloudy			ON RAMP FROM RTE 24SBL - INTERSTATE 495 Rte 495 S			INTERSTATE 495 Rte 495 S / RAMP-RT 495 SB TO RT 24 SB
10/4/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			PLEASANT STREET Rte 24			PLEASANT STREET Rte 24 / Rte 104
10/4/2004	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear	Rte 24 N	PLEASANT STREET Rte 104 E				
10/21/2004	6:35:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Cloudy/Cloudy			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
10/29/2004	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Cloudy			Rte 24 N	10 feet N from Exit 15 on Rte 24 N		Rte 24 N
11/5/2004	6:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			Rte 24			Rte 24
11/7/2004	2:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S		Rte 24 S Milemarker 25.0	Rte 24 S
11/8/2004	5:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	Exit 14A on Rte 24 S		Rte 24 S
11/10/2004	4:45:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark- roadway not lighted	Cloudy	Rte 24 S	Rte 104				
11/12/2004	11:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark- roadway not lighted	Sleet, hail (freezing rain or drizzle)/R			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
12/9/2004	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear			Rte 24 S	Exit 15 on Rte 24 S		Rte 24 S
12/23/2004	9:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Water (standing, moving)	Dark- roadway not lighted	Severe crosswinds/Rain			Rte 24 N	Exit 14 on Rte 24		Rte 24 N
1/4/2005	4:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dusk	Cloudy	Rte 24 S	Rte 104				
1/8/2005	2:28:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
1/14/2005	7:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy				Exit 15 on Rte 24 S		Rte 24 S
1/20/2005	7:10:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Ice	Daylight	Clear						Rte 24 S
1/20/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Clear/Snow				Exit 16 on Rte 24		Rte 24
1/21/2005	8:17:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark- roadway not lighted	Cloudy/Cloudy				Exit 15 on Rte 24 S		Rte 24 S
1/24/2005	11:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Snow	Daylight	Blowing sand, snow						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO RT 495 NB
1/25/2005	11:10:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rearend	Dry	Dark- lighted roadway	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
2/2/2005	12:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Clear						Rte 24 S
2/4/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear	BRIDGE STREET Rte 24					
3/3/2005	6:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Clear						Rte 495 / Rte 24
3/8/2005	12:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain				Exit 14A on Rte 24 S		Rte 24 S
3/12/2005	5:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Snow						Rte 24 S
3/12/2005	9:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Snow/Rain				50 feet N from Exit 15 on Rte 24 S		Rte 24 S
3/12/2005	9:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				Exit 14B on Rte 24 S		Rte 24 S
3/24/2005	7:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
3/28/2005	8:42:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Rain				Exit 15 on Rte 24 N		Rte 24 N
4/2/2005	12:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
4/9/2005	7:16:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
4/16/2005	3:25:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- lighted roadway	Clear/Clear			SOUTH OF BURGER KING REST AREA - AMVETS MEMORIAL HIGHWAY Rte 24 N		Rte 24 N Milemarker 23.3	AMVETS MEMORIAL HIGHWAY Rte 24 N
5/8/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 14B on Rte 24 S		Rte 24 S
5/25/2005	1:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
6/7/2005	6:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
6/16/2005	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear						INTERSTATE 495 Rte 495 S / RAMP-RT 24 SB TO RT 495 SB
6/22/2005	4:19:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 14B on Rte 24 S		Rte 24 S
6/24/2005	1:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark- lighted roadway	Clear				Exit 14B on Rte 24 S		Rte 24 S / RAMP - RT 495 NB TO RT 24 SB
6/30/2005	7:56:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			RET 123 EXIT - Rte 24	Exit 123 on Rte 24		Rte 24
7/7/2005	8:11:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Clear						Rte 24 N
7/11/2005	3:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear						Rte 24 S
7/17/2005	9:58:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				Exit 10 on Rte 24		Rte 24
7/30/2005	3:27:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
8/4/2005	3:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			BURGER KING SERVICE AREA PARKING - Rte 24 S			Rte 24 S
8/24/2005	8:26:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
8/25/2005	8:55:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				2800 feet N from Exit 15 on Rte 24 S		Rte 24 S
8/30/2005	3:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Cloudy						Rte 24 N
9/4/2005	8:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear						Rte 24
9/27/2005	1:06:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Cloudy					Rte 24 S Milemarker 23.9	Rte 24 S / Rte 104
10/3/2005	10:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Other	Fog, smog, smoke/Fog, smog, smoke				Exit 15 on Rte 24 N		Rte 24 N
10/14/2005	3:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Cloudy/Rain				Exit 14A on Rte 24 S		Rte 24 S
10/25/2005	3:18:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark- roadway not lighted	Rain				5280 feet N from Exit 15 on Rte 24 N		Rte 24 N
11/3/2005	9:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			BRIDGEWATER/BROCKTON TOWN LINE - Rte 24 S			Rte 24 S
11/6/2005	10:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Cloudy/Cloudy				2500 feet N from Exit 15 on Rte 24 S		Rte 24 S
11/7/2005	11:47:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
11/10/2005	1:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain			W. BRIDGEWATER LINE - Rte 24 S			Rte 24 S
11/22/2005	4:47:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain			W. BRIDGEWATER LINE - Rte 24 N			Rte 24 N
11/22/2005	7:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain			NORTH OF RT 104. - Rte 24 S			Rte 24 S / Rte 104
11/28/2005	8:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Cloudy/Cloudy				Exit 15 on Rte 24 S		Rte 24 S
11/30/2005	1:13:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain						PLEASANT STREET / RAMP-RT 104 TO RT 24 SB Rte 24 S
12/4/2005	7:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Cloudy			ON RAMP TO RT 104. - AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 104
12/16/2005	8:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
12/19/2005	9:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 24 S
12/27/2005	8:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM RTE 24NB TO RTE 495 NB - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO RT 495 NB
1/3/2006	8:07:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				2000 feet N from Exit 15 on Rte 24 S		Rte 24 S
1/23/2006	6:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Snow				Exit 17 on Rte 24		Rte 24 S
1/23/2006	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Cloudy	Rte 24 N	Rte 104				
1/25/2006	8:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				Exit 14A on Rte 24 S		Rte 24 S
1/25/2006	8:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				Exit 15 on Rte 24 S		Rte 24 S
1/31/2006	8:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Dark- lighted roadway	Sleet, hail (freezing rain or drizzle)/Sleet, hail (freezing rain or drizzle)				Exit 14 on Rte 24		Rte 24 N
2/4/2006	6:13:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Dark - unknown roadway lighting	Rain/Rain				Exit 14 on Rte 24		Rte 24 N
2/13/2006	10:46:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear						10 feet N from Intersection RAMP-RT 24 NB TO RT 104 / PLEASANT DRIVE Rte 104 N
2/21/2006	12:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 16A on Rte 104		Rte 104 / Rte 24
3/2/2006	6:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - unknown roadway lighting	Snow/Blowing sand, snow			EXIT 16A	Exit 16 on Rte 24	Rte 24 Milemarker 16.0	RAMP-RT 104 TO RT 24 NB Rte 24 S
3/8/2006	7:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 S
3/30/2006	3:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						RAMP - RT 24 SB TO RT 495 SB Rte 24 S
3/30/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear			23 APP MILE MARKER		Rte 24 N Milemarker 23.0	Rte 24 N
4/6/2006	9:16:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
4/6/2006	10:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				200 feet N from Exit 7A on Rte 495		Rte 495 / Rte 24
4/23/2006	8:51:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Severe crosswinds						Rte 24 S
5/13/2006	12:59:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain				Exit 15 on Rte 24 N		Rte 24 N
5/14/2006	7:54:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy				Exit 15 on Rte 24 N		Rte 24 N
5/26/2006	6:43:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
6/1/2006	3:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 15 on Rte 24 N		Rte 24 N
6/1/2006	7:49:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Clear						Rte 104 / Rte 24
6/3/2006	11:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Dark- roadway not lighted	Rain	Rte 24 S	Rte 24 S				
6/7/2006	1:33:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain				Exit 15 on Rte 24 N		Rte 24 N
6/7/2006	9:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 15 on Rte 24 S		Rte 24 S
6/7/2006	12:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 15 on Rte 24 N		Rte 24 N
6/8/2006	10:21:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark- roadway not lighted	Cloudy						PLEASANT STREET Rte 104 / RAMP-RT 104 TO RT 24 SB Rte 24
6/16/2006	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear			106 OFF RAMP			300 feet S from Intersection Rte 24 / Rte 106
6/16/2006	7:28:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						500 feet E from Intersection 1420 PLEASANT STREET Rte 104 / Rte 24
6/22/2006	7:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 14B on Rte 24 S		Rte 24 S
6/25/2006	6:22:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Rain/Rain				Exit 15 on Rte 24 N		Rte 24 N
6/26/2006	1:27:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
6/27/2006	2:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			ROAD NARROWS FROM 3 LANES TO 2			Rte 24
7/15/2006	6:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				2640 feet N from Exit 15 on Rte 24 N		Rte 24 N
7/18/2006	7:52:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				500 feet N from Exit 15 on Rte 24 S		Rte 24 S
7/25/2006	3:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 14A on Rte 24 S		Rte 24 S
7/25/2006	5:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ON RAMP TO ROUTE 495 NORTHBOUND			INTERSTATE 495 Rte 495 N / RAMP-RT 24 SB TO RT 495 NB
8/7/2006	9:38:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
8/20/2006	2:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Other	Rain				Exit 15 on Rte 24 N		Rte 24 N
9/9/2006	4:47:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Other	Clear/Clear				Exit 15 on Rte 24 S		Rte 24 S
9/15/2006	11:48:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark- lighted roadway	Clear/Clear			BURGER KING REST AREA			UNION STREET Rte 24 S
9/19/2006	11:32:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain						Rte 24 N
10/11/2006	9:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark- lighted roadway	Clear/Clear						Rte 24 S
10/26/2006	4:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear				Exit 15 on Rte 24 N		Rte 24 N
10/28/2006	8:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark- roadway not lighted	Rain/Rain			NORTH OF RTE104			Rte 24 N / Rte 104
11/12/2006	9:01:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain						Rte 24 N
11/26/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark- lighted roadway	Clear						2600 feet N from Intersection Rte 24 S / Rte 104
12/1/2006	2:49:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark- lighted roadway	Cloudy/Cloudy				Exit 14B on Rte 24 S		Rte 24 S
12/4/2006	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Clear/Clear				2800 feet N from Exit 15 on Rte 24 S		Rte 24 S
12/4/2006	10:30:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear/Clear				2600 feet N from Exit 15 on Rte 24 S		Rte 24 S
12/15/2006	2:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 15 on Rte 24 S		Rte 24 S
1/9/2004	4:30:00 PM	Unknown	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear			RAMP-RT 104 TO RT 24 NB Rte 24			RAMP-RT 104 TO RT 24 NB Rte 24 / Rte 104
2/15/2004	5:45:00 PM	Unknown	2	0	0	Rear-end	Rearend	Dry	Dark- roadway not lighted	Clear			Rte 24	Exit 15 on Rte 24		Rte 24
1/21/2005	8:30:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Clear	Rte 24					
3/5/2005	1:03:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO RT 495 NB
6/8/2005	8:00:00 PM	Unknown	2	0	0	Rear-end	Rearend	Dry	Dark- lighted roadway	Clear				Exit 7 on Rte 24		Rte 24
8/31/2005	6:15:00 AM	Unknown	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear	Rte 24					
8/8/2006	5:51:00 PM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 14A on Rte 24 S		Rte 24 S

BROCKTON 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
7/6/2004	10:45:00 PM	Fatal Injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			SOUTH OF EXIT FOR RTE 27 - Rte 24 N			Rte 24 N
3/3/2005	2:54:00 AM	Fatal Injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				1000 feet N from Exit 18A on Rte 24 S		Rte 24 S
7/10/2006	8:32:00 PM	Fatal Injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear			RT 24 OFFRAMP			REYNOLDS HIGHWAY Rte 27 S
1/13/2004	6:35:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Dark - roadway not lighted	Cloudy/Clear			Rte 24 N	1500 feet N from Exit 17B on Rte 24 N		Rte 24 N
2/5/2004	9:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Unknown	Daylight	Clear			Rte 24 S			Rte 24 S / Rte 24
2/5/2004	11:12:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S	5200 feet S from Exit 18A on Rte 24 S	5200 feet S from Rte 24 S Milemarker 32.0	Rte 24 S
2/6/2004	8:16:00 PM	Non-fatal injury	2	7	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			Rte 24 N	Exit 18B on Rte 24 N		Rte 24 N
2/13/2004	3:30:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear	BELMONT STREET Rte 24					
2/19/2004	3:25:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
2/19/2004	8:07:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			Rte 24 S	Exit 18B on Rte 24 S		Rte 24 S
3/15/2004	9:00:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	Exit 18A on Rte 24 N		Rte 24 N
4/17/2004	1:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Daylight	Clear/Clear			Rte 24 S	Exit 18A on Rte 24 S		Rte 24 S
4/26/2004	5:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 24 S	100 feet N from Exit 17A on Rte 24 S		Rte 24 S
5/5/2004	11:50:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			BELMONT STREET Rte 24	Exit 17B on Rte 24		BELMONT STREET Rte 24
5/12/2004	8:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 27 SB TO RT 24 SB
5/16/2004	3:30:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			REYNOLDS HIGHWAY Rte 27 E			20 feet W from Intersection REYNOLDS HIGHWAY Rte 27 E / Rte 24
5/24/2004	1:06:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy			Rte 24 S	500 feet N from Exit 17B on Rte 24 S		Rte 24 S
5/27/2004	7:32:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S			2640 feet N from Intersection Rte 24 S / Rte 123
6/14/2004	5:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
6/15/2004	4:43:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N	50 feet S from Exit 18A on Rte 24 N		Rte 24 N
8/4/2004	9:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
8/13/2004	1:00:00 AM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
9/11/2004	12:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S	1000 feet S from Exit 17A on Rte 24 S		Rte 24 S
9/14/2004	8:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	0 feet S from Exit 17A on Rte 24 S		Rte 24 S
9/20/2004	6:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
9/21/2004	2:16:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 17B on Rte 24 S		Rte 24 S
9/28/2004	4:53:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			BELMONT STREET Rte 123 E			200 feet W from Intersection BELMONT STREET Rte 123 E / RAMP-RT 123 EB TO RT 24 NB
10/1/2004	4:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N	100 feet S from Exit 17A on Rte 24 N		Rte 24 N
10/6/2004	8:25:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
10/8/2004	7:55:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Fog, smog, smoke			Rte 24 S	Exit 18A on Rte 24 S		Rte 24 S
10/12/2004	4:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 123 WB
10/12/2004	8:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
10/23/2004	4:30:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N	100 feet S from Exit 17A on Rte 24 N		Rte 24 N
10/29/2004	4:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			200 feet E from CUMBERLAND FARMS GAS - RAMP-RT 24 NB TO RT 123 EB			RAMP-RT 24 NB TO RT 123 EB
11/7/2004	3:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
11/9/2004	7:50:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 17B on Rte 24		Rte 24 / Rte 27
11/13/2004	9:20:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Cloudy			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
11/18/2004	10:15:00 AM	Non-fatal injury	4	2	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
11/19/2004	3:25:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy/Clear			Rte 24 S	200 feet N from Exit 18A on Rte 24 S		Rte 24 S
12/5/2004	3:20:00 AM	Non-fatal injury	1	3	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 18A on Rte 24 S		Rte 24 S
12/17/2004	2:50:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 17B on Rte 24 N		Rte 24 N
12/21/2004	7:37:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Unknown			RT 24 OVERPASS - REYNOLDS HIGHWAY Rte 27 E			REYNOLDS HIGHWAY Rte 27 E
12/22/2004	1:45:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Clear	REYNOLDS HIGHWAY	RAMP-RT 24 NB TO RT 27 SB				
1/5/2005	9:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Snow				Exit 18A on Rte 24		Rte 24
1/6/2005	11:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Slush	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				250 feet N from Exit 18B on Rte 24 S		Rte 24 S
1/10/2005	12:56:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)				Exit 18A on Rte 24 S		Rte 24 S / Rte 27
1/11/2005	6:00:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear						1000 feet S from Intersection Rte 24 N / Rte 123
1/11/2005	7:45:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 17A on Rte 24 N		Rte 24 N
1/20/2005	5:30:00 AM	Non-fatal injury	4	2	0	Angle	Angle	Snow	Dawn	Snow/Sleet, hail (freezing rain or drizzle)				Exit 18B on Rte 24 N		Rte 24 N
1/26/2005	9:50:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Snow	Daylight	Snow/Snow				Exit 18B on Rte 24 S		Rte 24 S
1/28/2005	9:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			SOUTH OF ROUTE 123 - Rte 24 S			Rte 24 S / Rte 123
2/13/2005	10:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 S		Rte 24 S
2/13/2005	12:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Cloudy				Exit 18B on Rte 24 S		Rte 24 S
2/22/2005	12:10:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Other	Daylight	Cloudy				Exit 17A on Rte 24 N		Rte 24 N
2/24/2005	5:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
2/28/2005	8:30:00 AM	Non-fatal injury	1	1	0	Not reported	Not reported	Ice	Daylight	Clear	Rte 24 N	Rte 27 S				
3/2/2005	4:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy	BELMONT STREET Rte 24					
3/12/2005	1:45:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Snow/Snow				2000 feet N from Exit 17B on Rte 24 S		Rte 24 S
3/15/2005	8:07:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17B on Rte 24 N		Rte 24 N
3/17/2005	6:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Clear						Rte 123 W / Rte 24
3/20/2005	10:20:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
3/23/2005	2:00:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Dry	Daylight	Clear/Clear			AT ROUTE 123 - AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 17 on Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S / Rte 123
4/4/2005	12:12:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy			NORTH OF ROUTE 123. - AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 17 on Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N
4/6/2005	7:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Cloudy				800 feet N from Exit 18A on Rte 24 S		Rte 24 S
4/10/2005	1:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear				1200 feet N from Exit 18A on Rte 24 S		Rte 24 S
4/12/2005	1:00:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 123 / Rte 24
4/13/2005	3:00:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 17A on Rte 24		Rte 24
4/13/2005	8:55:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				200 feet N from Exit 18B on Rte 24		Rte 24
4/16/2005	1:28:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
4/19/2005	3:45:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 17A on Rte 24		BELMONT STREET Rte 24 / RAMP-RT 123 EB TO RT 24 SB
4/25/2005	9:00:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				Exit 18A on Rte 24		Rte 24
5/5/2005	9:03:00 AM	Non-fatal injury	5	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP-RT 24 NB TO RT 27 SB Rte 24 S / Rte 27
5/6/2005	4:35:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N
5/27/2005	5:45:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP-RT 123 EB TO RT 24 NB Rte 123 / Rte 24
5/31/2005	6:45:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 17A on Rte 24 N		Rte 24 N
6/6/2005	1:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
6/6/2005	4:30:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 24 S	BELMONT STREET Rte 123 W				
6/10/2005	10:30:00 AM	Non-fatal injury	1	1	0	Angle	Angle	Dry	Daylight	Clear/Clear						200 feet N from Intersection Rte 24 N / Rte 27
6/15/2005	7:38:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dusk	Cloudy/Cloudy				Exit 18A on Rte 24 N		Rte 24 N
6/27/2005	1:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy						Rte 24 N
7/7/2005	2:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				20 feet E from Exit 17A on Rte 24 S		Rte 24 S
7/21/2005	3:56:00 PM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 18B on Rte 24 N		Rte 24 N
7/24/2005	7:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				500 feet N from Exit 18B on Rte 24 S		Rte 24 S
7/24/2005	7:45:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
7/31/2005	6:00:00 PM	Non-fatal injury	2	4	0	Rear-end	Rear-end	Dry	Daylight	Clear						350 feet S from Intersection Rte 24 N / Rte 123
8/6/2005	9:30:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear				Exit 19 on Rte 24		Rte 24 / Rte 24
8/8/2005	9:40:00 AM	Non-fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 18B on Rte 24 N		Rte 24 N
8/14/2005	9:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain						Rte 24 N
8/16/2005	3:20:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 17A on Rte 24		Rte 24
8/18/2005	9:00:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				800 feet N from Exit 18B on Rte 24 S		Rte 24 S
9/4/2005	7:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				200 feet S from Exit 17A on Rte 24 N		Rte 24 N
9/22/2005	5:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			SOUTH OF ROUTE 27 - Rte 24 N			Rte 24 N
9/24/2005	2:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Cloudy				25 feet W from Exit 18B on Rte 24 S		Rte 24 S
9/24/2005	11:10:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear				Exit 18A on Rte 24 S		Rte 24 S
9/25/2005	5:20:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						REYNOLDS HIGHWAY Rte 27 / RAMP-RT 27 SB TO RT 24 NB Rte 24
9/29/2005	9:50:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Cloudy				Exit 18A on Rte 24 S		Rte 24 S
10/4/2005	5:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
10/5/2005	11:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM RTE 123 WB TO RTE 24 S - AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 123 WB TO RT 24 SB
10/14/2005	7:35:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain					Rte 123 Milemarker 22.0	2500 feet W from Intersection 1285 BELMONT STREET Rte 123 / Rte 24
10/26/2005	1:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
11/29/2005	2:40:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy				Exit 17A on Rte 24 S		Rte 24 S
11/29/2005	9:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24	BELMONT STREET Rte 123				
12/3/2005	2:55:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Not reported	Clear/Clear				200 feet N from Exit 17A on Rte 24 S		Rte 24 S
12/3/2005	3:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 18A on Rte 24		BROCKTON AVENUE Rte 24
12/16/2005	9:00:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				Exit 18A on Rte 24 N		Rte 24 N
1/3/2006	12:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Snow/Rain						Rte 24 S
1/23/2006	11:01:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Slush	Daylight	Snow				Exit 17A on Rte 24 N		Rte 24 N
2/2/2006	6:10:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear/Clear				50 feet S from Exit 18A on Rte 24 S		Rte 24 S
2/21/2006	2:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet S from Exit 18B on Rte 24 S		Rte 24 S
2/22/2006	9:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 18A on Rte 24 S		Rte 24 S
3/9/2006	8:55:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear				Exit 17A on Rte 24 S		Rte 24 S
3/12/2006	4:28:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ON RAMP FROM 27 SB TO 24 SB	Exit 18B on Rte 24 S		Rte 24 S
3/21/2006	11:39:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			RAMP FROM 24 S TO 27N			REYNOLDS HIGHWAY Rte 27 N / RAMP-RT 24 SB TO RT 27 NB
3/29/2006	6:05:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear						BELMONT STREET Rte 24 / Rte 24
4/20/2006	5:30:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 18A on Rte 24 N	Rte 24 N Milemarker 145.0	Rte 24 N
4/21/2006	4:32:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	BELMONT STREET Rte 123	Rte 24 S				BELMONT STREET Rte 123 / RAMP-RT 123 EB TO RT 24 SB Rte 24 S
4/25/2006	6:35:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet N from Exit 17B on Rte 24 S		Rte 24 S
4/28/2006	2:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
5/1/2006	7:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Cloudy				Exit 18B on Rte 24 S		Rte 24 S
5/1/2006	8:10:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 18A on Rte 24 N		Rte 24 N
5/3/2006	3:51:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 17A on Rte 24 N		Rte 24 N
5/6/2006	11:25:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 S		Rte 24 S
5/20/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain				Exit 18B on Rte 24 N		Rte 24 N
5/22/2006	6:50:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				15 feet N from Exit 17A on Rte 24 N		Rte 24 N
5/27/2006	2:30:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP-RT 123 EB TO RT 24 NB
5/27/2006	4:02:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
5/27/2006	8:08:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Fog, smog, smoke/Fog, smog, smoke				500 feet N from Exit 17B on Rte 24 S		Rte 24 S
5/28/2006	3:15:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 18A on Rte 24		Rte 24
6/1/2006	1:15:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 1 on Rte 24 N		Rte 24 N
6/3/2006	5:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain	Rte 24	BELMONT STREET		Exit 17A on Rte 24		BELMONT STREET Rte 24
6/3/2006	11:10:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain				Exit 18B on Rte 24 S		Rte 24 S
6/15/2006	6:50:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						Rte 24
7/14/2006	12:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				1000 feet S from Exit 17A on Rte 24 N		Rte 24 N
7/14/2006	12:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				2500 feet S from Exit 18A on Rte 24 S		Rte 24 S
8/3/2006	9:00:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
8/18/2006	2:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear		EXIT 18		Exit 18A on Rte 24 S		Rte 24 S
8/25/2006	1:35:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Wet	Not reported	Rain/Cloudy				Exit 18A on Rte 24 N		Rte 24 N

BROCKTON 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
9/13/2006	2:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
9/15/2006	3:25:00 PM	Non-fatal injury	5	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 17B on Rte 24 S		Rte 24 S
10/10/2006	6:03:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
10/10/2006	6:10:00 AM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 18A on Rte 24 N		Rte 24 N
10/12/2006	7:43:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				50 feet N from Exit 17B on Rte 24 N		Rte 24 N
10/17/2006	2:08:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
10/17/2006	6:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 17B on Rte 24 N		Rte 24 N
10/26/2006	1:58:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 17A on Rte 24		Rte 24
10/28/2006	6:50:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear				Exit 18B on Rte 24 N		Rte 24 N
10/29/2006	8:30:00 AM	Non-fatal injury	2	1	0	Unknown	Unknown	Wet	Dark - unknown roadway lighting	Rain				Exit 16 on Rte 24		Rte 24
11/6/2006	4:20:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 17A on Rte 24		Rte 24
11/9/2006	8:35:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 17A on Rte 24 S		Rte 24 S
11/17/2006	2:42:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy				Exit 18B on Rte 24		Rte 24
11/17/2006	8:55:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain						Rte 24 N
11/18/2006	5:37:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 17B on Rte 24 S		Rte 24 S
11/30/2006	12:27:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
12/4/2006	10:05:00 AM	Non-fatal injury	8	3	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				50 feet S from Exit 17A on Rte 24 N		Rte 24 N
12/11/2006	9:45:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	BELMONT STREET	BELMONT STREET				BELMONT STREET / RAMP-RT 123 EB TO RT 24 NB Rte 24
12/14/2006	8:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 18A on Rte 24 N		Rte 24 N
12/20/2006	2:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24 N	REYNOLDS HIGHWAY Rte 27 E				
3/9/2004	4:30:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Not Reported	Rte 24					
9/22/2004	1:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 24		41 LIBBY STREET			41 LIBBY STREET
7/30/2004	2:50:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP-RT 123 EB TO RT 24 NB			RAMP-RT 123 EB TO RT 24 NB / Rte 24
9/27/2004	11:55:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			RAMP-RT 123 WB TO RT 24 SB			RAMP-RT 123 WB TO RT 24 SB / Rte 24
11/9/2004	9:00:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N			Rte 24 N / Rte 123
1/19/2005	12:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						OAK STREET / Rte 24
2/7/2005	2:55:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24 N					
4/22/2005	7:30:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			SOUTH OF RTE 27 - AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 18A on Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 27 SB Rte 27 S
7/24/2005	7:44:00 AM	Not Reported	1	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 18A on Rte 24 S		Rte 24 S
1/19/2006	6:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Cloudy				Exit 17A on Rte 24		Rte 24
1/23/2006	7:30:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Snow						BELMONT STREET / RAMP-RT 24 NB TO RT 123 WB
2/1/2006	7:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP-RT 27 SB TO RT 24 SB
6/4/2006	12:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain				2640 feet S from Exit 18A on Rte 24 S		Rte 24 S
9/7/2006	8:30:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				150 feet S from Exit 18A on Rte 24 N		Rte 24 N
9/13/2006	7:35:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 17B on Rte 24 N		Rte 24 N
9/21/2006	8:05:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				500 feet S from Exit 17A on Rte 24		Rte 24
10/17/2006	6:30:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain				Exit 17B on Rte 24		Rte 24
12/2/2006	4:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Not Reported				Exit 17A on Rte 24		Rte 24
1/19/2004	7:30:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow			Rte 24 S	Exit 18A on Rte 24 S		Rte 24 S
1/23/2004	10:30:00 AM	(none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 24	Exit 17A on Rte 24		Rte 24
1/28/2004	7:00:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizz			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 123 WB TO RT 24 NB
2/3/2004	8:00:00 AM	(none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 24			Rte 24 / REYNOLDS HIGHWAY
2/14/2004	5:20:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 27 NB
2/21/2004	8:45:00 PM	(none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
3/4/2004	11:46:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	50 feet N from Exit 17B on Rte 24 N		Rte 24 N
3/12/2004	8:21:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			1015 BELMONT STREET Rte 123 E			1500 feet E from Intersection 1015 BELMONT STREET Rte 123 E / Rte 24
3/17/2004	8:00:00 AM	(none injured)	3	0	0	Rear-end	Rear-end	Slush	Dark - roadway not lighted	Snow/Snow			Rte 24 S			Rte 24 S / Rte 123
3/18/2004	11:31:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 18A on Rte 24 S		Rte 24 S
3/23/2004	7:50:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 18 on Rte 24 S		Rte 24 S
4/2/2004	6:15:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Cloudy			Rte 24 S			Rte 24 S
4/10/2004	1:30:00 AM	(none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy			Rte 24	200 feet N from Exit 18A on Rte 24		Rte 24
4/15/2004	8:45:00 PM	(none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	BROCKTON AVENUE Rte 24					
4/17/2004	2:10:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	Exit 18A on Rte 24 N	Rte 24 N Milemarker 33.0	Rte 24 N
4/23/2004	6:50:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy			Rte 24 N	Exit 17B on Rte 24 N		Rte 24 N
5/3/2004	3:25:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy			Rte 24 N	50 feet N from Exit 18B on Rte 24 N		Rte 24 N
5/8/2004	10:20:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Cloudy/Cloudy	REYNOLDS HIGHWAY	RAMP-RT 24 NB TO RT 123 EB				
5/18/2004	8:30:00 AM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
5/25/2004	2:55:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 17B on Rte 24		Rte 24
5/25/2004	8:00:00 AM	(none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	Rte 24	Rte 123				
5/27/2004	9:50:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S			Rte 24 S / Rte 27
5/29/2004	2:10:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	100 feet S from Exit 18A on Rte 24		Rte 24
6/11/2004	6:15:00 AM	(none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear			Rte 24 S			Rte 24 S / Rte 123
6/24/2004	3:12:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 17A on Rte 24 S		Rte 24 S
6/25/2004	12:01:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			BELMONT STREET Rte 24	Exit 18B on Rte 24		BELMONT STREET Rte 24
6/26/2004	8:18:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
7/11/2004	6:12:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 18B on Rte 24 S		Rte 24 S
7/19/2004	2:45:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			RAMP-RT 24 NB TO RT 123 WB			RAMP-RT 24 NB TO RT 123 WB / Rte 123
7/29/2004	12:05:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			Rte 24 S	Exit 18B on Rte 24 S		Rte 24 S
8/4/2004	4:43:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 17A on Rte 24		Rte 24 / Rte 123
8/4/2004	12:15:00 AM	(none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 17B on Rte 24 S		Rte 24 S
8/10/2004	5:30:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24	BELMONT STREET Rte 123				
8/19/2004	2:37:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Clear/Clear			Rte 24 S	Exit 18B on Rte 24 S		Rte 24 S
9/18/2004	8:50:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain			Rte 24 N	Exit 18A on Rte 24 N		Rte 24 N
9/26/2004	7:50:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 17B on Rte 24 N		Rte 24 N
9/27/2004	7:15:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N			Rte 24 N
10/7/2004	8:55:00 AM	(none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
10/17/2004	2:45:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Clear/Cloudy			Rte 24 S	2500 feet N from Exit 18B on Rte 24 S		Rte 24 S
10/21/2004	3:15:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			ROUTE 24 Rte 24 N	50 feet N from Exit 18A on Rte 24 N		ROUTE 24 Rte 24 N
10/21/2004	12:10:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Daylight	Cloudy			BELMONT STREET Rte 123 E			BELMONT STREET Rte 123 E / RAMP-RT 123 EB TO RT 24 NB Rte 24
10/27/2004	5:00:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	5280 feet N from Exit 17A on Rte 24 S		Rte 24 S
10/28/2004	1:00:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 18B on Rte 24 N		Rte 24 N
10/29/2004	7:25:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			1/2 MILE SOUTH OF RT 27, EXIT 18 - Rte 24 N	2640 feet S from Exit 18 on Rte 24 N		Rte 24 N
11/2/2004	6:20:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear			Rte 24	Exit 18A on Rte 24		Rte 24
11/13/2004	6:45:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dawn	Snow/Cloudy			Rte 24 S	Exit 18A on Rte 24 S		Rte 24 S
11/13/2004	9:15:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Clear			Rte 24 S			Rte 24 S / BELMONT AVENUE
11/16/2004	12:50:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N		Rte 24 N Milemarker 31.5	Rte 24 N
11/29/2004	1:20:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
12/3/2004	6:02:00 PM	(none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 24 S	200 feet N from Exit 17A on Rte 24 S		Rte 24 S
12/4/2004	1:00:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 17A on Rte 24		Rte 24
12/8/2004	1:30:00 PM	(none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 24 N	100 feet N from Exit 17A on Rte 24 N		Rte 24 N
12/10/2004	5:30:00 PM	(none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain			AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 17B on Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S
12/15/2004	6:00:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			REYNOLDS HIGHWAY Rte 27 N			REYNOLDS HIGHWAY Rte 27 N / RAMP-RT 24 NB TO RT 27 NB Rte 24
12/21/2004	12:28:00 PM	(none injured)	3	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear	Rte 24 S	RAMP-RT 123 WB TO RT 24 SB				
12/22/2004	5:30:00 AM	(none injured)	3	0	0	Angle	Angle	Ice	Dark - roadway not lighted	Clear/Cloudy			Rte 24 N	500 feet N from Exit 17B on Rte 24 N		Rte 24 N
12/22/2004	10:05:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Other	Daylight	Clear/Clear			Rte 24 S	Exit 18B on Rte 24 S		Rte 24 S
12/28/2004	12:00:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear			Rte 24	200 feet N from Exit 18A on Rte 24		Rte 24
1/5/2005	3:53:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Snow				1000 feet N from Exit 18B on Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S
1/10/2005	9:32:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM RT 123 EB TO RT 24 NB. - RAMP-RT 123 EB TO RT 24 NB			RAMP-RT 123 EB TO RT 24 NB / Rte 24
1/12/2005	6:30:00 AM	(none injured)	2	0	0	Angle	Angle	Wet	Dawn	Snow/Rain				Exit 17B on Rte 24 S		Rte 24 S
1/14/2005	5:05:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Dawn	Sleet, hail (freezing rain or drizzle)/Sleet, hail (freezing rain or drizzle)				Exit 18A on Rte 24 S		Rte 24 S
1/19/2005	3:50:00 PM	(none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear/Clear				Exit 17A on Rte 24 S		Rte 24 S
1/20/2005	9:00:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
1/22/2005	7:00:00 PM	(none injured)	2	0	0	Angle	Angle	Snow	Dark - lighted roadway	Snow						Rte 24 S
		Property damage only											NORTH OF EXIT FOR 123 WB. - AMVETS MEMORIAL HIGHWAY Rte 24 S			
1/23/2005	3:10:00 PM	(none injured)	2	0	0	Angle	Angle	Snow	Daylight	Snow/Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 123 WB
1/25/2005	7:15:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear				40 feet N from Exit 17A on Rte 24 S		Rte 24 S
1/26/2005	3:00:00 PM	(none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Snow				Exit 17A on Rte 24		Rte 24
1/28/2005	3:15:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 18 on Rte 245		Rte 245
1/30/2005	1:55:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 17B on Rte 24 S		Rte 24 S
1/30/2005	10:00:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Cloudy/Cloudy				Exit 17B on Rte 24 N		Rte 24 N
1/30/2005	10:55:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
2/12/2005	1:45:00 AM	(none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24 / Rte 27
2/12/2005	12:30:00 PM	(none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24
2/13/2005	8:40:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			ROUTE 106 - Rte 24 N			2640 feet N from Intersection Rte 24 N
2/14/2005	7:20:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
2/18/2005	9:35:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear			SOUTH OF ROUTE 27 - Rte 24 N			Rte 24 N / Rte 27
2/21/2005	8:20:00 AM	(none injured)	2	0	0	Angle	Angle	Wet	Daylight	Snow/Snow			AT RT 123 - Rte 24 N			Rte 24 N / Rte 123
2/23/2005	8:00:00 AM	(none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Clear				Exit 27 on Rte 24		Rte 24
3/9/2005	7:40:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Slush	Daylight	Clear/Blowing sand, snow				Exit 18A on Rte 24 S		Rte 24 S
3/9/2005	11:00:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Clear						Rte 24 N / Rte 27
3/10/2005	3:42:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
3/10/2005	3:45:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
3/11/2005	3:50:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Snow			1/2 MILE NORTH OF ROUTE 27 - Rte 24 S			2640 feet N from Intersection Rte 24 S / Rte 27
3/17/2005	3:45:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 17A on Rte 24 S		Rte 24 S
3/19/2005	2:30:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
3/25/2005	3:45:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				500 feet N from Exit 18A on Rte 24 N		Rte 24 N
4/2/2005	5:15:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain				Exit 17A on Rte 24 S		Rte 24 S
4/2/2005	11:36:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 18A on Rte 24 S		Rte 24 S
4/4/2005	10:15:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 18B on Rte 24 S		Rte 24 S
4/14/2005	4:15:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 18 on Rte 24		Rte 24
4/21/2005	2:00:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S / Rte 24
4/23/2005	10:10:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear				Exit 17A on Rte 24		Rte 24
4/24/2005	5:40:00 AM	(none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						OAK STREET / Rte 24
4/28/2005	7:55:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain				Exit 17B on Rte 24 N		Rte 24 N
4/29/2005	1:00:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				2640 feet N from Exit 17B on Rte 24 S		Rte 24 S
5/1/2005	9:40:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				Exit 18A on Rte 24 S		Rte 24 S
5/3/2005	6:54:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 17A on Rte 24 N		Rte 24 N
5/11/2005	4:40:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
5/12/2005	11:30:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	RAMP-RT 123 EB TO RT 24 NB Rte 24					123 BELMONT STREET

BROCKTON 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
5/19/2005	6:40:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear				Exit 18A on Rte 24 N		Rte 24 N
5/27/2005	1:00:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	RAMP-RT 24 NB TO RT 27 NB	REYNOLDS HIGHWAY Rte 27 N				
9/29/2005	10:15:00 PM	(none injured)	1	0	0	Angle	Angle	Dry	Daylight	Clear						Rte 24 N
6/3/2005	8:53:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
6/4/2005	5:50:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear				Exit 17B on Rte 24 N		Rte 24 N
6/4/2005	11:10:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
6/13/2005	10:55:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
6/22/2005	11:00:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 18A on Rte 24 N		Rte 24 N
6/23/2005	4:30:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					Rte 24 Milemarker 75.0	Rte 24
6/25/2005	12:00:00 AM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						Rte 24 S
7/6/2005	5:45:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 16 on Rte 24		Rte 24 N
7/11/2005	1:45:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 24
7/22/2005	11:10:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 17A on Rte 24 N		Rte 24 N
7/29/2005	11:25:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 18A on Rte 24 S		RAMP - RT 24 SB TO RT 123 WB Rte 24 S
7/31/2005	3:03:00 AM	(none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Cloudy/Cloudy				1500 feet N from Exit 18B on Rte 24 S		Rte 24 S
8/3/2005	8:30:00 AM	(none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Clear	Rte 24	Rte 23 / Rte 24				
8/18/2005	11:00:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						Rte 27 / Rte 24
8/26/2005	12:06:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N
8/28/2005	2:55:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Clear/Cloudy				Exit 19 on Rte 24		Rte 24 N
8/29/2005	5:42:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Cloudy/Rain				Exit 18A on Rte 24 N		Rte 24 N
8/30/2005	9:42:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			AT RT 123. - Rte 24 N			Rte 24 N / Rte 123
9/6/2005	7:30:00 AM	(none injured)	3	0	0	Rear-end	Rear-end	Dry	Not reported	Clear/Clear						Rte 24 N
9/7/2005	7:30:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 17A on Rte 24 N		Rte 24 N / BELMONT STREET
9/10/2005	7:45:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				100 feet N from Exit 17A on Rte 24		BROCKTON AVENUE Rte 24
9/12/2005	7:30:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						400 feet S from Intersection Rte 24 N / Rte 123
9/15/2005	4:45:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Cloudy				Exit 17A on Rte 24		Rte 24 / Rte 24
9/25/2005	3:00:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear				Exit 17A on Rte 24 S		Rte 24 S / Rte 123
10/3/2005	5:00:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 17B on Rte 24 S		Rte 24 S
10/4/2005	3:25:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
10/4/2005	6:00:00 PM	(none injured)	3	0	0	Not reported	Not reported	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24
10/9/2005	1:40:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain				Exit 17A on Rte 24 N		Rte 24 N
10/9/2005	2:28:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - unknown roadway lighting	Rain/Rain				Exit 18B on Rte 24 S		Rte 24 S
10/21/2005	11:45:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						BELMONT STREET / RAMP-RT 24 NB TO RT 123 EB
10/27/2005	2:43:00 PM	(none injured)	2	0	0	Rear-to-rear	Rear-to-rear	Dry	Daylight	Clear						BELMONT STREET Rte 123 E / Rte 24
10/27/2005	5:45:00 AM	(none injured)	2	0	0	Not reported	Not reported	Dry	Not reported	Clear				Exit 18A on Rte 24 N		Rte 24 N
10/27/2005	12:21:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 17B on Rte 24		Rte 24 / BELMONT STREET
11/10/2005	7:20:00 AM	(none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain				Exit 17A on Rte 24 S		Rte 24 S
11/15/2005	11:30:00 AM	(none injured)	1	0	0	Head-on	Head-on	Dry	Daylight	Cloudy						500 feet S from Intersection Rte 24 S / Rte 123
11/17/2005	6:03:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Rain				Exit 18A on Rte 24 N		Rte 24 N
11/22/2005	4:30:00 PM	(none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Rain						Rte 24 S
11/22/2005	8:10:00 PM	(none injured)	2	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Rain/Rain				Exit 18B on Rte 24 N		Rte 24 N
11/23/2005	2:40:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Snow				Exit 18A on Rte 24		REYNOLDS HIGHWAY Rte 24
11/30/2005	2:20:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Cloudy/Rain				Exit 17A on Rte 24 S		Rte 24 S
12/5/2005	3:30:00 PM	(none injured)	2	0	0	Angle	Angle	Ice	Daylight	Cloudy				Exit 17A on Rte 24		Rte 24
12/8/2005	12:02:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 18B on Rte 24 S		Rte 24 S
12/9/2005	1:20:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Blowing sand, snow						Rte 24 N / RAMP - RT 24 NB TO RT 27 SB
12/9/2005	2:20:00 PM	(none injured)	2	0	0	Angle	Angle	Snow	Daylight	Snow/Blowing sand, snow			AT MERGE OF RAMP FROM RTE 123 WB - Rte 24 S	Exit 17B on Rte 24 S		Rte 24 S
12/11/2005	9:05:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
12/14/2005	10:25:00 AM	(none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 17A on Rte 24 N		Rte 24 N
12/18/2005	9:10:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy/Cloudy			ON RAMP TO ROUTE 24 NORTH - Rte 123 E			Rte 123 E
12/23/2005	7:20:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
12/29/2005	5:55:00 PM	(none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Clear						123 BELMONT STREET / Rte 24
1/4/2006	11:40:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 17A on Rte 24 S		Rte 24 S / Rte 24
1/21/2006	6:50:00 PM	(none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				Exit 18A on Rte 24		Rte 24
1/25/2006	3:10:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				100 feet S from Exit 18B on Rte 24 S		Rte 24 S
1/26/2006	5:10:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			100 feet S from ROUTE 24			100 feet S from Intersection BELMONT STREET Rte 123 E / Rte 24
2/2/2006	12:00:00 PM	(none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 S		Rte 24 S
2/9/2006	6:25:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S / Rte 123
2/13/2006	10:37:00 PM	(none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow				Exit 18B on Rte 24 S		Rte 24 S
2/22/2006	4:45:00 PM	(none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 24 / Rte 123
2/23/2006	8:25:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
3/1/2006	2:20:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / Rte 27
3/7/2006	12:03:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				100 feet S from Exit 17A on Rte 24 S	100 feet S from Rte 24 S Milemarker 25.0	Rte 24 S
3/8/2006	8:57:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			24 N OFF-RAMP TO 123 W	Exit 17B on Rte 24 N		Rte 24 N / Rte 123
3/13/2006	6:25:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear					Rte 24 S Milemarker 30.5	Rte 24 S
3/20/2006	3:41:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 18B on Rte 24 S		Rte 24 S
3/23/2006	1:00:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 18B on Rte 24 S		Rte 24 S
3/24/2006	9:44:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				250 feet N from Exit 17B on Rte 24 N		Rte 24 N
3/24/2006	10:40:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear				Exit 18A on Rte 24		Rte 24
3/30/2006	5:00:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			NEAR WESTGATE MALL			1500 feet E from Intersection 535 WESTGATE DRIVE / Rte 24
4/4/2006	3:00:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP-RT 123 EB TO RT 24 NB
4/8/2006	10:00:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
4/10/2006	6:15:00 AM	(none injured)	3	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear						200 feet S from Intersection Rte 24 N / Rte 123
4/22/2006	4:50:00 AM	(none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 18A on Rte 24 N		Rte 24 N
4/24/2006	4:20:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy/Clear						BELMONT STREET Rte 24 / Rte 24
4/25/2006	8:15:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N
4/28/2006	1:05:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 17A on Rte 24 S		Rte 24 S
4/28/2006	9:30:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						BELMONT STREET / Rte 24
5/2/2006	10:05:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 18A on Rte 24 N		Rte 24 N
5/12/2006	11:46:00 PM	(none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain						1000 feet E from Intersection 700 OAK STREET Rte 24 / Rte 24
5/18/2006	2:10:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 17A on Rte 24 N		BELMONT STREET Rte 24 N
5/19/2006	6:49:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Rain				200 feet S from Exit 17B on Rte 24 S		Rte 24 S
5/30/2006	8:20:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 18A on Rte 24 N		Rte 24 N
6/20/2006	6:45:00 AM	(none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1000 feet S from Exit 17A on Rte 24		Rte 24 / Rte 123
6/23/2006	10:15:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy				Exit 17A on Rte 24		REYNOLDS HIGHWAY Rte 24 / WEST STREET
7/10/2006	2:05:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
7/11/2006	4:06:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RAMP TO ROUTE 123 EAST			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 24 NB TO RT 123 EB
7/14/2006	1:05:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				1000 feet S from Exit 18A on Rte 24 S		Rte 24 S
7/15/2006	9:25:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			RAMP TO ROUTE 24 NORTH			Rte 27 E / Rte 24
7/17/2006	6:10:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP-RT 27 NB TO RT 24 NB Rte 27 / Rte 24
7/23/2006	12:00:00 AM	(none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear				Exit 18B on Rte 24 S		Rte 24 S
7/28/2006	5:22:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 18B on Rte 24 S		Rte 24 S
7/28/2006	11:50:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 18B on Rte 24		Rte 24 / Rte 24
8/3/2006	4:20:00 AM	(none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						300 feet N from Intersection Rte 24 S / Rte 123
8/3/2006	10:30:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						Rte 24 / Rte 123
8/12/2006	1:56:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				0 feet S from Exit 17B on Rte 24 S		Rte 24 S
8/15/2006	12:30:00 PM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 18A on Rte 24 S		Rte 24 S
8/31/2006	5:45:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	BELMONT STREET Rte 123 E	Rte 24 N / RAMP-RT 123 EB TO RT 24 NB				
9/12/2006	10:30:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 S / Rte 123
9/24/2006	12:15:00 PM	(none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						100 feet E from Intersection REYNOLDS HIGHWAY / Rte 24
9/26/2006	10:35:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 17B on Rte 24 S		Rte 24 S
10/2/2006	6:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 18A on Rte 24 N		Rte 24 N
10/3/2006	8:36:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24	BELMONT STREET / RAMP-RT 123 EB TO RT 24 NB				
10/6/2006	1:30:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						BELMONT STREET / Rte 24
10/12/2006	8:40:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 18A on Rte 24 S		Rte 24 S
10/15/2006	3:00:00 PM	(none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 18A on Rte 24		Rte 24
10/18/2006	1:20:00 PM	(none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy						BELMONT STREET / RAMP-RT 123 EB TO RT 24 NB Rte 24
10/18/2006	9:00:00 AM	(none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						BELMONT STREET Rte 123 E / RAMP-RT 123 EB TO RT 24 NB Rte 24
10/20/2006	1:30:00 AM	(none injured)	2	0	0	Rear-end	Rear-end	Wet	Other	Clear				Exit 17B on Rte 24		Rte 24
10/24/2006	5:30:00 PM	(none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 123 / Rte 24
10/26/2006	8:25:00 PM	(none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Clear/Clear			RTE 24 OFF RAMP			RAMP-RT 24 NB TO RT 27 NB / Rte 27
11/6/2006	4:30:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						Rte 24
11/28/2006	9:38:00 PM	(none injured)	4	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Rain				75 feet W from Exit 17B on Rte 24		Rte 24
12/4/2006	9:22:00 AM	(none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear						Rte 24 N
12/4/2006	10:00:00 AM	(none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N / Rte 123
12/4/2006	10:00:00 AM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Snow				2000 feet N from Exit 18B on Rte 24 N		Rte 24 N
12/30/2006	5:30:00 PM	(none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear				Exit 18B on Rte 24 S		Rte 24 S
8/29/2004	12:30:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Rte 24	Exit 18B on Rte 24		Rte 24
11/13/2004	5:00:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear			WESTGATE MALL ENTRANCE - REYNOLDS HIGHWAY Rte 27			REYNOLDS HIGHWAY Rte 27 / RAMP-RT 24 NB TO RT 27 NB
5/11/2005	12:37:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24 N	BELMONT STREET Rte 123 E				
5/21/2005	6:41:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17B on Rte 24 N		Rte 24 N
2/2/2006	12:00:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 18B on Rte 24 N		Rte 24 N
5/18/2006	1:30:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 17B on Rte 24		Rte 24 / Rte 24

CANTON	1/1/2004	12/31/2006	similar to: rte 24 route 24												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Object_hit	Collision_with	Road_Surface	Lighting	Weather	Street	Address/Landmark	Exit Distance	Feet_From
8/16/2004	4:34:00 AM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy		Rte 24 S		Rte 24 S
3/8/2006	6:15:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				35 SHAWMUT ROAD Rte 1 / DEDHAM STREET Rte 24
3/21/2006	8:43:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24 N
7/26/2006	5:38:00 PM	Non-fatal injury	1	1	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear				Rte 24 N
8/10/2006	4:25:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear				Rte 1 / Rte 24
9/15/2006	8:30:00 AM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear				Rte 24
11/1/2006	3:55:00 PM	Non-fatal injury	2	1	0	Rear-end		Rear-end	Dry	Daylight	Clear				WASHINGTON STREET Rte 24 / NEPONSET STREET
2/9/2004	3:30:00 PM	Not Reported	2	0	0	Not reported		Not reported	Dry	Daylight	Clear		Rte 24		Rte 24
2/3/2006	11:35:00 AM	Not Reported	2	0	0	Not reported		Not reported	Dry	Dark - lighted roadway	Clear			Exit 20A on Rte 24	Rte 24
4/29/2006	2:20:00 PM	Not Reported	1	0	0	Not reported		Not reported	Wet	Daylight	Clear			Exit 19A on Rte 24	Rte 24 N
5/17/2004	8:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction		Sideswipe, same direction	Dry	Daylight	Clear/Clear		RTE 139 - Rte 24 N		Rte 24 N
8/8/2004	12:40:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear		Rte 24 S	Exit 20A on Rte 24	Rte 24 S
10/12/2004	1:30:00 PM	Property damage only (none injured)	5	0	0	Rear-end		Rear-end	Wet	Daylight	Rain/Cloudy		Rte 93 N		1000 feet S from Intersection Rte 93 N / Rte 24
10/20/2004	9:10:00 AM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear		ONE HALF MILE BEFORE THE 95 SPLI - Rte 24 N		Rte 24 N
12/9/2004	5:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Dark - roadway not lighted	Clear		EXIT FOR 27 RT AND JORDAN STORE - Rte 24 N		Rte 24 N
12/23/2004	4:42:00 PM	Property damage only (none injured)	3	0	0	Rear-end		Rear-end	Wet	Dark - roadway not lighted	Rain/Cloudy		SOUTH OF THE HORSE BRIDGE - Rte 24 S		Rte 24 S
8/5/2005	3:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Cloudy		APPROX 1/2 MILE NORTH OF RTE 139 - Rte 24 S		Rte 24 S
10/3/2005	4:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Dry	Not reported	Not Reported				Rte 24
10/9/2005	8:43:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash		Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain				Rte 24 N
2/26/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash		Single vehicle crash	Dry	Daylight	Clear			15 feet S from Exit 20A on Rte 24	Rte 24 S
11/1/2006	6:19:00 AM	Property damage only (none injured)	2	0	0	Rear-end		Rear-end	Wet	Daylight	Rain				RAMP-RT 93 SB TO RT 95 SB Rte 24 / CROSS STREET Rte 1A
12/16/2006	4:10:00 PM	Property damage only (none injured)	2	0	0	Angle		Angle	Dry	Daylight	Clear		HALF MILE PRIOR TO ROUTE 139		Rte 24 N / Rte 139
12/22/2006	6:10:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash		Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Rte 24 S
4/1/2005	12:20:00 PM	Unknown	2	0	0	Rear-end		Rear-end	Dry	Daylight	Clear	Rte 24			

FALL RIVER	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 24 route 24													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
3/14/2004	6:04:00 PM	Fatal injury	1	2	2	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			BETWEEN EXIT S 7 AND 8 - Rte 24 S		Rte 24 S Milemarker 7.7	Rte 24 S
7/2/2005	7:30:00 PM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						INTERSTATE 195 Rte 24 S / RAMP-RT 34 SB TO RT 195 EB
8/12/2005	12:00:00 PM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	Rte 24	Rte 195				Rte 24 S
10/25/2005	11:10:00 PM	Fatal injury	1	0	1	Not reported	Not reported	Not reported	Not reported	Not Reported				Exit 8 on Rte 24 S		Rte 24 S
11/4/2006	6:46:00 AM	Fatal injury	1	1	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 5 on Rte 24 S		Rte 24 S
11/11/2006	12:00:00 AM	Fatal injury	1	1	1	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear/Clear						Rte 24 S / Rte 195
1/2/2004	10:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Snow	Daylight	Snow			RAMP-RT 24 NB TO BRAYTON AVE			RAMP-RT 24 NB TO BRAYTON AVE
1/16/2004	3:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Clear			Rte 24 S	2500 feet S from Exit 5 on Rte 24 S		PRESIDENT AVENUE Rte 24
1/20/2004	7:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			PRESIDENT AVENUE Rte 24			PRESIDENT AVENUE Rte 24
1/21/2004	7:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			ROUTE 24 Rte 24 S			500 feet N from Intersection ROUTE 24 Rte 24 S / JEFFERSON STREET
1/22/2004	5:15:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark- roadway not lighted	Clear			Rte 24 S		Rte 24 S Milemarker 5.9	Rte 24 S
1/28/2004	11:20:00 AM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Snow/Sleet, hail (freezing rain or drizz			400 feet N from AIRPORT ROAD - Rte 24 N			Rte 24 N
1/31/2004	8:15:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Dark- lighted roadway	Clear			ON BRAGA BRIDGE - Rte 195 W			Rte 195 W / Rte 24
2/5/2004	3:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24	Exit 8B on Rte 24		Rte 24
2/5/2004	6:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24 N	Rte 195 W				
2/6/2004	1:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Sleet, hail (freezing rain or drizzle)			Rte 24	1000 feet N from Exit 8 on Rte 24		Rte 24
2/7/2004	7:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24		Rte 24 Milemarker 8.3	Rte 24
2/7/2004	12:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S		75 feet N from Rte 24 S Milemarker 6.6	Rte 24 S
2/19/2004	7:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Clear			Rte 24	Exit 5 on Rte 24		Rte 24
2/28/2004	8:31:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Dark- roadway not lighted	Clear	ROUTE 24 S HIGHWAY Rte 24 S	FISH ROAD EXT				
3/4/2004	3:52:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Cloudy			30 feet N from RT 24N OFF RAMP - BRAYTON AVENUE			BRAYTON AVENUE
3/15/2004	3:30:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S		Rte 24 S Milemarker 5.0	Rte 24 S
3/24/2004	11:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			JUST PRIOR TO THE RTE. 195 SPLIT - Rte 24 S			Rte 24 S / Rte 195
3/27/2004	3:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Rain/Cloudy			RTE 195 EB & WB RAMPS - Rte 34 N			Rte 24 N / Rte 195
3/31/2004	2:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain			Rte 24	Exit 8 on Rte 24		Rte 24
4/10/2004	4:30:00 AM	Non-fatal injury	3	2	0	Head-on	Head-on	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 N			Rte 24 N / AIRPORT ROAD
4/13/2004	1:04:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N		100 feet N from Rte 24 N Milemarker 8.1	Rte 24 N
4/13/2004	1:06:00 PM	Non-fatal injury	2	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N		100 feet N from Rte 24 N Milemarker 8.1	Rte 24 N
4/14/2004	8:42:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 S		20 feet N from Rte 24 S Milemarker 7.6	Rte 24 S
4/25/2004	10:32:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N		Rte 24 N Milemarker 7.6	Rte 24 N
4/30/2004	4:40:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N			Rte 24 N
5/1/2004	3:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	Rte 24 N	Rte 195 W				
5/1/2004	6:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			RAMP-RT 195 EB TO RT 24 NB Rte 24 S		100 feet S from Rte 24 S Milemarker 2.8	RAMP-RT 195 EB TO RT 24 NB Rte 24 S / INTERSTATE 195
5/3/2004	4:34:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	1000 feet S from Exit 6 on Rte 24 S		Rte 24 S
5/9/2004	11:00:00 AM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Cloudy/Rain			SOUTH OF EXIT 5 - Rte 24 S		Rte 24 S Milemarker 3.5	Rte 24 S
5/22/2004	9:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Other			BRAYTON AVENUE Rte 24			BRAYTON AVENUE Rte 24 / Rte 24 N
5/27/2004	2:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N		100 feet N from Rte 24 N Milemarker 5.0	Rte 24 N
6/12/2004	9:53:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S		200 feet N from Rte 24 Milemarker 34.0	Rte 24 S
6/22/2004	5:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			RAMP-RT 195 WB TO RT 24 SB			RAMP-RT 195 WB TO RT 24 SB / Rte 195
6/24/2004	8:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	Rte 24		Rte 24	Exit 4 on Rte 24		Rte 24 / Rte 195
7/1/2004	8:22:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			RT 24 NB NORTH OF EXIT 2 - RAMP-RT 24 NB TO BRAYTON AVE			RAMP-RT 24 NB TO BRAYTON AVE / Rte 24
7/3/2004	11:15:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			Rte 24 N		Rte 24 N Milemarker 1.3	Rte 24 N
7/20/2004	1:45:00 PM	Non-fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Daylight	Clear/Clear			RAMP - RT 195 WB TO RT 24 SB			RAMP - RT 195 WB TO RT 24 SB / Rte 24
8/1/2004	4:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 24 N	0 feet N from Exit 5 on Rte 24		Rte 24 N
8/1/2004	11:57:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			Rte 24 N			Rte 24 N
8/4/2004	11:25:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Dark- lighted roadway	Rain			INTERSTATE 195 Rte 195 W			INTERSTATE 195 Rte 195 W / RAMP-RT 24 SB TO RT 195 WB
8/18/2004	6:55:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 195 E		Rte 195 E Milemarker 14.9	Rte 195 E / RAMP - RT 24 SB TO RT 195 EB Rte 24
8/23/2004	11:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			Rte 24 N			Rte 24 N
8/29/2004	12:48:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			Rte 24 N			Rte 24 N
9/8/2004	12:11:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			, END OF RAMP FROM PRESIDENT AVE - Rte 24 S			Rte 24 S / PRESIDENT AVENUE
9/10/2004	12:43:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 N			Rte 24 N
9/18/2004	12:57:00 PM	Non-fatal injury	1	5	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			Rte 24 N		300 feet S from Rte 24 N Milemarker 8.2	Rte 24 N
9/28/2004	2:45:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 24 N			Rte 24 N
10/7/2004	1:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			THE EXTENSION, AT EXIT 1 - Rte 24 N			Rte 24 N
10/14/2004	12:22:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N			Rte 24 N / RAMP - RT 24 NB TO RT 195 EB
10/20/2004	6:48:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Clear			ROUTE 24 Rte 24 N			ROUTE 24 Rte 24 N / RAMP-RT 24 NB TO BRAYTON AVE
11/3/2004	7:47:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			200 ROUTE 24			10 feet N from Intersection 200 ROUTE 24 / BRAYTON AVENUE
11/10/2004	9:35:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24	Exit 4 on Rte 24		Rte 24
11/13/2004	1:10:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 24	Rte 81				
11/13/2004	10:30:00 AM	Non-fatal injury	2	2	0	Not reported	Not reported	Snow	Daylight	Snow			SPLIT - ROUTE 24			ROUTE 24 / Rte 195
11/16/2004	2:25:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N / AIRPORT ROAD
11/18/2004	2:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S		200 feet S from Rte 24 S Milemarker 8.1	Rte 24 S
11/28/2004	4:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain			Rte 24 N	300 feet N from Exit 8 on Rte 24		Rte 24 N
12/1/2004	11:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N		50 feet N from Rte 24 N Milemarker 8.1	Rte 24 N
12/6/2004	3:43:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy			855 BRAYTON AVENUE			80 feet E from Intersection 855 BRAYTON AVENUE / Rte 24
12/15/2004	8:20:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			ROUTE 24 Rte 24 N			ROUTE 24 Rte 24 N / RAMP HIGHLAND AVE TO RT 24 NB
1/16/2005	5:45:00 PM	Non-fatal injury	1	1	0	Rear-end	Rear-end	Dry	Dark- lighted roadway	Cloudy/Cloudy				Exit 2 on Rte 24 S		Rte 24 S / RAMP - RT 24 SB TO BRAYTON AVE
1/21/2005	3:05:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			@ RTE 195 - Rte 24 S			Rte 24 S / Rte 195
1/28/2005	4:35:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						1000 feet S from Intersection DAVOL STREET EAST Rte 24 / BRIGHTMAN STREET Rte 24 S
1/28/2005	11:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 195 W / Rte 24
2/6/2005	10:30:00 PM	Non-fatal injury	1	1	0	Angle	Angle	Ice	Dark- roadway not lighted	Cloudy/Snow						MERIDIAN STREET Rte 24 / Rte 24
2/8/2005	6:35:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 N
2/9/2005	4:30:00 PM	Non-fatal injury	1	1	0	Rear-end	Rear-end	Dry	Dusk	Clear						Rte 24 / Rte 81
2/9/2005	7:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 S
2/10/2005	9:45:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 24 / Rte 195
2/11/2005	3:15:00 PM	Non-fatal injury	3	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- unknown roadway lighting	Clear/Clear				30 feet N from Exit 2 on Rte 24		Rte 24 N
2/22/2005	2:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain				Exit 8 on Rte 24		Rte 24
2/22/2005	5:15:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					Rte 24 N Milemarker 1.0	Rte 24 N
3/8/2005	1:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain					200 feet N from Rte 24 N Milemarker 8.1	Rte 24 N
3/9/2005	6:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						INTERSTATE 195 Rte 195 E / RAMP-RT 195 EB TO RT 24 NB
3/12/2005	8:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow						100 Rte 24 S / Rte 24
4/7/2005	3:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24	Rte 81				
4/25/2005	8:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy						PRESIDENT AVENUE ROTARY / Rte 24
5/30/2005	7:02:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						BRAYTON AVENUE Rte 24 / Rte 24
6/4/2005	12:15:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					100 feet N from Rte 24 S Milemarker 2.9	Rte 24 S
6/8/2005	2:43:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Cloudy/Cloudy			AIRPORT RD. OVERPASS - Rte 24 N			Rte 24 N
6/21/2005	1:35:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			FREETOWN LINE - Rte 24 S			Rte 24 S
7/2/2005	4:35:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Cloudy					Rte 24 N Milemarker 1.0	Rte 24 N
7/9/2005	8:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain				500 feet N from Exit 5 on Rte 24		Rte 24 N
7/28/2005	12:15:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 24 S Milemarker 7.8	Rte 24 S
8/12/2005	11:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Clear/Clear				Exit 1B on Rte 24		Rte 24 N
8/13/2005	12:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 S / Rte 195
8/18/2005	1:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear				250 feet W from Exit 8A on Rte 195		Rte 195 / Rte 24
8/19/2005	1:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear/Clear						Rte 195 W / RAMP - RT 195 EB TO RT 24 NB
8/24/2005	8:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					150 feet N from Rte 24 S Milemarker 3.0	Rte 24 S
9/4/2005	11:00:00 PM	Non-fatal injury	1	4	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear						450 feet N from Intersection Rte 24 S / Rte 79
9/5/2005	9:25:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			FREETOWN/FALL RIVER LINE - Rte 24 S			Rte 24 S
9/6/2005	12:47:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 4 on Rte 24 S		Rte 24 S
9/10/2005	3:35:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N
9/17/2005	4:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Fog, smog, smoke			24 SOUTH AT 195 SPLITS - Rte 24 S			Rte 24 S / Rte 195
9/17/2005	12:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy						1320 feet S from Intersection Rte 24 N / BRAYTON AVENUE
9/25/2005	3:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				7920 feet N from Exit 8 on Rte 24 S		Rte 24 S
9/25/2005	5:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						100 feet W from Intersection Rte 24 N / Rte 195
11/9/2005	7:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						250 feet S from Intersection ROUTE 24 Rte 79 N / WILSON ROAD
11/10/2005	12:01:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark- lighted roadway	Rain			EXTENSION - Rte 195 E			Rte 195 E / Rte 24
11/14/2005	1:02:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
11/16/2005	12:25:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
12/16/2005	10:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain					100 feet N from Rte 24 N Milemarker 7.7	Rte 24 N
12/16/2005	10:50:00 AM	Non-fatal injury	3	1	0	Angle	Angle	Snow	Daylight	Cloudy/Snow						Rte 24 N
1/3/2006	10:20:00 AM	Non-fatal injury	1	1	0	Not reported	Not reported	Wet	Daylight	Rain	Rte 24	Rte 24				
1/17/2006	2:59:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						280 feet W from Intersection RT 24SB RAMP 195WB Rte 24 S / INTERSTATE 195 Rte 195 W
1/19/2006	2:20:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear			FALL RIVER			Rte 24 S
1/22/2006	4:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Cloudy/Cloudy				Exit 5 on Rte 24 S		Rte 24 S
2/7/2006	6:36:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			ON RAMP			BRAYTON AVENUE Rte 24 W / Rte 24
2/18/2006	2:07:00 AM	Non-fatal injury	1	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear/Clear				Exit 8 on Rte 24		Rte 24
2/20/2006	2:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear/Clear						Rte 24 S / Rte 195
2/20/2006	10:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 5 on Rte 24 S		Rte 24 S
3/2/2006	10:40:00 PM	Non-fatal injury	4	2	0	Angle	Angle	Snow	Dark- lighted roadway	Snow/Cloudy				Exit 5 on Rte 24 S		Rte 24 S
3/4/2006	5:10:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 S
3/5/2006	2:55:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						0 feet E from Intersection Rte 24 S / RAMP - RT 24 SB TO RT 195 WB Rte 195 E
3/30/2006	4:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 2 on Rte 24 S		BRAYTON AVENUE Rte 24 S
4/1/2006	11:32:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 N
4/13/2006	8:00:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy					Rte 24 N Milemarker 4.9	Rte 24 N
4/14/2006	12:00:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Cloudy			HIGHWAY SIGN FOR EXIT 1B	Exit 1B on Rte 24 S		Rte 24 S
4/24/2006	3:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 24 S		AIRPORT ROAD Rte 24 S
4/29/2006	8:53:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				5280 feet N from Exit 8 on Rte 24		Rte 24
5/3/2006	8:35:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Cloudy/Rain						Rte 195 E / RAMP - RT 24 NB TO RT 195 EB
5/4/2006	7:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear					100 feet S from Rte 24 N Milemarker 5.7	Rte 24 N
5/14/2006	10:43:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Not reported	Cloudy/Rain			RAMP TO 195 EAST			INTERSTATE 195 Rte 24 N / RAMP-RT 34 NB TO RT 195 EB
5/19/2006	3:04:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear			HEADING NORTH	500 feet S from Exit 8 on Rte 24		Rte 24
5/26/2006	6:05:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			ON THE RAMP FROM RT 24 N. TO RT			INTERSTATE 195 Rte 24 / RAMP-RT 24 NB TO RT 195 WB
5/26/2006	6:36:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			JUST NORTH OF EXIT#2	Exit 2 on Rte 24		Rte 24
6/4/2006	2:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear/Clear						Rte 24 S
6/11/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- lighted roadway	Clear/Clear						Rte 24 N
6/17/2006	11:14:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						200 ROUTE 24
6/19/2006	6:59:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						BRAYTON AVENUE Rte 138 / ROUTE 24 Rte 138
7/8/2006	9:30:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark- lighted roadway	Clear						Rte 24 N / BRAYTON AVENUE
7/30/2006	4:00:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Not reported	Clear				Exit 8 on Rte 24		Rte 24
8/6/2006	5:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM ROUTE 81 TO 24 NORTH			Rte 24 N
8/11/2006	5:23:00 PM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			JUST WEST OF 24 NORTH			Rte 195 E / Rte 24
8/25/2006	6:10:00 PM	Non-fatal injury	2	3	0	Head-on	Head-on	Wet	Daylight	Rain/Cloudy						PRESIDENT AVENUE ROTARY Rte 24 N
8/27/2006	6:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain/Cloudy						Rte 24 N
9/

FALL RIVER 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
10/16/2006	4:25:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 24		Rte 24
10/17/2006	3:30:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain						Rte 24 N
10/21/2006	7:28:00 PM	Non-fatal injury	1	1	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear						Rte 24 / PRESIDENT AVENUE
10/21/2006	8:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						PRESIDENT AVENUE Rte 24 S
10/24/2006	4:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 195 / Rte 24
10/25/2006	7:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			RAMP TO PRES. AVE.			Rte 24 N
11/13/2006	7:48:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear/Clear						WILLIAM S. CANNING BOULEVARD Rte 81 N / RAMP RT 24 SB TO RT 81 NB
11/15/2006	2:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
11/17/2006	8:02:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			RAMP FROM RTE 24 SB TO RTEC195			20 feet E from Intersection INTERSTATE 195 Rte 195 E / RAMP-RT 24 SB TO RT 195 EB
11/19/2006	4:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			AT RTE 195 INTERCHANGE			INTERSTATE 195 Rte 24 S / RAMP-RT 24 SB TO RT 195 EB
11/21/2006	4:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 6 on Rte 24 S		ROUTE 24 Rte 24 S / WILSON ROAD
11/23/2006	6:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain						INTERSTATE 195 Rte 195 W / RAMP-RT 24 NB TO RT 195 WB
11/30/2006	6:04:00 AM	Non-fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear			BETWEEN THE ROUTE 24 RAMPS (EXIT			Rte 195 W / RAMP-RT 195 WB TO RT 24 NB
12/1/2006	12:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			40 feet S from RT 24 S ON RAMP			BRAYTON AVENUE / RAMP-BRAYTON AVE TO RT 24 SB
12/16/2006	3:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24
4/28/2004	7:46:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			AIRPORT ROAD Rte 24			AIRPORT ROAD Rte 24
10/2/2004	2:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N			Rte 24 N
11/12/2004	3:05:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 24			Rte 24
2/2/2005	10:35:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Dark - roadway not lighted	Clear/Clear				60 feet E from Exit 8 on Rte 24 S		Rte 24 S
2/25/2005	4:20:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 24 / Rte 79
1/3/2006	9:15:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Snow				500 feet N from Exit 8 on Rte 79 N		Rte 79 N / Rte 24
1/4/2006	11:15:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 S
1/30/2006	5:05:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Rain	Rte 24	Rte 79				
9/5/2006	4:10:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 7 on Rte 24		Rte 24
1/15/2004	1:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear			SPLIT TO RTE 195 E - Rte 24 N			Rte 24 N
1/18/2004	2:19:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Cloudy/Snow			RTE. 24 SOUTH NORTH OF PRESIDENT - Rte 24		Rte 24 Milemarker 6.2	Rte 24
1/18/2004	7:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Clear/Clear			ROUTE 24 Rte 24 S	1320 feet S from Exit 4 on Rte 24 S		ROUTE 24 Rte 24 S
1/22/2004	9:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S		Rte 24 S Milemarker 5.0	Rte 24 S
1/23/2004	10:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S		400 feet N from Rte 24 S Milemarker 2.9	Rte 24 S
1/27/2004	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 5 on Rte 24		Rte 24
1/29/2004	2:10:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Ice	Dark - roadway not lighted	Clear	RAMP-AIRPORT RD TO RT 24 NB	AIRPORT ROAD				
1/30/2004	6:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dawn	Clear	Rte 24 N	AIRPORT ROAD				
2/1/2004	10:15:00 PM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Dry	Dark - roadway not lighted	Clear	Rte 24 E					
2/2/2004	8:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N		300 feet S from Rte 24 N Milemarker 0.3	Rte 24 N
2/5/2004	2:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 24 S	1 feet S from Exit 5 on Rte 24 S		Rte 24 S
2/6/2004	6:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Sleet, hail (freezing rain or drizz			Rte 24 E	100 feet N from Exit 8B on Rte 24 E		Rte 24 E
2/13/2004	4:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 24 N					
2/25/2004	4:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 24 S	2640 feet S from Exit 6 on Rte 24 S		Rte 24 S
3/9/2004	7:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			END OF RAMP FROM RTE 24 NB TO RT - INTERSTATE 195 Rte 195 E			INTERSTATE 195 Rte 195 E / RAMP-RT 195 EB TO RT 24 NB
3/9/2004	10:25:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N			1000 feet N from Intersection Rte 24 N / Rte 81
3/15/2004	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			INTERSTATE 195 Rte 24 N			INTERSTATE 195 Rte 24 N / RAMP-RT 195 EB TO RT 24 NB
3/16/2004	4:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Snow/Snow			Rte 24 S	2600 feet N from Exit 5 on Rte 24 S		Rte 24 S
4/3/2004	2:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			100 feet S from FREETOWN LINE - ROUTE 24 Rte 24 S			ROUTE 24 Rte 24 S
4/4/2004	7:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			Rte 24 S	Exit 1B on Rte 24 S		Rte 24 S
4/13/2004	6:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N			Rte 24 N
4/14/2004	12:44:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N		10 feet S from Rte 24 N Milemarker 5.8	Rte 24 N
4/15/2004	9:34:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 195 W			200 Rte 195 W / Rte 24
4/21/2004	11:52:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			Rte 24 N		Rte 24 N Milemarker 1.7	Rte 24 N
4/25/2004	6:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain			Rte 24 N			Rte 24 N
4/27/2004	6:48:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy			Rte 24 S	50 feet N from Exit 7 on Rte 24 S		Rte 24 S
4/28/2004	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			AIRPORT ROAD EXIT - Rte 24 N			Rte 24 N
5/3/2004	5:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	Rte 24 N					
5/4/2004	4:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RAMP TO PRESIDENT AVE ROTARY - Rte 24 N			Rte 24 N
5/4/2004	7:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			ROUT E 24 Rte 24 N			ROUTE 24 Rte 24 N / RAMP-BRAYTON AVE TO RT 24 NB
5/12/2004	1:20:00 AM	Property damage only (none injured)	1	0	0	Unknown	Unknown	Dry	Dark - roadway not lighted	Clear			Rte 24 S	Exit 6 on Rte 24 S		Rte 24 S
5/28/2004	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			1000 feet N from RTE 79 SPLIT - Rte 24 S			1000 feet N from Intersection Rte 24 S / Rte 79
5/28/2004	11:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain			500 feet N from AIRPORT ROAD EXIT - Rte 24 N			Rte 24 N
5/29/2004	11:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			RT 24S ON RAMP - 900 BRAYTON AVENUE			900 BRAYTON AVENUE
6/1/2004	3:59:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S	1000 feet S from Exit 2 on Rte 24 S		Rte 24 S
6/1/2004	10:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 S			25 feet W from Intersection Rte 24 S / RAMP - RT 24 SB TO RT 195 WB
6/4/2004	12:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Clear			Rte 24 S		100 feet N from Rte 24 S Milemarker 7.6	Rte 24 S
6/10/2004	8:22:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Cloudy/Rain			RAMP FROM RTE 195 WEST TO RTE 24 - Rte 195 W			Rte 195 W / Rte 24
6/28/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			RAMP-AIRPORT RD TO RT 24 SB			RAMP-AIRPORT RD TO RT 24 SB / Rte 24
6/29/2004	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RAMP-RT 24 NB TO RT 195 WB			RAMP-RT 24 NB TO RT 195 WB / Rte 195
7/5/2004	7:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy			BRAYTON AVE. - ROUTE 24 Rte 24 N			ROUTE 24 Rte 24 N / RAMP-RT 24 NB TO BRAYTON AVE
7/13/2004	5:30:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Rain/Rain			Rte 24 S	Exit 5 on Rte 24 S		Rte 24 S / PRESIDENT AVENUE
7/24/2004	5:46:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			EXIT 2 OFF RAMP - RAMP RT 24 NB TO BRAYTON AVE			RAMP-RT 24 NB TO BRAYTON AVE / Rte 24
7/27/2004	6:42:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 4 on Rte 24 S		Rte 24 S
7/28/2004	11:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy			INTERSTATE 195 Rte 195 E			INTERSTATE 195 Rte 195 E / RAMP-RT 195 EB TO RT 24 NB
8/1/2004	1:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N
8/19/2004	11:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			LANGLEY STREET Rte 24			LANGLEY STREET Rte 24 / HIGHLAND AVENUE Rte 24
8/20/2004	12:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			ROUTE 24 Rte 24 N			ROUTE 24 Rte 24 N
8/21/2004	5:42:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Rain			Rte 24 N			Rte 24 N
8/21/2004	5:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain			Rte 24 S		Rte 24 S Milemarker 3.0	Rte 24 S
8/21/2004	6:44:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			200 ROUTE 24			200 ROUTE 24
9/1/2004	2:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM RTE 195 EAST TO RTE 24 - RAMP-RT 195 EB TO RT 24 NB			RAMP-RT 195 EB TO RT 24 NB / Rte 24
9/3/2004	9:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N			Rte 24 N
9/16/2004	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			1500 BRAYTON AVENUE			1500 BRAYTON AVENUE / Rte 24
9/16/2004	7:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			RAMP-RT 6 TO RT 24 SB			RAMP-RT 6 TO RT 24 SB / Rte 24
9/16/2004	12:01:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy			BRAYTON AVENUE			BRAYTON AVENUE / RAMP-BRAYTON AVE TO RT 24 SB
9/18/2004	1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			Rte 24 N		300 feet S from Rte 24 N Milemarker 8.2	Rte 24 N
9/24/2004	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			ROUTE 24 Rte 24 N			ROUTE 24 Rte 24 N
9/25/2004	8:46:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			BETWEEN RAMP FROM RTE 24 SOUTH A - INTERSTATE 195 Rte 195 E			INTERSTATE 195 Rte 195 E / RAMP-RT 24 SB TO RT 195 EB
9/26/2004	7:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy			1 PRESIDENT AVENUE ROTARY Rte 24			1 PRESIDENT AVENUE ROTARY Rte 24 / EASTERN AVENUE NORTH
9/30/2004	12:29:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Unknown	Clear/Clear			Rte 24 S		Rte 24 S Milemarker 7.9	Rte 24 S
10/3/2004	1:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy			Rte 24 N		75 feet N from Rte 24 N Milemarker 4.7	Rte 24 N
10/6/2004	8:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N		50 feet S from Rte 24 Milemarker 11.5	Rte 24 N
10/14/2004	1:06:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			ON RAMP TO RTE 24 SB - RAMP-RT 6 TO RT 24 SB			RAMP-RT 6 TO RT 24 SB / Rte 24
10/14/2004	12:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 24 N			Rte 24 N / Rte 95
10/14/2004	12:34:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 24 N			Rte 24 N
10/16/2004	4:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain			Rte 24 N			Rte 24 N
10/17/2004	12:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain			Rte 24 N			Rte 24 N
10/30/2004	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			RAMP - RT 24 NB TO RT 195 WB			RAMP - RT 24 NB TO RT 195 WB / Rte 195
11/5/2004	6:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ROUTE 24 Rte 24 S			ROUTE 24 Rte 24 S / RAMP-RT 24 SB TO BRAYTON AVE
11/10/2004	2:27:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			ROUTE 24 Rte 24 S			ROUTE 24 Rte 24 S / JEFFERSON STREET
11/13/2004	5:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Clear			Rte 24 S			500 feet N from Intersection Rte 24 S / Rte 195
11/13/2004	8:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow			EXT - ROUTE 24			ROUTE 24 / BRAYTON AVENUE
11/18/2004	11:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N / RAMP - RT 24 NB TO RT 195 WB
11/24/2004	1:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N			Rte 24 N / BROADWAY EXTENSION
11/25/2004	12:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 24 S	Exit 2 on Rte 24 S		Rte 24 S
12/1/2004	11:16:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			Rte 24 N		150 feet N from Rte 24 Milemarker 11.1	Rte 24 N
12/1/2004	12:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dusk	Cloudy/Rain			Rte 24 N		100 feet N from Rte 24 N Milemarker 8.1	Rte 24 N
12/6/2004	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24			Rte 24
12/8/2004	6:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			500 feet N from RTE 195 - Rte 24 N			500 feet N from Intersection Rte 24 N / Rte 195
12/12/2004	12:29:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy			900 BRAYTON AVENUE Rte 24 N			900 BRAYTON AVENUE Rte 24 N
12/13/2004	7:34:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Daylight	Cloudy			Rte 24 N		Rte 24 N Milemarker 3.0	Rte 24 N
12/19/2004	4:02:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S			100 feet S from Intersection Rte 24 S / NORTH MAIN STREET
12/20/2004	9:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow			Rte 24 N			Rte 24 N
12/21/2004	12:01:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24			Rte 24 / RAMP - BRAYTON AVE TO RT 24 NB
12/22/2004	1:37:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			ROUTE 24 Rte 24 S			ROUTE 24 Rte 24 S / RAMP-RT 24 SB TO AIRPORT RD
12/22/2004	7:17:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			ROUTE 24 Rte 24 N			ROUTE 24 Rte 24 N / RAMP-RT 24 NB TO AIRPORT RD
12/23/2004	10:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			ROUTE 24 Rte 24 S			ROUTE 24 Rte 24 S
1/4/2005	5:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				5280 feet N from Exit 8B on Rte 24		Rte 24
1/5/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Rain/Cloudy	Rte 24 N	Rte 79 N				
1/9/2005	1:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear					Rte 24 S Milemarker 8.0	Rte 24 S
1/11/2005	8:05:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Clear			RAMP FROM RTE 79 N - Rte 24 N			Rte 24 N / Rte 79
1/18/2005	1:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 24 S
1/26/2005	7:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Dark - lighted roadway	Snow/Blowing sand, snow						MARIANO BP BOULEVARD Rte 24 / Rte 24
1/28/2005	4:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Dusk	Clear						HERMAN STREET Rte 24 / HIGHLAND AVENUE Rte 24
1/29/2005	3:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						Rte 24 S
1/29/2005	4:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Clear/Snow						1 EASTERN AVENUE Rte 24 / Rte 24
1/30/2005	6:48:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy						NORTH EASTERN AVENUE Rte 24 / NEW BOSTON ROAD Rte 24
2/1/2005	3:35:00 PM	Property damage only (none injured)	6	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1000 feet N from Exit 8 on Rte 24 S		Rte 24 S
2/5/2005	6:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Clear						500 Rte 24 / Rte 24
2/9/2005	4:51:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 24 N Milemarker 0.1	Rte 24 N
2/11/2005	9:10:00 AM	Property damage only (none injured)	5	0	0	Unknown	Unknown	Wet	Daylight	Cloudy/Rain			AT THE RTE 24 NORTH RAMP - Rte 195 W			Rte 195 W / RAMP-RT 195 WB TO RT 24 NB
2/14/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy	Rte 24 N	Rte 79 N				
2/21/2005	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Blowing sand, snow						PRESIDENT AVENUE Rte 24 N
2/22/2005	10:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 N Milemarker 0.9	Rte 24 N
2/22/2005	10:08:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear					Rte 24 N Milemarker 1.1	Rte 24 N
2/24/2005	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			500 feet S from ROUTE 24 NORTH MERGE - Rte 79 N			500 feet S from Intersection Rte 79 N / Rte 24
2/26/2005	4:05:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Clear					Rte 24 N Milemarker 8.0	Rte 24 N
2/28/2005	11:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			RAMP FROM RTE 24 NORTH (THE EXTE - INTERSTATE 195 Rte 195 W			INTERSTATE 195 Rte 195 W / RAMP-RT 24 NB TO RT 195 WB
3/2/2005	11:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Clear					100 feet N from Rte 24 S Milemarker 8.9	Rte 24 S
3/6/2005	11:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
3/11/2005	7:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
3

FALL RIVER 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
4/10/2005	8:50:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24 / Rte 195
4/12/2005	3:51:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Unknown						700 Rte 24 N
4/15/2005	12:15:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear						GOVERNMENT CTR STREET Rte 195 / RAMP-AIRPORT RD TO RT 24 NB
4/17/2005	6:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					50 feet N from Rte 24 N Milemarker 3.5	Rte 24 N
4/19/2005	8:03:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						100 feet N from Intersection 101 ROUTE 24 Rte 81 N / NAPOLEON STREET Rte 24 N
4/23/2005	9:56:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain						200 ROUTE 24 HWY
5/25/2005	10:27:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain					Rte 24 N Milemarker 8.5	Rte 24 N
6/1/2005	12:56:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				300 feet N from Exit 8 on Rte 24 S		Rte 24 S
6/4/2005	1:15:00 PM	Property damage only (none injured)	1	0	0	Unknown	Unknown	Dry	Dawn	Clear						Rte 195 / Rte 24
6/5/2005	4:56:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear				100 feet S from Exit 1B on Rte 24 S		Rte 24 S
6/6/2005	6:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			ACROSS FROM WATUPPA RESERVOIR - Rte 24			1000 feet N from Intersection Rte 24 / Rte 195
6/14/2005	2:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain						Rte 24 N
6/14/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						Rte 24 N
6/14/2005	7:49:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						BRAYTON AVENUE / RAMP-BRAYTON AVE TO RT 24 NB Rte 24 S
6/18/2005	4:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						200 ROUTE 24 / BRAYTON AVENUE
6/22/2005	4:16:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear						900 BRAYTON AVENUE Rte 24 S
6/24/2005	2:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 24 N
6/30/2005	8:36:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			ROTARY FROM PRESIDENT AVE TO RTE - PRESIDENT AVENUE ROTARY			PRESIDENT AVENUE ROTARY / Rte 24
7/7/2005	4:20:00 PM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 8 on Rte 24 S		Rte 24 S
7/10/2005	1:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 24 S Milemarker 1.0	Rte 24 S
7/17/2005	6:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			50 feet W from ON RAMP FROM ROUTE 24N - Rte 195 E			50 feet W from Intersection Rte 195 E / Rte 24
7/23/2005	9:23:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			JUST BEYOND THE MERGE OF RTE. 79 - Rte 24 N			Rte 24 N
8/4/2005	1:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear						Rte 24 S / Rte 95
8/6/2005	11:49:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					10 feet S from Rte 24 S Milemarker 4.3	Rte 24 S
8/15/2005	10:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						10 feet S from Intersection Rte 24 N / RAMP - RT 24 NB TO RT 195 EB
8/18/2005	3:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			PRESIDENT AVE OFF RAMP - Rte 24 N			Rte 24 N
8/20/2005	8:59:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear						Rte 24 S
8/24/2005	5:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear				Exit 5 on Rte 24 S		Rte 24 S
8/28/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear/Clear			SOUTH OF PRESIDENT AVE. - Rte 24 S		Rte 24 S Milemarker 4.2	Rte 24 S
9/10/2005	6:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						WILLIAM S. CANNING BOULEVARD / ROUTE 24
9/12/2005	7:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			O/P - STAFFORD ROAD Rte 24 N			STAFFORD ROAD Rte 24 N
9/15/2005	1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain						Rte 24 N
9/18/2005	1:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			100 feet S from OF FREETOWN TOWN LINE - Rte 24 S			Rte 24 S
10/8/2005	1:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain				Exit 2 on Rte 24 S		Rte 24 S
10/9/2005	9:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy						Rte 24 S / Rte 195
10/13/2005	4:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						ROUTE 24 Rte 24 N / RAMP-RT 24 NB TO BRAYTON AVE
10/20/2005	9:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
10/22/2005	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain						Rte 24 N
10/30/2005	2:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					100 feet S from Rte 24 N Milemarker 1.3	Rte 24 N
11/6/2005	3:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
11/10/2005	9:05:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Daylight	Cloudy						INDUSTRIAL PARK ROAD Rte 24 / Rte 24
11/15/2005	7:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					Rte 24 S Milemarker 6.6	Rte 24 S
11/15/2005	9:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Rain						Rte 195 E / RAMP - RT 24 NB TO RT 195 EB
11/20/2005	3:25:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			RTE 195 - Rte 24 S			Rte 24 S
11/22/2005	7:41:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Daylight	Rain/Rain						200 feet E from Intersection Rte 195 W / Rte 24
11/30/2005	3:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain			JUST NORTH OF EXIT 8 - Rte 24 N			Rte 24 N
12/1/2005	6:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 79 Rte 79 N / ROUTE 24
12/7/2005	7:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					300 feet N from Rte 24 N Milemarker 4.3	Rte 24 N
12/9/2005	9:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow						Rte 24 N
12/12/2005	4:34:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear						Rte 195 W / Rte 24
12/15/2005	1:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
12/15/2005	12:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					200 feet S from Rte 24 N Milemarker 1.0	Rte 24 N
12/16/2005	12:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain					300 feet S from Rte 24 N Milemarker 8.2	Rte 24 N
12/21/2005	3:59:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						900 BRAYTON AVENUE Rte 24 S / Rte 24
12/23/2005	1:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S / NORTH MAIN STREET
1/3/2006	9:01:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Sleet, hail (freezing rain or drizzle)						Rte 24 S
1/3/2006	11:15:00 AM	Property damage only (none injured)	4	0	0	Angle	Angle	Slush	Daylight	Snow				50 feet S from Exit 8 on Rte 24 S		Rte 24 S
1/14/2006	4:58:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 5 on Rte 24		Rte 24
1/14/2006	11:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Rain						INTERSTATE 195 Rte 24 N
1/14/2006	12:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Rain				Exit 8 on Rte 24		Rte 24
1/23/2006	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Slush	Daylight	Rain/Snow						Rte 24 N
1/27/2006	1:46:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						PLYMOUTH AVENUE / RAMP-AIRPORT RD TO RT 24 NB Rte 195 E
1/27/2006	5:55:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear						Rte 195 E / Rte 24
1/31/2006	6:50:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain				Exit 8 on Rte 24		Rte 24
2/3/2006	12:07:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy						Rte 24 N
2/13/2006	6:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear			RAMP FROM BRAYTON AVE. TO RTE. 2			BRAYTON AVENUE Rte 24 N
2/14/2006	1:00:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Ice	Dark - roadway not lighted	Clear			TOWARD 195 WEST			STATE HIGHWAY Rte 24 N / Rte 195
2/15/2006	5:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			NORTH OF EXIT 8 (AIRPORT RD EXIT			100 feet N from Intersection Rte 24 S
3/2/2006	3:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow						500 ROUTE 24
3/2/2006	8:51:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Dark - roadway not lighted	Snow						Rte 24 N
3/9/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Dusk	Cloudy						Rte 195 / Rte 24
3/20/2006	3:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						1000 feet S from Intersection Rte 24 N / BRAYTON AVENUE
4/2/2006	1:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 N Milemarker 2.9	Rte 24 N
4/7/2006	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 24 / Rte 195
4/24/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain				Exit 8 on Rte 24		Rte 24
4/26/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	ROUTE 79 Rte 24 N	ROUTE 79 Rte 24 N				
5/4/2006	12:55:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear					100 feet N from Rte 24 S Milemarker 4.8	Rte 24 S
5/11/2006	9:24:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear/Other						Rte 24 / Rte 24
5/13/2006	1:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Cloudy/Rain				Exit 2 on Rte 24 S		Rte 24 S
5/13/2006	6:22:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain				200 feet S from Exit 8 on Rte 24		Rte 24
5/15/2006	4:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						GOVERNMENT CTR STREET Rte 195 / Rte 24
5/15/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				300 feet N from Exit 2 on Rte 24		Rte 24
5/16/2006	9:46:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						100 feet E from Intersection 1 BRAYTON AVENUE Rte 24 / Rte 24
5/17/2006	1:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						PLYMOUTH AVENUE Rte 95 / Rte 24
5/20/2006	1:18:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy			BRAYTON AVE EXIT			Rte 24 S / BRAYTON AVENUE
5/22/2006	7:30:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Cloudy				500 feet S from Exit 5 on Rte 24 S		Rte 24 S
6/2/2006	4:30:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			195 WEST			Rte 24 N / Rte 195
6/7/2006	1:43:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						Rte 24 N
6/7/2006	9:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						Rte 24 N
6/7/2006	11:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain					Rte 24 N Milemarker 7.1	Rte 24 N
6/13/2006	4:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 21 on Rte 24		Rte 24 N
6/15/2006	10:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				Exit 1B on Rte 24 S		Rte 24 S
6/17/2006	12:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 24 N	Rte 24 N				
6/22/2006	5:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						RAMP - BRAYTON AVE TO RT 24 SB
6/25/2006	5:41:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			JUST PRIOR TO EXIT #2	Exit 2 on Rte 24		Rte 24
6/25/2006	6:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy				300 feet N from Exit 8 on Rte 24		Rte 24
7/14/2006	1:14:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 24		Rte 24 / INDUSTRIAL PARK ROAD
8/11/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						Rte 24 N
8/17/2006	12:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
8/23/2006	5:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RTE 24 SOUTH			Rte 195 E / Rte 24
8/25/2006	6:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy						Rte 24 N
8/26/2006	1:32:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						ROUTE 24 Rte 24 N / BEDFORD STREET
8/26/2006	5:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						Rte 24 S
9/6/2006	5:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy			ON RAMP TO ROUTE 195 WEST			RAMP-RT 24 NB TO RT 195 WB
9/8/2006	7:05:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						EASTERN AVENUE Rte 24 N
9/8/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
9/14/2006	6:30:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Rain			EAST OF RAMP FROM 24N			Rte 195 E / Rte 24
9/18/2006	5:22:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			ON RAMP FROM ROUTE 81 NORTH			ROUTE 24 Rte 24 N / RAMP-AIRPORT RD TO RT 24 NB Rte 81
9/22/2006	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						INTERSTATE 195 Rte 195 W / RAMP-RT 195 EB TO RT 24 NB
10/6/2006	2:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 4 on Rte 24 S		Rte 24 S
10/14/2006	7:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Cloudy						Rte 24 N
10/17/2006	10:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
10/20/2006	1:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain	Rte 24	Rte 195				
10/21/2006	11:58:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Clear	RAMP - RT 24 SB TO RT 195 WB Rte 24 S	RAMP - RT 24 SB TO RT 195 WB Rte 24 S				
10/28/2006	11:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Severe crosswinds				Exit 8 on Rte 24		Rte 24
10/30/2006	8:39:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				Exit 5 on Rte 24 S		Rte 24 S
11/4/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						200 Rte 24 N
11/7/2006	11:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy	INTERSTATE 195 Rte 24 N	INTERSTATE 195 Rte 24 N				
11/8/2006	5:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain	Rte 24 S	Rte 195 E				
11/15/2006	9:44:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Cloudy			RTE 195 SPLIT			1000 feet N from Intersection INTERSTATE 195 Rte 24 S / RAMP-RT 24 SB TO RT 195 EB
11/23/2006	9:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Sleet, hail (freezing rain or drizzle)/Severe crosswinds						Rte 24 / Rte 24
11/29/2006	3:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 8 on Rte 24 S		Rte 24 S
12/2/2006	10:36:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				Exit 1A on Rte 24		10 feet S from Intersection Rte 24 / Rte 81
12/4/2006	8:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Snow				Exit 5 on Rte 24 S		Rte 24 S
12/6/2006	1:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			3/4 MILE NORTH OF			RAMP-RT 195 EB TO RT 24 NB Rte 24 N / INTERSTATE 195
12/9/2006	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			ON RAMP FROM 138/79 NORTH			Rte 195 E / RAMP-AIRPORT RD TO RT 24 NB
12/9/2006	9:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				300 feet N from Exit 8 on Rte 24 S		Rte 24 S
12/16/2006	4:57:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						INTERSTATE 195 Rte 24 N / RAMP-RT 24 NB TO RT 195 WB
12/22/2006	9:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain/Cloudy						INTERSTATE 195 Rte 24 N / RAMP-RT 24 NB TO RT 195 EB
12/23/2006	7:02:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain						Rte 24 N
12/26/2006	10:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	Rte 24 S	Rte 195				
1/18/2004	2:20:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Cloudy/Snow			SOUTH OF EXIT 6 - Rte 24 S		Rte 24 S Milemarker 6.1	Rte 24 S
9/20/2005	4:52:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			2500 feet S from EXIT 5 - Rte 24 N			Rte 24 N
1/30/2006	4:30:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy				Exit 7 on Rte 24		Rte 24
10/28/2006	11:20:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						Rte 24 N
10/28/2006	12:29:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Severe crosswinds						Rte 24 N

FREETOWN - 1/1/2004 12/31/2003 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	NonFatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
10/1/2004	7:45:00 PM	Fatal injury	2	4	1	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 24	50 feet E from Exit 10 on Rte 24	50 feet E from Rte 24 Milemarker 12.9	Rte 24 / NORTH MAIN STREET
11/1/2004	6:00:00 PM	Fatal injury	1	3	2	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24	Exit 9 on Rte 24		Rte 24
3/27/2006	9:10:00 PM	Fatal injury	4	1	1	Unknown	Unknown	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 N Milemarker 9.8	Rte 24 N
1/14/2004	8:20:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			Rte 24 S	1000 feet S from Exit 10 on Rte 24 S		Rte 24 S
2/2/2004	8:30:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N			Rte 24 N
3/9/2004	8:00:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy			Rte 24		Rte 24 Milemarker 9.5	Rte 24
3/14/2004	6:05:00 PM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S	100 feet S from Exit 9 on Rte 24 S		Rte 24 S
3/28/2004	6:25:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear/Clear			Rte 24 S	Exit 9 on Rte 24 S		Rte 24 S
4/4/2004	2:30:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 24 S		158 feet N from Rte 24 S Milemarker 9.7	Rte 24 S
4/10/2004	4:29:00 AM	Non-Fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear		1000 feet N from FALL RIVER TOWN LINE - AMVETS MEMORIAL HIGHWAY Rte 24 N				AMVETS MEMORIAL HIGHWAY Rte 24 N
5/15/2004	10:20:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N	Exit 9 on Rte 24		Rte 24 N
6/23/2004	6:16:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			NORTH MAIN STREET Rte 24	Exit 10 on Rte 24		75 feet N from Intersection NORTH MAIN STREET Rte 24 / NORTH MAIN STREET
7/17/2004	3:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S		Rte 24 S Milemarker 12.2	Rte 24 S
7/22/2004	3:08:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 24 N	2640 feet N from Exit 9 on Rte 24		Rte 24 N
7/26/2004	6:04:00 AM	Non-Fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N		Rte 24 N Milemarker 12.8	Rte 24 N
8/5/2004	8:58:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			Rte 24 S	1.0 feet N from Exit 9 on Rte 24 S	10 feet N from Rte 24 S Milemarker 11.0	Rte 24 S
10/1/2004	7:30:00 AM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 24			Rte 24
10/4/2004	9:38:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S		Rte 24 S Milemarker 9.1	Rte 24 S
10/8/2004	7:50:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Fog, smog, smoke			Rte 24 S		100 feet S from Rte 24 S Milemarker 9.0	Rte 24 S
10/9/2004	12:10:01 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N			Rte 24 N
11/13/2004	2:52:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Snow			Rte 24 S	2640 feet S from Exit 10 on Rte 24 S		Rte 24 S
11/13/2004	8:15:00 AM	Non-Fatal injury	2	2	0	Angle	Angle	Snow	Daylight	Snow			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
1/16/2005	10:00:03 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow						Rte 24 N
1/27/2005	12:52:01 PM	Non-Fatal injury	5	2	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Snow/Snow				Exit 9 on Rte 24 S		Rte 24 S
3/1/2005	6:00:00 AM	Non-Fatal injury	3	2	0	Angle	Angle	Slush	Daylight	Snow/Cloudy						Rte 24 N
3/11/2005	2:55:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Snow			24 SB AT EXIT - 10. - Rte 24 S	Exit 10 on Rte 24 S		Rte 24 S
3/12/2005	1:10:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Snow			EXIT 9 - Rte 24 N			100 feet S from Intersection Rte 24 N / Rte 79
3/12/2005	6:45:00 AM	Non-Fatal injury	2	1	0	Not reported	Not reported	Snow	Dark - roadway not lighted	Snow				Exit 9 on Rte 24 S		Rte 24 S
3/12/2005	7:31:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Snow	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)					Rte 24 S Milemarker 11.8	Rte 24 S
3/12/2005	9:00:00 AM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow						Rte 24 S / Rte 79
3/12/2005	9:00:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Cloudy						Rte 24 S
3/12/2005	12:15:00 PM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Snow					100 feet S from Rte 24 N Milemarker 10.2	Rte 24 N
4/16/2005	3:54:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy				Exit 9 on Rte 24 S		Rte 24 S
5/9/2005	8:15:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 10 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP RT 24 NB TO NORTH MAIN ST
5/16/2005	10:15:03 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				700 feet N from Exit 9 on Rte 24 S		Rte 24 S
5/23/2005	5:43:00 AM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	SOUTH MAIN STREETRte 24 S / RAMP RT 24 SB TO RT 79					
6/5/2005	5:20:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					Rte 24 S Milemarker 11.3	Rte 24 S
6/10/2005	6:35:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					Rte 24 N Milemarker 11.7	Rte 24 N
6/26/2005	10:05:03 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				1000 feet S from Exit 9 on Rte 24 S		Rte 24 S
6/28/2005	10:10:03 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Clear				500 feet N from Exit 9 on Rte 24		Rte 24
7/31/2005	9:08:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
8/1/2005	2:49:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				1000 feet S from Exit 9 on Rte 24 S		Rte 24 S
8/2/2005	11:04:03 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					20 feet S from Rte 24 N Milemarker 10.1	Rte 24 N
8/31/2005	11:15:03 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy						200 feet S from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 N / COPICUT ROAD
10/1/2005	2:00:00 AM	Non-Fatal injury	2	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 10 on Rte 24 S		Rte 24 S
10/7/2005	10:42:03 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy				50 feet N from Exit 10 on Rte 24 S		Rte 24 S
10/10/2005	2:45:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
10/20/2005	2:40:00 PM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
12/1/2005	5:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			JUST NORTH OF EXIT 10 - Rte 24 S	Exit 10 on Rte 24 S		Rte 24 S
12/14/2005	12:45:03 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				Exit 9 on Rte 24 S		Rte 24 S
1/1/2006	2:40:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Snow	Dark - roadway not lighted	Snow/Snow				1000 feet S from Exit 10 on Rte 24		Rte 24
1/23/2006	9:40:00 PM	Non-Fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
1/24/2006	8:35:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 9 on Rte 24		Rte 24
1/27/2006	1:00:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear					200 feet N from Rte 24 Milemarker 118.0	Rte 24 S
4/1/2006	7:15:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy				500 feet N from Exit 9 on Rte 24 S		Rte 24 S
4/12/2006	1:30:00 PM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				250 feet S from Exit 10 on Rte 24 S		Rte 24 S
5/4/2006	5:00:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Clear/Cloudy				Exit 9 on Rte 24		Rte 24
5/30/2006	6:50:00 PM	Non-Fatal injury	1	4	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 10 on Rte 24 S		Rte 24 S
6/23/2006	1:36:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy				500 feet N from Exit 10 on Rte 24 S		Rte 24 S
8/5/2006	9:53:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				100 feet N from Exit 10 on Rte 24 S		Rte 24 S
8/15/2006	7:45:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				500 feet N from Exit 8 on Rte 24		Rte 24 N
8/18/2006	7:15:00 AM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 9 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP-RT 24 NB TO RT 79
9/25/2006	3:00:00 AM	Non-Fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain				Exit 9 on Rte 24 S		Rte 24 S
10/3/2006	4:17:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Clear/Clear				Exit 10 on Rte 24 S		Rte 24 S
10/16/2006	3:40:00 PM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			JUST SOUTH OF EXIT 9			Rte 24 N
11/26/2006	4:30:00 PM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
12/9/2006	3:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
5/4/2004	6:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 9 on Rte 24		Rte 24
8/13/2004	7:45:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Dusk	Cloudy			Rte 24 S			Rte 24 S
10/26/2006	7:45:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
1/14/2004	8:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy			Rte 24 S	1320 feet S from Exit 10 on Rte 24 S		Rte 24 S
1/14/2004	9:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			500 feet S from RAILROAD BRIDGE - Rte 24 S	2600 feet S from Exit 9 on Rte 24 S		Rte 24 S
2/13/2004	11:05:03 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 24 N	1000 feet N from Exit 9 on Rte 24		Rte 24 N
3/15/2004	1:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
4/17/2004	11:28:03 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N
4/25/2004	6:24:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N		Rte 24 N Milemarker 9.7	Rte 24 N
5/12/2004	10:00:03 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy			Rte 24 S	1000 feet S from Exit 9 on Rte 24 S		Rte 24 S
5/12/2004	10:10:03 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy			Rte 24 S	Exit 9 on Rte 24 S		Rte 24 S
5/14/2004	4:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N			Rte 24 N
6/19/2004	12:11:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S	250 feet S from Exit 9 on Rte 24 S	250 feet S from Rte 24 S Milemarker 10.9	Rte 24 S
6/23/2004	11:25:03 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			100 feet E from EXIT 09 - Rte 24 S	Exit 9 on Rte 24 S		Rte 24 S
6/24/2004	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N			Rte 24 N
6/28/2004	7:00:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N		100 feet N from Rte 24 N Milemarker 11.6	Rte 24 N
7/19/2004	12:30:03 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			Rte 24 N		25 feet N from Rte 24 N Milemarker 10.1	Rte 24 N
7/28/2004	10:45:03 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain			Rte 24 S	100 feet S from Exit 9 on Rte 24 S		Rte 24 S
7/29/2004	5:23:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Other			RAMP-RT 24 SB TO NORTH MAIN ST Rte 24 S			RAMP-RT 24 SB TO NORTH MAIN ST Rte 24 S / Rte 24
8/19/2004	9:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	500 feet S from Exit 9 on Rte 24 S		Rte 24 S
9/27/2004	6:40:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy			Rte 24 N			Rte 24 N
10/3/2004	5:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear			Rte 24 S	5280 feet S from Exit 9 on Rte 24 S		Rte 24 S
10/18/2004	6:34:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear	NORTH MAIN STREETRAMP RT 24 NB TO NORTH MAIN ST					
10/30/2004	7:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain			Rte 24 S	2.0 feet S from Exit 9 on Rte 24 S		Rte 24 S
11/7/2004	4:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S		50 feet S from Rte 24 S Milemarker 10.2	Rte 24 S
11/9/2004	7:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N			Rte 24 N
11/12/2004	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N			Rte 24 N
11/13/2004	6:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow			Rte 24 S	Exit 10 on Rte 24 S		Rte 24 S
11/14/2004	9:57:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S	50 feet S from Exit 10 on Rte 24 S		Rte 24 S
11/15/2004	7:58:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N			Rte 24 N
12/10/2004	10:15:03 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			Rte 24 S			Rte 24 S
12/11/2004	3:27:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N
12/16/2004	12:02:03 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			SOUTH MAIN STREET Rte 24			SOUTH MAIN STREET Rte 24 / RIDGE HILL ROAD
12/18/2004	1:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	Rte 24 N	NORTH MAIN STREET				
12/22/2004	10:50:03 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
1/6/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Snow					Rte 24 S Milemarker 9.9	Rte 24 S
1/17/2005	3:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow			200 feet S from RAILROAD BRIDGE - Rte 24 N			Rte 24 N
1/18/2005	5:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				100 feet S from Exit 9 on Rte 24 S		Rte 24 S
1/22/2005	4:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Snow	Dusk	Snow				Exit 10 on Rte 24		Rte 24
2/2/2005	4:10:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear						SOUTH MAIN STREET Rte 24 / Rte 24
2/7/2005	12:28:03 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear						SOUTH MAIN STREET Rte 79 S / Rte 24
2/11/2005	6:50:00 PM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
2/18/2005	8:28:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow				Exit 9 on Rte 24		SOUTH MAIN STREET Rte 24
2/21/2005	5:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Blowing sand, snow						Rte 24 N
2/21/2005	5:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Dark - roadway not lighted	Snow/Blowing sand, snow						Rte 24 N
2/21/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Snow/Snow			END OF RAMP FROM 24 S TO X-10. - Rte 24			Rte 24 / NORTH MAIN STREET Rte 24
2/21/2005	9:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Cloudy/Rain				Exit 9 on Rte 24 S		Rte 24 S
3/1/2005	4:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Snow						Rte 24 S
3/5/2005	7:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			1/2 MILE S OF EXIT 9 - Rte 24 N		2640 feet S from Rte 24 N Milemarker 10.2	Rte 24 N
3/9/2005	1:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Fog, smog, smoke			ON RAMP - Rte 24 S	Exit 9 on Rte 24 S		Rte 24 S / Rte 24
3/12/2005	1:37:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Snow					200 feet S from Rte 24 N Milemarker 10.0	Rte 24 N
3/12/2005	2:17:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Snow					200 feet S from Rte 24 N Milemarker 9.8	Rte 24 N
3/12/2005	7:45:00 PM	Property damage only (none injured)	2	0	0	Rear-to-rear	Rear-end	Snow	Dark - roadway not lighted	Snow				5280 feet N from Exit 9 on Rte 24 S		Rte 24 S
3/12/2005	8:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Cloudy			24 SB NO OF X-10. - Rte 24 S	Exit 10 on Rte 24 S		Rte 24 S
3/12/2005	11:00:03 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Cloudy			RT 24 NB NO OF X-10. - Rte 24 N	Exit 10 on Rte 24		Rte 24 N
3/12/2005	12:36:03 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Snow				100 feet N from Exit 9 on Rte 24 S		Rte 24 S
3/14/2005	10:50:03 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			AT FALL RIVER / FREETOWN LINE - Rte 24 S			Rte 24 S
4/19/2005	10:40:03 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				Exit 9 on Rte 24 S		Rte 24 S
4/26/2005	12:25:03 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
5/10/2005	10:25:03 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
5/21/2005	9:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			RT 24 NB, NO OF X-9. - Rte 24 N	Exit 9 on Rte 24		Rte 24 N
5/28/2005	5:10:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 N Milemarker 10.5	Rte 24 N
6/20/2005	2:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			NORTH OF X-10 - Rte 24 N			Rte 24 N
6/22/2005	1:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			JUST NORTH OF EXIT - 9. - Rte 24 S	Exit 9 on Rte 24 S		Rte 24 S
6/24/2005	6:10:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear					200 feet S from Rte 24 N Milemarker 9.3	Rte 24 N
6/25/2005	12:05:03 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 10 on Rte 24 S		Rte 24 S
7/12/2005	10:25:03 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP-RT 79 TO RT 24 NB
8/5/2005	10:45:03 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
8/11/2005	5:01:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 10 on Rte 24		Rte 24
8/13/2005	2:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				100 feet N from Exit 10 on Rte 24 S		Rte 24 S
8/27/2005	12:00:03 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Cloudy						Rte 24 N
9/3/2005	1:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			1/2 MILE SOUTH OF EXIT 9 - Rte 24 N			Rte 24 N
9/14/2005	3:29:00 PM	Property damage only (none injured)	2

FREETOWN 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
3/16/2006	10:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				50 feet N from Exit 10 on Rte 24 S		Rte 24 S
3/24/2006	1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			COPICUT ROAD OVERPASS			AMVETS MEMORIAL HIGHWAY Rte 24 N / COPICUT ROAD
4/7/2006	11:17:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain				Exit 9 on Rte 24 S		Rte 24 S
4/11/2006	11:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				100 feet N from Exit 10 on Rte 24 S		Rte 24 S
4/29/2006	1:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 10 on Rte 24 S		Rte 24 S
5/9/2006	1:00:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
6/1/2006	8:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain						Rte 24 S / Rte 79
6/30/2006	10:25:01 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear				1 feet N from Exit 10 on Rte 24 S		Rte 24 S
7/27/2006	6:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy				20 feet N from Exit 9 on Rte 24		Rte 24
7/30/2006	9:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
8/4/2006	4:02:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				2500 feet N from Exit 10 on Rte 24 N		Rte 24 N
8/13/2006	10:35:03 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
8/26/2006	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 24 N
8/28/2006	10:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain						Rte 24 N
9/27/2006	8:31:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear						SOUTH MAIN STREET Rte 24 / Rte 24
10/22/2006	8:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 9 on Rte 24 S		Rte 24 S
10/31/2006	5:42:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy						Rte 24 N
11/3/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			100 feet N from ASSONET RIVER BRIDGE	Exit 9 on Rte 24 S		Rte 24 S
11/7/2006	3:30:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 9 on Rte 24 S		Rte 24 S
11/9/2006	1:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			50 feet N from FREETOWN/FALL RIVE LINE			Rte 24 S
11/13/2006	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S
11/25/2006	11:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 24
11/30/2006	2:14:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 24 S		Rte 24 S
12/17/2006	7:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy						Rte 24 N / RAMP - RT 24 NB TO RT 79
12/19/2006	4:33:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			25 feet N from RTE 24 S OFF RAMP			SOUTH MAIN STREET
12/19/2006	4:44:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						SOUTH MAIN STREET / RAMP-RT 24 SB TO RT 79 Rte 24 S
7/26/2005	6:15:00 AM	Unknown	1	0	0	Unknown	Unknown	Dry	Daylight	Clear						Rte 24 N
12/30/2006	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 24 S		Rte 24 S

RANDOLPH	1/1/2004	12/31/2006	is similar to rte 24 route 24													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
1/4/2004	3:10:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Cloudy/Rain			HALF MILE NORTH OF RT 24 - Rte 93			Rte 93 / Rte 24
1/12/2004	2:50:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Snow	Dark -lighted roadway	Snow			INTERSTATE 93 Rte 93 S	Exit4 on Rte 93 S		INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
2/29/2004	4:12:00 PM	Non-fatal injury	2	2	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 24	Exit 20A on Rte 24		Rte 24 / Rte 24
3/11/2004	8:38:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			Rte 24 S		Rte 24 Milemarker 20.0	Rte 24 S
4/26/2004	11:10:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			INTERSTATE 93 Rte 93 S	Exit4 on Rte 93 S		INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
5/24/2004	4:25:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			1/2 MILE NORTH OF RTE 139 - Rte 24 N			2640 feet N from Intersection Rte 24 N / Rte 139
6/16/2004	10:48:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Dark -lighted roadway	Cloudy			Rte 93 S			500 feet N from Intersection Rte 93 S / Rte 24
9/30/2004	7:25:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N	Exit 20A on Rte 24 N		Rte 24 N / Rte 24
10/10/2004	2:25:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N			Rte 24 N / Rte 93
10/19/2004	10:55:00 PM	Non-fatal injury	1	2	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Clear/Clear			Rte 24 N			2640 feet S from Intersection Rte 24 N / Rte 93
11/4/2004	5:50:00 PM	Non-fatal injury	5	1	0	Rear-end	Rear-end	Wet	Dark -lighted roadway	Rain			50 FEET SOUTH OF 93 SPLIT - Rte 24 N			50 feet S from Intersection Rte 24 N / Rte 93
11/11/2004	5:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S			50 feet S from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB
11/14/2004	8:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP - RT 24 NB TO RT 93 NB Rte 24 N			RAMP - RT 24 NB TO RT 93 NB Rte 24 N / INTERSTATE 93
11/17/2004	6:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear	Rte 24 S					
12/1/2004	12:42:00 PM	Non-fatal injury	4	3	0	Angle	Angle	Wet	Daylight	Rain/Rain			UNDER HORSE BRIDGE - Rte 24 N			2000 feet N from Intersection Rte 24 N / CANTON STREET
12/28/2004	10:17:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear			Rte 24 N			Rte 24 N / Rte 139
12/28/2004	12:25:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear			RAMP - RT 24 NB TO RT 93 NB			RAMP - RT 24 NB TO RT 93 NB
1/22/2005	10:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Snow	Dark -lighted roadway	Snow						Rte 24 / Rte 24
2/25/2005	9:05:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			HORSE BRIDGE - Rte 24 N			Rte 24 N
4/11/2005	9:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear						Rte 24
4/30/2005	4:05:00 PM	Non-fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain						WEST STREET Rte 24 / Rte 24
4/30/2005	8:50:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy						Rte 24 N / Rte 139
5/14/2005	5:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			OFF RAMP FROM RT 24N TO RT 93 SO - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
5/16/2005	4:10:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S
6/8/2005	5:00:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						6000 feet S from Intersection Rte 24 N / Rte 93
6/7/2005	11:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RT 139 E/B RAMP TO RT 24 N/B - Rte 24 N			Rte 24 N / Rte 139
6/25/2005	10:30:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
6/29/2005	4:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			HORSE BRIDGE - Rte 24 S			2000 feet S from Intersection Rte 24 S
7/12/2005	2:41:00 AM	Non-fatal injury	2	3	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						1000 feet N from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB
7/13/2005	11:40:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						1000 feet N from Intersection Rte 24 S / Rte 139
7/15/2005	10:00:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N
7/16/2005	6:30:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 93 / Rte 24
7/25/2005	4:30:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy						1000 feet N from Intersection Rte 24 S / Rte 139
8/14/2005	3:45:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 20 on Rte 24		Rte 24
8/26/2005	10:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						1000 feet N from Intersection Rte 24 N / Rte 139
8/27/2005	5:10:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 24
8/30/2005	8:35:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			SOUTH OF 93 SPLIT - Rte 24 N			1000 feet S from Intersection Rte 24 N / Rte 93
9/13/2005	7:25:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S / Rte 24
10/30/2005	10:00:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear			DUMP - Rte 24 N			Rte 24 N
10/31/2005	3:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear						RAMP - RT 24 NB TO RT 93 NB / Rte 24
11/3/2005	10:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Not reported	Not reported	Not Reported						Rte 24 N / Rte 139
11/8/2005	4:09:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear						Rte 24 S / Rte 139
11/17/2005	8:05:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 24
11/26/2005	2:50:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB Rte 93 S
12/6/2005	1:15:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N / Rte 139
12/10/2005	12:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dark -lighted roadway	Snow/Blowing sand, snow						350 feet S from Intersection Rte 24 S / Rte 93
12/14/2005	9:25:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
12/20/2005	8:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
1/2/2006	7:35:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear	Rte 24 N	Rte 93				
1/13/2006	6:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain						Rte 24 / Rte 93
1/22/2006	9:50:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain				Exit 20 on Rte 24		Rte 24
1/31/2006	8:05:00 PM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Sluth	Dark -lighted roadway	Snow/Rain			EXIT 21	Exit 21 on Rte 24		Rte 24
2/7/2006	5:40:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear				Exit 19 on Rte 24		Rte 24
2/8/2006	10:13:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear			HORSE BRIDGE			Rte 24 S
2/23/2006	5:00:00 AM	Non-fatal injury	3	2	0	Rear-to-rear	Rear-to-rear	Wet	Daylight	Cloudy				200 feet S from Exit 5A on Rte 93		RAMP - RT 93 SB TO RT 24 SB Rte 93
3/12/2006	7:41:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy/Cloudy						Rte 24 N / Rte 139
3/21/2006	9:40:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark -lighted roadway	Clear						Rte 24
3/29/2006	8:20:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			RT 139 ON RAMP			Rte 24 S / Rte 139
4/11/2006	3:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				100 feet S from Exit 19 on Rte 24		Rte 24
4/11/2006	4:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						Rte 24 S
4/13/2006	2:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear			NORTH OF EXIT 20			Rte 24 S
4/19/2006	3:15:00 PM	Non-fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 24 N
4/21/2006	1:45:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 93
4/27/2006	1:06:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 20 on Rte 24		Rte 24 N
5/1/2006	7:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy			SOUTH OF I-93			Rte 24 S / Rte 93
5/4/2006	1:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 24 S	Rte 93				
5/10/2006	12:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						Rte 24 / Rte 24
6/20/2006	8:45:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 1A
7/6/2006	8:55:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						Rte 24 N
7/11/2006	8:30:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N / Rte 139
7/15/2006	1:00:00 PM	Non-fatal injury	2	4	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 S
9/15/2006	8:42:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
9/24/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear						Rte 24 S
9/25/2006	3:15:00 AM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Daylight	Clear						Rte 93 / Rte 24
10/11/2006	7:45:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark -lighted roadway	Rain						Rte 93 N / Rte 24
10/19/2006	1:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
11/12/2006	3:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
11/9/2006	3:00:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark -lighted roadway	Clear/Clear						Rte 24
11/17/2006	5:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dusk	Clear						Rte 24 / Rte 24
11/20/2006	3:31:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
12/5/2006	4:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear						Rte 24 / Rte 93
12/14/2006	12:58:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						RANDOLPH ROAD Rte 24 / Rte 24
12/29/2006	12:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			1000 feet N from RT 139			1000 feet N from Intersection Rte 24 N / Rte 139
1/9/2004	4:50:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizz	Rte 24 N	Rte 139 E				
2/20/2004	4:20:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 24		Rte 24			Rte 24
6/21/2004	12:34:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			INTERSTATE 93 Rte 93 N			INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
8/19/2004	7:40:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24 N					
9/28/2004	9:07:00 AM	Not Reported	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain			CENTER STREET Rte 24			CENTER STREET Rte 24 / SOUTH STREET Rte 24
9/29/2004	7:00:00 AM	Not Reported	2	0	0	Angle	Angle	Not reported	Daylight	Rain			POND STREET Rte 24			POND STREET Rte 24 / PACELLA PARK DRIVE Rte 24
10/22/2004	5:50:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			Rte 24			Rte 24 / Rte 139
10/24/2004	2:25:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy			61 REED STREET Rte 24			1500 feet W from Intersection 61 REED STREET Rte 24 / NORTH MAIN STREET Rte 28 W
1/11/2005	7:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 20A on Rte 24		Rte 24 / Rte 24
2/15/2005	6:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						Rte 24 N / Rte 93
3/24/2005	8:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 20 on Rte 24		Rte 24 N
8/2/2005	4:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Not reported	Clear	Rte 24	Rte 24				Rte 24 N
10/7/2005	3:05:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						RANDOLPH ROAD Rte 24
11/2/2005	8:00:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24 / Rte 93
2/7/2006	3:45:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24 / Rte 139
4/12/2006	8:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Not Reported						Rte 24 / Rte 93
5/19/2006	7:15:00 AM	Not Reported	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Cloudy			RANDOLPH EXIT HALF MILE AWAY	Exit 20 on Rte 24		Rte 24 / Rte 139
5/25/2006	3:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 20B on Rte 24		Rte 24 S
9/20/2006	7:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 20 on Rte 24		Rte 24
10/16/2006	3:25:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						200 feet S from Intersection Rte 93 / Rte 24
11/7/2006	9:07:00 AM	Not Reported	3	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 24 / Rte 24
11/14/2006	6:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark -lighted roadway	Clear	Rte 24	Rte 93				
12/20/2006	12:40:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 / Rte 24
1/2/2004	10:05:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Snow			Rte 24 N	Exit 20 on Rte 24		Rte 24 N
1/4/2004	1:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			ROUT 128 - Rte 24 S			Rte 24 S / Rte 93
1/13/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Sleet, hail (freezing rain or drizzle)			Rte 93			Rte 93 / Rte 24
1/26/2004	4:18:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy			RAMP - RT 24 NB TO RT 93 NB Rte 24 S			RAMP - RT 24 NB TO RT 93 NB Rte 24 S / INTERSTATE 93
2/9/2004	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Snow/Rain			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
3/9/2004	4:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain			Rte 24 N			Rte 24 N
3/22/2004	9:05:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy			Rte 93 S			100 feet S from Intersection Rte 93 S / Rte 24
4/17/2004	2:04:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S			Rte 24 S
5/8/2004	9:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N			Rte 24 N / RAMP - RT 93 NB TO RT 28 SB
5/8/2004	11:35:00 AM	Property damage only (none injured)	5	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			RT 24 NB SOUTH OF RT 93 - Rte 24 N			Rte 24 N / Rte 93 S
5/27/2004	7:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			1 MILE SOUTH OF 93 - Rte 24 N			5280 feet S from Intersection Rte 24 N / Rte 93
6/1/2004	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			N OF 139 - Rte 24 N			Rte 24 N
6/13/2004	5:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S / Rte 24
7/31/2004	11:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark -lighted roadway	Clear/Clear			Rte 24 S			Rte 24 S
8/1/2004	6:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			150 feet S from Intersection Rte 24 N / Rte 93
8/8/2004	2:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 S			500 feet N from Intersection Rte 93 S / Rte 24
8/8/2004	5:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 21 on Rte 24		Rte 24
8/10/2004	11:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			Rte 24 S			20 feet S from Intersection Rte 24 S / Rte 93
8/15/2004	12:31:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Rain			INTERSTATE 93 Rte 93 N			INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
8/24/2004	1:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			EXACTLY AT 1 MILE TO RT 93 SIGN - Rte 24 S			Rte 24 S / Rte 93
9/22/2004	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S			6000 feet N from Intersection Rte 24 S / Rte 139
10/22/2004	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
10/26/2004	7:35:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	4000 feet S from Exit 20A on Rte 24		Rte 24 S
11/8/2004	1:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			JUST SOUTH OF RTE 24 - Rte 93 N	500 feet S from Exit 4 on Rte 93 N		Rte 93 N / Rte 24
11/13/2004	6:00:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Snow	Dawn	Snow/Cloudy			Rte 24 N			Rte 24 N / Rte 93
11/15/2004	5:46:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear			Rte 24 N			100 feet S from Intersection Rte 24 N / Rte 93
11/17/2004	3:15:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 NB
11/20/2004	3:30:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 93			Rte 93 / Rte 24
12/1/2004	2:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Cloudy			Rte 24 N			4000 feet N from Intersection Rte 24 N / Rte 139
12/10/2004	11:01:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark -lighted roadway	Rain/Rain			RAMP - RT 93 SB TO RT 24 SB			RAMP - RT 93 SB TO RT 24 SB / Rte 24
12/12/2004	4:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark -lighted roadway	Cloudy/Cloudy			RTE 93 EXIT 4 RAMP TO RTE 24 SB - RAMP - RT 93 NB TO RT 24 SB			RAMP - RT 93 NB TO RT 24 SB
12/16/2004	3:00:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear/Clear			HORSE BRIDGE - Rte 24 S			2000 feet N from Intersection Rte 24 S / CANTON STREET
12/26/2004	9:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow			SOUTH OF HORSE BRIDGE - Rte 24 N	Exit 20 on Rte 24		Rte 24 N

RANDOLPH	1/1/2004	12/31/2006	is similar to rte 24 route 24													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
12/27/2004	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			Rte 24	Exit 20 on Rte 24		Rte 24
1/7/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N / Rte 139
1/8/2005	1:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Sluth	Daylight	Sleet, hail (freezing rain or drizzle)/Cloudy						INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
1/9/2005	2:42:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Sluth	Daylight	Sleet, hail (freezing rain or drizzle)/Cloudy						INTERSTATE 93 Rte 93 N / RAMP - RT 24 NB TO RT 93 NB
1/26/2005	6:05:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dusk	Snow				Exit 20 on Rte 24		Rte 24 N
1/31/2005	4:34:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM 93 N TO 24 S - INTERSTATE 93 Rte 93 N			INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
2/10/2005	1:06:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 24 N
2/11/2005	2:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Sluth	Dark -lighted roadway	Snow/Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 NB
2/15/2005	7:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						5000 feet S from Intersection Rte 24 / Rte 93
2/17/2005	5:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 S
2/23/2005	8:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 21 on Rte 24 N		Rte 24 N / Rte 93
3/1/2005	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow						RAMP - RT 93 NB TO RT 24 SB Rte 93 N
3/23/2005	11:22:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Rain						5000 feet N from Intersection Rte 24 S / Rte 139
3/24/2005	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain						Rte 93 / Rte 24
4/7/2005	1:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N / Rte 24
4/7/2005	10:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
4/11/2005	5:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 20 on Rte 24		Rte 24
4/20/2005	12:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 NB
5/5/2005	6:20:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S
5/28/2005	2:59:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 24 N / Rte 139
6/7/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 20 on Rte 24		Rte 24
6/25/2005	9:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 S
6/26/2005	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Cloudy/Cloudy						INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
6/30/2005	8:32:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear						Rte 93 S / Rte 24
7/1/2005	2:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain						Rte 24 S
7/3/2005	12:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24
7/12/2005	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N / Rte 24
7/27/2005	8:21:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Dusk	Clear			1000 feet S from HORSE BRIDGE - Rte 24 S			Rte 24 S
8/4/2005	3:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 24
8/8/2005	7:30:00 PM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 24
8/8/2005	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			JUST SOUTH OF THE HORSE BRIDGE - Rte 24 S			Rte 24 S
8/17/2005	10:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark -lighted roadway	Clear				Exit 20B on Rte 24		Rte 24 S
8/25/2005	7:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / INTERSTATE 93
8/26/2005	8:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				1000 feet N from Exit 4 on Rte 93 N		1000 feet N from Intersection Rte 93 N / Rte 24
8/27/2005	11:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear	Rte 93 S					INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
8/29/2005	2:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S / Rte 93
8/29/2005	4:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Clear			PRIOR TO EXIT 20 - Rte 24	500 feet S from Exit 20 on Rte 24		Rte 24
8/29/2005	9:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain			RAMP TO S/B RTE 93 - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
9/11/2005	11:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RT. 139 ON RAMP FROM RT 24 N/B - Rte 24 N			Rte 24 N / Rte 139
9/12/2005	9:07:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			HORSE BRIDGE - Rte 24 S			Rte 24 S
10/7/2005	8:10:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			EXIT 20 - Rte 24 N	4000 feet N from Exit 20 on Rte 24		Rte 24 N
10/26/2005	11:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			FROM RAMP - Rte 24			Rte 24 / Rte 93
11/4/2005	6:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear						Rte 24 N
11/10/2005	5:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear						Rte 24 S / CANTON STREET
11/18/2005	11:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N / Rte 93
11/28/2005	10:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			2000 feet S from HORSE BRIDGE - Rte 24 N			5000 feet S from Intersection Rte 24 N / Rte 93
12/4/2005	8:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow						INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB Rte 24
12/6/2005	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				Exit 20B on Rte 24		Rte 24 / Rte 24
12/9/2005	1:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Blowing sand, snow/Snow						Rte 24 N
12/10/2005	2:28:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark -lighted roadway	Rain/Rain						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB
12/14/2005	10:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 S / AMVETS MEMORIAL HIGHWAY Rte 24
12/18/2005	5:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear						Rte 24 S
12/28/2005	4:09:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 24 S
1/15/2006	4:15:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 20A on Rte 24		Rte 24 / Rte 24
1/16/2006	3:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 93 S / Rte 24
1/29/2006	3:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 20 on Rte 24		Rte 24
2/2/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear						Rte 24 N
2/11/2006	2:22:00 PM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
2/11/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
2/24/2006	11:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
2/26/2006	4:59:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
3/3/2006	4:12:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			NORTH OF RT 139			Rte 24 S
3/6/2006	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 24 on Rte 24		Rte 24 / Rte 24
3/23/2006	1:27:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 24 S	Rte 93 N				
3/23/2006	4:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 139
3/28/2006	5:38:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear						Rte 24 S
4/3/2006	8:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			NORTH OF 139 EXIT	Exit 20 on Rte 24		Rte 24
4/12/2006	3:57:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 24 N	Rte 93 N				
4/18/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / Rte 24
4/27/2006	7:50:00 AM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 19 on Rte 24		Rte 24 N
4/29/2006	1:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark -lighted roadway	Clear/Clear			RAMP FROM ROUTE 93 SOUTH TO ROUT			RAMP - RT 93 SB TO RT 24 SB / Rte 24
5/1/2006	1:00:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24 N / Rte 139
5/8/2006	3:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear				Exit 21 on Rte 24		Rte 24 / Rte 93
5/10/2006	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 24 N	Rte 24				
5/20/2006	1:57:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N
5/21/2006	7:23:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear/Clear						Rte 24 S
5/28/2006	1:25:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 24 N
6/8/2006	2:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy	Rte 24 N	Rte 93 N / Rte 93 S				
6/8/2006	2:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 24 N	Rte 24 N				
6/20/2006	1:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 24 S	Rte 24 S				
6/23/2006	2:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 4 on Rte 24		Rte 24 N
7/7/2006	5:05:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Daylight	Clear						Rte 93 / Rte 24
7/11/2006	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear				Exit 20 on Rte 24		Rte 24
7/24/2006	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 93
7/29/2006	10:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
8/1/2006	6:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				2 feet N from Exit 20 on Rte 24		Rte 24
8/4/2006	12:18:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy						Rte 93 S / AMVETS MEMORIAL HIGHWAY Rte 24 N
8/8/2006	8:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				15 feet N from Exit 20 on Rte 24		Rte 24 N
8/17/2006	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
8/26/2006	12:35:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear						Rte 24 / Rte 93
9/8/2006	7:10:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N
9/9/2006	7:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark -lighted roadway	Clear/Clear						Rte 24 N
9/15/2006	7:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark -lighted roadway	Clear/Clear						2640 feet N from Intersection Rte 24 S / Rte 139
9/18/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 24 / Rte 24
9/26/2006	9:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				5000 feet N from Exit 19 on Rte 24		Rte 24
9/28/2006	4:31:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
10/13/2006	7:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark -lighted roadway	Clear						Rte 93 / Rte 24
10/13/2006	10:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N / Rte 93
10/14/2006	5:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 4 on Rte 93		Rte 93 / Rte 24
10/20/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear	Rte 24 N	Rte 93 N				
10/21/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear	RAMP - RT 24 NB TO RT 93 NB Rte 24 N	RAMP - RT 24 NB TO RT 93 NB Rte 24 N				
11/8/2006	11:09:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 N / INTERSTATE 93 Rte 93 S
11/10/2006	1:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark -lighted roadway	Clear/Clear						Rte 24 S
11/21/2006	5:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 2 on Rte 24 N		Rte 24 N
11/26/2006	6:00:00 AM	Property damage only (none injured)	1	0	0	Unknown	Unknown	Dry	Dark - roadway not lighted	Clear				Exit 19 on Rte 24		Rte 24
12/1/2006	4:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dawn	Rain/Cloudy						Rte 24 S
12/11/2006	11:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 24 N / Rte 93
12/13/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Rain						Rte 24 / Rte 24
12/23/2006	3:37:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - unknown roadway lighting	Rain/Rain			PRIOR TO HORSEBRIDGE			Rte 24 N
12/29/2006	11:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP - RT 24 NB TO RT 93 NB Rte 24 N / INTERSTATE 93
3/19/2004	2:45:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24			Rte 24 / Rte 93
6/22/2004	12:30:00 PM	Unknown	2	0	0	Not reported	Not reported	Dry	Dark - roadway not lighted	Clear			Rte 24			Rte 24 / Rte 24
12/26/2004	8:09:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark -lighted roadway	Snow/Severe crosswinds			RT. 24 SOUTH RAMP FROM RT. 93 SO - RAMP - RT 93 SB TO RT 24 SB			RAMP - RT 93 SB TO RT 24 SB
7/17/2005	5:05:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				2000 feet N from Exit 5 on Rte 24		Rte 24 N
5/19/2006	3:10:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 28 on Rte 93		Rte 93 / Rte 24
11/28/2006	7:00:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						Rte 24 N / Rte 93

RAYNHAM 1/1/2004	12/31/2006	Intersection is similar to:													
Crash_Date Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
1/16/2004 8:15:00 PM	Non-Fatal injury	3	3	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
1/20/2004 5:05:00 PM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
2/2/2004 4:17:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ON RAMP FROM RTE 44EAST - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 44 EB TO RT 24 NB
2/9/2004 3:00:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S		Rte 24 S Milemarker 21.3	Rte 24 S
2/17/2004 4:20:00 PM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
3/16/2004 6:45:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
3/18/2004 4:05:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Cloudy/Blowing sand, snow			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
3/22/2004 7:50:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
4/15/2004 4:15:00 PM	Non-Fatal injury	2	3	0	Not reported	Not reported	Not reported	Not reported	Not reported			Rte 24 S			Rte 24 S
4/15/2004 5:00:00 PM	Non-Fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear			Rte 24 N			2640 feet S from Intersection Rte 24 N / Rte 495
4/15/2004 9:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 24 S	Rte 44 E				
5/23/2004 7:30:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dusk	Cloudy			Rte 24		Rte 24 Milemarker 1.0	Rte 24 / Rte 495
5/26/2004 4:50:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			Rte 24 S	Exit 14 on Rte 24		Rte 24 S
5/28/2004 8:30:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
6/11/2004 2:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			SOUTH OF ROUTE 495 - Rte 24 S			Rte 24 S / Rte 495
6/22/2004 8:15:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	0 feet S from Exit 14 on Rte 24		Rte 24 S
7/5/2004 3:25:00 AM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	Exit 14A on Rte 24 N		Rte 24 N
7/5/2004 6:40:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Fog, smog, smoke			Rte 495 S			Rte 495 S / Rte 24
7/16/2004 3:45:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S		Rte 24 S Milemarker 20.0	Rte 24 S
8/21/2004 2:10:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
9/16/2004 4:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dusk	Cloudy/Rain					1.00 feet S from Rte 24 Milemarker 20.0	Rte 24
9/28/2004 3:00:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain			ROUTE 44 Rte 44			ROUTE 44 Rte 44 / RAMP - RT 24 NB TO RT 44 WB Rte 24
9/29/2004 9:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
9/29/2004 11:50:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
10/6/2004 10:48:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N		Rte 24 N Milemarker 22.0	Rte 24 N
10/8/2004 6:45:00 AM	Non-Fatal injury	1	1	0	Rear-end	Rear-end	Wet	Dusk	Fog, smog, smoke			Rte 24 N	Exit 14A on Rte 24 N		Rte 24 N
10/15/2004 8:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain	Rte 24 S	Rte 104				
10/19/2004 6:20:00 AM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Wet	Dawn	Rain			Rte 24 N	5200 feet N from Exit 13 on Rte 24		Rte 24 N
11/18/2004 8:43:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			5280 feet S from Intersection Rte 24 N / Rte 495
11/21/2004 10:30:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			TOP OF RAMP RTE 24 SB TO RTE 495 - Rte 495 S			Rte 495 S / RAMP - RT 24 SB TO RT 495 SB
12/6/2004 8:15:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Cloudy			Rte 24 S	50 feet E from Exit 13B on Rte 24 S		Rte 24 S
12/8/2004 9:45:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
12/17/2004 1:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ON RAMP-2 SOUTH TO 495 NORTH - Rte 24 N			Rte 24 N / Rte 495
12/17/2004 5:10:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 24 S	Exit 13B on Rte 24 S		Rte 24 S
12/28/2004 8:20:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear			BETWEEN RAMPS OF RTE 495 - Rte 24 N			Rte 24 N / Rte 495
1/7/2005 7:00:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dawn	Cloudy						936 PLEASANT STREET / Rte 24
1/8/2005 10:23:00 PM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13 on Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 44 WB
1/25/2005 7:25:00 AM	Non-Fatal injury	3	1	0	Angle	Angle	Wet	Daylight	Clear/Clear				Exit 13 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 N
1/29/2005 2:00:00 AM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Cloudy/Cloudy					Rte 24 S Milemarker 21.0	Rte 24 S
2/13/2005 1:58:00 AM	Non-Fatal injury	2	3	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
2/13/2005 8:45:00 PM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
3/9/2005 5:40:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N
4/4/2005 5:00:00 PM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			SOUTH OF ROUTE 495 - AMBER WAY Rte 24 S	Exit 14 on Rte 24		AMBER WAY Rte 24 S
4/19/2005 5:40:00 PM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
5/10/2005 6:35:00 AM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				100 feet N from Exit 13 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 N
5/11/2005 8:10:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 13 on Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S
5/21/2005 1:35:00 PM	Non-Fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain				Exit 13 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 N
6/12/2005 1:20:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13B on Rte 24 S	Rte 24 S Milemarker 20.2	Rte 24 S
6/26/2005 10:45:00 AM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 14 on Rte 24		Rte 24 S
7/1/2005 7:45:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy				Exit 13A on Rte 24		Rte 24 N
7/14/2005 12:15:00 PM	Non-Fatal injury	2	1	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear				10 feet N from Exit 13B on Rte 24		Rte 24
8/1/2005 7:15:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RAMP TO 24 SOUTH - ROUTE 44 Rte 44 E			ROUTE 44 Rte 44 E / RAMP - RT 44 EB TO RT 24 SB
8/14/2005 3:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24	Rte 44				
8/25/2005 4:15:00 PM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13A on Rte 24 S		Rte 24 S
8/27/2005 3:44:00 PM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
8/30/2005 10:15:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain				Exit 13 on Rte 24		Rte 24 N
9/27/2005 1:10:00 PM	Non-Fatal injury	6	4	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
9/27/2005 6:30:00 AM	Non-Fatal injury	2	1	0	Rear-to-rear	Rear-to-rear	Wet	Daylight	Rain				30 feet S from Exit 14A on Rte 24 N		Rte 24 N
10/16/2005 2:13:00 AM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain				Exit 13B on Rte 24 S		Rte 24 S
10/21/2005 10:05:00 PM	Non-Fatal injury	2	3	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear			JUST NORTH OF ROUTE 44 - Rte 24 N	Exit 13A on Rte 24		Rte 24 N / Rte 44
10/21/2005 10:05:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			JUST NORTH OF RTE 44 - Rte 24 N			Rte 24 N
11/1/2005 11:00:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24	RAMP - RT 24 SB TO RT 44 WB				
11/4/2005 12:37:00 PM	Non-Fatal injury	4	4	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13 on Rte 24		Rte 24 N
11/16/2005 5:50:00 AM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear				5280 feet S from Exit 14A on Rte 24 N		Rte 24 N
11/19/2005 6:10:00 PM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				Exit 13B on Rte 24 S		Rte 24 S
11/30/2005 7:25:00 AM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Rain				4000 feet S from Exit 14 on Rte 24		Rte 24 S
12/12/2005 4:25:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear/Cloudy			1/2 MILE NORTH OF ROUTE 44. - Rte 24 S		Rte 24 S Milemarker 21.3	Rte 24 S
1/5/2006 2:39:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			TOWNE FAIR TIRE			ROUTE 44 Rte 44 / RAMP - RT 24 NB TO RT 44 EB Rte 24
1/23/2006 7:30:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear						ROUTE 44 Rte 44 E / RAMP - RT 24 NB TO RT 44 EB Rte 24 N
1/26/2006 11:11:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 W / RAMP - RT 24 NB TO RT 44 WB Rte 24 N
1/31/2006 2:00:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Not reported	Daylight	Rain						Rte 24 / Rte 495
2/1/2006 12:46:00 PM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy			100 feet S from PLEASANT STREET OVERPASS			Rte 24 N / PLEASANT STREET
2/4/2006 1:45:00 AM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy				Exit 14 on Rte 24		Rte 24 S
2/21/2006 11:10:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13B on Rte 24 S		Rte 24 S
3/1/2006 7:15:00 AM	Non-Fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Cloudy						BROADWAY Rte 104 S / RAMP - RT 24 NB TO RT 44 WB Rte 104
3/2/2006 5:07:00 PM	Non-Fatal injury	2	2	0	Angle	Angle	Snow	Dark - lighted roadway	Snow			ON RAMP			RAMP - RT 44 EB TO RT 24 SB Rte 44 / Rte 24
3/4/2006 6:44:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Dusk	Clear						ROUTE 44 Rte 44 / RAMP - RT 24 NB TO RT 44 EB Rte 24
3/22/2006 9:14:00 PM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						ROUTE 44 Rte 44 / RAMP - RT 24 NB TO RT 44 EB Rte 24
3/27/2006 4:20:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13 on Rte 24 S		Rte 24 S / Rte 24
3/27/2006 7:07:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear						RAMP - RT 24 NB TO RT 44 EB Rte 44 / PARAMOUNT DRIVE Rte 24
4/10/2006 3:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13A on Rte 24		Rte 24
4/17/2006 1:17:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				25 feet S from Exit 13A on Rte 24 S		Rte 24 S
5/13/2006 3:00:00 AM	Non-Fatal injury	1	1	0	Head-on	Head-on	Wet	Dusk	Rain/Fog, smog, smoke				200 feet S from Exit 14B on Rte 24 N		Rte 24 N
5/28/2006 8:40:00 AM	Non-Fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
6/1/2006 8:27:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						ROUTE 44 Rte 44 / RAMP - RT 44 EB TO RT 24 NB Rte 24
6/3/2006 8:30:00 AM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain				Exit 13A on Rte 24 S		Rte 24 S
6/21/2006 11:04:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13A on Rte 24 S		Rte 24 S
7/12/2006 3:30:00 PM	Non-Fatal injury	2	1	0	Not reported	Not reported	Wet	Daylight	Rain/Severe crosswinds	Rte 24 S	Rte 495				
7/20/2006 4:30:00 PM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13B on Rte 24 S		Rte 24 S
7/29/2006 2:36:00 PM	Non-Fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 W / RAMP - RT 24 NB TO RT 44 EB Rte 24
8/23/2006 5:10:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Not reported	Daylight	Clear/Clear						ROUTE 44 Rte 44 W / RAMP - RT 24 NB TO RT 44 EB Rte 24
8/25/2006 12:45:00 PM	Non-Fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Rain/Cloudy			CHRYSLER CAR DEALERSHIP			ROUTE 44 Rte 44 W / RAMP - RT 44 WB TO RT 24 NB
9/6/2006 3:41:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 W / RAMP - RT 24 NB TO RT 44 WB Rte 24
9/19/2006 11:46:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
9/28/2006 4:54:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24 S	ROUTE 44 Rte 44 E				
9/29/2006 4:53:00 PM	Non-Fatal injury	5	5	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet N from Exit 13B on Rte 24 S		Rte 24 S
10/3/2006 5:47:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 N
10/10/2006 5:06:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	RAMP - RT 24 SB TO RT 44 EB Rte 24 E	Rte 44 E				
10/20/2006 12:15:00 PM	Non-Fatal injury	1	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear						Rte 24 / Rte 495
10/25/2006 5:10:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 S
11/13/2006 2:30:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain	RAMP RT 495 NB TO RT 24 NB	INTERSTATE 495 Rte 495 N				
11/20/2006 6:16:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 14 on Rte 24		Rte 24 S
12/5/2006 8:40:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						ROUTE 44 Rte 44 E / RAMP - RT 24 SB TO RT 44 EB Rte 24
12/11/2006 2:45:00 AM	Non-Fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear				Exit 13A on Rte 24		Rte 24
12/14/2006 10:44:00 PM	Non-Fatal injury	3	3	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear				500 feet S from Exit 13A on Rte 24 S		Rte 24 S
4/13/2004 4:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 24 S			Rte 24 S
6/9/2004 1:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			BRADFORD TRAILER - Rte 44			Rte 44 / Rte 24
10/15/2004 4:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 24 S			Rte 24 S
12/31/2004 5:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			OF ROUTE 495 - Rte 24 S			Rte 24 S / Rte 495
2/12/2005 6:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear/Cloudy						Rte 24
2/19/2005 1:05:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24					
3/5/2005 11:05:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						2000 feet S from Intersection Rte 24 N / Rte 495
3/23/2005 4:15:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Daylight	Cloudy						Rte 44 / Rte 24
4/25/2005 6:18:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
6/7/2005 11:10:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13B on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP - RT 24 NB TO RT 44 WB
8/9/2005 10:00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 13A on Rte 24		Rte 24
8/11/2005 5:00:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				16000 feet S from Exit 13A on Rte 24 S		Rte 24 S
8/12/2005 5:04:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 44 / Rte 24
9/21/2005 4:25:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			NORTH OF RTE 44 - Rte 24 S			Rte 24 S
2/10/2006 3:15:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S / Rte 44
3/24/2006 8:33:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy						BROADWAY Rte 44 N / RAMP - RT 138 TO RT 495 NB Rte 24
3/30/2006 7:46:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						ORCHARD STREET Rte 44 / RAMP - RT 24 NB TO RT 44 WB Rte 44
4/9/2006 6:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Wet	Dusk	Rain			SERVICE AREA	Exit 495 on Rte 24		Rte 24
5/28/2006 6:42:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy				Exit 13 on Rte 24		Rte 24 N
8/8/2006 6:15:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 44 / Rte 24
11/13/2006 5:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Wet	Daylight	Cloudy						ROUTE 44 Rte 44 / RAMP - RT 44 EB TO RT 24 SB
12/24/2006 10:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13A on Rte 24		Rte 24
12/29/2006 6:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear				200 feet S from Exit 13A on Rte 24 S		Rte 24 S
1/15/2004 2:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
1/15/2004 3:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Sand, mud, dirt, oil, gravel	Daylight	Clear			Rte 24 S	Exit 13B on Rte 24 S		Rte 24 S
2/2/2004 8:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
2/8/2004 7:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Rain			Rte 24 S	Exit 14 on Rte 24		Rte 24 S
2/12/2004 4:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S / Rte 44
3/5/2004 4:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
3/5/2004 6:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			Rte 24 S			5940 feet N from Intersection Rte 24 S / Rte 44
3/5/2004 6:25:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy			Rte 24 S	1320 feet S from Exit 14 on Rte 24		Rte 24 S
3/12/2004 5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Snow			Rte 24 S			660 feet N from Intersection Rte 24 S / Rte 44
3/12/2004 5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Snow			Rte 24 S	5280 feet S from Exit 14 on Rte 24		Rte 24 S
3/15/2004 7:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear			RAMP FROM RTE 495 SB TO RTE 24 NB - INTERSTATE 495 Rte 495 S			INTERSTATE 495 Rte 495 S / RAMP - RT 495 SB TO RT 24 NB
3/21/2004 12:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 44 EB
4/15/2004 4:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 24 S	3960 feet N from Exit 13B on Rte 24 S		Rte 24 S
4/21/2004 4:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24	Exit 14A on Rte 24		Rte 24
4/24/2004 10:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
4/29/2004 4:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
5/4/2004 6:50:00 AM

RAYNHAM 1/1/2004 12/31/2006 Intersection is similar to:

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
8/9/2004	12:19:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
8/17/2004	4:30:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 13 on Rte 24 S		Rte 24 S / Rte 44
8/25/2004	7:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			@TO EXIT FOR RT 44 E/B. - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 44 EB
8/25/2004	7:16:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			@EXIT FOR RT 44 E/B. - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 44 EB
9/26/2004	6:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
9/8/2004	1:02:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14 on Rte 24		Rte 24 S
9/16/2004	3:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			Rte 24 S			Rte 24 S
9/22/2004	1:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
9/24/2004	3:55:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 13B on Rte 24 S		Rte 24 S
9/25/2004	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			SOUTH OF ROUTE 24. - Rte 495 N			Rte 495 N / Rte 24
9/27/2004	4:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14 on Rte 24		Rte 24 S
10/5/2004	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
10/8/2004	5:08:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 13B on Rte 24 S		Rte 24 S
10/22/2004	3:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Rain			495 Rte 24 S	1 feet S from Exit 7 on Rte 24		495 Rte 24 S / Rte 495
10/22/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy			EXIT 14 - Rte 24	Exit 14A on Rte 24		Rte 24
10/25/2004	6:12:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain/Cloudy			Rte 24 N	Exit 7 on Rte 24		Rte 24 N
10/27/2004	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear			Rte 24 S	Exit 14 on Rte 24		Rte 24 S
11/5/2004	4:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 14 on Rte 24		Rte 24 S
11/8/2004	4:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear			Rte 24 S	Exit 14 on Rte 24		Rte 24 S
11/9/2004	4:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear			Rte 24 S	300 feet N from Exit 13A on Rte 24 S		Rte 24 S
11/11/2004	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear			Rte 24 S		Rte 24 S Milemarker 20.0	Rte 24 S
11/13/2004	11:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Clear/Clear			Rte 24 S			Rte 24 S
11/17/2004	6:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
11/18/2004	5:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 13B on Rte 24 S		Rte 24 S
11/21/2004	1:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy			RAMP- RTE 44EB TO RTE 24NB AT ME - AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 44 EB TO RT 24 NB
11/24/2004	4:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain/Rain			Rte 24 S	Exit 13B on Rte 24 S		Rte 24 S
12/6/2004	10:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy			RAMP FROM 44EB TO RT 24 NB. - ROUTE 44 Rte 44			ROUTE 44 Rte 44 / RAMP - RT 44 EB TO RT 24 NB
12/9/2004	10:05:00 AM	Property damage only (none injured)	5	0	0	Not reported	Not reported	Wet	Daylight	Clear			UNDER BRIDGE OF RT 44 - Rte 24 N			Rte 24 N
12/13/2004	1:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			RAMP FROM RT 24 S TO RT 44E - Rte 24 S	Exit 13A on Rte 24 S		Rte 24 S
12/15/2004	11:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24		44 ROUTE 44			44 ROUTE 44
12/28/2004	8:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
12/28/2004	8:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N	Exit 13 on Rte 24		Rte 24 N
12/28/2004	9:10:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear			AT EXIT 13 - Rte 24 N	Exit 13 on Rte 24		Rte 24 N
1/5/2005	5:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
1/8/2005	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Slush	Daylight	Rain/Sleet, hail (freezing rain or drizzle)						RAMP - RT 44 EB TO RT 24 NB Rte 44 / Rte 24
1/10/2005	8:12:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy						SOUTH STREET EAST / Rte 24
1/11/2005	4:50:00 PM	Property damage only (none injured)	3	0	0	Rear-to-rear	Rear-to-rear	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13A on Rte 24 S		Rte 24 S
1/20/2005	12:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)				Exit 14 on Rte 24		Rte 24 S
2/2/2005	6:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			RAMP RTE 24 NB TO RTE 495 SB - RAMP - RT 24 NB TO RT 495 SB			RAMP - RT 24 NB TO RT 495 SB / Rte 495
2/5/2005	4:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
2/13/2005	4:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy						2640 feet S from Intersection Rte 24 S / Rte 495
2/22/2005	3:17:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)/Cloudy					Rte 24 N Milemarker 20.8	Rte 24 N
2/25/2005	8:30:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Daylight	Snow/Cloudy						Rte 24 N / Rte 495
3/2/2005	6:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				Exit 7A on Rte 495 N		INTERSTATE 495 Rte 495 N / RAMP - RT 495 NB TO RT 24 NB
3/4/2005	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 14 on Rte 24		Rte 24 S
3/9/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy				1320 feet S from Exit 13B on Rte 24 S		Rte 24 S
3/12/2005	10:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Cloudy			NORTH OF RT 44. - Rte 24 N			Rte 24 N / Rte 44
3/17/2005	4:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 7 on Rte 24		Rte 24 N
3/30/2005	4:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				2640 feet S from Exit 13A on Rte 24 S		Rte 24 S
3/30/2005	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			AT EXIT 13 ON AND OFF RAMPS. - AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 13 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 N
4/15/2005	4:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				2640 feet N from Exit 13B on Rte 24 S		Rte 24 S
4/20/2005	4:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13B on Rte 24 S		Rte 24 S
4/21/2005	5:08:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RT 24SB SOUTH OF RT 495 - AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 14 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 S / Rte 495
4/28/2005	6:48:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy						Rte 24 S
5/5/2005	5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				50 feet E from Exit 13A on Rte 24 S		Rte 24 S
5/11/2005	5:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13 on Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 44 EB Rte 44 E
5/19/2005	7:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear				Exit 13 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 N
5/20/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 13B on Rte 24 S		Rte 24 S
5/20/2005	5:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				5280 feet S from Exit 14 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 S
5/22/2005	10:57:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			RAMP FROM RT 24SB TO RT 44WB. - RAMP - RT 24 SB TO RT 44 WB			RAMP - RT 24 SB TO RT 44 WB / Rte 24
6/9/2005	6:48:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				100 feet N from Exit 13 on Rte 24		Rte 24 N
6/14/2005	1:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13A on Rte 24 S		Rte 24 S
6/17/2005	4:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				5280 feet S from Exit 12 on Rte 24		Rte 24 S
6/20/2005	4:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Clear				Exit 13B on Rte 24		Rte 24
6/21/2005	1:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			SOUTH OF ON-RAMP FROM RT 495 SB. - AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 14 on Rte 24		AMVETS MEMORIAL HIGHWAY Rte 24 S / Rte 495
6/29/2005	12:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N
7/8/2005	3:32:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						Rte 24 S
8/30/2005	5:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain/Rain						Rte 24 N
8/30/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 24 N
9/8/2005	6:50:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N / Rte 44
9/13/2005	4:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 24 S					Rte 24 S
9/19/2005	6:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
9/19/2005	10:00:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24 S
9/21/2005	8:03:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13A on Rte 24 S		Rte 24 S
9/22/2005	2:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				1500 feet S from Exit 14 on Rte 24		Rte 24 S
9/23/2005	12:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 7A on Rte 495		RAMP - RT 495 SB TO RT 24 NB Rte 495
9/26/2005	12:48:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						KING STREET Rte 24 N
9/30/2005	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear				1000 feet N from Exit 13B on Rte 24		Rte 24
10/7/2005	3:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						Rte 24 / Rte 44
10/7/2005	10:44:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
10/8/2005	3:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain				Exit 14 on Rte 24		Rte 24 S
10/14/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Rain				Exit 8 on Rte 24		Rte 24
10/17/2005	1:38:00 PM	Property damage only (none injured)	4	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			BETWEEN RT 44 RAMPS. - Rte 24 N			Rte 24 N
10/23/2005	3:07:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				1000 feet N from Exit 13B on Rte 24 S		Rte 24 S
10/28/2005	10:27:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				1000 feet N from Exit 13B on Rte 24 S		Rte 24 S
10/28/2005	12:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
11/3/2005	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 44 / Rte 24
11/3/2005	12:26:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 13B on Rte 24 S		Rte 24 S
11/9/2005	5:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			NORTH OF RTE 44 - Rte 24 N			Rte 24 N / Rte 44
11/14/2005	1:02:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			500 feet S from ROUTE 44 OVERPASS - Rte 24 N			Rte 24 N
11/19/2005	4:55:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
11/19/2005	3:49:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13A on Rte 24 S		Rte 24 S
11/25/2005	2:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP TO RTE 495 NB - Rte 24 S	Exit 14 on Rte 24		Rte 24 S
12/10/2005	4:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)				Exit 13A on Rte 24 S		Rte 24 S
12/10/2005	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)				Exit 13A on Rte 24 S		Rte 24 S
12/10/2005	5:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)				Exit 13A on Rte 24 S		Rte 24 S
12/14/2005	8:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
12/15/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear					Rte 24 S Milemarker 19.7	Rte 24 S
12/16/2005	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)/Snow						Rte 24 / Rte 495
12/16/2005	3:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Clear/Sleet, hail (freezing rain or drizzle)				Exit 13 on Rte 24		Rte 24 N
12/16/2005	3:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)/Sleet, hail (freezing rain or drizzle)				Exit 13 on Rte 24		Rte 24 N
12/16/2005	5:51:00 PM	Property damage only (none injured)	4	0	0	Not reported	Not reported	Ice	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)			WYNNN WYNN LAW FIRM - ROUTE 44 Rte 104			ROUTE 44 Rte 104 / Rte 24
12/17/2005	2:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			SOUTH OF RT 495. - Rte 24 S			Rte 24 S
12/20/2005	3:57:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				2500 feet S from Exit 14 on Rte 24		Rte 24 S
1/2/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Cloudy				Exit 14 on Rte 24		402 feet S from Intersection Rte 24 S
1/11/2006	5:19:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Cloudy	Rte 24 S	ROUTE 44 Rte 44 E				
1/13/2006	4:04:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 24 S
1/19/2006	3:50:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Clear						RAMP - RT 24 NB TO RT 44 WB Rte 44 / Rte 24
1/20/2006	6:25:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
1/21/2006	11:33:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 13B on Rte 24 S		Rte 24 S
1/30/2006	6:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy				Exit 7A on Rte 495		Rte 495 / Rte 24
2/5/2006	6:24:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						ROUTE 44 Rte 44 W / RAMP - RT 44 WB TO RT 24 SB
2/11/2006	1:08:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear						ROUTE 44 Rte 44 E / RAMP - RT 24 NB TO RT 44 EB Rte 44
2/11/2006	1:34:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 / RAMP - RT 24 NB TO RT 44 EB Rte 24
2/11/2006	12:31:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						ROUTE 44 Rte 44 W / RAMP - RT 24 NB TO RT 44 EB Rte 24
2/12/2006	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow/Snow				Exit 14 on Rte 24		Rte 24 S
2/12/2006	7:29:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Not reported	Not reported	Not reported			CHRISTIAN HILL			SOUTH STREET EAST Rte 44 E / Rte 24
2/14/2006	7:10:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13 on Rte 24		Rte 24 N
2/25/2006	8:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Dark - roadway not lighted	Snow/Blowing sand, snow				100 feet S from Exit 14 on Rte 24		Rte 24 S
2/25/2006	12:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 14A on Rte 24		Rte 24 / Rte 44
2/28/2006	2:23:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 14 on Rte 24		Rte 24 S
3/9/2006	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						ROUTE 44 Rte 24 S / RAMP - RT 24 NB TO RT 44 EB
3/9/2006	8:34:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy				5280 feet N from Exit 13 on Rte 24		Rte 24 N
3/10/2006	8:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 13 on Rte 24		Rte 24 N
3/24/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				1500 feet S from Exit 14A on Rte 24 N		Rte 24 N
3/26/2006	5:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				1600 feet N from Exit 13A on Rte 24 S		Rte 24 S
3/26/2006	11:31:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						ROUTE 44 Rte 44 E / RAMP - RT 24 NB TO RT 44 EB Rte 24
3/27/2006	4:22:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				2500 feet S from Exit 14 on Rte 24		Rte 24 S
3/31/2006	3:34:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 E / RAMP - RT 24 NB TO RT 44 EB Rte 24
4/5/2006	4:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 14A on Rte 24		Rte 24
4/5/2006	5:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy				Exit 13B on Rte 24 S		Rte 24 S
4/9/2006	4:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 13B on Rte 24 S		Rte 24 S
4/14/2006	8:20:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Rain/Cloudy				100 feet N from Exit 13B on Rte 24 S		Rte 24 S
4/15/2006	12:07:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 / RAMP - RT 44 EB TO RT 24 NB Rte 24
4/17/2006	12:00:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear						1000 feet N from Intersection Rte 24 / Rte 140
4/20/2006	5:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
4/26/2006	8:36:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 14A on Rte 24 N		Rte 24 N
5/1/2006	4:04:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						RAMP - RT 44 WB TO RT 24 NB Rte 44 / Rte 24
5/2/2006	6:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain				Exit 14A on Rte 24 N		Rte 24 N
5/3/2006	7:44:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain				100 feet N from Exit 13 on Rte 24

RAYNHAM 1/1/2004 12/31/2009 Intersection is similar to:

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
8/5/2006	7:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 7 on Rte 24		Rte 24 S
8/12/2006	4:33:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 / RAMP - RT 24 NB TO RT 44 EB Rte 24
8/15/2006	8:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear/Clear	ROUTE 44 Rte 44 E	RAMP - RT 44 EB TO RT 24 NB				
8/15/2006	12:09:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			MANDARIAN RESTAURANT			ROUTE 44 Rte 44 E / RAMP - RT 44 EB TO RT 24 NB
8/15/2006	12:18:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain						ROUTE 44 Rte 44 E / RAMP - RT 44 EB TO RT 24 SB
8/22/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			HONDA DEALERSHIP			ROUTE 44 / RAMP - RT 44 WB TO RT 24 NB Rte 44 W
8/25/2006	12:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 E / RAMP - RT 44 EB TO RT 24 NB
8/29/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 44 EB
9/3/2006	5:02:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 13B on Rte 24 S		Rte 24 S
9/8/2006	5:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				200 feet N from Exit 13 on Rte 24		Rte 24 N
9/10/2006	11:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 44 Rte 44 E / Rte 24
9/15/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1800 feet N from Exit 13 on Rte 24		Rte 24 N
9/15/2006	7:50:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy					Rte 24 N Milemarker 19.5	Rte 24 N
9/19/2006	2:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 13A on Rte 24 S		Rte 24 S
9/25/2006	5:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			MOBIL REST AREA SOUTHBOUND			Rte 24
9/30/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark - roadway not lighted	Unknown				Exit 13A on Rte 24		Rte 24
10/18/2006	4:50:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						ORCHARD STREET Rte 24
10/19/2006	5:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
10/20/2006	2:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	ROUTE 44 Rte 44	ORCHARD AVENUE / RAMP - RT 24 NB TO RT 44 EB				
10/21/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 140
10/25/2006	10:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 13B on Rte 24 S		Rte 24 S
10/26/2006	2:16:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				300 feet N from Exit 13B on Rte 24 S		Rte 24 S
11/9/2006	8:17:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy				1000 feet S from Exit 14A on Rte 24 N		Rte 24 N
11/17/2006	11:19:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear				Exit 13B on Rte 24 S		Rte 24 S
11/23/2006	2:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain/Rain				Exit 14 on Rte 24		Rte 24 S
12/1/2006	1:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy				Exit 13A on Rte 24 S		Rte 24 S
12/1/2006	5:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy/Cloudy					Rte 24 N Milemarker 22.0	Rte 24 N
12/1/2006	6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy/Cloudy					Rte 24 N Milemarker 22.5	Rte 24 N
12/5/2006	4:55:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy						ROUTE 44 Rte 44 / RAMP - RT 24 NB TO RT 44 EB
12/5/2006	7:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear				1000 feet N from Exit 13A on Rte 24 S		Rte 24 S
12/9/2006	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						Rte 24 S
12/8/2006	4:45:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
12/16/2006	1:18:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain						Rte 44 / Rte 24
12/23/2006	11:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain				Exit 13A on Rte 24		Rte 24 / Rte 44
6/7/2004	12:20:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	Rte 24 S					Rte 24 S
9/25/2004	6:00:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	ROUTE 44 Rte 24 S					ROUTE 44 Rte 24 S / Rte 44
4/2/2005	6:00:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain					Rte 24 Milemarker 91.0	Rte 24 S
11/9/2005	4:35:00 PM	Unknown	2	0	0	Angle	Angle	Wet	Dusk	Cloudy						I-95 RAMP - RT 44 EB TO RT 24 SB Rte 44
1/13/2006	11:09:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Fog, smog, smoke						Rte 24 S / Rte 495
5/1/2006	4:04:00 AM	Unknown	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 13B on Rte 24		Rte 24

STOUGHTON	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 24 route 24												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Feet_From
1/4/2005	11:24:00 PM	Fatal Injury	3	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			1/4 MILE BEFORE RTE 139 - Rte 24 N		Rte 24 N / Rte 139
2/28/2005	6:35:00 AM	Fatal Injury	2	2	1	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				120 feet S from Exit 19 on Rte 24	Rte 24 S
11/3/2005	11:30:00 AM	Fatal Injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 20A on Rte 24 N	Rte 24 N / RTE 139
1/8/2004	8:55:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N	Exit 20A on Rte 24 N	Rte 24 N
1/20/2004	12:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			NORTH OF AVON TOWN LINE - Rte 24 S	Exit 19 on Rte 24	Rte 24 S
3/20/2004	7:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N
4/8/2004	10:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 20A on Rte 24 N	Rte 24 N
4/15/2004	10:28:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain			OFF RAMP FROM RT 24 N - LINDELOF AVENUE		LINDELOF AVENUE
4/17/2004	1:05:00 AM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N	100 feet N from Exit 20A on Rte 24 N	Rte 24 N
5/10/2004	8:00:00 AM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear			LINDELOF AVENUE		LINDELOF AVENUE / RAMP - RT 24 SB TO RT 139 EB
5/21/2004	3:26:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			Rte 24 S	500 feet N from Exit 20A on Rte 24 S	Rte 24 S
6/15/2004	5:18:00 PM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 24 S	500 feet N from Exit 20B on Rte 24 S	Rte 24 S
7/4/2004	1:49:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear			MASS HWY RTE 24 - Rte 24 N		Rte 24 N
7/11/2004	11:02:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Dark - roadway not lighted	Cloudy			Rte 24 N	2000 feet N from Exit 20A on Rte 24 N	Rte 24 N
8/8/2004	12:21:00 PM	Non-fatal injury	1	5	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	5000 feet S from Exit 20A on Rte 24 N	Rte 24 N
8/8/2004	12:41:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear			Rte 24 S	Exit 20A on Rte 24 S	Rte 24 S
8/17/2004	10:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Cloudy			ON RAMP FROM RT 139 TO RT 24 NOR - AMVETS MEMORIAL HIGHWAY Rte 24 N		A MVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 139 EB TO RT 24 NB
10/7/2004	9:25:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 20A on Rte 24 N	Rte 24 N
11/3/2004	12:00:00 PM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Unknown	Clear			Rte 24 S	10 feet N from Exit 20A on Rte 24 S	Rte 24 S / Rte 139
11/14/2004	6:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			PAGE STREET OVERPASS - Rte 24 N	1200 feet S from Exit 20A on Rte 24 N	Rte 24 N
12/28/2004	11:05:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear			NORTH OF HARRISON BLVD. - AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 139 WB
1/12/2005	7:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Snow	Dark - lighted roadway	Snow					TURNPIKE STREET Rte 139 / PLEASANT STREET Rte 24
1/15/2005	3:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy				1000 feet S from Exit 20A on Rte 24 N	Rte 24 N
1/16/2005	10:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Snow /Clear				Exit 20A on Rte 24	4000 feet S from Intersection Rte 24
1/24/2005	12:01:00 AM	Non-fatal injury	2	4	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Clear				Exit 19 on Rte 24	Rte 24
2/17/2005	8:00:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			RTE 93 - Rte 24 N		Rte 24 N / Rte 24
2/25/2005	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Slush	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)				Exit 19 on Rte 24	Rte 24
3/12/2005	3:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow /Snow				Exit 20A on Rte 24 N	Rte 24 N
4/11/2005	9:45:00 PM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
4/15/2005	3:55:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
4/15/2005	10:05:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				2500 feet N from Exit 20B on Rte 24 S	Rte 24 S
5/12/2005	7:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			SIGN FOR KOHLS - Rte 24 S	Exit 20A on Rte 24 S	Rte 24 S
5/19/2005	9:07:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
6/28/2005	4:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			1 MILE NORTH OD RT. 139 - Rte 24		Rte 24
7/18/2005	7:50:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 20A on Rte 24 N	Rte 24 N
8/8/2005	4:35:00 PM	Non-fatal injury	1	1	0	Unknown	Unknown	Dry	Daylight	Cloudy/Cloudy				1500 feet N from Exit 20B on Rte 24 N	Rte 24 N
8/14/2005	7:54:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Rain			NEAR RAMP AND 139 - LINDELOF AVENUE Rte 139		LINDELOF AVENUE Rte 139 / RAMP - RT 24 NB TO RT 139 WB
9/2/2005	2:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
9/3/2005	2:53:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
9/12/2005	9:05:00 AM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear					400 Rte 24 N
9/28/2005	8:26:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
10/20/2005	3:32:00 PM	Non-fatal injury	5	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20B on Rte 24 S	Rte 24 S
10/23/2005	3:00:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Rain				Exit 20A on Rte 24 S	Rte 24 S
10/25/2005	8:50:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Severe cross winds					Rte 24 N / Rte 139
11/11/2005	4:00:00 PM	Non-fatal injury	3	4	0	Rear-to-rear	Rear-to-rear	Dry	Dawn	Clear				Exit 20B on Rte 24	Rte 24
11/12/2005	5:10:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
11/18/2005	7:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
11/23/2005	7:08:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Cloudy/Other					200 feet W from Intersection LINDELOF AVENUE Rte 139 W / RAMP - RT 139 EB TO RT 24 NB Rte 24 W
11/24/2005	5:55:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear				Exit 20B on Rte 24 N	Rte 24 N
11/30/2005	1:20:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				3000 feet S from Exit 20A on Rte 24 S	Rte 24 S
1/7/2006	5:39:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 S
1/10/2006	4:20:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			APPROX. 1/2 MILE BEFORE EXIT 20	Exit 20A on Rte 24 S	Rte 24 S
1/25/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy				Exit 20A on Rte 24 N	Rte 24 N
1/29/2006	10:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Daylight	Clear			RAMP TO RT 24NB		LINDELOF AVENUE Rte 139 / Rte 139
2/3/2006	11:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy				Exit 20B on Rte 24	Rte 24
2/10/2006	7:15:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				100 feet S from Exit 20A on Rte 24 N	Rte 24 N
2/27/2006	1:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 139 WB
3/7/2006	8:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
3/29/2006	6:48:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
3/31/2006	9:30:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				25 feet N from Exit 20A on Rte 24 N	Rte 24 N
4/11/2006	3:39:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1500 feet N from Exit 20B on Rte 24	Rte 24
4/21/2006	4:15:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
5/29/2006	4:28:00 PM	Non-fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 20B on Rte 24 N	Rte 24 N
6/1/2006	1:30:00 PM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Daylight	Clear					2640 feet N from Intersection Rte 24 N / Rte 27
6/12/2006	10:15:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 20B on Rte 24	Rte 24
6/23/2006	2:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 18 on Rte 24	Rte 24
6/29/2006	10:07:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 20A on Rte 24 S	Rte 24 S
7/8/2006	9:05:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
7/17/2006	6:18:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 S
8/20/2006	7:55:00 AM	Non-fatal injury	3	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				Exit 20B on Rte 24 N	Rte 24 N
8/29/2006	11:35:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				Exit 20A on Rte 24 N	Rte 24 N
9/4/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy					Rte 24 S
9/16/2006	5:01:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
10/6/2006	1:30:00 AM	Non-fatal injury	1	1	0	Unknown	Unknown	Dry	Dark - unknown roadway lighting	Clear					Rte 24 S
10/6/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 S
10/9/2006	3:33:00 AM	Non-fatal injury	1	5	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20 on Rte 24 S	AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP-RT 24 SB TO RT 139 EB
10/13/2006	10:45:00 AM	Non-fatal injury	1	1	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear					A MVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 139 EB TO RT 24 NB
10/23/2006	7:35:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 20B on Rte 24 N	Rte 24 N
10/29/2006	4:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy				Exit 20A on Rte 24	Rte 24
11/4/2006	4:52:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			SOUTH OF RT 139		Rte 24 S / Rte 139
11/14/2006	8:55:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				2500 feet S from Exit 20A on Rte 24 N	Rte 24 N
6/26/2004	7:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S		Rte 24 S
8/15/2004	4:35:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 20B on Rte 24 S	Rte 24 S
10/1/2004	5:55:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	Exit 20A on Rte 24	Rte 24
12/5/2005	10:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Wet	Daylight	Clear					Rte 24
10/8/2006	12:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear					AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP - RT 139 EB TO RT 24 NB
1/16/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			CANTON TOWN LINE - Rte 24 N	Exit 20 on Rte 24	Rte 24 N
1/23/2004	8:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N		Rte 24 N
1/29/2004	3:30:00 PM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Ice	Daylight	Clear			Rte 24 S	Exit 20A on Rte 24 S	Rte 24 S
2/28/2004	4:57:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 24 S	Exit 20A on Rte 24 S	Rte 24 S
3/3/2004	7:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24	500 feet N from Exit 20A on Rte 24	Rte 24
3/19/2004	3:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S	Exit 20B on Rte 24 S	Rte 24 S
4/18/2004	3:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 24 S		Rte 24 S
4/21/2004	9:09:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N	100 feet S from Exit 20B on Rte 24 N	Rte 24 N
5/2/2004	1:52:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			B.J.'S WHOLESALE STORE - Rte 24 N	800 feet S from Exit 20A on Rte 24 N	Rte 24 N
5/8/2004	11:50:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 N	500 feet N from Exit 20B on Rte 24 N	Rte 24 N
5/9/2004	7:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			Rte 24 S	350 feet N from Exit 20A on Rte 24 S	Rte 24 S
5/15/2004	3:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 24 S	400 feet S from Exit 20B on Rte 24 S	Rte 24 S
6/6/2004	5:12:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear			500 feet S from FROM PAGE STREET UNDERPASS - Rte 24 N		Rte 24 N / PAGE STREET
7/13/2004	8:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy			Rte 24 N	300 feet N from Exit 20A on Rte 24 N	Rte 24 N
7/29/2004	4:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 24 S	2640 feet S from Exit 20A on Rte 24 S	Rte 24 S
8/15/2004	9:02:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain			LINDELOF AVENUE Rte 139 N		200 feet W from Intersection LINDELOF AVENUE Rte 139 N / RAMP - RT 139 EB TO RT 24 NB Rte 24 W
8/25/2004	6:12:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			ACROSS FROM RAMP SYSTEM - Rte 24 S		Rte 24 S / Rte 138
8/25/2004	6:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 S	2500 feet N from Exit 20A on Rte 24 S	Rte 24 S
8/30/2004	2:22:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 20B on Rte 24 N	Rte 24 N
8/30/2004	2:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 N	100 feet S from Exit 20A on Rte 24 N	Rte 24 N
9/3/2004	5:51:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 20B on Rte 24 N	Rte 24 N
9/22/2004	4:08:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	400 feet N from Exit 20B on Rte 24 S	Rte 24 S
9/22/2004	5:54:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	500 feet S from Exit 20B on Rte 24 S	Rte 24 S
9/30/2004	7:44:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N	20 feet N from Exit 20A on Rte 24 N	Rte 24 N
9/30/2004	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N	20 feet S from Exit 20A on Rte 24 N	Rte 24 N
10/22/2004	12:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy			ADJACENT TO BJ'S WHOLESALE CLUB - Rte 24 S		Rte 24 S
1/13/2004	7:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 139 WB Rte 139
1/18/2004	6:50:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Clear			Rte 24 N	Exit 20A on Rte 24 N	Rte 24 N
11/13/2004	2:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy			Rte 24 N	Exit 20B on Rte 24 N	Rte 24 N
12/11/2004	10:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Cloudy			SOUTH OF EXIT 20B (NEXT TO BOBB'S - Rte 24 N	Exit 20B on Rte 24 N	Rte 24 N
12/22/2004	9:08:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear			OFF RAMP 20B - Rte 24 S	Exit 20B on Rte 24 S	Rte 24 S
1/26/2005	6:10:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Dark - roadway not lighted	Snow /Cloudy				1000 feet S from Exit 20A on Rte 24 N	Rte 24 N
2/5/2005	9:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				50 feet S from Exit 20A on Rte 24 N	Rte 24 N
2/7/2005	2:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					A MVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 139 EB
2/14/2005	6:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				3000 feet S from Exit 20A on Rte 24 N	Rte 24 N
2/25/2005	9:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
3/11/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear					500 feet N from Intersection Rte 24 N / Rte 139
3/15/2005	6:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
3/20/2005	5:09:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				3000 feet N from Exit 20B on Rte 24 S	Rte 24 S
4/21/2005	9:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
5/14/2005	10:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				100 feet S from Exit 20A on Rte 24 N	Rte 24 N
5/26/2005	10:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Rain/Rain			JUST NORTH OF EXIT 19B (CENTRAL - Rte 24 S	Exit 19 on Rte 24	Rte 24 S / CENTRAL STREET
6/1/2005	8:00:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy				Exit 20A on Rte 24 S	Rte 24 S
6/7/2005	5:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20B on Rte 24 S	Rte 24 S
6/8/2005	9:11:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					A MVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 139 EB
6/12/2005	1:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Cloudy					Rte 24 N
6/23/2005	3:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					A MVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 139 EB TO RT 24 NB
6/25/2005	4:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
6/30/2005	4:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain				Exit 20B on Rte 24 S	Rte 24 S
7/11/2005	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				4000 feet S from Exit 20A on Rte 24	Rte 24 / Rte 139
7/18/2005	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 20B on Rte 24 S	Rte 24 S
8/7/2005	9:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			NORTH OF RTE 139 - Rte 24 S		Rte 24 S / Rte 139
8/17/2005	8:35:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S

STOUGHTON	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 24 route 24												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Feet_From
8/26/2005	2:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1500 feet N from Exit 20A on Rte 24 S	Rte 24 S
8/31/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy					Rte 24 S
10/10/2005	1:37:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain	LINDELOF AVENUE Rte 139	Rte 24 / RAMP - RT 139 EB TO RT 24 NB			
10/14/2005	5:35:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dusk	Rain				Exit 19 on Rte 24	Rte 24
10/24/2005	6:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Other	Cloudy/Clear					Rte 24 N
11/1/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 20B on Rte 24	Rte 24
11/11/2005	2:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			BETWEEN 20 AND 19 N OF BJ SIGN - Rte 24 S	150 feet S from Exit 20B on Rte 24 S	Rte 24 S
11/11/2005	11:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 N
12/10/2005	3:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Dark - roadway not lighted	Snow/Cloudy				Exit 20A on Rte 24 S	Rte 24 S
12/23/2005	7:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 20B on Rte 24 S	Rte 24 S
12/30/2005	3:54:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
1/6/2006	2:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy				500 feet S from Exit 20 on Rte 24	Rte 24
1/12/2006	7:55:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				2500 feet N from Exit 20B on Rte 24 N	Rte 24 N
12/1/2006	4:08:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
12/4/2006	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				100 feet N from Exit 20A on Rte 24 S	Rte 24 S
12/4/2006	6:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				600 feet N from Exit 20A on Rte 24 S	Rte 24 S
12/6/2006	2:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				1500 feet N from Exit 20A on Rte 24 S	Rte 24 S
2/3/2006	7:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy					Rte 24 N / Rte 139
2/3/2006	7:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain				1000 feet N from Exit 20 on Rte 24	Rte 24 N
2/3/2006	11:04:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Fog, smog, smoke/Fog, smog, smoke					Rte 24 S
2/3/2006	11:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Fog, smog, smoke/Fog, smog, smoke					Rte 24 S
2/4/2006	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 20A on Rte 24 S	Rte 24 S
2/4/2006	4:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			NEAR IKEA STORE	Exit 20A on Rte 24	Rte 24
2/5/2006	3:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain					Rte 24 S
2/12/2006	7:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Blowing sand, snow					AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP - RT 139 EB TO RT 24 NB
2/26/2006	6:17:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Other					LINDELOF AVENUE Rte 139 / RAMP - RT 139 EB TO RT 24 NB Rte 24
2/28/2006	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
3/3/2006	7:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ACROSS FROM JORDANS FURNITURE	1000 feet S from Exit 20A on Rte 24 N	Rte 24 N
3/12/2006	11:39:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
3/13/2006	3:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
3/21/2006	8:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
4/9/2006	6:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear			SOUTH OF EXIT 20B	Exit 20B on Rte 24 S	Rte 24 S
4/17/2006	2:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					Rte 24 N / Rte 27
4/21/2006	2:42:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 24 N / Rte 139
4/29/2006	2:26:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 24 N / CENTRAL STREET
5/20/2006	5:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 20B on Rte 24 S	Rte 24 S
6/8/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Rain				Exit 20B on Rte 24 S	Rte 24 S
6/14/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					Rte 24 S
6/15/2006	6:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dawn	Cloudy	Rte 24	Rte 139 E			
7/15/2006	1:27:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S
7/23/2006	10:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 N
7/24/2006	4:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 20B on Rte 24 S	Rte 24 S
7/28/2006	5:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			TRAVELING ON HIGHWAY		Rte 24
8/15/2006	9:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy					RAMP - RT 24 NB TO RT 139 EB / Rte 139
9/5/2006	7:44:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 N
9/13/2006	9:25:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 N
9/14/2006	6:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			NORTH OF ROUTE 139		Rte 24 N / Rte 139
9/20/2006	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 N
9/26/2006	2:30:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				700 feet N from Exit 20B on Rte 24 N	Rte 24 N
10/2/2006	5:48:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 24 S
11/10/2006	3:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			ON RAMP FROM 139 TO 24NB	Exit 20A on Rte 24 N	Rte 24 N
11/20/2006	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 N
12/1/2006	10:30:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Wet	Daylight	Rain				Exit 20A on Rte 24	Rte 24 / Rte 139
12/20/2006	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 S	Rte 24 S / Rte 139
12/29/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
12/29/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 20A on Rte 24 N	Rte 24 N
1/8/2004	9:45:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N	Exit 20A on Rte 24 N	Rte 24 N
1/27/2005	7:30:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Wet	Daylight	Clear				150 feet S from Exit 20A on Rte 24 N	Rte 24 N
6/26/2005	12:30:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				Exit 19 on Rte 24	Rte 24 S
9/26/2006	12:00:00 PM	Unknown	3	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 20A on Rte 24	Rte 24

TAUNTON 1/1/2004	12/31/2006	Intersection is similar to													
Crash_Date Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
1/2/2004 9:45:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 N			50 feet N from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
1/26/2004 2:30:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Clear			Rte 24 N		Rte 24 N Milemarker 18.9	Rte 24 N
2/2/2004 8:30:00 AM	Non-Fatal Injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N
2/9/2004 4:55:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Snow/Snow			Rte 24 N			Rte 24 N
2/9/2004 1:05:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy			ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S / RAMP - RT 140 TO RT 24 NB
2/20/2004 6:45:00 AM	Non-Fatal Injury	2	2	0	Angle	Angle	Ice	Daylight	Clear/Clear			RAMP TO RT 140 FROM RT 24 SB. - ROUTE 140 Rte 140			ROUTE 140 Rte 140 / RAMP - RT 140 TO RT 24 SB
4/13/2004 7:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			Rte 24 N			Rte 24 N
4/17/2004 2:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N		Rte 24 N Milemarker 18.0	Rte 24 N
5/1/2004 2:10:00 AM	Non-Fatal Injury	2	4	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear			ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S / RAMP - RT 140 TO RT 24 SB
5/11/2004 7:15:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dawn	Clear			Rte 24	15 feet N from Exit 13 on Rte 24		Rte 24 / Rte 24
6/28/2004 6:28:00 PM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Rain			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
7/1/2004 4:00:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
7/9/2004 2:55:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
7/19/2004 4:05:00 PM	Non-Fatal Injury	3	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
7/24/2004 4:25:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP- RT 24 SB TO RT 140
7/28/2004 10:35:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Rain			Rte 24 N		Rte 24 N Milemarker 18.6	Rte 24 N
8/6/2004 7:15:00 AM	Non-Fatal Injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N / Rte 140
8/12/2004 7:00:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			RAMP FROM RT 140 TO RT 24 NB, TA - ROUTE 140 Rte 140			ROUTE 140 Rte 140 / RAMP - RT 140 TO RT 24 NB
9/23/2004 2:35:00 PM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 24 S			Rte 24 S / Rte 140
11/9/2004 5:42:00 PM	Non-Fatal Injury	3	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Cloudy/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S / Rte 140
11/20/2004 2:15:00 PM	Non-Fatal Injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
12/6/2004 8:20:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy	Rte 140 N	RAMP - RT 24 NB TO RT 140 NB				
12/16/2004 1:44:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear		RTE 140 SB AT LIGHTS FOR RTE 24 - Rte 140 S				Rte 140 S
1/3/2005 12:25:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 12 on Rte 24 S		Rte 24 S
2/12/2005 2:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 140
2/28/2005 9:30:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Snow	Dark - roadway not lighted	Snow/Snow				Exit 12 on Rte 24 S		Rte 24 S
3/11/2005 1:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Snow						Rte 140 N / Rte 24
4/13/2005 3:30:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N
4/27/2005 4:45:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
4/28/2005 6:42:00 AM	Non-Fatal Injury	4	1	0	Rear-end	Rear-end	Wet	Dawn	Cloudy/Fog, smog, smoke					Rte 24 N Milemarker 18.0	Rte 24 N
4/29/2005 2:50:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy					Rte 24 S Milemarker 18.0	Rte 24 S
5/10/2005 4:45:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
5/31/2005 4:21:00 PM	Non-Fatal Injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 24 S
6/7/2005 9:08:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
6/13/2005 10:13:00 AM	Non-Fatal Injury	2	3	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy						ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
6/23/2005 1:40:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	Rte 140 S	RAMP - RT 140 TO RT 24 NB				
7/11/2005 5:54:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 N Milemarker 18.5	Rte 24 N
7/18/2005 4:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 S
8/9/2005 10:04:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						150 feet N from Intersection Rte 24 N / Rte 44
8/30/2005 4:19:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
9/18/2005 1:20:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy				Exit 12 on Rte 24 S		Rte 24 S
9/27/2005 7:00:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 24		Rte 24 / Rte 24
10/27/2005 10:04:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
11/4/2005 2:37:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N
11/4/2005 12:37:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13 on Rte 24		Rte 24
11/5/2005 11:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			140 SB EXIT - AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
11/10/2005 3:45:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 S
11/29/2005 9:23:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			OFF RAMP TO ROUTE 140 SB - Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
12/16/2005 4:05:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)/Snow						Rte 24 N
12/21/2005 12:37:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						25 feet N from Intersection Rte 24 N / Rte 140
1/4/2006 7:35:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy						Rte 24 N
1/23/2006 8:40:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Snow	Daylight	Snow				Exit 12 on Rte 24		Rte 24
3/17/2006 6:35:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 24 N Milemarker 18.9	Rte 24 N
3/20/2006 9:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						SCHOOL STREET Rte 104 / ARLINGTON STREET Rte 24
3/22/2006 1:10:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				1000 feet N from Exit 12 on Rte 24 S		Rte 24 S
4/7/2006 8:15:00 AM	Non-Fatal Injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
4/17/2006 5:53:00 PM	Non-Fatal Injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
4/20/2006 6:19:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
4/30/2006 11:54:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24		Rte 24
5/2/2006 5:20:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1000 feet S from Exit 12 on Rte 24 S		Rte 24 S
5/9/2006 7:25:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				50 feet S from Exit 12 on Rte 24		Rte 24
6/17/2006 9:16:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy						COUNTY STREET Rte 140 S / RAMP - RT 24 SB TO RT 140
7/1/2006 6:47:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			I90T 12			ROUTE 140 Rte 140 / RAMP - RT 140 TO RT 24 NB
7/2/2006 8:10:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 24 N Milemarker 16.8	Rte 24 N
7/18/2006 11:42:00 PM	Non-Fatal Injury	1	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain				Exit 12 on Rte 24 S		Rte 24 S
8/3/2006 5:45:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				250 feet N from Exit 12 on Rte 24 S		Rte 24 S
8/4/2006 4:15:00 AM	Non-Fatal Injury	3	1	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 140 W / Rte 24
8/15/2006 10:12:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			RT 24S OFF RAMP ONTO RT 140 S	Exit 12 on Rte 24 S		Rte 24 S / Rte 140
9/11/2006 3:10:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S	Rte 24 S Milemarker 16.7	Rte 24 S
9/22/2006 6:45:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
9/23/2006 2:05:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			OFF RAMP			RAMP - RT 24 NB TO RT 140 NB / Rte 140
9/27/2006 7:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N / Rte 140
10/2/2006 6:40:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			HEADING NORTH	Exit 12 on Rte 24		Rte 24
10/11/2006 7:30:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Dusk	Rain						Rte 24 S
10/17/2006 6:19:00 PM	Non-Fatal Injury	4	1	0	Rear-end	Rear-end	Wet	Dusk	Rain/Cloudy				Exit 12 on Rte 24 S		Rte 24 S
10/25/2006 3:50:00 PM	Non-Fatal Injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
10/25/2006 11:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP - RT 140 TO RT 24 NB
10/28/2006 3:15:00 PM	Non-Fatal Injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Severe crosswinds		RTE 140 N/B RAMP TO RTE24 N/B				RAMP - RT 140 TO RT 24 NB / Rte 24
10/30/2006 7:38:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear		50 feet E from RICKS MOBIL				500 feet S from Intersection COUNTY STREET Rte 140 N / RAMP- COUNTY ST TO RT 140 SB Rte 24 S
10/31/2006 10:47:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
11/8/2006 8:20:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 24 N
11/9/2006 6:00:00 AM	Non-Fatal Injury	5	2	0	Rear-end	Rear-end	Dry	Dawn	Cloudy/Cloudy					Rte 24 N Milemarker 17.5	Rte 24 N
6/12/2004 11:50:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 140 TO RT 24 SB Rte 140 S
9/28/2004 8:51:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain			Rte 24 N			Rte 24 N
5/5/2005 5:12:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
9/8/2005 7:37:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				1000 feet S from Exit 12 on Rte 24 S		Rte 24 S
11/16/2005 5:10:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				50 feet S from Exit 11 on Rte 24		Rte 24 S
4/13/2006 4:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						HIGHWAY 24 Rte 24 S / Rte 140
5/30/2006 4:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 24 S		Rte 24 S
9/19/2006 2:00:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 13 on Rte 24		Rte 24
9/27/2006 11:35:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	RAMP - BAY ST TO RT 495 NB Rte 24 S	Rte 140				
12/8/2006 5:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 12 on Rte 24 S		Rte 24 S
12/20/2006 7:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 44
1/3/2004 2:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Fog, smog, smoke			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
1/6/2004 12:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
1/19/2004 2:55:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
1/23/2004 2:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 N		Rte 24 N Milemarker 18.9	Rte 24 N
1/25/2004 3:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24		BAY STREET			BAY STREET / LAKEVIEW AVENUE
2/2/2004 7:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			RAMP - RT 140 TO RT 24 NB			RAMP - RT 140 TO RT 24 NB / Rte 140
3/1/2004 3:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24					
3/17/2004 10:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Snow			Rte 24 N			Rte 24 N
4/9/2004 4:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S			2640 feet S from Intersection Rte 24 S / Rte 44
4/13/2004 6:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
4/16/2004 1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			RAMP - RT 140 TO RT 24 NB			RAMP - RT 140 TO RT 24 NB / Rte 140
4/28/2004 3:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear	Rte 24 N	RAMP - RT 24 NB TO RT 140 SB				
4/28/2004 8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 24	Exit 13A on Rte 24	Rte 24 Milemarker 18.6	Rte 24
5/5/2004 3:00:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
5/5/2004 6:33:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24	300 feet S from Exit 12 on Rte 24		Rte 24
5/6/2004 11:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
5/20/2004 6:25:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
5/21/2004 3:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
6/8/2004 9:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear		END OF RAMP FROM RT 140 N/B - AMVETS MEMORIAL HIGHWAY Rte 24 N				AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
6/19/2004 7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy		RAMP TO RT 24 N/B. - RAMP - RT 140 TO RT 24 NB				RAMP - RT 140 TO RT 24 NB / Rte 140
7/3/2004 5:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S			Rte 24 S
7/3/2004 9:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear		NEAR RAMP FROM RT 140 N/B. - AMVETS MEMORIAL HIGHWAY Rte 24 N				AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 140 NB
7/14/2004 4:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
7/19/2004 9:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 24 N			Rte 24 N
7/22/2004 8:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 N			Rte 24 N
8/2/2004 7:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
8/26/2004 5:15:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear	Rte 24 S					
9/8/2004 6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain/Rain			ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
9/15/2004 7:30:00 AM	Property damage only (none injured)	4	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 140			Rte 140 / Rte 24
9/22/2004 4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S			50 feet N from Intersection Rte 24 S / Rte 44
10/6/2004 5:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear		RAMP TO RTE 140 - AMVETS MEMORIAL HIGHWAY Rte 24 S				AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
10/14/2004 6:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain		ROUTE 44 - Rte 24 S				Rte 24 S / Rte 44
10/19/2004 7:55:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear	Rte 24 S	RAMP - RT 24 SB TO RT 140				
10/17/2004 10:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Snow			Rte 24 N			Rte 24 N
10/22/2004 6:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N			Rte 24 N
10/25/2004 6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			200 feet N from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 140 SB
10/25/2004 6:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dawn	Rain/Cloudy		1/2 MILE SOUTH OF RT 140SB EXIT. - AMVETS MEMORIAL HIGHWAY Rte 24 N				2640 feet S from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 140 SB
10/25/2004 7:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dawn	Rain/Cloudy		SOUTH OF RAMP TO RT 140SB EXIT. - AMVETS MEMORIAL HIGHWAY Rte 24 N				AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 140 SB
11/8/2004 5:31:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
11/12/2004 8:16:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Slush	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)/S			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
11/13/2004 6:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dawn	Snow/Sleet, hail (freezing rain or drizz			Rte 24			Rte 24
11/21/2004 8:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	Rte 24 S	Rte 140 / RAMP - RT 140 TO RT 24 SB				
11/24/2004 6:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy		20 feet W from QUEBECQR WORLD - 1133 COUNTY STREET Rte 140 S				300 feet S from Intersection 1133 COUNTY STREET Rte 140 S / Rte 24
12/6/2004 5:50:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear					100 feet N from Rte 24 Milemarker 15.9	Rte 24
12/7/2004 2:32:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 24 S	Exit 12 on Rte 24 S		Rte 24 S
12/13/2004 6:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
12/14/2004 6:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 24 N			Rte 24 N
12/16/2004 2:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 24 N			Rte 24 N
12/16/2004 6:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	R

TAUNTON 1/1/2004 12/31/2006 Intersection is similar to:

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
5/28/2005	6:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
5/28/2005	12:36:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 N
5/31/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 N
6/7/2005	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N
6/17/2005	1:52:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
7/1/2005	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 140 TO RT 24 NB
7/10/2005	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 24		Rte 24 / Rte 140
7/17/2005	4:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dawn	Clear/Clear						Rte 24 S
7/27/2005	7:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 140 N	RAMP - RT 140 TO RT 24 SB				
8/10/2005	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 S
8/12/2005	5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
8/30/2005	4:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						Rte 24 N
9/19/2005	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
9/26/2005	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			JUST PRIOR TO RAMP TO 24 NB - ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
9/27/2005	6:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dawn	Cloudy/Rain						Rte 24 N
9/27/2005	6:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy/Cloudy						Rte 24 N
10/5/2005	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1 feet S from Exit 12 on Rte 24		Rte 24
10/12/2005	11:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			END OF RAMP FROM RT 24SB TO RT 1 - RAMP - RT 24 SB TO RT 140			RAMP - RT 24 SB TO RT 140
10/14/2005	8:08:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Rain	RAMP - RT 140 TO RT 24 NB Rte 140 S					
10/25/2005	9:49:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy						Rte 24 N
10/29/2005	3:29:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Sleet, hail (freezing rain or drizzle)Sleet, hail (freezing rain or drizzle)						Rte 24 S
10/30/2005	6:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
11/4/2005	6:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Cloudy				Exit 12 on Rte 24 S		Rte 24 S
11/9/2005	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Cloudy				100 feet S from Exit 12 on Rte 24 S		Rte 24 S
11/10/2005	10:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
11/19/2005	1:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 N
11/22/2005	7:07:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain			PRIOR TO RAMP FOR RT 24NB - ROUTE 140 Rte 140 N			ROUTE 140 Rte 140 N / RAMP - RT 140 TO RT 24 NB
11/22/2005	9:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			TOP OF RAMP FROM 140 TO RT 24 NB - RAMP - RT 140 TO RT 24 NB			RAMP - RT 140 TO RT 24 NB
12/4/2005	2:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Cloudy			NEAR INTERSECTION FOR RT 24NB. - ROUTE 140 Rte 140 S			ROUTE 140 Rte 140 S / RAMP - RT 140 TO RT 24 NB
12/5/2005	6:54:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Clear/Clear						Rte 24 S
12/8/2005	7:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
12/14/2005	4:34:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Cloudy				Exit 12 on Rte 24 S		Rte 24 S
12/15/2005	11:39:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24		Rte 24 N
12/16/2005	4:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)Snow						Rte 24 N
12/21/2005	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 S Milemarker 19.2	Rte 24 S
12/21/2005	8:39:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				5280 feet N from Exit 12 on Rte 24		Rte 24 N
12/21/2005	9:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						1500 feet N from Intersection Rte 24 N / Rte 140
12/23/2005	5:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Cloudy					300 feet N from Rte 24 S Milemarker 17.1	Rte 24 S
12/29/2005	1:08:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	RAMP - RT 140 TO RT 24 NB Rte 140 S					
12/29/2005	4:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 12 on Rte 24 S		Rte 24 S
1/9/2006	2:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Cloudy	RAMP - RT 24 SB TO RT 140 Rte 24 S	RAMP - RT 24 SB TO RT 140 Rte 24 S				
1/12/2006	9:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Dawn	Not Reported				Exit 12 on Rte 24 S		Rte 24 S
1/17/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 24 S / Rte 140
1/19/2006	6:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 24 S
1/19/2006	6:25:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 24 S
1/20/2006	3:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 140 N / Rte 24
1/20/2006	6:10:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 24 N
1/20/2006	6:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy/Cloudy				Exit 12 on Rte 24		Rte 24
1/25/2006	4:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy						Rte 24 S / Rte 140
2/12/2006	7:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Cloudy				Exit 12 on Rte 24		Rte 24
2/14/2006	11:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Cloudy/Cloudy				Exit 12 on Rte 24 S		Rte 24 S
2/20/2006	2:56:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24		Rte 24
2/24/2006	1:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				5 feet S from Exit 12 on Rte 24 S		Rte 24 S
2/24/2006	1:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 24 S		Rte 24 S
3/7/2006	2:47:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						RAMP - RT 140 TO RT 24 NB Rte 140 / Rte 24
3/9/2006	4:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Clear				Exit 12 on Rte 24 S		Rte 24 S
3/25/2006	4:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				5.00 feet N from Exit 12 on Rte 24 S		Rte 24 S
3/31/2006	11:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24		Rte 24
4/9/2006	4:55:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Cloudy				Exit 12 on Rte 24		Rte 24
4/9/2006	3:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						Rte 24 S
4/18/2006	1:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 140	Rte 24 / RAMP - RT 140 TO RT 24 NB				
4/24/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear				Exit 12 on Rte 24		Rte 24
4/28/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 11 on Rte 24		Rte 24 / Rte 140
4/30/2006	6:01:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
5/5/2006	1:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 12 on Rte 24 S		Rte 24 S
5/13/2006	3:32:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy						Rte 24 N
5/13/2006	9:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			HEADING NORTH	Exit 12 on Rte 24		Rte 24
5/13/2006	9:37:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy				Exit 12 on Rte 24 S		RAMP - RT 24 SB TO RT 140 Rte 24 S
5/16/2006	4:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						10 feet N from Intersection Rte 24 N / Rte 140
5/16/2006	5:25:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						150 feet N from Intersection Rte 24 S / Rte 140
5/17/2006	11:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy				Exit 12 on Rte 24		Rte 24
5/24/2006	11:32:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Dark - roadway not lighted	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
5/28/2006	8:50:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear				1000 feet N from Exit 13 on Rte 24		Rte 24
6/10/2006	10:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain	Rte 24	Rte 140				
6/20/2006	5:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Cloudy/Cloudy				Exit 12 on Rte 24		Rte 24
6/23/2006	5:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy				1500 feet N from Exit 12 on Rte 24 S		Rte 24 S
6/26/2006	10:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			ROUTE 24			5280 feet S from Intersection Rte 140 N / Rte 24
6/28/2006	6:53:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 140 S	RAMP - RT 140 TO RT 24 NB				
7/5/2006	2:34:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				1000 feet N from Exit 12 on Rte 24 S		Rte 24 S
7/13/2006	3:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain				250 feet N from Exit 12 on Rte 24 S		Rte 24 S
7/19/2006	4:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
7/19/2006	5:45:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				1 feet S from Exit 13 on Rte 24		Rte 24 S
7/27/2006	1:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
8/1/2006	4:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
8/7/2006	4:19:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1000 feet N from Exit 12 on Rte 24 S		Rte 24 S
8/8/2006	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 24		Rte 24
8/9/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
8/11/2006	7:53:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM RTE 24SB TO RTE 140			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
8/16/2006	1:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 24 N
8/18/2006	5:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 S
8/21/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear	Rte 24	Rte 44				
8/27/2006	1:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	Rte 24	Rte 140				
8/28/2006	2:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain				Exit 12 on Rte 24 S		Rte 24 S
8/29/2006	4:40:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
9/8/2006	5:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 24 N	Rte 140				
9/18/2006	4:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			JUST NORTH OF ROUTE 140 RAMP			AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 140
9/19/2006	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N / Rte 140
9/20/2006	6:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Clear/Clear			HEADING NORTH	Exit 12 on Rte 24		Rte 24
9/29/2006	1:30:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear				400 feet S from Exit 11 on Rte 24		Rte 24 S
10/11/2006	7:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy						Rte 24 S
10/12/2006	3:50:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
10/15/2006	8:34:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear	RAMP - RT 140 TO RT 24 NB	Rte 24 N / Rte 140				
10/21/2006	3:55:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
10/28/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Cloudy	Rte 24	Rte 140 / Rte 44				
10/28/2006	8:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						Rte 24 N
11/6/2006	11:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 N
11/10/2006	7:38:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				1320 feet N from Exit 12 on Rte 24 S		Rte 24 S
11/10/2006	7:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 12 on Rte 24 S		Rte 24 S
11/20/2006	7:45:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13 on Rte 24		Rte 24 S
12/3/2006	11:45:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 12 on Rte 24		Rte 24
12/5/2006	7:29:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						COUNTY STREET Rte 140 / Rte 24
12/7/2006	4:05:00 PM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 12 on Rte 24 S		Rte 24 S
12/13/2006	3:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain						COUNTY STREET Rte 140 / RAMP - COUNTY ST TO RT 140 SB Rte 24
12/17/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear						Rte 24 / Rte 140
12/18/2006	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 24 S
12/19/2006	6:20:00 AM	Property damage only (none injured)	2	0	0	Rear-to-rear	Rear-to-rear	Dry	Dark - lighted roadway	Not Reported						Rte 24 / COUNTY STRIBET
12/20/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						AMVETS MEMORIAL HIGHWAY Rte 24 / RAMP - RT 140 TO RT 24 NB Rte 140
12/22/2006	5:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				30 feet N from Exit 12 on Rte 24 S		Rte 24 S
12/13/2014	5:57:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain			COUNTY STREET Rte 140			600 feet N from Intersection COUNTY STREET Rte 140 / Rte 24
4/26/2015	8:10:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				Exit 12 on Rte 24		Rte 24
7/11/2006	8:50:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				100 feet N from Exit 12 on Rte 24		Rte 24

WEST BRIDGEWATER 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feel_From
10/16/2004	5:45:00 AM	Fatal injury	1	2	1	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain			Rte 24 N			Rte 24 N
2/2/2004	5:40:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Cloudy/Cloudy			Rte 24 S	Exit 17 on Rte 24		Rte 24 S
4/8/2004	6:44:00 AM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 N	100 feet N from Exit 16A on Rte 24 N		Rte 24 N
4/11/2004	4:40:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
4/14/2004	11:05:00 AM	Non-fatal injury	3	5	0	Angle	Angle	Wet	Daylight	Rain			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
5/24/2004	9:48:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 24	Exit 16B on Rte 24		Rte 24
7/3/2004	11:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
7/14/2004	7:20:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Rain			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
7/22/2004	1:07:00 PM	Non-fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 16B on Rte 24 S		Rte 24 S
7/23/2004	3:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
8/1/2004	5:10:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 24 S	Exit 16A on Rte 24 S		Rte 24 S
8/28/2004	1:40:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S	Exit 16A on Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 106 WB
8/31/2004	6:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			SOUTH OF WALNUT STREET OVERPASS - Rte 24 N			Rte 24 N
9/29/2004	5:09:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			106 AMVETS MEMORIAL HIGHWAY Rte 24 S	100 feet S from Exit 16B on Rte 24 S		106 AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 106 WB TO RT 24 SB
10/4/2004	8:30:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Fog, smog, smoke			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
10/16/2004	2:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			SO OF RT 123 - Rte 24 N			Rte 24 N / Rte 123
11/19/2004	1:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	Exit 16B on Rte 24 S		Rte 24 S
12/3/2004	5:25:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	Exit 16B on Rte 24 S		Rte 24 S
12/16/2004	9:35:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
12/19/2004	5:05:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Cloudy			Rte 24 N	Exit 16B on Rte 24 N		Rte 24 N
12/23/2004	7:35:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Wet	Dark- roadway not lighted	Rain/Severe crosswinds			WALNUT STREET Rte 24 N	Exit 17A on Rte 24 N		WALNUT STREET Rte 24 N
1/13/2005	10:07:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Wet	Daylight	Fog, smog, smoke/Cloudy				Exit 16A on Rte 24 S		Rte 24 S
1/28/2005	8:55:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Clear/Clear				Exit 16B on Rte 24 N		Rte 24 N
2/2/2005	5:42:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear				Exit 16B on Rte 24 N		Rte 24 N
2/17/2005	12:00:00 PM	Non-fatal injury	3	3	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				Exit 16A on Rte 24 N		Rte 24 N
2/19/2005	6:35:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
2/21/2005	10:30:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow						Rte 24
3/5/2005	5:17:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24		Rte 24
3/8/2005	5:50:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Snow	Dark- roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)			AT WALNUT STREET - Rte 24 S			Rte 24 S / WALNUT STREET
3/12/2005	5:35:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark- roadway not lighted	Snow/Snow				250 feet E from Exit 16B on Rte 24 S		Rte 24 S
3/21/2005	12:01:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Cloudy/Clear				Exit 16B on Rte 24 N		Rte 24 N
4/15/2005	4:08:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			WEST CENTER STREET - WEST CENTER STREET Rte 24 W			WEST CENTER STREET Rte 24 W / RAMP - RT 24 NB TO RT 106 EB
5/5/2005	7:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
5/6/2005	9:27:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
5/13/2005	4:22:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
5/27/2005	8:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark- roadway not lighted	Cloudy/Cloudy				10560 feet S from Exit 16B on Rte 24 S		Rte 24 S
6/9/2005	1:28:00 PM	Non-fatal injury	2	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
6/9/2005	1:30:00 PM	Non-fatal injury	2	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
6/14/2005	7:20:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 16A on Rte 24 N		Rte 24 N
6/29/2005	10:40:00 AM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16B on Rte 24 N		Rte 24 N
7/2/2005	4:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
7/17/2005	8:00:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear/Clear			SOUTH OF ROUTE 123 - Rte 24 S			Rte 24 S / Rte 123
8/1/2005	3:30:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						EAST CENTER STREET Rte 106 / WEST CENTER STREET Rte 24
8/12/2005	3:00:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear						WEST CENTER STREET Rte 24 / Rte 106
9/3/2005	4:05:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						WEST CENTER STREET Rte 24 / Rte 106
9/27/2005	6:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Cloudy/Cloudy			SOUTH OF RTE 123 - Rte 24 S			Rte 24 S
10/3/2005	7:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						ROUTE 24 OVERPASS ST Rte 106
10/28/2005	4:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 16B on Rte 24 N		Rte 24 N
11/22/2005	10:58:00 AM	Non-fatal injury	2	3	0	Angle	Angle	Wet	Daylight	Rain/Rain			NORTH OF RT 104 - Rte 24 S			Rte 24 S / Rte 104
11/29/2005	12:02:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 16A on Rte 24 N		Rte 24 N
12/9/2005	9:10:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dark- roadway not lighted	Clear				Exit 17 on Rte 24		Rte 24 S
12/14/2005	8:35:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 16A on Rte 24 N		Rte 24 N
12/15/2005	11:05:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark- roadway not lighted	Cloudy				10000 feet N from Exit 16B on Rte 24 N		Rte 24 N
1/25/2006	9:30:00 AM	Non-fatal injury	3	3	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Snow/Fog, smog, smoke				3040 feet S from Exit 16B on Rte 24 S		Rte 24 S
2/2/2006	6:55:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Unknown	Daylight	Clear				Exit 16B on Rte 24		Rte 24 / Rte 106
2/16/2006	1:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Clear/Clear				1000 feet N from Exit 16B on Rte 24 S		Rte 24 S
2/21/2006	6:05:00 AM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Dawn	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
3/29/2006	9:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
4/12/2006	6:05:00 AM	Non-fatal injury	2	3	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 17A on Rte 24 N		Rte 24 N
4/24/2006	3:34:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 24 S
4/26/2006	4:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 106 E	WEST CENTER STREET	ROUTE 24 OVERPASS ST			
5/13/2006	9:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Daylight	Rain/Rain						ROUTE 24 OVERPASS STREET
5/25/2006	2:26:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						WEST CENTER STREET Rte 106 W / RAMP - RT 106 WB TO RT 24 SB
6/12/2006	12:15:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
6/28/2006	9:18:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				200 feet S from Exit 16A on Rte 24 N		Rte 24 N
8/2/2006	3:32:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear						WEST CENTER STREET / WEST CENTER STREET Rte 24
8/2/2006	6:51:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						WEST CENTER STREET Rte 106 W / Rte 24
8/18/2006	1:30:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 / Rte 106
8/18/2006	1:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				1000 feet S from Exit 16B on Rte 24 S		Rte 24 S
8/18/2006	4:05:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1000 feet S from Exit 16A on Rte 24 S		Rte 24 S
8/23/2006	5:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Unknown						Rte 24
9/23/2006	8:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark- roadway not lighted	Cloudy						Rte 24 S / Rte 106
10/10/2006	5:50:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dawn	Clear				100 feet N from Exit 16A on Rte 24		Rte 24
10/13/2006	10:34:00 PM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 N
10/21/2006	4:40:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 24 S
10/29/2006	1:50:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Cloudy				2640 feet N from Exit 16B on Rte 24 S		Rte 24 S
11/1/2006	8:45:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				2640 feet N from Exit 16A on Rte 24 N		Rte 24 N
11/14/2006	1:18:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Cloudy/Clear				Exit 16B on Rte 24 S		Rte 24 S
11/15/2006	7:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy				1000 feet N from Exit 16A on Rte 24 N		Rte 24 N
11/17/2006	6:40:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dawn	Cloudy						Rte 24
12/4/2006	1:05:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				200 feet N from Exit 16A on Rte 24 S		Rte 24 S
2/2/2004	5:40:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Cloudy/Cloudy			Rte 24 S	Exit 17 on Rte 24		Rte 24 S
2/7/2004	3:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 24					
9/29/2004	4:00:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Not reported	Not Reported			Rte 24	100 feet S from Exit 16B on Rte 24		Rte 24
1/6/2005	10:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 24 / Rte 106
2/24/2005	2:00:00 PM	Not Reported	1	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24
4/17/2005	9:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Not reported	Clear/Clear				Exit 16A on Rte 24		Rte 24
6/28/2005	6:55:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24
11/7/2005	3:41:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 24 / Rte 106
8/15/2006	6:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	Rte 24	Rte 28 / Rte 106				
10/13/2006	3:55:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 24	FOUDRY STREET Rte 106	EXIT RAMP			
11/3/2006	5:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 17A on Rte 24		Rte 24
11/15/2006	7:55:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 24 N / Rte 106
12/2/2006	9:30:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear				Exit 16A on Rte 24		Rte 24
1/12/2004	7:17:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark- roadway not lighted	Snow	Rte 24 S	WEST CENTER STREET Rte 106 W				
2/1/2004	8:00:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear			Rte 24 N	Exit 16B on Rte 24 N		Rte 24 N
3/9/2004	7:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
3/16/2004	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow/Snow			Rte 24 S	Exit 16A on Rte 24 S		Rte 24 S
3/18/2004	6:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Other	Dawn	Cloudy/Snow			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
3/23/2004	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
3/29/2004	7:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	Exit 16B on Rte 24 S		Rte 24 S
4/20/2004	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 W			Rte 24 W
4/20/2004	12:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
4/25/2004	1:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
4/26/2004	9:05:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark- roadway not lighted	Clear/Clear			Rte 24 S			Rte 24 S / Rte 106
5/14/2004	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N	Exit 16A on Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 106 EB
5/24/2004	10:05:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
6/2/2004	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RAMP - RT 24 NB TO RT 106 EB			RAMP - RT 24 NB TO RT 106 EB / Rte 106
6/4/2004	5:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S			7920 feet S from Intersection Rte 24 S / Rte 106
6/24/2004	7:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			1/2 MILE NORTH OF ROUTE 106. - Rte 24 S			2640 feet N from Intersection Rte 24 S / Rte 106
7/5/2004	6:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Cloudy/Rain			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
7/17/2004	3:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Cloudy/Cloudy			Rte 24 S	Exit 16A on Rte 24 S		Rte 24 S
7/19/2004	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Rain			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
7/19/2004	7:55:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Wet	Daylight	Rain			Rte 24 S	Exit 16A on Rte 24 S		Rte 24 S
7/23/2004	4:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
8/3/2004	2:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24			Rte 24 / Rte 24
8/4/2004	4:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 N			AMVETS MEMORIAL HIGHWAY Rte 24 N
9/7/2004	8:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
9/10/2004	1:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear	Rte 24					
9/12/2004	12:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
9/22/2004	5:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 24 S	RAMP - RT 24 SB TO RT 106 EB				
9/22/2004	9:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Unknown			WEST CENTER STREET Rte 106 E			WEST CENTER STREET Rte 106 E / RAMP - RT 106 EB TO RT 24 NB
10/1/2004	4:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S	106 feet E from Exit 16A on Rte 24 S		Rte 24 S
10/4/2004	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Fog, smog, smoke			Rte 24 N	Exit 17A on Rte 24 N		Rte 24 N
10/6/2004	6:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear/Clear			Rte 24 S	Exit 16A on Rte 24 S		Rte 24 S
10/18/2004	5:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark- roadway not lighted	Cloudy/Rain			Rte 24 N	Exit 16A on Rte 24 N		Rte 24 N
11/3/2004	5:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear			Rte 24	Exit 16A on Rte 24		Rte 24 / Rte 106
11/4/2004	11:32:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark- roadway not lighted	Rain			Rte 24 S	5400 feet S from Exit 16A on Rte 24 S		Rte 24 S
11/9/2004	8:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 24 S	Exit 10 on Rte 24		Rte 24 S / Rte 106
12/9/2004	4:08:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
12/10/2004	8:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Rain			Rte 24 N	Exit 16B on Rte 24 N		Rte 24 N
12/15/2004	11:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark- roadway not lighted	Clear/Clear			AMVETS MEMORIAL HIGHWAY Rte 24 S			AMVETS MEMORIAL HIGHWAY Rte 24 S
12/21/2004	9:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 106 W			Rte 106 W / Rte 24
12/23/2004	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - unknown roadway lighting	Rain			Rte 24	200 feet N from Exit 15 on Rte 24		Rte 24
12/23/2004	9:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain			Rte 24 N	Exit 16B on Rte 24 N		Rte 24 N
12/31/2004	12:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Clear			RT 24 OVERPASS - WEST CENTER STREET Rte 106 E			WEST CENTER STREET Rte 106 E
1/6/2005	9:47:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Slush	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				Exit 16B on Rte 24 N		Rte 24 N
1/12/2005	6:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Dawn	Snow/Snow				Exit 16B on Rte 24 N		Rte 24 N
1/20/2005	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 24 N

WEST BRIDGEWATER 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 24 route 24

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
1/20/2005	9:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Daylight	Clear				Exit 16A on Rte 24 N		Rte 24 N
2/5/2005	12:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Dark- roadway not lighted	Rain/Rain				Exit 16B on Rte 24 N		Rte 24 N
2/21/2005	10:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Sleet, hail (freezing rain or drizzle)						Rte 24
2/21/2005	10:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Snow			NORTH OF ROUTE 104 - Rte 24 S			Rte 24 S
3/4/2005	4:05:00 PM	Property damage only (none injured)	4	0	0	Angle	Angle	Dry	Daylight	Clear			1000 feet S from BROCKTON CITY LINE - Rte 24 S			Rte 24 S
3/9/2005	4:50:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear/Clear						RAMP - RT 24 NB TO RT 106 EB / Rte 106
3/21/2005	9:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
4/12/2005	9:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Snow/Snow				6336 feet N from Exit 16B on Rte 24 S		Rte 24 S
4/23/2005	6:07:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy				Exit 16A on Rte 24 S		Rte 24 S
5/6/2005	1:33:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 S
5/17/2005	1:19:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy						AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 24 SB TO RT 106 WB Rte 106 N
5/23/2005	6:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain/Cloudy				5280 feet S from Exit 16B on Rte 24 S		Rte 24 S
6/13/2005	10:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 16B on Rte 106		RAMP - RT 106 WB TO RT 24 NB Rte 106
6/15/2005	6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						WEST CENTER STREET Rte 24 / RAMP - RT 106 EB TO RT 24 NB
6/17/2005	1:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain				Exit 16A on Rte 24 N		Rte 24 N
6/18/2005	4:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 16B on Rte 24 S		Rte 24 S
6/22/2005	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
6/23/2005	9:32:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
7/10/2005	9:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
7/14/2005	4:55:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				2640 feet N from Exit 16A on Rte 24 S		Rte 24 S
8/6/2005	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
8/19/2005	5:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
9/13/2005	4:47:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
9/21/2005	6:28:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				50 feet S from Exit 16A on Rte 24 S		Rte 24 S
9/22/2005	2:06:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
10/1/2005	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	RAMP - RT 24 NB TO RT 106 EB	WEST CENTER STREET Rte 106				
10/4/2005	2:52:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear					Rte 24 N Milemarker 28.5	Rte 24 N
10/9/2005	7:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Rain					Rte 24 S Milemarker 25.8	Rte 24 S
10/12/2005	7:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 17A on Rte 24		Rte 24
10/18/2005	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
10/19/2005	6:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear/Clear				1000 feet S from Exit 17A on Rte 24 N		Rte 24 N
10/24/2005	5:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				1000 feet N from Exit 16B on Rte 24 S		Rte 24 S
11/8/2005	1:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 S
11/9/2005	8:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark- roadway not lighted	Rain/Rain			SOUTH OF RTE 106 - Rte 24 S			Rte 24 S / Rte 106
11/10/2005	1:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Rain/Other				Exit 15 on Rte 24		Rte 24 S
11/15/2005	11:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain				Exit 16A on Rte 24 S		Rte 24 S
12/5/2005	10:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- roadway not lighted	Clear/Clear			SOUTH OF RTE 123 - Rte 24 N			Rte 24 N / Rte 123
12/10/2005	10:08:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Clear/Clear						106 WEST CENTER STREET Rte 24
12/10/2005	12:08:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Clear						Rte 24 S
12/13/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
12/15/2005	12:01:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear						Rte 24 S / WALNUT STREET
12/24/2005	10:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark- roadway not lighted	Cloudy/Cloudy				200 feet N from Exit 16A on Rte 24 S		Rte 24 S
12/29/2005	9:13:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark- roadway not lighted	Cloudy				Exit 16A on Rte 24 S		Rte 24 S
12/31/2005	6:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark- roadway not lighted	Snow/Cloudy						Rte 24 S
1/3/2006	7:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Sleet, hail (freezing rain or drizzle)/Sleet, hail (freezing rain or drizzle)				Exit 17 on Rte 24		86 feet S from Intersection Rte 24 S
1/24/2006	4:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				10000 feet S from Exit 16A on Rte 24 S		Rte 24 S
1/25/2006	9:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				Exit 16B on Rte 24 S		Rte 24 S
1/30/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						WEST CENTER STREET Rte 24 / Rte 24
2/1/2006	6:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
2/2/2006	2:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16B on Rte 24 S		Rte 24 S
2/12/2006	2:14:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Blowing sand, snow						Rte 106 E / Rte 24
2/12/2006	12:33:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Blowing sand, snow				Exit 16A on Rte 24 S		Rte 24 S
2/12/2006	12:46:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Snow/Blowing sand, snow				100 feet S from Exit 16B on Rte 24 N		Rte 24 N
2/13/2006	2:38:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				2000 feet N from Exit 16B on Rte 24 N		Rte 24 N
3/2/2006	6:34:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark- roadway not lighted	Snow/Blowing sand, snow				100 feet S from Exit 16B on Rte 24 S		Rte 24 S
3/3/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear				200 feet S from Exit 16A on Rte 24 N		Rte 24 N
3/27/2006	8:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
5/1/2006	3:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy						Rte 106 / Rte 24
5/1/2006	4:39:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16B on Rte 24		Rte 24 / WEST CENTER STREET
5/8/2006	6:33:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
5/19/2006	7:17:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Wet	Daylight	Cloudy/Cloudy					Rte 24 Milemarker 16.6	Rte 24 N
6/16/2006	3:36:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 16A on Rte 24 S		Rte 24 S
6/20/2006	4:18:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				5280 feet S from Exit 16A on Rte 24 N		Rte 24 N
6/25/2006	8:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 16A on Rte 24 S		Rte 24 S
6/30/2006	2:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
7/5/2006	3:49:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				500 feet N from Exit 16B on Rte 24 N		Rte 24 N
7/10/2006	5:39:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 16A on Rte 24 S		Rte 24 S
7/20/2006	6:13:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
8/10/2006	10:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				1000 feet S from Exit 16A on Rte 24 S		Rte 24 S
8/12/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
8/15/2006	11:17:00 AM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Rain				10960 feet N from Exit 16B on Rte 24 N		Rte 24 N
8/19/2006	9:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 16A on Rte 24		Rte 24
8/20/2006	3:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	AMVETS MEMORIAL HIGHWAY Rte 24	RAMP - RT 106 EB TO RT 24 NB				
8/21/2006	3:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				500 feet S from Exit 16A on Rte 24		Rte 24
9/8/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark- lighted roadway	Clear/Clear						WEST CENTER STREET Rte 106 E / RAMP - RT 106 EB TO RT 24 NB
9/9/2006	12:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 17A on Rte 24		Rte 24
9/16/2006	1:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16B on Rte 24 S		Rte 24 S
9/29/2006	1:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 S		Rte 24 S
10/10/2006	7:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 16A on Rte 24 N		5280 feet S from Intersection Rte 24 N / Rte 106
10/13/2006	11:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark- roadway not lighted	Clear/Clear				Exit 16B on Rte 24 S		Rte 24 S
10/29/2006	2:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark -unknown roadway lighting	Clear				Exit 16A on Rte 24		Rte 24
11/1/2006	8:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear				Exit 16A on Rte 24 N		Rte 24 N
11/4/2006	2:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				Exit 17 on Rte 24		Rte 24 S
12/2/2006	11:23:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark- roadway not lighted	Clear/Clear				5280 feet S from Exit 16A on Rte 24 N		Rte 24 N
12/2/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark- roadway not lighted	Cloudy/Cloudy						Rte 24 N
12/8/2006	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						WEST CENTER STREET Rte 106 / RAMP - RT 106 EB TO RT 24 NB
11/13/2004	12:55:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark- roadway not lighted	Snow/Snow			Rte 24 N	Exit 16B on Rte 24 N		Rte 24 N
1/22/2005	5:20:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear						Rte 24 S
9/20/2005	11:50:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	RAMP - RT 106 EB TO RT 24 NB	Rte 106				

BRAINTREE	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
12/17/2004	4:20:00 PM	Fatal Injury	1	0	1	Single vehicle crash	Single vehicle crash	Unknown	Dark - lighted roadway	Unknown/Unknown			NEAR SOUTH SHORE PLAZA - Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
12/16/2006	5:40:00 AM	Fatal Injury	3	0	1	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			BRAINTREE SPLIT			INTERSTATE 93 Rte 93 S / RAMP-RT 93 NB TO RT 3 SB
1/12/2004	4:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
2/2/2004	12:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
2/9/2004	8:02:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
2/14/2004	5:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 N	1000 feet N from Exit 6 on Rte 93 N		Rte 93 N
2/16/2004	5:40:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N / RAMP - RT 93 NB TO RT 37
3/17/2004	10:43:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Snow/Snow			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
3/23/2004	2:50:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	500 feet N from Exit 6 on Rte 93 N		Rte 93 N
4/1/2004	5:46:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dusk	Rain/Rain			Rte 93 S	100 feet S from Exit 6 on Rte 93 S		Rte 93 S
4/8/2004	7:00:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Cloudy/Other			Rte 93 N	50 feet S from Exit 6 on Rte 93 N		Rte 93 N
4/11/2004	2:00:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			SOUTH SHORE PLAZA - Rte 93 N			Rte 93 N / Rte 3
5/2/2004	1:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Clear/Clear			Rte 93 S			Rte 93 S / Rte 37
5/4/2004	2:22:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S			Rte 93 S / Rte 37
5/14/2004	1:00:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Not reported	Clear			Rte 93 S			Rte 93 S / Rte 37
5/20/2004	6:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S	200 feet S from Exit 6 on Rte 93 S		Rte 93 S
5/31/2004	2:10:00 AM	Non-fatal injury	4	4	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N	500 feet S from Exit 6 on Rte 93 N		Rte 93 N
6/2/2004	11:22:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy			Rte 93 S	1500 feet S from Exit 6 on Rte 93 S		Rte 93 S
6/12/2004	2:40:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear			Rte 93 S			Rte 93 S / Rte 37
6/20/2004	9:30:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93 S	Rte 24 S				
6/24/2004	10:25:00 PM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N	300 feet S from Exit 7 on Rte 93 N		Rte 93 N
6/24/2004	11:46:00 PM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N	50 feet N from Exit 6 on Rte 93 N		Rte 93 N
6/27/2004	3:10:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 93 N	1500 feet S from Exit 6 on Rte 93 N		Rte 93 N
7/1/2004	3:20:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 93 S	20 feet S from Exit 7 on Rte 93		Rte 93 S
7/2/2004	4:30:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S / Rte 93
8/2/2004	7:10:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 N			Rte 93 N / Rte 3
8/5/2004	1:16:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain			Rte 93 S	5000 feet S from Exit 6 on Rte 93 S		Rte 93 S
8/15/2004	8:10:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Rain			Rte 93 S	300 feet N from Exit 6 on Rte 93 S		Rte 93 S
8/21/2004	10:25:00 AM	Non-fatal injury	2	3	0	Angle	Angle	Snow	Dark - lighted roadway	Clear/Cloudy			WASHINGTON STREET Rte 93			WASHINGTON STREET Rte 93 / Rte 3
9/4/2004	11:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
9/23/2004	3:45:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 N	1000 feet S from Exit 6 on Rte 93 N		Rte 93 N
9/24/2004	2:55:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	2000 feet S from Exit 6 on Rte 93 N		Rte 93 N
9/25/2004	12:51:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 7 on Rte 93 S		Rte 93 S / Rte 37
9/26/2004	1:00:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
9/30/2004	7:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93	500 feet S from Exit 6 on Rte 93		Rte 93
10/8/2004	7:11:00 PM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N	100 feet N from Exit 6 on Rte 93 N		Rte 93 N
10/13/2004	1:10:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N / RAMP - RT 3 SB TO WASHINGTON ST
10/14/2004	12:55:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 93 S	1000 feet S from Exit 6 on Rte 93 S		Rte 93 S
10/24/2004	3:44:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
10/29/2004	6:20:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dawn	Cloudy			Rte 93 N	1000 feet N from Exit 6 on Rte 93 N		Rte 93 N
11/5/2004	6:20:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dawn	Cloudy			Rte 93 S	1000 feet S from Exit 6 on Rte 93 S		Rte 93 S
11/6/2004	12:04:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
11/16/2004	2:06:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	2000 feet S from Exit 6 on Rte 93 S		Rte 93 S
11/19/2004	5:00:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S / Rte 93
11/23/2004	4:50:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			Rte 93 N	5280 feet S from Exit 6 on Rte 93 N		Rte 93 N
11/26/2004	7:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy			Rte 93 N			Rte 93 N
11/30/2004	2:08:00 PM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Daylight	Clear	Rte 93 N	Rte 3 S				
12/3/2004	8:04:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N	50 feet N from Exit 6 on Rte 93 N		Rte 93 N
12/4/2004	5:22:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			Rte 93 S	250 feet S from Exit 6 on Rte 93 S		Rte 93 S
12/9/2004	4:00:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			BUGIN PKWY - RAMP-WASHINGTON ST/BURGIN PKWY TO RT 93			RAMP-WASHINGTON ST/BURGIN PKWY TO RT 93 / RAMP-BURGIN PKWY TO RT 3 NB
12/17/2004	2:14:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			N/B RAMP TO X-WAY N/B - RAMP-RT 93 NB TO RT 93 NB Rte 93 N			RAMP-RT 93 NB TO RT 93 NB Rte 93 N
12/26/2004	12:52:00 AM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
12/29/2004	5:22:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 N	200 feet S from Exit 6 on Rte 93 N		Rte 93 N
1/1/2005	4:40:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Cloudy/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
1/7/2005	6:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain						Rte 93
1/10/2005	5:05:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear/Clear			HYMONETICS - Rte 93 S	1500 feet N from Exit 6 on Rte 93 S		Rte 93 S
1/18/2005	3:48:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				75 feet N from Exit 7 on Rte 93 N		Rte 93 N
1/18/2005	6:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Unknown	Dark - roadway not lighted	Clear						Rte 93 N
1/24/2005	11:50:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Snow	Daylight	Clear				Exit 7 on Rte 93 N		Rte 93 N
1/25/2005	7:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Clear				3000 feet S from Exit 6 on Rte 93 N		Rte 93 N
2/3/2005	5:35:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Wet	Dusk	Rain						Rte 93 S
2/3/2005	7:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Not reported	Not reported	Not reported	Rte 93					
2/15/2005	9:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				500 feet N from Exit 7 on Rte 93 N		Rte 93 N
2/19/2005	2:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			BRAINTREE MALL - Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
2/23/2005	8:40:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear				Exit 6 on Rte 93 N		Rte 93 N
2/27/2005	2:45:00 AM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
3/3/2005	1:20:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear						Rte 93 N / Rte 3
3/4/2005	7:18:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 N
3/10/2005	5:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 6 on Rte 93		Rte 93
3/10/2005	7:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						PILGRIM HIGHWAY Rte 3 / RAMP-RT 93 SB TO RT 3 SB
3/16/2005	5:00:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear				Exit 37 on Rte 93		Rte 93 S
3/21/2005	10:30:00 AM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Unknown	Daylight	Clear						Rte 93 N
3/22/2005	8:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 3 N		BRAINTREE SPLIT - Rte 3 N			Rte 3 N / Rte 93
3/28/2005	2:02:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Clear				Exit 6 on Rte 93 N		Rte 93 N
3/28/2005	4:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dusk	Rain				30 feet N from Exit 6 on Rte 93 N		Rte 93 N
3/31/2005	7:40:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
4/3/2005	4:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
4/3/2005	4:50:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
4/8/2005	2:40:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy				50 feet S from Exit 6 on Rte 93 S		Rte 93 S
4/20/2005	3:17:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93 N		Rte 93 N
4/22/2005	3:43:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93 S		Rte 93 S
4/26/2005	8:39:00 PM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear/Clear	Rte 93 N					
5/6/2005	1:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy						Rte 93 N
5/24/2005	12:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			BRAINTREE SPLIT - Rte 93 S			Rte 93 S
5/25/2005	11:37:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain				Exit 6 on Rte 93 N		Rte 93 N
5/26/2005	12:57:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain						1000 feet S from Intersection Rte 3 N / Rte 93
6/3/2005	5:30:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						300 feet S from Intersection INTERSTATE 93 Rte 93 / GRANITE STREET Rte 37 S
6/6/2005	7:35:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
6/16/2005	3:50:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear			SOUTH SHORE PLAZA - EXPRESSWAY BRAINTREE SPLIT Rte 93	Exit 6 on Rte 93		EXPRESSWAY BRAINTREE SPLIT Rte 93
6/16/2005	8:45:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						GRANITE STREET Rte 93 / Rte 93
6/21/2005	7:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 37
6/22/2005	1:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	Rte 93					
7/7/2005	7:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Rain				100 feet S from Exit 6 on Rte 93		Rte 93
7/8/2005	7:10:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Wet	Dusk	Rain/Fog, smog, smoke						Rte 93 / Rte 93
7/14/2005	7:05:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
7/18/2005	8:02:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dusk	Rain			ADJACENT TO LOGAN EXPRESS - Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
7/19/2005	5:45:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
7/24/2005	6:35:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						500 feet N from Intersection Rte 93 S / Rte 37
7/27/2005	3:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1500 feet N from Exit 6 on Rte 93 S		Rte 93 S
7/28/2005	12:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				100 feet S from Exit 6 on Rte 93 S		Rte 93 S
7/29/2005	5:30:00 PM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N					
8/14/2005	3:55:00 AM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Wet	Daylight	Rain						BRAINTREE HILL PARK Rte 93
8/16/2005	6:00:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			SOUTH OF RTE 37 - Rte 93 N			Rte 93 N / Rte 37
8/17/2005	12:05:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				200 feet N from Exit 6 on Rte 93 S		Rte 93 S
8/20/2005	2:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S					
8/25/2005	1:07:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP-RT 93 NB TO RT 3 SB
8/27/2005	8:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 3 N / RAMP - RT 3 NB TO RT 93 SB
8/29/2005	1:28:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy/Cloudy				Exit 7 on Rte 93 N		Rte 93 N
8/30/2005	2:36:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain	Rte 93 N	GRANITE STREET				
8/31/2005	12:00:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
9/11/2005	7:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				500 feet S from Exit 6 on Rte 93 N		Rte 93 N
9/12/2005	7:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						WASHINGTON STREET Rte 93 / Rte 93
9/15/2005	2:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Rain				Exit 6 on Rte 93 N		Rte 93 N
9/28/2005	7:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1000 feet S from Exit 6 on Rte 93 N		Rte 93 N
9/30/2005	2:30:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Unknown	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
10/11/2005	4:43:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				70 feet S from Exit 7 on Rte 93 N		Rte 93 N
10/17/2005	11:25:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
10/21/2005	1:55:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 37 N / RAMP - RT 37 NB TO RT 93 NB
10/24/2005	1:30:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy/Cloudy						Rte 93 N
10/27/2005	6:55:00 AM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				2000 feet S from Exit 6 on Rte 93 N		Rte 93 N
10/31/2005	1:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Clear						Rte 93 S
11/2/2005	6:30:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear			BEFORE CAPE COD PROVIDENCE SPLIT - Rte 93 S			Rte 93 S
11/4/2005	7:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy			EXIT #6 - Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
11/8/2005	6:45:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Rain						Rte 93 N / Rte 3
11/11/2005	8:32:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy			SPLIT - Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
11/16/2005	5:55:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dusk	Cloudy/Cloudy				700 feet S from Exit 6 on Rte 93 N		Rte 93 N
11/19/2005	10:31:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RTE. 93 N/B @ THE SPIT - Rte 93 N			Rte 93 N
11/20/2005	8:14:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear				20 feet N from Exit 6 on Rte 93 N		Rte 93 N
11/27/2005	7:20:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy				600 feet S from Exit 7 on Rte 93 N		Rte 93 N
11/30/2005	8:45:00 AM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				100 feet S from Exit 6 on Rte 93 N		Rte 93 N
12/5/2005	5:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Cloudy				800 feet S from Exit 6 on Rte 93 S		Rte 93 S
12/8/2005	7:05:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 6 on Rte 93 N		Rte 93 N
12/10/2005	12:00:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 37
12/12/2005	6:00:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				200 feet S from Exit 6 on Rte 93 N		Rte 93 N
1/1/2006	1:13:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow/Snow				500 feet S from Exit 7 on Rte 93 N		Rte 93 N
1/9/2006	12:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						2000 feet S from Intersection Rte 93 S / Rte 37
1/13/2006	6:34:00 PM	Non-fatal injury	3	3	0	Rear-to-rear	Rear-to-rear	Wet	Dark - lighted roadway	Rain/Rain			PRIOR TO 93N AND S SPLIT			Rte 3 N / Rte 93
2/3/2006	4:50:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
2/13/2006	4:00:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear						INTERSTATE 93 Rte 93 / RAMP-RT 3 NB TO RT 93 SB Rte 3

BRAINTREE	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
2/17/2006	2:10:00 AM	Non-fatal injury	3	1	0	Not reported	Not reported	Dry	Daylight	Clear				100 feet N from Exit 6 on Rte 93 N		Rte 93 N / Rte 3
2/17/2006	6:35:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				50 feet S from Exit 6 on Rte 93 N		Rte 93 N
2/17/2006	8:35:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
2/17/2006	8:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
2/20/2006	12:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear				2000 feet S from Exit 6 on Rte 93 N		Rte 93 N
3/8/2006	7:44:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 93 S
3/17/2006	7:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
3/24/2006	5:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear						1800 feet S from Intersection Rte 93 S / WASHINGTON STREET
3/25/2006	4:12:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy				1000 feet N from Exit 6 on Rte 93 S		Rte 93 S
4/5/2006	7:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / WASHINGTON STREET Rte 37
4/6/2006	2:16:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP-RT 93 SB TO RT 37
4/7/2006	6:50:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy	Rte 93 N	Rte 3 S				
4/8/2006	12:00:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 6 on Rte 93 S		Rte 93 S
4/18/2006	9:00:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 93 N
4/19/2006	7:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
4/21/2006	2:32:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93		Rte 93 S / RAMP-RT 93 SB TO RT 3 SB
4/30/2006	5:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear						Rte 93 N / RAMP - RT 93 NB TO RT 3 SB
5/14/2006	1:00:00 AM	Non-fatal injury	1	1	0	Angle	Angle	Wet	Dark - roadway not lighted	Rain/Severe crosswinds						Rte 3 / Rte 93
5/18/2006	4:33:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
5/22/2006	11:52:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP-RT 93 NB TO RT 3 SB
5/27/2006	11:24:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 S
5/27/2006	12:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Not reported	Dawn	Fog, smog, smoke				400 feet N from Exit 6 on Rte 93 N		Rte 93 N
5/30/2006	4:28:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93 S		Rte 93 S
6/1/2006	3:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93 S		Rte 93 S
6/6/2006	4:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 93	Rte 3				
6/7/2006	8:30:00 AM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 6 on Rte 93		Rte 93 N
6/8/2006	3:07:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain				Exit 6 on Rte 93 N		Rte 93 N
6/10/2006	1:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						Rte 93 N / RAMP - RT 93 NB TO RT 37
6/18/2006	12:00:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / UNION STREET
6/29/2006	3:41:00 PM	Non-fatal injury	2	2	0	Rear-to-rear	Rear-to-rear	Dry	Daylight	Cloudy					Rte 93 Milemarker 8.0	Rte 93
6/30/2006	3:21:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy						Rte 93 S
7/7/2006	5:15:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 feet N from Exit 7 on Rte 93 N		Rte 93 N
7/7/2006	5:55:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 93 N / RAMP - RT 37 NB TO RT 93 NB
7/11/2006	10:03:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				2000 feet S from Exit 6 on Rte 93 S		Rte 93 S
7/23/2006	4:47:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Water (standing, moving)	Dark - lighted roadway	Rain/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
7/28/2006	8:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	WILLARD STREET Rte 93	Rte 37 / Rte 1A				
8/1/2006	3:05:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 7 on Rte 93 N		Rte 93 N
8/2/2006	11:10:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93		Rte 93
8/2/2006	11:10:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			93 N/B AT RT .3 S/B SPLIT			Rte 93 N / Rte 3
8/8/2006	1:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S / Rte 37
8/8/2006	10:45:00 AM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear						Rte 93 S / Rte 37
8/12/2006	2:52:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 6 on Rte 93 N		Rte 93 N
8/26/2006	9:00:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear				Exit 6 on Rte 93 N		Rte 93 N
8/29/2006	12:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Rain	Rte 93 S	Rte 24				
9/15/2006	8:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93		Rte 93
10/3/2006	5:50:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear						Rte 93 N
10/7/2006	12:45:00 PM	Non-fatal injury	3	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 7 on Rte 93		Rte 93 S
10/8/2006	1:46:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 18 on Rte 3		Rte 3 S / Rte 93
10/8/2006	1:58:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 37
10/16/2006	2:37:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
10/20/2006	5:30:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Dusk	Rain				Exit 17 on Rte 3		Rte 3 / Rte 93
10/20/2006	7:10:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain			SOUTH OF EXIT 6	Exit 6 on Rte 93 S		Rte 93 S
10/29/2006	12:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Cloudy						Rte 93 W
11/5/2006	6:10:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93
11/12/2006	5:40:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain						Rte 93 S
11/18/2006	2:20:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			BRAINTREE SPLIT			Rte 93 N / Rte 93
11/19/2006	2:43:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP-RT 93 NB TO RT 3 SB
11/25/2006	8:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
12/16/2006	7:59:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear				1000 feet S from Exit 6 on Rte 93 N		852 feet W from Intersection Rte 93 N / RAMP-RT 93 NB TO RT 37
2/5/2004	7:20:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
8/25/2004	2:00:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 37			Rte 37 / Rte 93
9/16/2004	10:00:00 AM	Not Reported	1	0	0	Unknown	Unknown	Wet	Daylight	Rain	Rte 93 N					
12/6/2004	4:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear	Rte 93 E					
12/9/2004	4:00:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N			Rte 93 N / Rte 37
3/3/2005	4:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
3/30/2005	5:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 3
4/29/2005	4:45:00 AM	Not Reported	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				3000 feet S from Exit 37 on Rte 93		Rte 93 S
5/20/2005	9:15:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Dark - lighted roadway	Clear						INTERSTATE 93 Rte 93 N / Rte 93
5/25/2005	2:45:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			BRAINTREE - Rte 93			Rte 93
6/30/2005	6:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 6 on Rte 93 N		Rte 93 N
7/23/2005	1:30:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 6 on Rte 93 N		Rte 93 N
7/31/2005	1:30:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Daylight	Clear				Exit 6 on Rte 93 S		Rte 93 S
8/16/2005	5:10:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93 S					
8/21/2005	3:30:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Daylight	Not Reported	SOUTH STREET Rte 93					
8/24/2005	4:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 37
9/25/2005	6:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
1/27/2006	5:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			BENNY AND PHILS			Rte 93 N
2/15/2006	5:00:00 AM	Not Reported	4	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported				Exit 6 on Rte 93		Rte 93
2/20/2006	10:05:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S	GRANITE STREET				
4/14/2006	4:00:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93 N	Rte 93 N Milemarker 1.0	Rte 93 N
4/14/2006	12:00:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 93 / BRAINTREE SPLIT
4/26/2006	7:10:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1000 feet S from Exit 37 on Rte 93		Rte 93
4/28/2006	3:35:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 6 on Rte 93 N		Rte 93 N
5/11/2006	5:00:00 AM	Not Reported	2	0	0	Unknown	Unknown	Dry	Daylight	Cloudy				Exit 3 on Rte 93 S		WASHINGTON STREET Rte 93 S / Rte 3
6/16/2006	4:35:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
7/1/2006	9:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				Exit 6 on Rte 93 S		Rte 93 S / Rte 3
8/4/2006	2:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / Rte 37
8/11/2006	9:10:00 AM	Not Reported	4	0	0	Rear-end	Rear-end	Dry	Not reported	Not Reported						INTERSTATE 93 Rte 93 / RAMP-RT 93 NB TO RT 3 SB Rte 3
8/14/2006	6:00:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear						GRANITE STREET Rte 1 / MIDDLE STREET Rte 93
8/17/2006	10:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AFTER BRAINTREE PLAZA			Rte 93 S
10/3/2006	5:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			BRAINTREE SPLIT			Rte 93 / Rte 93
11/16/2006	5:15:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain				Exit 5 on Rte 93		Rte 93 S
1/5/2004	10:10:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain			Rte 93 S			175 feet W from Intersection Rte 93 S / Rte 37
1/5/2004	10:52:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Snow			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
1/9/2004	3:44:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
1/11/2004	2:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			ADJACENT TO HAEMONETICS BUILDING - Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
1/13/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Snow			Rte 93 N			Rte 93 N / Rte 3
1/15/2004	12:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Cloudy			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
1/18/2004	2:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 93 N			Rte 93 N
1/18/2004	5:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Ice	Dark - roadway not lighted	Cloudy/Snow	SOUTHEAST EXPRESSWAY Rte 93 S	ROUTE 3 Rte 3 S				
1/21/2004	5:09:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy/Clear			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
1/22/2004	7:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
1/27/2004	11:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
1/31/2004	5:27:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
2/1/2004	11:27:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
2/2/2004	8:31:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
2/7/2004	1:39:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
2/7/2004	3:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Sleet, hail (freezing rain or drizz			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
2/10/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
2/14/2004	10:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N / RAMP - RT 93 NB TO RT 37
2/27/2004	8:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
3/15/2004	12:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy			Rte 93 S	500 feet S from Exit 18 on Rte 93		Rte 93 S
3/21/2004	3:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - unknown roadway lighting	Rain			Rte 93	Exit 7 on Rte 93		Rte 93
3/21/2004	12:13:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain			Rte 93 N	1000 feet S from Exit 7 on Rte 93 N		Rte 93 N
3/26/2004	4:23:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 S	300 feet N from Exit 6 on Rte 93 S		Rte 93 S
3/26/2004	6:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			QUINCY BRAINTREE LINE - Rte 93 S	300 feet S from Exit 6 on Rte 93 S		Rte 93 S
3/27/2004	8:00:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy	Rte 93 N	RAMP-RT 93 NB TO RT 3 SB				
3/31/2004	7:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			Rte 3			Rte 3 / Rte 93
4/2/2004	4:36:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Water (standing, moving)	Dark - roadway not lighted	Rain			Rte 93 S	2500 feet N from Exit 6 on Rte 93 S		Rte 93 S
4/4/2004	12:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy	Rte 93 S	GRANITE STREET Rte 37				
4/6/2004	4:58:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	100 feet N from Exit 6 on Rte 93 N		Rte 93 N
4/7/2004	3:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	50 feet N from Exit 6 on Rte 93 N		Rte 93 N
4/9/2004	7:05:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 S			Rte 93 S / Rte 3
4/16/2004	9:40:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
5/3/2004	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			Rte 93 N	2500 feet S from Exit 7 on Rte 93 N		Rte 93 N
6/1/2004	4:39:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			RAMP-RT 93 SB TO RT 3 SB Rte 3 S	Exit 18 on Rte 3 S		RAMP-RT 93 SB TO RT 3 SB Rte 3 S / RAMP-RT 3 SB TO WASHINGTON ST
6/2/2004	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			Rte 93 N	500 feet N from Exit 6 on Rte 93 N		Rte 93 N
6/9/2004	5:00:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Not reported	Daylight	Clear			RAMP-RT 3 NB TO RT 93 NB			RAMP-RT 3 NB TO RT 93 NB / Rte 3
6/9/2004	8:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Clear			Rte 93 N	Exit 2 on Rte 93		Rte 93 N
6/18/2004	3:10:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Cloudy			Rte 93 S	2000 feet S from Exit 6 on Rte 93 S		Rte 93 S
6/21/2004	6:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 N	Exit 6 on Rte 93 N		10 feet N from Intersection Rte 93 N
6/27/2004	9:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	Rte 93 N	GRANITE STREET				
7/12/2004	6:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
7/18/2004	5:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 93 S	1000 feet S from Exit 6 on Rte 93 S		Rte 93 S
7/20/2004	6:30:00 PM	Property damage only (none injured)	3	0	0	Rear-to-rear	Rear-to-rear	Dry	Dusk	Clear			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
7/24/2004	12:02:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			ON RAMP FROM GRANITE STREET TO I - GRANITE STREET Rte 93 N			GRANITE STREET Rte 93 N / GRANITE STREET Rte 93
7/30/2004	7:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93 N					
7/31/2004	4:05:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
8/1/2004	12:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Cloudy/Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N

BRAINTREE 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
8/2/2004	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	50 feet N from Exit 6 on Rte 93 S		Rte 93 S
8/9/2004	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N			Rte 93 N
8/12/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
8/13/2004	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			PILGRIM HIGHWAY Rte 3			PILGRIM HIGHWAY Rte 3 / RAMP-RT 3 NB TO RT 93 NB
8/15/2004	6:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Daylight	Rain/Cloudy			Rte 93 S	100 feet N from Exit 6 on Rte 93 S		Rte 93 S
8/15/2004	8:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain			Rte 93 N	Exit 6 on Rte 93 N		100 feet S from Intersection Rte 93 N / Rte 37
8/24/2004	8:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N					
8/28/2004	10:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 N	2000 feet S from Exit 6 on Rte 93 N		Rte 93 N
9/13/2004	5:42:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy			Rte 93 N	5000 feet S from Exit 6 on Rte 93 N		Rte 93 N
9/28/2004	5:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy			NORTH OF EXIT 6 - Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
9/30/2004	3:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
10/1/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			RAMP-RT 93 NB TO RT 3 SB Rte 93 N			RAMP-RT 93 NB TO RT 3 SB Rte 93 N / Rte 3
10/1/2004	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
10/2/2004	9:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Rain			Rte 93 S	500 feet S from Exit 6 on Rte 93 S		Rte 93 S
10/5/2004	12:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
10/12/2004	9:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy			Rte 93 N	1 feet N from Exit 7 on Rte 93 N		Rte 93 N
10/13/2004	12:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	300 feet S from Exit 6 on Rte 93 N		Rte 93 N
10/14/2004	6:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
10/15/2004	4:55:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93	Exit 17 on Rte 93		Rte 93
10/19/2004	10:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy			Rte 93 N	500 feet S from Exit 7 on Rte 93 N		Rte 93 N
10/24/2004	3:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			Rte 93 N			Rte 93 N / Rte 3
10/30/2004	5:00:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dusk	Rain/Cloudy			Rte 93 N	1000 feet S from Exit 6 on Rte 93 N		Rte 93 N
11/2/2004	5:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear	Rte 93	Rte 3				
11/3/2004	4:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			Rte 93 N	500 feet N from Exit 17 on Rte 93		Rte 93 N
11/4/2004	12:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
11/5/2004	4:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			INTERSTATE 93 Rte 93 N			INTERSTATE 93 Rte 93 N / GRANITE STREET
11/5/2004	12:04:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Wet	Dark - lighted roadway	Clear/Clear			Rte 93 N			5280 feet S from Intersection Rte 93 N / Rte 37
11/16/2004	6:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 S	100 feet N from Exit 6 on Rte 93 S		Rte 93 S
11/24/2004	4:21:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			ACROSS FROM HAEMONETICS - INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S
11/30/2004	10:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	Rte 93	RAMP-RT 93 NB TO RT 3 SB				
12/1/2004	5:28:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 N	500 feet N from Exit 6 on Rte 93 N		Rte 93 N
12/3/2004	7:42:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 N			Rte 93 N / Rte 37
12/7/2004	7:37:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
12/10/2004	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93	Exit 6 on Rte 93		Rte 93
12/15/2004	5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 S			300 feet S from Intersection Rte 93 S / Rte 37
12/15/2004	6:35:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			93 N/S/B RTE 37 - Rte 93 W			Rte 93 W / Rte 37
12/15/2004	6:35:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			BRAINTREE SPLIT Rte 93			BRAINTREE SPLIT Rte 93
12/21/2004	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 93	Exit 6 on Rte 93		Rte 93
12/22/2004	3:10:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
12/22/2004	4:51:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear			RAMP TO RT 93 NB FROM BURGIN PKY - RAMP-BURGIN PKWY TO RT 3 NB			RAMP-BURGIN PKWY TO RT 3 NB / Rte 93
12/22/2004	6:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Cloudy			Rte 93			Rte 93 / Rte 37
12/22/2004	8:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear			25 feet N from OVERPASS RT 93 - GRANITE STREET Rte 37 S			GRANITE STREET Rte 37 S / Rte 93
12/22/2004	10:34:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Cloudy			Rte 37			Rte 37 / Rte 93
12/23/2004	10:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain/Severe crosswinds			Rte 93			Rte 93
12/24/2004	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93	Exit 6 on Rte 93		Rte 93
12/28/2004	1:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Snow			Rte 93	Exit 7 on Rte 93		Rte 93
12/31/2004	3:28:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			NORTH OF RT. 37 OFF RAMP - Rte 93 S			Rte 93 S / Rte 37
1/1/2005	5:58:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Wet	Dark - roadway not lighted	Cloudy/Clear						5280 feet S from Intersection Rte 93 N / Rte 37
1/5/2005	9:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy				Exit 7 on Rte 93 N		Rte 93 N
1/7/2005	5:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear				100 feet N from Exit 6 on Rte 93 S		Rte 93 S
1/7/2005	7:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
1/11/2005	2:50:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						1000 feet N from Intersection Rte 93 N / Rte 3
1/12/2005	1:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain				Exit 19 on Rte 93		Rte 93 S / Rte 93
1/14/2005	7:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy	Rte 93 N	Rte 3 S				
1/16/2005	8:12:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Daylight	Cloudy	Rte 93 N	Rte 3 S				
1/18/2005	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93 N		500 feet N from Intersection Rte 93 N
1/19/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Dark - lighted roadway	Snow						Rte 93 / SOUTHEAST EXPRESSWAY
1/23/2005	12:15:00 PM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Snow	Dark - lighted roadway	Snow				Exit 6 on Rte 93		Rte 93
1/26/2005	1:45:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Wet	Daylight	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
1/27/2005	10:57:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Slush	Daylight	Clear			RAMP TO RTE 3 SOUTH - Rte 93 S			Rte 93 S / RAMP-RT 93 SB TO RT 3 SB
1/27/2005	11:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				Exit 6 on Rte 93		Rte 93
1/29/2005	3:30:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Daylight	Cloudy				2500 feet S from Exit 6 on Rte 93		Rte 93
2/1/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						Rte 93 N / Rte 24
2/2/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 6 on Rte 93 S		Rte 93 S / Rte 37
2/3/2005	7:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 S
2/5/2005	12:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Not Reported						Rte 93 S
2/9/2005	3:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 18 on Rte 93		BRAINTREE SPLIT Rte 93 / Rte 3
2/10/2005	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Snow/Snow				Exit 6 on Rte 93 N		6 Rte 93 N
2/14/2005	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Unknown	Dark - unknown roadway lighting	Clear						RAMP-RT 93 SB TO RT 3 SB
2/16/2005	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						INTERSTATE 93 Rte 93 N / RAMP-RT 93 SB TO RT 37 Rte 3 S
2/17/2005	6:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear			BEFORE SOUTH SHORE MALL - Rte 3			Rte 3 / Rte 93
2/23/2005	6:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy			NORTH OF EXIT 6 - Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
2/23/2005	6:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93 N		Rte 93 N
2/25/2005	5:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dawn	Snow/Cloudy				2 feet S from Exit 6 on Rte 93 N		Rte 93 N
2/28/2005	10:06:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Snow	Dark - lighted roadway	Snow						Rte 93 S / Rte 93
3/3/2005	1:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				500 feet N from Exit 7 on Rte 93 N		Rte 93 N
3/5/2005	3:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	Rte 93 N	Rte 3 S				
3/6/2005	3:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						INTERSTATE 93 Rte 93 / RAMP-RT 3 NB TO RT 93 SB Rte 3
3/7/2005	2:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
3/7/2005	2:44:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
3/8/2005	12:03:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy/Clear	Rte 93 N	Rte 3 S				
3/14/2005	1:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 93
3/17/2005	11:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy				5000 feet S from Exit 6 on Rte 93 N		Rte 93 N
3/18/2005	3:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				2000 feet S from Exit 6 on Rte 93 N		Rte 93 N
3/23/2005	6:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear						Rte 93 S
4/5/2005	5:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93 N
4/9/2005	10:13:00 PM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
4/12/2005	6:05:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Sleet, hail (freezing rain or drizzle)			BY WASHINGTON STREET RAMP - RAMP-RT 93 SB TO RT 3 SB Rte 3 S			RAMP-RT 93 SB TO RT 3 SB Rte 3 S / RAMP-RT 3 SB TO WASHINGTON ST
4/16/2005	2:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						INTERSTATE 93 Rte 93 S / RAMP-RT 93 NB TO RT 3 SB
4/18/2005	8:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy				100 feet S from Exit 6 on Rte 93 S		Rte 93 S
4/23/2005	9:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear						Rte 3 N / Rte 93
4/29/2005	6:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			BETWEEN THE RAMPS AT EXIT 6 - Rte 93 N	Exit 6 on Rte 93 N		Rte 93 N
5/3/2005	5:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				200 feet S from Exit 7 on Rte 93		Rte 93 S
5/5/2005	3:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			HALF MILE BEFORE RT 24 SPLIT - Rte 93 N			Rte 93 N
5/6/2005	3:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						INTERSTATE 93 Rte 93 S
5/14/2005	8:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
5/18/2005	5:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy	Rte 93 N	WASHINGTON STREET				
5/19/2005	1:58:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RT. 93 S/B BEFORE EXIT 37 - Rte 93 S			Rte 93 S
5/21/2005	8:37:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain				Exit 7 on Rte 93 N		Rte 93 N
5/24/2005	4:10:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Rain			ON RT 3N AT THE MERGE OF RT 93S - PILGRIM HIGHWAY Rte 3			PILGRIM HIGHWAY Rte 3
5/26/2005	5:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				500 feet S from Exit 6 on Rte 93		Rte 93
5/26/2005	6:43:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain				200 feet N from Exit 6 on Rte 93 N		Rte 93 N
5/27/2005	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 93 N
6/1/2005	2:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
6/1/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				100 feet N from Exit 6 on Rte 93 S		Rte 93 S
6/7/2005	4:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				200 feet S from Exit 6 on Rte 93 N		Rte 93 N
6/7/2005	10:50:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
6/9/2005	2:26:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			MASS STATE LOTTERY - COLUMBIAN STREET Rte 93 N			COLUMBIAN STREET Rte 93 N
6/11/2005	7:20:00 PM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear						GRANITE STREET / RAMP-RT 93 NB TO RT 37 Rte 93
6/13/2005	8:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				400 feet S from Exit 7 on Rte 93 N		Rte 93 N
6/14/2005	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			BRAINTREE-QUINCY LINE - Rte 93 N			Rte 93 N
6/15/2005	6:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
6/16/2005	10:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy				1000 feet N from Exit 17 on Rte 93		Rte 93 N
6/18/2005	5:31:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 93 N	Rte 3 S / Rte 93 N				
6/18/2005	11:51:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				300 feet S from Exit 7 on Rte 93 N		Rte 93 N
6/20/2005	7:55:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 37
6/22/2005	12:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain						Rte 93
6/24/2005	5:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						INTERSTATE 93 Rte 93 / RAMP-RT 3 NB TO RT 93 SB
7/7/2005	2:55:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
7/8/2005	12:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				Exit 7 on Rte 93 N		Rte 93 N
7/13/2005	6:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 feet S from Exit 6 on Rte 93 N		Rte 93 N
7/18/2005	4:05:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93 N					
7/18/2005	6:06:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Cloudy				Exit 6 on Rte 93		Rte 93
7/21/2005	7:04:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						GRANITE STREET Rte 37 S / RAMP-RT 37 SB TO RT 93 NB Rte 28 E
7/24/2005	1:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 93 N			Exit 7 on Rte 93 N		Rte 93 N
8/6/2005	4:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93 S					
8/6/2005	11:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
8/6/2005	11:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			NORTH OF EXIT 7 - Rte 93 S	Exit 6 on Rte 93 S		Rte 93 S
8/12/2005	4:00:00 PM	Property damage only (none injured)	4	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 93
8/14/2005	4:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			SOTUH SHORE PLAZA - Rte 93 N			Rte 93 N
8/14/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Daylight	Rain/Rain				1500 feet S from Exit 6 on Rte 93 S		Rte 93 S
8/16/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			NORTH OF RTE 37 - Rte 93 N			Rte 93 N / Rte 37
8/18/2005	5:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 17 on Rte 93		Rte 93 / Rte 3
8/26/2005	4:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				10 feet S from Exit 5 on Rte 93		Rte 93 S
8/29/2005	6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	WASHINGTON STREET Rte 93	Rte 93				
9/11/2005	1:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			RT. 93 S/B BEFORE EXIT 5A - Rte 93 S	Exit 5 on Rte 93		Rte 93 S
9/13/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			PAST SOUTH PLAZA 2MILE BEFORE 95 - Rte 93 S			Rte 93 S
9/15/2005	10:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear						200 feet S from Intersection PILGRIM HIGHWAY Rte 3 S / RAMP-RT 93 SB TO RT 3 SB
9/16/2005	3:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						100 feet S from Intersection Rte 93 N / RAMP - RT 93 NB TO RT 3 SB

BRAINTREE 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
9/16/2005	7:10:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain				50 feet S from Exit 7 on Rte 93 N		Rte 93 N
9/22/2005	5:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						BRAINTREE HILL PARK Rte 93 / Rte 93
9/27/2005	6:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5 on Rte 93		Rte 93 N / Rte 93
9/28/2005	6:28:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP-RT 93 NB TO RT 3 SB
9/30/2005	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1000 feet N from Exit 6 on Rte 93		Rte 93 / Rte 93
10/2/2005	11:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 93
10/6/2005	6:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear		@ WASHINGTON STREET OFF-RAMP - RAMP-RT 93 SB TO RT 3 SB Rte 3 S				RAMP-RT 93 SB TO RT 3 SB Rte 3 S / RAMP-RT 3 SB TO WASHINGTON ST
10/5/2005	11:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain		ON RAMP - GRANITE STREET Rte 37 N		Exit 6 on Rte 37 N		GRANITE STREET Rte 37 N / Rte 93
10/11/2005	9:36:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain				35 feet S from Exit 7 on Rte 93 N		Rte 93 N
10/12/2005	7:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Cloudy						450 feet S from Intersection Rte 93 S / WASHINGTON STREET Rte 93 S
10/21/2005	7:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 6 on Rte 93		Rte 93
10/26/2005	8:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 93 N	Rte 3 S				
11/1/2005	5:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
11/7/2005	6:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear						INTERSTATE 93 Rte 93 S / GRANITE STREET
11/9/2005	4:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Cloudy/Rain			AT THE SPLIT - Rte 93 N			Rte 93 N
11/11/2005	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			S SHORE PLAZA EXIT - Rte 93			Rte 93 / Rte 93
11/16/2005	10:49:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 6 on Rte 93 S		Rte 93 S
11/22/2005	5:22:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain				Exit 6 on Rte 93 N		Rte 93 N
11/22/2005	7:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain				75 feet S from Exit 7 on Rte 93 N		Rte 93 N
11/24/2005	12:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Other						Rte 93 N / Rte 3
11/24/2005	12:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93 N
11/25/2005	11:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						RAMP-RT 93 SB TO RT 3 SB Rte 3 S / RAMP-RT 3 SB TO WASHINGTON ST
12/5/2005	4:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear				500 feet S from Exit 6 on Rte 93 N		Rte 93 N
12/14/2005	1:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy						100 feet N from Intersection Rte 93 S / Rte 37
12/22/2005	3:22:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
12/23/2005	6:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				200 feet N from Exit 6 on Rte 93 S		Rte 93 S
12/28/2005	2:09:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 93 S
12/28/2005	4:38:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
1/1/2006	5:21:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Rain				Exit 16 on Rte 93		INTERSTATE 93 Rte 93 / RAMP-RT 93 NB TO RT 3 SB
1/1/2006	11:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
1/6/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				150 feet S from Exit 6 on Rte 93 N		Rte 93 N
1/10/2006	4:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S	Rte 93 S				
1/10/2006	7:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
1/10/2006	9:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				25 feet S from Exit 6 on Rte 93 N		Rte 93 N
1/11/2006	6:31:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 93 N
1/11/2006	7:36:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
1/12/2006	5:43:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
1/12/2006	11:35:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	Rte 93 N	Rte 3 S				
1/13/2006	6:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear/Cloudy			OFF RAMP FROM RT 93 S			PILGRIM HIGHWAY Rte 3 S / RAMP-RT 93 SB TO RT 3 SB
1/15/2006	2:54:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle) Sleet, hail (freezing rain or drizzle)			RT 37 RAMP AT RT 93 S			INTERSTATE 93 Rte 93 S / RAMP-RT 37 TO RT 93 SB
1/17/2006	12:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			BRAINTREE SPLIT			Rte 93 S
1/18/2006	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 7 on Rte 93 N		Rte 93 N
1/24/2006	9:26:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				1500 feet S from Exit 6 on Rte 93 N		Rte 93 N
1/25/2006	1:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear	Rte 93 N	Rte 3 S				
1/25/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear						Rte 93 / Rte 3
1/25/2006	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Snow/Snow				Exit 6 on Rte 93 N		Rte 93 N
1/29/2006	6:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain			GOLDS GYM	Exit 6 on Rte 93		Rte 93
2/1/2006	9:10:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
2/3/2006	6:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			HIGHWAY DEPT			Rte 93
2/9/2006	5:37:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 93 N
2/9/2006	7:42:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
2/12/2006	6:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dawn	Snow						PILGRIM HIGHWAY Rte 3 / RAMP-RT 93 NB TO RT 3 SB
2/14/2006	6:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear						Rte 93
2/15/2006	4:50:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				200 feet S from Exit 7 on Rte 93 N		Rte 93 N
2/17/2006	7:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
2/24/2006	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - unknown roadway lighting	Clear						Rte 93 S / Rte 3
2/27/2006	5:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear	Rte 93 N	RAMP-RT 93 NB TO RT 3 SB				
3/5/2006	2:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 93 S
3/7/2006	11:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear						Rte 93 N
3/10/2006	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			RAMP			SOUTHEAST EXPRESSWAY Rte 93
3/10/2006	6:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear				Exit 6 on Rte 93 N		Rte 93 N
3/15/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
3/18/2006	6:18:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
3/25/2006	9:35:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear	Rte 93 S	Rte 93 S				
3/26/2006	2:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
3/31/2006	6:12:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						100 feet E from Intersection PILGRIM HIGHWAY Rte 3 N / RAMP-RT 3 NB TO RT 93 NB Rte 3 N
4/6/2006	2:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 S		Rte 93 S
4/7/2006	3:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy						200 GRANITE STREET Rte 37 S / RAMP-BURGIN PKWY TO RT 3 NB Rte 93
4/9/2006	5:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						GRANITE STREET Rte 37 / Rte 93
4/17/2006	11:44:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 93 N
4/29/2006	4:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			EXIT 6 OFF RAMP	Exit 6 on Rte 93 N		Rte 93 N
5/3/2006	4:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						GRANITE STREET Rte 93 / Rte 37
5/5/2006	5:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			SOUTH SHORE PLAZA EXIT			Rte 93 N
5/13/2006	7:42:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy						Rte 93 N / Rte 37
5/28/2006	5:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP TO ROUTE 3 S/B			Rte 93 S / RAMP-RT 93 SB TO RT 3 SB
6/1/2006	10:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy				500 feet S from Exit 6 on Rte 93 S		Rte 93 S
6/2/2006	5:55:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
6/3/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain/Cloudy						Rte 93 S
6/4/2006	10:10:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Cloudy						Rte 93 S / WASHINGTON STREET Rte 3
6/7/2006	2:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 6 on Rte 93 S		Rte 93 S
6/8/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 8 on Rte 93		Rte 93 / Rte 37
6/11/2006	7:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy				Exit 6 on Rte 93 N		Rte 93 N
6/13/2006	8:26:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
6/13/2006	8:29:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						75 feet S from Intersection Rte 3 S / Rte 93
6/13/2006	10:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 17 on Rte 93		Rte 93
6/13/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N	Rte 3 S				
6/14/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				20 feet N from Exit 6 on Rte 93 S		Rte 93 S
6/19/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
6/19/2006	5:52:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
7/5/2006	3:07:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
7/5/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93		Rte 93
7/9/2006	6:22:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
7/14/2006	1:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				30 feet N from Exit 6 on Rte 93 S		Rte 93 S
7/14/2006	10:40:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear						Rte 93 / Rte 93
7/14/2006	10:55:00 PM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
7/22/2006	3:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93 / BRAINTREE HILL PARK
7/26/2006	12:40:00 PM	Property damage only (none injured)	4	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				800 feet S from Exit 6 on Rte 93 S		Rte 93 S
7/27/2006	5:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 37 on Rte 93		Rte 93 S
7/28/2006	4:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						PILGRIM HIGHWAY Rte 3 / RAMP-RT 3 NB TO RT 93 SB
7/31/2006	1:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Cloudy	Rte 93 N	Rte 3				
8/3/2006	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 feet S from Exit 7 on Rte 93 N		Rte 93 N
8/5/2006	11:49:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				1200 feet S from Exit 6 on Rte 93 N		Rte 93 N
8/7/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear	Rte 93 S	Rte 93 S				
8/10/2006	6:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			ROUTE 37	Exit 6 on Rte 93 S		Rte 93 S
8/12/2006	3:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 93 / Rte 37
8/16/2006	10:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1000 feet S from Exit 6 on Rte 93 N		Rte 93 N
8/18/2006	5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93		Rte 93
8/28/2006	9:03:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain				Exit 6 on Rte 93 N		Rte 93 N
8/29/2006	6:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			@ SOUTHHAMPTON STREET OFF RAMP	Exit 6 on Rte 93 N		Rte 93 N / SOUTHAMPTON STREET
8/31/2006	9:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Clear				Exit 6 on Rte 93 S		Rte 93 S
9/8/2006	6:39:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
9/9/2006	3:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93 S
9/30/2006	1:34:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Other	Dark - roadway not lighted	Clear/Clear						Rte 93 N
10/1/2006	8:29:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93		Rte 93 S
10/2/2006	10:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 N
10/2/2006	12:20:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear						Rte 93 / Rte 37
10/6/2006	10:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 37
10/7/2006	11:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 N
10/10/2006	10:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 3 on Rte 93		Rte 93 N
10/14/2006	8:50:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear						Rte 93 S / Rte 37
10/15/2006	2:11:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N	Rte 37 W				
10/15/2006	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 6 on Rte 93 S		Rte 93 S
10/15/2006	2:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy				Exit 6 on Rte 93		Rte 93
10/18/2006	5:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
10/19/2006	4:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP-RT 93 SB TO RT 3 SB Rte 3 / RAMP-RT 3 SB TO WASHINGTON ST
10/20/2006	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain/Rain						Rte 93 N
10/25/2006	5:07:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 7 on Rte 93 N		Rte 93 N
10/26/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear						Rte 93 N
10/27/2006	7:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 93 N
11/1/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear	Rte 93 S	Rte 3 S				
11/8/2006	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain						INTERSTATE 93 Rte 93 N / GRANITE STREET Rte 37 N
11/10/2006	3:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear						Rte 93 S / Rte 37
11/13/2006	9:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 6 on Rte 93 S		Rte 93 S
11/15/2006	5:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						200 feet S from Intersection Rte 93 S / Rte 37
11/16/2006	5:01:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 / Rte 37
11/19/2006	9:48:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 93 N / Rte 37
11/21/2006	1:47:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
11/21/2006	4:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						100 feet N from Intersection Rte 93 / Rte 3
11/21/2006	5:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Unknown						200 feet N from Intersection Rte 93 S / Rte 3

BRAINTREE 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
11/22/2006	4:22:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			PRIOR TO EXIT 6	Exit 6 on Rte 93 N		Rte 93 N
11/23/2006	5:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 6 on Rte 93 S		Rte 93 S
11/23/2006	8:26:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				500 feet N from Exit 6 on Rte 93 S		Rte 93 S
12/1/2006	7:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain				20 feet S from Exit 7 on Rte 93 N		Rte 93 N
12/3/2006	11:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
12/4/2006	5:51:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				Exit 37 on Rte 93		Rte 93 S
12/8/2006	7:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear			SOUTH SHORE PLAZA EXIT			Rte 93 N / Rte 93
12/9/2006	11:13:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear	Rte 93 N	Rte 93 N				
12/11/2006	2:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93		Rte 93
12/11/2006	11:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 6 on Rte 93 S		Rte 93 S
12/12/2006	6:25:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Not reported	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N
12/14/2006	6:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 / Rte 37
12/14/2006	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				500 feet N from Exit 6 on Rte 93 N		Rte 93 N
12/18/2006	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 7 on Rte 93 N		Rte 93 N
12/18/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			BRAINTREE SPLIT			Rte 93 N / RAMP-RT 93 NB TO WASHINGTON ST/BURGIN PK
12/19/2006	5:56:00 PM	Property damage only (none injured)	3	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				1000 feet S from Exit 6 on Rte 93 N		Rte 93 N
12/20/2006	9:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						Rte 93 N
12/23/2006	7:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy				25 feet E from Exit 6 on Rte 93 N		Rte 93 N
12/23/2006	9:25:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP-RT 37 NB TO RT 93 NB
12/27/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 93 / Rte 1
12/29/2006	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / Rte 37
5/14/2004	6:15:00 PM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear			Rte 93 N	Exit 7 on Rte 93 N		Rte 93 N
9/27/2004	6:00:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Not reported	Dusk	Not Reported			Rte 93 N			Rte 93 N / Rte 37
1/4/2005	9:30:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 3
1/5/2005	11:45:00 AM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Snow						Rte 3 S / Rte 93
1/24/2005	4:10:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy						Rte 3 / Rte 93
2/3/2005	7:45:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				150 feet S from Exit 6 on Rte 93		Rte 93 / Rte 93
5/2/2005	2:30:00 AM	Unknown	1	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 93 S / HOLBROOK AVENUE
8/25/2005	11:20:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			S SHORE PLAZA ENTRANCE - GRANITE STREET Rte 93			GRANITE STREET Rte 93
2/22/2006	6:00:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				50 feet S from Exit 6 on Rte 93		Rte 93
11/15/2006	7:10:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 6 on Rte 93 N		Rte 93 N

BOSTON (DORCHESTER) 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet, From
2/21/2004	2:30:00 AM	Fatal injury	6	5	1	Angle	Angle	Dry	Dark - lighted roadway	Cloudy			GRANITE AVE EXIT - Rte 93 S	200 feet N from Exit 11B on Rte 93 S		Rte 93 S
8/12/2006	2:21:00 AM	Fatal injury	2	3	1	Rear-end	Rear-end	Dry	Not reported	Clear/Clear				1000 feet N from Exit 12 on Rte 93 S		Rte 93 S
1/7/2004	2:40:00 PM	Non-fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 N			300 feet S from Intersection Rte 93 N / NEPONSET ON RAMP
1/11/2004	12:25:00 PM	Non-fatal injury	4	1-4	0	Rear-end	Rear-end	Dry	Daylight	Clear			N OF COLUMBIA RD - INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S
1/12/2004	9:20:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Snow			SAVIN HILL AVENUE Rte 93 N	200 feet S from Exit 15 on Rte 93 N		120 feet N from Intersection SAVIN HILL AVENUE Rte 93 N / HOV
1/26/2004	2:55:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Not reported	Daylight	Clear			150 feet N from NEPONSET ON RAMP - Rte 93 N			Rte 93 N
1/29/2004	7:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 15 on Rte 93		500 feet N from Intersection Rte 93 S / SAVIN HILL AVENUE
1/31/2004	12:30:00 PM	Non-fatal injury	2	2	0	Not reported	Not reported	Dry	Daylight	Clear			GRANITE AVENUE Rte 93 S			GRANITE AVENUE Rte 93 S / Rte 93
2/4/2004	2:01:00 PM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Daylight	Clear			Rte 93 N	Exit 13 on Rte 93 N		Rte 93 N
2/9/2004	11:05:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			FREEPORT ST ON RAMP SB - INTERSTATE 93 Rte 93 S	2000 feet N from Exit 12 on Rte 93 S		INTERSTATE 93 Rte 93 S
2/25/2004	12:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 93 N	2640 feet S from Exit 13 on Rte 93 N		Rte 93 N
2/26/2004	10:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			Rte 93 S	Rte 93 S		Rte 93 S / GRANITE AVENUE
3/13/2004	10:10:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N	100 feet N from Exit 15 on Rte 93 N		GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / COLUMBIA ROAD
3/17/2004	1:50:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Slush	Dark - lighted roadway	Rain/Sleet, hail (freezing rain or drizz			Rte 93 S	200 feet S from Exit 12 on Rte 93 S		Rte 93 S
3/19/2004	9:00:00 AM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Slush	Daylight	Snow			Rte 93 N	Exit 15 on Rte 93 N		Rte 93 N
3/20/2004	5:15:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dusk	Clear			NEAR ROUND INN - Rte 93 S			Rte 93 S
3/22/2004	1:35:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			305 FREEPORT STREET			305 FREEPORT STREET / Rte 93
4/3/2004	6:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy			GRANITE AVE - Rte 93 S			Rte 93 S / GRANITE AVENUE
4/3/2004	7:32:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			SOUTH BAY AVENUE Rte 93 S			SOUTH BAY AVENUE Rte 93 S / Rte 3A
4/17/2004	10:55:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy/Unknown			SOUTH BAY MALL - FRONTAGE ROAD Rte 93 S			FRONTAGE ROAD Rte 93 S / Rte 93
5/3/2004	5:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93 S			Rte 93 S
5/8/2004	10:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / Rte 93
5/19/2004	3:45:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			NEPONSET ON RAMP - Rte 93 N			Rte 93 N
5/22/2004	7:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 13 on Rte 93 N		Rte 93 N
5/24/2004	9:05:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			GENERAL CASIMIR PULASKI SKYWAY Rte 93			GENERAL CASIMIR PULASKI SKYWAY Rte 93 / Rte 93
6/2/2004	6:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 93 N	Exit 13 on Rte 93 N		Rte 93 N / FREEPORT STREET
6/17/2004	7:35:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			GENERAL CASIMIR PULASKI SKYWAY Rte 93			GENERAL CASIMIR PULASKI SKYWAY Rte 93
7/30/2004	8:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			NECONSET CUT OUT - Rte 93 S	Exit 11B on Rte 93 S		Rte 93 S
9/4/2004	1:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S
9/25/2004	3:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 N	Exit 14 on Rte 93 N	Rte 93 N Milemarker 76.2	Rte 93 N
9/28/2004	2:20:00 AM	Non-fatal injury	3	1	0	Not reported	Not reported	Wet	Daylight	Rain			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / COLUMBIA ROAD
10/4/2004	10:15:00 AM	Non-fatal injury	3	1	0	Not reported	Not reported	Dry	Daylight	Clear			NEAR END OF ZIPPER LANE - GENERAL CASIMIR PULASKI SKYWAY Rte 93 N			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
10/17/2004	1:38:00 AM	Non-fatal injury	2	5	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy/Cloudy			250 FREEPORT STREET			250 FREEPORT STREET / RAMP - RT 93 NB TO FREEPORT ST
11/26/2004	10:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			COLUMBIA ROAD Rte 93			COLUMBIA ROAD Rte 93
12/26/2004	1:15:00 PM	Non-fatal injury	2	4	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Sleet, hail (freezing rain or drizzle)			INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S
1/2/2005	9:14:00 PM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy						Rte 93 S
1/9/2005	6:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Snow	Dawn	Snow						Rte 93 S
2/25/2005	2:45:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Clear				Exit 13 on Rte 93 N		Rte 93 N
2/25/2005	6:30:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 12 on Rte 93 S		GALLIVAN BOULEVARD Rte 93 S
3/1/2005	2:50:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S					
3/9/2005	10:06:00 AM	Non-fatal injury	1	1	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Dark - lighted roadway	Snow				Exit 12 on Rte 93 S		Rte 93 S
3/10/2005	9:45:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Not reported	Daylight	Clear						Rte 93 S
3/26/2005	4:00:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93		GALLIVAN BOULEVARD Rte 93
3/30/2005	6:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / GRANITE AVENUE
4/3/2005	8:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						Rte 93 N
5/2/2005	9:45:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear						COLUMBIA ROAD / RAMP - COLUMBIA RD TO RT 93 SB
5/23/2005	4:30:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain						GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
6/7/2005	7:00:00 AM	Non-fatal injury	5	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				2640 feet S from Exit 13 on Rte 93 N		GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / WILLIAM T MORRISSEY BOULEVARD
6/9/2005	11:00:00 AM	Non-fatal injury	2	1	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Rain						DORCHESTER AVENUE Rte 93 S / ASHMONT STREET
6/10/2005	6:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				20.00 feet N from Exit 11A on Rte 93		Rte 93
6/24/2005	8:30:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 15 on Rte 93		Rte 93
7/25/2005	5:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				600 feet S from Exit 15 on Rte 93		Rte 93
7/27/2005	3:25:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
8/7/2005	3:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 12 on Rte 93 S		Rte 93 S
9/9/2005	10:30:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / Rte 93
10/2/2005	6:40:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 14 on Rte 93 N		Rte 93 N
10/11/2005	4:45:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Wet	Dark - lighted roadway	Rain						GENERAL CASIMIR PULASKI SKYWAY Rte 93
10/19/2005	6:45:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	WILLIAM DAY BOULEVARD Rte 93	MORRISSEY SERVICE ROAD				Rte 93
10/19/2005	11:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Sand, mud, dirt, oil, gravel	Daylight	Clear				Exit 13 on Rte 93		Rte 93
10/25/2005	11:15:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain			ENTRANCE JFK MASS STATION - COLUMBIA ROAD			COLUMBIA ROAD / Rte 93
12/22/2005	8:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / GRANITE AVENUE
1/3/2006	2:40:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Not reported	Daylight	Rain						GALLIVAN BOULEVARD / Rte 93
1/5/2006	2:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Sleet, hail (freezing rain or drizzle)						WOODVILLE STREET Rte 93 / WOODVILLE TERRACE Rte 3
1/12/2006	10:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 14 on Rte 93 N		Rte 93 N
1/17/2006	9:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 / JOHN F FITZGERALD EXPRESSWAY
1/20/2006	3:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Not reported	Dark - lighted roadway	Clear				Exit 11 on Rte 93		Rte 93
1/23/2006	5:50:00 AM	Non-fatal injury	4	2	0	Rear-to-rear	Rear-to-rear	Wet	Dark - lighted roadway	Rain				50 feet N from Exit 11 on Rte 93		Rte 93
1/24/2006	9:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 93
1/31/2006	3:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93
3/13/2006	5:30:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - unknown roadway lighting	Clear				Exit 12 on Rte 93 S		Rte 93 S
3/16/2006	7:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						COLUMBIA ROAD Rte 93 S / Rte 3
3/17/2006	11:10:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Not reported	Not reported	Not Reported						547 COLUMBIA ROAD / RAMP - COLUMBIA RD TO RT 93 NB
4/21/2006	10:40:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S
5/10/2006	2:50:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain				50 feet N from Exit 1 on Rte 93 S		Rte 93 S
5/10/2006	6:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dusk	Rain						BLUE HILL AVENUE Rte 93 / COLUMBIA ROAD
5/10/2006	9:00:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 13 on Rte 93		Rte 93
5/15/2006	10:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						DORCHESTER AVENUE Rte 93 / GALLIVAN BOULEVARD
5/20/2006	2:50:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93 S		Rte 93 S
6/6/2006	1:14:00 AM	Non-fatal injury	2	3	0	Not reported	Not reported	Not reported	Daylight	Cloudy						GENEVA AVENUE Rte 93 / Rte 3
6/12/2006	9:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93		Rte 93 N
6/25/2006	9:00:00 AM	Non-fatal injury	2	2	0	Unknown	Unknown	Wet	Dark - lighted roadway	Rain						Rte 93 S
7/19/2006	2:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						DORCHESTER AVENUE Rte 93 / Rte 1
7/19/2006	10:15:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 15 on Rte 93		Rte 93
8/14/2006	3:05:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 18 on Rte 93		Rte 93
8/14/2006	11:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				2640 feet N from Exit 14 on Rte 93		Rte 93
8/21/2006	3:00:00 AM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
8/22/2006	8:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	GENERAL CASIMIR PULASKI SKYWAY Rte 93 N	GENERAL CASIMIR PULASKI SKYWAY Rte 93 N		Exit 13 on Rte 93 N		GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
8/29/2006	1:49:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain				Exit 14 on Rte 93 N		Rte 93 N
8/29/2006	3:45:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			BEFORE ZIPPER			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / Rte 93
9/7/2006	7:10:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				900 feet N from Exit 12 on Rte 93		GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
9/30/2006	1:00:00 AM	Non-fatal injury	3	1	0	Not reported	Not reported	Not reported	Not reported	Not Reported				Exit 14 on Rte 93 N		Rte 93 N
9/30/2006	12:00:00 PM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93		Rte 93
10/7/2006	4:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						DORCHESTER AVENUE Rte 93 / COLUMBIA ROAD
10/15/2006	4:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13 on Rte 93		Rte 93
10/16/2006	10:50:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 14 on Rte 93 N		Rte 93 N
11/10/2006	7:45:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear						FREEPORT STREET / Rte 93
11/24/2006	12:45:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 15 on Rte 93 N		Rte 93 N
12/5/2006	5:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 12 on Rte 93		Rte 93
12/7/2006	6:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 12 on Rte 93 S		Rte 93 S
1/9/2004	8:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Ice	Daylight	Not Reported	Rte 93 N					
2/13/2004	4:55:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			Rte 93 S	300 feet N from Exit 20 on Rte 93 S		Rte 93 S
3/9/2004	11:57:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Snow			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / COLUMBIA ROAD
4/5/2004	7:15:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Ice	Daylight	Cloudy/Unknown	Rte 93 N					
4/15/2004	6:55:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain	SOUTH BAY AVENUE Rte 93					
4/16/2004	5:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			RAMP - RT 3A NB TO RT 93 NB Rte 3	Exit 10 on Rte 3		RAMP - RT 3A NB TO RT 93 NB Rte 3 / Rte 93
6/11/2004	6:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	WILLIAM T MORRISSEY BOULEVARD	RAMP - RT 93 NB TO MORRISSEY BLVD				
6/16/2004	5:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N / Rte 93
8/8/2004	12:52:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear			Rte 93	100 feet S from Exit 15 on Rte 93		Rte 93
10/2/2004	12:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93	Exit 13 on Rte 93		Rte 93
10/26/2004	4:05:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 93 N			2 feet N from Intersection Rte 93 N / NEPONSET VALLEY PARKWAY
10/27/2004	6:00:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Clear	Rte 93 N					
11/11/2004	8:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	Exit 11B on Rte 93 S		Rte 93 S
12/9/2004	12:50:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93	Exit 11 on Rte 93		Rte 93
1/22/2005	9:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Snow	Not reported	Snow			EXIT RAMP TO ASHMONT OFF 93 S - Rte 93 S			Rte 93 S
1/24/2005	11:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Snow	Daylight	Clear	WILLIAM T MORRISSEY BOULEVARD Rte 93 S					
1/29/2005	2:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 10 on Rte 93		Rte 93 S
2/1/2005	12:00:00 PM	Not Reported	1	0	0	Not reported	Not reported	Dry	Daylight	Clear	WASHINGTON STREET Rte 93	VASSAR STREET				
2/8/2005	7:20:00 AM	Not Reported	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93 S		Rte 93 S
2/12/2005	5:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dusk	Clear			TOWARDS BOSTON - Rte 93 N			Rte 93 N
3/9/2005	6:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear					Rte 93 S Milemarker 15.0	Rte 93 S
4/11/2005	3:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear	Rte 93	COLUMBIA ROAD				
4/12/2005	2:40:00 AM	Not Reported	4	0	0	Rear-to-rear	Rear-to-rear	Dry	Daylight	Clear				Exit 13 on Rte 93 N		Rte 93 N
5/10/2005	11:00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 S / WILLIAM T MORRISSEY BOULEVARD
6/13/2005	7:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						DORCHESTER AVENUE Rte 93 N / FREEPORT STREET
6/17/2005	3:10:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						GRANITE AVENUE Rte 93
8/5/2005	8:40:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				300 feet S from Exit 15 on Rte 93 N		Rte 93 N
10/1/2005	5:45:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 93
10/13/2005	6:40:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dawn	Cloudy/Rain						Rte 93 / Rte 93
10/14/2005	5:50:00 AM	Not Reported	2	0	0	Head-on	Head-on	Wet	Dark - unknown roadway lighting	Rain				Exit 11B on Rte 93 S		Rte 93 S
10/14/2005	6:15:00 AM	Not Reported	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - unknown roadway lighting	Rain				150 feet N from Exit 11B on Rte 93		Rte 93
10/17/2005	11:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Unknown	Not Reported						WILLIAM T MORRISSEY BOULEVARD Rte 93 / Rte 93
10/18/2005	8:45:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						Rte 93 S / Rte 93
1/9/2006	6:00:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear				Exit 13 on Rte 93		Rte 93
1/9/2006	7:45:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						JOHN F FITZGERALD EXPRESSWAY Rte 93 N / GENERAL CASIMIR PULASKI SKYWAY
1/14/2006	6:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Wet	Dawn	Rain			JFK TRAIN STATION			COLUMBIA ROAD / Rte 93
2/6/2006	7:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			JFK LIBRARY			200 WILLIAM T MORRISSEY BOULEVARD Rte 93 N
2/28/2006	7:45:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	Rte 203	Rte 203				Rte 93 / GRANITE AVENUE
2/28/2006	8:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - unknown roadway lighting	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / COLUMBIA ROAD
4/4/2006	8:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	Rte 93 S	Rte 93 S				
5/21/2006	4:20:00 PM	Not Reported	4	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93 / Rte 1
5/21/2006	4:20:00 PM	Not Reported	4	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						1 GENERAL CASIMIR PULASKI SKYWAY Rte 93
5/31/2006	6:50:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear						FREEPORT STREET Rte 93 / DORCHESTER AVENUE
7/26/2006	10:00:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93 N	Rte 93 N				
8/6/2006	2:00:00 AM	Not Reported	1	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 / COLUMBIA ROAD
8/22/2006	3:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Not Reported				Exit 11 on Rte 93		Rte 93
9/20/2006	4:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 15 on Rte 93 N		Rte 93 N
9/25/2006	9:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Not reported	Dark - roadway not lighted	Cloudy				Exit 12 on Rte 93		Rte 93
10/19/2006	9:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Clear				20 feet N from Exit 14 on Rte 93 N		Rte 93 N
10/27/2006	6:15:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 N
1/2/2004	10:45:00 PM	Property damage only (none injured)	1

BOSTON (DORCHESTER) 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
3/5/2004	7:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			ON RAMP - Rte 93 S	1320 feet N from Exit 12 on Rte 93 S		10 feet N from Intersection Rte 93 S / TOLMAN STREET
3/10/2004	1:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 S	Exit 12 on Rte 93 S		Rte 93 N
3/10/2004	6:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	200 feet S from Exit 13 on Rte 93 N		Rte 93 N
3/12/2004	2:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 93 S			Rte 93 S / FREEPORT STREET
3/17/2004	8:18:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy			Rte 93 N	400 feet S from Exit 15 on Rte 93 N		Rte 93 N
3/20/2004	9:20:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Rain			Rte 93 N			Rte 93 N / SAVIN HILL AVENUE
4/2/2004	7:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 93 S			Rte 93 S / FREEPORT STREET
4/2/2004	11:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S
4/2/2004	11:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 N	Exit 14 on Rte 93 N		Rte 93 N
4/5/2004	2:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			NEPONSET AVENUE Rte 93 N			NEPONSET AVENUE Rte 93 N / Rte 93
4/6/2004	8:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 N	Exit 13 on Rte 93 N		Rte 93 N
4/9/2004	3:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			KEYSTONE STREET Rte 93 N			KEYSTONE STREET Rte 93 N
4/9/2004	11:25:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 93 S	Exit 12 on Rte 93 S		Rte 93 S
4/12/2004	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight				SOUTHEAST XPWY - Rte 90			Rte 90 / Rte 93
4/14/2004	8:00:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Rain	Rte 93	GRANITE AVENUE				
4/19/2004	3:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 93 N	200 feet N from Exit 13 on Rte 93 N		Rte 93 N
4/19/2004	10:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear			HEYSTONE BLDG - Rte 93 S			Rte 93 S
4/26/2004	2:00:00 PM	Property damage only (none injured)	8	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93 S	100 feet S from Exit 12 on Rte 93 S		Rte 93 S
4/27/2004	5:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N	Exit 13 on Rte 93 N		GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
5/2/2004	10:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93	Exit 15 on Rte 93		Rte 93
5/13/2004	2:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S					
5/25/2004	12:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Unknown			Rte 93 S	200 feet S from Exit 12 on Rte 93 S		Rte 93 S
5/26/2004	4:20:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			GRANITE AVENUE Rte 93 N			GRANITE AVENUE Rte 93 N / Rte 93
5/27/2004	5:50:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / COLUMBIA ROAD
5/27/2004	8:10:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			NORTH HOV BLDG - Rte 93 N			Rte 93 N
5/28/2004	3:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 S			Rte 93 S / Rte 93
6/1/2004	9:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy			Rte 93			Rte 93 / 15
6/2/2004	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy			Rte 93 S			Rte 93 S
6/8/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S
6/15/2004	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93			Rte 93 / Rte 93
7/8/2004	4:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S
8/4/2004	8:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Cloudy			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / Rte 3A
8/13/2004	2:30:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 13 on Rte 93 N		Rte 93 N
8/16/2004	4:15:00 PM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Wet	Daylight	Cloudy			Rte 93 S	Exit 11A on Rte 93 S		Rte 93 S
8/26/2004	10:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear			Rte 93 N	Exit 14 on Rte 93 N		Rte 93 N
8/30/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93	200 feet S from Exit 14 on Rte 93		Rte 93
9/24/2004	6:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			Rte 93 S			Rte 93 S
9/25/2004	5:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93	200 feet S from Exit 13 on Rte 93		Rte 93
10/1/2004	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N / Rte 93
10/3/2004	8:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy	Rte 93 S					
10/8/2004	10:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy			COLUMBIA ROAD Rte 93 S			COLUMBIA ROAD Rte 93 S
10/12/2004	9:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
11/10/2004	6:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear			Rte 93 S			Rte 93 S
11/16/2004	7:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 15 on Rte 93 N		Rte 93 N
11/17/2004	7:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 1 on Rte 93 S		Rte 93 S
11/29/2004	11:00:00 AM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
12/5/2004	9:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear			Rte 93	Exit 11 on Rte 93		Rte 93
12/15/2004	5:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93	Exit 12 on Rte 93		Rte 93
12/25/2004	1:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy			0 feet W from SAVIN HILL BALLFIELDS - Rte 93 N	5000 feet S from Exit 15 on Rte 93 N		Rte 93 N
12/28/2004	6:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N			GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / Rte 93
1/1/2005	1:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Not reported	Dark - lighted roadway	Clear				30 feet N from Exit 12 on Rte 93 S		Rte 93 S
1/5/2005	5:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear		200 feet S from NEPONSET ONRAMP TO 93 N/B - GENERAL CASIMIR PULASKI SKYWAY Rte 93 N				GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
1/6/2005	4:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S
1/6/2005	5:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dawn	Snow						Rte 93 S
1/17/2005	3:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Cloudy/Snow				Exit 12 on Rte 93		Rte 93 N
1/19/2005	11:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Not reported	Dark - lighted roadway	Snow	Rte 93 S					Rte 93 S
1/20/2005	9:16:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Clear				15 feet N from Exit 17 on Rte 93 N		Rte 93 N
1/20/2005	10:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Clear						Rte 93 / WILLIAM T MORRISSEY BOULEVARD
1/27/2005	7:04:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Clear/Clear			100 feet S from SAVIN HILL AVE OVERPASS - Rte 93 S			100 feet S from Intersection Rte 93 S / SAVIN HILL AVENUE
1/28/2005	6:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / RAMP - RT 93 SB TO COLUMBIA RD
2/5/2005	3:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			JUST BEFORE DORCHESTER EXIT WHERE - Rte 93 S			Rte 93 S
2/11/2005	6:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Unknown	Clear/Clear			COLUMBIA ROAD ON RAMP TO 93 SOUT - RAMP - COLUMBIA RD TO RT 93 SB			RAMP - COLUMBIA RD TO RT 93 SB / Rte 93
2/15/2005	1:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 10 on Rte 93		Rte 93 S
2/23/2005	10:25:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear			RT. 93 SOUTHBOUND - Rte 93 S			Rte 93 S
3/4/2005	4:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S
3/9/2005	4:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - unknown roadway lighting	Snow/Sleet, hail	Freezing rain or drizzle			Exit 18 on Rte 93 S		Rte 93 S
3/9/2005	7:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			100 feet S from MORRISSEY BLVD. - Rte 93 S			100 feet S from Intersection Rte 93 S / WILLIAM T MORRISSEY BOULEVARD
3/9/2005	9:00:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Slush	Daylight	Clear/Cloudy				50 feet S from Exit 13 on Rte 93		Rte 93 S / Rte 93
3/16/2005	2:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						WILLIAM T MORRISSEY BOULEVARD / RAMP - MORRISSEY BLVD TO RT 93 SB
3/30/2005	6:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 12 on Rte 93		Rte 93
3/31/2005	6:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93
4/4/2005	7:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93 S		Rte 93 S
4/19/2005	9:35:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
4/23/2005	11:25:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain						COLUMBIA ROAD Rte 93 / Rte 93
4/30/2005	2:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain						FREEPORT STREET Rte 93 S / Rte 93
5/5/2005	3:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
5/5/2005	7:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy	KOSCIUSZKO CIRCLE Rte 93					
5/27/2005	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93
5/28/2005	12:01:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 / Rte 93
7/10/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	NEPONSET VALLEY PARKWAY Rte 93 S					
7/13/2005	10:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93 S					
7/17/2005	2:00:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear/Clear				1500 feet N from Exit 12 on Rte 93 S		Rte 93 S
7/20/2005	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / 14
7/21/2005	5:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy				3000 feet S from Exit 13 on Rte 93 N		Rte 93 N
8/3/2005	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93		Rte 93
8/5/2005	8:20:00 AM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Dry	Dusk	Clear			JFK LIBRARY EXIT - Rte 93			Rte 93
8/15/2005	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 3 on Rte 93		Rte 93
8/26/2005	10:00:00 AM	Property damage only (none injured)	5	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						Rte 93 N
8/30/2005	4:30:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			GAS TANK - Rte 93 S			Rte 93 S
9/12/2005	1:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						FREEPORT STREET Rte 93 S
9/15/2005	10:00:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 12 on Rte 93 S		GENERAL CASIMIR PULASKI SKYWAY Rte 93 S
10/11/2005	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93 S		Rte 93 S / Rte 93
10/22/2005	5:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear	MASSACHUSETTS AVENUE Rte 93 S					
11/11/2005	7:30:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Dark - roadway not lighted	Rain	Rte 93 N					
11/13/2005	4:20:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / COLUMBIA ROAD
12/10/2005	5:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Dawn	Clear						Rte 93 N
1/1/2006	6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain				Exit 15 on Rte 93 N		Rte 93 N
1/13/2006	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 N / RAMP - RT 93 NB TO FREEPORT ST
1/25/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 15 on Rte 93		Rte 93
1/28/2006	9:00:00 AM	Property damage only (none injured)	3	0	0	Rear-to-rear	Rear-to-rear	Dry	Daylight	Clear/Clear			COLUMBIA ROAD OFF RAMP	Exit 15 on Rte 93 N		Rte 93 N / ASHMONT STREET
2/1/2006	2:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 13 on Rte 93 N		Rte 93 N
2/14/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Snow	Dark - lighted roadway	Clear						Rte 93 / DUDLEY STREET
2/23/2006	1:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			MORRISSEY BLVD EXIT	Exit 14 on Rte 93 N		Rte 93 N / WILLIAM T MORRISSEY BOULEVARD
3/17/2006	6:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				500 feet S from Exit 13 on Rte 93		FREEPORT STREET Rte 93 S
3/24/2006	9:20:00 AM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / RAMP - COLUMBIA RD TO RT 93 SB
4/9/2006	6:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP FROM FRONTAGE ROAD Rte 93 S / Rte 3
4/7/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / COLUMBIA ROAD
4/25/2006	10:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain				Exit 15 on Rte 93		Rte 93
5/1/2006	5:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - unknown roadway lighting	Unknown				1000 feet S from Exit 13 on Rte 93		Rte 93
5/9/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						FREEPORT STREET / Rte 93
5/9/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Dusk	Rain						Rte 93 S / GRANITE AVENUE
5/18/2006	11:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			ZIPPER LANE GARAGE			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / Rte 93
5/18/2006	11:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear				300 feet S from Exit 15 on Rte 93 N		GENERAL CASIMIR PULASKI SKYWAY Rte 93 N
5/20/2006	2:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Not Reported				Exit 13 on Rte 93 N		Rte 93 N
6/3/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			OPPOSITE CORITA GAS TANKS			GENERAL CASIMIR PULASKI SKYWAY Rte 93 S
6/4/2006	2:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain						DORCHESTER AVENUE Rte 93 / COLUMBIA ROAD
6/6/2006	2:15:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						100 feet S from Intersection GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / COLUMBIA ROAD
6/7/2006	8:32:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy						COLUMBIA ROAD / RAMP - COLUMBIA RD TO RT 93 NB
6/13/2006	4:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93 / ADAMS STREET
6/16/2006	7:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
6/21/2006	2:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / WILLIAM T MORRISSEY BOULEVARD
6/22/2006	1:30:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		INTERSTATE 93 Rte 93
6/22/2006	10:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 15 on Rte 93 N		800 feet S from Intersection Rte 93 N
6/27/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5A on Rte 93		1 GENERAL CASIMIR PULASKI SKYWAY Rte 93
6/29/2006	6:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				75 feet S from Exit 15 on Rte 93 S		75 feet S from Intersection Rte 93 S / RAMP - COLUMBIA RD TO RT 93 SB
7/10/2006	10:00:00 AM	Property damage only (none injured)	1	0	0	Unknown	Unknown	Dry	Daylight	Clear						Rte 93 S
7/11/2006	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						DORCHESTER AVENUE / GALLIVAN BOULEVARD Rte 93
7/16/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported				Exit 15 on Rte 93		Rte 93
7/20/2006	9:20:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 / COLUMBIA ROAD
7/23/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported						SAVIN HILL AVENUE Rte 93 / DORCHESTER AVENUE
7/27/2006	9:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 13 on Rte 93 N		Rte 93 N
7/27/2006	9:08:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	Rte 93 N	RAMP - RT 93 NB TO FREEPORT ST				
8/2/2006	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			DORCHESTER YACHT CLUB			Rte 93 N
8/11/2006	6:35:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dusk	Clear				Exit 13 on Rte 93 N		Rte 93 N
8/19/2006	2:30:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Not reported	Daylight	Clear						Rte 93 N / WILLIAM T MORRISSEY BOULEVARD
8/24/2006	2:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						COLUMBIA ROAD / Rte 93
8/24/2006	6:00:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear				4000 feet S from Exit 16 on Rte 93		Rte 93 / Rte 3A
8/24/2006	7:25:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Dry	Dusk	Clear/Clear				Exit 14 on Rte 93		Rte 93
8/26/2006	1:40:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 14 on Rte 93 N		Rte 93 N
9/10/2006	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						WILLIAM T MORRISSEY BOULEVARD / Rte 93
9/10/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			TUNNEL INTO BOSTON SOUTH OF 14			Rte 93 N
9/19/2006	10:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / FREEPORT STREET
9/27/2006	4:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		GENERAL CASIMIR PULASKI SKYWAY Rte 93 / SAVIN HILL AVENUE Rte 3
10/1/2006	3:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				Exit 18 on Rte 93 S		Rte 93 S
10/4/2006	4:00:00 AM	Property damage only (none injured)	2	0	0

BOSTON (DORCHESTER) - 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
2/12/2006	4:15:00 PM	Unknown	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Snow	Dusk	Snow				Exit 15 on Rte 93		Rte 93 S
7/28/2006	11:40:00 AM	Unknown	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				2000 Feet S from Exit 12 on Rte 93 S		Rte 93 S
8/23/2006	8:20:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 14 on Rte 93		Rte 93
12/22/2006	9:07:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						RAMP 15 Rte 93 / COLUMBIA ROAD

MILTON 1-1/2004		12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway											
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet From
5/5/2014	1:00:00 AM	Fatal Injury	2	0	2	Head-on	Head-on	Dry	Dark - lighted roadway	Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
1/15/2004	11:45:00 PM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear			Rte 93			Rte 93
1/15/2004	11:50:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			EAST MILTON SQUARE - Rte 93 N			Rte 93 N
1/21/2004	11:00:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			FURNACE BROOK - Rte 93 N	3 00 Feet N from Exit 8 on Rte 93		Rte 93 N
1/27/2004	8:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 N	5 0 feet N from Exit 9 on Rte 93		Rte 93 N
1/30/2004	8:00:00 AM	Non-Fatal Injury	6	3	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 9 on Rte 93 S		Rte 93 S
3/8/2004	11:40:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)	Rte 93 N		GRANITE AVENUE Rte 93 N			GRANITE AVENUE Rte 93 N / RAMP - GRANITE AVE NB TO RT 93 NB
3/30/2004	7:30:00 PM	Non-Fatal Injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
3/31/2004	3:00:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 93 N			1000 feet S from Intersection Rte 93 N
4/1/2004	8:02:00 PM	Non-Fatal Injury	5	1	0	Angle	Angle	Water (standing, moving)	Dark - lighted roadway	Rain			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
4/4/2004	4:00:00 AM	Non-Fatal Injury	3	3	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy			Rte 93 S	100 Feet N from Exit 10 on Rte 93 S		Rte 93 S
4/7/2004	4:20:00 PM	Non-Fatal Injury	4	4	0	Rear-end	Rear-end	Dry	Daylight	Clear			GRANITE AVENUE Rte 93 N			GRANITE AVENUE Rte 93 N / SERGEANT WILLIAM G WALSH EXPRESSWAY
4/14/2004	5:50:00 PM	Non-Fatal Injury	5	3	0	Rear-end	Rear-end	Wet	Daylight	Rain	Rte 93 S					
5/16/2004	8:45:00 AM	Non-Fatal Injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear	Rte 93	Rte 24				
5/19/2004	12:15:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93			Rte 93
6/1/2004	5:40:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Wet	Daylight	Cloudy/Rain			Rte 93			Rte 93 / Rte 93
6/2/2004	11:00:00 AM	Non-Fatal Injury	3	1	0	Angle	Angle	Dry	Daylight	Clear			SOUTHEAST EXPRESSWAY Rte 93 S	Exit 9 on Rte 93 S		SOUTHEAST EXPRESSWAY Rte 93 S
6/7/2004	10:15:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 N			Rte 93 N
7/3/2004	4:39:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear			Rte 93 S	500 Feet N from Exit 10 on Rte 93 S		Rte 93 S
8/6/2004	6:00:00 PM	Non-Fatal Injury	3	1	0	Not reported	Not reported	Dry	Daylight	Cloudy			Rte 93 N			500 Feet N from Intersection Rte 93 N / SQUANTUM STREET
8/10/2004	6:00:00 PM	Non-Fatal Injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S / Rte 93
8/10/2004	6:45:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Not reported	Clear	Rte 93					
8/10/2004	6:45:00 PM	Non-Fatal Injury	5	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 9 on Rte 93		Rte 93 N
8/15/2004	3:00:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain			Rte 93 S	Exit 11A on Rte 93 S		Rte 93 S
9/24/2004	7:40:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 28 N			4000 Feet N from Intersection Rte 28 N / Rte 93
9/29/2004	2:30:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93	Exit 3 on Rte 93		Rte 93 / HOUGHTON ROAD
10/3/2004	8:50:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 S	250 0 feet N from Exit 9 on Rte 93 S		Rte 93 S
10/13/2004	5:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	10 00 feet S from Exit 3 on Rte 93		Rte 93 S
10/29/2004	8:00:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93			Rte 93
11/3/2004	3:45:00 PM	Non-Fatal Injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	1500 Feet S from Exit 11 on Rte 93 N		Rte 93 N
11/10/2004	12:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 93 S			Rte 93 S
11/15/2004	2:58:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	200 feet S from Exit 3 on Rte 93		Rte 93 S
11/16/2004	4:40:00 PM	Non-Fatal Injury	2	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 N			Rte 93 N
11/16/2004	6:15:00 PM	Non-Fatal Injury	3	4	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			EAST MILTON SQ - Rte 93 N			Rte 93 N / MILTON STREET EAST
11/25/2004	1:45:00 PM	Non-Fatal Injury	3	1	0	Angle	Angle	Wet	Daylight	Cloudy			Rte 93 S	500 Feet S from Exit 10 on Rte 93 S		Rte 93 S
12/5/2004	11:05:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear			Rte 93 S	100 0 feet N from Exit 9 on Rte 93 S		Rte 93 S
12/10/2004	8:05:00 PM	Non-Fatal Injury	5	1	0	Rear-end	Rear-end	Water (standing, moving)	Dark - lighted roadway	Cloudy/Rain			Rte 93 N	200 Feet N from Exit 9 on Rte 93		Rte 93 N
1/5/2005	9:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Snow				Exit 11 on Rte 93 N		Rte 93 N / Rte 93
1/14/2005	1:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			THE EAST MILTON SQUARE EXIT - Rte 93 N			Rte 93 N
1/31/2005	1:20:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy				Exit 11 on Rte 93 S		Rte 93 S
2/4/2005	2:30:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	Rte 93	Rte 24 / Rte 93 S				
2/15/2005	8:50:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Dawn	Cloudy						10 Feet N from Intersection Rte 93 N
2/17/2005	8:45:00 AM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Daylight	Clear						CURTIS LANE Rte 93 N
2/17/2005	9:40:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			S E EXPRESS NORTH BOUND - 11 GRANITE AVENUE Rte 93 N			1 1 GRANITE AVENUE Rte 93 N
2/24/2005	8:40:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 S		Rte 93 S
2/25/2005	2:45:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 Feet N from Exit 11 on Rte 93 N		Rte 93 N
2/27/2005	2:49:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
3/3/2005	6:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 11 on Rte 93 N		Rte 93 N
3/8/2005	10:15:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Snow	Dark - lighted roadway	Snow	Rte 93 N					
3/12/2005	12:10:00 PM	Non-Fatal Injury	2	4	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Sleet, hail (freezing rain or drizzle)			50 feet N from Exit 9 on Rte 93			BRYANT AVENUE Rte 93
3/14/2005	8:05:00 AM	Non-Fatal Injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93	Rte 28				
3/15/2005	8:45:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93
3/31/2005	8:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 93
4/2/2005	9:00:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Rain						Rte 93 S
4/2/2005	9:55:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Water (standing, moving)	Daylight	Rain/Rain				Exit 9 on Rte 93		Rte 93 N
4/7/2005	4:00:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			OPPOSITE E MILTON SQ - Rte 93 S			Rte 93 S
4/7/2005	9:30:00 PM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear				Exit 11B on Rte 93 S		Rte 93 S
4/22/2005	4:00:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 11 on Rte 93 S		SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - GRANITE AVE SB TO RT 93 SB Rte 93
4/23/2005	2:04:00 AM	Non-Fatal Injury	1	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 9 on Rte 93		BRYANT AVENUE Rte 93
4/26/2005	2:15:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
4/30/2005	2:54:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			SQUANTUM - Rte 93 N	Exit 10 on Rte 93		Rte 93 N
5/13/2005	11:05:00 PM	Non-Fatal Injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				500 Feet S from Exit 11 on Rte 93 S		Rte 93 S
6/3/2005	5:15:00 PM	Non-Fatal Injury	1	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				50 feet N from Exit 11 on Rte 93		2 GRANITE AVENUE Rte 93 / Rte 93
6/4/2005	3:35:00 PM	Non-Fatal Injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				250 0 feet N from Exit 9 on Rte 93 S		Rte 93 S
6/8/2005	5:30:00 PM	Non-Fatal Injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear				100 Feet N from Exit 10 on Rte 93 S		Rte 93 S
6/9/2005	11:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / RAMP - RT 93 SB TO SQUANTUM ST
6/13/2005	7:40:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			PAUL CURRAN MEMORIAL OVERPASS - GRANITE AVENUE Rte 93			GRANITE AVENUE Rte 93
6/16/2005	5:13:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Dawn	Cloudy/Cloudy						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / ADAMS STREET
7/6/2005	4:00:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				100 Feet N from Exit 10 on Rte 93 S		Rte 93 S
7/6/2005	5:45:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			EXIT 11 OFF RAMP - Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
7/16/2005	7:30:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Dusk	Cloudy				300 Feet S from Exit 3 on Rte 93 N		Rte 93 N
7/22/2005	3:00:00 PM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 93 N
8/2/2005	6:45:00 AM	Non-Fatal Injury	5	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93 N
8/8/2005	11:57:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
8/9/2005	7:00:00 PM	Non-Fatal Injury	3	3	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 11 on Rte 93 N		Rte 93 N
8/10/2005	7:45:00 AM	Non-Fatal Injury	4	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93
8/10/2005	9:00:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 N
8/15/2005	7:45:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						MILTON STREET EAST Rte 93 N
8/25/2005	5:55:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
8/31/2005	2:35:00 PM	Non-Fatal Injury	5	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				Exit 11 on Rte 93 N		Rte 93 N
8/31/2005	5:45:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Dusk	Cloudy/Rain				Exit 9 on Rte 93 S		Rte 93 S
9/2/2005	11:02:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
9/2/2005	11:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				2000 Feet S from Exit 11 on Rte 93 N		Rte 93 N
9/8/2005	5:55:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear				200 feet S from Exit 9 on Rte 93		Rte 93
9/13/2005	10:00:00 AM	Non-Fatal Injury	2	2	0	Unknown	Unknown	Dry	Daylight	Clear				5280 Feet N from Exit 20 on Rte 93		Rte 93
9/17/2005	8:45:00 AM	Non-Fatal Injury	2	3	0	Not reported	Not reported	Wet	Daylight	Rain				10 Feet N from Exit 1 on Rte 93 S		Rte 93 S
9/21/2005	5:03:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
9/21/2005	9:10:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE Rte 93
10/4/2005	5:35:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear				300 Feet S from Exit 11 on Rte 93 N		Rte 93 N
10/13/2005	2:51:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				300 Feet S from Exit 11 on Rte 93 N		Rte 93 N
10/20/2005	4:00:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			1000 Feet N from ADAMS ST ON RAMP - SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N			100 0 feet N from Intersection SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / RAMP - ADAMS ST TO RT 93 NB
10/21/2005	7:00:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			1500 Feet S from OF GRANITE AVE ON RAMP - SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S			1500 feet S from Intersection SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - GRANITE AVE SB TO RT 93
10/21/2005	7:05:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				300 Feet N from Exit 9 on Rte 93		Rte 93 N
10/25/2005	4:28:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Rain				Exit 9 on Rte 93 S		Rte 93 S
11/7/2005	7:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93
11/9/2005	4:15:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain			E. MILTON SQ. - Rte 93 N			Rte 93 N
11/10/2005	6:05:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						GRANITE AVENUE Rte 93 N
11/13/2005	3:26:00 PM	Non-Fatal Injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 93 N
11/15/2005	5:40:00 PM	Non-Fatal Injury	3	3	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain			RT. 3 SPLIT - Rte 93 S			Rte 93 S
11/16/2005	8:35:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Rain				Exit 11A on Rte 93 S		Rte 93 S
11/22/2005	11:50:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 10 on Rte 93 S		Rte 93 S
12/1/2005	7:15:00 PM	Non-Fatal Injury	4	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			EAST MILTON SQ. OVERPASS - Rte 93 N			Rte 93 N
12/13/2005	7:50:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						GRANITE AVENUE Rte 93
12/13/2005	8:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
1/11/2006	5:10:00 AM	Non-Fatal Injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Not reported	Cloudy				5000 Feet S from Exit 11 on Rte 93 N		Rte 93 N
1/11/2006	11:50:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 93 N
1/14/2006	9:32:00 PM	Non-Fatal Injury	3	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
1/18/2006	5:15:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - unknown roadway lighting	Rain						Rte 93 N / Rte 93
1/19/2006	5:55:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				1000 Feet S from Exit 11 on Rte 93 N		Rte 93 N
1/28/2006	6:45:00 PM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 11 on Rte 93		Rte 93
2/3/2006	11:40:00 AM	Non-Fatal Injury	3	1	0	Angle	Angle	Wet	Daylight	Rain/Rain				Exit 9 on Rte 93		Rte 93 N
2/9/2006	4:20:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 S		Rte 93 S
2/9/2006	7:15:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93
2/16/2006	9:00:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 N
2/17/2006	1:40:00 AM	Non-Fatal Injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						Rte 93 S
2/21/2006	6:40:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dawn	Clear			BRIDGE EAST MILTON MA	Exit 9 on Rte 93		Rte 93 N
2/24/2006	6:55:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				500 Feet S from Exit 11 on Rte 93 N		Rte 93 N
3/8/2006	5:00:00 AM	Non-Fatal Injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear			ADJACENT TO MILTON	Exit 9 on Rte 93 S		Rte 93 S
3/11/2006	5:30:00 PM	Non-Fatal Injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
3/11/2006	10:50:00 AM	Non-Fatal Injury	2	2	0	Angle	Angle	Dry	Daylight	Clear			EXIT #4			Rte 93 S
3/20/2006	7:48:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
4/5/2006	2:35:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain				2500 Feet N from Exit 10 on Rte 93 S		Rte 93 S
4/7/2006	6:30:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 11 on Rte 93 N		Rte 93 N
4/18/2006	7:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
4/25/2006	9:30:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			SOUTH OF EXIT 11	Exit 11 on Rte 93 N		Rte 93 N
4/29/2006	10:16:00 PM	Non-Fatal Injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear						2 GRANITE AVENUE / Rte 93
5/1/2006	8:58:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						1000 Feet S from Intersection Rte 93 S / SQUANTUM STREET Rte 138 S
5/4/2006	3:50:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93
5/5/2006	8:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
5/9/2006	2:50:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			EAST MILTON SQUARE			Rte 93 S
5/10/2006	2:30:00 PM	Non-Fatal Injury	3	3	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
5/23/2006	9:00:00 PM	Non-Fatal Injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 9 on Rte 93		Rte 93
6/16/2006	3:23:00 PM	Non-Fatal Injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						100 Feet S from Intersection Rte 93 N / SQUANTUM STREET
6/28/2006	2:50:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				3000 Feet S from Exit 11 on Rte 93		Rte 93
6/29/2006	11:13:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Not reported	Daylight	Clear						Rte 93 / SQUANTUM STREET Rte 93
6/30/2006	8:10:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy						500 feet N from Intersection Rte 93 S / Rte 37
7/6/2006	9:05:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			EAST MILTON SQ			Rte 93
7/27/2006	4:20:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
7/30/2006	6:40:00 PM	Non-Fatal Injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
7/31/2006	2:30:00 AM	Non-Fatal Injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93
8/3/2006	2:40:00 PM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
8/3/2006	4:11:00 AM	Non-Fatal Injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
8/20/2006	4:30:00 AM	Non-Fatal Injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / GRANITE AVENUE
8/20/2006	8:48:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 11 on Rte 93 S		Rte 93 S
9/3/2006	5:10:00 PM	Non-Fatal Injury	4	2	0	Rear-end	Rear-end	Wet	Daylight	Rain						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - GRANITE AVE SB TO RT 93 SB
9/6/2006	3:35:00 PM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
9/15/2006	10:37:00 AM	Non-Fatal Injury	4	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte

MILTON	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
11/23/2006	1:25:00 PM	Non-Fatal Injury	2	3	0	Head-on	Head-on	Wet	Daylight	Rain/Cloudy						10.00 feet S from Intersection GRANITE AVENUE / Rte 93
12/4/2006	5:45:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			ON RAMP MILTON			Rte 93 N
12/5/2006	7:00:00 AM	Non-Fatal Injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			OFF RAMP AT EXIT #11 FROM RT 93N	Exit 11 on Rte 93 N		Rte 93 N
12/14/2006	2:20:00 AM	Non-Fatal Injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Not Reported						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / RAMP - RT 93 SB TO GRANITE AVE NB Rte 28
2/27/2004	4:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear			Rte 93			Rte 93
4/1/2004	5:55:00 PM	Not Reported	2	0	0	Not reported	Not reported	Wet	Daylight	Rain	Rte 93 S		Rte 93 S			Rte 93 S
8/12/2004	3:50:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 S	Exit 6 on Rte 93		Rte 93 S
9/4/2004	11:50:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93	100 feet N from Exit 9 on Rte 93		Rte 93
11/3/2004	7:00:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear	Rte 93	ADAMS STREET				
12/7/2004	11:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Rain			Rte 93 N	Exit 9 on Rte 93		Rte 93 N
1/14/2005	2:40:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93 N
1/22/2005	7:30:00 PM	Not Reported	2	0	0	Head-on	Head-on	Snow	Dark - lighted roadway	Several crossinds				Exit 11A on Rte 93 S		1300 feet N from Intersection Rte 93 S
1/25/2005	9:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				10.00 feet N from Exit 11 on Rte 93		Rte 93
2/24/2005	8:50:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
3/1/2005	12:00:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Clear				Exit 5 on Rte 93		Rte 93
4/13/2005	8:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93 S
4/14/2005	7:20:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / HOUGHTON ROAD
6/10/2005	3:09:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				50 feet N from Exit 9 on Rte 93		Rte 93 N
6/24/2005	5:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S					
7/12/2005	6:20:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
7/22/2005	2:40:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 93 S / POND STREET
7/27/2005	3:50:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93 N
8/12/2005	4:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
9/1/2005	4:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 3 / Rte 93
9/7/2005	6:45:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 10 on Rte 93		SQUANTUM STREET Rte 93
9/16/2005	4:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear						Rte 93 S
9/27/2005	8:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear	Rte 93 N					
10/28/2005	6:45:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	Rte 93 S					
12/28/2005	12:10:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 93					
5/16/2006	5:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						YANKEE DIVISION HIGHWAY Rte 93 N / RAMP - PONKAPOAG TRAIL TO RT 93 NB
5/24/2006	4:10:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
7/31/2006	2:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AFTER E MISTON SQUARE			Rte 93 S
8/11/2006	3:00:00 PM	Not Reported	3	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93 N
8/15/2006	10:45:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear						Rte 93 / Rte 93
8/29/2006	4:15:00 AM	Not Reported	3	0	0	Not reported	Not reported	Wet	Daylight	Rain						Rte 93 N / Rte 138
9/10/2006	6:20:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 26 on Rte 93		Rte 93 S
9/21/2006	12:00:00 AM	Not Reported	3	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported				Exit 9 on Rte 93		Rte 93
10/11/2006	4:15:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy				Exit 9 on Rte 93		Rte 93
12/18/2006	3:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			BEFORE EXIT 10	Exit 10 on Rte 93		S EEXPRESSWAY Rte 93 N
1/2/2004	12:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 S	300 feet S from Exit 10 on Rte 93 S		Rte 93 S
1/5/2004	8:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Rain			Rte 93			Rte 93
1/7/2004	5:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Cloudy			Rte 93 N	100 feet S from Exit 11 on Rte 93 N		Rte 93 N
1/8/2004	5:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			E MILTON TUNNEL - Rte 93 N	900 feet N from Exit 9 on Rte 93		Rte 93 N
1/9/2004	12:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	Rte 93 S		Rte 93 S	100 feet S from Exit 10 on Rte 93 S		Rte 93 S
1/15/2004	11:50:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			EAST MILTON SQUARE - Rte 93 N			Rte 93 N
1/18/2004	4:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Ice	Dark - roadway not lighted	Cloudy/Snow			SOUTHEAST EXPRESSWAY Rte 93 N	500 feet N from Exit 9 on Rte 93		SOUTHEAST EXPRESSWAY Rte 93 N
1/19/2004	8:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Cloudy			SOUTHEAST EXPRESSWAY Rte 93 S	100 feet S from Exit 9 on Rte 93 S		SOUTHEAST EXPRESSWAY Rte 93 S
1/19/2004	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 3 on Rte 93		Rte 93 S
1/26/2004	4:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear			RT 93 Rte 93 N	250 feet N from Exit X 9 on Rte 93		RT 93 Rte 93 N
1/27/2004	9:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy			Rte 93 N			Rte 93 N
1/31/2004	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Clear	Rte 93 S					
2/7/2004	3:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	Exit 3 on Rte 93		Rte 93 S
2/11/2004	2:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			SOUTHEAST XWAY - Rte 93 N	500 feet S from Exit 11 on Rte 93 N		Rte 93 N
2/17/2004	3:01:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 93 W					
2/22/2004	4:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	Exit 8 on Rte 93		Rte 93 S
3/4/2004	3:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N			SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
3/5/2004	5:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			SOUTH MILTON SQUARE - Rte 93 N			Rte 93 N
3/8/2004	8:05:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Daylight	Cloudy/Snow			Rte 93 S	2640 feet N from Exit 9 on Rte 93 S		Rte 93 S
3/10/2004	8:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
3/12/2004	7:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
3/14/2004	11:52:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Cloudy			E MILTON SQUARE - Rte 93 N			Rte 93 N
3/15/2004	3:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 9 on Rte 93 S		Rte 93 S
3/18/2004	2:36:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			MILTON SQUARE - Rte 93 N			Rte 93 N
3/19/2004	6:25:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	Rte 93 N	GRANITE AVENUE				
3/19/2004	11:52:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Cloudy			E MILTON SQUARE - Rte 93 N			Rte 93 N
3/20/2004	8:46:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 93 S		Rte 93 S			Rte 93 S
3/31/2004	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain	Rte 93 N	RAMP - ADAMS ST TO RT 93 NB				
4/1/2004	2:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Daylight	Rain/Cloudy			E MILTON SQ - Rte 93 N	1000 feet N from Exit 11 on Rte 93 N		Rte 93 N
4/1/2004	12:20:00 PM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain	Rte 93		Rte 93	75 feet S from Exit 9 on Rte 93		Rte 93
4/2/2004	8:55:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Not reported	Not reported	Not Reported	Rte 93 S		Rte 93 S	Exit 9 on Rte 93 S		Rte 93 S
4/6/2004	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S		Rte 93 S	500 feet N from Exit 9 on Rte 93 S		Rte 93 S
4/19/2004	1:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			BRYANT AVENUE Rte 93 S	Exit 9 on Rte 93 S		BRYANT AVENUE Rte 93 S
4/23/2004	3:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	Rte 93 N		Rte 93 N	50 feet N from Exit 11 on Rte 93 N		Rte 93 N
4/28/2004	12:25:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 93 N		Rte 93 N			Rte 93 N
4/29/2004	3:20:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93		Rte 93	Exit 11 on Rte 93		Rte 93
5/4/2004	4:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 93 S		Rte 93 S	Exit 10 on Rte 93 S		Rte 93 S
5/4/2004	5:40:00 AM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Wet	Dawn	Cloudy/Rain			10 feet N from ADAMS ST OVERPASS - SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N			10 feet N from Intersection SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / ADAMS STREET
5/12/2004	2:47:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N		Rte 93 N	700 feet S from Exit 11 on Rte 93 N		Rte 93 N
5/21/2004	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy	Rte 93 S		Rte 93 S	Exit 10 on Rte 93 S		20 feet N from Intersection Rte 93 S / SQUANTUM STREET
5/24/2004	6:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy	Rte 93 S		Rte 93 S	100 feet N from Exit 10 on Rte 93 S		Rte 93 S
6/13/2004	7:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		ADAMS STREET Rte 93 N	Rte 93 N			
6/13/2004	12:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			GRANITE AVENUE			GRANITE AVENUE / RAMP - RT 93 NB TO GRANITE AVE NB
7/11/2004	1:43:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N			Rte 93 N
7/12/2004	5:51:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 9 on Rte 93		Rte 93 N
8/2/2004	2:47:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	600 feet S from Exit 11 on Rte 93 N		Rte 93 N
8/9/2004	7:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 S		Rte 93 S Milemarker 2.0	Rte 93 S / Rte 28
8/12/2004	2:08:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N			Rte 93 N
8/30/2004	5:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			BETWEEN RAMPS AT RT 28 - Rte 93 S			Rte 93 S / Rte 28
8/31/2004	5:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	50 feet N from Exit 11 on Rte 93 N		Rte 93 N
9/2/2004	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
9/14/2004	8:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	2000 feet N from Rte 93 N Milemarker 3.0		Rte 93 N
9/16/2004	8:17:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 N	400 feet S from Exit 11 on Rte 93 N		Rte 93 N
9/29/2004	9:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			Rte 93 S	Exit 3 on Rte 93		Rte 93 S
9/30/2004	7:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 93	Exit 5 on Rte 93		Rte 93
10/1/2004	5:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93	Exit 5 on Rte 93		Rte 93
10/1/2004	6:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N					
10/5/2004	12:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			YANKEE DIVISION HIGHWAY Rte 93 S			YANKEE DIVISION HIGHWAY Rte 93 S / RAMP - RT 93 SB TO PONKAPOAG TRAIL
10/15/2004	7:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			Rte 93 S	Exit 20 on Rte 93		Rte 93 S
10/19/2004	5:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy			Rte 93 N	300 feet S from Exit 11 on Rte 93 N		Rte 93 N
10/19/2004	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Cloudy/Rain	Rte 93 S					
10/20/2004	6:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 N	600 feet S from Exit 11 on Rte 93 N		Rte 93 N
10/23/2004	12:35:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear			Rte 93 S	200 feet S from Exit 11 on Rte 93 S		Rte 93 S
10/26/2004	1:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 S	500 feet S from Exit 11 on Rte 93 S		Rte 93 S
10/28/2004	3:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
10/31/2004	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93 S	Exit 5 on Rte 93		Rte 93 S
10/31/2004	12:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 S	700 feet S from Exit 11A on Rte 93 S		Rte 93 S
11/6/2004	4:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
11/17/2004	6:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 N	1200 feet S from Exit 11 on Rte 93 N		Rte 93 N
11/28/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy			NORTH OF PONKAPOG - YANKEE DIVISION HIGHWAY Rte 93 N			YANKEE DIVISION HIGHWAY Rte 93 N / PONKAPOAG TRAIL
11/28/2004	8:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain	Rte 93 S		Rte 93 S	5000 feet S from Exit 8 on Rte 93		Rte 93 S
11/29/2004	4:42:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy			Rte 93 N	50 feet N from Exit 3 on Rte 93 N		Rte 93 N
11/30/2004	9:06:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
12/2/2004	9:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Not reported	Clear/Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
12/5/2004	3:43:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
12/7/2004	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93	Exit 3 on Rte 93		Rte 93
12/9/2004	12:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			SOUTHEAST EXPRESSWAY Rte 93 N	Exit 11 on Rte 93 N		SOUTHEAST EXPRESSWAY Rte 93 N
12/21/2004	10:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	50 feet S from Exit 10 on Rte 93 S		Rte 93 S
12/23/2004	9:57:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			Rte 93 S	Exit 9 on Rte 93 S		Rte 93 S
12/25/2004	2:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	Rte 93 S		Rte 93 S			Rte 93 S
12/28/2004	9:07:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear	Rte 93 S		Rte 93 S	Exit 11A on Rte 93 S		Rte 93 S
1/2/2005	5:30:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain				500 feet N from Exit 10 on Rte 93 S		Rte 93 S / SQUANTUM STREET
1/3/2005	8:56:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				50 feet N from Exit 3 on Rte 93 N		Rte 93 N
1/6/2005	4:35:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Dark - lighted roadway	Snow/Snow				1000 feet S from Exit 11 on Rte 93 N		Rte 93 N
1/8/2005	8:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain						Rte 93
1/10/2005	6:00:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear				70 feet N from Exit 2 on Rte 93		Rte 93 N
1/11/2005	9:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						MILTON STREET EAST Rte 93
1/12/2005	2:41:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy				Exit 10 on Rte 93 S		Rte 93 S
1/13/2005	5:19:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Fog, smog, smoke				500 feet N from Exit 10 on Rte 93		Rte 93 N
1/14/2005	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Dark - lighted roadway	Not Reported						1500 feet S from Intersection Rte 93 S
1/14/2005	8:20:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported				Exit 9 on Rte 93		Rte 93
1/17/2005	9:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy/Cloudy			EAST MILTON SQUARE - Rte 93 S			Rte 93 S
1/19/2005	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				1000 feet S from Exit 11 on Rte 93 N		Rte 93 N
1/20/2005	10:27:00 AM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear/Clear				500 feet N from Exit 9 on Rte 93 S		Rte 93 S
1/23/2005	11:30:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Snow	Dark - lighted roadway	Snow				Exit 5 on Rte 93		1000 feet N from Intersection Rte 93 S
1/25/2005	11:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Slush	Daylight	Clear				50 feet S from Exit 10 on Rte 93 S		Rte 93 S
1/26/2005	2:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Snow/Snow				100 feet N from Exit 9 on Rte 93		Rte 93 N
1/27/2005	11:42:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			EAST MILTON SQUARE - Rte 93 N			Rte 93 N
2/1/2005	11:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
2/3/2005	5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - RT 93 SB TO BRYANT AVE
2/7/2005	3:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
2/9/2005	2:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				100 feet N from Exit 9 on Rte 93		Rte 93 N
2/10/2005	8:55:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Cloudy	GRANITE AVENUE Rte 93					
2/10/2005	12:00:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Daylight	Rain						Rte 93 N
2/12/2005	1:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93	Rte 93				
2/13/2005	9:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 N
2/15/2005	5:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain			STEDMAN ST BRIDGE UNDERPASS - Rte 93 N	Exit 9 on Rte 93		Rte 93 N
2/16/2005	6:15:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 6 on Rte 93		Rte 93 N / Rte 3
2/19/2005	2:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single veh

MILTON	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
3/30/2005	6:28:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93 N		Rte 93 N
3/30/2005	7:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93 S / Rte 28
3/30/2005	7:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						50 feet S from Intersection Rte 93 N / BOULEVARD STREET
3/31/2005	11:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			EXIT 10 OFF RAMP - Rte 93 S	Exit 10 on Rte 93 S		Rte 93 S
4/6/2005	3:14:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
4/6/2005	7:44:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						Rte 93 N
4/7/2005	3:55:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
4/8/2005	7:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						YANKEE DIVISION HIGHWAY Rte 93 S / RAMP - RT 93 SB TO PONKAPOAG TRAIL
4/14/2005	6:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			BETWEEN PONKAPOAG EXIT AND RT 24 - Rte 93			Rte 93
4/18/2005	6:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - GRANITE AVE SB TO RT 93 SB
4/20/2005	1:30:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
4/23/2005	1:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				Exit 9 on Rte 93		Rte 93 N
4/23/2005	9:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Clear				300 feet S from Exit 11 on Rte 93 N		Rte 93 N
4/23/2005	9:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Cloudy				200 feet S from Exit 11 on Rte 93 N		Rte 93 N
4/26/2005	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / RAMP - ADAMS ST TO RT 93 NB
4/28/2005	2:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy		2.0 feet S from ANTWERP ST OVERPASS - Rte 93 N				Rte 93 N
5/3/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / GRANITE AVENUE
5/6/2005	3:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - RT 93 SB TO SQUANTUM ST
5/6/2005	5:42:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				1000 feet N from Exit 9 on Rte 93		Rte 93 N
5/6/2005	7:09:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dusk	Cloudy/Rain				100 feet S from Exit 11 on Rte 93 S		Rte 93 S
5/9/2005	8:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			RT 24 NORTH BOUND OFFRAMP - Rte 93 S			Rte 93 S
5/11/2005	10:46:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
5/13/2005	9:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				600 feet S from Exit 11 on Rte 93 N		Rte 93 N
5/18/2005	6:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
5/24/2005	10:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain/Cloudy				500 feet S from Exit 11 on Rte 93 N		Rte 93 N
5/25/2005	2:43:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						Rte 93 / SQUANTUM STREET
5/26/2005	9:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain				Exit 9 on Rte 93		Rte 93 N
5/27/2005	6:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy				1500 feet S from Exit 11 on Rte 93 N		Rte 93 N
6/1/2005	6:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ROBERTSON ST OVERPASS / EAST MIL - Rte 93 N			Rte 93 N / RANDOLPH AVENUE
6/4/2005	3:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			200 feet N from SQUANTUM ST BRIDGE - Rte 93 S			Rte 93 S
6/5/2005	4:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						Rte 93 N
6/6/2005	5:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
6/9/2005	12:28:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Wet	Dark - lighted roadway	Cloudy/Rain				Exit 11 on Rte 93 N		Rte 93 N
6/17/2005	3:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / GRANITE AVENUE
6/17/2005	3:38:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 / BRYANT AVENUE
6/20/2005	7:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / RANDOLPH AVENUE Rte 28
6/23/2005	2:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
6/28/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 93 S
6/29/2005	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 9 on Rte 93		Rte 93 N
7/3/2005	3:13:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
7/5/2005	5:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93 S		Rte 93 S
7/6/2005	4:03:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
7/6/2005	6:38:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				1000 feet S from Exit 11 on Rte 93 N		Rte 93 N
7/8/2005	12:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy			, BETWEEN ON AND OFF RAMPS OF E - Rte 93 S			Rte 93 S / BRYANT AVENUE
7/24/2005	3:59:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - RT 93 SB TO SQUANTUM ST
7/24/2005	7:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 7 on Rte 93		Rte 93 S
7/25/2005	3:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
7/29/2005	3:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
8/1/2005	7:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
8/3/2005	9:26:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
8/4/2005	9:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 S		Rte 93 S
8/6/2005	11:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 11 on Rte 93 N		Rte 93 N
8/6/2005	11:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
8/8/2005	7:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy				150 feet N from Exit 9 on Rte 93		Rte 93 N
8/11/2005	6:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93
8/13/2005	11:51:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			, N OF EXIT 9 - Rte 93 S	Exit 9 on Rte 93 S		Rte 93 S
8/15/2005	3:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy						Rte 93 N
8/17/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93					
8/20/2005	5:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
8/20/2005	11:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93					
8/24/2005	10:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 93 N	Rte 24				Rte 93
8/26/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93		10 feet S from Intersection SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / GRANITE AVENUE
8/28/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
8/29/2005	9:02:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 S
8/30/2005	1:34:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy				150 feet S from Exit 3 on Rte 93		Rte 93 S
8/30/2005	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Cloudy						Rte 93 S
9/2/2005	5:56:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Cloudy				100 feet S from Exit 10 on Rte 93 S		Rte 93 S
9/3/2005	12:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				300 feet S from Exit 11 on Rte 93 N		Rte 93 N
9/8/2005	3:45:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy				1000 feet S from Exit 11 on Rte 93 N		Rte 93 N
9/9/2005	6:53:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				900 feet S from Exit 11 on Rte 93 N		Rte 93 N
9/11/2005	1:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 N
9/12/2005	1:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93 N
9/15/2005	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 93 N / Rte 93
9/16/2005	3:52:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 S / Rte 28
9/16/2005	11:19:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 11 on Rte 93 N		Rte 93 N
9/17/2005	10:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy/Cloudy				Exit 10 on Rte 93 S		Rte 93 S
9/19/2005	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				10 feet S from Exit 11B on Rte 93 S		Rte 93 S
9/20/2005	7:01:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
9/20/2005	7:14:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93 S		Rte 93 S
9/21/2005	4:41:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				900 feet S from Exit 11 on Rte 93 N		Rte 93 N
9/21/2005	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			E. MILTON SQ. - Rte 93			Rte 93
9/28/2005	7:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear						1000 feet N from Intersection Rte 93 S / Rte 24
10/1/2005	6:25:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dusk	Rain/Rain						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - GRANITE AVE SB TO RT 93 SB
10/8/2005	1:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy				Exit 10 on Rte 93 S		Rte 93 S
10/9/2005	3:12:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Rain						Rte 93 S / BRYANT AVENUE
10/11/2005	6:25:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Dawn	Cloudy/Rain				100 feet N from Exit 9 on Rte 93 S		Rte 93 S
10/14/2005	7:10:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / RAMP - RT 93 SB TO BRYANT AVE
10/24/2005	4:55:00 PM	Property damage only (none injured)	8	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 11 on Rte 93 S		SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
10/25/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Severe crosswinds						Rte 93 N
10/26/2005	6:15:00 AM	Property damage only (none injured)	7	0	0	Angle	Angle	Wet	Dawn	Cloudy/Rain			200 feet S from ON RAMP FROM BRYANT AVE., MILTON - Rte 93 S	1000 feet S from Exit 9 on Rte 93 S		Rte 93 S
10/30/2005	6:53:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear						Rte 93 S
11/8/2005	3:31:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
11/8/2005	7:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 93 N
11/10/2005	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						Rte 93 N
11/13/2005	1:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				50.00 feet N from Exit 9 on Rte 93		Rte 93 N
11/15/2005	3:44:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			EAST MILTON SQ. - Rte 93 N			Rte 93 N
11/22/2005	6:56:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Cloudy/Rain				100 feet S from Exit 11A on Rte 93 S		Rte 93 S
11/25/2005	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
11/28/2005	6:12:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				500 feet S from Exit 11 on Rte 93 N		Rte 93 N
12/6/2005	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 93 N / BLUE HILLS RESERVATION ROAD
12/16/2005	4:05:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Dusk	Rain/Rain				1500 feet N from Exit 4 on Rte 93		1500 feet N from Intersection Rte 93 N / Rte 24
12/17/2005	5:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			PRIOR TO GRANITE AVE. - SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N			SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
12/20/2005	9:50:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Clear				Exit 9 on Rte 93		Rte 93 N
12/23/2005	12:55:00 PM	Property damage only (none injured)	4	0	0	Unknown	Unknown	Dry	Daylight	Cloudy/Clear				Exit 10 on Rte 93 S		Rte 93 S
12/28/2005	5:03:00 AM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dawn	Cloudy/Clear				500 feet S from Exit 11 on Rte 93 N		Rte 93 N
12/30/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 / Rte 28
1/3/2006	8:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear/Cloudy			EAST MILTON SQ.	500 feet S from Exit 10 on Rte 93 S		Rte 93 S
1/5/2006	3:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Clear/Clear						GRANITE AVENUE Rte 93 N / GRANITE AVENUE
1/5/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N	GRANITE AVENUE				
1/5/2006	4:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Rain						Rte 93
1/7/2006	9:00:00 AM	Property damage only (none injured)	1	0	0	Unknown	Unknown	Dry	Daylight	Clear						BRYANT AVENUE Rte 93
1/9/2006	2:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			MILTON CENTER			Rte 93
1/12/2006	4:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				300 feet S from Exit 10 on Rte 93 S		Rte 93 S
1/13/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy						Rte 93 S
1/14/2006	5:15:00 AM	Property damage only (none injured)	5	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Cloudy				Exit 11 on Rte 93 N		Rte 93 N
1/17/2006	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1320 feet S from Exit 3 on Rte 93 N		Rte 93 N
1/19/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 N
1/21/2006	8:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				Exit 6 on Rte 93		Rte 93
1/23/2006	5:45:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)/Sleet, hail (freezing rain or drizzle)						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / GRANITE AVENUE
1/26/2006	3:07:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
1/27/2006	7:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
1/28/2006	3:45:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				50 feet E from Exit 5 on Rte 93		Rte 93
2/1/2006	1:30:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Cloudy		RAMP-RT 93 SB TO SQUANTUM ST SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S				
2/2/2006	8:56:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						YANKEE DIVISION HIGHWAY Rte 93 S / PONKAPOAG TRAIL
2/3/2006	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						GRANITE AVENUE / RAMP - GRANITE AVE NB TO RT 93 NB
2/5/2006	8:38:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				50 feet N from Exit 11 on Rte 93		Rte 93
2/5/2006	10:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			EAST MILTON SQ			Rte 93 N
2/10/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear	Rte 93	SQUANTUM STREET				
2/12/2006	8:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow				Exit 5 on Rte 93		Rte 93
2/13/2006	5:53:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 11 on Rte 93 N		Rte 93 N
2/15/2006	4:02:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
2/15/2006	5:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						RANDOLPH AVENUE Rte 93 / ADAMS STREET
2/17/2006	5:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear				1000 feet S from Exit 10 on Rte 93		SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / GRANITE AVENUE
2/21/2006	6:23:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
2/23/2006	8:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						Rte 93
2/27/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear				Exit 11 on Rte 93 N		Rte 93 N
2/28/2006	1:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93 S		BRYANT AVENUE Rte 93 S
3/1/2006	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				500 feet S from Exit 11 on Rte 93 N		Rte 93 N
3/2/2006	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 93 N	GRANITE AVENUE				
3/2/2006	11:57:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
3/21/2006	9:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				1000 feet S from Exit 11 on Rte 93 S		Rte 93 S
3/21/2006	9:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 11 on Rte 93		Rte 93
3/28/2006	5:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear				Exit 11 on Rte 93 N		SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / RAMP - RT 93 NB TO GRANITE AVE NB
3/29/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				400 feet N from Exit 9 on Rte 93 S		Rte 93 S
4/1/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 9 on Rte 93		Rte 93 N
4/3/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93

MILTON	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
5/5/2006	1:21:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 N
5/9/2006	5:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain				Exit 10 on Rte 93 S		Rte 93 S / SQUANTUM STREET
5/10/2006	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						SQUANTUM STREET Rte 93 N
5/10/2006	7:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						6 ADAMS STREET Rte 93
5/10/2006	10:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 11 on Rte 93 N		Rte 93 N
5/11/2006	8:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
5/13/2006	12:51:00 PM	Property damage only (none injured)	4	0	0	Unknown	Unknown	Wet	Daylight	Rain/Rain				Exit 9 on Rte 93		Rte 93 N
5/19/2006	3:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy		RT 93				
5/23/2006	12:28:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
5/26/2006	6:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 10 on Rte 93 S		Rte 93 S
5/27/2006	2:53:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
6/1/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 10 on Rte 93		Rte 93 / SQUANTUM STREET
6/2/2006	8:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy						1 ADAMS STREET Rte 93
6/5/2006	7:00:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / Rte 24
6/12/2006	2:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			EAST MILTON SQUARE			Rte 93 N
6/12/2006	3:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
6/14/2006	7:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		600 feet S from Intersection Rte 93
6/16/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93
6/17/2006	12:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		BRYANT AVENUE Rte 93 N
6/18/2006	1:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
6/18/2006	1:55:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				20 feet S from Exit 10 on Rte 93 S		Rte 93 S
6/20/2006	9:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain				100 feet N from Exit 9 on Rte 93		Rte 93 N
6/21/2006	3:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
6/21/2006	3:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 S		Rte 93 S
6/22/2006	1:30:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				200 feet S from Exit 11 on Rte 93 N		Rte 93 N
6/22/2006	5:20:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				50 feet N from Exit 3 on Rte 93 N		Rte 93 N
6/23/2006	8:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 5 on Rte 93		100 feet S from Intersection Rte 93 N / Rte 28
6/24/2006	8:02:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
6/25/2006	8:56:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy						Rte 93 N
6/26/2006	10:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						HOUGHTON ROAD Rte 93
6/28/2006	4:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						RANDOLPH AVENUE Rte 93 / ADAMS STREET
7/5/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			500 feet N from EAST MILTON SQUARE			Rte 93 N
7/10/2006	9:41:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		72 feet S from Intersection Rte 93 N / RAMP-RT 93 NB TO GRANITE AVE NB
7/12/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Clear						RANDOLPH AVENUE Rte 93 / ADAMS STREET
7/17/2006	2:54:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N
7/18/2006	1:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 14 on Rte 93		Rte 93
7/20/2006	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				600 feet N from Exit 10 on Rte 93		Rte 93
7/21/2006	6:14:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			BRUSH HILL ROAD	Exit 9 on Rte 93		BRUSH HILL ROAD Rte 93 / TRUMAN HIGHWAY
8/8/2006	2:45:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						Rte 93 S
8/8/2006	6:12:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				150 feet S from Exit 3 on Rte 93		Rte 93 S
8/8/2006	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
8/12/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 A on Rte 93		SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / RAMP - RT 93 NB TO GRANITE AVE NB
8/13/2006	3:56:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
8/15/2006	5:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear				Exit 11 on Rte 93 S		Rte 93 S
8/16/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93 S
8/16/2006	6:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / RAMP - ADAMS ST TO RT 93 NB
8/23/2006	3:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93 N
8/24/2006	9:01:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Cloudy/Rain						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / ADAMS STREET
8/26/2006	8:26:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy						50 feet S from Intersection SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 S / GRANITE AVENUE
8/28/2006	8:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 S		Rte 93 S
8/31/2006	4:06:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93		Rte 93 N
8/31/2006	4:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				200 feet S from Exit 11 on Rte 93 N		Rte 93 N
9/3/2006	6:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						RAMP - GRANITE AVE NB TO RT 93 NB / Rte 93
9/3/2006	7:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 9 on Rte 93 S		Rte 93 S
9/5/2006	2:48:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 10 on Rte 93		Rte 93 N
9/7/2006	8:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Not reported	Daylight	Clear						GRANITE AVENUE Rte 93 / Rte 3
9/13/2006	8:02:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			JUST BEYOND MILTON EXIT			Rte 93 N
9/15/2006	1:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
9/15/2006	1:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
9/20/2006	6:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear				Exit 11 on Rte 93 N		Rte 93 N
9/22/2006	6:04:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 feet N from Exit 11 on Rte 93 N		Rte 93 N / RAMP-RT 93 NB TO GRANITE AVE NB
9/22/2006	6:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 S		Rte 93 S
9/22/2006	8:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						COLUMBIA PARK Rte 93 / Rte 28
9/27/2006	6:45:00 PM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				500 feet S from Exit 11 on Rte 93 N		SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 N / GRANITE AVENUE
9/30/2006	3:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 N / SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 1A N
9/30/2006	5:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
9/30/2006	7:24:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			JUNICTON 24N			Rte 93 S
10/2/2006	9:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
10/3/2006	9:18:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
10/4/2006	4:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				100 feet S from Exit 11 on Rte 93 N		Rte 93 N
10/4/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
10/6/2006	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			NOT SURE PROBABLY IN MILTON			SOUTHEAST EXPRESSWAY Rte 93
10/6/2006	10:40:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
10/8/2006	11:59:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 10 on Rte 93		Rte 93 N
10/11/2006	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 feet S from Exit 11 on Rte 93 N		Rte 93 N
10/11/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear				Exit 11 on Rte 93		Rte 93
10/11/2006	8:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain						SERGEANT WILLIAM G WALSH EXPRESSWAY Rte 93 / ADAMS STREET
10/13/2006	8:46:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		9 feet N from Intersection Rte 93 N / RAMP-RT 93 NB TO GRANITE AVE NB
10/18/2006	7:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear	RAMP-GRANITE AVE SB TO RT 93 SB	Rte 193 SB				
10/18/2006	7:05:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 10 on Rte 93 S		Rte 93 S
10/23/2006	4:27:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain				Exit 11 on Rte 93 N		Rte 93 N
10/26/2006	7:30:00 PM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Dry	Dark - unknown roadway lighting	Clear						RANDOLPH AVENUE Rte 93 N
10/28/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain	Rte 93 W	WILLARD ST				
10/29/2006	5:38:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 8 on Rte 93		Rte 93 N
10/30/2006	2:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
11/7/2006	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N / RAMP-RT 93 NB TO GRANITE AVE NB
11/8/2006	4:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - unknown roadway lighting	Rain/Cloudy		ON-RAMP TO RTE 93S				Rte 93
11/9/2006	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain				Exit 9 on Rte 93 S		Rte 93 S
11/9/2006	6:14:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 11 on Rte 93 N		48 feet N from Intersection RAMP-RT 93 NB TO GRANITE AVE NB / Rte 93 N
11/10/2006	7:19:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			1000 feet S from EAST MILTON SQUARE			Rte 93 N
11/11/2006	4:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			UNDER EAST MILTON SQUARE			Rte 93 N
11/11/2006	5:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 11 on Rte 93 N		Rte 93 N
11/15/2006	7:18:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 11 on Rte 93 N		Rte 93 N
11/20/2006	5:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				500 feet S from Exit 11 on Rte 93 N		Rte 93 N
11/26/2006	1:41:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				10 feet S from Exit 11-12 on Rte 93 N		6 feet N from Intersection Rte 93 N / RAMP-RT 93 NB TO GRANITE AVE NB
11/28/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear	Rte 93	Rte 93				
11/30/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Cloudy			BY BRAINTREE EXIT			Rte 93
12/8/2006	7:00:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
12/19/2006	10:05:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			KEYSTONE CUTOUT	Exit 11 on Rte 93 S		Rte 93 S
1/13/2004	7:30:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 93 N			Rte 93 N
10/4/2004	4:50:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 11 on Rte 93 N		Rte 93 N
1/1/2005	1:25:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11A on Rte 93 S		Rte 93 S
7/3/2005	4:30:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93 / Rte 28
7/6/2005	3:30:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	Rte 93					
4/12/2006	11:50:00 PM	Unknown	1	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93		Rte 93 N
5/9/2006	8:15:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						MILTON STREET Rte 93
9/1/2006	6:07:00 AM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				Exit 8 on Rte 93		Rte 93 N

BOSTON (NEPONSET)	1/1/2004	12/31/2006	is similar to: rte 93 route 93											
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Exit Distance	Feet_From
2/15/2005	7:05:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear				NEPONSET COURT Rte 93 N
7/15/2005	7:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				GENERAL CASIMIR PULASKI SKYWAY Rte 93 S
3/1/2005	1:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			60 feet N from Exit 12 on Rte 93	Rte 93 N / NEPONSET AVENUE
4/28/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Rte 93 S
7/23/2006	5:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dawn	Rain	Rte 93	Rte 93		

QUINCY (NORTH QUINCY)	1/1/2004	12/31/2006	similar to: rte 93 route 93									
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Exit Distance	Feet_From
9/3/2006	10:15:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear	15 feet N from Exit 12 on Rte 93	Rte 93 N
2/23/2005	3:00:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	Exit 8 on Rte 93 S	Rte 93 S
1/25/2006	10:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear		Rte 93 / NEPONSET ROAD
8/3/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear	Exit 11 on Rte 93	Rte 93

QUINCY 1/1/2004	12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway												
Crash_Date Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet From
11/26/2004 9:30:00 PM	Fatal injury	2	6	2	Angle	Angle	Dry	Dark - lighted roadway	Clear			FURNACE BROOK PKWY OVERPASS - Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
2/12/2005 9:10:00 AM	Fatal injury	3	2	2	Angle	Angle	Dry	Daylight	Cloudy/Cloudy				Exit 9 on Rte 93		Rte 93 N
4/7/2005 3:36:00 AM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			125 feet S from ROBERTSON ST OVERPASS - INTERSTATE 93 Rte 93 S	2000 feet S from Exit 9 on Rte 93 S		INTERSTATE 93 Rte 93 S / ROBERTSON STREET
9/9/2006 3:20:00 AM	Fatal injury	2	0	1	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
11/24/2006 7:55:00 PM	Fatal injury	1	2	1	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				100 feet N from Exit 8 on Rte 93 S		Rte 93 S
1/1/2004 4:10:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			SOUTHEAST EXPRESSWAY STREET Rte 93 N			SOUTHEAST EXPRESSWAY STREET Rte 93 N
1/4/2004 1:50:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 93 S	1584 feet N from Exit 8 on Rte 93 S		Rte 93 S
1/15/2004 10:35:00 AM	Non-Fatal injury	3	1	0	Angle	Angle	Wet	Daylight	Clear			INTERSTATE 93 Rte 93 N	Exit 8 on Rte 93 N		INTERSTATE 93 Rte 93 N
1/15/2004 10:50:00 AM	Non-Fatal injury	6	2	0	Rear-end	Rear-end	Ice	Daylight	Cloudy			INTERSTATE 93 Rte 93 N	Exit 8 on Rte 93 N		INTERSTATE 93 Rte 93 N
1/22/2004 1:30:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			INTERSTATE 93 Rte 93 S	660 feet N from Exit 7 on Rte 93 S		INTERSTATE 93 Rte 93 S
1/22/2004 1:50:00 PM	Non-Fatal injury	2	1	0	Not reported	Not reported	Not reported	Not reported	Not Reported			BETWEEN RAMPS - INTERSTATE 93 Rte 93 S	Exit 8 on Rte 93 S		INTERSTATE 93 Rte 93 S
1/28/2004 12:35:00 PM	Non-Fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow			Rte 93 S	900 feet S from Exit 9 on Rte 93		Rte 93 S
2/3/2004 2:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			INTERSTATE 93 Rte 93 S	Exit 8 on Rte 93 S		INTERSTATE 93 Rte 93 S / FURNACE BROOK ROTARY
2/21/2004 2:15:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	200 feet S from Exit 8 on Rte 93 S		Rte 93 S
2/26/2004 2:20:00 PM	Non-Fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			YANKEE DIVISION HIGHWAY Rte 93 N	Exit 5B on Rte 93 N		YANKEE DIVISION HIGHWAY Rte 93 N / RAMP - RT 93 SB TO RT 28 SB
2/28/2004 6:33:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear			Rte 93 S	Exit 5B on Rte 93 S		Rte 93 S
3/7/2004 7:10:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 S	300 feet N from Exit 7 on Rte 93 S		Rte 93 S
3/19/2004 5:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	300 feet S from Exit 8 on Rte 93 N		Rte 93 N
3/20/2004 6:00:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy	Rte 93 S					Rte 93 S
4/14/2004 6:20:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dusk	Rain			SOUTHEAST EXPRESSWAY STREET Rte 3	1320 feet N from Exit 8 on Rte 3		SOUTHEAST EXPRESSWAY STREET Rte 3
5/7/2004 2:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 N					
5/13/2004 1:55:00 AM	Non-Fatal injury	1	4	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	200 feet N from Exit 8 on Rte 93 S		Rte 93 S
5/20/2004 1:30:00 AM	Non-Fatal injury	2	4	0	Rear-end	Rear-end	Dry	Daylight	Clear			FURNACE BROOK - Rte 93 N			Rte 93 N / Rte 93
5/20/2004 2:05:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear			Rte 93 N	Exit 8 on Rte 93 N		Rte 93 N
5/21/2004 3:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			FURNACE BROOK - Rte 93 N			Rte 93 N / Rte 93
5/27/2004 9:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			TABER STREET Rte 93 N	Exit 8 on Rte 93 N		TABER STREET Rte 93 N
6/12/2004 1:03:00 PM	Non-Fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear			INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 3 SB
6/12/2004 3:45:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S / BRYANT AVENUE
6/16/2004 5:30:00 PM	Non-Fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
6/27/2004 12:22:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 S	500 feet S from Exit 8 on Rte 93 S		Rte 93 S
7/20/2004 7:00:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N / Rte 93
7/24/2004 4:00:00 PM	Non-Fatal injury	2	1	0	Not reported	Not reported	Not reported	Not reported	Not Reported		150 feet S from BRIDGE OVER FURNACE BROOK PKWY - SOUTHEAST EXPRESSWAY STREET Rte 93				SOUTHEAST EXPRESSWAY STREET Rte 93 / Rte 93
7/28/2004 7:18:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain		20 feet N from FURNACE BROOK ROTARY OVERPASS - Rte 93 S				20 feet N from Intersection Rte 93 S / FURNACE BROOK PARKWAY
7/30/2004 8:45:00 AM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		7 SPLIT 93 128 - SOUTHEAST EXPRESSWAY STREET Rte 93		50 feet S from Exit 7 on Rte 93		SOUTHEAST EXPRESSWAY STREET Rte 93
8/20/2004 4:45:00 AM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear			INTERSTATE 93 Rte 93 N			INTERSTATE 93 Rte 93 N / FURNACE BROOK ROTARY Rte 93
9/7/2004 4:10:00 PM	Non-Fatal injury	3	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S	1500 feet N from Exit 5B on Rte 93 S		Rte 93 S
9/11/2004 8:55:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93	Exit 8 on Rte 93		Rte 93
9/28/2004 6:00:00 AM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy			Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
10/1/2004 2:55:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			3000 feet S from Intersection Rte 93 N / FURNACE BROOK PARKWAY
10/1/2004 8:20:00 AM	Non-Fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear			Rte 93 N		300 feet N from Rte 93 N Milemarker 9.0	Rte 93 N
10/15/2004 2:40:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 N	500 feet S from Exit 9 on Rte 93 N		Rte 93 N
10/18/2004 5:43:00 AM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
10/22/2004 7:50:00 AM	Non-Fatal injury	5	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 N			Rte 93 N
10/30/2004 1:22:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93 N			Rte 93 N
11/14/2004 11:15:00 AM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 5 on Rte 93		Rte 93 N
11/16/2004 4:10:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear/Cloudy			Rte 93 S	100 feet N from Exit 7 on Rte 93 S 100 feet N from Rte 93 S Milemarker 8.0		Rte 93 S
11/17/2004 4:00:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			ON RAMP FROM BURGIN PKWY TO 93S - RAMP - BURGIN PKWY TO RT 93 SB			RAMP - BURGIN PKWY TO RT 93 SB / HONORABLE THOMAS S BURGIN PARKWAY
11/17/2004 4:10:00 PM	Non-Fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear			OPPOSITE SOUTH HOV BUILDING - Rte 93 S	300 feet N from Exit 7 on Rte 93 S		Rte 93 S
11/17/2004 6:30:00 PM	Non-Fatal injury	4	4	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			25 feet S from HOV LANE DROP AND ARROW BOARD - Rte 93 N	200 feet S from Exit 8 on Rte 93 N		Rte 93 N
11/29/2004 1:30:00 PM	Non-Fatal injury	3	2	0	Angle	Angle	Wet	Daylight	Cloudy			Rte 93 S			Rte 93 S
12/1/2004 5:25:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93	Exit 8 on Rte 93		Rte 93
12/3/2004 4:50:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			Rte 93 N	100 feet S from Exit 8 on Rte 93 N		Rte 93 N
12/19/2004 5:14:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			AT BURGIN RAMP TO RTE 93 - CENTRE STREET			CENTRE STREET / HONORABLE THOMAS S BURGIN PARKWAY
12/21/2004 4:20:00 PM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Not reported	Dark - lighted roadway	Clear			Rte 93 E			10 feet E from Intersection Rte 93 E / Rte 24
1/1/2005 4:30:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 S / Rte 3
1/6/2005 3:50:00 PM	Non-Fatal injury	3	3	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy/Rain		10 feet S from SOUTH HOV BUILDING - Rte 93 N		600 feet S from Exit 8 on Rte 93 N		Rte 93 N
1/6/2005 11:41:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Cloudy/Sleet, hail (freezing rain or drizzle)				100 feet S from Exit 9 on Rte 93 N		Rte 93 N
1/8/2005 4:00:00 PM	Non-Fatal injury	2	3	0	Angle	Angle	Wet	Daylight	Rain/Rain						Rte 93 N / Rte 93
1/10/2005 1:15:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S					
1/19/2005 11:00:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Ice	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
1/20/2005 11:20:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Clear				Exit 12 on Rte 93		Rte 93 S
1/21/2005 6:07:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy			BATES AVE OVERPASS - Rte 93 S	1500 feet N from Exit 8 on Rte 93 S		Rte 93 S
1/30/2005 3:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93
2/2/2005 10:50:00 PM	Non-Fatal injury	7	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 / Rte 3 S
2/7/2005 9:00:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	Rte 93 S	Rte 3 S				
2/18/2005 5:15:00 PM	Non-Fatal injury	2	4	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy	Rte 93 N					
2/19/2005 8:00:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 N
2/19/2005 8:05:00 PM	Non-Fatal injury	5	3	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
2/20/2005 12:52:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				300 feet S from Exit 9 on Rte 93 N		Rte 93 N
2/21/2005 10:30:00 AM	Non-Fatal injury	2	1	0	Angle	Angle	Snow	Daylight	Sleet, hail (freezing rain or drizzle)/Sleet, hail (freezing rain or drizzle)				200 feet S from Exit 8 on Rte 93 S		Rte 93 S
2/25/2005 2:00:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 14 on Rte 93		Rte 93 N
2/25/2005 8:20:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Cloudy			MERGE FROM BURGIN PKWY ON RAMP T - Rte 93 N			Rte 93 N / Rte 93
2/27/2005 2:45:00 AM	Non-Fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93
3/9/2005 5:43:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Slush	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)			93 N/B OFF RAMP AT FURNACE BROOK - RAMP - RT 93 NB TO FURNACE BROOK PARKWAY			RAMP - RT 93 N/B TO FURNACE BROOK PARKWAY / FURNACE BROOK PARKWAY
3/9/2005 2:21:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 S
3/9/2005 8:28:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Ice	Daylight	Clear/Cloudy				Exit 8 on Rte 93 S		Rte 93 S
3/11/2005 9:50:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy	Rte 93 S	Rte 3 S				
3/12/2005 12:00:00 PM	Non-Fatal injury	2	5	0	Angle	Angle	Wet	Daylight	Rain/Cloudy						Rte 93 N
3/15/2005 6:45:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 S
3/22/2005 3:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 3
4/1/2005 3:54:00 PM	Non-Fatal injury	4	3	0	Rear-end	Rear-end	Dry	Daylight	Clear			AT ROBERTSON ST OVERPASS - Rte 93 N	500 feet S from Exit 9 on Rte 93 N		Rte 93 N
4/3/2005 3:10:00 PM	Non-Fatal injury	3	4	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
4/3/2005 3:12:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy						200 feet S from Intersection INTERSTATE 93 Rte 93 S / BATES AVENUE
4/5/2005 9:45:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / GRANITE STREET
4/7/2005 4:00:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
4/9/2005 5:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 3
4/16/2005 2:25:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				5 feet N from Exit 7 on Rte 93 S		Rte 93 S
4/23/2005 2:15:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy			RAMP TO BRYANT AVENUE FROM S/B R - Rte 93	Exit 9 on Rte 93		Rte 93
4/26/2005 2:40:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				1000 feet N from Exit 9 on Rte 93 N		Rte 93 N
4/26/2005 3:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				50 feet S from Exit 15 on Rte 93		Rte 93 S
4/30/2005 5:19:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dawn	Rain/Cloudy				Exit 9 on Rte 93 N		Rte 93 N
4/30/2005 6:35:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dusk	Clear/Rain				500 feet S from Exit 8 on Rte 93 S		Rte 93 S
4/30/2005 6:50:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy						Rte 93 S
4/30/2005 11:40:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			JUST SOUTH OF THE SPLIT 93 TO 3 - Rte 3 S			500 feet S from Intersection Rte 3 S / Rte 93
5/7/2005 11:29:00 PM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain/Rain				Exit 7 on Rte 93 S		Rte 93 S
5/9/2005 5:15:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			KEYSTONE BUILDING - INTERSTATE 93 Rte 93			INTERSTATE 93 Rte 93
5/16/2005 1:05:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Rain/Cloudy						800 feet N from Intersection RANDOLPH AVENUE Rte 28 S / Rte 93
5/16/2005 12:05:00 PM	Non-Fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear						Rte 93 N / RANDOLPH AVENUE Rte 28 N
5/17/2005 4:22:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						INTERSTATE 93 Rte 93 S
5/20/2005 8:05:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy	Rte 93 S	Rte 3 S				
5/24/2005 12:23:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			200 feet S from FURNACE BROOK - Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
5/27/2005 10:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Fog, smog, smoke				Exit 9 on Rte 93 N		Rte 93 N
5/28/2005 7:00:00 PM	Non-Fatal injury	2	4	0	Angle	Angle	Dry	Dusk	Clear						Rte 93 S
5/31/2005 4:05:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 N		Rte 93 N
6/3/2005 8:43:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
6/17/2005 11:01:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 9 on Rte 93		Rte 93 S
6/23/2005 7:15:00 PM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			IN S/B HOV LANE - Rte 93 S	500 feet S from Exit 8 on Rte 93 S		Rte 93 S
6/25/2005 5:15:00 PM	Non-Fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
7/1/2005 1:45:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		Rte 93 N
7/19/2005 4:10:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				1900 feet N from Exit 11 on Rte 93		Rte 93 N
7/16/2005 5:00:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			93 SOUTH BEFORE RTE 3 SPLIT - Rte 93 N	Exit 7 on Rte 93		Rte 93 N
7/20/2005 7:15:00 AM	Non-Fatal injury	5	4	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
7/20/2005 9:05:00 AM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
7/21/2005 10:15:00 AM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				2000 feet N from Exit 8 on Rte 93 N		Rte 93 N
8/4/2005 6:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 S		Rte 93 S
8/8/2005 8:45:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				1000 feet N from Exit 11 on Rte 93		Rte 93 N
8/13/2005 11:45:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
8/15/2005 1:30:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 5 on Rte 93		Rte 93 N
8/16/2005 2:15:00 PM	Non-Fatal injury	3	6	0	Not reported	Not reported	Unknown	Not reported	Not Reported						Rte 93 / Rte 3
8/16/2005 5:24:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			RT. 3 SPLIT - INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 3 SB
8/23/2005 6:05:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S					
8/23/2005 8:45:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			SOUTH HOV BUILDING - Rte 93 N			Rte 93 N
8/25/2005 4:17:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93 S
8/25/2005 7:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 S		Rte 93 S
9/6/2005 4:40:00 PM	Non-Fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				100 feet S from Exit 8 on Rte 93 S		Rte 93 S
9/16/2005 2:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				500 feet S from Exit 12 on Rte 3		SOUTHEAST EXPRESSWAY STREET Rte 3
9/16/2005 4:43:00 AM	Non-Fatal injury	3	3	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				40.00 feet N from Exit 5B on Rte 93 S		Rte 93 S
9/21/2005 9:48:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP - RT 93 N B TO ADAMS ST
9/28/2005 7:05:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
10/3/2005 9:50:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			FURNACE BROOK PKWY OVERPASS - Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
10/10/2005 11:52:00 AM	Non-Fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy	Rte 93 N	HONORABLE THOMAS S BURGIN PARKWAY				
10/15/2005 5:40:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark - lighted roadway	Rain/Cloudy				75 feet S from Exit 9 on Rte 93		Rte 93 S
10/16/2005 7:29:00 PM	Non-Fatal injury	1	1	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy/Cloudy						ADAMS STREET Rte 93 S
10/20/2005 8:30:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93
10/25/2005 5:50:00 AM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain						Rte 93 N / Rte 93
11/2/2005 9:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						FURNACE BROOK PARKWAY Rte 93 / Rte 93
11/3/2005 5:45:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 N
11/4/2005 8:33:00 AM	Non-Fatal injury	3	1	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93 N					
11/9/2005 8:55:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet S from Exit 9 on Rte 93 N		Rte 93 N
11/17/2005 3:07:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
11/22/2005 5:00:00 AM	Non-Fatal injury	2	3	0	Rear-end	Rear-end	Dry	Dusk	Cloudy				Exit 9 on Rte 93		Rte 93
11/22/2005 6:40:00 AM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dawn	Rain/Rain				Exit 8 on Rte 93 S		Rte 93 S
11/22/2005 7:11:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain/Rain				Exit 8 on Rte 93 S		Rte 93 S
11/22/2005 10:50:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy						RANDOLPH AVENUE Rte 28 S / RAMP - RT 93 SB TO RT 28 NB
11/22/2005 11:11:00 AM	Non-Fatal injury

QUINCY	1/1/2004	12/31/2006	Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway												
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
3/11/2006	5:30:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 9 on Rte 93		Rte 93 S
3/13/2006	1:30:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Not reported	Daylight	Cloudy				200 feet N from Exit 8 on Rte 93		Rte 93
3/19/2006	9:30:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						QUINCY SHORE DRIVE Rte 3 / Rte 93
3/24/2006	1:29:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
3/31/2006	4:10:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			EXITS 8 AND 9	Exit 8 on Rte 93 S		Rte 93 S / EXPRESSWAY SOUTH
4/1/2006	2:45:00 PM	Non-Fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 S
4/4/2006	11:28:00 AM	Non-Fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 S		Rte 93 S
4/5/2006	2:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Snow						SOUTHEAST EXPRESSWAY STREET Rte 93 S
4/7/2006	2:04:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy			PRIOR TO FURNACE BROOK PARKWAY			INTERSTATE 93 Rte 1A S / RAMP RT 93 SB TO FURNACE BROOK PARKWAY
4/7/2006	3:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93 / Rte 3
4/9/2006	5:20:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				3.00 feet N from Exit 8 on Rte 93 N		Rte 93 N
4/11/2006	7:00:00 AM	Non-Fatal injury	4	2	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 7 on Rte 93 S		Rte 93 S
4/12/2006	1:35:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 93 N
4/13/2006	3:15:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		100 feet S from Intersection Rte 93 N
4/23/2006	10:17:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 8 on Rte 93 S		Rte 93 S
4/28/2006	4:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			R.T. 3 SPLIT			INTERSTATE 93 Rte 93 N / RAMP - RT 3 NB TO 93 NB
4/28/2006	7:30:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO FURNACE BROOK PARKWAY
4/29/2006	3:06:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			BEFORE THE SPLIT TO RT 93 SOUTH			Rte 93 S / WASHINGTON STREET
4/30/2006	2:45:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93 S		Rte 93 S
5/6/2006	4:30:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93 S		Rte 93 S
5/13/2006	7:29:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Water (standing, moving)	Dark - lighted roadway	Rain/Cloudy				500 feet N from Exit 8 on Rte 93 S		Rte 93 S
5/18/2006	4:40:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy						Rte 93 / Rte 3
5/18/2006	10:08:00 AM	Non-Fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			FURNACE BROOK RAMPS	200 feet S from Exit 8 on Rte 93 N		Rte 93 N
6/1/2006	2:45:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
6/1/2006	7:45:00 AM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
6/1/2006	12:30:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
6/5/2006	8:15:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93
6/7/2006	4:55:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain			ROUTE 93			Rte 28 N / Rte 93
6/7/2006	11:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain				Exit 8 on Rte 93 S		Rte 93 S
6/16/2006	2:30:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
6/22/2006	5:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 S		Rte 93 S
6/22/2006	5:45:00 PM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 3 on Rte 93		Rte 93 N
6/28/2006	1:30:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain				500 feet S from Exit 8 on Rte 93 N		Rte 93 N
6/28/2006	7:40:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				500 feet N from Exit 8 on Rte 93 N		Rte 93 N
6/29/2006	12:15:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - unknown roadway lighting	Rain				2900 feet S from Exit 8 on Rte 93 N		Rte 93 N
7/6/2006	3:41:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 / FURNACE BROOK PARKWAY
7/7/2006	5:00:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				300 feet N from Exit 7 on Rte 93		Rte 93 N
7/12/2006	3:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 9 on Rte 93 N		Rte 93 N
7/14/2006	4:00:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				1800 feet N from Exit 8 on Rte 93 S		Rte 93 S
7/16/2006	3:30:00 AM	Non-Fatal injury	2	2	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93		Rte 93 N
7/19/2006	10:00:00 AM	Non-Fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 8 on Rte 93 S		Rte 93 S
7/21/2006	4:28:00 PM	Non-Fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 7 on Rte 93 S		Rte 93 S
7/21/2006	9:48:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain				Exit 12 on Rte 93		Rte 93 S
7/23/2006	8:55:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy			RAMP TO RT 93 FROM BURGIN PARKWA			HONORABLE THOMAS S BURGIN PARKWAY / Rte 93
7/31/2006	4:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		Rte 93 N
8/5/2006	1:15:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
8/20/2006	7:30:00 AM	Non-Fatal injury	2	3	0	Angle	Angle	Wet	Daylight	Rain				Exit 8 on Rte 93 N		Rte 93 N
8/23/2006	12:25:00 PM	Non-Fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				500 feet N from Exit 8 on Rte 93 S		Rte 93 S
8/25/2006	5:30:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dusk	Cloudy						Rte 93 / FURNACE BROOK PARKWAY Rte 3
8/30/2006	2:30:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 6 on Rte 93		Rte 93 S
9/2/2006	12:31:00 PM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			@ FURNESS BROOK PKWY	Exit 8 on Rte 93 S		Rte 93 S
9/3/2006	1:43:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93
9/3/2006	10:15:00 AM	Non-Fatal injury	2	1	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear				15 feet N from Exit 12 on Rte 93		Rte 93 N
9/5/2006	7:43:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
9/10/2006	7:13:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				Exit 5B on Rte 93 S		Rte 93 S
9/12/2006	3:45:00 AM	Non-Fatal injury	2	2	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 93 / Rte 3
9/15/2006	2:00:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						GRANITE STREET Rte 93 N
9/20/2006	4:15:00 PM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						50 feet S from Intersection INTERSTATE 93 Rte 93 N / ROBBERTSON STREET
9/26/2006	5:45:00 AM	Non-Fatal injury	4	1	0	Rear-end	Rear-end	Wet	Dawn	Clear						Rte 93 / Rte 3
9/27/2006	7:00:00 AM	Non-Fatal injury	3	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
10/3/2006	8:00:00 AM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93	/ Rte 3				
10/9/2006	5:55:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
10/9/2006	10:45:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear						Rte 3 N / Rte 93
10/9/2006	6:20:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dawn	Clear				Exit 12 on Rte 93		Rte 93 S
10/9/2006	7:20:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				100 feet S from Exit 8 on Rte 93 S		Rte 93 S
10/10/2006	4:45:00 PM	Non-Fatal injury	3	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy				Exit 8 on Rte 93 S		Rte 93 S
10/14/2006	6:15:00 AM	Non-Fatal injury	2	2	0	Unknown	Unknown	Dry	Dusk	Clear						ADAMS STREET Rte 93 / Rte 3
10/14/2006	12:35:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
10/18/2006	6:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S / FURNACE BROOK PARKWAY
10/18/2006	9:20:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				Exit 8 on Rte 93		Rte 93
10/25/2006	4:46:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
10/28/2006	1:15:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Daylight	Rain				200 feet N from Exit 11 on Rte 93		Rte 93
11/2/2006	10:04:00 PM	Non-Fatal injury	3	3	0	Rear-to-rear	Rear-to-rear	Dry	Dark - lighted roadway	Clear/Clear						FURNACE BROOK PARKWAY Rte 93 S
11/6/2006	1:40:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear						RANDOLPH AVENUE Rte 28 N / RAMP - RT 93 SB TO RT 28 NB
11/9/2006	11:51:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				800 feet S from Exit 8 on Rte 93 S		Rte 93 S
11/16/2006	6:11:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			SOUTH OF FURNACE BROOK ROTARY			Rte 93 S
11/22/2006	11:40:00 AM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy				Exit 9 on Rte 93 N		Rte 93 N
11/23/2006	2:30:00 PM	Non-Fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 9 on Rte 93 N		Rte 93 N
11/25/2006	8:00:00 PM	Non-Fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear				Exit 7 on Rte 93 S		Rte 93 S
11/30/2006	3:25:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 3 N / Rte 93
11/30/2006	6:00:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			75 feet N from ENTRANCE TO HOV LANE			Rte 93 N
12/1/2006	6:30:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain						Rte 93 N
12/3/2006	5:25:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 9 on Rte 93		Rte 93
12/6/2006	2:30:00 AM	Non-Fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
12/9/2006	2:28:00 PM	Non-Fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				150 feet S from Exit 7 on Rte 93 S		Rte 93 S
12/9/2006	6:54:00 PM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			PRIOR TO EXIT 11	Exit 11 on Rte 93		Rte 93 N
12/14/2006	4:45:00 AM	Non-Fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Cloudy				1200 feet N from Exit 8 on Rte 93 N		Rte 93 N
1/14/2004	12:01:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Ice	Dusk	Severe crosswinds	Rte 93 S	FURNACE BROOK PARKWAY				
1/15/2004	11:00:00 AM	Not Reported	1	0	0	Not reported	Not reported	Ice	Daylight	Clear			Rte 93 N			Rte 93 N
3/28/2004	5:00:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S
5/23/2004	3:00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Not reported	Daylight	Clear			Rte 93 S	Exit 5A on Rte 93 S		Rte 93 S
5/24/2004	4:10:00 AM	Not Reported	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 9 on Rte 93		Rte 93 S
6/9/2004	4:45:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93			Rte 93 / SOUTHEAST EXPRESSWAY STREET
6/26/2004	6:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 93 N	Exit 8 on Rte 93 N		Rte 93 N
7/10/2004	9:45:00 PM	Not Reported	3	0	0	Not reported	Not reported	Not reported	Dark - lighted roadway	Clear			Rte 93 S			Rte 93 S / Rte 93
9/3/2004	3:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S
9/8/2004	2:45:00 PM	Not Reported	4	0	0	Rear-end	Rear-end	Dry	Dawn	Rain/Clear			Rte 93			Rte 93
10/3/2004	5:35:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	Rte 93 S					
10/5/2004	4:45:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported			Rte 93 S	2 feet S from Exit 10 on Rte 93		Rte 93 S / Rte 93
10/12/2004	6:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear			Rte 93	Exit 8 on Rte 93		Rte 93
12/13/2004	6:15:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear			SOUTHEAST EXPRESSWAY STREET Rte 93			1000 feet N from Intersection SOUTHEAST EXPRESSWAY STREET Rte 93 / FURNACE BROOK PARKWAY
1/17/2005	8:00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93 S
2/3/2005	5:00:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Wet	Dusk	Rain				20.00 feet S from Exit 9 on Rte 93		Rte 93 S
2/3/2005	8:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Wet	Dusk	Rain/Snow				Exit 10 on Rte 93		Rte 93
2/21/2005	4:30:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow						SOUTHEAST EXPRESSWAY STREET Rte 3
2/23/2005	3:00:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 8 on Rte 93 S		Rte 93 S
2/28/2005	3:15:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy				Exit 8 on Rte 93 S		Rte 3 / Rte 93
3/24/2005	3:50:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 S
4/14/2005	9:10:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / ADAMS STREET
5/20/2005	5:15:00 PM	Not Reported	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 93 / ADAMS STREET
5/25/2005	4:25:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	ROTARY CIRCLE Rte 93	FURNACE BROOK PARKWAY				
6/13/2005	2:30:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Cloudy	BETWEEN EXIT 10 AND 9 Rte 93 S					
6/13/2005	10:35:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						FURNACE BROOK PARKWAY Rte 93 N
7/8/2005	1:00:00 PM	Not Reported	3	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	Rte 93 S					
7/8/2005	6:30:00 AM	Not Reported	3	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain						Rte 93 S
7/13/2005	4:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 9 on Rte 93 S		Rte 93 S
7/28/2005	4:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		Rte 93 N
8/4/2005	10:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93 S
8/10/2005	8:55:00 AM	Not Reported	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear	Rte 93	Rte 95				MILTON ROAD Rte 93
8/20/2005	5:00:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 93			Exit 8 on Rte 93 N		Rte 93 N
9/1/2005	4:10:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
9/1/2005	5:15:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	QUINCY STREET Rte 93 N					
9/1/2005	5:23:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
10/7/2005	4:20:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Cloudy				Exit 8 on Rte 93		Rte 93 N / Rte 93
10/26/2005	2:30:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 12 on Rte 93		Rte 93
11/15/2005	8:30:00 PM	Not Reported	3	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported			5 MINUTE DRIVE TO EXIT 12 - Rte 93 S	Exit 12 on Rte 93		Rte 93 S
1/12/2006	5:20:00 AM	Not Reported	2	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Cloudy						Rte 93 N
1/13/2006	4:45:00 PM	Not Reported	2	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Other	Rte 93 N	Rte 93 N				
1/25/2006	10:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear						Rte 93 / NEPONSET ROAD
2/3/2006	9:00:00 AM	Not Reported	2	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Cloudy						SAVILLE AVENUE Rte 93 / Rte 3A
3/17/2006	6:30:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93 N	Rte 93 N				
3/24/2006	6:25:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear						FURNACE BROOK PARKWAY Rte 93 N
4/5/2006	6:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Not reported	Clear				20 feet S from Exit 9 on Rte 93		Rte 93 / BRYANT AVENUE
4/7/2006	5:03:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain				Exit 8 on Rte 93		Rte 93
5/11/2006	8:40:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Daylight	Rain	Rte 93 N	FURNACE BROOK PARKWAY				
6/8/2006	5:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain	Rte 93 N	FURNACE BROOK PARKWAY Rte 93 N				
6/11/2006	2:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 7 on Rte 93 S		Rte 93 S
6/22/2006	7:30:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear				Exit 8 on Rte 93 S		Rte 93 S
7/19/2006	9:55:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				100 feet N from Exit 8 on Rte 93 S		Rte 93 S
7/24/2006	7:30:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 S / FURNACE BROOK PARKWAY
8/21/2006	3:00:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain				Exit 8 on Rte 93		Rte 93
8/21/2006	4:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				10 feet N from Exit 9 on Rte 93		Rte 93
8/28/2006	11:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				5280 feet S from Exit 12 on Rte 93		Rte 93 S
9/2/2006	11:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	HONORABLE THOMAS S BURGIN PARKWAY	Rte 93 HANCOCK STREET / WASHINGTON STREET				
9/9/2006	6:00:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
9/14/2006	3:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				400 feet S from Exit 8 on Rte 93 S		Rte 93 S
9/23/2006	3:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			FROM SE XPRESSWAY			FURNACE BROOK PARKWAY / RAMP - RT 93 SB TO FURNACE BROOK PARKWAY
10/12/2006	6:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain			93 N AT BRAINTREE SPLIT			Rte 93 / FURNACE BROOK PARKWAY
10/12/2006	7:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 10 on Rte 93		Rte 93 N
11/9/2006	4:40:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain				Exit 9 on Rte 93		Rte 93
12/2/2006	9:00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						WEST SQUANTUM STREET Rte 93 / Rte 3
1/5/2004	5:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)	S		Rte 93 S			500 feet N from Intersection Rte 93 S / Rte 3
1/15/2004	6:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			NEAR QUINCY HOV - INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S
1/15/2004	10:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	528 feet S from Exit 9 on Rte 93 N		Rte 93 N
1/20/2004	2:55:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
1/30/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	

QUINCY 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
2/6/2004	2:18:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Water (standing, moving)	Daylight	Sleet, hail (freezing rain or drizzle)/R			Rte 93 N	Exit 5 on Rte 93		Rte 93 N
2/20/2004	10:55:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 7 on Rte 93 S		Rte 93 S
2/20/2004	10:55:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear	Rte 93 S	Rte 3				
2/21/2004	3:30:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy			FURNACE BROOK PARKWAY Rte 93 S			FURNACE BROOK PARKWAY Rte 93 S
2/21/2004	8:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			FURNACE BROOK PARKWAY Rte 93 N			FURNACE BROOK PARKWAY Rte FURNAC N
2/24/2004	6:25:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 93 N	Exit 8 on Rte 93 N		Rte 93 N
3/5/2004	6:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Rain	Rte 93 N					
3/7/2004	1:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear			Rte 93 S	2000 feet N from Exit 7 on Rte 93 S		Rte 93 S
3/23/2004	7:20:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear			Rte 93			Rte 93
4/2/2004	8:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
4/4/2004	11:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			Rte 93 N	1000 feet S from Exit 8 on Rte 93 N		Rte 93 N
4/4/2004	12:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain			FURNACE BROOK PARKWAY Rte 93 N			FURNACE BROOK PARKWAY Rte 93 N / HANCOCK STREET
4/13/2004	8:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			Rte 93 N	1000 feet N from Exit 5 on Rte 93		Rte 93 N
4/15/2004	2:30:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain			Rte 93			Rte 93
4/15/2004	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
4/21/2004	4:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			50 feet S from STEDMAN ST - INTERSTATE 93 Rte 93 N			50 feet S from Intersection INTERSTATE 93 Rte 93 N / STEDMAN STREET
4/30/2004	6:15:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93			Rte 93
5/5/2004	1:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			SOUTHEAST EXPRESSWAY STREET Rte 93 S	Exit 8 on Rte 93 S		SOUTHEAST EXPRESSWAY STREET Rte 93 S
5/5/2004	7:50:00 AM	Property damage only (none injured)	3	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			FURNACE BROOK PARKWAY Rte 93 S			FURNACE BROOK PARKWAY Rte 93 S / Rte 93
5/15/2004	10:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 5B on Rte 93 S		Rte 93 S
5/24/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 N			Rte 93 N
5/24/2004	9:45:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			SOUTHEAST EXPRESSWAY STREET Rte 93 S	1000 feet N from Exit 8 on Rte 93 S		SOUTHEAST EXPRESSWAY STREET Rte 93 S
5/26/2004	6:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy			AT RTE 24 - YANKEE DIVISION HIGHWAY Rte 93 S			YANKEE DIVISION HIGHWAY Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
5/26/2004	8:00:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			SOUTHEAST EXPRESSWAY STREET Rte 93 N	Exit 8 on Rte 93 N		SOUTHEAST EXPRESSWAY STREET Rte 93 N
5/27/2004	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Not reported	Daylight	Cloudy			SOUTHEAST EXPRESSWAY STREET Rte 93 S	Exit 8 on Rte 93 S		SOUTHEAST EXPRESSWAY STREET Rte 93 S
5/28/2004	5:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			SOUTHEAST EXPRESSWAY STREET Rte 93 S	500 feet S from Exit 9 on Rte 93		SOUTHEAST EXPRESSWAY STREET Rte 93 S
5/29/2004	6:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N / HONORABLE THOMAS S BURGIN PARKWAY
6/9/2004	5:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			FURNACE BROOK - INTERSTATE 93 Rte 93 N			INTERSTATE 93 Rte 93 N
6/10/2004	5:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			INTERSTATE 93 Rte 93 N			INTERSTATE 93 Rte 93 N / FURNACE BROOK ROTARY
6/11/2004	7:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	1000 feet S from Exit 8 on Rte 93 N		Rte 93 N
6/14/2004	5:33:00 PM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
6/22/2004	6:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 93 N	500 feet N from Exit 5 on Rte 93		Rte 93 N
7/1/2004	4:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			Rte 93 S	100 feet N from Exit 5B on Rte 93 S		Rte 93 S
7/7/2004	3:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			L LANE CLOSES - Rte 93 N			Rte 93 N
7/28/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain			Rte 93 S	20 feet S from Exit 8 on Rte 93 S		Rte 93 S
8/8/2004	3:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93			Rte 93
8/11/2004	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	300 feet N from Exit 8 on Rte 93 S		Rte 93 S
8/21/2004	4:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain			Rte 93 N	Exit 9 on Rte 93 N		Rte 93 N
9/1/2004	11:42:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S			Rte 93 S / FURNACE BROOK PARKWAY
9/15/2004	2:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			RAMP - RT 93 SB TO RT 3 SB Rte 93 S			RAMP - RT 93 SB TO RT 3 SB Rte 93 S
9/21/2004	5:15:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 7 on Rte 93 S		Rte 93 S
9/24/2004	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
9/28/2004	6:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Cloudy			SOUTHEAST EXPRESSWAY STREET Rte 93			1000 feet N from Intersection SOUTHEAST EXPRESSWAY STREET Rte 93 / Rte 93
10/4/2004	3:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S
10/5/2004	3:58:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 8 on Rte 93 N		Rte 93 N
10/15/2004	7:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy			FURNACE BROOK PARKWAY Rte 93 N			FURNACE BROOK PARKWAY Rte 93 N
10/17/2004	8:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 28 S			900 feet N from Intersection Rte 28 S / Rte 93
10/19/2004	4:41:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			Rte 93 N			7620 feet N from Intersection Rte 93 N / Rte 28
10/24/2004	3:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 93 S	800 feet S from Exit 8 on Rte 93 S		Rte 93 S
10/24/2004	3:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			INTERSTATE 93 Rte 93 S			200 feet N from Intersection INTERSTATE 93 Rte 93 S / ROBERTSON STREET
10/25/2004	8:26:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy/Cloudy			Rte 93 N	100 feet S from Exit 9 on Rte 93 N		Rte 93 N
11/12/2004	5:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Dark - lighted roadway	Snow			Rte 93 N			Rte 93 N
11/16/2004	6:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			BATES AVENUE Rte 93 N			BATES AVENUE Rte 93 N
11/16/2004	6:45:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			GRANITE STREET Rte 93 S			GRANITE STREET Rte 93 S / Rte 93
11/19/2004	3:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	300 feet N from Exit 7 on Rte 93 S		Rte 93 S
11/21/2004	10:30:00 PM	Property damage only (none injured)	1	0	0	Unknown	Unknown	Dry	Dark - lighted roadway	Clear/Clear			INTERSTATE 93 Rte 93 S			INTERSTATE 93 Rte 93 S / FURNACE BROOK ROTARY
11/28/2004	9:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Dark - lighted roadway	Rain			STEADMAN ST. OVERPASS - Rte 93 S			Rte 93 S
11/30/2004	9:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	150 feet S from Exit 8 on Rte 93 S		Rte 93 S
12/2/2004	7:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 8 on Rte 93		Rte 93 S
12/7/2004	11:25:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Wet	Dark - lighted roadway	Rain/Rain			Rte 93 S	500 feet N from Exit 8 on Rte 93 S		Rte 93 S
12/19/2004	4:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93					Rte 93 / Rte 3
12/21/2004	1:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy	Rte 93			Exit 5A on Rte 93		Rte 93
12/21/2004	10:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	93 SOUTHEAST EXPRESSWAY STREET					93 SOUTHEAST EXPRESSWAY STREET
12/22/2004	6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Dark - lighted roadway	Clear	Rte 93 N			30 feet N from Exit 9 on Rte 93 N		Rte 93 N
12/28/2004	1:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Cloudy	INTERSTATE 93 Rte 93 S			Exit 7 on Rte 93 S		INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 3 SB
12/28/2004	12:55:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy	BRAINTREE SPLIT - Rte 93 S			Exit 7 on Rte 93 S		Rte 93 S
12/30/2004	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear/Clear	INTERSTATE 93 Rte 93 N					INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO FURNACE BROOK PARKWAY
12/31/2004	1:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Cloudy	Rte 93 N			Exit 5 on Rte 93		Rte 93 N
1/12/2005	2:04:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy				50 feet N from Exit 8 on Rte 93 N		Rte 93 N
1/5/2005	10:50:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Ice	Daylight	Sleet, hail (freezing rain or drizzle)						SOUTHEAST EXPRESSWAY STREET Rte 93 S
1/6/2005	9:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Snow						SOUTHEAST EXPRESSWAY STREET Rte 93 N / Rte 93
1/11/2005	3:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy						Rte 93 S
1/12/2005	2:17:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			RAMP TO RTE 93 AFTER SPLIT TO RT - HONORABLE THOMAS S BURGIN PARKWAY			HONORABLE THOMAS S BURGIN PARKWAY / Rte 93
1/12/2005	2:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy	Rte 93 S	RAMP - BRYANT AVE TO RT 93 SB				
1/14/2005	3:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Rain			100 feet N from Exit 8 on Rte 93 S			FURNACE BROOK PARKWAY Rte 93 S
1/14/2005	8:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Clear/Cloudy			1000 feet S from Exit 9 on Rte 93			Rte 93 S
1/17/2005	2:31:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow/Snow			Exit 8 on Rte 93 S			Rte 93 S
1/19/2005	10:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Ice	Daylight	Clear			900 feet S from Exit 9 on Rte 93			Rte 93 S
1/20/2005	8:55:00 AM	Property damage only (none injured)	12	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Exit 9 on Rte 93			Rte 93 S
1/21/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			200 feet N from Exit 2 on Rte 93			Rte 93
1/25/2005	10:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 S / Rte 3
1/29/2005	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO FURNACE BROOK PARKWAY
1/29/2005	12:21:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - roadway not lighted	Clear			10 feet S from Exit 5B on Rte 93 S			Rte 93 S
2/2/2005	1:57:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			300 feet N from Exit 8 on Rte 93 S			Rte 93 S
2/2/2005	7:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Exit 8 on Rte 93 S			Rte 93 S
2/2/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Exit 8 on Rte 93 S			Rte 93 S
2/5/2005	7:58:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
2/9/2005	7:52:00 AM	Property damage only (none injured)	1	0	0	Unknown	Unknown	Dry	Dark - lighted roadway	Clear/Clear		150 feet N from ROUTE 24 SOUTH RAMP - YANKEE DIVISION HIGHWAY Rte 93 S				150 feet N from Intersection YANKEE DIVISION HIGHWAY Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
2/13/2005	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear		100 feet S from FURNACE BROOK PKWY OVERPASS - Rte 93 S				Rte 93 S
2/15/2005	5:08:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dawn	Rain/Rain			500 feet S from Exit 9 on Rte 93 N			Rte 93 N
2/19/2005	3:30:00 PM	Property damage only (none injured)	3	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	PRIOR EXIT 37 - Rte 93 N		1000 feet N from Exit 8 on Rte 93			Rte 93 N / Rte 93
2/21/2005	8:02:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy	OPPOSITE SOUTH HOV BUILDING - Rte 93 N		1000 feet S from Exit 8 on Rte 93 N			Rte 93 N
2/23/2005	7:14:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Dry	Daylight	Clear/Clear			Exit 8 on Rte 93 S			Rte 93 S
2/24/2005	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Exit 8 on Rte 93 N			Rte 93 N
2/25/2005	5:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow						Rte 93 N / Rte 93
3/2/2005	5:56:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear	Rte 93 S	RAMP - RT 93 SB TO RT 3 SB				
3/8/2005	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	Rte 93 N					
3/7/2005	8:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Blowing sand, snow			HOV LANE - Rte 93 N			Rte 93 N / Rte 93
3/9/2005	2:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						Rte 93 N / Rte 93
3/9/2005	7:23:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Snow/Snow			50 feet N from Exit 8 on Rte 93 S			Rte 93 S
3/9/2005	8:15:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Slush	Daylight	Rain/Snow			50 feet S from Exit 8 on Rte 93 S			Rte 93 S
3/9/2005	8:26:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Snow	Daylight	Cloudy/Cloudy			Exit 8 on Rte 93 S			Rte 93 S
3/9/2005	8:27:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Clear/Cloudy			Exit 8 on Rte 93 S			Rte 93 S
3/13/2005	3:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
3/19/2005	4:28:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear		1000 feet E from RT 93 - Rte 28 E				1000 feet E from Intersection Rte 28 E / Rte 93
3/21/2005	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93
3/27/2005	12:26:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						600 feet N from Intersection Rte 93 S / Rte 3
3/28/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain			300 feet S from Exit 8 on Rte 93 S			Rte 93 S
3/30/2005	7:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		RT #28 RANDOLPH ST. - Rte 93 S				Rte 93 S / UNNAMED ROAD
4/2/2005	7:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain		AT THE SPLIT - Rte 93 N	1000 feet S from Exit 8 on Rte 93 N			Rte 93 N
4/7/2005	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			500 feet S from Exit 8 on Rte 93 N			Rte 93 N
4/7/2005	8:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						1.0 WILLARD STREET / Rte 93
4/8/2005	7:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear		SPLIT - Rte 93 N	1000 feet S from Exit 8 on Rte 93 N			Rte 93 N
4/8/2005	7:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear			500 feet S from Exit 8 on Rte 93 S			Rte 93 S
4/12/2005	6:08:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO FURNACE BROOK PARKWAY
4/19/2005	8:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			500 feet S from Exit 8 on Rte 93 N			Rte 93 N
4/20/2005	3:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			1000 feet S from Exit 8 on Rte 93 N			Rte 93 N
4/22/2005	9:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy			100 feet N from Exit 8 on Rte 93 S			Rte 93 S
4/23/2005	2:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Cloudy			Exit 9 on Rte 93			Rte 93
4/23/2005	8:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Rain		RAMP TO RT 93 - HONORABLE THOMAS S BURGIN PARKWAY				HONORABLE THOMAS S BURGIN PARKWAY
4/23/2005	11:04:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy						2000 feet S from Intersection Rte 28 / Rte 93
4/25/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 93 N / ADAMS STREET
4/26/2005	8:19:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Exit 8 on Rte 93 N			Rte 93 N
5/3/2005	5:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						300 feet S from Intersection Rte 93 S / Rte 93
5/11/2005	3:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy			Exit 8 on Rte 93 S			Rte 93 S
5/17/2005	4:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 S / WASHINGTON STREET
5/21/2005	2:50:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						INTERSTATE 93 Rte 93 S
5/26/2005	8:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						RANDOLPH AVENUE Rte 28 N / RAMP - RT 93 SB TO RT 28 NB
5/26/2005	11:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain						Rte 93
5/27/2005	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 15 on Rte 93		Rte 93 N
5/28/2005	3:36:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 / FURNACE BROOK PARKWAY
5/29/2005	5:11:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear				500 feet S from Exit 8 on Rte 93 S		Rte 93 S
6/9/2005	12:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Dark - roadway not lighted	Rain				Exit 11 on Rte 93		Rte 93 N
6/13/2005	1:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear		ON-OFF RAMPS FURNACE BROOK PKWY - Rte 93 S				Rte 93 S
6/13/2005	2:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear				Exit 9 on Rte 93 N		INTERSTATE 93 Rte 93 N / BATES AVENUE
6/13/2005	10:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1000 feet S from Exit 8 on Rte 93 N		Rte 93 N
6/19/2005	3:23:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy				2000 feet N from Exit 5B on Rte 93 S		Rte 93 S
6/24/2005	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						SOUTHEAST

QUINCY 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
8/26/2003	8:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						Rte 93 N
8/31/2003	2:45:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				200 feet N from Exit 8 on Rte 93 N		Rte 93 N
9/1/2005	6:36:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
9/2/2005	12:30:00 PM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 93
9/9/2005	2:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			DORCHESTER GAS TANK - SOUTHEAST EXPRESSWAY STREET Rte 93 N			SOUTHEAST EXPRESSWAY STREET Rte 93 N
9/15/2005	7:28:00 AM	Property damage only (none injured)	4	0	0	Angle	Angle	Dry	Daylight	Cloudy				50 feet N from Exit 8 on Rte 93 S		Rte 93 S
9/16/2005	9:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy			1000 feet S from SOUTH HOV BUILDING - Rte 93 N			Rte 93 N
9/19/2005	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
9/20/2005	6:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Cloudy/Fog, smog, smoke						300 feet N from Intersection Rte 93 S / CALIFORNIA AVENUE
9/25/2005	12:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 7 on Rte 93		Rte 93 N
9/28/2005	7:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear				200 feet N from Exit 8 on Rte 93 S		Rte 93 S
9/30/2005	2:47:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Clear/Clear			100 feet N from SOUTH HOV LANE - Rte 93 S			Rte 93 S
10/1/2005	12:40:00 AM	Property damage only (none injured)	3	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear						50 feet N from Intersection INTERSTATE 93 Rte 93 N / BATES AVENUE
10/3/2005	3:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 / Rte 3
10/3/2005	5:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO FURNACE BROOK PARKWAY
10/7/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						FURNACE BROOK PARKWAY Rte 93 / WILLARD STREET Rte 93
10/7/2005	3:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				Exit 9 on Rte 93		Rte 93
10/7/2005	6:54:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain						INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO FURNACE BROOK PARKWAY
10/7/2005	10:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 8 on Rte 93 S		Rte 93 S
10/8/2005	8:05:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy			NORTH OF HOV BLDG - Rte 93 N			Rte 93 N
10/8/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Cloudy/Rain			FURNACE BROOK PKWY EXIT - Rte 93 S	Exit 8 on Rte 93 S		Rte 93 S
10/10/2005	12:01:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Rain						Rte 93 N
10/11/2005	10:38:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			SOUTH HOV BUILDING - Rte 93 N			Rte 93 N
10/12/2005	7:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Clear				Exit 9 on Rte 93		Rte 93 S
10/12/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						20 feet N from Intersection INTERSTATE 93 Rte 93 S / ROBERTSON STREET
10/14/2005	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain				100 feet S from Exit 9 on Rte 93		Rte 93 S
10/14/2005	11:55:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark - lighted roadway	Rain/Rain						Rte 93 N
10/15/2005	1:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 8 on Rte 93 S		Rte 93 S
10/18/2005	6:20:00 AM	Property damage only (none injured)	3	0	0	Rear-to-rear	Rear-to-rear	Dry	Dusk	Clear						SOUTHEAST EXPRESSWAY STREET Rte 3 / Rte 3
10/18/2005	8:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear						Rte 93 / Rte 3
10/19/2005	6:45:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dusk	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 / Rte 3
10/21/2005	12:12:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			OFF RAMP - Rte 93 S			Rte 93 S / HONORABLE THOMAS S BURGIN PARKWAY
10/22/2005	2:37:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			NEAR RT 3 - SOUTHEAST EXPRESSWAY STREET			SOUTHEAST EXPRESSWAY STREET
10/22/2005	8:10:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				200 feet N from Exit 7 on Rte 93		Rte 93 N
10/23/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain						Rte 93 S
10/25/2005	12:45:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Dawn	Clear/Clear						Rte 93 S
11/2/2005	1:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet N from Exit 7 on Rte 93 S		Rte 93 S
11/2/2005	5:54:00 PM	Property damage only (none injured)	5	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						HONORABLE THOMAS S BURGIN PARKWAY Rte 93
11/4/2005	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Cloudy				Exit 8 on Rte 93		Rte 93
11/5/2005	5:46:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Fog, smog, smoke/Fog, smog, smoke				Exit 8 on Rte 93 N		Rte 93 N
11/17/2005	1:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			500 feet N from I-93 - Rte 28 N			500 feet N from Intersection Rte 28 N / Rte 93
11/19/2005	6:59:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
11/22/2005	9:20:00 PM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				100 feet N from Exit 8 on Rte 93		Rte 93
11/22/2005	12:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Other	Rain				500 feet N from Exit 8 on Rte 93 S		Rte 93 S
11/23/2005	2:45:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			SOUTH HOV BUILDING - Rte 93 N			100 feet N from Intersection Rte 93 N
11/25/2005	9:00:00 AM	Property damage only (none injured)	4	0	0	Angle	Angle	Dry	Daylight	Clear	SOUTHEAST EXPRESSWAY STREET Rte 93 S			Exit 8 on Rte 93		1000 feet S from Intersection SOUTHEAST EXPRESSWAY STREET Rte 93
11/30/2005	2:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Rain				Exit 9 on Rte 93 N		Rte 93 N
12/2/2005	4:50:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 N
12/5/2005	6:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear						HONORABLE THOMAS S BURGIN PARKWAY Rte 93
12/5/2005	11:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Cloudy				Exit 8 on Rte 93 S		Rte 93 S
12/9/2005	10:36:00 PM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Snow/Clear				500 feet S from Exit 9 on Rte 93		Rte 93 S
12/10/2005	8:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
12/14/2005	6:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear						INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO FURNACE BROOK PARKWAY
12/15/2005	10:28:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 N		Rte 93 N
12/20/2005	9:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Cloudy/Clear				Exit 9 on Rte 93 N		Rte 93 N
12/27/2005	5:01:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 N
12/29/2005	5:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Clear/Fog, smog, smoke						Rte 93 / Rte 3
12/29/2005	6:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Clear/Rain			100 feet N from SOUTH HOV BUILDING - Rte 93 N	500 feet S from Exit 8 on Rte 93 N		Rte 93 N
12/30/2005	3:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy				Exit 8 on Rte 93		Rte 93
12/30/2005	7:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				150 feet S from Exit 8 on Rte 93 N		Rte 93 N
1/2/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear						Rte 93 S
1/4/2006	3:47:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				500 feet S from Exit 9 on Rte 93		Rte 93 S
1/5/2006	4:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			JUST PRIOR TO EXIT 9 N/BON ROUT	Exit 9 on Rte 93 N		Rte 93 N
1/5/2006	6:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			AT EAST MILTON EXIT			Rte 93 N
1/5/2006	7:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93 N		Rte 93 N
1/7/2006	3:28:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy						Rte 93 S / ROBERTSON STREET
1/13/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 N / ADAMS STREET
1/17/2006	6:00:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear						300 feet N from Intersection Rte 93 S / Rte 3
1/18/2006	5:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 / SOUTHEAST EXPRESSWAY STREET
1/18/2006	11:16:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy				Exit 8 on Rte 93 S		Rte 93 S
1/20/2006	4:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93 N
1/25/2006	8:21:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Snow				500 feet S from Exit 8 on Rte 93 S		Rte 93 S
1/25/2006	8:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				Exit 9B on Rte 93 S		Rte 93 S
1/26/2006	2:17:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
1/27/2006	4:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
1/28/2006	3:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet S from Exit 8 on Rte 93 S		Rte 93 S
2/2/2006	6:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93 N		Rte 93 N
2/3/2006	3:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
2/3/2006	4:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						FURNACE BROOK PARKWAY / Rte 93
2/3/2006	6:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 9 on Rte 93		Rte 93
2/3/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				50 feet N from Exit 7 on Rte 93		Rte 93 N
2/4/2006	10:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				300 feet S from Exit 9 on Rte 93 N		Rte 93 N
2/7/2006	3:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
2/10/2006	3:45:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 S / ADAMS STREET
2/10/2006	7:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			AT EXIT 6 (ADJACENT TO SOUTH SHO	Exit 6 on Rte 93		Rte 93 N
2/12/2006	8:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Snow/Snow				Exit 8 on Rte 93 N		Rte 93 N
2/15/2006	4:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
2/17/2006	7:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93
2/22/2006	6:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				100 0 feet N from Exit 8 on Rte 93 N		Rte 93 N
2/24/2006	2:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy			BRAINTREE SPUT	Exit 7 on Rte 93 S		Rte 93 S
2/24/2006	2:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
3/1/2006	2:25:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear						Rte 93 / Rte 3
3/10/2006	5:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / FURNACE BROOK PARKWAY
3/10/2006	11:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						Rte 93 N / Rte 28
3/13/2006	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				200 0 feet N from Exit 8 on Rte 93 N		Rte 93 N
3/13/2006	12:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				300 0 feet S from Exit 9 on Rte 93 N		Rte 93 N
3/17/2006	3:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						FURNACE BROOK PARKWAY Rte 93 N / Rte 3
3/24/2006	2:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93 N / Rte 93
3/24/2006	4:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		Rte 93 N
3/25/2006	2:20:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Cloudy				60 0 feet N from Exit 9B on Rte 93 S		Rte 93 S
3/27/2006	4:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1000 feet S from Exit 8 on Rte 93 S		Rte 93 S
4/1/2006	4:35:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Wet	Daylight	Cloudy						20 feet S from Intersection INTERSTATE 93 Rte 3 / FURNACE BROOK ROTARY
4/1/2006	4:40:00 PM	Property damage only (none injured)	3	0	0	Head-on	Head-on	Wet	Daylight	Rain/Rain						Rte 93 S / RAMP-RT 93 SB TO FURNACE BROOK PARKWAY
4/5/2006	2:31:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						300 feet N from Intersection Rte 93 S / GRANITE STREET
4/8/2006	8:51:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				100 0 feet N from Exit 5 on Rte 93		Rte 93 N
4/10/2006	3:47:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93		Rte 93 S
4/10/2006	4:03:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 7 on Rte 93 S		Rte 93 S
4/12/2006	4:47:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
4/13/2006	3:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				250 feet N from Exit 8 on Rte 93 N		Rte 93 N
4/14/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear			PRIOR TO FURNACE BROOK NORTH OF	Exit 8 on Rte 93 N		Rte 93 N
4/19/2006	3:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				200 0 feet S from Exit 9 on Rte 93 N		Rte 93 N
4/21/2006	4:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			HOV BUILDING			Rte 93 S
4/22/2006	4:52:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy						RAMP - FURNACE BROOK PARKWAY TO RT 93 SB / Rte 93
4/30/2006	7:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93	Rte 28				
5/4/2006	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			1500 feet N from HOV BUILDING	Exit 8 on Rte 93 S		Rte 93 S
5/5/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Ice	Daylight	Snow						Rte 93 N / GRANITE STREET
5/8/2006	12:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear						BATTERYMARCH PARK Rte 28 / WILLIAMS STREET Rte 93
5/10/2006	5:54:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain						50 feet N from Intersection INTERSTATE 93 Rte 93 S / STEDMAN STREET
5/11/2006	9:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				50 feet N from Exit 8 on Rte 93 N		Rte 93 N
5/13/2006	8:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				Exit 9B on Rte 93 S		Rte 93 / Rte 28
5/14/2006	12:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 7 on Rte 93		Rte 93 N
5/15/2006	1:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy/Cloudy				Exit 8 on Rte 93 S		Rte 93 S
5/16/2006	5:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						FURNACE BROOK PARKWAY Rte 93 S
5/16/2006	5:25:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy						FURNACE BROOK PARKWAY Rte 93 S
5/18/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		Rte 93 N
5/19/2006	12:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Water (standing, moving)	Daylight	Rain/Cloudy				Exit 9 on Rte 93 N		Rte 93 N
5/21/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	Rte 93 S	FURNACE BROOK PARKWAY				
5/26/2006	6:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						Rte 93 / FURNACE BROOK PARKWAY Rte 3
5/26/2006	6:45:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				Exit 10 on Rte 93		400 feet S from Intersection Rte 93 / Rte 3
5/30/2006	8:40:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				40 feet N from Exit 8 on Rte 93 N		Rte 93 N
6/2/2006	5:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain			SE EXPRESSWAY QUINCY QUARY	500 feet N from Exit 8 on Rte 93 S		Rte 93 S
6/3/2006	5:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Rain				Exit 8 on Rte 93		Rte 93
6/3/2006	12:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain						RAMP - RT 93 SB TO FURNACE BROOK PARKWAY
6/5/2006	8:10:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						522 S SOUTHEAST EXPRESSWAY STREET
6/9/2006	10:00:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Daylight	Rain/Rain				Exit 8 on Rte 93 S		Rte 93 S
6/12/2006	11:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 8 on Rte 93 S		Rte 93 S
6/13/2006	8:50:00 AM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 18 on Rte 93		Rte 93
6/14/2006	4:49:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
6/16/2006	6:48:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 feet N from Exit 8 on Rte 93 N		Rte 93 N
6/18/2006	1:20:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				500 feet N from Exit 9 on Rte 93		Rte 93
6/20/2006	4:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				250 feet S from Exit 8 on Rte 93 N		SOUTHEAST EXPRESSWAY STREET Rte 93 N
6/20/2006	6:30:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear				Exit 9 on Rte 93		Rte 93
6/21/2006	9:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear			QUARTER MILE S OF FURNACE BROOK			Rte 93
6/23/2006	9:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 18 on Rte 93		Rte 93
6/24/2006	3:25:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				50 feet N from Exit 8 on Rte 93 S		Rte 93 S
6/26/2006	1:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						CENTRE STREET Rte 93 / HONORABLE THOMAS S BURGIN PARKWAY
6/26/2006	3:20:00 AM	Property

QUINCY 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
7/23/2006	4:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Water (standing, moving)	Dark - lighted roadway	Rain				200 feet N from Exit 9 on Rte 93 N		Rte 93 N
7/25/2006	1:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			MR. TUX	Exit 8 on Rte 93 S		Rte 93 S
7/26/2006	2:23:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 9 on Rte 93 N		Rte 93 N
7/26/2006	7:50:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
7/28/2006	5:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy				150 feet S from Exit 8 on Rte 93 N		Rte 93 N
8/3/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear				Exit 11 on Rte 93		Rte 93
8/4/2006	4:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / FURNACE BROOK PARKWAY
8/8/2006	7:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
8/11/2006	3:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		Rte 93 N
8/13/2006	1:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						300 feet N from Intersection Rte 93 S / Rte 3
8/14/2006	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet N from Exit 8 on Rte 93 N		Rte 93 N
8/16/2006	10:35:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				100 feet N from Exit 8 on Rte 93 N		Rte 93 N
8/18/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				200 feet N from Exit 8 on Rte 93 S		Rte 93 S
8/18/2006	7:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S
8/18/2006	12:22:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
8/19/2006	6:15:00 AM	Property damage only (none injured)	1	0	0	Not reported	Not reported	Dry	Dawn	Clear	SOUTHEAST EXPRESSWAY STREET	WASHINGTON STREET / HANCOCK STREET				
8/25/2006	2:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain						250 feet N from Intersection Rte 93 S / FURNACE BROOK PARKWAY
8/25/2006	5:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5 on Rte 93		Rte 93 N
9/1/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N
9/5/2006	6:50:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
9/5/2006	7:23:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Not reported	Clear/Clear				100 feet N from Exit 8 on Rte 93 N		Rte 93 N
9/6/2006	4:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 / Rte 3
9/6/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
9/6/2006	5:40:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Unknown	Not reported	Not Reported						SOUTHEAST EXPRESSWAY STREET / FURNACE BROOK PARKWAY
9/6/2006	6:52:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			SOUTH HOV ENTRANCE	500 feet S from Exit 8 on Rte 93 N		Rte 93 N
9/8/2006	6:35:00 AM	Property damage only (none injured)	3	0	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Cloudy				1.5 feet N from Exit 8 on Rte 93		Rte 93
9/9/2006	3:17:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				100 feet S from Exit 8 on Rte 93 S		Rte 93 S
9/14/2006	7:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy			50 feet N from BATES AVE OVERPASS			50 feet N from Intersection INTERSTATE 93 Rte 93 S / BATES AVENUE
9/14/2006	11:20:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear			BETWEEN MILTON AND QUINCY			SOUTHEAST EXPRESSWAY STREET Rte 93 / ADAMS STREET
9/15/2006	4:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						100 feet N from Intersection Rte 93 N / Rte 3
9/15/2006	8:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
9/16/2006	2:27:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				300 feet S from Exit 8 on Rte 93 S		Rte 93 S
9/19/2006	4:23:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
9/19/2006	11:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						Rte 93 N / Rte 28
9/21/2006	7:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						YANKEE DIVISION HIGHWAY Rte 93 S / RAMP - RT 93 SB TO RT 28 NB
9/23/2006	5:05:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Not reported	Daylight	Clear				Exit 8 on Rte 93		Rte 93
9/28/2006	8:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 N		Rte 93 N
9/29/2006	2:59:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy						Rte 93 S
10/1/2006	5:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Not reported	Rain			500 feet S from EXIT #9	500 feet S from Exit 9 on Rte 93 N		Rte 93 N
10/4/2006	6:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy						INTERSTATE 93 Rte 93 N / ROBERTSON STREET
10/5/2006	8:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				150 feet S from Exit 8 on Rte 93 N		Rte 93 N
10/6/2006	2:21:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 28
10/6/2006	6:05:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 N / Rte 3
10/6/2006	7:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear/Clear			NORTH OF BRAINTREE SPLIT			Rte 93 N
10/6/2006	10:35:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			500 feet S from EXIT 8	500 feet S from Exit 8 on Rte 93		Rte 93
10/7/2006	12:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1200 feet S from Exit 8 on Rte 93		Rte 93
10/8/2006	6:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 11 on Rte 93		Rte 93
10/9/2006	3:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 3
10/9/2006	7:20:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear				250 feet S from Exit 9 on Rte 93		Rte 93
10/12/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S	Rte 93 S				
10/14/2006	12:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear						INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO FURNACE BROOK PARKWAY
10/16/2006	9:30:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					5.00 feet N from Rte 93 S Milemarker 9.0	Rte 93 S
10/16/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						4.0 WILLARD STREET / Rte 93
10/17/2006	7:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Not reported	Clear						SOUTHEAST EXPRESSWAY STREET
10/17/2006	8:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			ENTERING FROM 28			Rte 93 S / Rte 28
10/19/2006	12:15:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 S		Rte 93 S
10/19/2006	12:39:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	Rte 93	Rte 3 S				
10/23/2006	6:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy				Exit 8 on Rte 93 S		Rte 93 S
10/24/2006	5:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 8 on Rte 93		Rte 93
10/25/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Not reported	Clear				Exit 8 on Rte 93 N		Rte 93 N
10/28/2006	4:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain				500 feet S from Exit 9 on Rte 93 N		Rte 93 N
10/28/2006	10:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - unknown roadway lighting	Clear				2640 feet N from Exit 5 on Rte 93		Rte 93 N / Rte 28
10/28/2006	11:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				Exit 8 on Rte 93 N		Rte 93 N
11/1/2006	9:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 8 on Rte 93 S		Rte 93 S
11/2/2006	11:59:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain				50 feet N from Exit 8 on Rte 93 S		FURNACE BROOK PARKWAY Rte 93 S
11/3/2006	1:34:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				500 feet S from Exit 8 on Rte 93 N		Rte 93 N
11/3/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear			QUINCY COLLEGE EXIT SIGN	Exit 8 on Rte 93 S		Rte 93 S
11/7/2006	9:00:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
11/8/2006	4:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Rain				Exit 8 on Rte 93		Rte 93 S
11/8/2006	4:52:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Rain				1000 feet N from Exit 5B on Rte 93 S		Rte 93 S
11/8/2006	4:59:00 AM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Rain						INTERSTATE 93 Rte 93 / RAMP - RT 93 SB TO RT 3 SB
11/9/2006	3:30:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 9 on Rte 93 N		Rte 93 N
11/10/2006	7:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear				Exit 9 on Rte 93		Rte 93
11/14/2006	4:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear				Exit 11 on Rte 93		Rte 93 N
11/14/2006	6:36:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			NORTH OF EXIT #8	Exit 8 on Rte 93 N		Rte 93 N
11/14/2006	10:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 14 on Rte 93		Rte 93 N
11/15/2006	9:10:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Cloudy				1000 feet N from Exit 11 on Rte 93 N		Rte 93 N
11/18/2006	3:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93		Rte 93
11/19/2006	4:08:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			RICCIUTI AVE	Exit 8 on Rte 93 S		RAMP - RT 93 SB TO FURNACE BROOK PARKWAY Rte 93 S
11/21/2006	5:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			SOUTH HOV BUILDING			Rte 93 S
11/24/2006	1:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 N
11/28/2006	5:55:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			PRIOR TO GRANITE AVE			Rte 93 N
11/30/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Wet	Dawn	Cloudy/Cloudy						INTERSTATE 93 Rte 93 N / BATES AVENUE
12/1/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Cloudy/Rain			PRIOR TO EXIT 8	Exit 8 on Rte 93 S		Rte 93 S
12/2/2006	1:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear						Rte 93 S / RAMP-FURNACE BROOK PARKWAY TO RT 93 SB
12/9/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear/Clear				Exit 5B on Rte 93 S		Rte 93 S
12/12/2006	7:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			500 feet S from HOV DRIVEWAY			Rte 93 N
12/12/2006	9:04:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				1000 feet S from Exit 9 on Rte 93 N		Rte 93 N
12/14/2006	11:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 8 on Rte 93		Rte 93
12/15/2006	6:37:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
12/15/2006	6:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
12/19/2006	7:10:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 11 on Rte 93		Rte 93 N
12/20/2006	8:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			1/4 MILE BEFORE EXIT 8	1320 feet N from Exit 8 on Rte 93 S		Rte 93 S
12/22/2006	2:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 8 on Rte 93 N		Rte 93 N
12/28/2006	5:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			SOUTH HOV BUILDING			Rte 93 S
1/16/2004	5:45:00 PM	Unknown	2	0	0	Not reported	Not reported	Dry	Dusk	Clear	Rte 93 N					
4/30/2004	2:30:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 8 on Rte 93 N		Rte 93 N
8/15/2004	8:00:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S		FURNACE BROOK PARKWAY			FURNACE BROOK PARKWAY
11/29/2004	1:30:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			Rte 93 S	1000 feet S from Exit 8 on Rte 93 S		Rte 93 S
1/20/2005	12:30:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Unknown	Daylight	Clear	Rte 93 S	Rte 93 S				
2/4/2005	7:15:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy			RT 3/93 SPLIT - Rte 93 S	Exit 7 on Rte 93 S		Rte 93 S
2/11/2005	4:00:00 PM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				30 feet N from Exit 8 on Rte 93 N		Rte 93 N
3/12/2005	12:40:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain				Exit 8 on Rte 93 N		Rte 93 N
3/15/2005	1:25:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 12 on Rte 93		Rte 93
4/28/2005	10:15:00 AM	Unknown	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 9 on Rte 93	Rte 93 Milemarker 45.0	Rte 93 S
5/29/2005	2:35:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				0 feet N from Exit 7 on Rte 93 S		Rte 93 S
7/16/2005	4:10:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						EXPRESSWAY Rte 93 S
8/1/2005	3:30:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / 8
8/3/2005	9:30:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						SOUTHEAST EXPRESSWAY STREET Rte 93 N / Rte 95
4/4/2006	5:35:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Water (standing, moving)	Dusk	Rain						NIPONSET ROAD / Rte 93
6/1/2006	4:00:00 PM	Unknown	2	0	0	Unknown	Unknown	Dry	Daylight	Clear				15 feet N from Exit 14 on Rte 93		Rte 93
7/24/2006	7:30:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						1.0 feet N from Intersection Rte 93 / WILLARD STREET
9/7/2006	8:00:00 AM	Unknown	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 8 on Rte 93 S		Rte 93 S
9/14/2006	8:15:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11 on Rte 93		Rte 93 N
11/28/2006	8:53:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 7 on Rte 93 S		Rte 93 S

RANDOLPH	1/1/2004	12/31/2006	is similar to: rte 93 route 93													
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	NonFatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Feet_From
1/4/2004	3:10:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Cloudy/Rain			HALF MILE NORTH OF RT 24 - Rte 93		Rte 93 / Rte 24
1/12/2004	2:50:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow			INTERSTATE 93 Rte 93 S	Exit 4 on Rte 93 S	INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
2/21/2004	1:30:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy			Rte 93 N	Exit 5B on Rte 93 N	Rte 93 N
4/11/2004	12:10:00 PM	Non-fatal injury	1	1	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 5A on Rte 93 N	Rte 93 N
4/24/2004	11:14:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy			Rte 93 S	Exit 5B on Rte 93 S	Rte 93 S
4/26/2004	11:10:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Rain/Cloudy			INTERSTATE 93 Rte 93 S	Exit 4 on Rte 93 S	INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
5/29/2004	10:30:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S	Exit 5A on Rte 93 S	Rte 93 S
6/15/2004	10:48:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy			Rte 93 S		500 feet N from Intersection Rte 93 S / Rte 24
7/3/2004	1:15:00 PM	Non-fatal injury	2	9	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	1000 feet S from Exit 5B on Rte 93 N	Rte 93 N
7/3/2004	6:02:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear			Rte 1A N	7920 feet N from Exit 3 on Rte 1A	7920 feet S from Intersection Rte 1A N / Rte 93
7/4/2004	11:32:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	100 feet N from Exit 5A on Rte 93 S	Rte 93 S
7/21/2004	7:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear/Clear			INTERSTATE 93 Rte 93 N		INTERSTATE 93 Rte 93 N / RAMP - RT 28 SB TO RT 93 NB
7/29/2004	3:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Clear/Clear			Rte 93 S	Exit 5B on Rte 93 S	Rte 93 S
7/31/2004	5:30:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 93 N	Exit 5A on Rte 93 N	Rte 93 N
8/7/2004	2:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy			Rte 93 N	Exit 4 on Rte 93 N	Rte 93 N
10/10/2004	2:25:00 PM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N		Rte 24 N / Rte 93
10/19/2004	10:55:00 PM	Non-fatal injury	1	2	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Clear/Clear			Rte 24 N		2640 feet S from Intersection Rte 24 N / Rte 93
1/14/2004	5:50:00 PM	Non-fatal injury	5	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			50 FEET SOUTH OF 93 SPLIT - Rte 24 N		50 feet S from Intersection Rte 24 N / Rte 93
1/16/2004	7:19:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy			SOUTH OF EXIT 5 - Rte 93 N	Exit 5 on Rte 93 N	Rte 93 N
1/11/2004	5:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 S		50 feet S from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB
11/14/2004	8:45:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP - RT 24 NB TO RT 93 NB Rte 24 N		RAMP - RT 24 NB TO RT 93 NB Rte 24 N / INTERSTATE 93
11/19/2004	11:15:00 PM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Clear			Rte 93 S	50 feet N from Exit 5A on Rte 93 S	Rte 93 S
12/28/2004	12:25:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			RAMP - RT 24 NB TO RT 93 NB		RAMP - RT 24 NB TO RT 93 NB
12/31/2004	1:30:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 5B on Rte 93 N	Rte 93 N
1/8/2005	5:50:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Sleet, hail (freezing rain or drizzle)Sleet, hail (freezing rain or drizzle)			NORTH OF RT. 28 - Rte 93 S		Rte 93 S / Rte 28
1/20/2005	5:55:00 AM	Non-fatal injury	1	1	0	Not reported	Not reported	Ice	Daylight	Clear				Exit 5B on Rte 93 N	Rte 93 N / Rte 93
2/1/2005	8:55:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear					INTERSTATE 93 Rte 93 / NORTH MAIN STREET Rte 28
2/11/2005	6:15:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Dawn	Cloudy/Snow				Exit 5B on Rte 93 S	Rte 93 S
3/1/2005	3:15:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Snow	Daylight	Snow	Rte 93 N				
4/16/2005	8:36:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Dark - lighted roadway	Cloudy				Exit 4 on Rte 93 S	Rte 93 S
4/28/2005	8:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Rain				Exit 4 on Rte 93 S	Rte 93 S
5/5/2005	2:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Not reported	Clear/Clear					NORTH MAIN STREET Rte 28 / RAMP - RT 28 NB TO RT 93 NB
5/10/2005	5:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 3 on Rte 93 S	Rte 93 S
5/14/2005	5:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			OFF RAMP FROM RT 24N TO RT 93 SO - AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
5/25/2005	8:05:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy				Exit 5B on Rte 93 S	Rte 93 S
5/31/2005	6:55:00 PM	Non-fatal injury	4	4	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			IN BETWEEN RAMPS AT EXIT 5 - Rte 93 S		Rte 93 S / Rte 28
6/6/2005	5:00:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					6000 feet S from Intersection Rte 24 N / Rte 93
6/17/2005	4:25:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 S	Rte 93 S
6/25/2005	9:50:00 PM	Non-fatal injury	1	3	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			10 feet S from RTE 93 OVERPASS - Rte 28 N		Rte 28 N
6/28/2005	8:40:00 AM	Non-fatal injury	3	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 S	Rte 93 S
7/1/2005	5:10:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear				20 feet N from Exit 5B on Rte 93 N	Rte 93 N
7/12/2005	2:41:00 AM	Non-fatal injury	2	3	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					1000 feet N from Intersection AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB
7/16/2005	6:30:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy					Rte 93 / Rte 24
7/26/2005	10:31:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			RT. 93 N/B TO RT. 24 S/B ON RAMP - Rte 93 N	Exit 4 on Rte 93 N	Rte 93 N
7/26/2005	10:55:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Dry	Dark - roadway not lighted	Cloudy	Rte 93 S	Rte 24 S			
8/12/2005	4:00:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 N	Rte 93 N
8/14/2005	6:09:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					Rte 93 N
8/28/2005	2:45:00 AM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				1000 feet N from Exit 5A on Rte 93 S	Rte 93 S
8/30/2005	8:35:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			SOUTH OF 93 SPLIT - Rte 24 N		1000 feet S from Intersection Rte 24 N / Rte 93
9/13/2005	7:25:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 93 S / Rte 24
10/6/2005	3:30:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 4 on Rte 93 S	Rte 93 S
10/6/2005	3:41:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
10/22/2005	2:33:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				200 feet S from Exit 3 on Rte 93 S	Rte 93 S
10/31/2005	3:15:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear					RAMP - RT 24 NB TO RT 93 NB / Rte 24
11/18/2005	10:55:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S
11/29/2005	2:50:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear					AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB Rte 93 S
11/30/2005	8:20:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Fog, smog, smoke				30 feet S from Exit 5A on Rte 93	Rte 93
12/10/2005	12:05:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Ice	Dark - lighted roadway	Snow/Blowing sand, snow					350 feet S from Intersection Rte 24 S / Rte 93
12/17/2005	2:20:00 AM	Non-fatal injury	1	2	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Cloudy/Cloudy					Rte 93 N
1/1/2006	1:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow				Exit 5B on Rte 93	Rte 93
1/13/2006	6:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Rain					Rte 24 / Rte 93
1/14/2006	10:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy				250 feet N from Exit 5A on Rte 93 N	Rte 93 N
1/17/2006	9:08:00 AM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5A on Rte 93 N	Rte 93 N
2/2/2006	9:13:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Fog, smog, smoke/Cloudy				1000 feet S from Exit 3 on Rte 93 S	Rte 93 S
2/10/2006	6:49:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear			1 MILE SOUTH OF EXIT 6	5280 feet N from Exit 6 on Rte 93	Rte 93 N
2/23/2006	5:00:00 AM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Wet	Daylight	Cloudy				200 feet S from Exit 5A on Rte 93	RAMP - RT 93 SB TO RT 24 SB Rte 93
3/29/2006	3:31:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
4/4/2006	2:10:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 5A on Rte 93 N	Rte 93 N
4/5/2006	9:22:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear				Exit 4 on Rte 93 S	Rte 93 S
4/12/2006	2:45:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 S	Rte 93 S
4/21/2006	1:45:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 24 / Rte 93
5/1/2006	7:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy			SOUTH OF I-93		Rte 24 S / Rte 93
5/4/2006	6:25:00 AM	Non-fatal injury	4	2	0	Rear-end	Rear-end	Wet	Dawn	Clear				Exit 5A on Rte 93 N	Rte 93 N
5/13/2006	8:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 5A on Rte 93	Rte 93 / RANDOLPH ROAD
5/18/2006	4:20:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				700 feet S from Exit 4 on Rte 93 N	Rte 93 N
6/3/2006	4:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain				Exit 5A on Rte 93 N	Rte 93 N
6/21/2006	3:14:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 5A on Rte 93 S	Rte 93 S
7/6/2006	2:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy			20 feet E from GATEWAY PLAZA		1395 NORTH MAIN STREET Rte 28 N / Rte 93
7/12/2006	8:30:00 AM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				200 feet S from Exit 5B on Rte 93 S	Rte 93 S
7/16/2006	2:25:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 93 N
7/23/2006	8:00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Other	Rain/Cloudy				Exit 5B on Rte 93 N	Rte 93 N
7/26/2006	5:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				500 feet S from Exit 3 on Rte 93	Rte 93
8/10/2006	6:50:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ON RAMP TO 93 SOUTH		Rte 93
8/11/2006	5:10:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5B on Rte 93 S	Rte 93 S
8/22/2006	3:21:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 93 S
8/22/2006	3:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5A on Rte 93 S	Rte 93 S
8/31/2006	5:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			NEAR RANDOLPH EXIT		Rte 93 S
9/11/2006	1:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					Rte 93
9/22/2006	4:45:00 AM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 2 on Rte 93	Rte 93
9/25/2006	3:15:00 AM	Non-fatal injury	2	1	0	Unknown	Unknown	Dry	Daylight	Clear					Rte 93 / Rte 24
10/3/2006	6:00:00 AM	Non-fatal injury	3	3	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear				3000 feet N from Exit 5A on Rte 93 N	Rte 93 N
10/11/2006	7:45:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain					Rte 93 N / Rte 24
10/21/2006	10:40:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				5000 feet N from Exit 5B on Rte 93 N	Rte 93 N
10/23/2006	1:12:00 PM	Non-fatal injury	3	2	0	Head-on	Head-on	Wet	Daylight	Cloudy/Rain					Rte 93 S
11/7/2006	3:30:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy				500 feet S from Exit 5A on Rte 93 S	Rte 93 S
12/5/2006	4:30:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear					Rte 24 / Rte 93
2/4/2004	3:05:00 PM	Not Reported	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	NORTH MAIN STREET Rte 93 N	SCHOOL STREET			
6/21/2004	12:34:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			INTERSTATE 93 Rte 93 N		INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
10/26/2004	6:30:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear			Rte 93 N	Exit 6 on Rte 93	Rte 93 N
1/8/2005	12:30:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow/Sleet, hail (freezing rain or drizzle)				Exit 5A on Rte 93	Rte 93
1/25/2005	7:00:00 AM	Not Reported	2	0	0	Single vehicle crash	Single vehicle crash	Not reported	Daylight	Blowing sand, snow	Rte 93 S				
2/15/2005	6:45:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy					Rte 24 N / Rte 93
6/30/2005	8:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				1900 feet E from Exit 3 on Rte 93	Rte 93
10/24/2005	6:20:00 PM	Not Reported	2	0	0	Not reported	Not reported	Wet	Dusk	Rain					1000 feet S from Intersection Rte 93 N / Rte 37
11/2/2005	8:00:00 AM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear					Rte 24 / Rte 93
2/3/2006	11:40:00 AM	Not Reported	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Rain					785 feet E from Intersection INTERSTATE 93 Rte 1A S
3/10/2006	11:00:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 5A on Rte 93 N	Rte 93 N
4/12/2006	8:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Not Reported					Rte 24 / Rte 93
6/7/2006	6:30:00 AM	Not Reported	3	0	0	Head-on	Head-on	Wet	Daylight	Rain				Exit 5B on Rte 93 N	Rte 93 N
9/20/2006	11:05:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear					Rte 93 / Rte 93
10/16/2006	3:25:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not reported					200 feet S from Intersection Rte 93 / Rte 24
12/20/2006	12:40:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					Rte 93 / Rte 24
1/4/2004	1:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			ROUT 128 - Rte 24 S		Rte 24 S / Rte 93
1/4/2004	3:00:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain			Rte 93 N	300 feet N from Exit 5A on Rte 93 N	Rte 93 N
1/5/2004	2:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 93 S	Exit 4 on Rte 93 S	Rte 93 S
1/13/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Sleet, hail (freezing rain or drizzle)			Rte 93		Rte 93 / Rte 24
1/26/2004	4:16:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Cloudy			RAMP - RT 24 NB TO RT 93 NB Rte 24 S		RAMP - RT 24 NB TO RT 93 NB Rte 24 S / INTERSTATE 93
1/28/2004	1:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Daylight	Snow	Rte 93 S		Rte 93 S	Exit 4 on Rte 93 S	Rte 93 S
2/6/2004	11:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Daylight	Snow/Rain			AMVETS MEMORIAL HIGHWAY Rte 24 S		AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
2/28/2004	6:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear			Rte 93 N		Rte 93 N
3/2/2004	6:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy			Rte 93 S	Exit 4 on Rte 93 S	Rte 93 S
3/5/2004	3:50:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 S	250 feet S from Exit 4 on Rte 93 S	Rte 93 S
3/21/2004	2:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain			Rte 93 N	500 feet N from Exit 5B on Rte 93 N	Rte 93 N
3/22/2004	9:05:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Cloudy			Rte 93 S		100 feet S from Intersection Rte 93 S / Rte 24
3/23/2004	4:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 5A on Rte 93 N	Rte 93 N
5/4/2004	4:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	0 feet N from Exit 5B on Rte 93 S	Rte 93 S
5/7/2004	3:49:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	200 feet S from Exit 4 on Rte 93 N	Rte 93 N
5/8/2004	9:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 24 N		Rte 24 N / RAMP - RT 93 NB TO RT 28 SB
5/9/2004	11:35:00 AM	Property damage only (none injured)	5	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			RT 24 NB SOUTH OF RT 93 - Rte 24 N		Rte 24 N / Rte 93 S
5/20/2004	8:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	2500 feet N from Exit 5A on Rte 93 N	Rte 93 N
5/27/2004	7:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			1 MILE SOUTH OF 93 - Rte 24 N		5280 feet S from Intersection Rte 24 N / Rte 93
6/13/2004	5:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S		Rte 93 S / Rte 24
6/16/2004	6:05:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			INTERSTATE 93 Rte 93 N	Exit 5 on Rte 93 N	500 feet N from Intersection INTERSTATE 93 Rte 93 N / RAMP - RT 28 NB TO RT 93 NB
6/18/2004	3:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear			Rte 93	Exit 6 on Rte 93	Rte 93
6/24/2004	8:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 4 on Rte 93 N	Rte 93 N
7/6/2004	8:29:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 93 S	200 feet N from Exit 3 on Rte 93 S	Rte 93 S
8/1/2004	6:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			Rte 24 N		150 feet S from Intersection Rte 24 N / Rte 93
8/2/2004	6:17:00 PM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			Rte 93 N	500 feet N from Exit 5B on Rte 93 N	Rte 93 N
8/6/2004	2:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			Rte 93 S		500 feet N from Intersection Rte 93 S / Rte 24

RANDOLPH 1/1/2004 12/31/2006 is similar to: rte 93 route 93

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Feet_From
8/10/2004	11:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear			Rte 24 S		20 feet S from Intersection Rte 24 S / Rte 93
8/12/2004	1:23:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			ON RAMP AT SPLIT OF RB3 AND R3 - Rte 93 N		Rte 93 N
8/15/2004	12:31:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - roadway not lighted	Cloudy/Rain			INTERSTATE 93 Rte 93 N		INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
8/16/2004	9:30:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Rain			Rte 93		Rte 93
8/21/2004	2:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 S	500 feet S from Exit 5A on Rte 93 S	Rte 93 S
8/24/2004	1:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			EXACTLY AT 1 MILE TO RT 93 SIGN - Rte 24 S		Rte 24 S / Rte 93
9/2/2004	11:06:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 5A on Rte 93 N	Rte 93 N
9/9/2004	4:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 N	Exit 4 on Rte 93 N	Rte 93 N
9/20/2004	8:22:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			Rte 93 S	100 feet N from Exit 5B on Rte 93 S	Rte 93 S
9/25/2004	9:04:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear			Rte 93 S	Exit 4 on Rte 93 S	Rte 93 S
10/1/2004	5:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 93 N	Exit 5A on Rte 93 N	Rte 93 N
10/1/2004	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N		Rte 93 N / Rte 93
10/8/2004	3:12:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	20 feet S from Exit 5A on Rte 93 N	Rte 93 N
10/22/2004	2:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
11/8/2004	1:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			JUST SOUTH OF RTE 24 - Rte 93 N	500 feet S from Exit 4 on Rte 93 N	Rte 93 N / Rte 24
11/13/2004	6:00:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Snow	Dawn	Snow/Cloudy			Rte 24 N		Rte 24 N / Rte 93
11/15/2004	5:46:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear/Clear			Rte 24 N		100 feet S from Intersection Rte 24 N / Rte 93
11/17/2004	3:15:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy			AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 NB
11/20/2004	3:30:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 93		Rte 93 / Rte 24
11/20/2004	3:42:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93 S	Exit 4 on Rte 93 S	Rte 93 S
11/28/2004	3:12:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Rain			Rte 93 S	1000 feet N from Exit 3 on Rte 93 S	Rte 93 S
11/28/2004	12:39:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Rain/Cloudy	Rte 93 S	Rte 24 S			
12/10/2004	11:01:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain			RAMP - RT 93 SB TO RT 24 SB		RAMP - RT 93 SB TO RT 24 SB / Rte 24
12/12/2004	4:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Cloudy			RTE 93 EXIT 4 RAMP TO RTE 24 SB - RAMP - RT 93 NB TO RT 24 SB		RAMP - RT 93 NB TO RT 24 SB
12/14/2004	12:07:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Clear/Clear			Rte 93 S		Rte 93 S / Rte 28
12/27/2004	3:33:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			BETWEEN RT. 28 RAMPS - Rte 93 S		Rte 93 S / Rte 28
12/31/2004	1:30:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N	Exit 5B on Rte 93 N	Rte 93 N
1/8/2005	1:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Daylight	Sleet, hail (freezing rain or drizzle)/Cloudy					INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
1/8/2005	2:42:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Slush	Daylight	Sleet, hail (freezing rain or drizzle)/Cloudy					INTERSTATE 93 Rte 93 N / RAMP - RT 24 NB TO RT 93 NB
1/20/2005	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				1000 feet N from Exit 3 on Rte 93 S	Rte 93 S
1/20/2005	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear			RANDOLPH EXIT - Rte 93	Exit 5A on Rte 93	Rte 93
1/26/2005	9:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow					NORTH MAIN STREET Rte 28 N / RAMP - RT 28 NB TO RT 93 NB Rte 139 E
1/28/2005	3:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Clear/Clear			BOTTOM OF RT. 93 S/B / OFF RAMP - Rte 28 S		Rte 28 S / Rte 93
1/28/2005	3:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Ice	Daylight	Clear/Clear					NORTH MAIN STREET Rte 28 S / RAMP - RT 93 NB TO RT 28 SB
1/31/2005	4:34:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			RAMP FROM 93 N TO 24 S - INTERSTATE 93 Rte 93 N		INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
2/2/2005	9:00:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Wet	Daylight	Clear				500 feet E from Exit 5A on Rte 93 S	Rte 93 S
2/4/2005	2:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy/Cloudy				50 feet N from Exit 4 on Rte 93 S	Rte 93 S
2/5/2005	5:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - roadway not lighted	Clear/Clear				100 feet N from Exit 5A on Rte 93 S	Rte 93 S
2/11/2005	2:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Slush	Dark - lighted roadway	Snow/Cloudy					AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 NB
2/15/2005	7:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy					5000 feet S from Intersection Rte 24 / Rte 93
2/23/2005	8:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear				Exit 21 on Rte 24 N	Rte 24 N / Rte 93
3/1/2005	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow					RAMP - RT 93 NB TO RT 24 SB Rte 93 N
3/8/2005	10:07:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Dark - lighted roadway	Snow/Sleet, hail (freezing rain or drizzle)				Exit 4 on Rte 93 N	Rte 93 N
3/11/2005	6:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 N	Rte 93 N
3/12/2005	3:35:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Rain				Exit 5A on Rte 93 N	Rte 93 N
3/15/2005	2:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 93 N / AMVETS MEMORIAL HIGHWAY
3/21/2005	10:30:00 AM	Property damage only (none injured)	4	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
3/24/2005	6:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dawn	Rain					Rte 93 / Rte 24
3/24/2005	8:46:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Slush	Daylight	Snow/Rain				2000 feet N from Exit 5A on Rte 93 S	2000 feet N from Intersection Rte 93 S / Rte 28
3/27/2005	7:20:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy				Exit 4 on Rte 93 S	Rte 93 S
4/5/2005	4:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S				
4/6/2005	6:09:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				100 feet N from Exit 5A on Rte 93 N	Rte 93 N
4/6/2005	8:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 S	Rte 93 S
4/7/2005	10:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear					AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
4/10/2005	1:39:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				500 feet N from Exit 4 on Rte 93 S	Rte 93 S
4/11/2005	8:17:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				100 feet S from Exit 4 on Rte 93 S	Rte 93 S
4/20/2005	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 N	Rte 93 N
4/20/2005	12:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear					AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 NB
4/22/2005	1:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear				Exit 5B on Rte 93	Rte 93
4/29/2005	1:46:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear			AT THE RAMP TO RTE. 24 SOUTH - Rte 93 N	Exit 4 on Rte 93 N	Rte 93 N
5/4/2005	8:46:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 93 N
5/6/2005	7:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				500 feet S from Exit 4 on Rte 93 S	Rte 93 S
5/6/2005	5:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 93 N / Rte 28
5/8/2005	3:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Rain	INTERSTATE 93 Rte 93 S				
5/8/2005	6:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 4 on Rte 93 S	Rte 93 S
5/13/2005	11:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 S	Rte 93 S
5/26/2005	1:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain				Exit 4 on Rte 93 S	Rte 93 S
6/25/2005	12:34:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
6/26/2005	3:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Cloudy/Cloudy					INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 24 SB
6/27/2005	8:50:00 AM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Dawn	Clear/Clear				700 feet N from Exit 5A on Rte 93 S	Rte 93 S
6/30/2005	8:32:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear					Rte 93 S / Rte 24
7/1/2005	12:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 93 N
7/5/2005	4:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
7/6/2005	6:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain				Exit 5A on Rte 93 S	Rte 93 S
7/12/2005	4:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 93 / Rte 28
7/31/2005	2:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					Rte 93
8/3/2005	11:00:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				20 feet S from Exit 5A on Rte 93 N	Rte 93 N
8/4/2005	3:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 93 N / Rte 24
8/24/2005	6:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy				Exit 5A on Rte 93 N	Rte 93 N
8/25/2005	7:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					AMVETS MEMORIAL HIGHWAY Rte 24 N / INTERSTATE 93
8/26/2005	8:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				1000 feet N from Exit 4 on Rte 93 N	1000 feet N from Intersection Rte 93 N / Rte 24
8/27/2005	11:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	Rte 93 S				INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB
8/29/2005	2:00:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					AMVETS MEMORIAL HIGHWAY Rte 24 S / Rte 93
8/29/2005	9:35:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - roadway not lighted	Cloudy/Rain			RAMP TO S/B RTE 93 - AMVETS MEMORIAL HIGHWAY Rte 24 N		AMVETS MEMORIAL HIGHWAY Rte 24 N / RAMP - RT 24 NB TO RT 93 SB
9/1/2005	3:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5B on Rte 93 N	Rte 93 N
9/14/2005	5:00:00 PM	Property damage only (none injured)	4	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Not reported	Clear				Exit 4 on Rte 93 S	Rte 93 S
9/21/2005	2:30:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S
9/23/2005	8:25:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
9/30/2005	7:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				2000 feet S from Exit 5A on Rte 93	Rte 93 / Rte 93
10/15/2005	5:10:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dusk	Rain/Cloudy				Exit 5A on Rte 93 N	Rte 93 N
10/15/2005	12:24:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 5B on Rte 93 N	Rte 93 N
10/18/2005	4:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			100 YRDS PRIOR TO RT 28 - Rte 93		Rte 93 / Rte 28
10/26/2005	11:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			FROM RAMP - Rte 24		Rte 24 / Rte 93
10/27/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dawn	Clear					Rte 93 N / Rte 93
10/29/2005	9:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - roadway not lighted	Rain/Other					Rte 93 S
11/13/2005	5:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dusk	Clear/Clear				1000 feet N from Exit 3 on Rte 93 S	Rte 93 S
11/17/2005	4:25:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear					Rte 93 / Rte 28
11/17/2005	4:57:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy				Exit 5A on Rte 93 N	Rte 93 N
11/17/2005	6:01:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear				Exit 5B on Rte 93 N	INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 28 NB
11/18/2005	11:25:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear					Rte 24 N / Rte 93
11/21/2005	5:56:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy				Exit 5A on Rte 93 N	Rte 93 N
11/24/2005	12:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
11/27/2005	4:53:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy/Cloudy			SPLIT - Rte 93 S		Rte 93 S
11/28/2005	10:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			2000 feet S from HORSE BRIDGE - Rte 24 N		5000 feet S from Intersection Rte 24 N / Rte 93
12/4/2005	8:25:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Daylight	Cloudy/Snow					INTERSTATE 93 Rte 93 S / RAMP - RT 93 SB TO RT 24 SB Rte 24
12/7/2005	12:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93 S	Rte 24 N			
12/9/2005	2:20:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Snow	Dawn	Blowing sand, snow				10 feet E from Exit 5A on Rte 93	Rte 93
12/10/2005	2:28:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Rain					AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 NB TO RT 24 SB
12/14/2005	10:10:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					Rte 93 S / AMVETS MEMORIAL HIGHWAY Rte 24
12/17/2005	7:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - roadway not lighted	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
12/17/2005	9:25:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear				Exit 4 on Rte 93 N	Rte 93 N
12/21/2005	5:43:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear				1500 feet N from Exit 3 on Rte 93 S	Rte 93 S
12/28/2005	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Clear	Rte 93 S				
12/28/2005	12:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy/Clear	Rte 93 S	Rte 24 N			
12/29/2005	6:00:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Rain				1500 feet N from Exit 4 on Rte 93 S	Rte 93 S
12/30/2005	3:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 5B on Rte 93 S	Rte 93 S
12/30/2005	5:10:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
1/5/2006	5:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 3 on Rte 93	Rte 93 N
1/6/2006	11:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy					1245 NORTH MAIN STREET Rte 93 N
1/9/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 93 S
1/16/2006	3:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear					Rte 93 S / Rte 24
1/16/2006	9:40:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			ON RAMP FROM 28S TO 93N		Rte 28 S / Rte 93
1/17/2006	10:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Exit 5A on Rte 93	Rte 93
1/25/2006	6:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Snow	Dark - lighted roadway	Snow				Exit 5B on Rte 93	Rte 93
1/28/2006	4:00:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
1/30/2006	7:40:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Cloudy				2000 feet W from Exit 4 on Rte 93	Rte 93
2/3/2006	5:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy/Fog, smog, smoke				Exit 5A on Rte 93 N	Rte 93 N
2/3/2006	9:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				10 feet N from Exit 5A on Rte 93 S	Rte 93 S
2/11/2006	2:22:00 PM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
2/12/2006	8:05:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Snow/Snow				Exit 5B on Rte 93 N	Rte 93 N
2/17/2006	9:00:00 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear					INTERSTATE 93 Rte 93 N
2/28/2006	4:59:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear/Clear					AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
3/13/2006	3:25:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear/Cloudy					Rte 93 S
4/11/2006	7:07:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 S	Rte 93 S
4/18/2006	8:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear					Rte 93 S / Rte 24
4/29/2006	1:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Clear/Clear			RAMP FROM ROUTE 93 SOUTH TO ROUT		RAMP - RT 93 SB TO RT 24 SB / Rte 24
5/5/2006	1:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear					INTERSTATE 93 Rte 93 N / RAMP - RT 93 NB TO RT 28 NB
5/6/2006	3:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear				Exit 21 on Rte 24	Rte 24 / Rte 93
5/11/2006	4:28:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S

RANDOLPH 1/1/2004 12/31/2006 is similar to: rte 93 route 93

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	NonFatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Feet_From
5/15/2006	7:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Rain				Exit 5A on Rte 93 S	Rte 93 S / Rte 4
5/25/2006	3:02:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 4 on Rte 93 S	Rte 93 S
5/25/2006	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				20 feet S from Exit 5A on Rte 93 S	Rte 93 S
5/26/2006	6:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 5A on Rte 93 S	Rte 93 S
5/27/2006	3:13:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S
5/31/2006	3:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 4 on Rte 93 N	Rte 93 N
6/5/2006	7:00:00 AM	Property damage only (none injured)	5	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S
6/7/2006	4:45:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy/Rain					Rte 93 N / Rte 28
6/7/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy				Exit 4 on Rte 93 S	Rte 93 S
6/13/2006	9:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					300 feet S from Intersection Rte 93 S / Rte 28
7/7/2006	5:05:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Daylight	Clear					Rte 93 / Rte 24
7/12/2006	12:15:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Rain	Rte 93	Rte 24			
7/14/2006	5:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 3 on Rte 93	Rte 93
7/15/2006	12:50:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 5A on Rte 93 S	Rte 93 S
7/24/2006	8:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear					Rte 24 / Rte 93
7/26/2006	6:16:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 4 on Rte 93 N	Rte 93 N
7/28/2006	1:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 93 N
7/30/2006	8:09:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark - unknown roadway lighting	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S
8/3/2006	8:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 58 on Rte 93	Rte 93
8/4/2006	6:33:00 AM	Property damage only (none injured)	1	0	0	Head-on	Head-on	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 S	Rte 93 S
8/4/2006	12:18:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy					Rte 93 S / AMVETS MEMORIAL HIGHWAY Rte 24 N
8/17/2006	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear					AMVETS MEMORIAL HIGHWAY Rte 24 S / RAMP - RT 93 SB TO RT 24 SB
8/20/2006	2:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 S	Rte 93 S
8/25/2006	2:32:00 AM	Property damage only (none injured)	5	0	0	Unknown	Unknown	Wet	Dark - roadway not lighted	Rain/Rain					Rte 93 S
8/26/2006	6:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dusk	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S
8/26/2006	12:35:00 PM	Property damage only (none injured)	2	0	0	Unknown	Unknown	Dry	Daylight	Clear					Rte 24 / Rte 93
8/27/2006	4:20:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Wet	Daylight	Rain/Rain				Exit 5A on Rte 93 S	Rte 93 S
8/29/2006	2:45:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 5A on Rte 93 S	Rte 93 S
9/11/2006	1:15:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 4 on Rte 93 S	Rte 93 S
9/21/2006	5:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				50 feet N from Exit 3 on Rte 93	Rte 93 N
9/22/2006	4:37:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 5B on Rte 93 N	Rte 93 N
9/24/2006	5:03:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 S	Rte 93 S
9/29/2006	7:35:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Dark - lighted roadway	Clear/Clear				Exit 4 on Rte 93 N	Rte 93 N
10/8/2006	5:15:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
10/9/2006	11:49:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark - roadway not lighted	Cloudy/Clear				Exit 4 on Rte 93 N	Rte 93 N
10/12/2006	5:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear					Rte 93 N / Rte 28
10/13/2006	7:05:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rearend	Dry	Dark - roadway not lighted	Clear/Clear					Rte 93 N
10/13/2006	7:40:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Dark - lighted roadway	Clear					Rte 93 / Rte 24
10/13/2006	10:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear					Rte 24 N / Rte 93
10/14/2006	5:15:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 4 on Rte 93	Rte 93 / Rte 24
10/15/2006	1:39:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear/Clear				Exit 5A on Rte 93 S	Rte 93 S
10/17/2006	6:17:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Dark - unknown roadway lighting	Rain/Cloudy				Exit 5B on Rte 93 S	Rte 93 S
10/21/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark - roadway not lighted	Clear/Clear	RAMP - RT 24 NB TO RT 93 NB Rte 24 N	RAMP - RT 24 NB TO RT 93 NB Rte 24 N			
10/28/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Rain			BETWEEN 5 AND 6	Exit 5A on Rte 93	Rte 93
11/4/2006	12:30:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear				Exit 5A on Rte 93 N	Rte 93 N
11/6/2006	2:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear					Rte 28 / Rte 93
11/6/2006	4:38:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 4 on Rte 93 N	Rte 93 N
11/8/2006	11:09:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy					AMVETS MEMORIAL HIGHWAY Rte 24 N / INTERSTATE 93 Rte 93 S
11/16/2006	5:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark - roadway not lighted	Clear/Clear				1500 feet N from Exit 5B on Rte 93 S	Rte 93 S
11/24/2006	10:57:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear				Exit 5B on Rte 93 S	Rte 93 S
11/25/2006	10:40:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear				Exit 4 on Rte 93	Rte 93
11/26/2006	12:35:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear			RT 93 NORTH		Rte 28 N / Rte 93
11/27/2006	8:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy				1000 feet S from Exit 4 on Rte 93 N	Rte 93 N
12/1/2006	3:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Wet	Daylight	Cloudy				Exit 24 on Rte 93	Rte 93
12/6/2006	7:55:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear				100 feet S from Exit 4 on Rte 93 S	Rte 93 S
12/8/2006	11:48:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear					300 NORTH MAIN STREET Rte 93
12/11/2006	11:15:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported					Rte 24 N / Rte 93
12/18/2006	6:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Dark - unknown roadway lighting	Clear				Exit 5A on Rte 93 S	Rte 93 S
12/18/2006	7:56:00 PM	Property damage only (none injured)	3	0	0	Unknown	Unknown	Dry	Dark - unknown roadway lighting	Clear				Exit 5A on Rte 93 N	Rte 93 N
12/26/2006	1:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy/Cloudy				Exit 5 on Rte 93 N	Rte 93 N
12/29/2006	11:35:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear					RAMP - RT 24 NB TO RT 93 NB Rte 24 N / INTERSTATE 93
3/19/2004	2:45:00 PM	Unknown	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear			Rte 24		Rte 24 / Rte 93
6/17/2004	4:30:00 AM	Unknown	2	0	0	Rear-end	Rearend	Dry	Daylight	Cloudy			Rte 93 N	500 feet S from Exit 4 on Rte 93 N	Rte 93 N
12/26/2004	8:09:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Snow	Dark - lighted roadway	Snow/Severe crosswinds		RT. 24 SOUTH RAMP FROM RT. 93 SO - RAMP - RT 93 SB TO RT 24 SB			RAMP - RT 93 SB TO RT 24 SB
3/31/2005	7:45:00 AM	Unknown	2	0	0	Rear-end	Rearend	Sand, mud, dirt, oil, gravel	Daylight	Clear				Exit 3 on Rte 93	Rte 93 N
6/6/2005	6:25:00 AM	Unknown	2	0	0	Rear-end	Rearend	Dry	Daylight	Cloudy/Clear				Exit 58 on Rte 93	Rte 93
7/20/2005	12:15:00 PM	Unknown	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear					Rte 93 S / 5
11/10/2005	6:35:00 AM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dawn	Rain/Cloudy				Exit 5B on Rte 93 N	Rte 93 N
5/19/2006	3:10:00 AM	Unknown	2	0	0	Rear-end	Rearend	Dry	Daylight	Clear				Exit 28 on Rte 93	Rte 93 / Rte 24
1/03/2006	8:45:00 AM	Unknown	3	0	0	Rear-end	Rearend	Dry	Daylight	Clear/Clear					Rte 93 S
11/28/2006	7:00:00 AM	Unknown	2	0	0	Rear-end	Rearend	Wet	Daylight	Cloudy					Rte 24 N / Rte 93
12/26/2006	4:45:00 AM	Unknown	2	0	0	Rear-end	Rearend	Dry	Not reported	Cloudy				Exit 4 on Rte 93	Rte 93

BOSTON (SOUTH BOSTON) 1/1/2004 12/31/2006 Where street or intersection is similar to: rte 93 route 93 interstate 93 southeast expressway

Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Address/Landmark	Exit Distance	Mile Marker Distance	Feet_From
1/1/2006	10:20:00 PM	Fatal injury	1	0	1	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear				Exit 16 on Rte 93	Rte 93 Milemarker 15.4	Rte 93 / SOUTHAMPTON STREET
1/2/2004	11:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
2/9/2004	3:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	Exit 15 on Rte 93		Rte 93 S
2/14/2004	11:20:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear	Rte 93 N					
3/8/2004	9:10:00 AM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Wet	Daylight	Rain/Cloudy			Rte 93 S	Exit 15 on Rte 93		Rte 93 S
5/4/2004	5:15:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S			Rte 93 S
5/30/2004	8:00:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Dusk	Cloudy			CONNECTOR BRIDGE - Rte 93 S	Exit 18 on Rte 93 S	Rte 93 S Milemarker 16.0	Rte 93 S / MASSACHUSETTS AVENUE
7/23/2004	10:41:00 PM	Non-fatal injury	2	4	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - roadway not lighted	Clear/Clear			L RAMP Rte 93 N	Exit 20 on Rte 93 N		L RAMP Rte 93 N
8/15/2004	5:15:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Cloudy			Rte 93 S		Rte 93 S Milemarker 16.4	Rte 93 S
9/19/2004	8:00:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - unknown roadway lighting	Clear			Rte 93 S	100 feet N from Exit 12 on Rte 93 S		Rte 93 S
10/3/2004	2:40:00 AM	Non-fatal injury	3	6	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy			Rte 93	Exit 18 on Rte 93	Rte 93 Milemarker 16.0	Rte 93
10/15/2004	4:45:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dusk	Cloudy/Rain			Rte 93		Rte 93 Milemarker 16.8	Rte 93
10/16/2004	12:15:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain	FRONTAGE ROAD Rte 93 N	HAUL ROAD / HAGGERTY OVERPASS				
1/28/2005	2:15:00 PM	Non-fatal injury	2	1	0	Sideswipe, same direction	Sideswipe, same direction	Unknown	Daylight	Unknown				Exit 18 on Rte 93		Rte 93
4/1/2005	7:05:00 PM	Non-fatal injury	3	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear			OPPOSITE EXIT 15 - Rte 93 S	1000 feet S from Exit 15 on Rte 93		Rte 93 S
4/8/2005	11:20:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
6/5/2005	1:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear			ANDREW SQUARE T STATION - ANDREW SQUARE Rte 93			ANDREW SQUARE Rte 93
8/14/2005	11:30:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Rain	Rte 93 S					
8/16/2005	7:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	BROADWAY					BROADWAY Rte 93
10/7/2005	7:00:00 PM	Non-fatal injury	4	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 S
10/19/2005	4:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			SOUTH BAY - Rte 93 S	Exit 15 on Rte 93		Rte 93 S
11/5/2005	2:25:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Cloudy				Exit 15 on Rte 93		FRONTAGE ROAD Rte 93 / COLUMBIA ROAD
11/5/2005	9:45:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 15 on Rte 93		Rte 93 S
7/2/2006	12:30:00 PM	Non-fatal injury	4	2	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear/Clear			NEAR THE RAMADA CUT-OUT	2000 feet N from Exit 12 on Rte 93 S		Rte 93 S
7/18/2006	2:00:00 AM	Non-fatal injury	2	2	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear/Clear	FRONTAGE ROAD	BROADWAY / RAMP - BROADWAY TO RT 93 NB				
7/28/2006	7:18:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dusk	Rain						Rte 93 N / MASSACHUSETTS AVENUE
9/30/2006	5:00:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				1500 feet S from Exit 11 on Rte 93		Rte 93
10/21/2006	4:20:00 AM	Non-fatal injury	2	3	0	Rear-end	Rear-end	Dry	Daylight	Clear	WILLIAM T MORRISSEY BOULEVARD	DAY STREET / RAMP - MORRISSEY BLVD TO RT 93 SB				
11/7/2006	7:35:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear				3000 feet N from Exit 12 on Rte 93 S		Rte 93 S
11/11/2006	2:14:00 AM	Non-fatal injury	6	2	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11 on Rte 93 N		Rte 93 N
12/28/2006	5:55:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dusk	Clear	Rte 93	RAMP - COLUMBIA RD TO RT 93 NB				
11/12/2004	5:30:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported	Rte 93 S					
11/23/2004	7:45:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
12/18/2004	7:25:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Other	Clear/Unknown			MASSACHUSETTS TURNPIKE Rte 90 E	Exit 24 on Rte 90 E		MASSACHUSETTS TURNPIKE Rte 90 E / Rte 93
4/8/2005	5:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			BOSTON GLOBE - Rte 93 S			Rte 93 S
8/8/2005	12:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93 S			Exit 114 on Rte 93		Rte 93 S
8/14/2005	12:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not reported	Not Reported				Exit 20 on Rte 93		Rte 93
8/16/2005	9:15:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	Rte 93 S					
9/14/2005	2:00:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 / Rte 93
11/1/2005	3:30:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear						18 Rte 93
3/31/2006	5:55:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						MASSACHUSETTS AVENUE Rte 93 / FRONTAGE ROAD Rte 1
6/1/2006	11:05:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Not reported	Daylight	Not Reported	Rte 93	Rte 3A				
7/28/2006	2:15:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			AFTER THE GAS TANKS			Rte 93 S
8/19/2006	3:00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93 S	KOSCIUSZKO CIRCLE				
8/30/2006	1:45:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				3000 feet S from Exit 14 on Rte 93 N		SOUTH EAST EXPRESSWAY Rte 93 N
9/8/2006	3:30:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 10 on Rte 93		Rte 93 S
9/14/2006	8:00:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Dark - unknown roadway lighting	Cloudy			BROADWAY BRIDGE			167 feet S from Intersection RAMP - RT 93 NB TO RT 90 WB / RAMP - RT 93 NB TO RT 93 NB HOV LANE
9/29/2006	12:00:00 PM	Not Reported	3	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				Exit 20 on Rte 93		Rte 93
12/6/2006	8:40:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 / Rte 3A
1/17/2004	12:20:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - roadway not lighted	Clear/Clear			Rte 93 S	Exit 18 on Rte 93 S	Rte 93 S Milemarker 15.7	Rte 93 S
1/19/2004	6:00:00 AM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear			Rte 93 S	Exit 18 on Rte 93 S	Rte 93 S Milemarker 15.7	Rte 93 S
1/19/2004	6:20:00 AM	Property damage only (none injured)	1	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dawn	Clear			Rte 93 S		Rte 93 S Milemarker 15.0	Rte 93 S
1/29/2004	3:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dusk	Snow			Rte 93 S			Rte 93 S
2/15/2004	2:52:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			LIBERTY SQUARE Rte 93 N			LIBERTY SQUARE Rte 93 N
2/19/2004	8:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear			ROUTE 93 Rte 93 S			300 feet S from Intersection ROUTE 93 Rte 93 S / ALBANY STREET ON RAMP
3/26/2004	11:15:00 AM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	200 feet S from Exit 15 on Rte 93		Rte 93 S
4/3/2004	2:58:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			RAMP D - Rte 90 W			200 feet N from Intersection Rte 90 W / Rte 93
4/3/2004	2:58:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear			Rte 90 W		Rte 90 Milemarker 16.6	200 feet E from Intersection Rte 90 W / Rte 93
4/16/2004	4:25:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 S	500 feet N from Exit 12 on Rte 93 S		Rte 93 S
4/19/2004	8:37:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear			Rte 93 N			Rte 93 N / MASSACHUSETTS AVENUE
4/26/2004	2:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain			Rte 93	Exit 18 on Rte 93		Rte 93
4/30/2004	5:06:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			Rte 93 N			Rte 93 N
5/6/2004	8:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			FRONTAGE ROAD Rte 93 N		Rte 93 Milemarker 164.0	FRONTAGE ROAD Rte 93 N
5/8/2004	12:15:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Dry	Daylight	Clear			Rte 93 N	300 feet S from Exit 15 on Rte 93 N		Rte 93 N
5/14/2004	3:48:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			MASS AVE CONN - INTERSTATE 93 Rte 93 S			500 feet N from Intersection INTERSTATE 93 Rte 93 S / MASSACHUSETTS AVENUE
5/21/2004	7:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			ENTRANCE TO 93N - COLUMBIA ROAD			COLUMBIA ROAD / Rte 93
5/28/2004	3:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Rte 93 S			200 feet S from Intersection Rte 93 S / BOSTON STREET
6/2/2004	7:10:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93 N			Rte 93 N
7/17/2004	11:25:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			LIBERTY TUNNEL Rte 93 N		Rte 93 N Milemarker 17.2	LIBERTY TUNNEL Rte 93 N
9/4/2004	3:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy			Rte 93	Exit 12 on Rte 93		Rte 93
9/15/2004	2:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Cloudy			FRONTAGE ROAD Rte 93 N		Rte 93 N Milemarker 16.8	FRONTAGE ROAD Rte 93 N / Rte 93
9/19/2004	8:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93 N	Exit 18 on Rte 93 N		Rte 93 N
9/21/2004	11:50:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear			Rte 93 N	Exit 18 on Rte 93 N		Rte 93 N
9/23/2004	10:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear			Rte 93 N	Exit 20 on Rte 93 N		Rte 93 N
10/24/2004	7:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain			Rte 93 N			Rte 93 N
12/10/2004	8:38:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain			Rte 93 N			Rte 93 N / Rte 93
12/28/2004	1:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Cloudy/Sleet, hail (freezing rain or dri			Rte 93 S	Exit 12 on Rte 93 S		Rte 93 S
1/15/2005	12:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Ice	Dark - roadway not lighted	Clear	Rte 93 S					Rte 93 S
2/2/2005	10:45:00 PM	Property damage only (none injured)	6	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear						Rte 93 S
2/9/2005	10:15:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear			SOUTH BOY SHOPPING COMPLEX - 93 Rte 93 N	Exit 1820 on Rte 93		93 Rte 93 N
2/17/2005	3:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Sand, mud, dirt, oil, gravel	Daylight	Clear			SOUTH BAY PLAZA - GENERAL CASIMIR PULASKI SKYWAY Rte 93	Exit 19 on Rte 93		300 feet S from Intersection GENERAL CASIMIR PULASKI SKYWAY Rte 93
2/25/2005	4:46:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy/Cloudy			50 feet N from BOSTON STREET OVERPASS - Rte 93 S			Rte 93 S / Rte 93
2/25/2005	9:30:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Clear				Exit 12 on Rte 93 S		Rte 93 S
2/25/2005	12:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Clear/Cloudy				500 feet N from Exit 15 on Rte 93 N		Rte 93 N
4/29/2005	5:10:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dawn	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / RAMP - COLUMBIA RD TO RT 93 NB
5/2/2005	1:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear				Exit 15 on Rte 93 N		Rte 93 N
5/7/2005	2:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain				Exit 15 on Rte 93		Rte 93 S
5/20/2005	1:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Cloudy			UNDERPASS RT 93 BROADWAY BRIDGE - WEST BROADWAY			WEST BROADWAY
6/29/2005	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 93 S
8/5/2005	8:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						Rte 93 S
8/12/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	Rte 93			25 feet S from Exit 14 on Rte 93		Rte 93
8/15/2005	6:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy						Rte 93 S
10/28/2005	10:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear			BETWEEN EXITS 14 AND 15 - Rte 93 N	Exit 14 on Rte 93 N		Rte 93 N
11/27/2005	4:50:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear						INTERSTATE 93 Rte 1 / Rte 1
12/17/2005	12:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 15 on Rte 93 N		GENERAL CASIMIR PULASKI SKYWAY Rte 93 N / COLUMBIA ROAD
1/2/2006	4:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 / COLUMBIA ROAD
1/7/2006	5:20:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear/Clear			DORCHESTER AVENUE OVERPASS			DORCHESTER AVENUE Rte 93 S / Rte 3A
2/12/2006	4:20:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Daylight	Snow				Exit 19 on Rte 93		Rte 93
2/17/2006	7:00:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear						F STREET Rte 93 / BROADWAY Rte 3
2/18/2006	1:05:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy						Rte 90 / Rte 93
3/17/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - unknown roadway lighting	Clear						GENERAL CASIMIR PULASKI SKYWAY Rte 93 S / COLUMBIA ROAD
3/24/2006	2:30:00 AM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Dry	Daylight	Cloudy				Exit 8 on Rte 93		Rte 93
4/3/2006	6:45:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Cloudy						WILLIAM DAY BOULEVARD Rte 93 / WILLIAM T MORRISSEY BOULEVARD Rte 3
5/15/2006	8:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy						FRONTAGE ROAD Rte 93 N / BROADWAY
6/5/2006	10:00:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						BROADWAY / Rte 93
6/29/2006	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 11A on Rte 93 S		Rte 93 S
7/16/2006	7:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				Exit 15 on Rte 93		Rte 93
8/18/2006	11:30:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear						Rte 93 S / NEPONSET AVENUE
9/15/2006	2:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Other	Daylight	Cloudy				Exit 11 on Rte 93		Rte 93 N
10/1/2006	12:50:00 PM	Property damage only (none injured)	4	0	0	Rear-end	Rear-end	Wet	Daylight	Rain/Rain				Exit 15 on Rte 93		COLUMBIA ROAD Rte 93 S
10/30/2006	5:50:00 AM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear				Exit 11B on Rte 93 N		JOHN F FITZGERALD EXPRESSWAY Rte 93 N / RAMP - I 93 NB TO ATLANTIC AVE
11/21/2006	2:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear						Rte 93 N
12/10/2006	12:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear				100 feet N from Exit 15 on Rte 93		Rte 93
12/20/2006	1:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear						Rte 3 S / Rte 93
3/2/2004	11:45:00 PM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear	Rte 93 S			500 feet N from Exit 18 on Rte 93 S		Rte 93 S
10/20/2004	12:45:00 AM	Unknown	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	INTERSTATE 93 Rte 93 S				Rte 93 S Milemarker 16.0	INTERSTATE 93 Rte 93 S
7/27/2005	2:45:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear				1000 feet N from Exit 18 on Rte 93 S		Rte 93 S
1/29/2006	6:30:00 AM	Unknown	2	0	0	Not reported	Not reported	Wet	Dark - lighted roadway	Rain				Exit 15 on Rte 93 S		Rte 93 S / Rte 93
9/15/2006	7:00:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			CLOSE EXIT 15	Exit 15 on Rte 93 N		Rte 93 N
10/11/2006	7:40:00 AM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear			1000 feet N from WHITE WINDMILL			1000 feet N from Intersection Rte 93 N / RAMP - RT 93 NB TO MORRISSEY BLVD

QUINCY (WEST QUINCY)	1/1/2004	12/31/2006	is similar to: rte 93 route 93											
Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Street	Intersection	Exit Distance	Feet_From
10/3/2006	8:00:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	Rte 93	/ Rte 3		
1/17/2005	8:00:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear			Exit 9 on Rte 93	Rte 93 S
10/18/2005	8:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear				Rte 93 / Rte 3
5/8/2006	12:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear				BATTERYMARCH PARK Rte 28 / WILLIAMS STREET Rte 93

		TAUNTON	1/1/2004	12/31/2006	similar to:									
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Address/Landmark	Feet_From
BROADWAY Rte 138 N	TAUNTON GREEN	7/19/2006	4:50:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
TAUNTON GREEN Rte 138 N	BROADWAY	7/12/2006	3:57:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
TAUNTON GREEN	BROADWAY Rte 138	3/30/2006	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear		
BROADWAY	TAUNTON GREEN	3/3/2006	4:07:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TAUNTON GREEN	BROADWAY	1/9/2006	3:10:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	BROADWAY	8/11/2005	2:20:00 AM	Non-fatal injury	1	1	0	Unknown	Unknown	Dry	Dark - lighted roadway	Clear		
BROADWAY Rte 138 S	TAUNTON GREEN	2/23/2005	4:37:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
BROADWAY	TAUNTON GREEN	9/25/2004	9:46:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TAUNTON GREEN	BROADWAY	3/19/2004	10:10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Daylight	Snow		
KILMER AVENUE	OAK STREET	1/18/2004	1:45:00 AM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear		
KILMER AVENUE	OAK STREET	8/22/2004	7:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
OAK STREET	KILMER AVENUE	2/22/2005	8:23:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear		
KILMER AVENUE	OAK STREET	8/3/2005	12:13:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
KILMER AVENUE	OAK STREET	9/17/2005	10:00:00 PM	Not Reported	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy		
OAK STREET	KILMER AVENUE	11/10/2005	9:55:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear		
OAK STREET	KILMER AVENUE	12/10/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
KILMER AVENUE	OAK STREET	1/28/2006	3:45:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear		
OAK STREET	KILMER AVENUE	4/10/2006	6:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear		
KILMER AVENUE	OAK STREET	6/16/2006	4:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear		
KILMER AVENUE	OAK STREET	7/10/2006	1:37:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
OAK STREET	KILMER AVENUE	7/26/2006	11:05:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
WASHINGTON STREET	FREDRICK R. MARTIN SR. PARKWAY	5/2/2006	6:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy		
TAUNTON GREEN	COHANNET STREET / WINTHROP STREET	12/20/2006	10:27:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear		
TAUNTON GREEN	COHANNET STREET	12/9/2006	8:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	COHANNET STREET / WINTHROP STREET	11/25/2006	3:57:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	COHANNET STREET / WINTHROP STREET	10/13/2006	1:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TAUNTON GREEN	COHANNET STREET / WINTHROP STREET	5/26/2006	2:55:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
TAUNTON GREEN	COHANNET STREET / WINTHROP STREET Rte 44	5/26/2006	2:55:00 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
TAUNTON GREEN	WINTHROP STREET / COHANNET STREET	9/6/2005	5:30:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	WINTHROP STREET Rte 44 W	6/8/2004	11:02:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
TAUNTON GREEN	COHANNET STREET	5/27/2004	9:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	WINTHROP STREET	5/6/2004	1:19:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	COHANNET STREET / WINTHROP STREET	1/29/2004	2:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET	12/5/2006	3:34:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
COURT STREET	POST OFFICE SQUARE / TAUNTON GREEN Rte 140	10/11/2006	11:25:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET / POST OFFICE SQUARE	7/26/2006	3:35:00 PM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET	6/25/2006	5:41:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain		
POST OFFICE SQUARE	COURT STREET / TAUNTON GREEN	5/24/2006	5:34:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET	4/28/2006	4:35:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	POST OFFICE SQUARE / COURT STREET	4/23/2006	10:31:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy/Rain		
COURT STREET Rte 140	TAUNTON GREEN	4/20/2006	6:04:00 PM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET	12/5/2005	7:15:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
TAUNTON GREEN	POST OFFICE SQUARE	10/31/2005	1:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET	6/5/2005	6:28:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
POST OFFICE SQUARE	TAUNTON GREEN	11/29/2004	2:39:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET / POST OFFICE SQUARE	10/8/2004	11:35:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear		
TAUNTON GREEN	COURT STREET / POST OFFICE SQUARE	9/24/2004	2:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
WASHINGTON STREET	TREMONT STREET Rte 140	12/28/2006	4:11:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear		
WASHINGTON STREET	TREMONT STREET	12/23/2006	12:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear		
WASHINGTON STREET	TREMONT STREET	12/13/2006	11:00:00 AM	Property damage only (none injured)	1	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
WASHINGTON STREET	TREMONT STREET	12/12/2006	11:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TREMONT STREET	WASHINGTON STREET	11/1/2006	4:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TREMONT STREET	WASHINGTON STREET	10/17/2006	10:31:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear		
TREMONT STREET	WASHINGTON STREET	8/19/2006	5:15:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	WEBSTER BANK	
WASHINGTON STREET	OAK STREET / TREMONT STREET Rte 140 N	6/11/2006	7:09:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear		
OAK STREET	TREMONT STREET	5/24/2006	3:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TREMONT STREET	WASHINGTON STREET	5/18/2006	6:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dusk	Clear		
TREMONT STREET Rte 140	WASHINGTON STREET Rte 140	2/14/2006	12:04:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Clear		
OAK AVENUE	TREMONT STREET / WASHINGTON STREET	1/19/2006	6:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear		
TREMONT STREET	WASHINGTON STREET	10/26/2005	9:08:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
TREMONT STREET	WASHINGTON STREET	10/20/2005	9:08:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy		
WASHINGTON STREET	TREMONT STREET	10/15/2005	10:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain		
TREMONT STREET	WASHINGTON STREET	10/1/2005	2:30:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TREMONT STREET	WASHINGTON STREET	7/14/2005	5:00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dawn	Clear		
WASHINGTON STREET Rte 140	TREMONT STREET	6/14/2005	11:40:00 AM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Dark - unknown roadway lighting	Clear		
TREMONT STREET Rte 140	WASHINGTON STREET	6/13/2005	8:45:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear		
WASHINGTON STREET	TREMONT STREET	1/15/2005	1:52:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear		
OAK STREET	TREMONT STREET	3/10/2004	7:35:00 PM	Not Reported	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Clear		
COURT STREET	WASHINGTON STREET	6/28/2006	2:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
COURT STREET	WASHINGTON STREET	5/3/2006	11:55:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain		
COURT STREET	WASHINGTON STREET	3/1/2006	8:14:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear		
OAK STREET	WASHINGTON STREET	11/26/2005	2:15:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear		
WASHINGTON STREET	COURT STREET	7/7/2005	7:40:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear		
WASHINGTON STREET	COURT STREET / PARK STREET	6/22/2005	11:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy		OAK STREET
WASHINGTON STREET	COURT STREET	4/15/2005	1:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear		
WASHINGTON STREET	COURT STREET	3/28/2005	6:30:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain		
COURT STREET	WASHINGTON STREET	12/29/2004	8:45:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy		
WASHINGTON STREET	COURT STREET	11/29/2004	3:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
OAK STREET	WASHINGTON STREET	1/30/2004	2:25:00 PM	Unknown	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear		
WASHINGTON STREET	COURT STREET	1/10/2004	3:00:00 PM	Not Reported	2	0	0	Not reported	Not reported	Dry	Daylight	Clear		
MAIN STREET	WEIR STREET	11/12/2006	12:00:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Dark - lighted roadway	Cloudy		
TAUNTON GREEN	WEIR STREET	8/31/2006	10:27:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
TAUNTON GREEN	BROADWAY / WEIR STREET	6/22/2006	8:37:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Dusk	Clear		
WEIR STREET	MAIN STREET	3/12/2006	7:17:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear		
TAUNTON GREEN Rte 44 E	WEIR AVENUE / Rte 138	3/8/2006	10:29:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear		
MAIN STREET	TAUNTON GREEN / WEIR STREET Rte 138	2/11/2006	7:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear		

		TAUNTON	1/1/2004	12/31/2006	similar to:									
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Address/Landmark	Feet_From
TAUNTON GREEN	WEIR STREET	12/14/2005	5:18:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear		
MAIN STREET	WEIR STREET	11/22/2005	10:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain		
TAUNTON GREEN	WEIR STREET Rte 138 S	10/22/2005	1:44:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear		
MAIN STREET Rte 44	WEIR STREET	10/8/2005	11:05:00 PM	Non-fatal injury	3	2	0	Angle	Angle	Wet	Dark - lighted roadway	Rain		
Rte 44	BROADWAY	11/17/2004	5:45:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear		
MAIN STREET	WEIR STREET	9/10/2004	9:30:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
WEIR STREET	MAIN STREET	9/9/2004	5:00:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TAUNTON GREEN	WEIR STREET	9/7/2004	11:38:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear		
WEIR STREET Rte 138 N	TAUNTON GREEN	6/30/2004	1:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear		
TAUNTON GREEN	WEIR STREET	5/28/2004	3:20:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear		
MAIN STREET Rte 44 E	WEIR STREET	4/22/2004	4:38:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
WEIR STREET Rte 138 N	MAIN STREET Rte 44 W	4/2/2004	11:56:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Cloudy		
MAIN STREET	WEIR STREET	3/19/2004	5:07:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dusk	Clear		
TAUNTON GREEN	WEIR STREET	2/25/2004	11:15:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear		
TAUNTON GREEN	WEIR STREET	2/15/2004	8:05:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear		
WEIR STREET	MAIN STREET	2/12/2004	8:54:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear		
MAIN STREET	WEIR STREET	1/24/2004	12:34:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear		

		TAUNTON	1/1/2004	12/31/2006	similar to:								
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Feet_From
DEAN STREET Rte 104	CAPE HIGHWAY	1/17/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear	
CAPE HIGHWAY Rte 44	DEAN STREET	5/15/2004	2:47:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	
DEAN STREET Rte 104 S	DEAN STREET Rte 44 E / CAPE ROAD	9/6/2004	4:20:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear/Clear	
CAPE ROAD	DEAN STREET / Rte 44	9/18/2004	10:31:00 AM	Non-fatal injury	3	1	0	Head-on	Head-on	Wet	Daylight	Rain/Cloudy	
CAPE ROAD	DEAN STREET / Rte 44	2/4/2005	3:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	
CHURCH GREEN Rte 44 E	DEAN STREET / Rte 44	4/29/2005	2:30:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44	Rte 44 / Rte 44	7/1/2005	11:50:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
CAPE HIGHWAY	DEAN STREET	11/17/2005	3:05:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 104	CAPE HIGHWAY	1/10/2006	9:40:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	
ROUTE 44 Rte 44	SOUTH MAIN STREET	4/14/2006	12:00:00 PM	Non-fatal injury	2	1	0	Not reported	Not reported	Dry	Daylight	Clear	44 ROUTE 44
Rte 44	DEAN STREET	7/15/2006	1:15:00 PM	Non-fatal injury	2	1	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear	
CAPE HIGHWAY Rte 44 E	DEAN STREET	10/2/2006	11:55:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
MAIN STREET	UNION STREET	7/22/2004	6:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
CHURCH GREEN	MAIN STREET	11/24/2004	9:01:00 PM	Not Reported	2	0	0	Angle	Angle	Wet	Daylight	Rain	
MAIN STREET	UNION STREET	12/10/2004	4:55:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Dark - lighted roadway	Rain/Cloudy	
CHURCH GREEN	SUMMER STREET Rte 140 / SPRING STREET	2/23/2005	2:45:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
MAIN STREET	UNION STREET	4/6/2005	10:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	
CHURCH GREEN	MAIN STREET	8/23/2005	9:46:00 AM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	
MAIN STREET Rte 44	UNION STREET	6/23/2006	10:45:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Dark - lighted roadway	Clear	
DEAN STREET	ARLINGTON STREET	4/17/2004	3:20:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44 W	ARLINGTON STREET	1/26/2005	9:00:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow/Snow	
DEAN STREET	ARLINGTON STREET	3/23/2005	12:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
DEAN STREET	ARLINGTON STREET	3/28/2005	2:40:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	
DEAN STREET Rte 44	ARLINGTON STREET / Rte 44	10/8/2005	2:05:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	
DEAN STREET Rte 44	ARLINGTON STREET	11/14/2005	7:00:00 AM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Wet	Daylight	Clear	
DEAN STREET Rte 44 W	ARLINGTON STREET	7/2/2006	2:35:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET	ARLINGTON STREET	11/9/2006	9:40:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Clear	
DEAN STREET	ARLINGTON STREET	11/25/2006	5:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Dark - lighted roadway	Clear	
DEAN STREET Rte 44 E	LONGMEADOW ROAD	1/6/2004	3:10:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
DEAN STREET Rte 44	LONGMEADOW ROAD	1/20/2004	3:34:00 PM	Not Reported	3	0	0	Angle	Angle	Dry	Daylight	Clear	
DEAN STREET Rte 44 E	LONGMEADOW ROAD	3/4/2004	2:54:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44 S	LONGMEADOW ROAD	4/7/2004	8:05:00 PM	Not Reported	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear	
DEAN STREET Rte 44	LONGMEADOW ROAD	6/20/2004	1:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44	LONGMEADOW ROAD	7/13/2004	10:35:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy	
DEAN STREET Rte 44 W	LONGMEADOW ROAD / GORDON M OWEN RIVERWAY STREET	7/22/2004	6:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
DEAN STREET Rte 44 E	LONGMEADOW ROAD	8/5/2004	7:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear	
DEAN STREET	LONGMEADOW ROAD	8/8/2004	1:15:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Dark - lighted roadway	Clear	
DEAN STREET	LONGMEADOW ROAD	9/1/2004	12:18:00 PM	Property damage only (none injured)	3	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44 E	GORDON M OWEN RIVERWAY STREET / LONGMEADOW ROAD	10/21/2004	9:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
DEAN STREET Rte 44 W	LONGMEADOW ROAD / GORDON M OWEN RIVERWAY STREET	10/21/2004	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	
DEAN STREET	GORDON M OWEN RIVERWAY STREET / LONGMEADOW ROAD	12/16/2004	2:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	
DEAN STREET	LONGMEADOW ROAD	1/11/2005	2:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
DEAN STREET	LONGMEADOW ROAD	2/21/2005	3:44:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Wet	Daylight	Rain	
DEAN STREET	LONGMEADOW ROAD	3/29/2005	7:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dark - lighted roadway	Rain	
DEAN STREET	LONGMEADOW ROAD	5/21/2005	12:13:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Cloudy	
LONGMEADOW ROAD	DEAN STREET Rte 44 / GORDON M OWEN RIVERWAY STREET	6/7/2005	9:25:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
DEAN STREET Rte 44 E	LONGMEADOW ROAD	6/20/2005	4:59:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET	LONGMEADOW ROAD	6/23/2005	4:30:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44	LONGMEADOW ROAD	6/26/2005	5:19:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear	
DEAN STREET Rte 44 W	LONGMEADOW ROAD	9/15/2005	11:05:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	
DEAN STREET	LONGMEADOW ROAD	10/3/2005	3:30:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET	LONGMEADOW ROAD	10/29/2005	8:00:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain	
DEAN STREET	GORDON M OWEN RIVERWAY STREET / Rte 44	11/12/2005	12:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
DEAN STREET	LONGMEADOW ROAD / GORDON M OWEN RIVERWAY STREET	12/21/2005	4:10:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Daylight	Clear/Clear	
DEAN STREET Rte 44 W	LONGMEADOW ROAD / HON. GORDON M OWEN RIVERWAY	2/11/2006	10:50:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
DEAN STREET	LONGMEADOW ROAD	2/24/2006	1:15:00 PM	Non-fatal injury	2	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET	LONGMEADOW ROAD	3/5/2006	2:20:00 PM	Non-fatal injury	2	2	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44	LONGMEADOW ROAD	5/15/2006	5:00:00 PM	Unknown	2	0	0	Rear-end	Rear-end	Wet	Daylight	Rain	
DEAN STREET	LONGMEADOW ROAD	5/21/2006	6:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	
LONGMEADOW ROAD	DEAN STREET Rte 44 E / HON. GORDON M OWEN RIVERWAY	6/13/2006	8:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dusk	Clear	
DEAN STREET	LONGMEADOW ROAD	6/30/2006	12:05:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET	LONGMEADOW ROAD	7/4/2006	8:03:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
DEAN STREET Rte 44	LONGMEADOW ROAD	9/29/2006	1:02:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
DEAN STREET Rte 44 E	LONGMEADOW ROAD	9/29/2006	3:45:00 PM	Non-fatal injury	3	1	0	Rear-end	Rear-end	Dry	Daylight	Clear	
DEAN STREET Rte 44 W	LONGMEADOW ROAD / HON. GORDON M OWEN RIVERWAY	11/17/2006	5:50:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Dark - lighted roadway	Rain/Cloudy	
DEAN STREET Rte 44	LONGMEADOW ROAD	12/16/2006	11:07:00 AM	Non-fatal injury	3	4	0	Head-on	Head-on	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	1/8/2004	7:35:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	2/3/2004	3:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
WASHINGTON STREET	PURCHASE STREET	2/11/2004	12:04:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	3/5/2004	10:24:00 AM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	4/12/2004	4:08:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	5/5/2004	10:05:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	6/6/2004	8:01:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Dusk	Cloudy/Rain	
PURCHASE STREET	WASHINGTON STREET	6/13/2004	6:05:00 PM	Not Reported	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	6/16/2004	12:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	7/28/2004	9:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain/Clear	
WASHINGTON STREET	PURCHASE STREET	9/8/2004	2:16:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	9/28/2004	4:56:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain	
WASHINGTON STREET	PURCHASE STREET	12/10/2004	12:36:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Daylight	Rain/Cloudy	
WASHINGTON STREET	PURCHASE STREET	12/16/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear	
PURCHASE STREET	WASHINGTON STREET	1/28/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	3/25/2005	5:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	4/14/2005	2:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	5/23/2005	2:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	5/25/2005	12:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Wet	Other	Cloudy	
PURCHASE STREET	WASHINGTON STREET	6/2/2005	4:15:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	6/6/2005	3:30:00 AM	Not Reported	2	0	0	Angle	Angle	Wet	Daylight	Cloudy	
PURCHASE STREET	WASHINGTON STREET	6/8/2005	8:08:00 AM	Property damage only (none injured)	1	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	7/8/2005	3:20:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	9/16/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Wet	Other	Cloudy	

		TAUNTON	1/1/2004	12/31/2006	similar to:								
Street	Intersection	Crash_Date	Crash_Time	Crash_Type	Total_Vehicles	Non-Fatal Injuries	Fatal Injuries	Collision_manner	Collision_with	Road_Surface	Lighting	Weather	Feet_From
WASHINGTON STREET	PURCHASE STREET	12/10/2005	7:15:00 PM	Not Reported	2	0	0	Angle	Angle	Ice	Dark - lighted roadway	Clear	
PURCHASE STREET	WASHINGTON STREET	1/5/2006	2:45:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Cloudy/Cloudy	
WASHINGTON STREET	PURCHASE STREET	2/1/2006	9:54:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	2/24/2006	12:28:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	6/14/2006	12:50:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
PURCHASE STREET	WASHINGTON STREET	6/20/2006	5:11:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
PURCHASE STREET	WASHINGTON STREET	6/30/2006	10:30:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
PURCHASE STREET	WASHINGTON STREET	8/7/2006	12:23:00 PM	Non-fatal injury	2	1	0	Head-on	Head-on	Dry	Daylight	Clear	
WASHINGTON STREET	PURCHASE STREET	8/9/2006	8:38:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	8/9/2006	7:27:00 AM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	WASHINGTON STREET	10/7/2006	10:49:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	
PURCHASE STREET	WASHINGTON STREET	10/11/2006	3:11:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
SCHOOL STREET	PURCHASE STREET	4/27/2004	11:15:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
PURCHASE STREET	SCHOOL STREET	5/9/2004	11:25:00 AM	Non-fatal injury	2	4	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	
SCHOOL STREET	PURCHASE STREET	10/16/2004	4:05:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
PURCHASE STREET	SCHOOL STREET	1/6/2005	9:02:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Snow	Daylight	Snow/Sleet, hail (freezing rain or drizzle)	
PURCHASE STREET	SCHOOL STREET	2/2/2005	7:45:00 AM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Clear	
ARLINGTON STREET	SCHOOL STREET	2/28/2005	8:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
ARLINGTON STREET	SCHOOL STREET	3/11/2005	12:45:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy	
SCHOOL STREET	ARLINGTON STREET / PURCHASE STREET	3/18/2005	11:35:00 AM	Non-fatal injury	2	2	0	Angle	Angle	Dry	Daylight	Clear	
SCHOOL STREET	PURCHASE STREET / ARLINGTON STREET	7/5/2005	8:30:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Dusk	Clear	
PURCHASE STREET	SCHOOL STREET	9/19/2005	4:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
SCHOOL STREET	ARLINGTON STREET	9/28/2005	2:15:00 PM	Property damage only (none injured)	2	0	0	Not reported	Not reported	Dry	Daylight	Cloudy	
SCHOOL STREET	ARLINGTON STREET	10/25/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
ARLINGTON STREET	SCHOOL STREET	10/26/2005	1:40:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	
PURCHASE STREET	SCHOOL STREET	11/17/2005	2:35:00 PM	Non-fatal injury	2	3	0	Angle	Angle	Dry	Daylight	Clear/Clear	
SCHOOL STREET	ARLINGTON STREET	12/14/2005	2:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear/Clear	
SCHOOL STREET	PURCHASE STREET	2/23/2006	1:06:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
SCHOOL STREET	ARLINGTON STREET / PURCHASE STREET	3/26/2006	12:00:00 AM	Non-fatal injury	2	4	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
SCHOOL STREET	ARLINGTON STREET	5/3/2006	3:17:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy	
ARLINGTON STREET	SCHOOL STREET	6/27/2006	3:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
SCHOOL STREET	PURCHASE STREET	8/31/2006	9:30:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear	
SCHOOL STREET	ARLINGTON STREET	11/24/2006	1:11:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear	
SUMMER STREET	CHURCH GREEN	11/15/2004	2:58:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Sideswipe, opposite direction	Dry	Daylight	Clear	
SUMMER STREET Rte 140 S	SPRING STREET	11/20/2004	11:26:00 AM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear	
SUMMER STREET	SPRING STREET	6/12/2005	9:48:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
SUMMER STREET	SPRING STREET / CHURCH GREEN	1/13/2006	1:00:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	
SPRING STREET	SUMMER STREET	2/1/2006	7:20:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
SUMMER STREET Rte 140 N	SPRING STREET / CHURCH GREEN	2/7/2006	3:16:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear	
SPRING STREET	SUMMER STREET Rte 140 S	2/28/2006	11:19:00 AM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	
SPRING STREET	SUMMER STREET	4/1/2006	8:50:00 AM	Unknown	2	0	0	Sideswipe, same direction	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear	
SPRING STREET	SUMMER STREET	4/4/2006	8:50:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	
SPRING STREET	SUMMER STREET	4/11/2006	11:03:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear/Clear	
SUMMER STREET Rte 140	SPRING STREET	4/24/2006	10:42:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Wet	Daylight	Cloudy	
SPRING STREET	SUMMER STREET	5/1/2006	3:03:00 PM	Property damage only (none injured)	2	0	0	Head-on	Head-on	Dry	Daylight	Clear	
SPRING STREET	SUMMER STREET	6/24/2006	3:30:00 PM	Non-fatal injury	2	2	0	Angle	Angle	Wet	Daylight	Rain	
SPRING STREET	SUMMER STREET	7/18/2006	7:00:00 PM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	
SPRING STREET	SUMMER STREET	9/1/2006	12:00:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
SUMMER STREET Rte 140	SPRING STREET / CHURCH GREEN	9/26/2006	5:15:00 PM	Non-fatal injury	2	1	0	Angle	Angle	Dry	Daylight	Clear/Clear	
SPRING STREET	SUMMER STREET	9/29/2006	7:26:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
SPRING STREET	SUMMER STREET	11/3/2006	8:56:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear/Clear	
SUMMER STREET	SPRING STREET	11/20/2006	11:57:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
SPRING STREET	SUMMER STREET	12/8/2006	5:47:00 PM	Non-fatal injury	3	3	0	Angle	Angle	Dry	Daylight	Clear/Rain	
SPRING STREET	SUMMER STREET	12/23/2006	9:35:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	
WINTER STREET	SCHOOL STREET	1/20/2004	7:33:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	Single vehicle crash	Dry	Daylight	Clear	
WINTER STREET	SCHOOL STREET	6/24/2004	4:00:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Rear-end	Dry	Daylight	Clear	
SCHOOL STREET	WINTER STREET	7/21/2004	10:15:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	
SCHOOL STREET	WINTER STREET	9/16/2004	4:15:00 PM	Property damage only (none injured)	3	0	0	Angle	Angle	Wet	Daylight	Rain/Cloudy	
WINTER STREET	SCHOOL STREET	12/6/2004	12:15:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy	
WINTER STREET	SCHOOL STREET	12/13/2004	7:40:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Cloudy/Rain	
WINTER STREET	SCHOOL STREET	2/17/2005	8:30:00 AM	Not Reported	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WINTER STREET	FLORAL STREET / SCHOOL STREET	3/16/2005	9:19:00 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Single vehicle crash	Dry	Dark - lighted roadway	Clear	
WINTER STREET	SCHOOL STREET	3/16/2005	7:30:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
SCHOOL STREET	WINTER STREET	5/12/2005	4:00:00 PM	Non-fatal injury	3	1	0	Angle	Angle	Dry	Daylight	Clear	
SCHOOL STREET	WINTER STREET	5/18/2005	3:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Cloudy	
SCHOOL STREET	WINTER STREET	6/26/2005	2:00:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
WINTER STREET	SCHOOL STREET	10/28/2005	5:30:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dusk	Clear	
SCHOOL STREET	WINTER STREET	11/21/2005	9:27:00 AM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Daylight	Clear	
SCHOOL STREET	WINTER STREET	12/26/2005	3:11:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Wet	Daylight	Rain	
BROADWAY	WASHINGTON STREET / RANDALL STREET	12/12/2004	8:40:00 PM	Property damage only (none injured)	2	0	0	Angle	Angle	Dry	Dark - lighted roadway	Clear	

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : Easton, MA

COUNT DATE : 9-23-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ROUTE 138/WASHINGTON ST — RIN #

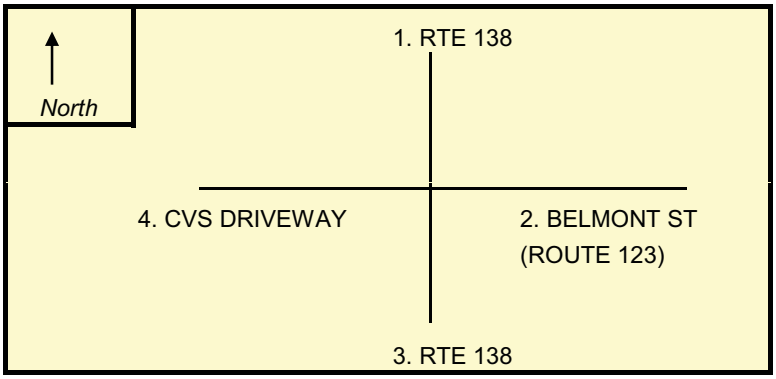
MINOR STREET(S) : BELMONT ST — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	825	690	686	111		

" K " FACTOR : 0.09 APPROACH ADT : 25689 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 12 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 4

CRASH RATE CALCULATION : 0.43

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : Easton, MA

COUNT DATE : 9-23-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ROUTE 138/WASHINGTON ST — RIN #

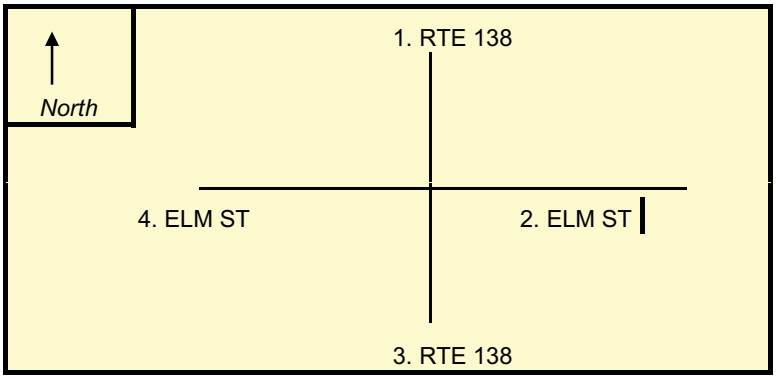
MINOR STREET(S) : ELM ST — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1214	383	304	586		

" K " FACTOR : 0.09 APPROACH ADT : 27633.333 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 17 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 6

CRASH RATE CALCULATION : 0.56

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : Easton, MA

COUNT DATE : 9-23-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ROUTE 138/WASHINGTON ST — RIN #

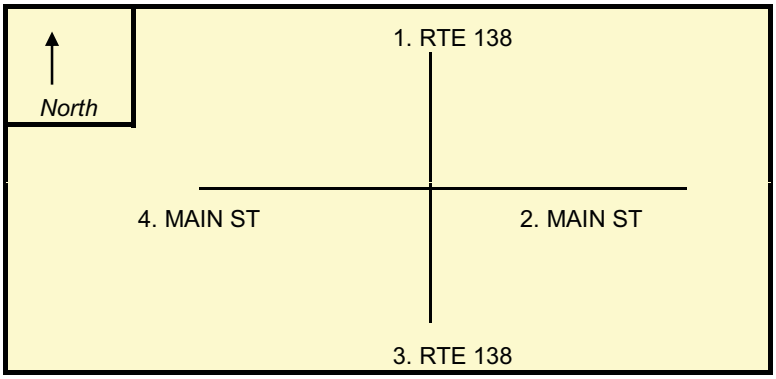
MINOR STREET(S) : MAIN ST — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	857	494	643	544		

" K " FACTOR : 0.09 APPROACH ADT : 28200 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 24 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 8

CRASH RATE CALCULATION : 0.78

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : Easton, MA

COUNT DATE : 9-23-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ROUTE 138/WASHINGTON ST — RIN #

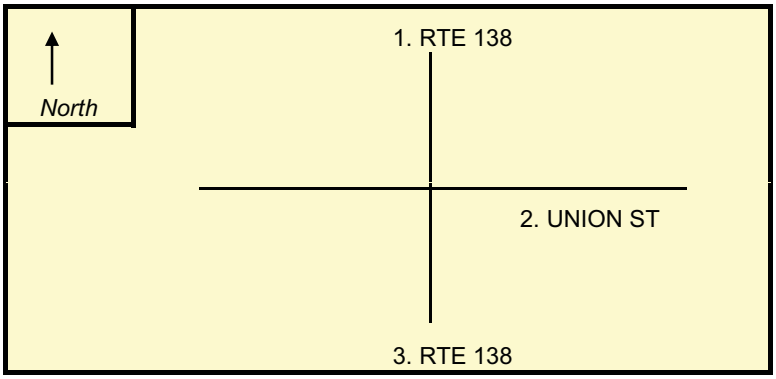
MINOR STREET(S) : UNION STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB			
VOLUMES (PM) :	1015	280	649			

" K " FACTOR : 0.09 APPROACH ADT : 21600 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 8 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.34

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : EASTON, MA

COUNT DATE : 9-23-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : MAIN STREET

RIN #

MINOR STREET(S) : ELM STREET

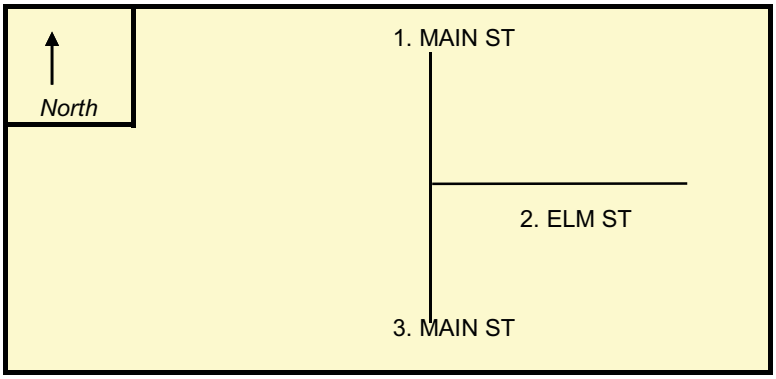
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB			
VOLUMES (PM) :	195	210	200			

" K " FACTOR : 0.09

APPROACH ADT : 6722

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 5

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.68

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : EASTON, MA

COUNT DATE : 9-23-2008

MHD USE ONLY

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

Source #

~ INTERSECTION DATA ~

MAJOR STREET : LINCOLN STREET — RIN #

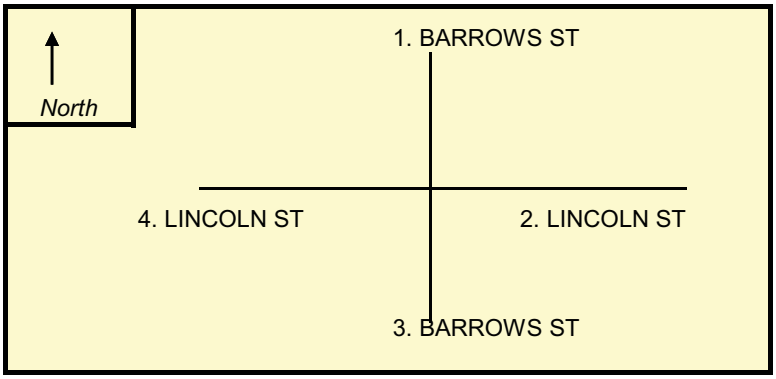
MINOR STREET(S) : BARROWS STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	167	410	30	290		

" K " FACTOR : 0.09 APPROACH ADT : 9967 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.09

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : EASTON, MA

COUNT DATE : 9-23-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : MAIN STREET/LINCOLN STREET — RIN #

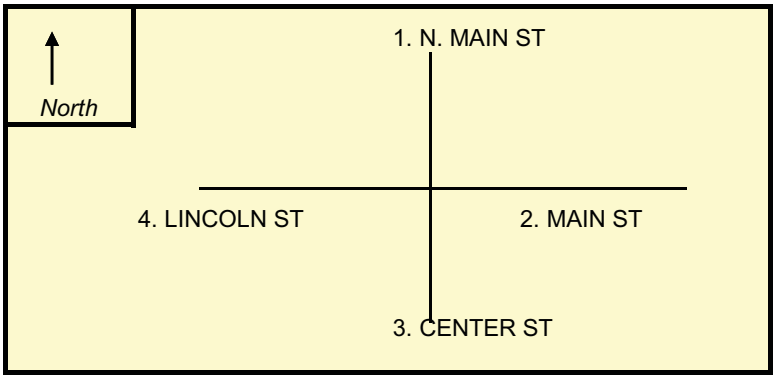
MINOR STREET(S) : CENTER STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	145	840	240	245		

" K " FACTOR : 0.09 APPROACH ADT : 16333 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 9 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.50

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE : 9-9-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : DAVOL STREET/COLUMBIA STREET

RIN #

MINOR STREET(S) : ANAWAN STREET/POCASSET STREET

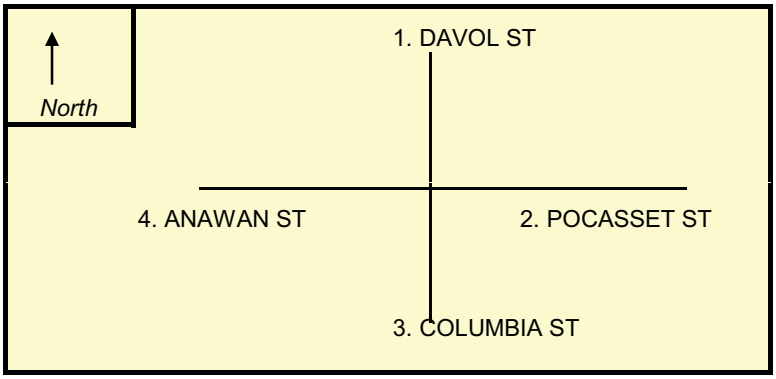
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	568	187	226	244		

" K " FACTOR : 0.09

APPROACH ADT : 13611

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 7

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.47

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE : 9-9-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WATER STREET

RIN #

MINOR STREET(S) : ANAWAN STREET

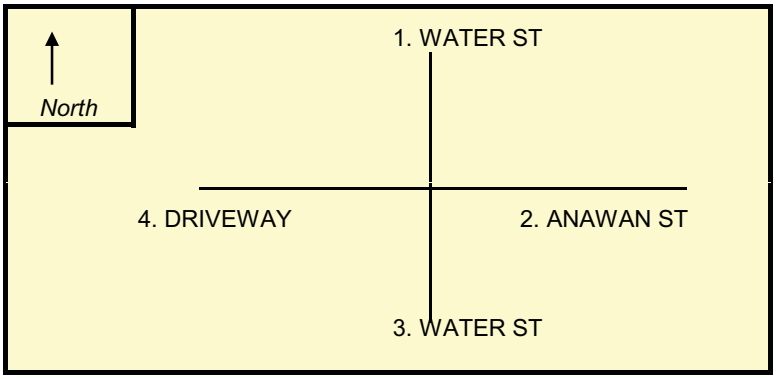
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	259	72	163	28		

" K " FACTOR : 0.09

APPROACH ADT : 5800

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.63

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE : 9-9-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : DAVOL STREET

RIN #

MINOR STREET(S) : CENTRAL STREET

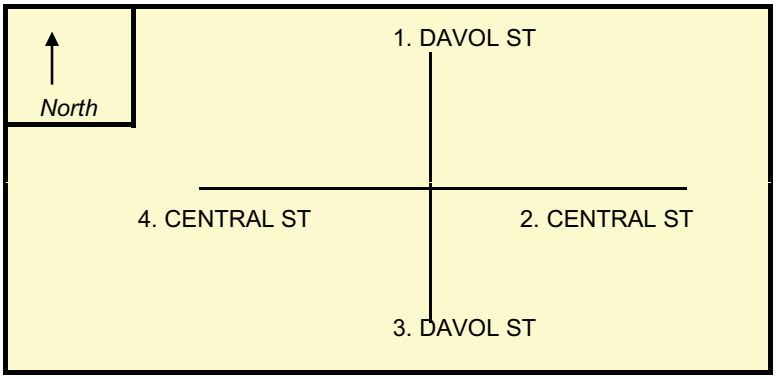
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	537	479	310	1		

" K " FACTOR : 0.09

APPROACH ADT : 14744

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 6

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.37

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE : 9-92008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : NORTH DAVOL STREET

RIN #

MINOR STREET(S) : PRESIDENT AVENUE

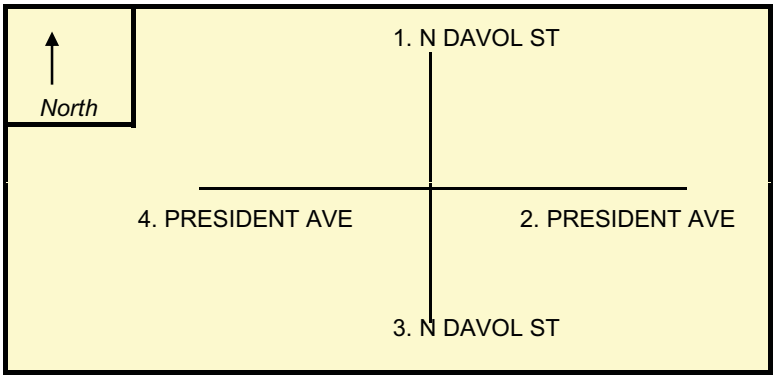
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	0	608	889	545		

" K " FACTOR : 0.09

APPROACH ADT : 22689

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 60

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 20

CRASH RATE CALCULATION : 2.42

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments: A K-factor of 0.09 was assumed because ATRs data is missing

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE : 9-92008

DISTRICT : 5

UNSIGNALIZED : x

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : NORTH DAVOL STREET

RIN #

MINOR STREET(S) : TURNER STREET

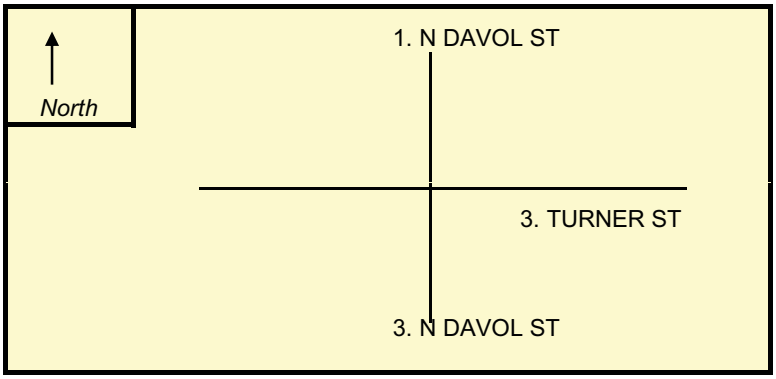
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB			
VOLUMES (PM) :	0	60	897			

" K " FACTOR : 0.09

APPROACH ADT : 10633

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.34

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE : 9-92008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : NORTH MAIN STREET — RIN #

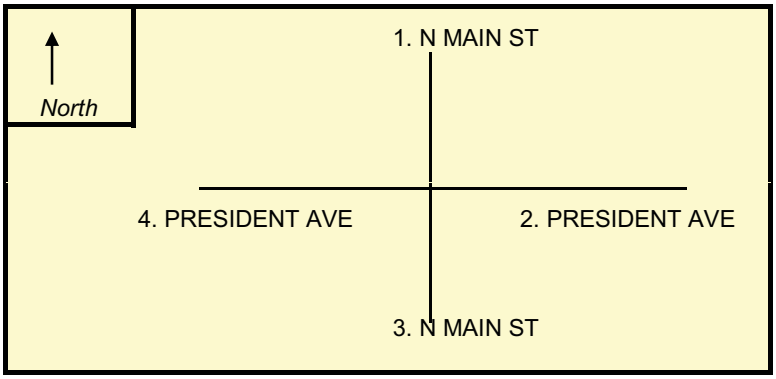
MINOR STREET(S) : PRESIDENT AVENUE — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	406	514	423	747		

" K " FACTOR : 0.09 APPROACH ADT : 23222 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 29 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 10

CRASH RATE CALCULATION : 1.14

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE : 9-92008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : SOUTH DAVOL STREET — RIN #

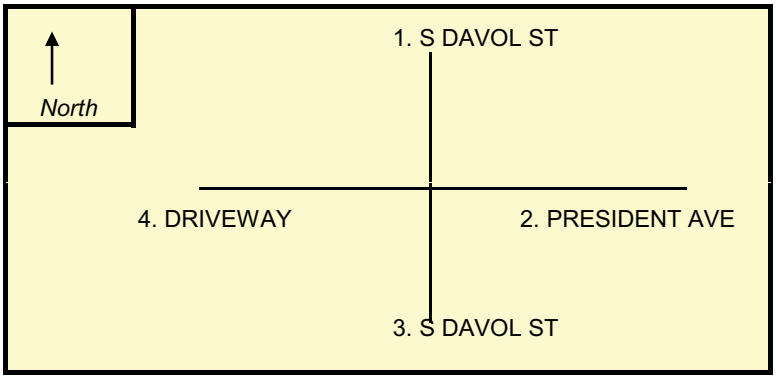
MINOR STREET(S) : PRESIDENT AVENUE — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1015	324	0	10		

" K " FACTOR : 0.09 APPROACH ADT : 14989 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 29 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 10

CRASH RATE CALCULATION : 1.77 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments: A K-FACTOR = 0.09 WAS ASSUMED BECAUSE ATR DATA IS MISSING

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FALL RIVER, MA

COUNT DATE :

MHD USE ONLY

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WATER STREET

RIN #

MINOR STREET(S) : FERRY STREET

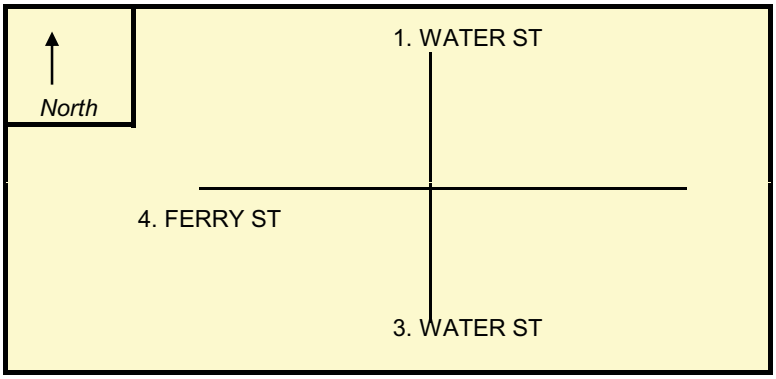
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB		
VOLUMES (PM) :	279		29	175		

" K " FACTOR : 0.09

APPROACH ADT : 5367

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.17

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FREETOWN, MA

COUNT DATE : 9-10-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : SOUTH MAIN STREET — RIN #

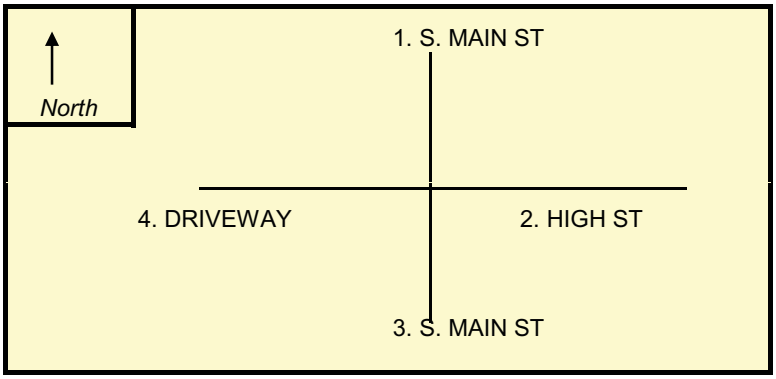
MINOR STREET(S) : HIGH STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1	411	15	541		

" K " FACTOR : 0.09 APPROACH ADT : 10756 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.08

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FREETOWN, MA

COUNT DATE : 9-10-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : SOUTH MAIN STREET — RIN #

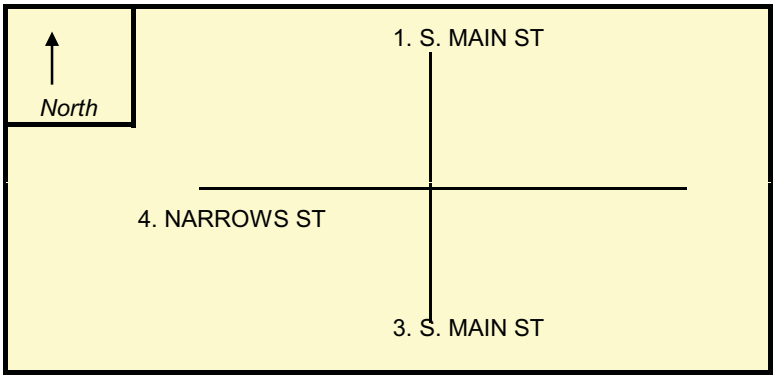
MINOR STREET(S) : NARROWS STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB		
VOLUMES (PM) :	357		248	120		

" K " FACTOR : 0.09 APPROACH ADT : 8056 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.45

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FREETOWN, MA

COUNT DATE : 9-10-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : SOUTH MAIN STREET — RIN #

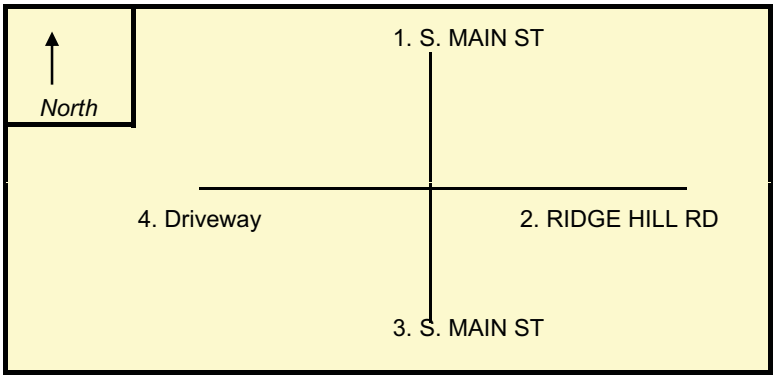
MINOR STREET(S) : RIDGE HILL ROAD — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	398	48	573	89		

" K " FACTOR : 0.09 APPROACH ADT : 12311 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.30

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : FREETOWN, MA

COUNT DATE : 9-10-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : SOUTH MAIN STREET — RIN #

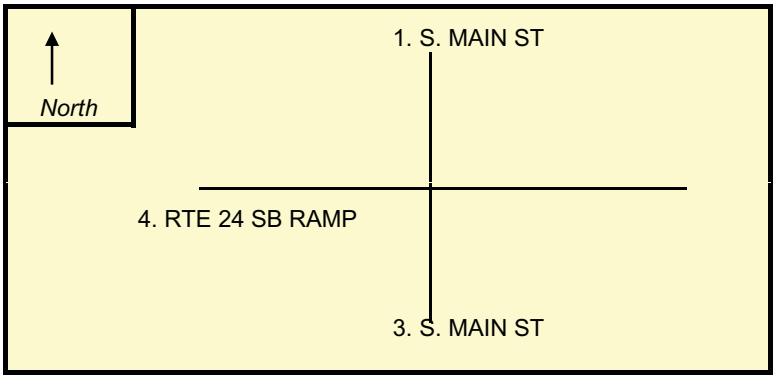
MINOR STREET(S) : ROUTE 24 SB RAMP — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB		
VOLUMES (PM) :	119		522	322		

" K " FACTOR : 0.09 APPROACH ADT : 10700 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.09

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ACUSHNET AVENUE (ROUTE 18 NB) RIN #

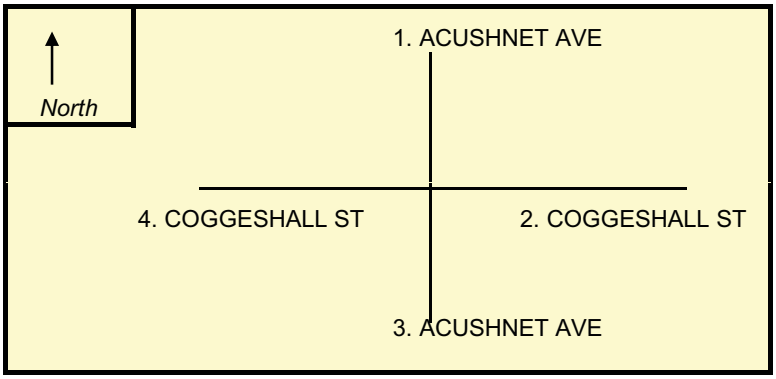
MINOR STREET(S) : COGGESHALL STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	0	340	885	305		

" K " FACTOR : 0.09 APPROACH ADT : 17000 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 16 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 5

CRASH RATE CALCULATION : 0.86

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

MHD USE ONLY

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ACUSHNET AVENUE

RIN #

MINOR STREET(S) : HILLMAN STREET

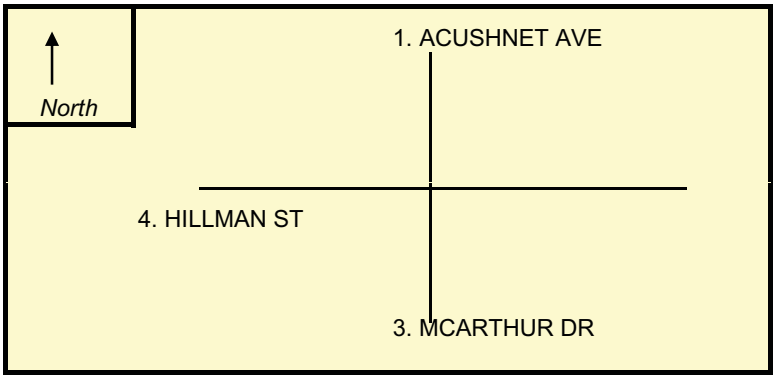
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB		
VOLUMES (PM) :	111		205	186		

" K " FACTOR : 0.09

APPROACH ADT : 5578

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.65

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ASHLEY BOULEVARD (ROUTE 18 SB) RIN #

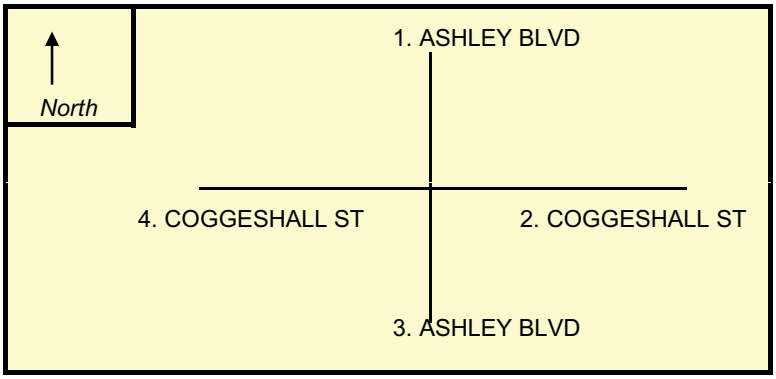
MINOR STREET(S) : COGGESHALL STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	776	377	0	281		

" K " FACTOR : 0.09 APPROACH ADT : 15933 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 51 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 17

CRASH RATE CALCULATION : 2.92

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COGGESHALL STREET

RIN #

MINOR STREET(S) : BELLEVILLE STREET

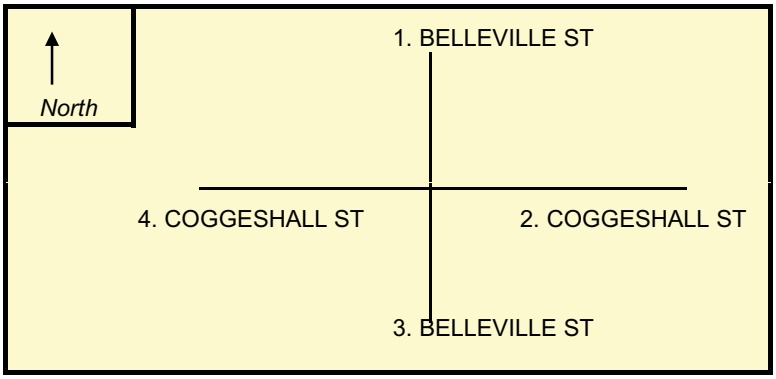
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	592	544	625	454		

" K " FACTOR : 0.09

APPROACH ADT : 24611

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 17

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 6

CRASH RATE CALCULATION : 0.63

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD, MA

COUNT DATE : 9/18/2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : CHURCH STREET

RIN #

MINOR STREET(S) : NASH ROAD

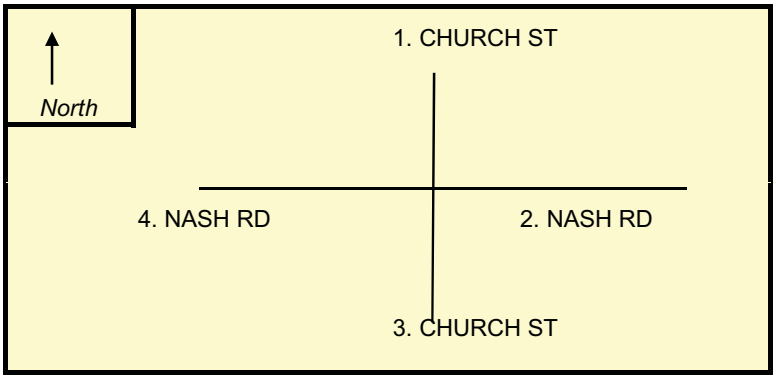
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	449	362	248	589		

" K " FACTOR : 0.09

APPROACH ADT : 18311

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 10

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.50

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

MHD USE ONLY

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

Source #

~ INTERSECTION DATA ~

MAJOR STREET : MC ARTHUR DRIVE — RIN #

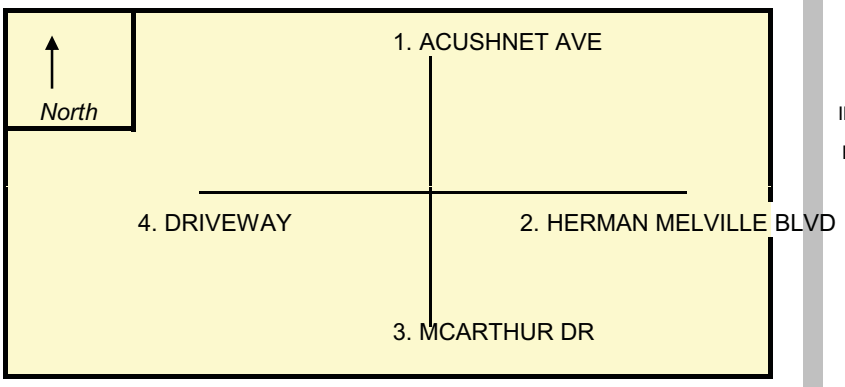
MINOR STREET(S) : HERMAN MELVILLE BOULEVARD — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		6851
VOLUMES (PM) :	194	198	236	5		

" K " FACTOR : 0.09 APPROACH ADT : 7033 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.13

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : PURCHASE STREET

RIN #

MINOR STREET(S) : HILLMAN STREET

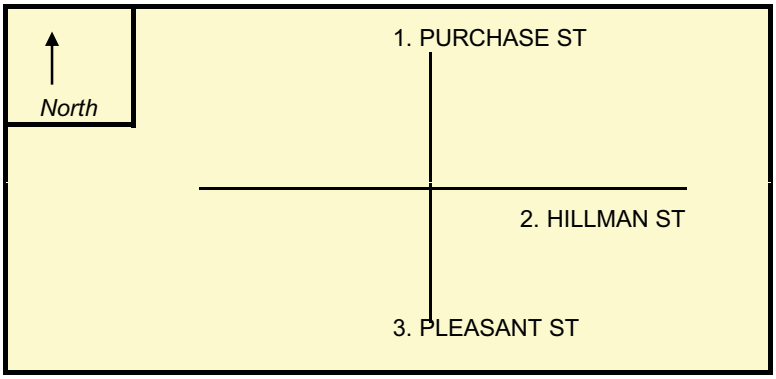
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB			
VOLUMES (PM) :	441	175	904			

" K " FACTOR : 0.09

APPROACH ADT : 16889

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 7

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.38

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : KEMPTON STREET

RIN #

MINOR STREET(S) : PLEASANT STREET

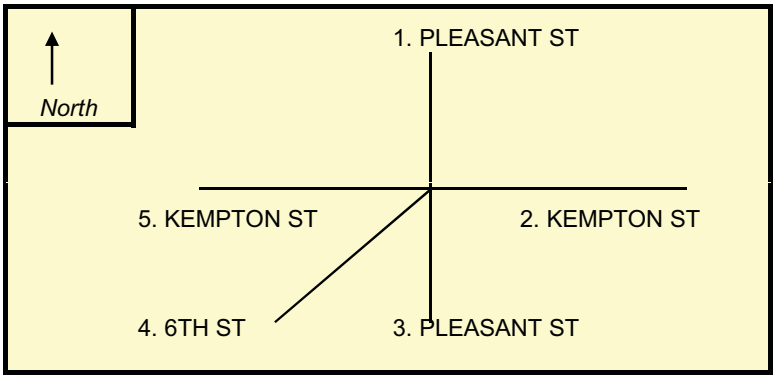
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	SW	EB	
VOLUMES (PM) :	436	771	685	0	438	

" K " FACTOR : 0.09

APPROACH ADT : 25889

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 3

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.11

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD, MA

COUNT DATE : 9/18/2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : MT PLEASANT STREET

RIN #

MINOR STREET(S) : JONES STREET/KINGS HIGHWAY

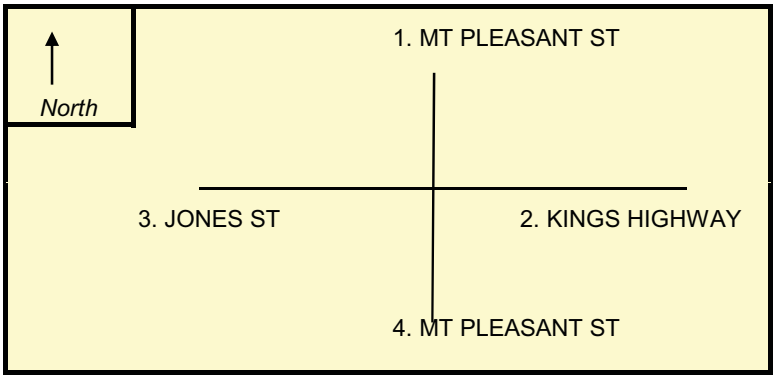
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	733	743	554	13		

" K " FACTOR : 0.09

APPROACH ADT : 22700

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 16

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 5

CRASH RATE CALCULATION : 0.64

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9/18/2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : KINGS HIGHWAY

RIN #

MINOR STREET(S) : ROUTE 140 NB RAMPS

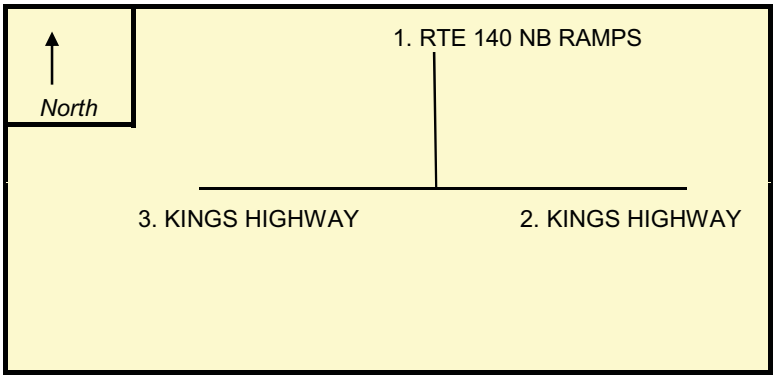
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	EB			
VOLUMES (PM) :	616	833	647			

" K " FACTOR : 0.09

APPROACH ADT : 23288.889 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.16

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ACUSHNET AVENUE (MCARTHUR DR)

RIN #

MINOR STREET(S) : LOGAN STREET

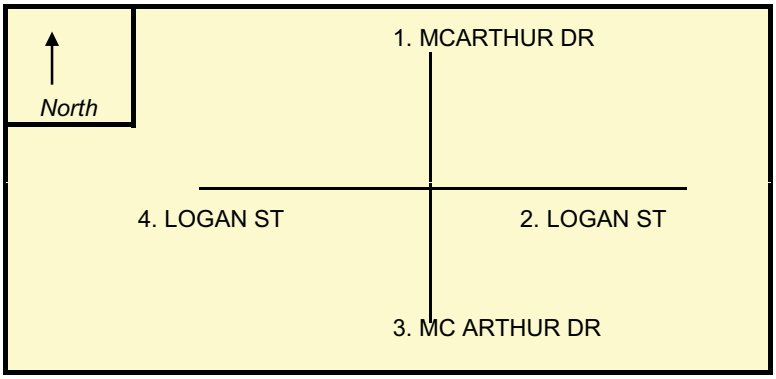
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	9	105	74	167		

" K " FACTOR : 0.09

APPROACH ADT : 3944

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.23

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : NORTH FRONT STREET — RIN #

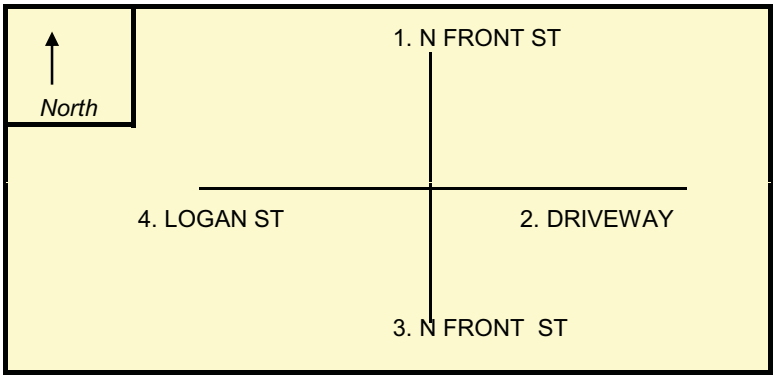
MINOR STREET(S) : LOGAN STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	184	76	206	160		

" K " FACTOR : 0.09 APPROACH ADT : 6956 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 9 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 1.18

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : PURCHASE STREET

RIN #

MINOR STREET(S) : LOGAN STREET

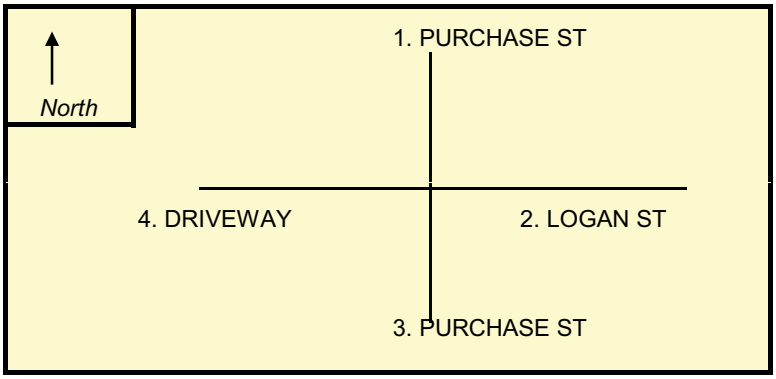
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	362	126	478	6		

" K " FACTOR : 0.09

APPROACH ADT : 10800

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 14

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 5

CRASH RATE CALCULATION : 1.18

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COGGESHALL STREET — RIN #

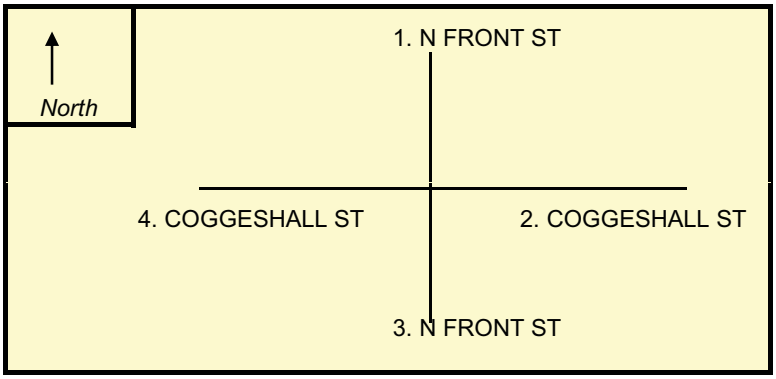
MINOR STREET(S) : NORTH FRONT STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	0	408	208	513		

" K " FACTOR : 0.09 APPROACH ADT : 12544 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 8 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.58

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD, MA

COUNT DATE : 10/29/2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : CHURCH STREET — RIN #

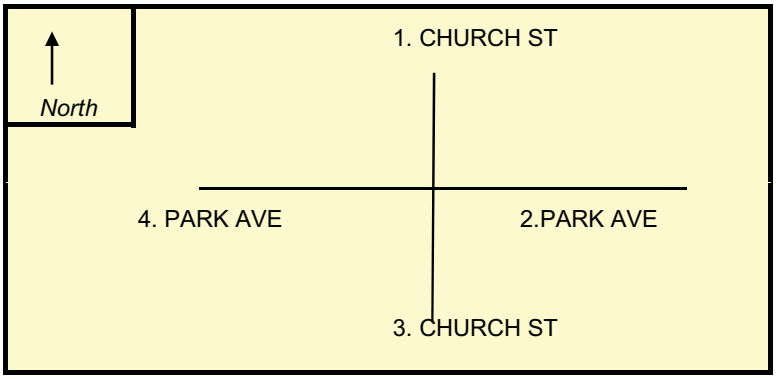
MINOR STREET(S) : PARK AVENUE — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	328	51	487	493		

" K " FACTOR : 0.09 APPROACH ADT : 15100 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 28 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 9

CRASH RATE CALCULATION : 1.69

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : PURCHASE STREET — RIN #

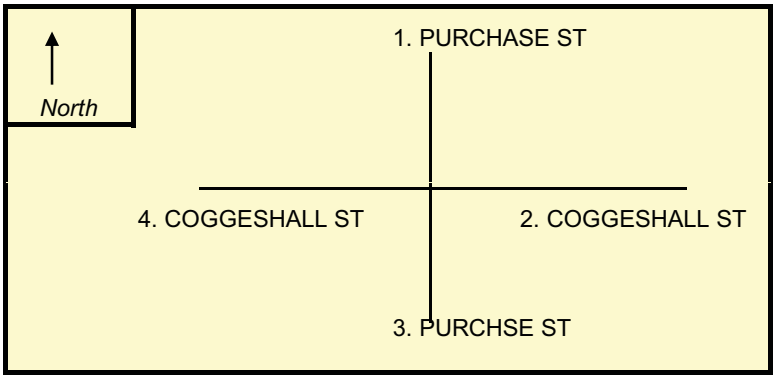
MINOR STREET(S) : COGGESHALL STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	313	257	426	145		

" K " FACTOR : 0.09 APPROACH ADT : 12678 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 14 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 5

CRASH RATE CALCULATION : 1.01

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : PURCHASE STREET

RIN #

MINOR STREET(S) : WELD STREET

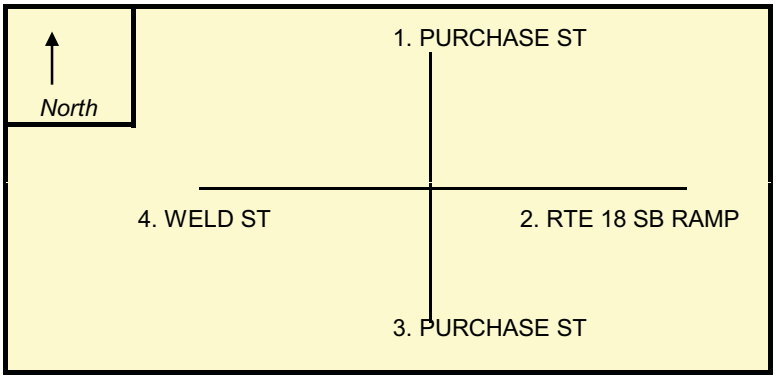
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	269	249	428	67		

" K " FACTOR : 0.09

APPROACH ADT : 11256

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 6

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.49

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD, MA

COUNT DATE : 9/18/2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : TARKILN HILL ROAD — RIN #

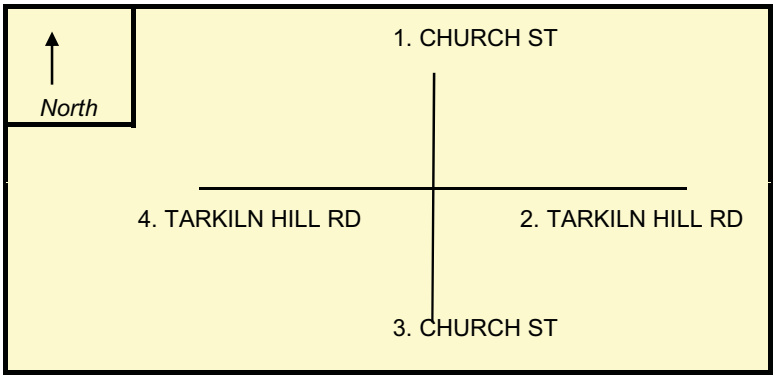
MINOR STREET(S) : CHURCH STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	446	537	467	627		

" K " FACTOR : 0.09 APPROACH ADT : 23078 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 18 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 6

CRASH RATE CALCULATION : 0.71

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ROUTE 18 — RIN #

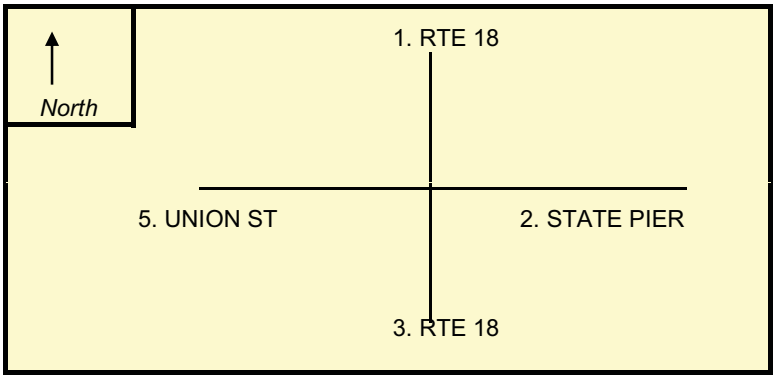
MINOR STREET(S) : UNION STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1362	102	1079	416		

" K " FACTOR : 0.09 APPROACH ADT : 32878 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 13 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 4

CRASH RATE CALCULATION : 0.36

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE : 9-24-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ACUSHNET AVENUE (MCARTHUR DR)

RIN #

MINOR STREET(S) : WAMSUTTA STREET

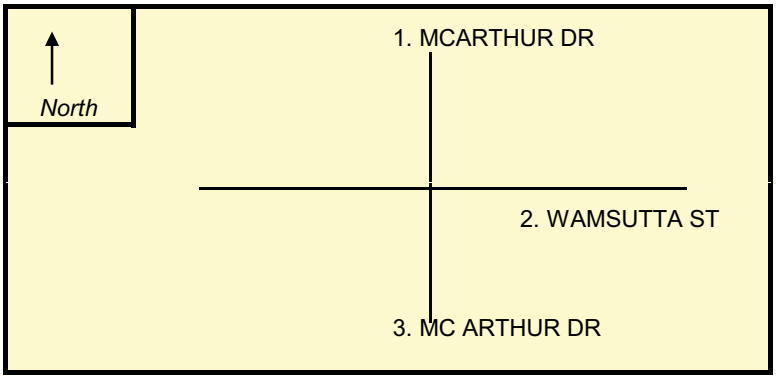
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB			
VOLUMES (PM) :	53	29	72			

" K " FACTOR : 0.09

APPROACH ADT : 1711.1111

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 6

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 3.20

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD, MA

COUNT DATE : 9/18/2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ROUTE 18/ASHLEY BLVD — RIN #

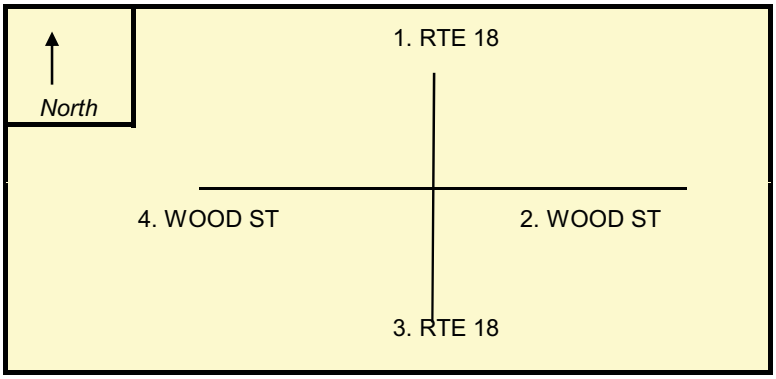
MINOR STREET(S) : WOOD STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	609	196	459	172		

" K " FACTOR : 0.09 APPROACH ADT : 15956 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 7 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.40

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE :

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : KINGS HIGHWAY

RIN #

MINOR STREET(S) : SHAW'S DRIVEWAY

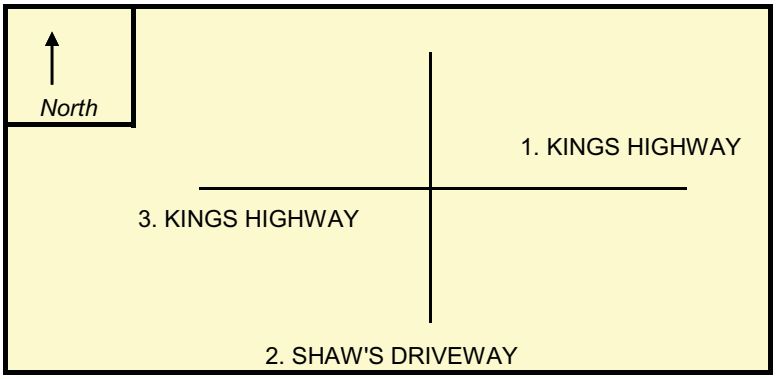
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	WB	NB	EB			
VOLUMES (PM) :	735	240	815			

" K " FACTOR : 0.09

APPROACH ADT : 19889

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 10

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.46

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NEW BEDFORD

COUNT DATE :

MHD USE ONLY

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

Source #

~ INTERSECTION DATA ~

MAJOR STREET : KINGS HIGHWAY — RIN #

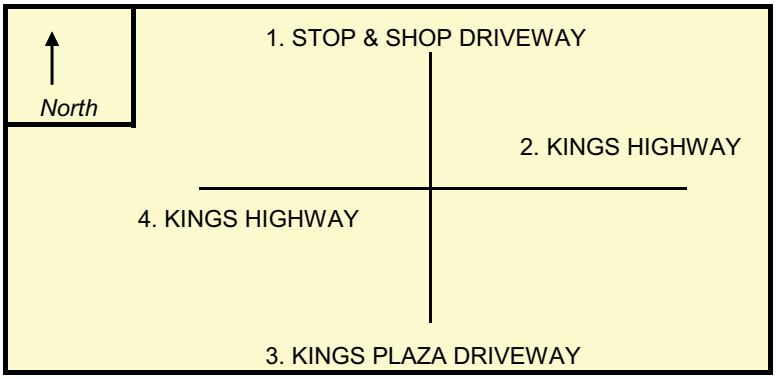
MINOR STREET(S) : STOP & SHOP DRIVEWAY — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	340	650	290	960		

" K " FACTOR : 0.09 APPROACH ADT : 24889 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 17 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 6

CRASH RATE CALCULATION : 0.62

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NORTON, MA

COUNT DATE : 9/10/2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : JOHN B SCOTT BOULEVARD — RIN #

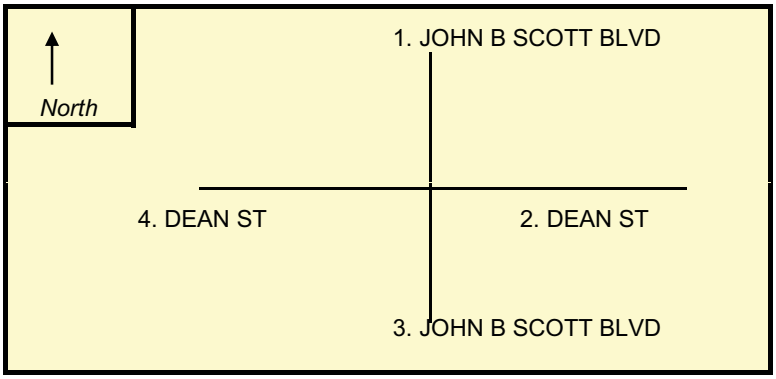
MINOR STREET(S) : DEAN STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	273	135	175	100		

" K " FACTOR : 0.09 APPROACH ADT : 7588.8889 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 2 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.24 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NORTON, MA

COUNT DATE : 9/10/2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : RTE 123 — RIN #

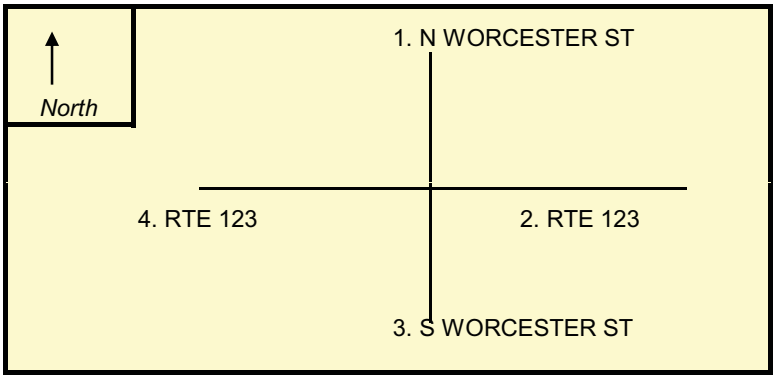
MINOR STREET(S) : NORTH WORCESTER STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	220	585	304	600		

" K " FACTOR : 0.09 APPROACH ADT : 18988.889 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 2 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.10 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : NORTON, MA

COUNT DATE : 9/10/2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : JOHN B SCOTT BOULEVARD — RIN #

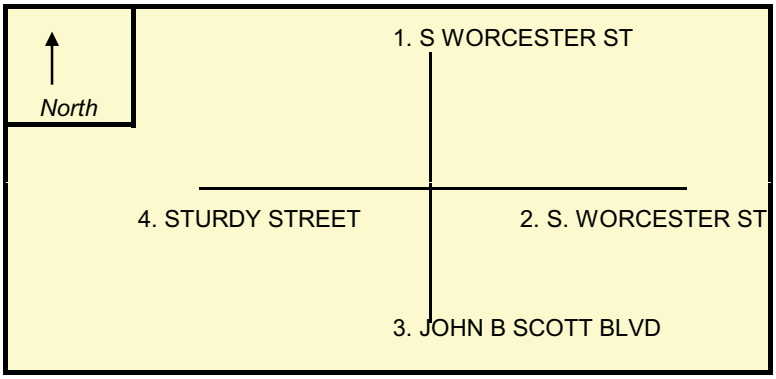
MINOR STREET(S) : SOUTH WORCESTER STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	507	113	260	7		

" K " FACTOR : 0.09 APPROACH ADT : 9855.5556 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.09

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : RAYNHAM, MA

COUNT DATE : 9-18-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138) RIN #

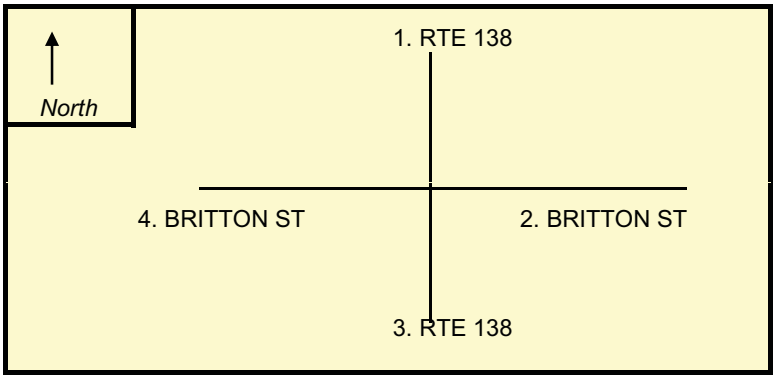
MINOR STREET(S) : BRITTON STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1142	24	746	50		

" K " FACTOR : 0.09 APPROACH ADT : 21800 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 3 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.13 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : RAYNHAM, MA

COUNT DATE : 9-18-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138) RIN #

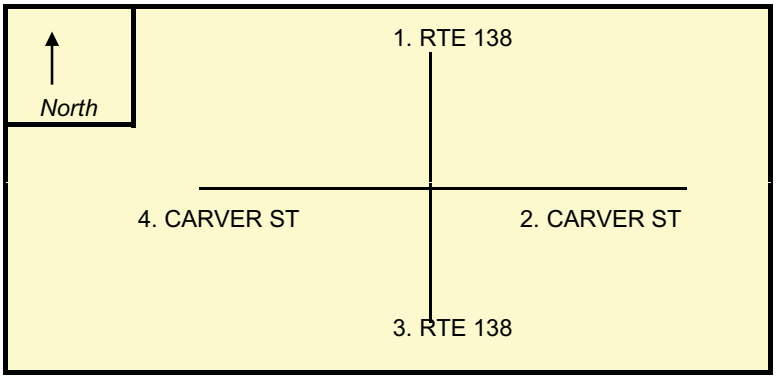
MINOR STREET(S) : CARVER STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1549	155	759	307		

" K " FACTOR : 0.09 APPROACH ADT : 30778 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 18 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 6

CRASH RATE CALCULATION : 0.53 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : RAYNHAM, MA

COUNT DATE : 9-18-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138) RIN #

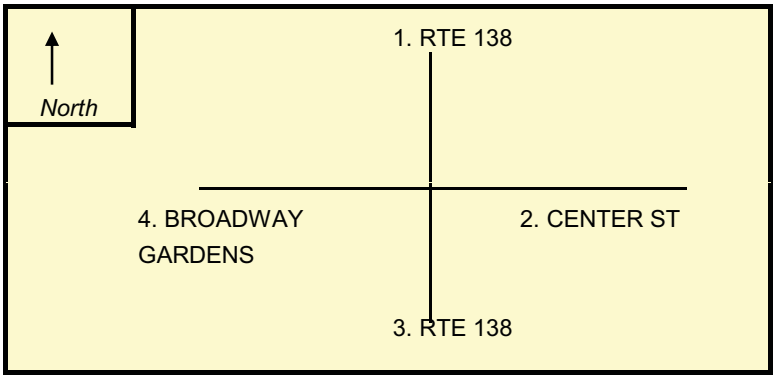
MINOR STREET(S) : CENTER STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1391	123	749	1		

" K " FACTOR : 0.09 APPROACH ADT : 25156 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 3 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.11 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : RAYNHAM, MA

COUNT DATE : 9-18-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138) RIN #

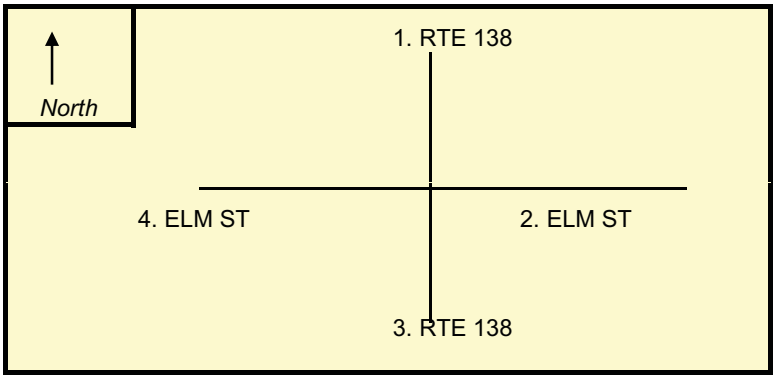
MINOR STREET(S) : ELM STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1016	359	862	57		

" K " FACTOR : 0.09 APPROACH ADT : 25489 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 5 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.18 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : RAYNHAM, MA

COUNT DATE : 9-18-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138)

RIN #

MINOR STREET(S) : I-495 NB OFF RAMP

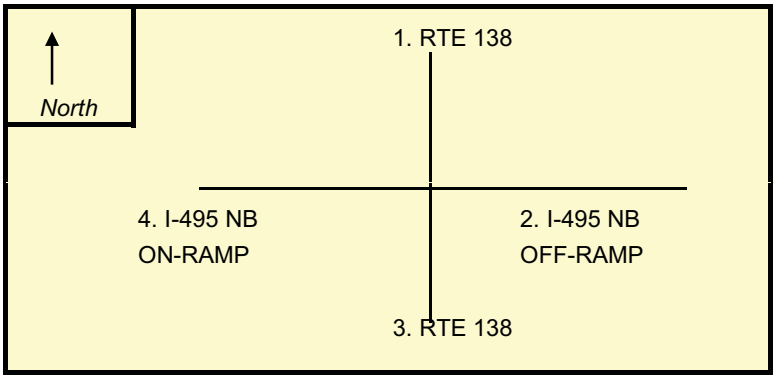
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB			
VOLUMES (PM) :	1287	234	994			

" K " FACTOR : 0.09

APPROACH ADT : 27944

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 2

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.07

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : RAYNHAM, MA

COUNT DATE : 9-18-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138) RIN #

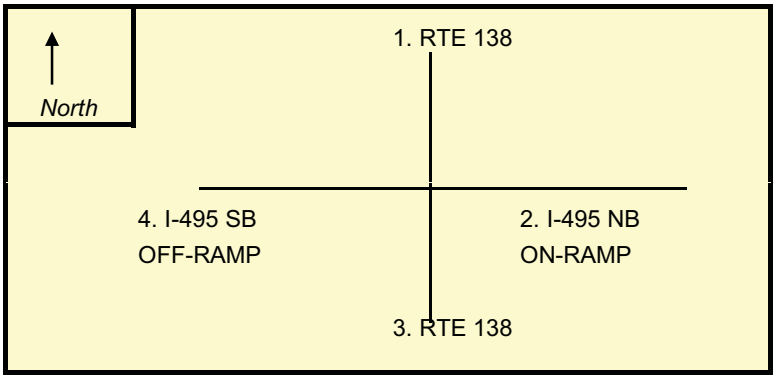
MINOR STREET(S) : I-495 SB OFF RAMP RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB		
VOLUMES (PM) :	1219		997	705		

" K " FACTOR : 0.09 APPROACH ADT : 32456 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 2 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.06

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : RAYNHAM, MA

COUNT DATE : 9-18-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138)

RIN #

MINOR STREET(S) : I-495 SB ON RAMP

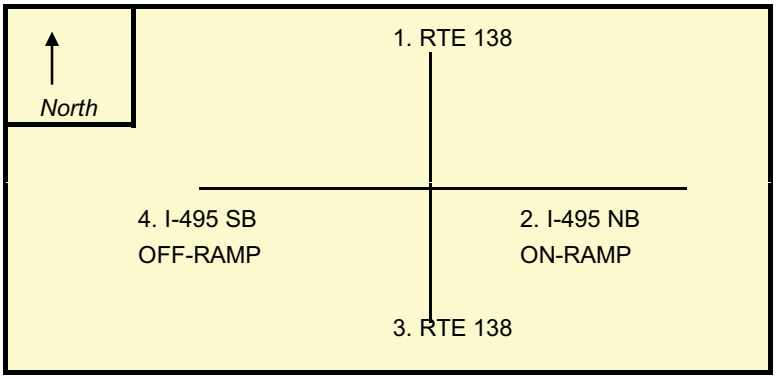
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB		
VOLUMES (PM) :	1219		997	705		

" K " FACTOR : 0.09

APPROACH ADT : 32456

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.03

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : DEAN ST (ROUTE 44)

RIN #

MINOR STREET(S) : ARLINGTON STREET

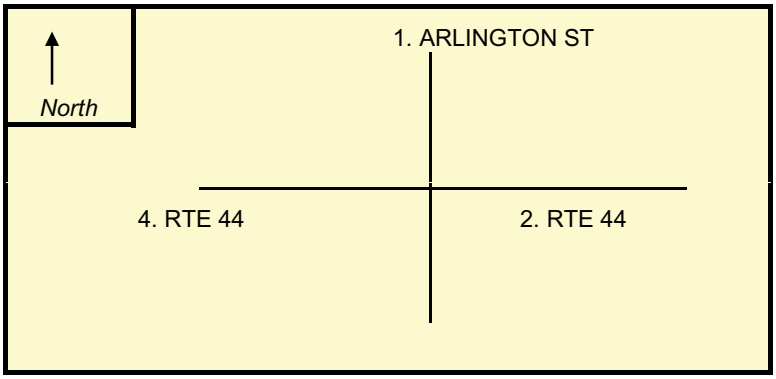
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB		EB		
VOLUMES (PM) :	436	793		778		

" K " FACTOR : 0.09

APPROACH ADT : 22300

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 9

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.37

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COHANNET STREET

RIN #

MINOR STREET(S) : TAUNTON GREEN ST

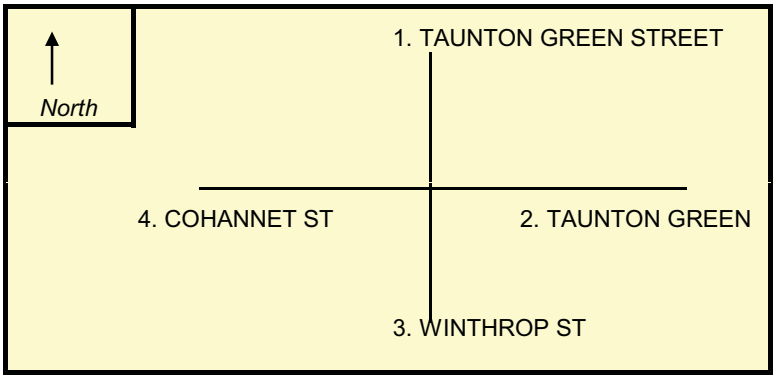
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1283	0	404	274		

" K " FACTOR : 0.09

APPROACH ADT : 21789

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 11

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 4

CRASH RATE CALCULATION : 0.46

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COUNTY STREET

RIN #

MINOR STREET(S) : GALLERIA MALL DRIVE

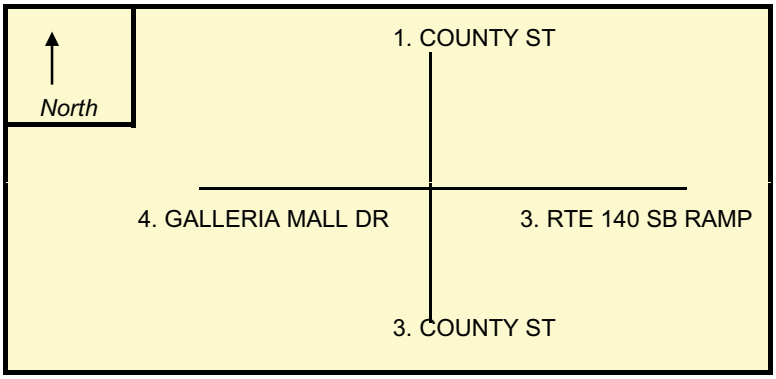
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	712	127	105	472		

" K " FACTOR : 0.09

APPROACH ADT : 15733

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 9

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.52

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COURT STREET

RIN #

MINOR STREET(S) : TAUNTON GREEN ST

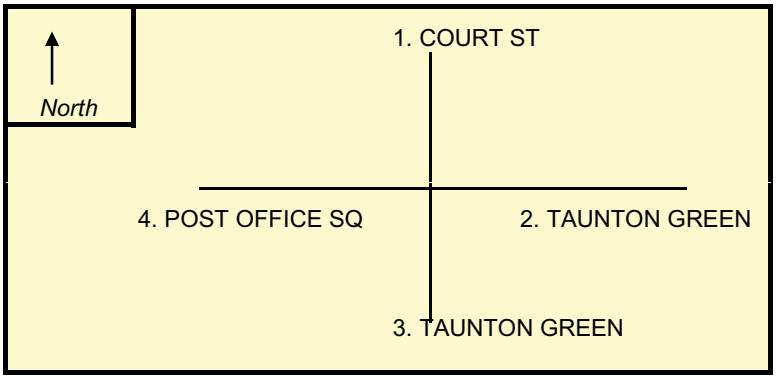
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	368	1399	0	21		

" K " FACTOR : 0.09

APPROACH ADT : 19867

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 14

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 5

CRASH RATE CALCULATION : 0.64

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WASHINGTON STREET — RIN #

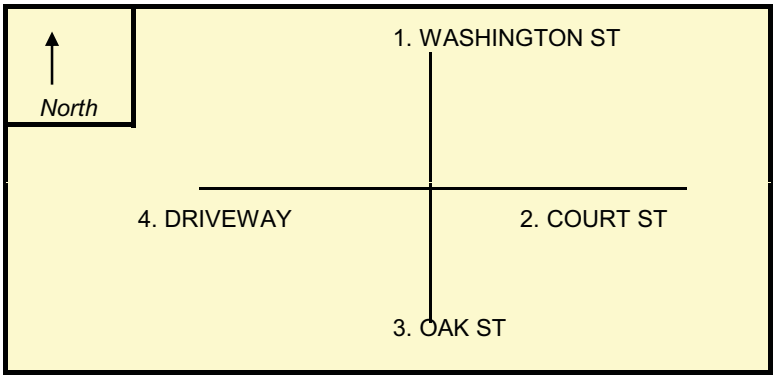
MINOR STREET(S) : COURT STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	698	433	771	0		

" K " FACTOR : 0.09 APPROACH ADT : 21133 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 12 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 4

CRASH RATE CALCULATION : 0.52

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COUNTY STREET (ROUTE 140) RIN #

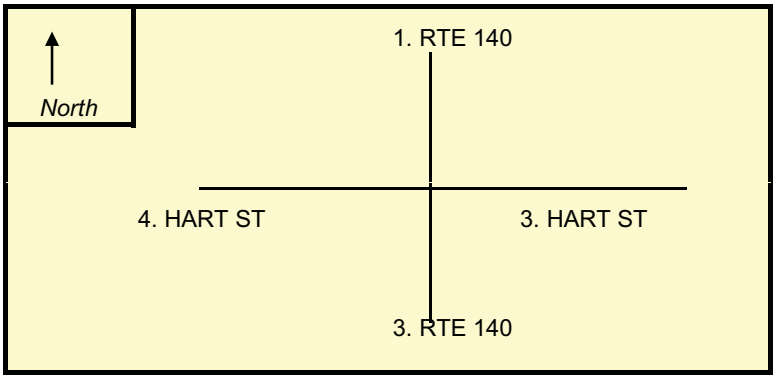
MINOR STREET(S) : HART STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	923	438	924	471		

" K " FACTOR : 0.09 APPROACH ADT : 30622 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 46 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 15

CRASH RATE CALCULATION : 1.37 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : DEAN ST (ROUTE 44) RIN #

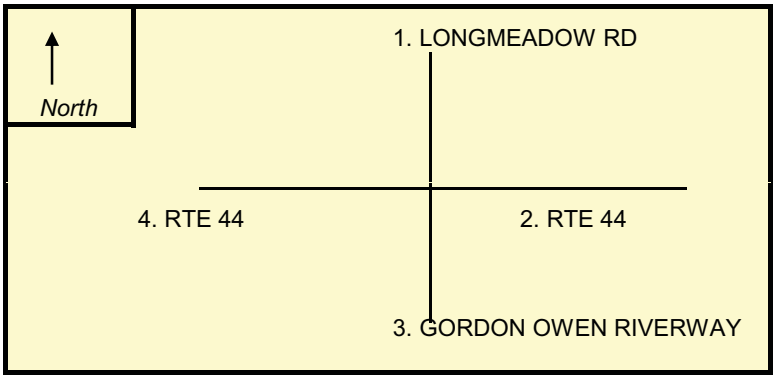
MINOR STREET(S) : LONGMEADOW ROAD RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	356	1344	624	1096		

" K " FACTOR : 0.09 APPROACH ADT : 38000 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 38 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 13

CRASH RATE CALCULATION : 0.91

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : TAUNTON GREEN STREET — RIN #

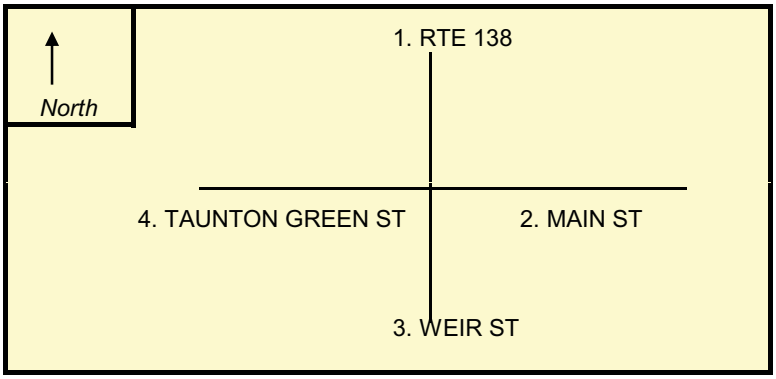
MINOR STREET(S) : WEIR STREET (ROUTE 138) — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	0	1090	325	1345		

" K " FACTOR : 0.09 APPROACH ADT : 30667 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 23 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 8

CRASH RATE CALCULATION : 0.68

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WASHINGTON STREET/OAK STREET — RIN #

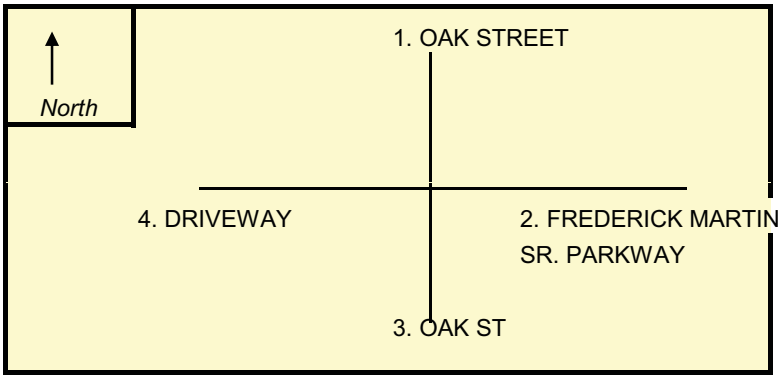
MINOR STREET(S) : FREDERICK MARTIN SR. PARKWAY — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1035	252	916	4		

" K " FACTOR : 0.09 APPROACH ADT : 24522 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.04

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : OAK STREET

RIN #

MINOR STREET(S) : KILMER STREET

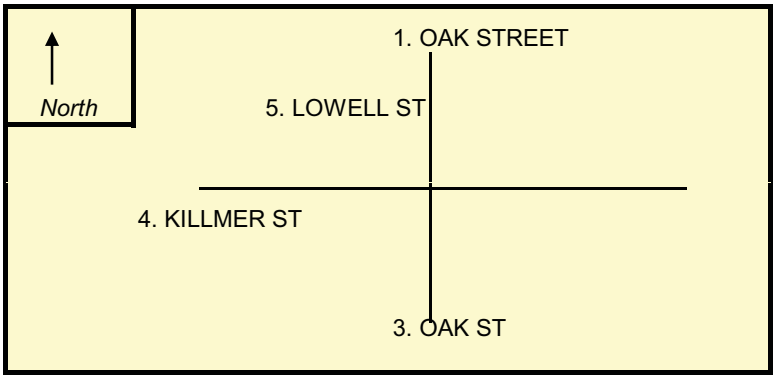
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB	NW	
VOLUMES (PM) :	420		224	98	2	

" K " FACTOR : 0.09

APPROACH ADT : 8267

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 12

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 4

CRASH RATE CALCULATION : 1.33

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WASHINGTON STREET — RIN #

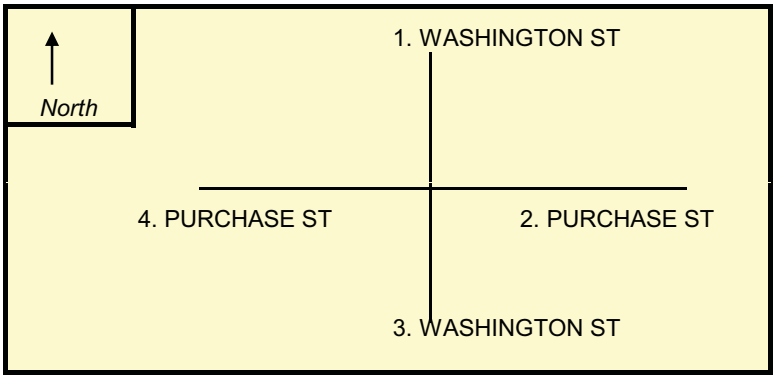
MINOR STREET(S) : PURCHASE STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	375	182	123	105		

" K " FACTOR : 0.09 APPROACH ADT : 8722 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 36 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 12

CRASH RATE CALCULATION : 3.77

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : SCHOOL STREET

RIN #

MINOR STREET(S) : PURCHASE STREET/ARLINGTON STREET

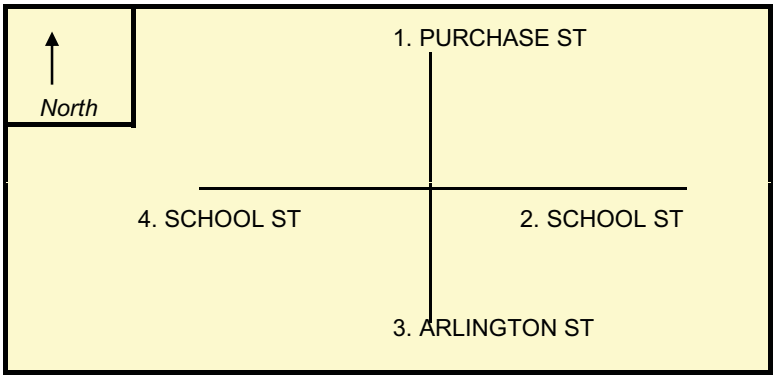
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	383	213	126	139		

" K " FACTOR : 0.09

APPROACH ADT : 9567

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 21

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 7

CRASH RATE CALCULATION : 2.00

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WASHINGTON STREET

RIN #

MINOR STREET(S) : RANDALL STREET

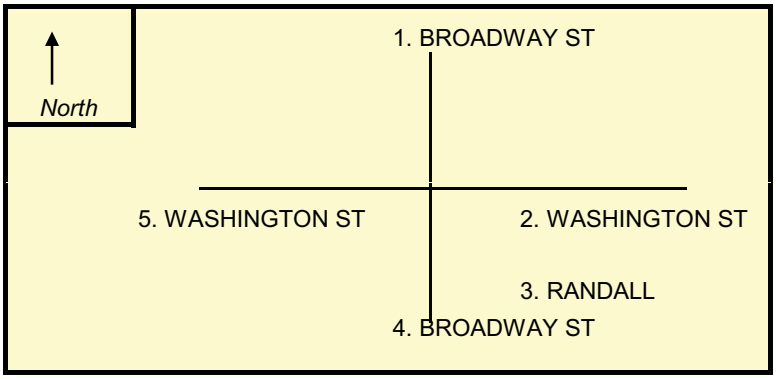
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NW	NB	EB	
VOLUMES (PM) :	923	178	22	544	433	

" K " FACTOR : 0.09 APPROACH ADT : 23333 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 0

CRASH RATE CALCULATION : 0.04

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : DEAN STREET (ROUTE 44) RIN #

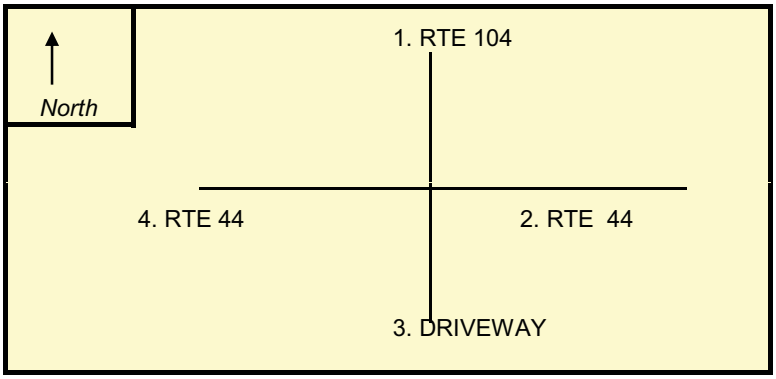
MINOR STREET(S) : ROUTE 104 RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	330	1051	28	1129		

" K " FACTOR : 0.09 APPROACH ADT : 28200 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 12 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 4

CRASH RATE CALCULATION : 0.39 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COUNTY STREET (ROUTE 140)

RIN #

MINOR STREET(S) : ROUTE 24 NB RAMPS

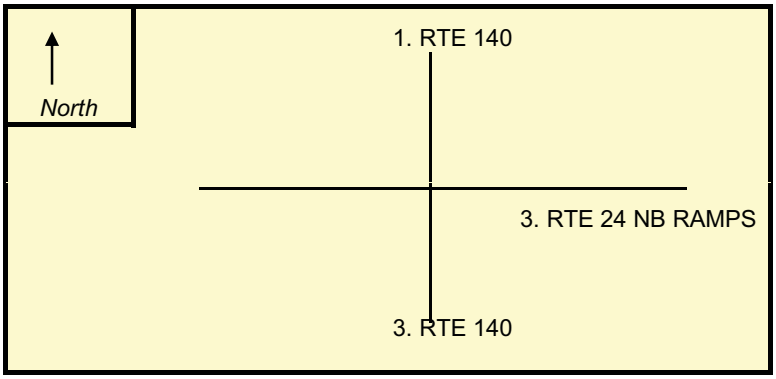
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB			
VOLUMES (PM) :	2373	233	1458			

" K " FACTOR : 0.09

APPROACH ADT : 45156

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 2

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.04

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : SUMMER STREET (ROUTE 140) RIN #

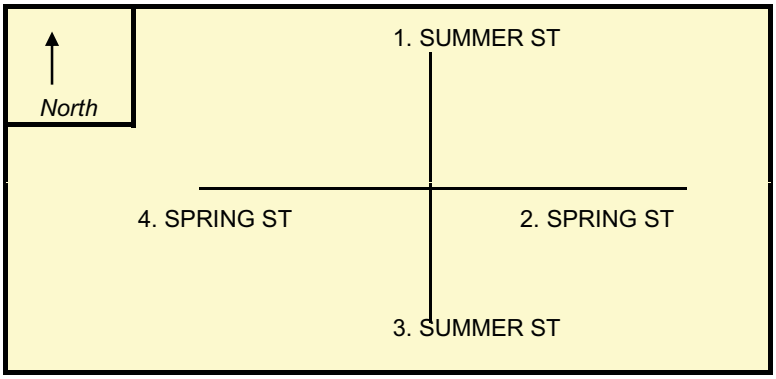
MINOR STREET(S) : SPRING STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	375	259	419	353		

" K " FACTOR : 0.09 APPROACH ADT : 15622 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 21 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 7

CRASH RATE CALCULATION : 1.23 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : STEVENS/COUNTY STREET — RIN #

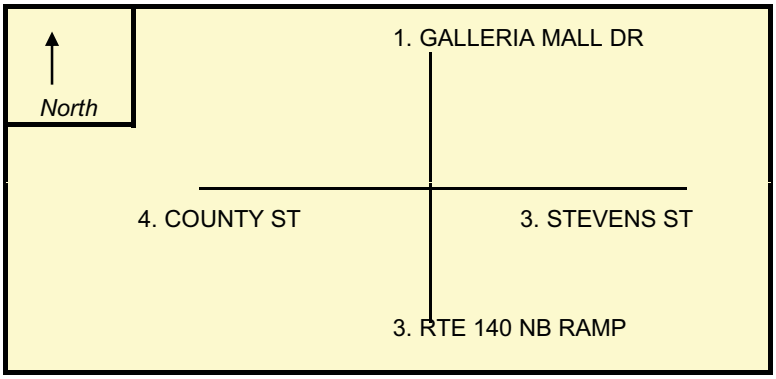
MINOR STREET(S) : GALLERIA MALL DRIVE RAMP — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	142	406	126	501		

" K " FACTOR : 0.09 APPROACH ADT : 13056 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 17 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 6

CRASH RATE CALCULATION : 1.19

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : COUNTY STREET (ROUTE 140) RIN #

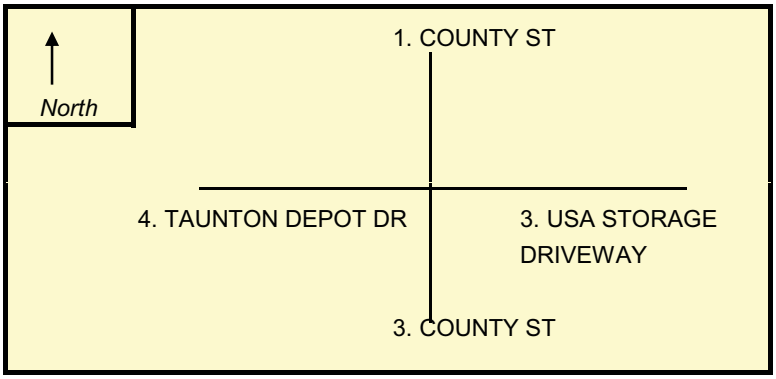
MINOR STREET(S) : TAUNTON DEPOT DR RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	1092	6	977	448		

" K " FACTOR : 0.09 APPROACH ADT : 28033 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 8 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.26

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : BROADWAY STREET (ROUTE 138) RIN #

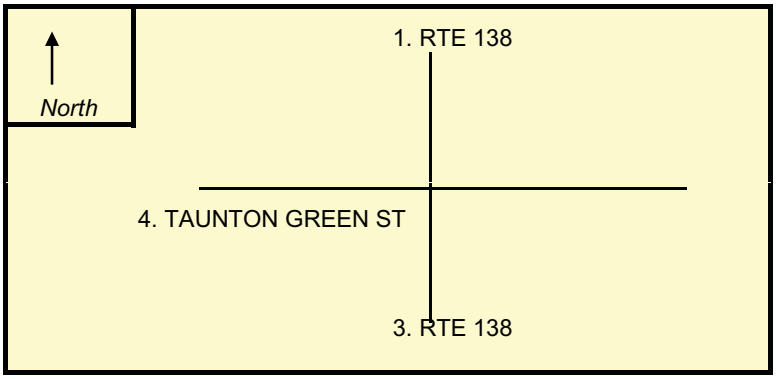
MINOR STREET(S) : TAUNTON GREEN STREET RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB		NB	EB		
VOLUMES (PM) :	518		1414	0		

" K " FACTOR : 0.09 APPROACH ADT : 21467 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 9 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 3

CRASH RATE CALCULATION : 0.38 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WASHINGTON STREET — RIN #

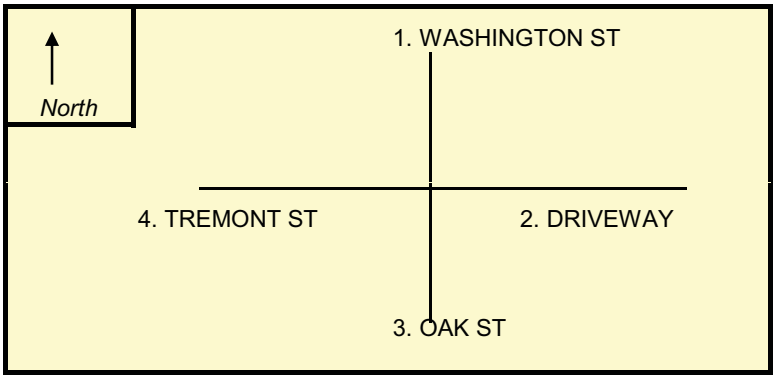
MINOR STREET(S) : TREMONT STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	860	185	455	738		

" K " FACTOR : 0.09 APPROACH ADT : 24867 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 21 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 7

CRASH RATE CALCULATION : 0.77

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : MAIN STREET — RIN #

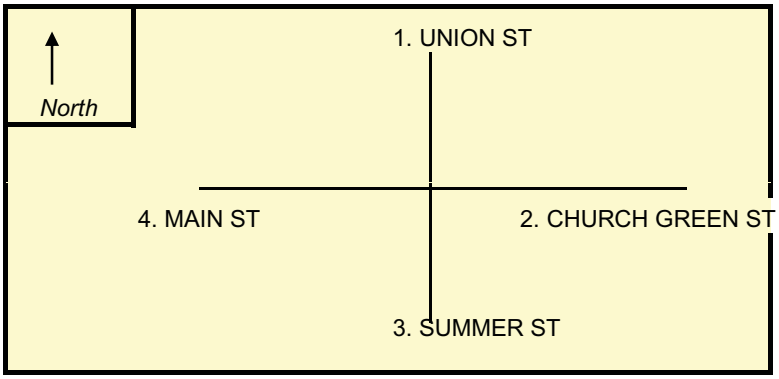
MINOR STREET(S) : UNION STREET — RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	0	504	417	848		

" K " FACTOR : 0.09 APPROACH ADT : 19656 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 7 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 2

CRASH RATE CALCULATION : 0.33

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(ADT * 365)}$$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON, MA

COUNT DATE : 10-1-2008

DISTRICT : 5

UNSIGNALIZED : X

SIGNALIZED :

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : WINTER STREET

RIN #

MINOR STREET(S) : SCHOOL STREET

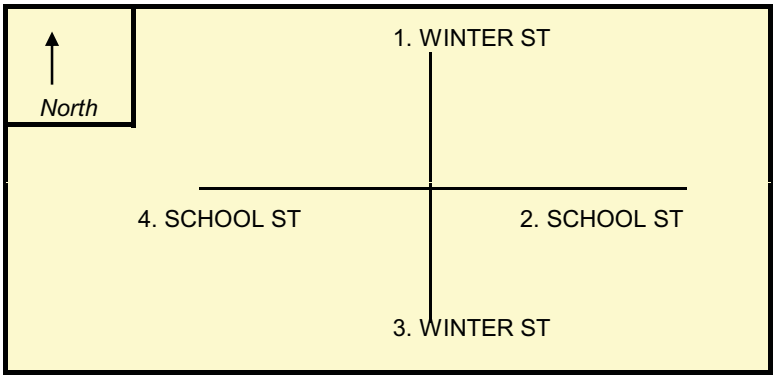
RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	WB	NB	EB		
VOLUMES (PM) :	479	87	543	116		

" K " FACTOR : 0.09

APPROACH ADT : 13611

ADT = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 15

OF YEARS : 3

AVERAGE # OF ACCIDENTS (**A**) : 5

CRASH RATE CALCULATION : 1.01

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

MassHighway

CRASH RATE WORKSHEET

CITY/TOWN : TAUNTON

COUNT DATE :

DISTRICT : 5

UNSIGNALIZED :

SIGNALIZED : X

MHD USE ONLY

Source #

~ INTERSECTION DATA ~

MAJOR STREET : ROUTE 140 (COUNTY STREET) RIN #

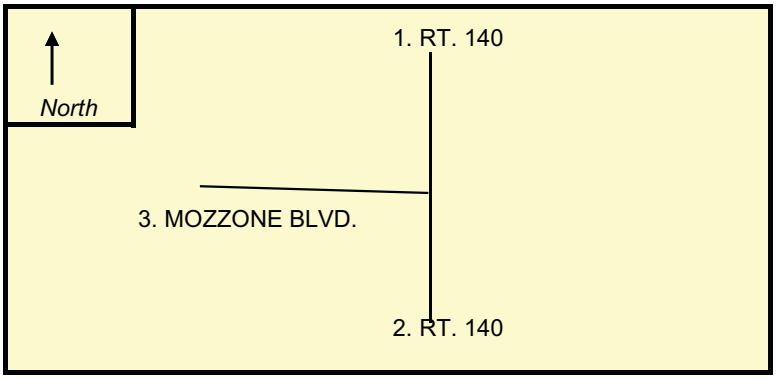
MINOR STREET(S) : MOZZONE BOULEVARD RIN #

RIN #

RIN #

RIN #

INTERSECTION DIAGRAM
(Label Approaches)



INTERSECTION REF #

Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	SB	NB	EB			
VOLUMES (PM) :	1290	1030	375			

" K " FACTOR : 0.09 APPROACH ADT : 29944 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 2 # OF YEARS : 3 AVERAGE # OF ACCIDENTS (**A**) : 1

CRASH RATE CALCULATION : 0.06 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional):

Comments:

last updated: 11/06/01

Appendix 4.1-C

Intersection Inventory Data Sheets

VHB *Computations* Pictures II : 8 - 15

☆ unsignalized

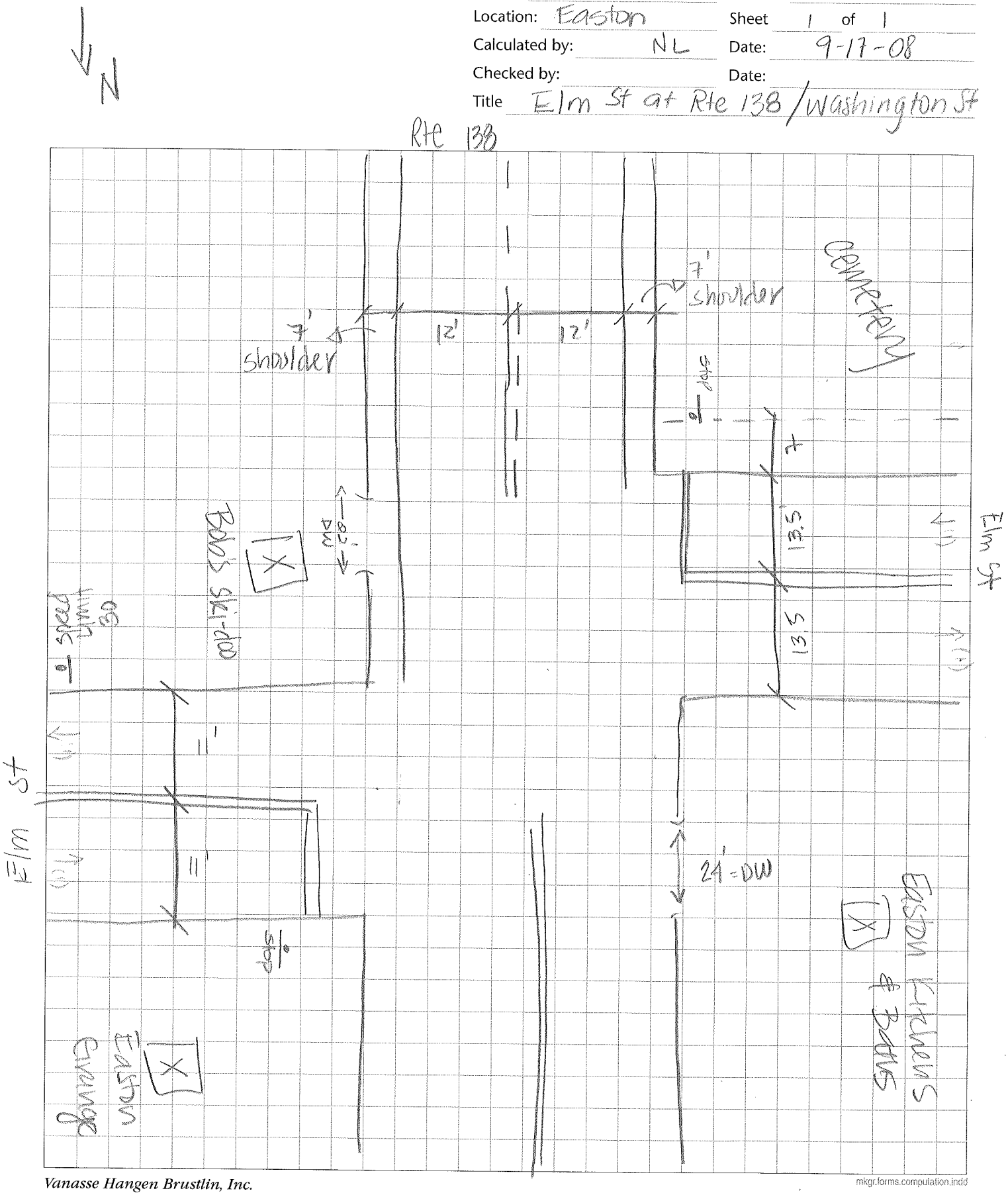
Project: SCR | Project # 10111.00

Location: Easton | Sheet 1 of 1

Calculated by: NL | Date: 9-17-08

Checked by: | Date:

Title Elm St at Rte 138 / Washington St



VHB *Computations* pictures II : 16 – 24

☆ Unsig

N ↓

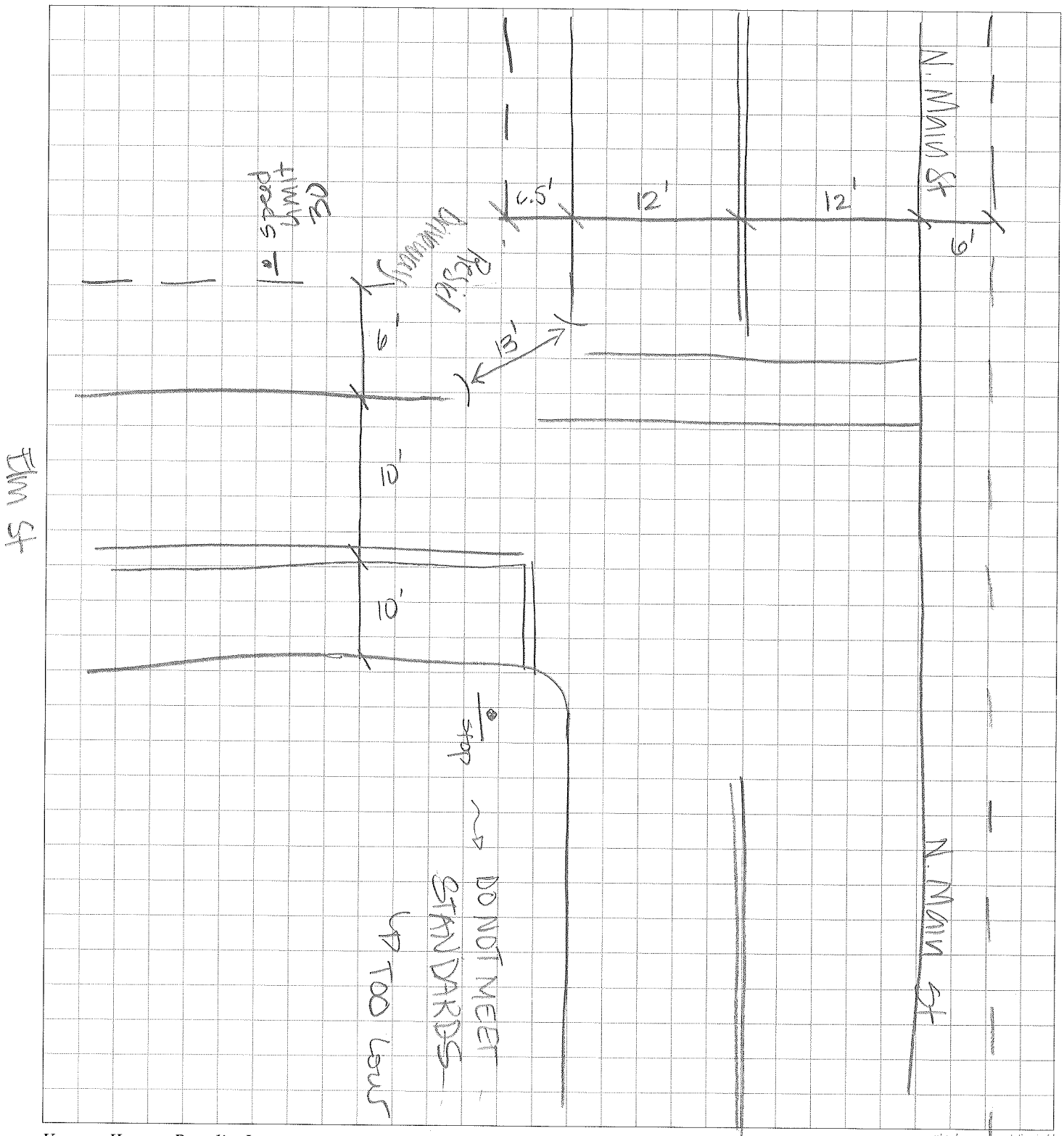
Project: SCR | Project # 10111.00

Location: Easton | Sheet 1 of 1

Calculated by: | Date: 9-17-08

Checked by: | Date:

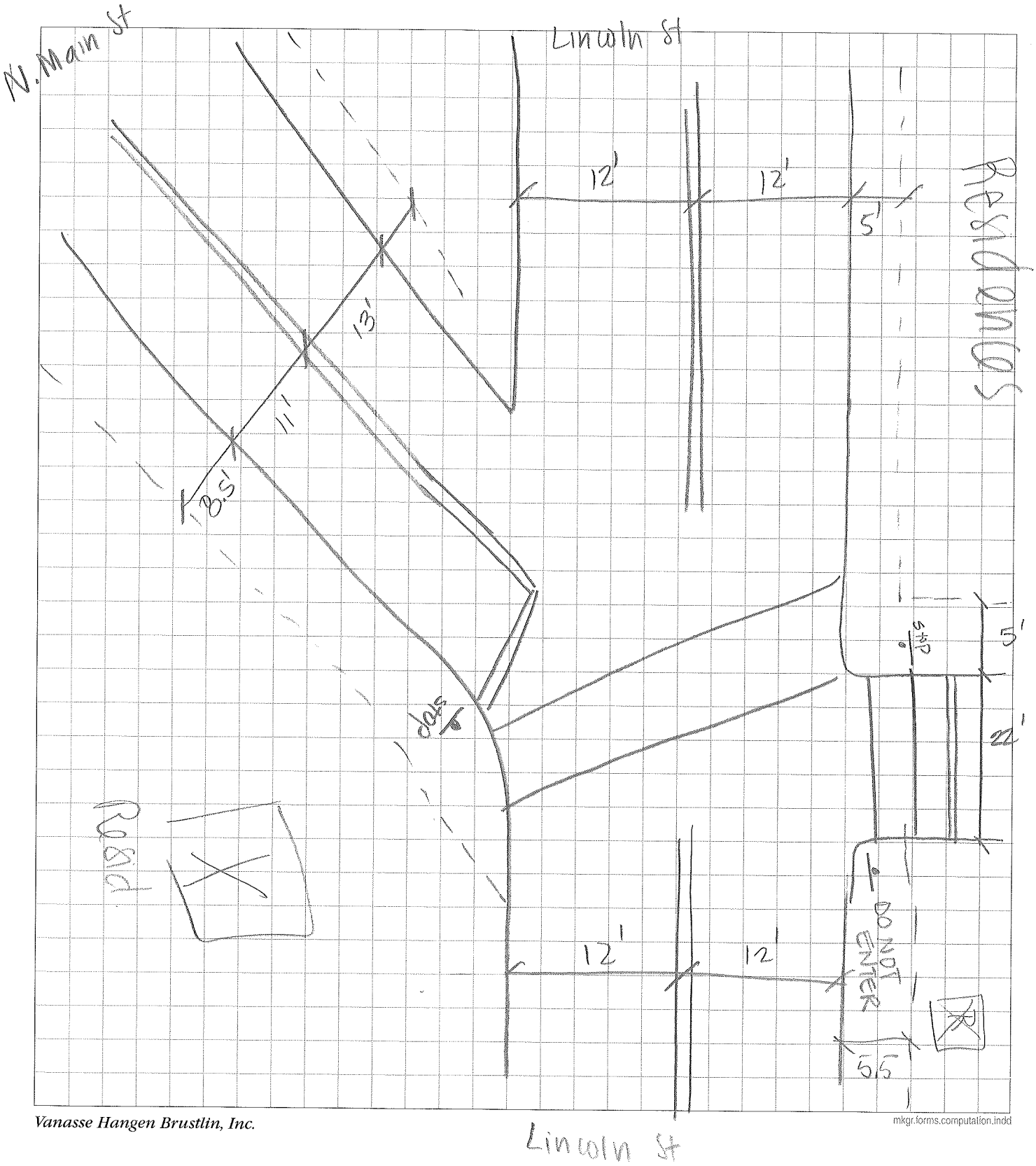
Title Elm St at N. Main St



VHB **Computations** pictures II : 25 -34

* unsig

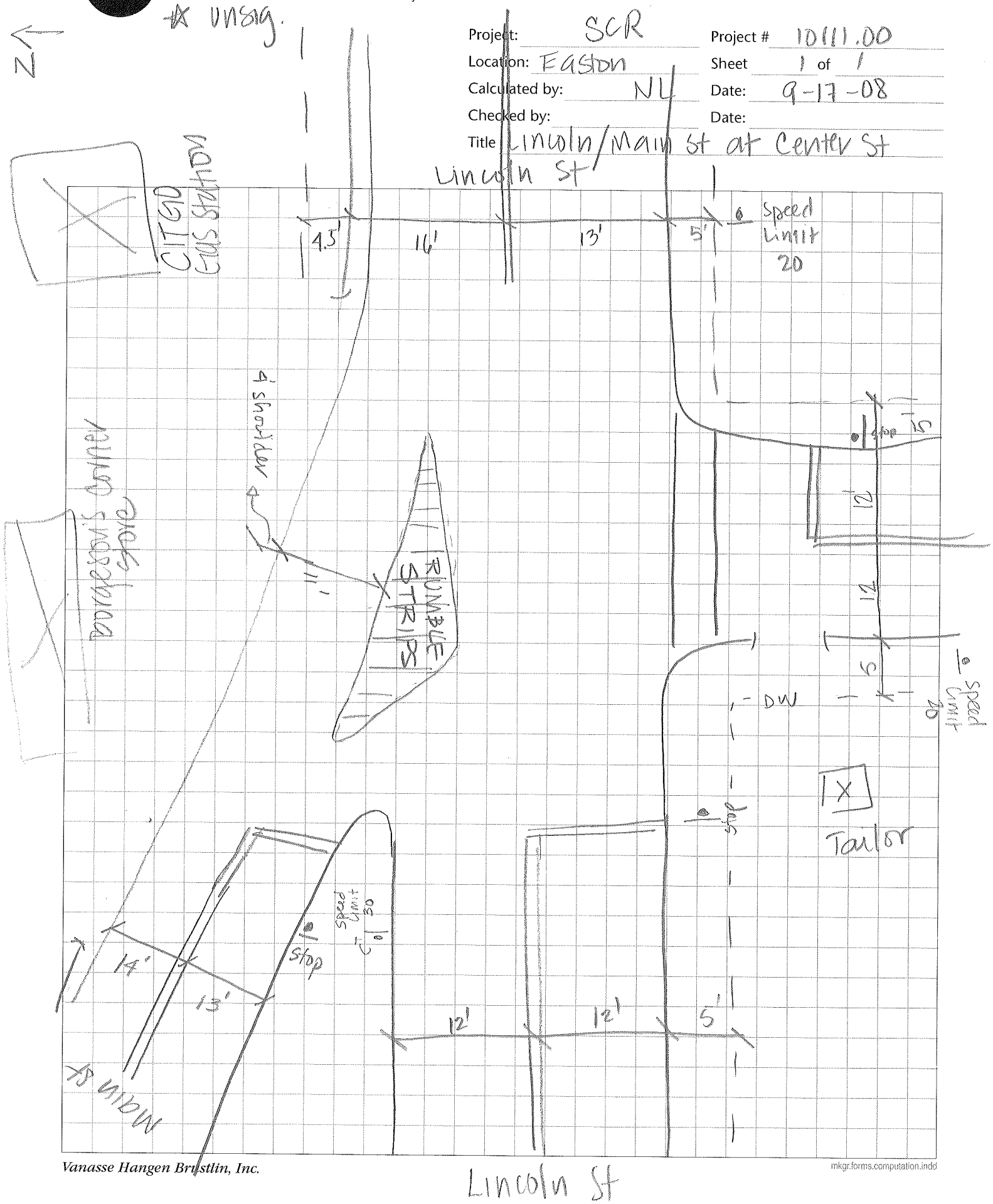
Project:	SCR	Project #	10111.00
Location:	Easton	Sheet	1 of 1
Calculated by:	NL	Date:	9-17-08
Checked by:		Date:	
Title	Lincoln St at N. Main St.		



VHB *Computations* PIC II : 35 - 45

☆ unsig.

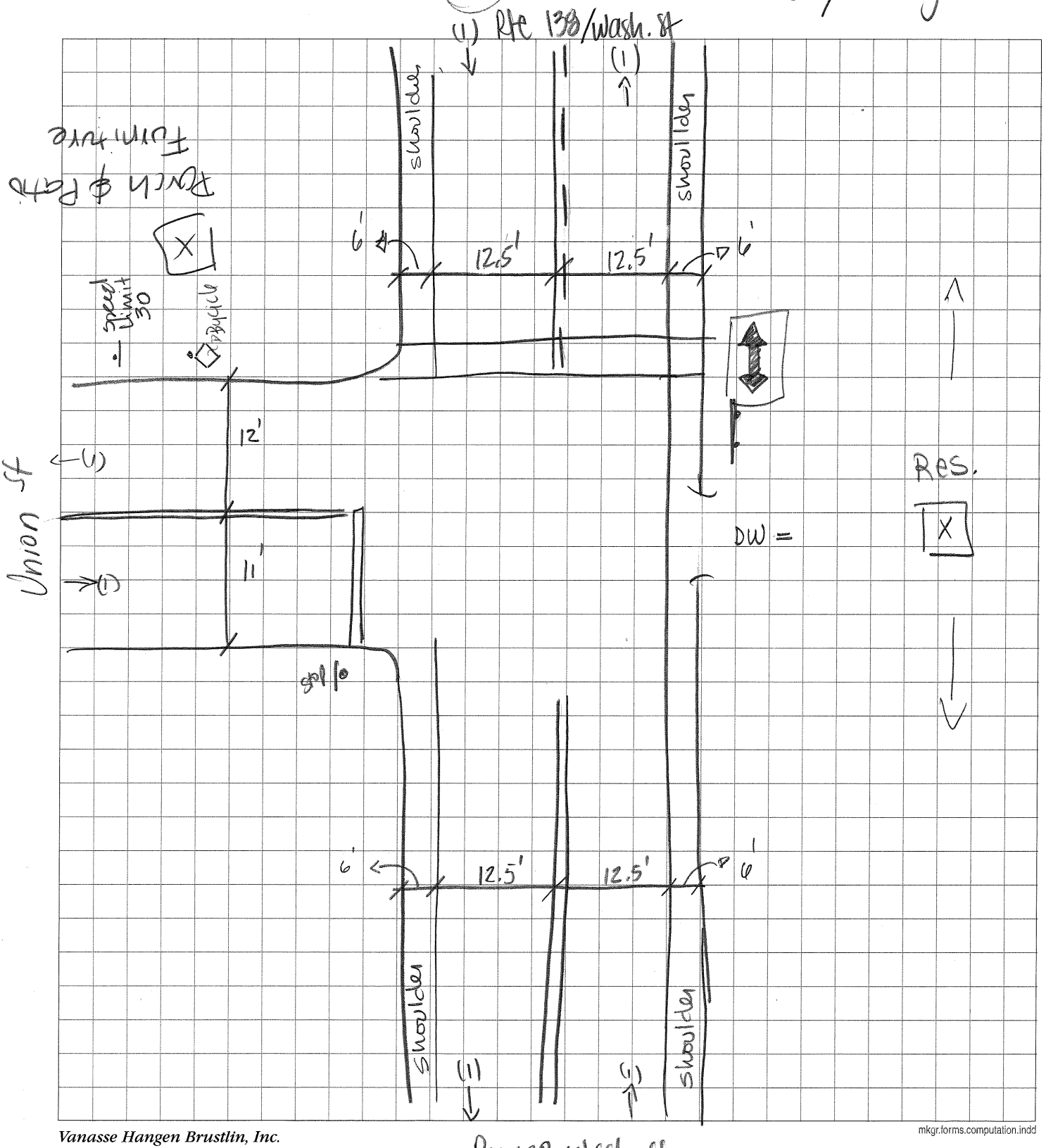
Project: SCR | Project # 10111.00
Location: Easton | Sheet 1 of 1
Calculated by: NL | Date: 9-17-08
Checked by: | Date:
Title Lincoln/Main St at Center St



VHB *Computations* PICT cd I : 57 - LA

★ unsignalized T-int
★ No sidewalks on any approach
★

Project:	SCR	Project #	10111.00
Location:	Easton, MA	Sheet	1 of 1
Calculated by:	NL	Date:	9-29-08
Checked by:		Date:	
Title	#5 Union St @ Rte 138/Washington St		

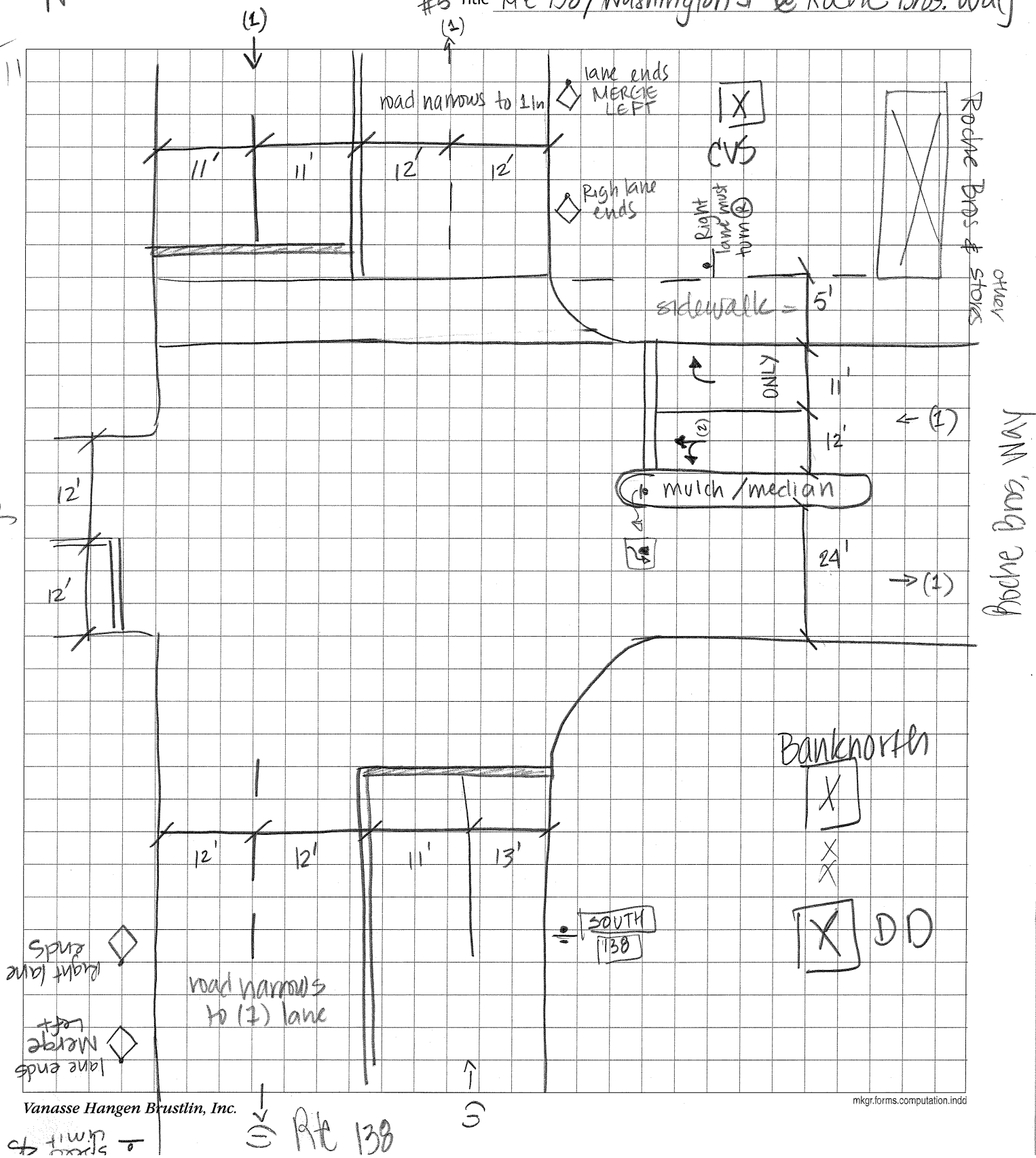


VHB *Computations* pict edJ : 65 - 78

★ signalized int.
★ NO sidewalk on any approach

Project:	SCR	Project #	10111.00
Location:	Easton, MA	Sheet	1 of 1
Calculated by:	NL	Date:	9-29-09
Checked by:		Date:	

#5 Title Rte 138/Washington St @ Roche Bros. Way



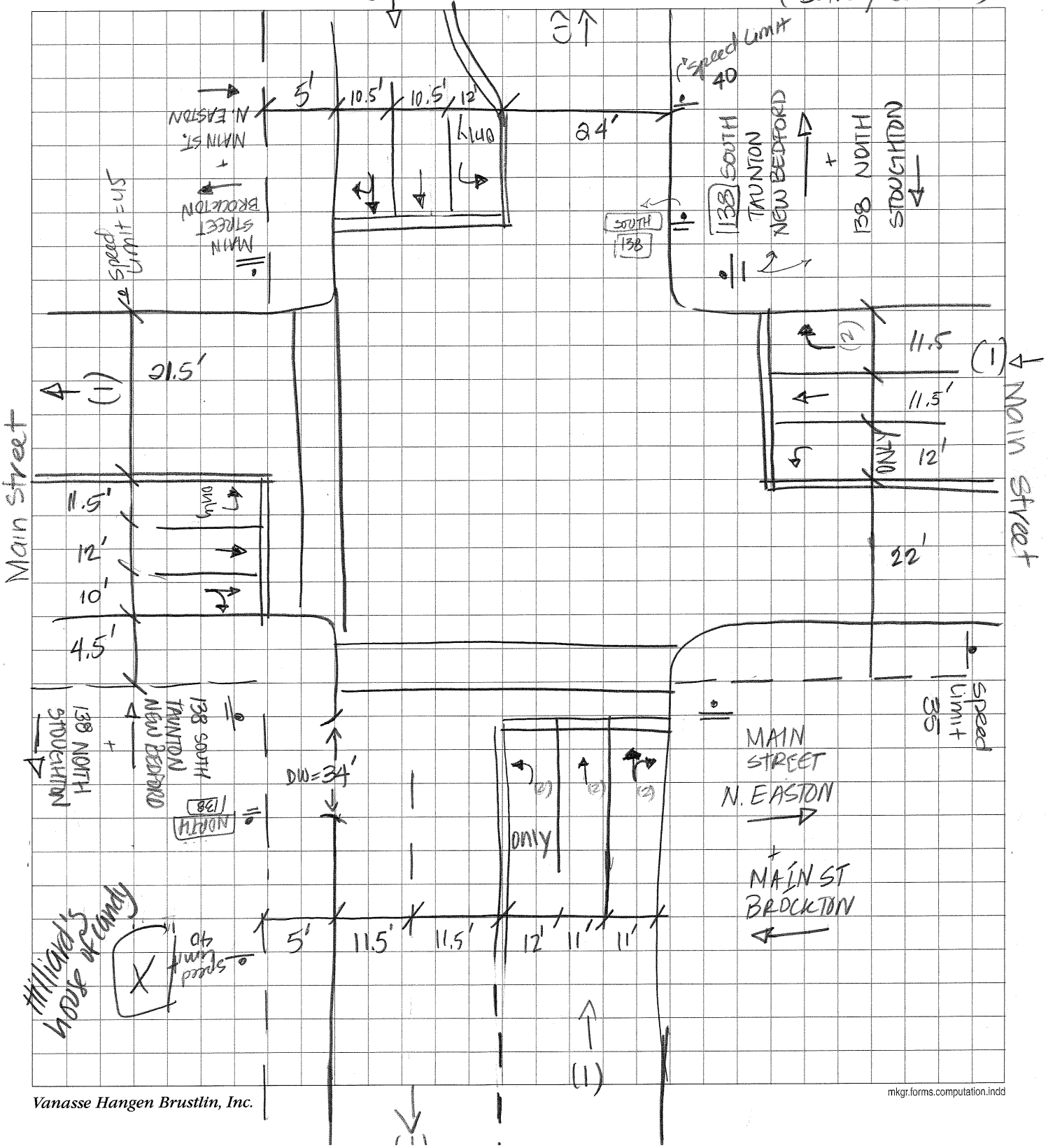
Vanasse Hangen Brustlin, Inc.

mkgr.forms.computation.indd

VHB *Computations* pict cd II 1-15

* signalized int
* stop bar at EBapp is set tooclose to int

Project: SCR | Project # 10111.00
Location: Easton, MA | Sheet 1 of 1
Calculated by: XL | Date: 9-29-08
Checked by: | Date:
Title #4 Rte 138/Washington St @ Main St (Daley Corner)



Vanasse Hangen Brustlin, Inc.

mkgr.forms.computation.indd

VHB *Computations* plot cd II : 16-33

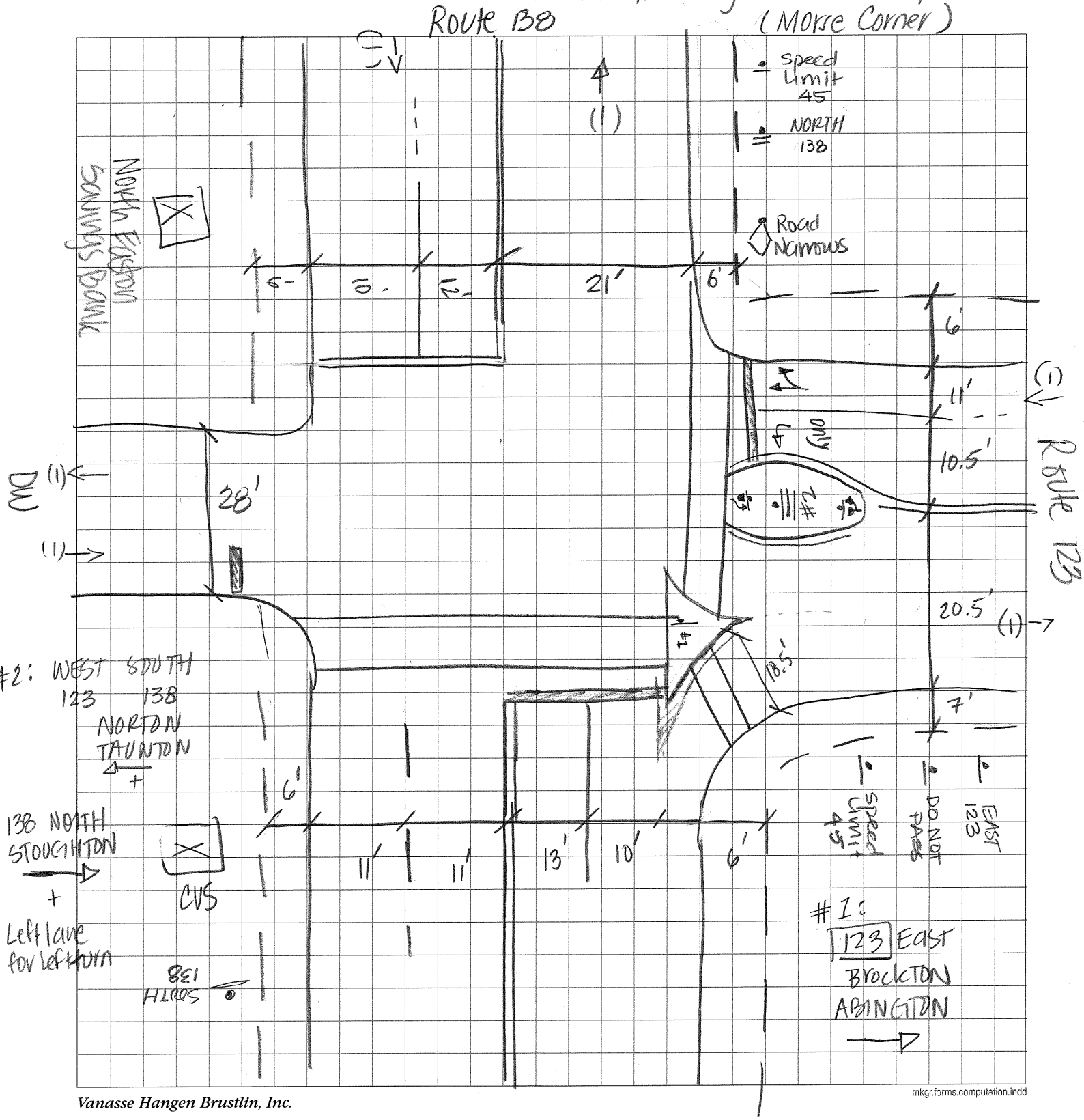
Project:	SCR	Project #	10111.00
Location:	Easton, MA	Sheet	1 of 1
Calculated by:	NL	Date:	9-29-08
Checked by:		Date:	

#3 Title Rte 138/Washington St @ Rte 123/Belmont St

N ↑

★ signalized int

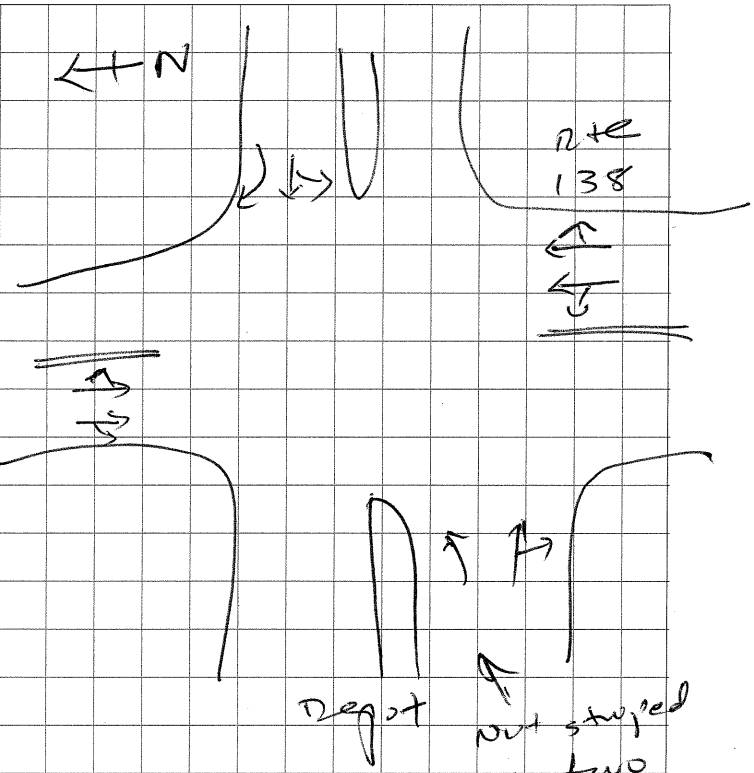
★ median width ≅ 3'-11'



VHB Computations

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/29/08
Checked by: | Date:
Title Signal Timing & Phasing

Rte 138 / 123 @ Depot St



ϕ_1 Route 138

ϕ_2 Depot St.

ϕ_1

G = 29 18 30
Y = 4 4 4
R = 1 1 1

ϕ_2

G = 40 35 38
Y = 4 4 4
R = 1 1 1

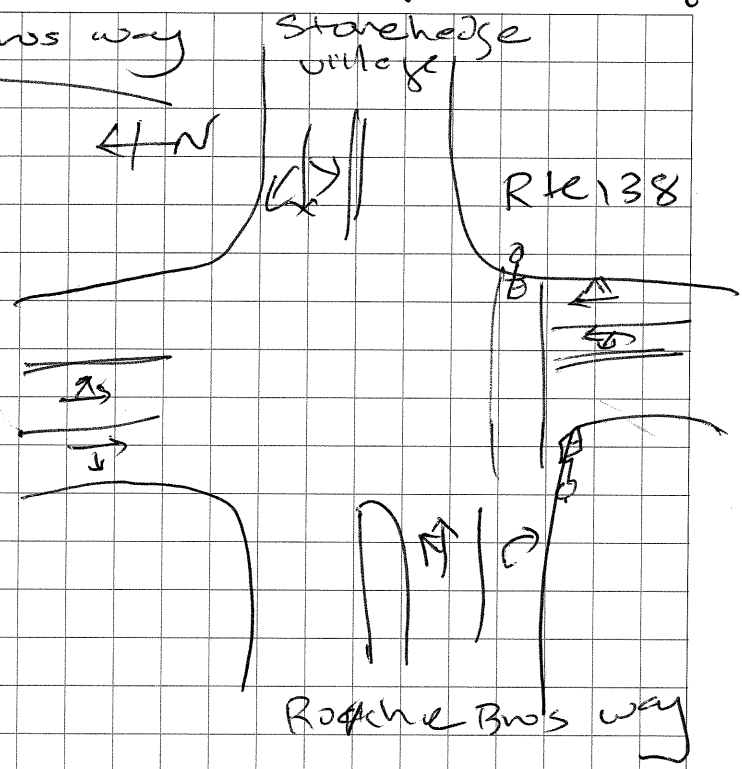
not striped as two lanes but operates as above

CW present but no ped actuation or push button

VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/29/08
Checked by: | Date:
Title Signal Timing & Phasing

Route 138 @ Roche Bros way



$\phi 1$ Rte 138 NB LEAD
$\phi 2$ Rte 138 NB & SB
$\phi 3$ PED
$\phi 4$ Roche Bros Way/Stonehedge

ϕ_1

G = 12 11 8
Y = 4 4 4
R = 1 1 1

ϕ_2

G = 11 18 14
Y = 4 4 4
R = 1 1 1

ϕ_3 PED

W = 8
FDW = 14

ϕ_4

G = 12 13 11
Y = 4 4 4
R = 1 1 1

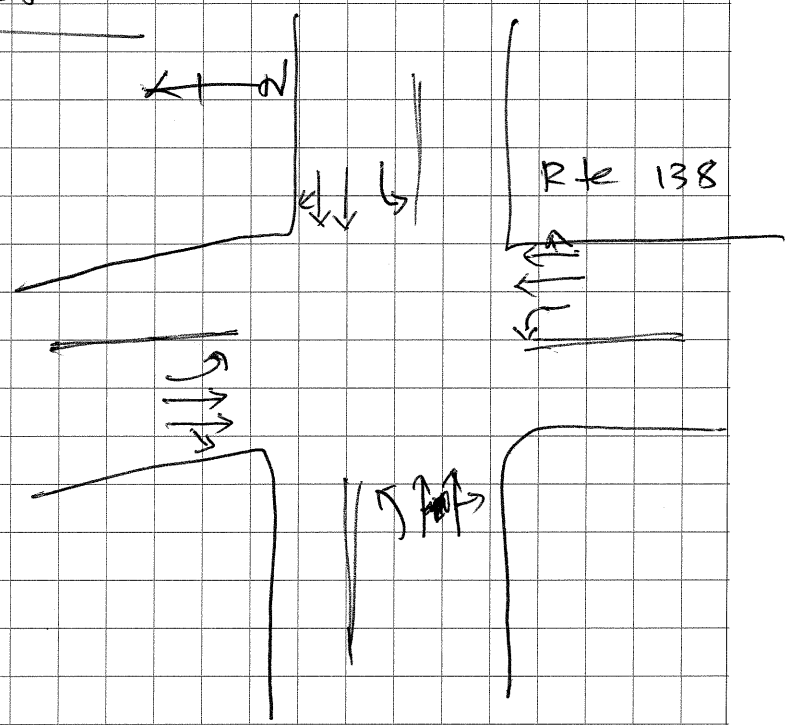
Ped upon push button activation $\phi 3$

VHB *Computations*

Project:	SCR	Project #	10111.31
Location:		Sheet	of
Calculated by:	RNR	Date:	9/29/08
Checked by:		Date:	
Title	Signal Timing & Phasing		

Route 138 @ Main Street

ϕ_1 Rte 138 LTs
ϕ_2 Rte 138 THs
ϕ_3
ϕ_3 ~~ϕ_8~~ Main St LTs
ϕ_4 ~~ϕ_4~~ Main St THs



ϕ_1

G =	10	8	8
Y =	3	4	4
R =	1	1	1

ϕ_2

G =	28	23	28
Y =	4	4	4
R =	1	1	1

ϕ_3

G =	12	8	10
Y =	3	4	4
R =	1	1	1

ϕ_4

G =	8	28	14
Y =	4	4	4
R =	1	1	1

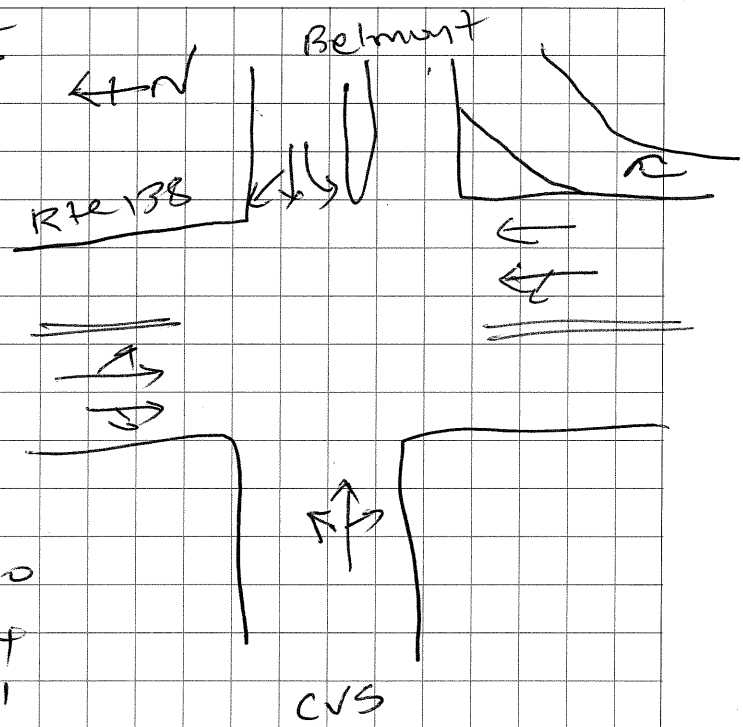
Full Quad Operation

Concurrent Ped

VHB Computations

Project: SCR | Project # 10111-31
Location: | Sheet of
Calculated by: RNR | Date: 9/29/08
Checked by: | Date:
Title Signal Timing & Phasing

Route 138 @ Belmont St



ϕ_1 Route 138 NB & SB

ϕ_2 Belmont St / CVS Dr

ϕ_1

free

G = 30 30 30
Y = 4 4 4
R = 1 1 1

ϕ_2

G = 30 30 21
Y = 4 4 4
R = 1 1 1

EASTON RTE. 138 AT MAIN STREET (DAILEY'S CNR.)				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0010	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT
RTE. 138 AT MAIN STREET (DAILEY'S CNR.)

IN THE TOWN OF

EASTON
BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

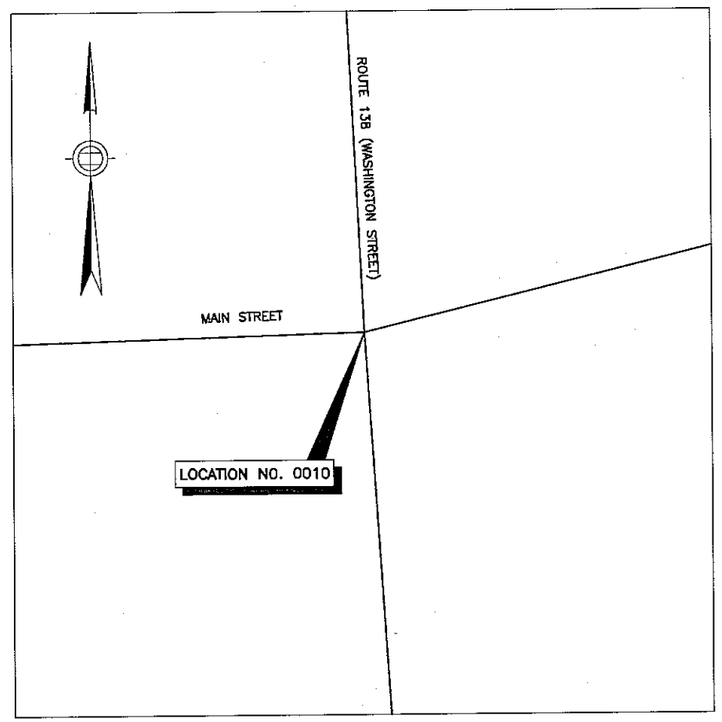
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued* or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I. STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II. OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: OPTICOM
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50-60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR. SCALE IN FEET
0 200 400 800

REVISION NO 01
DATE: 11-26-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 0010T01.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116
MASSACHUSETTS
HIGHWAY DEPARTMENT

APPROVED BY:

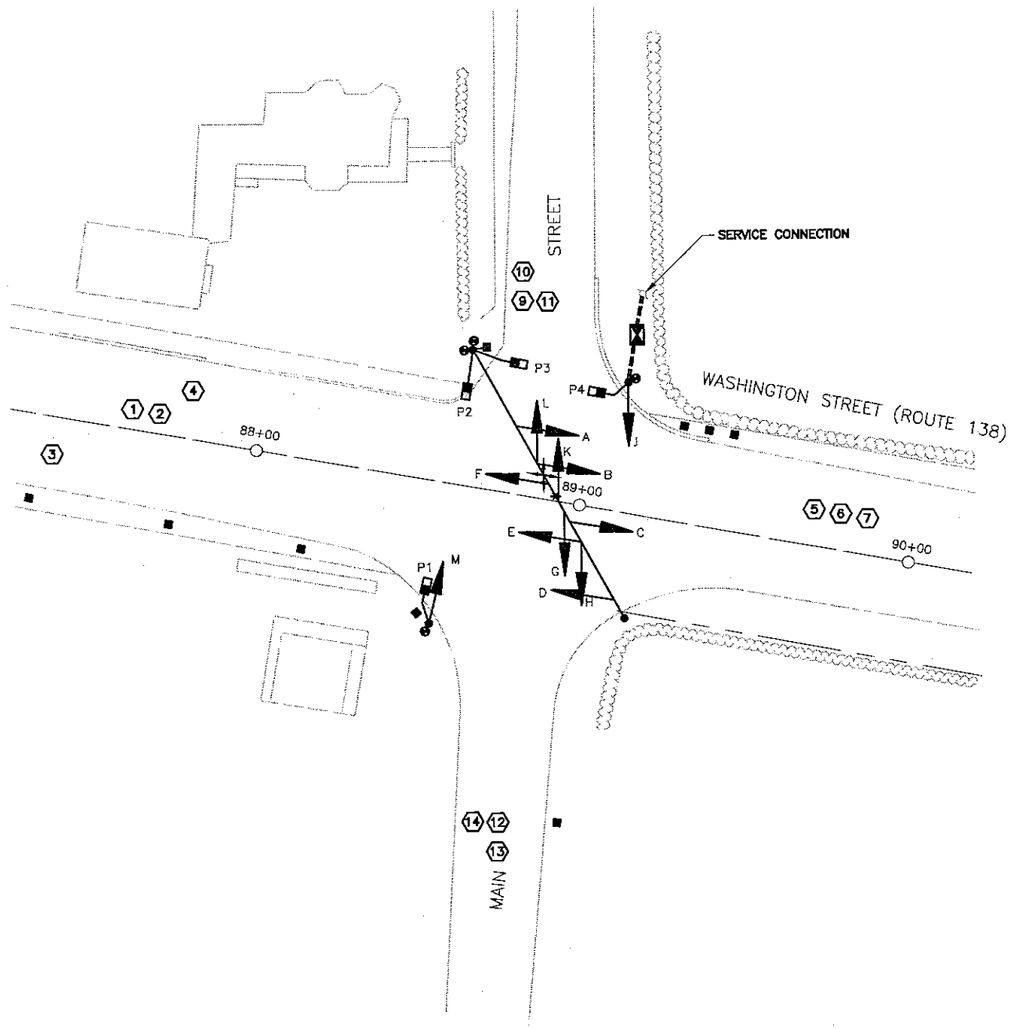
STATE TRAFFIC ENGINEER Date

EASTON

RTE. 138 AT MAIN STREET (DAILEY'S CNR.)

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0010	01	2	

TRAFFIC SIGNAL PLAN



NOTE:
THIS INTERSECTION HAS BEEN COMPLETELY REDONE. NEW AS-BUILT PLANS WERE NOT RECEIVED. BOTH ROADWAYS HAVE BEEN WIDENED TO ACCOMMODATE LEFT TURN LANES. THIS PLAN, EXISTING FROM THE 1954 CONSTRUCTION, DOES NOT REFLECT THIS WIDENING. LOOP LOCATIONS COULD NOT BE VERIFIED.

0 20 50 100 FEET

1" = 20' HORIZONTAL

LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

0010P01.DWG

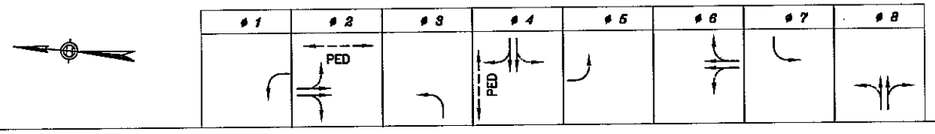
EASTON

RTE. 138 AT MAIN STREET (DAILEY'S CNR.)

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0010	01	3	

TRAFFIC SIGNAL DATA

APPROX NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
ROUTE 138	NB	C	GL	YL	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
ROUTE 138	NB	A,B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
ROUTE 138	SB	F	R	R	R	G	Y	R	R	R	R	R	R	R	GL	YL	R	R	R	R	R	R	R	R	R	R	FY
ROUTE 138	SB	D,E	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	EB	G	R	R	R	R	R	R	GL	YL	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
MAIN STREET	EB	H,J	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
MAIN STREET	WB	K	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	GL	YL	R	R	R	R	FR
MAIN STREET	WB	L,M	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
PEDESTRIAN	E-W	P1-P2	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OFF
PEDESTRIAN	N-S	P3-P4	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	OFF

TIMING IN SECONDS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MINIMUM GREEN (INITIAL)	7			15			7			7			7			15			7			7		
PASSAGE TIME (VEHICLE)	2			4			2			3			2			4			2			3		
MAXIMUM 1	10			28			9			30			10			28			9			30		
MAXIMUM 2	15			30			15			30			15			30			15			30		
YELLOW CLEARANCE		4			4			4			4			4			4			4			4	
RED CLEARANCE			1			1			1			1			1			1			1			1
WALK (W)				6						6						6						6		
PEDESTRIAN CLEARANCE				17						17						17						17		
RECALL	OFF			MIN			OFF			OFF			OFF			MIN			OFF			OFF		
MEMORY	NON-LOCKING			LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			LOCKING			NON-LOCKING			NON-LOCKING		

EMERGENCY ONLY

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
2	10' SIGNAL POLE, BASE, & FDN.
4	1 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
4	1 WAY, 5 SECTION SIGNAL HOUSING (12" LENS)
2	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
4	PEDESTRIAN HOUSING
4	PEDESTRIAN PUSH BUTTON, SIGN & SADDLES
4	OPTICOM RECIEVERS
2	OPTICOM 4 CHANNEL PHASE SELECTOR
1	OPTICOM STROBE LIGHT
12	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
13±	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

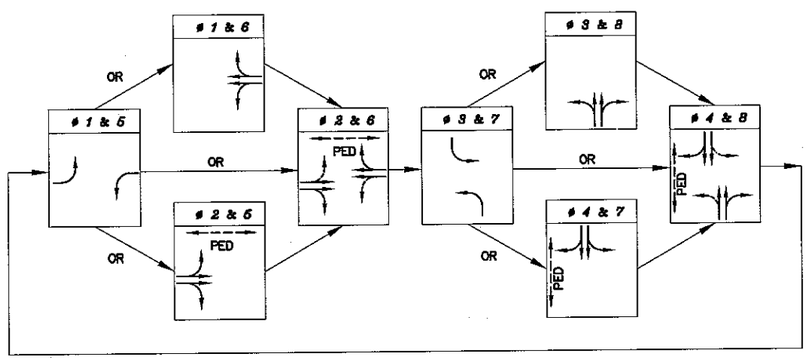
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

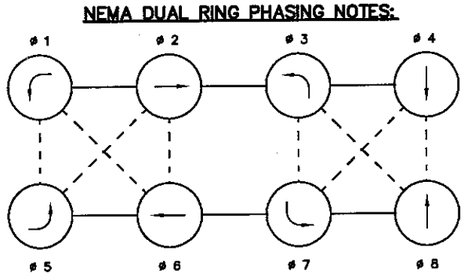
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTORS WERE NOT VISIBLE IN THE PAVEMENT SURFACE DURING INVENTORY.

PREFERENTIAL PHASING SEQUENCE



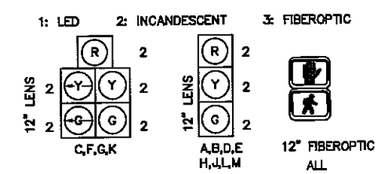
NEMA DUAL RING PHASING NOTES:



LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1				ø2	ø2	PRESENCE		
2				ø2	ø2	PRESENCE		
3				ø2	ø2	PRESENCE		
4				ø5	ø5	PRESENCE		
5				ø6	ø6	PRESENCE		
6				ø6	ø6	PRESENCE		
7				ø6	ø6	PRESENCE		
8				ø1	ø1	PRESENCE		
9				ø4	ø4	PRESENCE		
10				ø4	ø4	PRESENCE		
11				ø7	ø7	PRESENCE		
12				ø8	ø8	PRESENCE		
13				ø8	ø8	PRESENCE		
14				ø3	ø3	PRESENCE		

SIGNAL IDENTIFICATION



CONTROLLER MAKE & MODEL: PEEK 3000 SERIES
UTILITY POLE No. E.E. CO. BR. #32
METER No. 17-595-194
EMERGENCY PRE-EMPTION (TYPE): OPTICOM

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

0010D01.DWG

EASTON
RTE. 138 (WASHINGTON ST) AT RTE. 123 (BELMONT ST)

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0024	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT
RTE. 138 (WASHINGTON ST) AT RTE. 123 (BELMONT ST)

IN THE TOWN OF

EASTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued* or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I STANDARDS OF INSTALLATION

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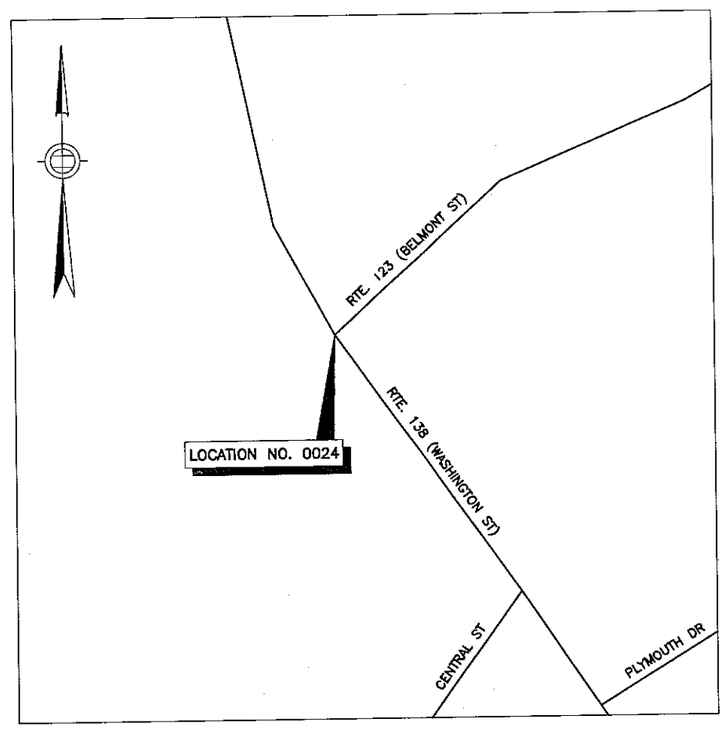
II OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR SCALE IN FEET
0 200 400 800

REVISION NO. 01
DATE: 11-27-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 0024T01.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

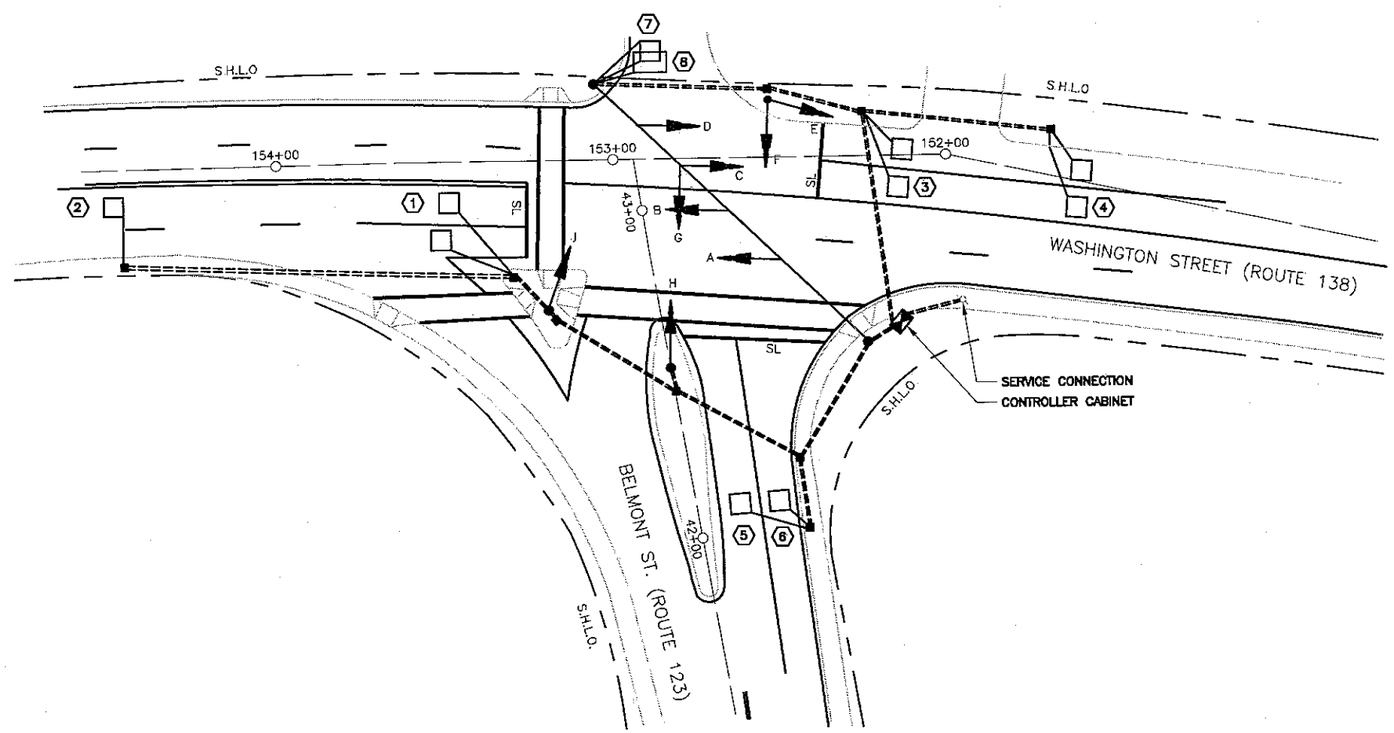
APPROVED BY:

STATE TRAFFIC ENGINEER Date

EASTON
RTE. 138 (WASHINGTON ST)
AT RTE. 123 (BELMONT ST)

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0024	01	2	

TRAFFIC SIGNAL PLAN



0 20 50 100 FEET
1" = 20' HORIZONTAL

LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

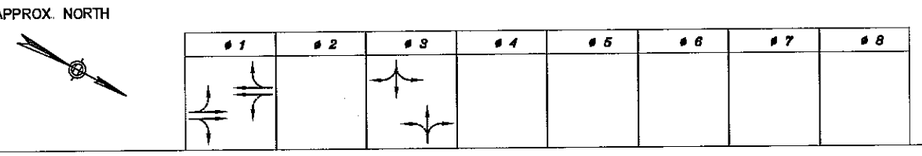
0024P0101.DWG

EASTON
RTE. 138 (WASHINGTON ST)
AT RTE. 123 (BELMONT ST)

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0024	01	3	

TRAFFIC SIGNAL DATA

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
WASHINGTON ST (ROUTE 138)	NB	A,B	G	Y	R				R	R	R																FY
WASHINGTON ST (ROUTE 138)	SB	C,D,E	G	Y	R				R	R	R																FY
BELMONT ST (ROUTE 123)	WB	F,G	R	R	R				G	Y	R																FR
DRIVE	EB	H,J	R	R	R				G	Y	R																FR

TIMING IN SECONDS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
MINIMUM GREEN (INITIAL)	8						8																		EMERGENCY ONLY
PASSAGE TIME (VEHICLE)	4						4																		
MAXIMUM 1	30						30																		
MAXIMUM 2	30						30																		
YELLOW CLEARANCE		4						4																	
RED CLEARANCE			1						2																
WALK (W)																									
PEDESTRIAN CLEARANCE																									
RECALL	EXT						OFF																		
MEMORY	LOCKING						LOCKING																		

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 4W, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
1	SPANWIRE ASSEMBLY BASE & FDN.
3	10' SIGNAL POLE, BASE, & FDN.
5	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
2	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
4	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
11	ROADWAY LOOP DETECTOR
9	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø2, ø4, ø5, ø6, ø7 AND ø8 NOT USED.

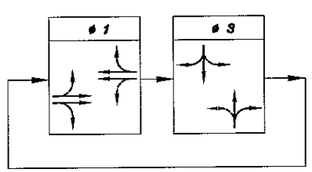
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

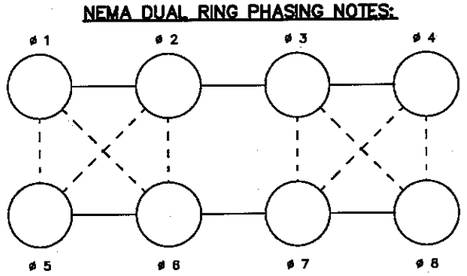
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTORS WERE NOT VISIBLE DURING SIGNAL INVENTORY.

PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:

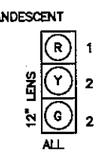


LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	2	6'X6'		ø1	ø1	PRESENCE		
2	1	6'X6'		ø1	ø1	PRESENCE		
3	2	6'X6'		ø1	ø1	PRESENCE		
4	2	6'X6'		ø1	ø1	PRESENCE		
5	1	6'X6'		ø2	ø2	PRESENCE		
6	1	6'X6'		ø2	ø2	PRESENCE		
7	1	6'X6'		ø2	ø2	PRESENCE		
8	1	6'X10'		ø2	ø2	PRESENCE		

SIGNAL IDENTIFICATION

1: LED 2: INCANDESCENT 3: FIBEROPTIC



CONTROLLER MAKE & MODEL: CROUSE-HINDS (PIN)
UTILITY POLE No. NET&T CO. / B.E. CO. #127
METER No. 11-819-138
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

0024D01.DWG

EASTON RTE. 138 AT ROCHE BROTHERS DR				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	5-1287	01	1	3

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT

WASHINGTON STREET (ROUTE 138) AT ROCHE BROTHERS DRIVEWAY

IN THE TOWN OF

EASTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

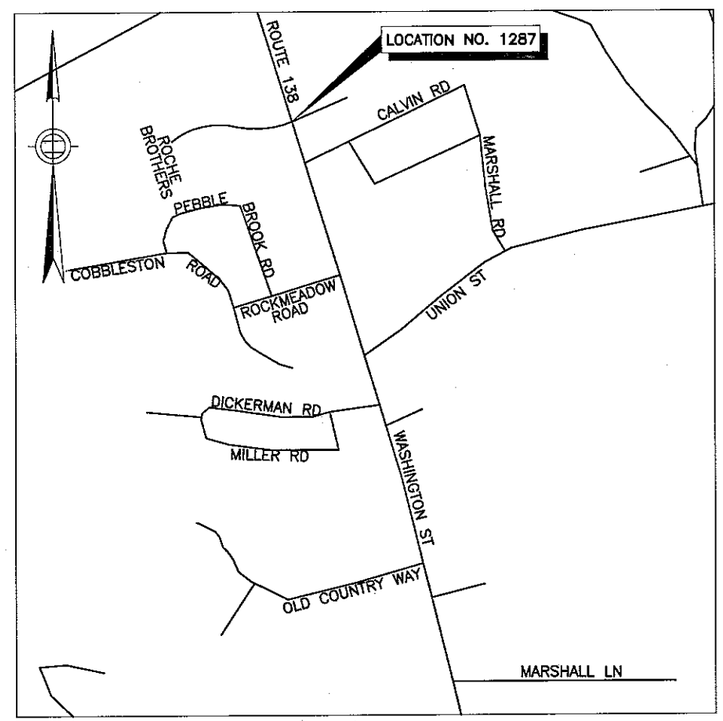
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued* or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically valds this permit during such time as non-compliance exists.

I STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50-60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR SCALE IN FEET
0 400 800 1600

REVISION NO 01
DATE: 12-22-2008
INSERT BY: BG
DATE:
FILE NAME: 1287T0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

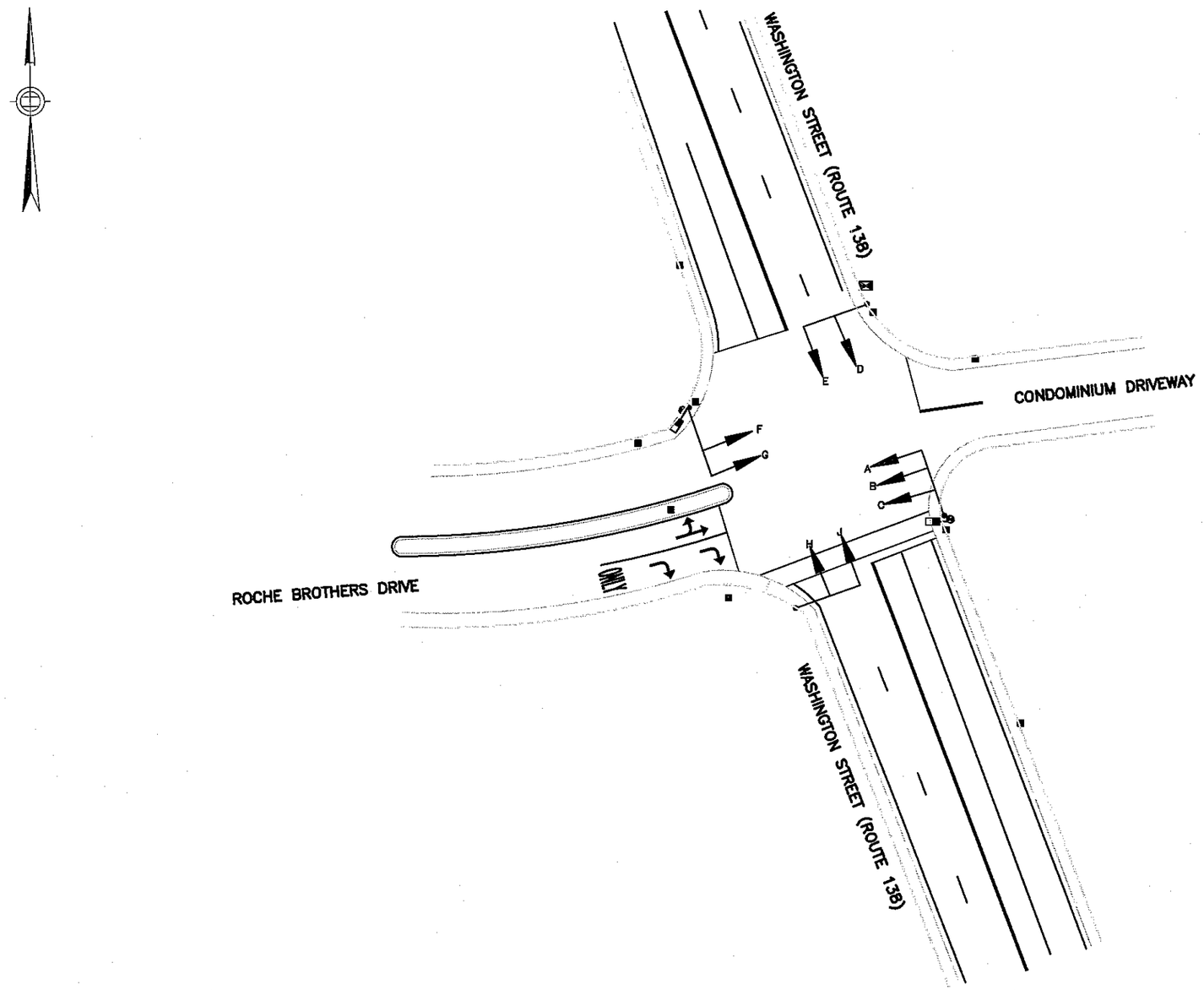
APPROVED BY:

STATE TRAFFIC ENGINEER Date

EASTON
WASHINGTON STREET (ROUTE 138) AT
ROCHE BROTHERS DRIVEWAY

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	5-1287	01	2	3

LAYOUT PLAN



0 20 50 100 FEET
1" = 20' HORIZONTAL

LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

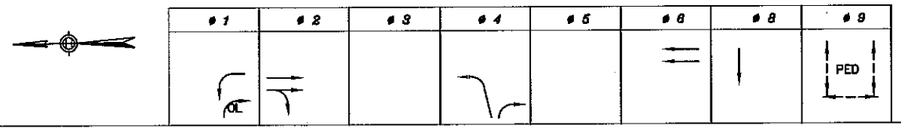
12872Q101.DWG

EASTON

WASHINGTON STREET (ROUTE 138) AT ROCHE BROTHERS

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1287	01	3	3

TRAFFIC SIGNAL DATA



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	TRACE CODE
WASHINGTON ST (ROUTE 138)	NB-LT	E	GL	YL	RL	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FRL
WASHINGTON ST (ROUTE 138)	NB	D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
WASHINGTON ST (ROUTE 138)	SB	H,J	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
ROCHE BROTHERS	EB-RT	C	R/GR	R/YR	R	R	R	R	R	R	R	GR	YR	R	R	R	R	R	R	R	R	R	R	R	R	R	FRR
ROCHE BROTHERS	EB	A,B	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
CONDOMINIUM DRIVEWAY	WB	F,G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
PEDESTRIAN		ALL	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OFF

TIMING IN SECONDS

MINIMUM GREEN (INITIAL)	6			10						6						10			6						
PASSAGE TIME (VEHICLE)	2			2						2						2			2						
MAXIMUM 1	14			50						20						50			20						
MAXIMUM 2	14			50						20						50			20						
YELLOW CLEARANCE		4			4						4						4			4					
RED CLEARANCE			1			2						1						2			1				
WALK (W)																							7		
PEDESTRIAN CLEARANCE																								15	
RECALL	NONE			NONE						NONE						NONE			NONE						
MEMORY	NON-LOCK			NON-LOCK						LOCKING						LOCKING			LOCKING						

EMERGENCY ONLY

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION
	SPANWIRE ASSEMBLY BASE & FDN.
	8' SIGNAL POLE, BASE, & FDN.
	10' SIGNAL POLE, BASE, & FDN.
4	MAST ARM ASSEMBLY, BASE, & FDN.
7	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
2	1 WAY, 5 SECTION SIGNAL HOUSING (12" LENS)
	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
2	PEDESTRIAN HOUSING
2	PEDESTRIAN PUSH BUTTON, SIGN, & SADDLES
9	LOOP DETECTOR AMPLIFIER
XX	ROADWAY LOOP DETECTOR
9	12" x 12" PULL BOX
	MAGNETIC DETECTOR
	MAGNETOMETER
	MAGNETIC AMPLIFIER
	OPTICOM RECEIVERS
	OPTICOM DUAL CHANNEL PHASE SELECTOR
	OPTICOM STROBE LIGHT
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø3, AND ø7 NOT USED.
2. EXCLUSIVE PEDESTRIAN TO BE ACTIVATED ONLY BY PEDESTRIAN ACTUATED PUSH BUTTON.

NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

SIGNAL IDENTIFICATION NOTES:

1. ALL SIGNAL HEADS DO HAVE 5" LOUVERED BACKPLATES
2. ALL RED SIGNAL LENSES SHALL BE 12" DIA.
3. ALL SIGNAL HEADS TO BE FIXED-MOUNTED.

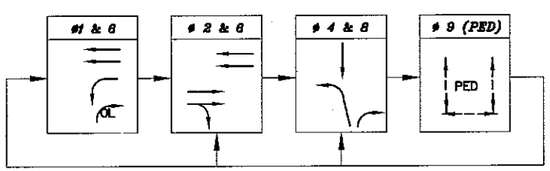
FIELD NOTE:

1. LOOP DETECTORS WERE NOT VISIBLE.

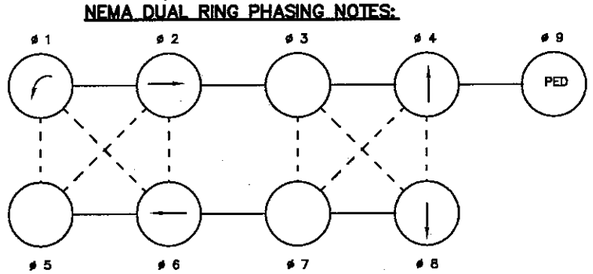
LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	X	XX		ø6	ø6	PRESENCE	0	0
2	X	XX		ø6	ø6	PRESENCE	0	0
3	X	XX		ø6	ø6	PRESENCE	0	0
4	X	XX		ø1	ø1	PRESENCE	0	0
5	X	XX		ø2	ø2	PRESENCE	0	0
6	X	XX		ø2	ø2	PRESENCE	0	0
7	X	XX		ø2	ø2	PRESENCE	0	0
8	X	XX		ø8	ø8	PRESENCE	0	0
9	X	XX		ø4	ø4	PRESENCE	6	0
10	X	XX		ø4	ø4	PRESENCE	6	0
51	X	XX		ø1	ø1	PRESENCE	6	0
52	X	XX		ø6	ø6	PRESENCE	6	0
53	X	XX		ø2	ø2	PRESENCE	0	0
54	X	XX		ø2	ø2	PRESENCE	0	0
55	X	XX						
56	X	XX		ø4	ø4	PRESENCE	0	0
57	X	XX		ø4	ø4	PRESENCE	0	0

PREFERENTIAL PHASING SEQUENCE

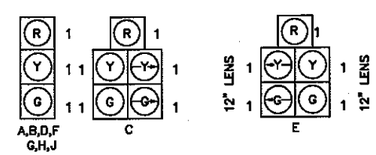


NEMA DUAL RING PHASING NOTES:



SIGNAL IDENTIFICATION

1: LED 2: INCANDESCENT 3: FIBEROPTIC



ONE SECTION DUAL DISPLAY

12" LED/FIBER OPTIC ALL

CONTROLLER MAKE & MODEL: EPAC 300
UTILITY POLE No. VERIZON 5
METER No.
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER Date

1287D0101.DWG

(1)

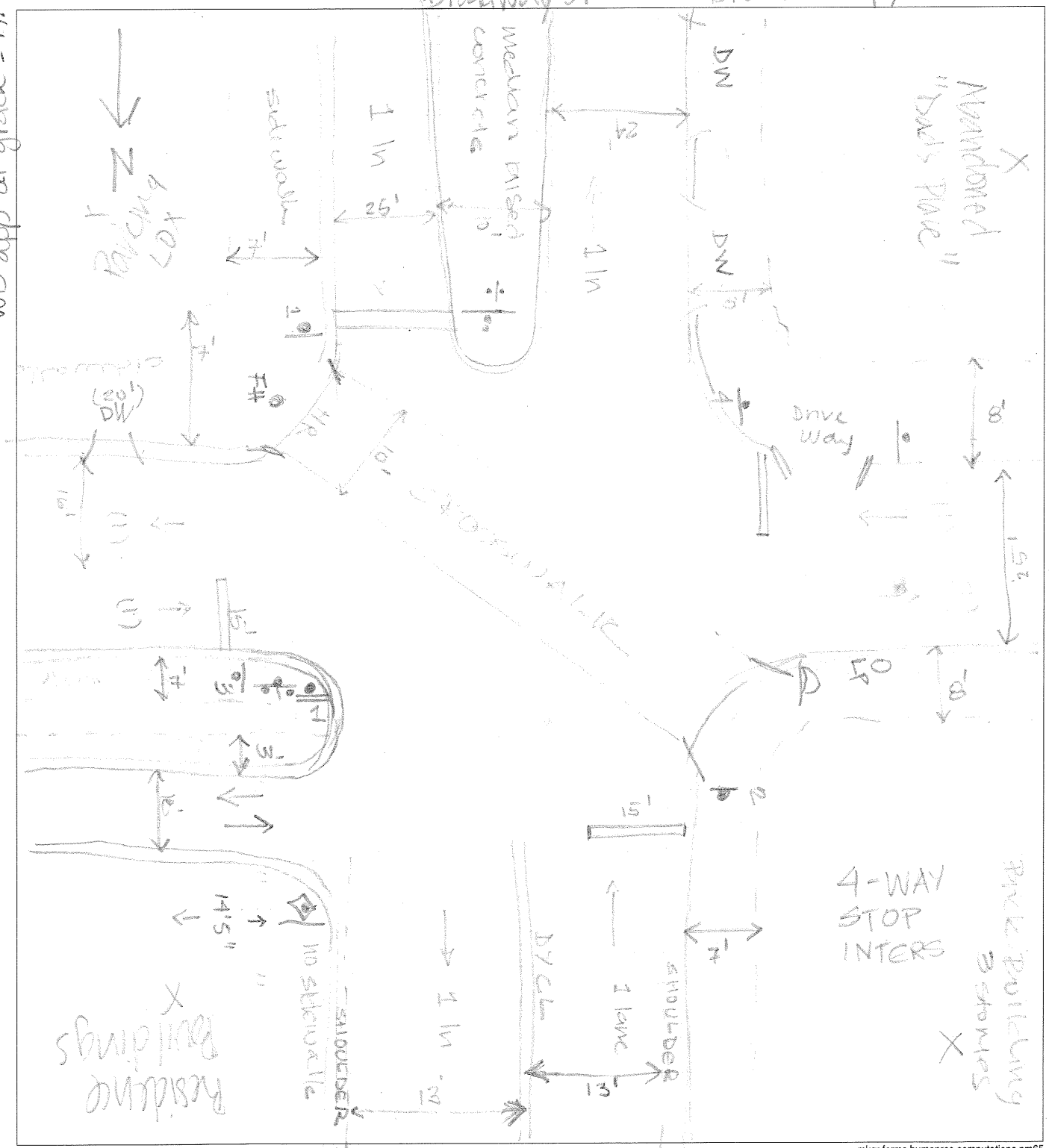
Computations

stop sign
Flashing Beacon signal head
light pole
HR = Handicap Ramp
Street sign
Historic Downtown → Govt. Center, Flint Village

Project: SCR
Location: Fall River, MA
Calculated by: MJL
Checked by:
Title: Traffic Study - Anawan/Pocasset St @ Broadway/David St

Project # 10111.31
Sheet of
Date: 9/10/08
Date:

* 4 way stop int
* WB app at grade = 1%



• posted speed limit 30 MPH @ Pocasset St

mkgr.forms.humanres.computations.pm65

Vanasse Hangen Brustlin, Inc.

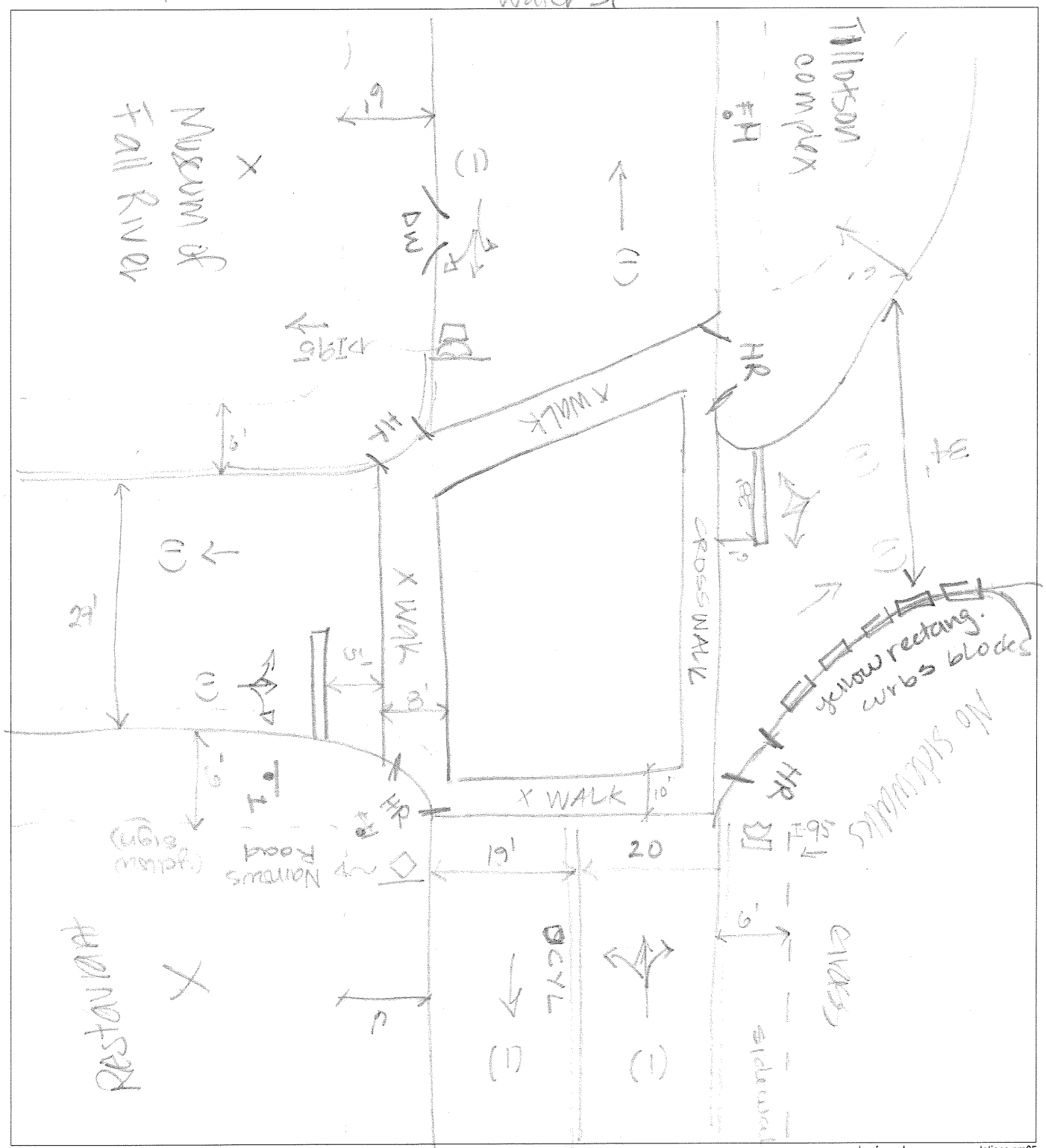
(2)

VHB Computations

stop signs
Interstate signs
pavem. cond = fair
x-walks → brick pavers

Project:	10111.31	Project #	SCR
Location:	Fall River	Sheet	1 of 1
Calculated by:	NL	Date:	9/10/08
Checked by:		Date:	

Title Inv. Anawan @ Water St

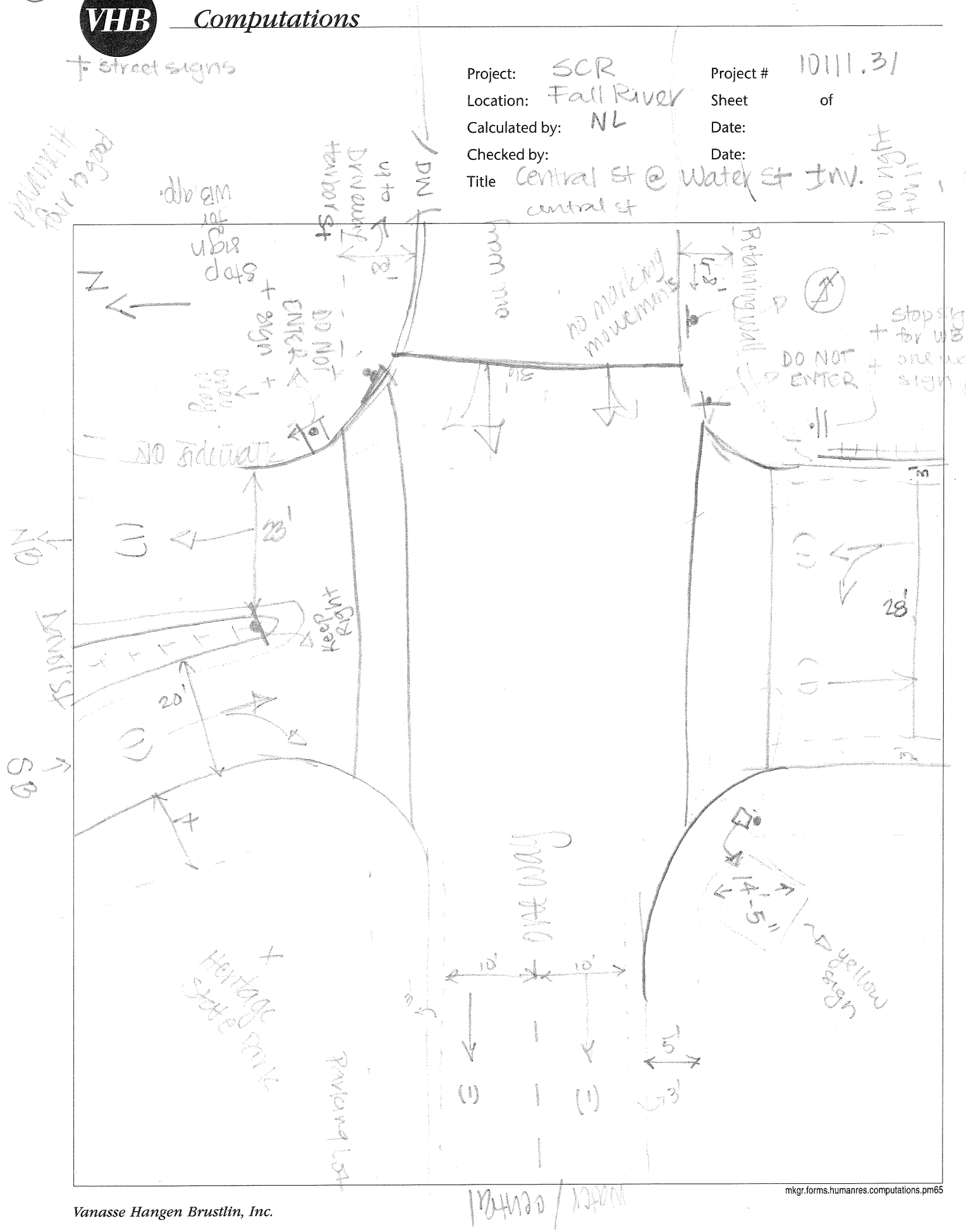


(m)

VHB *Computations*

+ street signs

Project:	SCR	Project #	10111.31
Location:	Fall River	Sheet	of
Calculated by:	NL	Date:	
Checked by:		Date:	
Title	Central St @ Water St Inv.		



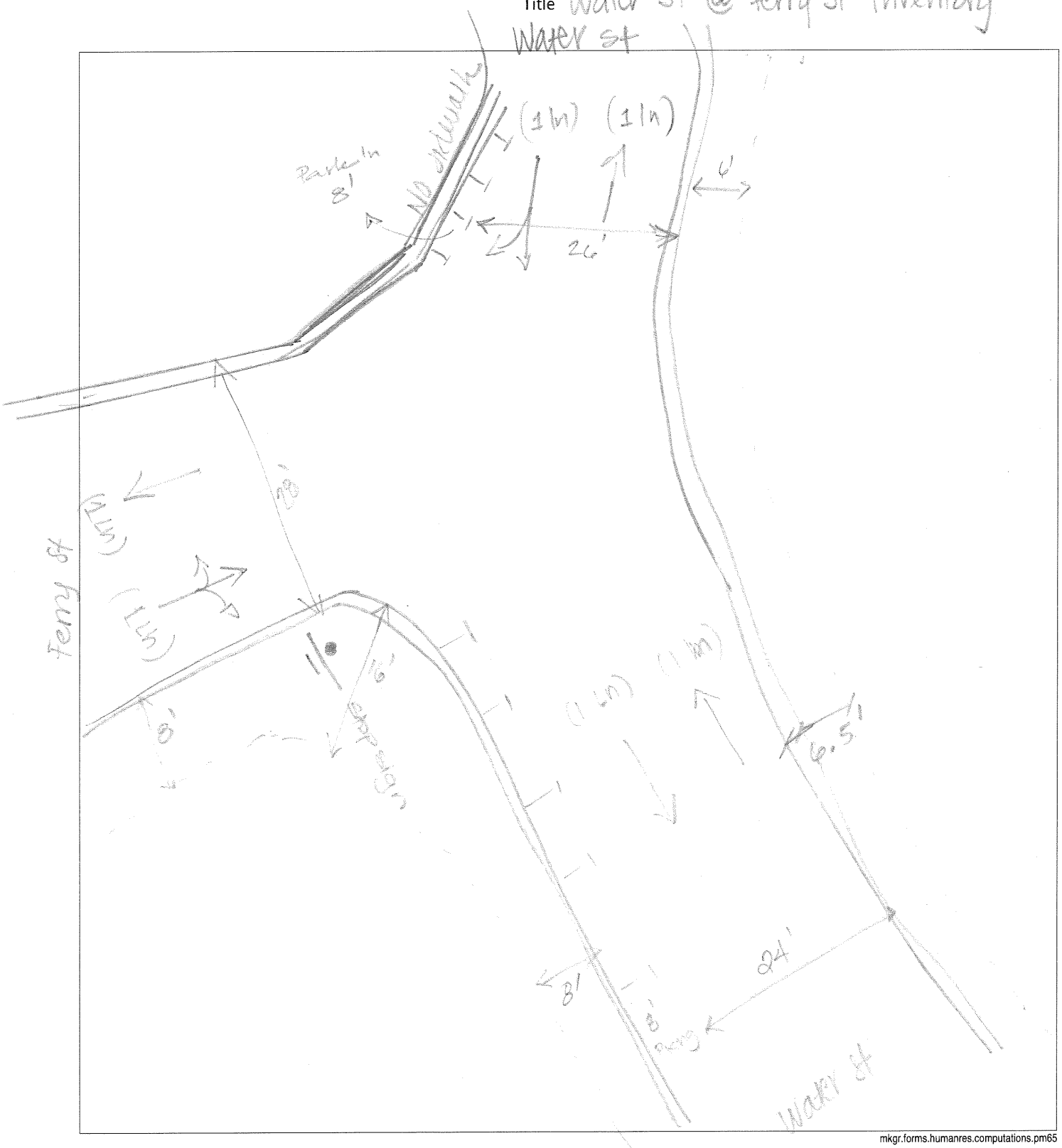
mkgr.forms.humanres.computations.pm65

(A)

VHB

Computations

Project: SCR
Project # 10111.31
Location: Fall River
Sheet 1 of
Calculated by: NL
Date:
Checked by:
Date:
Title Water St @ Ferry St Inventory



mkgr.forms.humanres.computations.pm65

VHB

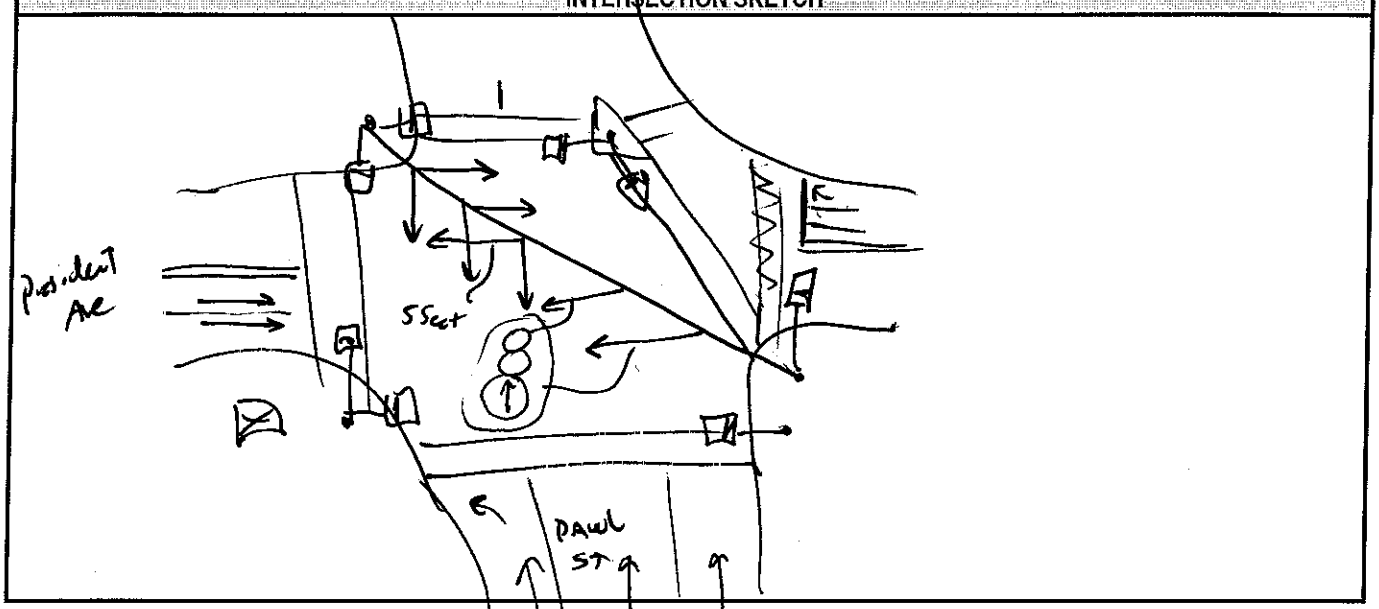
Traffic Signal Inventory

1. Intersection Location

Pawtucket St. NB @ President Ave	Fall River, MA
Intersection Name	City or Town

N/A	9/4/07	WRA
RIDOT Traffic Signal #	Date of Inventory	Inventory Conducted By

INTERSECTION SKETCH



Showing Cabinet Location, Signal Poles, Signal and Pedestrian Signals

Equipment				
Mast Arms	Yes ☐	No ☒		
Strain Poles	Embedded ☐	Bolted ☒		
Tether Wire	Yes ☒	No ☐	N/A ☐	
Overhead Signal Heads	Free Swinging ☐	Rigid ☒	N/A ☐	w/ Tether
Signal Head Visor Condition	Good ☒	Fair ☐	Poor ☐	
R10-12 Signs (prot/perm lefts)	Yes ☐	No ☒	N/A ☐	
LED Signal Heads	Some ☐	All ☒	None ☐	
Backplates	Yes ☒	No ☐		
Proper Signal Head Placement	Yes ☒	No ☐		
ADA pedestrian pushbuttons (2")	Yes ☒	No ☐	N/A ☐	
Pedestrian Signal Type	LED filled in ☐	LED ☒	Fiber ☐	Incand. ☐
Pedestrian Signal Displays	Overlapping Hand/Man ☒	Separate Hand/Man ☐	Words ☐	
Overall Condition	Good ☒	Fair ☐	Poor ☐	

VHB

Traffic Signal Inventory

2. Cabinet

Cabinet - External				
Size	"P" ☒	"M" ☐	Other ☐	If "Other" Size:
Mounting	Ground ☒	Pole ☐	Other ☐	
Meter Socket	Yes ☒	No ☐		
Concrete Pad	Yes ☒	No ☐	N/A ☐	
Manual Control	Yes ☐	No ☐		NOT CHECKED
Overall Cabinet Condition	Good ☒	Fair ☐	Poor ☐	
Photo of Inside of Cabinet Taken	Yes ☒	No ☐		

Police Door Switches	NOT CHECKED
Documentation in Cabinet	Box Prints only + 1 copy controller manual

3. Controller Data

Manufacturer	Model No.	Serial No.	Software Rev. Level/Date
EAGLE	EPAC	67660	3.32d Sept 00

Controller				
Type	NEMA - keyboard ☒	NEMA - Modular ☐	Non-NEMA ☐	Electromechanical ☐
Platform	TS1 ☐	TS2 Type 1 ☒	TS2 Type 2 ☐	
Phase Capable Controlling Leg	2 Phase ☐	4 Phase ☐	8 Phase ☒	
Setting Type	Keyboard ☒	Thumbwheel ☐	Dial ☐	Pin ☐
Controller Condition	Good ☒	Fair ☐	Poor ☐	

Misc.		
Backpanel Size	12 Pos.	
Conflict Monitor/MMU	Manufacturer: EDI	Model/Size: MMU-16E
Detector Relays	Manufacturer: EDI	Quantity/Type: 3 - 2-channel
Detector Relay Channels Faulting (list channel numbers)	RELAYS NOT SHOWING ANY INDICATIONS (CALLS OR FAULTS) - BUT DOES HAVE POWER + IS TRANSMITTING?	

VHB

Traffic Signal Inventory

4. *Signal Timing Sheet*

01	02 President Ave EB	03 Daniel St NB
04	05 President Ave EB-LT	06 President Ave WB
07	~~08~~ Ø9: PED - EXCLUSIVE	OLA
OLB	OLC	OLD

PHASE	01	02	03	04	05	06	07	08	Ø9
Minimum Green (initial)		6	6		6	6			
Extension (passage) Vehicle Interval		3.0	3.0		3.0	3.0			
Yellow		3	3		3	3			3
Red Clear		2	2		2	2			
Maximum Green I		15	33		27	27			
Maximum Green II		15	33		27	27			
Pedestrian Walk									7
Pedestrian Clear									15
Walk (flash/steady)									
Recall		SOFT				SOFT			
Memory									

EXT PCL = 2

Intersection Movements:

01	02	03	04	05	06	07	08	Ø9
	- PERM			PROT				

Coordination Data: COORD = 1|1|0|2|0|0

None → BEGIN GREEN

					SPLIT TIMES								Ø9
Pattern	Days	Time Period	Cycle L.	Offset	01	02	03	04	05	06	07	08	
0|0|4	1	0:00 -											
0|0|4	2-7	0:00 - 06:00											
1|1|1	2-7	06:00 - 22:00	75	0		30	35		12	18			10
0|0|4	2-7	22:00 - 0:00											

Ø2 + Ø6 = COORD PH

PG = 9/4/07 12:36:30

PG 2 [illegible] 12:36:37

5. Notes

- ALL LOOPS NOT WORKING AT RECALL (ALL GOING TO MAX)

- ϕ9 PED TIMES: 7/15
  SPLIT = 10 SECONDS
  ∴ INTERSECTION PROBS OUT OF COORD W/ PED ACTUATION

NOTE: FULL INSPECTION NOT PERFORMED
(INCLUDING LOCATION OF PED. BUTTONS + LOOPS

6. Recommendations

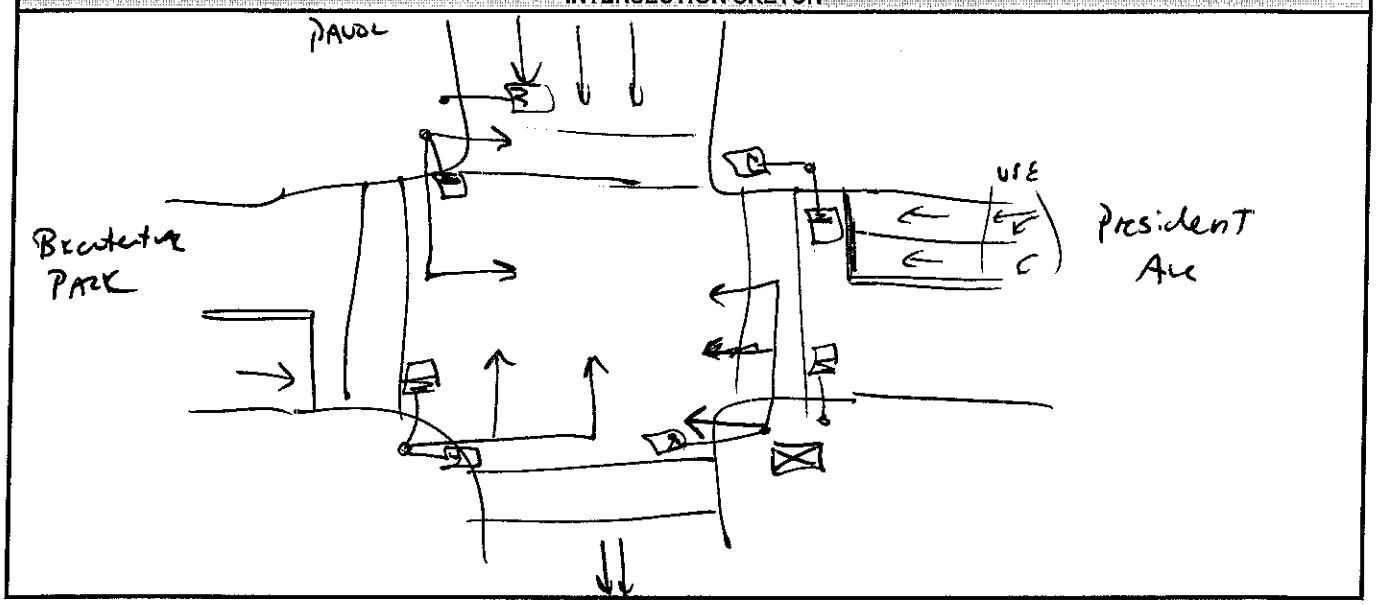
VHB Traffic Signal Inventory

1. Intersection Location

Daval St. SB @ President Ave	Fall River, MA
Intersection Name	City or Town

N/A	9/4/07	WZA
RIDOT Traffic Signal #	Date of Inventory	Inventory Conducted By

INTERSECTION SKETCH



Showing Cabinet Location, Signal Poles, Signal and Pedestrian Signals

Equipment				
Mast Arms	Yes ☒	No ☐		
Strain Poles	Embedded ☐	Bolted ☐		
Tether Wire	Yes ☐	No ☐	N/A ☒	
Overhead Signal Heads	Free Swinging ☐	Rigid ☒	N/A ☐	
Signal Head Visor Condition	Good ☒	Fair ☐	Poor ☐	
R10-12 Signs (prot/perm lefts)	Yes ☐	No ☒	N/A ☐	
LED Signal Heads	Some ☐	All ☒	None ☐	
Backplates	Yes ☒	No ☐		
Proper Signal Head Placement	Yes ☒	No ☐		
ADA pedestrian pushbuttons (2")	Yes ☒	No ☐	N/A ☐	
Pedestrian Signal Type	LED filled in ☐	LED ☒	Fiber ☐	Incand. ☐
Pedestrian Signal Displays	Overlapping Hand/Man ☒	Separate Hand/Man ☐	Words ☐	
Overall Condition	Good ☒	Fair ☐	Poor ☐	

VHB

Traffic Signal Inventory

2. Cabinet

Cabinet - External				
Size	"P" ☒	"M" ☐	Other ☐	If "Other" Size:
Mounting	Ground ☒	Pole ☐	Other ☐	
Meter Socket	Yes ☒	No ☐		
Concrete Pad	Yes ☐	No ☐	N/A ☒	IN BH AREA
Manual Control	Yes ☐	No ☐		NOT CHECKED
Overall Cabinet Condition	Good ☒	Fair ☐	Poor ☐	
Photo of Inside of Cabinet Taken	Yes ☒	No ☐		

Police Door Switches	NOT CHECKED
Documentation in Cabinet	~~NONE~~ BOX PLANS only

3. Controller Data

Manufacturer	Model No.	Serial No.	Software Rev. Level/Date
SAGE	2TAC	67659	3.32d Sept 00

Controller				
Type	NEMA - keyboard ☒	NEMA - Modular ☐	Non-NEMA ☐	Electromechanical ☐
Platform	TS1 ☐	TS2 Type 1 ☒	TS2 Type 2 ☐	
Phase Capable Controlling Leg	2 Phase ☐	4 Phase ☐	8 Phase ☒	
Setting Type	Keyboard ☒	Thumbwheel ☐	Dial ☐	Pin ☐
Controller Condition	Good ☒	Fair ☐	Poor ☐	

Misc.		
Backpanel Size	12 Pos.	
Conflict Monitor/MMU	Manufacturer: EDI	Model/Size: MMU-16E
Detector Relays	Manufacturer: EDI	Quantity/Type: 2-2 channel
Detector Relay Channels Faulting (list channel numbers)	NONE	

VHB

Traffic Signal Inventory

4. *Signal Timing Sheet*

01	02 PARK EB	03
04 DAVOL ST SB	05	06 President AVE WB
07	~~08~~ Ø9 PED EXCLUSIVE	OLA
OLB	OLC	OLD

PHASE	01	02	03	04	05	06	07	08	Ø9
Minimum Green (initial)		4		12		12			
Extension (passage) Vehicle Interval		3.0		3.0		3.0			
Yellow		4		4		4			3
Red Clear		2		2		2			
Maximum Green I		12		36		30			
Maximum Green II		12		36		30			
Pedestrian Walk									7
Pedestrian Clear									15
Walk (flash/steady)									
Recall									
Memory									

(Ø6 = SOFT RECALL)

EXT PAS = 2

Intersection Movements:

01	02	03	04	05	06	07	08	Ø9

(PED)

Coordination Data:

DATA = 1|1|0|2|0|1 → 0 = BEGINNING GREEN

_____ None

					SPLIT TIMES								
Pattern	Days	Time Period	Cycle L.	Offset	01	02	03	04	05	06	07	08	Ø9
Free 0|0|4	1	0:00-											
0|0|4	2-7	0:00- 06:00											
1|1|1	2-7	06:00-22:00	75	5		16		25		20			14
0|0|4	2-7	22:00- 0:00											

Ø4 = COORD PH
Ø6 = MIN RECALL
> By T.O.D.

J:\71408\docs\VARIOUS\Quick inventoryform.doc

By: 9/4/07 12:20:30

5. Notes

ϕ9 PED TIME = 7/15
SPLIT = 14 SECONDS

∴ INTERSECTION DROPS OUT OF COORDINATION w/ PED ACTUATIONS

- INTERSECTION APPEARS TO OPERATE CORRECTLY

NOTE: Full INSPECTION NOT Performed
INCLUDING OPERATION OF PED BUTTONS + LOOPS

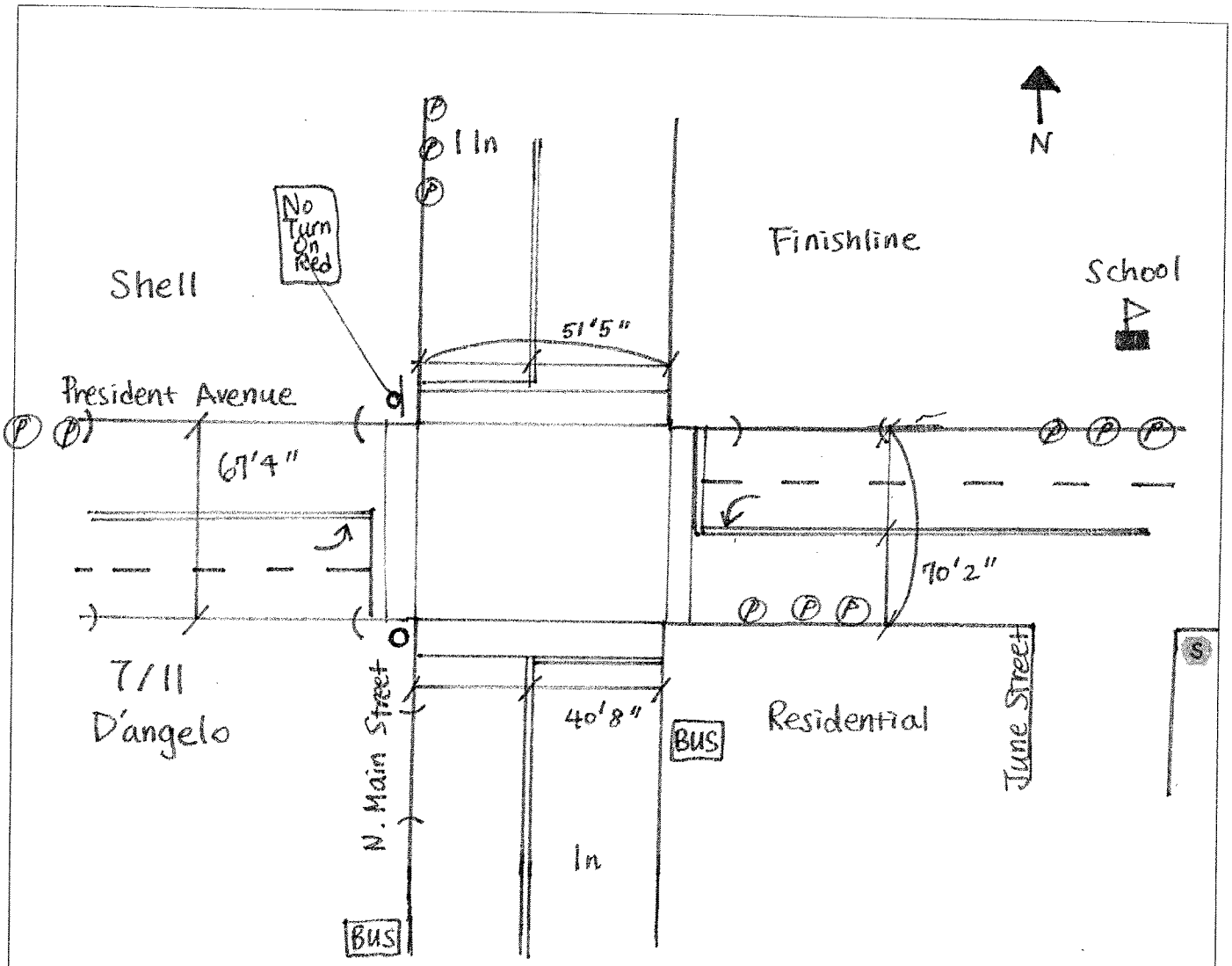
6. Recommendations

VHB Computations

Project: Rt. 79
Location: Fall River
Calculated by: GS
Checked by:
Title PI

Project # 16137.00
Sheet 1 of 8
Date: Tues, 5/22, 2007
Date:

President Avenue @ N. Main Street



* Ped. Push buttons at all corners

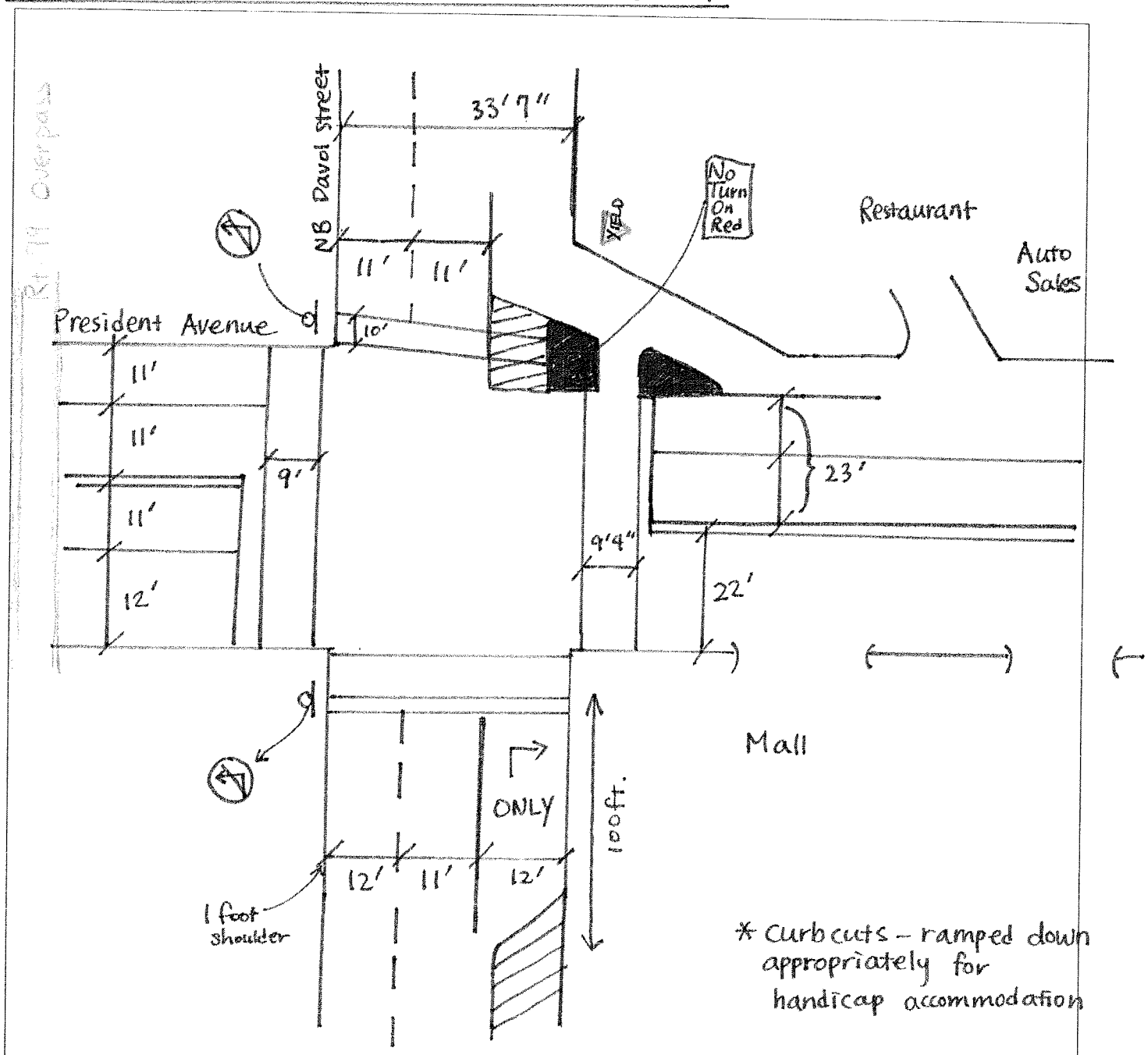
* BUS SRTA - 2

VHB Computations

Project: Rt. 79
Location: Fall River, MA
Calculated by: GS
Checked by:
Title PI

Project # 10137.00
Sheet 5 of 8
Date: Tues, May 22, 2007
Date:

Davol Street NB @ President Avenue (East)

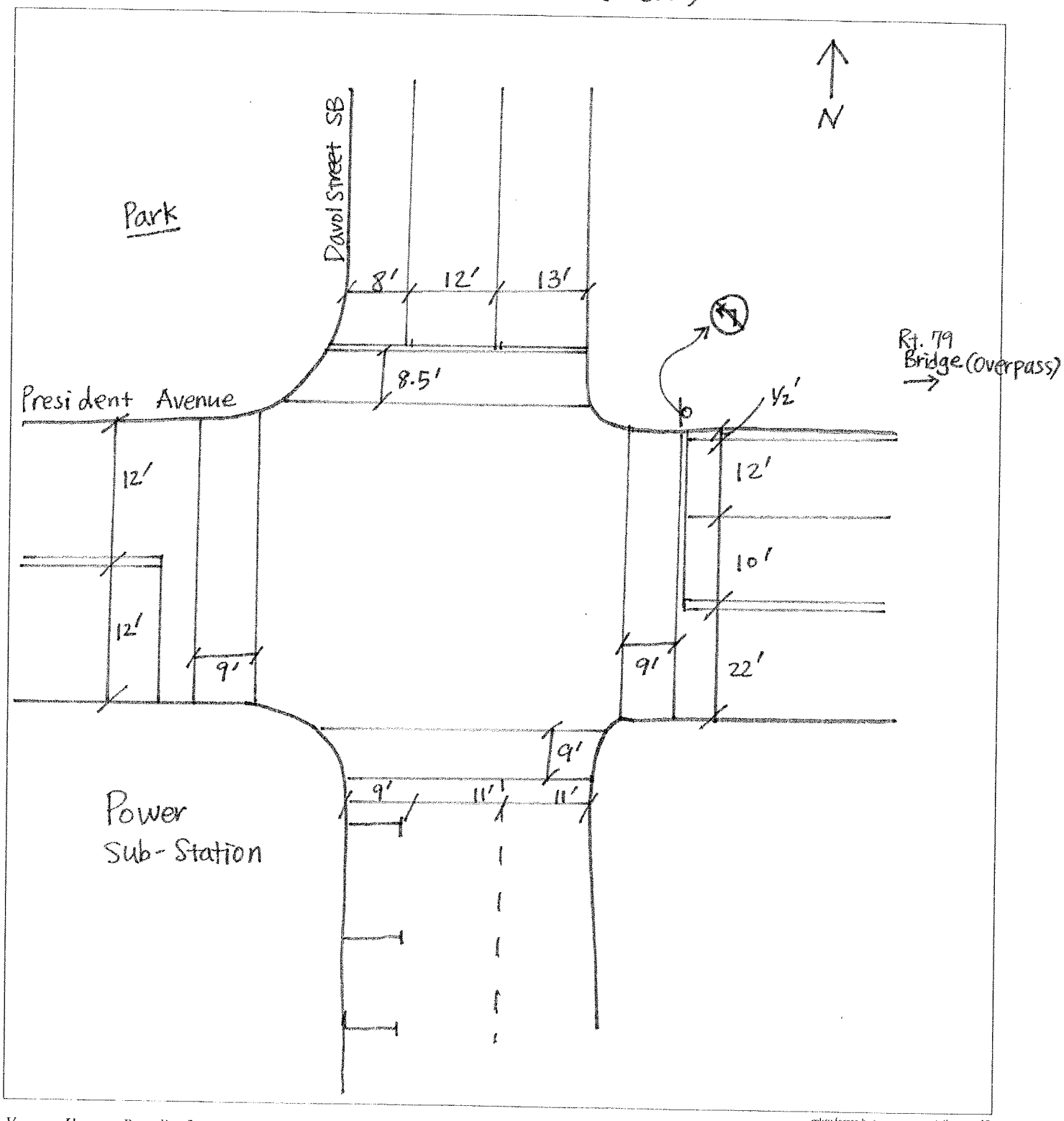


VHB Computations

Project: Rt. 79
Location: Fall River, MA
Calculated by: GS
Checked by:
Title PI

Project # 10137.00
Sheet 4 of 8
Date: Tuesday, May 22, 2007
Date:

Davol Street SB @ President Avenue (West)

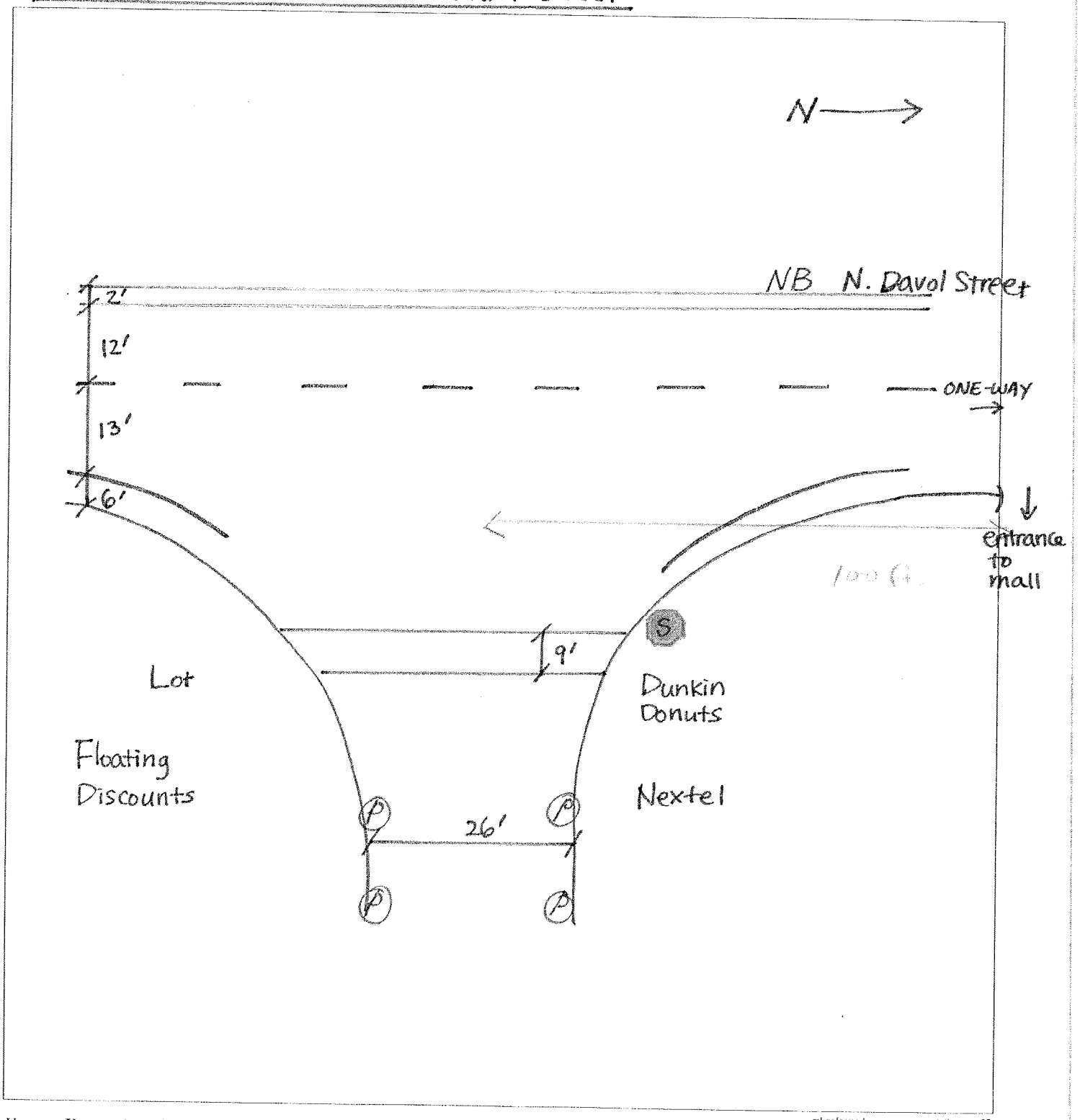


VHB Computations

Project: Rt. 79
Location: Fall River, MA
Calculated by: GS
Checked by:
Title PI

Project # 10137.00
Sheet 6 of 8
Date: Tuesday, May 22, 2007
Date:

Pearce Street @ NB. N. Davol Street

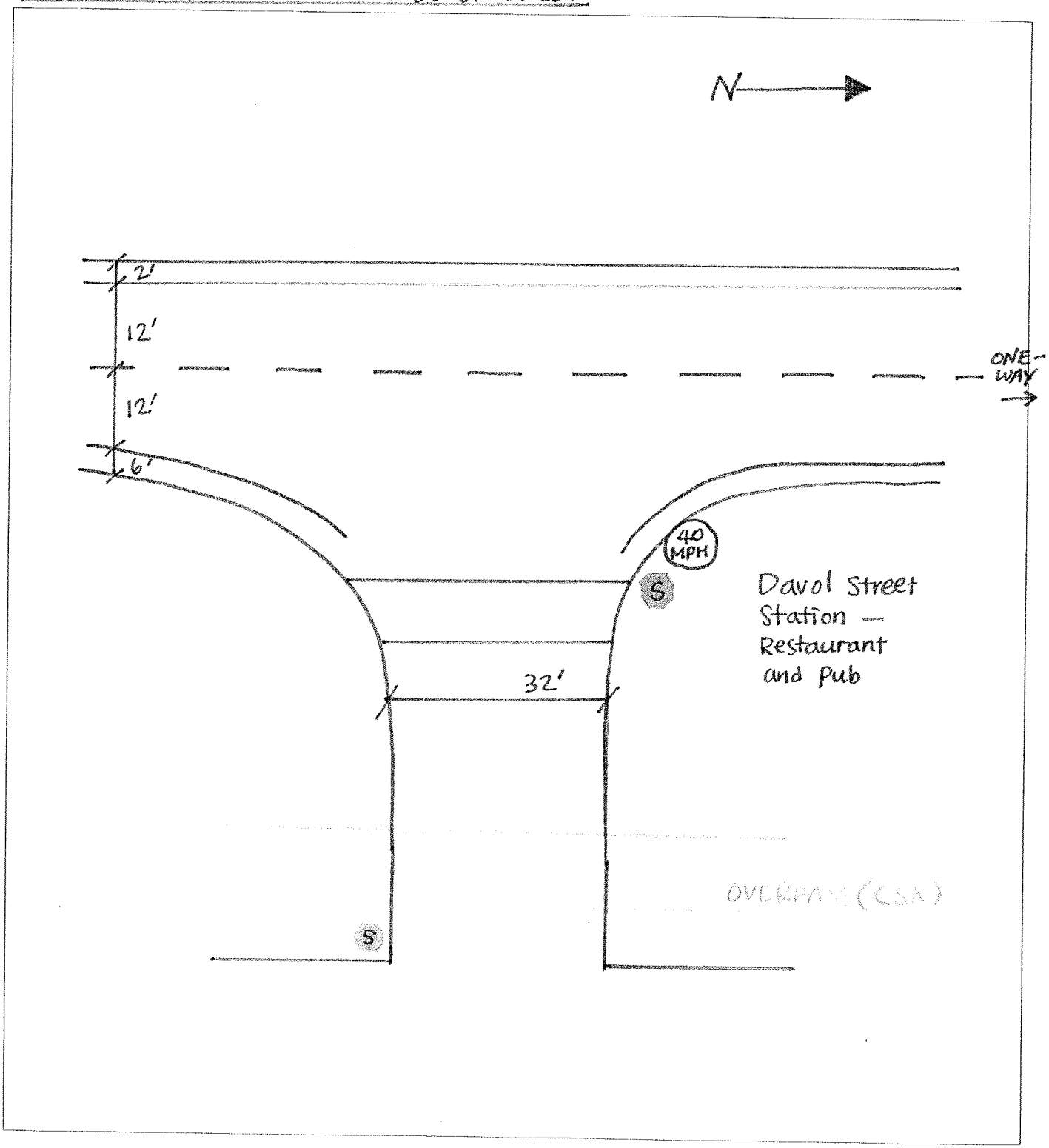


VHB Computations

Project: Rt. 79
Location: Fall River, MA
Calculated by: GS
Checked by:
Title PI

Project # 10137.00
Sheet 7 of 8
Date: May 22, 2007
Date:

Turner Street @ NB. N. Davol Street

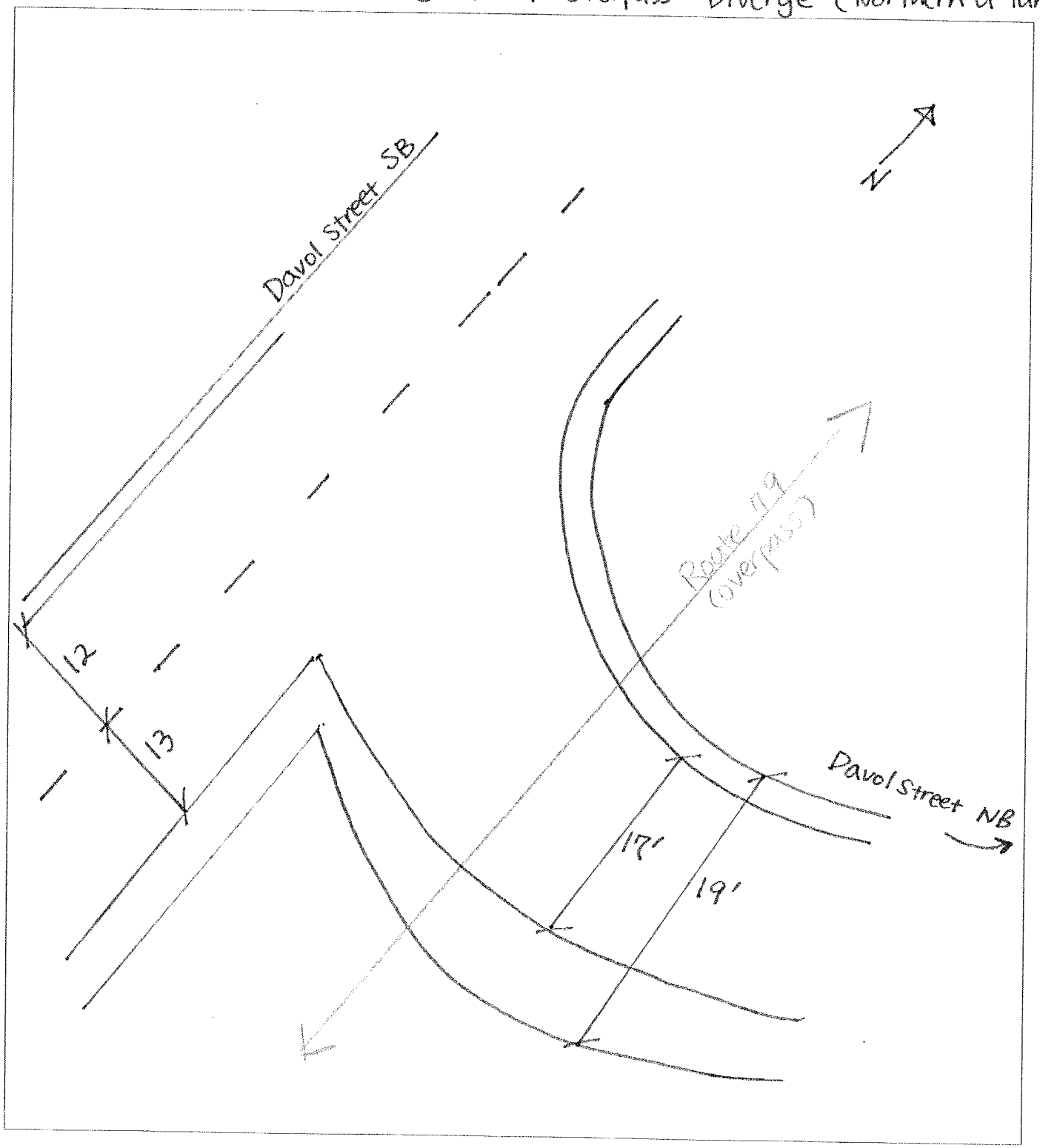


VHB Computations

Project: Rt. 79
Location: Fall River, MA
Calculated by: GS
Checked by:
Title PI

Project # 10137.00
Sheet 2 of 8
Date: Tues, May 22, 2007
Date:

Davol Street SB U-turn @ Rt. 79 Overpass - Diverge (Northern U-turn)



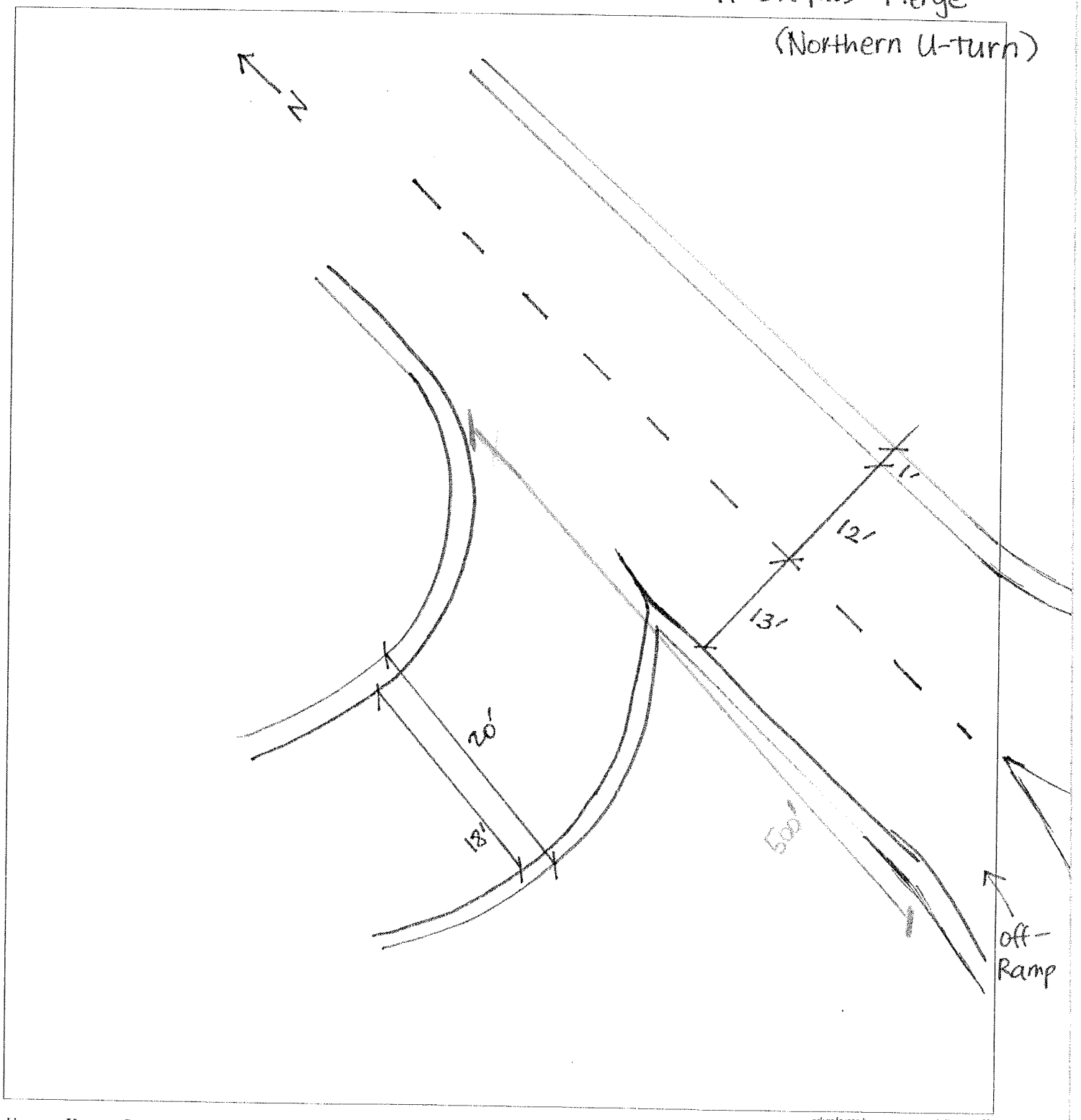
VHB Computations

Project: Rt. 79
Location: Fall River, MA
Calculated by: GS
Checked by:
Title PI

Project # 10137.00
Sheet 3 of 8
Date: Tues, May 22, 2007
Date:

Davol Street U-turn to NB Davol Street @ Rt. 79 Overpass - Merge

(Northern U-turn)

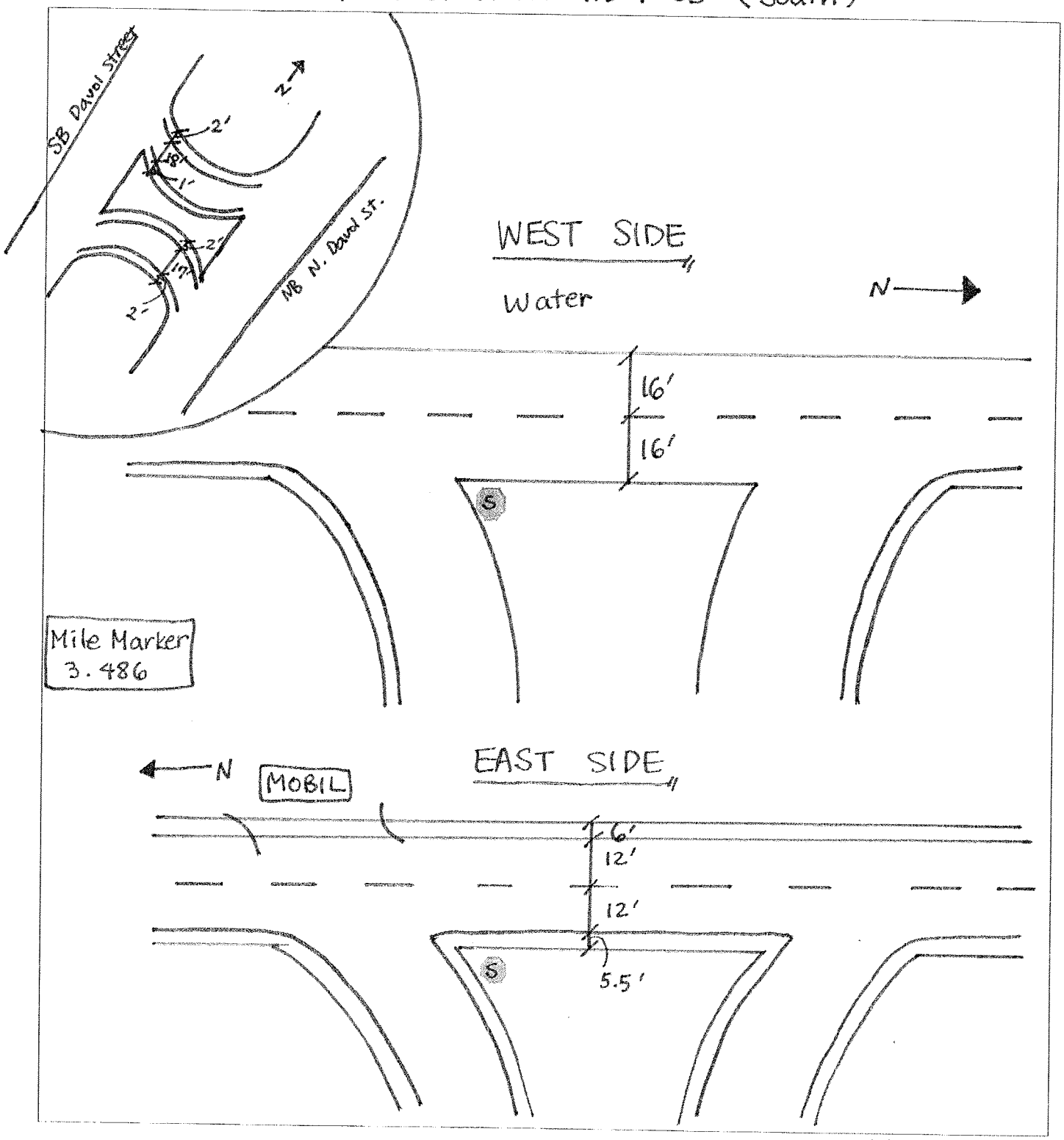


VHB Computations

Project: Rt. 79
Location: Fall River, MA
Calculated by: GS
Checked by:
Title PI

Project # 10137.00
Sheet 8 of 8
Date: Tuesday, May 22, 2007
Date:

U-Turns between Davol Street NB & SB (South)



VHB

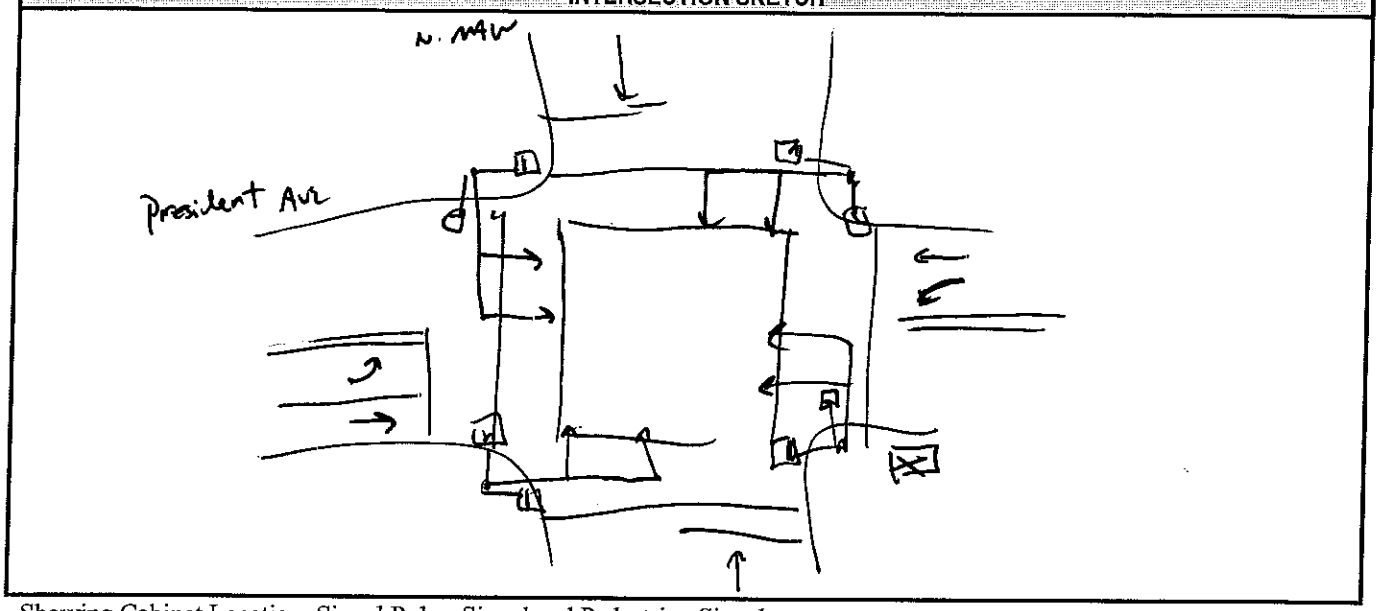
Traffic Signal Inventory

1. Intersection Location

North Main St @ President Ave	Fall River, MA
Intersection Name	City or Town

N/A	9/4/07	GMA
RIDOT Traffic Signal #	Date of Inventory	Inventory Conducted By

INTERSECTION SKETCH



Showing Cabinet Location, Signal Poles, Signal and Pedestrian Signals

Equipment				
Mast Arms	Yes ☒	No ☐		
Strain Poles	Embedded ☐	Bolted ☐		NO
Tether Wire	Yes ☐	No ☐	N/A ☒	
Overhead Signal Heads	Free Swinging ☒	Rigid ☐	N/A ☐	
Signal Head Visor Condition	Good ☐	Fair ☒	Poor ☐	
R10-12 Signs (prot/perm lefts)	Yes ☐	No ☐	N/A ☒	
LED Signal Heads	Some ☐	All ☒	None ☐	APPEAR TO BE - SOME NOT SURE
Backplates	Yes ☐	No ☒		
Proper Signal Head Placement	Yes ☒	No ☐		
ADA pedestrian pushbuttons (2")	Yes ☐	No ☒	N/A ☐	OLD SMALL BUTTONS
Pedestrian Signal Type	LED filled in ☐	LED ☐	Fiber ☐	Incand. ☒
Pedestrian Signal Displays	Overlapping Hand/Man ☐	Separate Hand/Man ☐	Words ☒	OVERLAPPING
Overall Condition	Good ☐	Fair ☒	Poor ☐	

VHB **Traffic Signal Inventory**

2. Cabinet

Cabinet - External				
Size	"P" ☒	"M" ☐	Other ☐	If "Other" Size:
Mounting	Ground ☒	Pole ☐	Other ☐	
Meter Socket	Yes ☒	No ☐		
Concrete Pad	Yes ☐	No ☐	N/A ☒	BACK OF SIDEWALK
Manual Control	Yes ☐	No ☐		NOT CHECKED
Overall Cabinet Condition	Good ☐	Fair ☒	Poor ☐	
Photo of Inside of Cabinet Taken	Yes ☐	No ☐		

Police Door Switches	NOT CHECKED
Documentation in Cabinet	NONE

3. Controller Data

SAGE	SPAC	67900	3.32d (Sept 00)
Manufacturer	**Model No.**	**Serial No.**	**Software Rev. Level/Date**

Controller				
Type	NEMA - keyboard ☒	NEMA - Modular ☐	Non-NEMA ☐	Electromechanical ☐
Platform	TS1 ☒	TS2 Type 1 ☐	TS2 Type 2 ☐	
Phase Capable Controlling Leg	2 Phase ☐	4 Phase ☐	8 Phase ☒	
Setting Type	Keyboard ☒	Thumbwheel ☐	Dial ☐	Pin ☐
Controller Condition	Good ☒	Fair ☐	Poor ☐	

Misc.		
Backpanel Size	12 BUS	
Conflict Monitor/MMU	Manufacturer: EDI	Model/Size: NSM-12
Detector Relays	Manufacturer: SARASOTA S36+	Quantity/Type: 4 - 2 CHANNEL
Detector Relay Channels Faulting (list channel numbers)	FSCA LABELED "President Ave PLAZE" FAULTING RESET - OK FOR NOW BY VHB	

VHB

Traffic Signal Inventory

4. *Signal Timing Sheet*

01 President Ave EB/WB | 02 PED (EXCL) | 03 N. MAW ST NB/SB

04 | 05 | 06

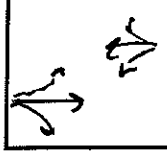
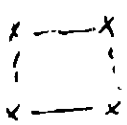
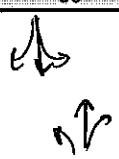
07 | 08 | OLA

OLB | OLC | OLD

PHASE	01	02	03	04	05	06	07	08
Minimum Green (initial)	8		8					
Extension (passage) Vehicle Interval	5.0		6.0					
Yellow	3	3	3					
Red Clear	1		1					
Maximum Green I	35		25					
Maximum Green II	45		35					
Pedestrian Walk		10						
Pedestrian Clear		12						
Walk (flash/steady)								
Recall	SOFT							
Memory	LOCK		LOCK					

INT PH = 2

Intersection Movements:

01	02	03	04	05	06	07	08
							

Coordination Data: X *None*

					SPLIT TIMES							
Pattern	Days	Time Period	Cycle L.	Offset	01	02	03	04	05	06	07	08

 CLOCK OFF - controller = 12:43:30
WATCH = 1:04:35

VHB

Traffic Signal Inventory

5. Notes

- POOR PAVEMENT MARKINGS (EXCEPT SL, CW + ARROWS)

- ϕ1 WAS DROPPING CALLS
  TRAFFIC TOO HEAVY TO VERIFY ϕ3

- INTERSECTION APPEARED TO OPERATE PROPERLY

NOTE: FULL INSPECTION NOT PERFORMED
INCLUDING OPERATION OF PED. BUTTONS + LOOPS

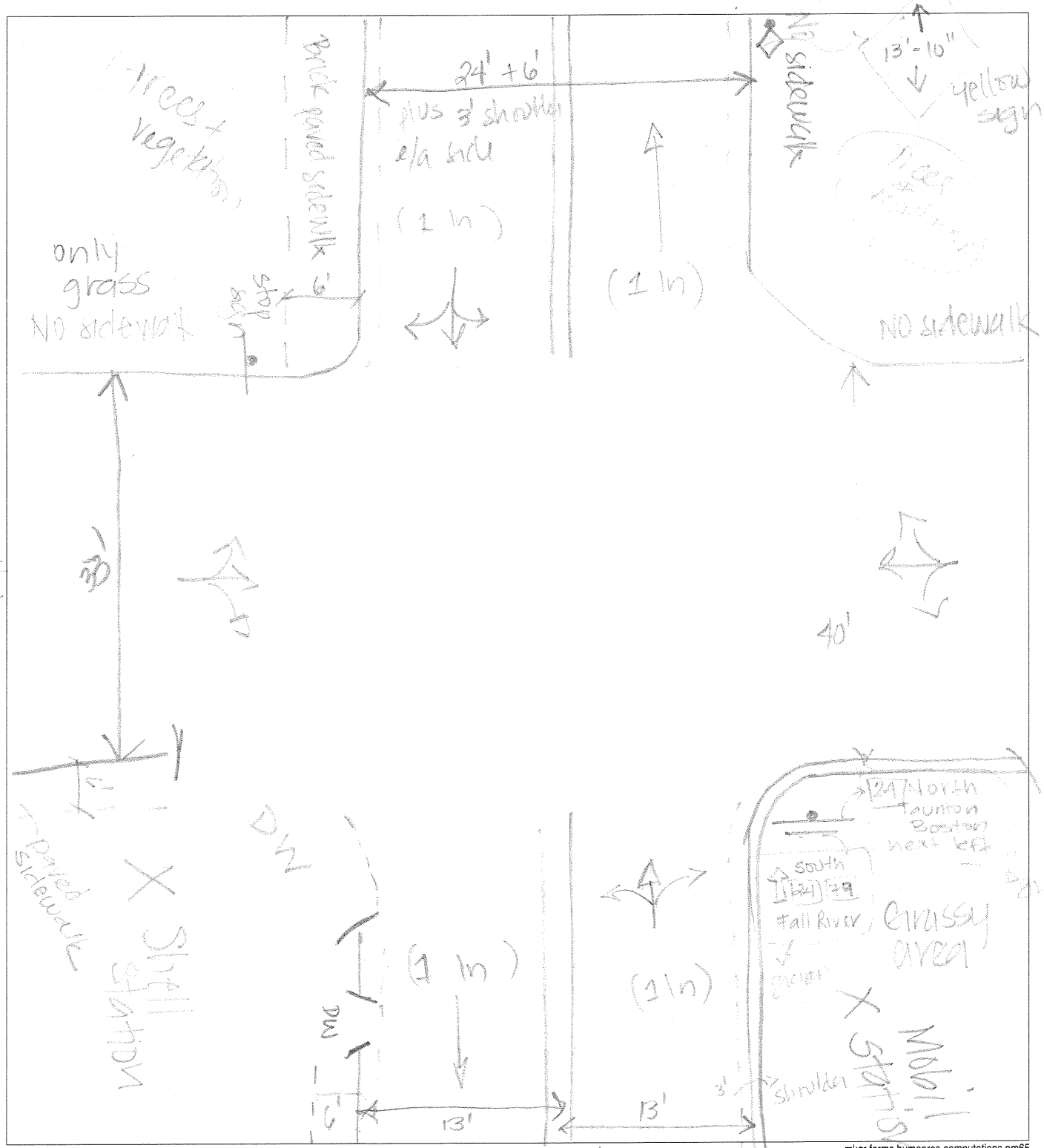
6. Recommendations

Computations

☆ 40 MPH on S. Main St

Project:	SCR	Project #	10111.31
Location:	FREETOWN	Sheet	of
Calculated by:	NL	Date:	9/10/08
Checked by:		Date:	

Title S. Main St @ Ridge Hill

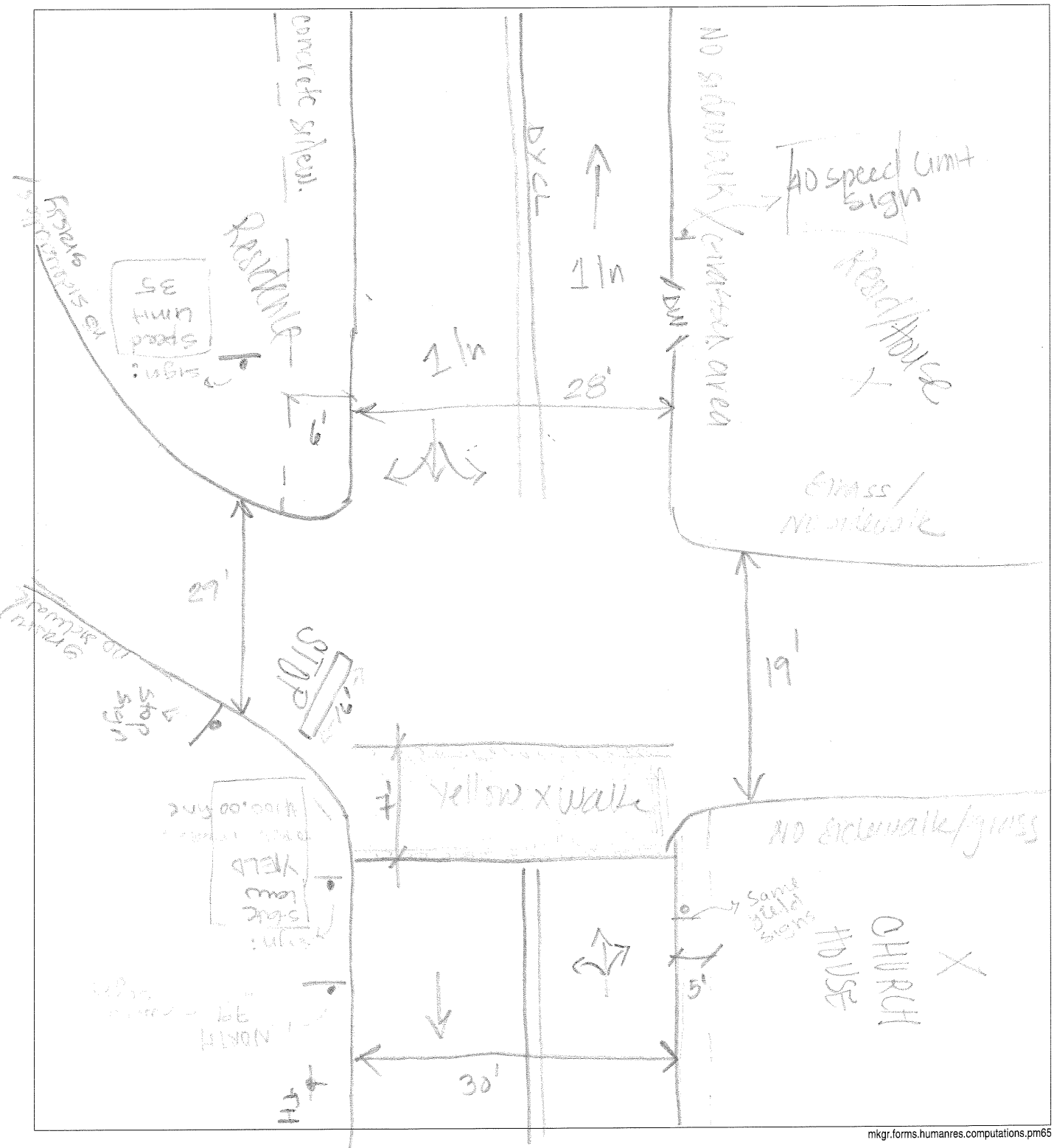


mkgr.forms.humanres.computations.pm65

Computations

Pavement = fair/good

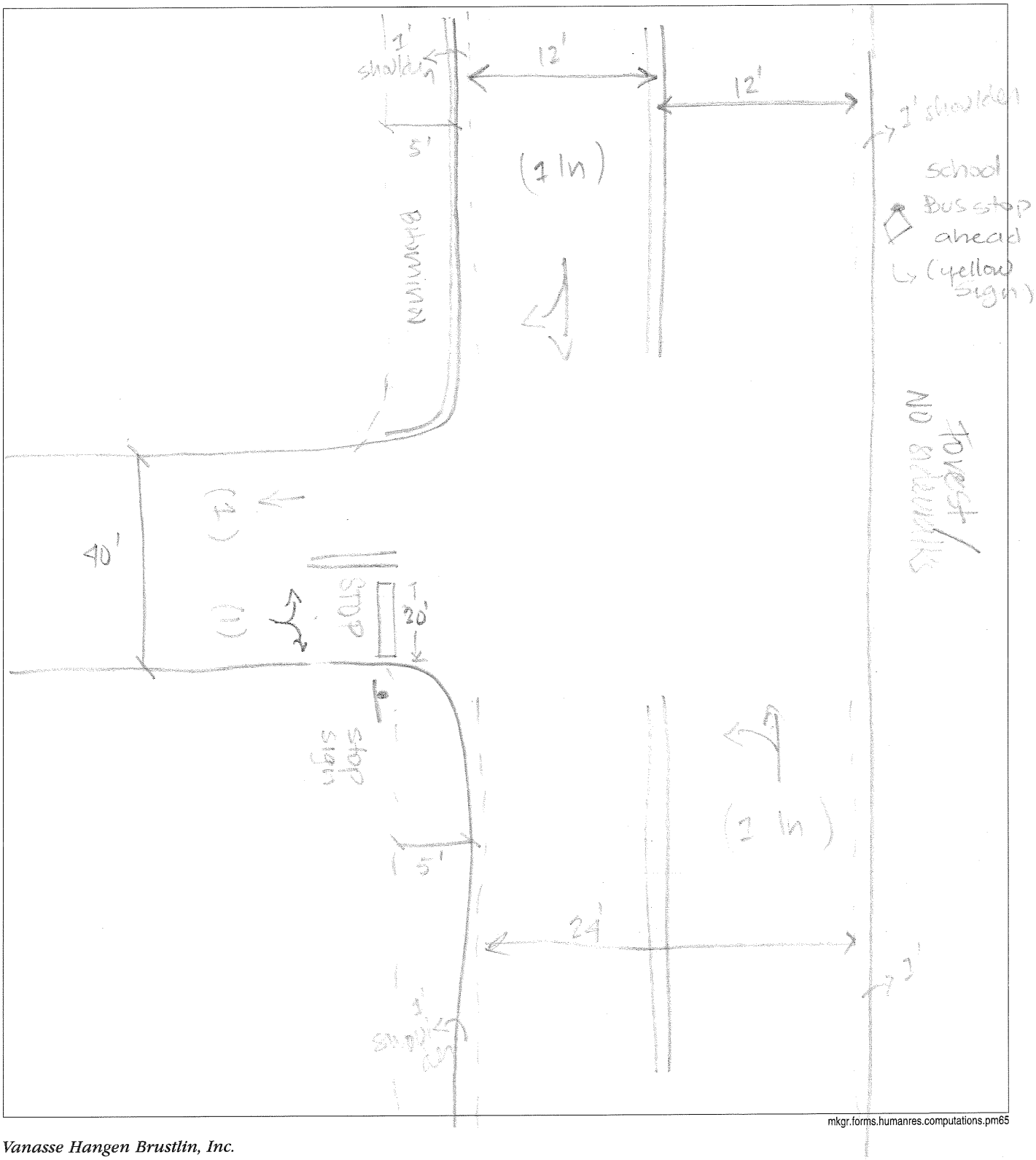
Project: SCR
Project #: 10111.31
Location: TREETOWN
Sheet 1 of 1
Calculated by: NL
Date: 9/10/08
Checked by:
Date:
Title: S. Main St @ High St.



Computations

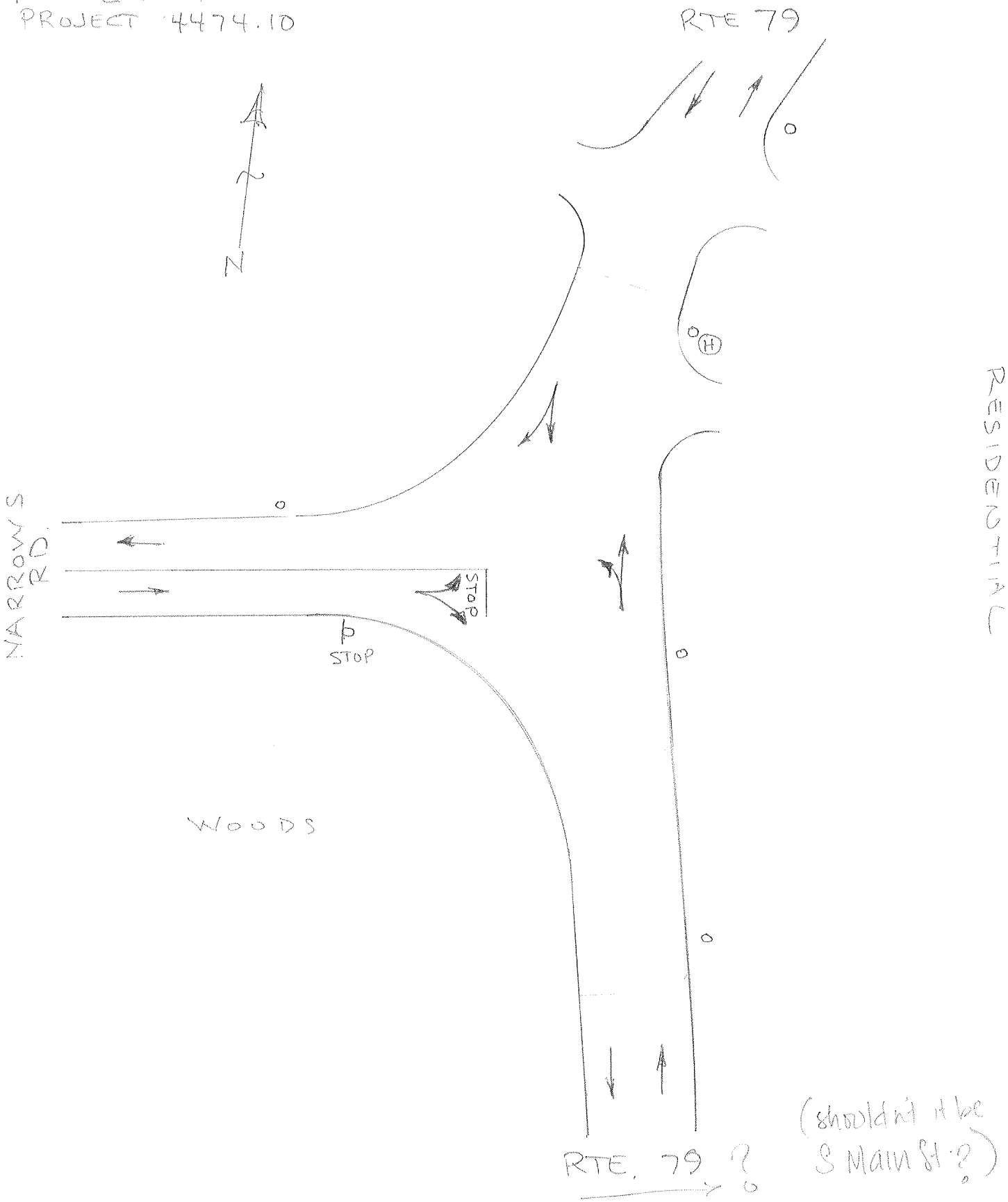
Project: SCR
Location: FREETOWN
Calculated by: NL
Checked by:
Title S. Main St @ Copicut Rd / Rte 79

Project # 10111.31
Sheet 1 of
Date: 9/10/08
Date:

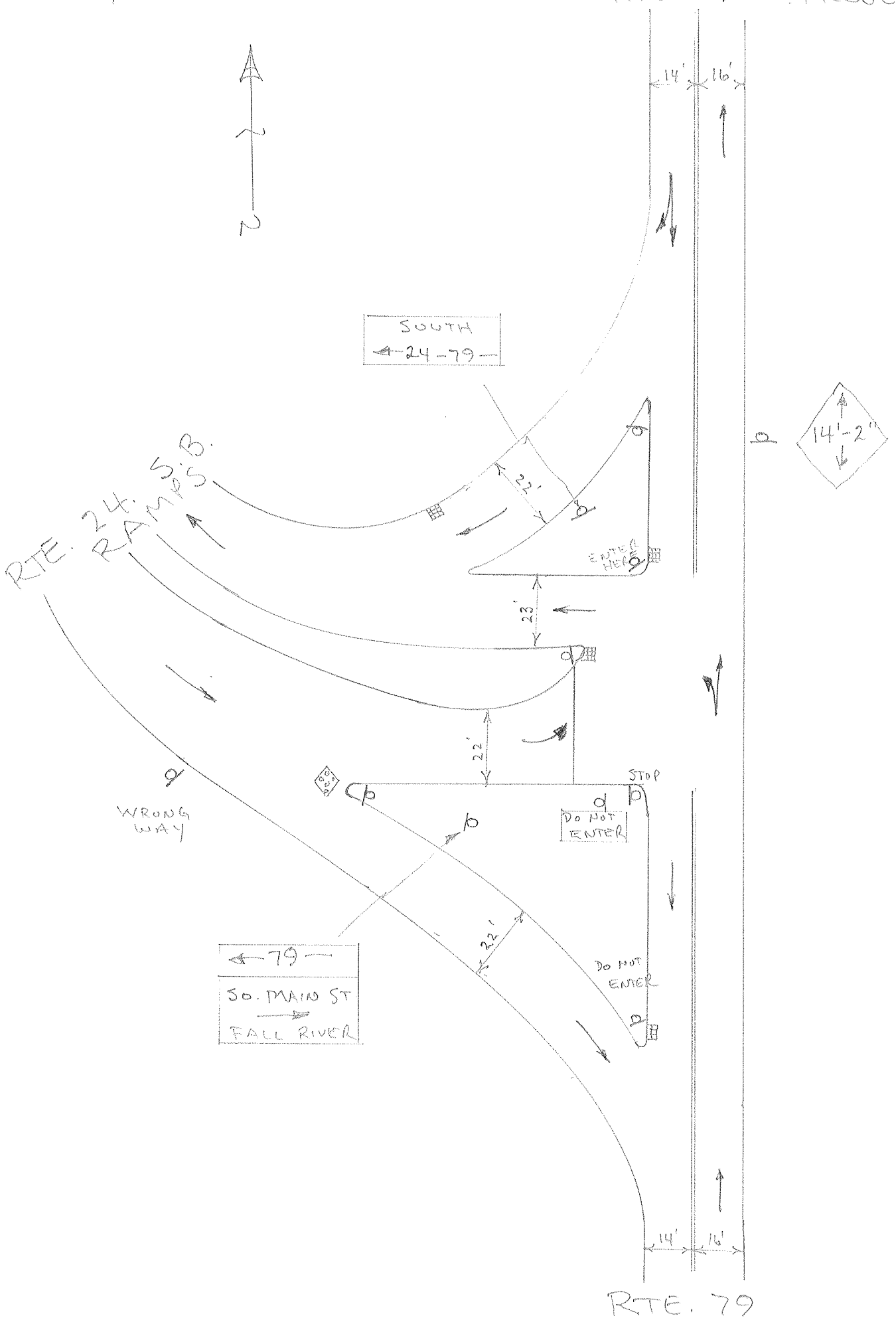


mkgr.forms.humanres.computations.pm65

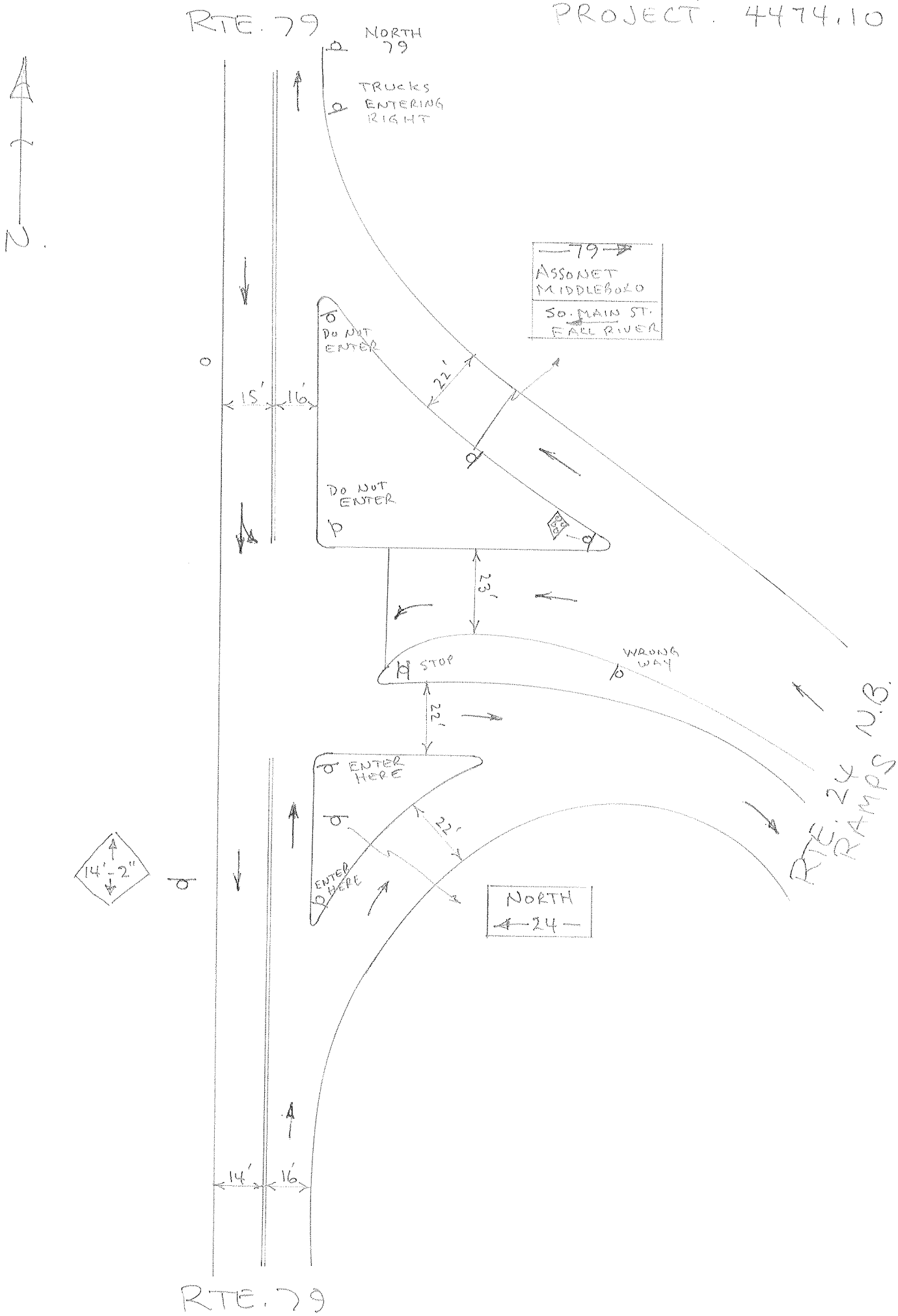
FREETOWN
PROJECT 4474.10



FREETOWN
PROJECT. 4474.10

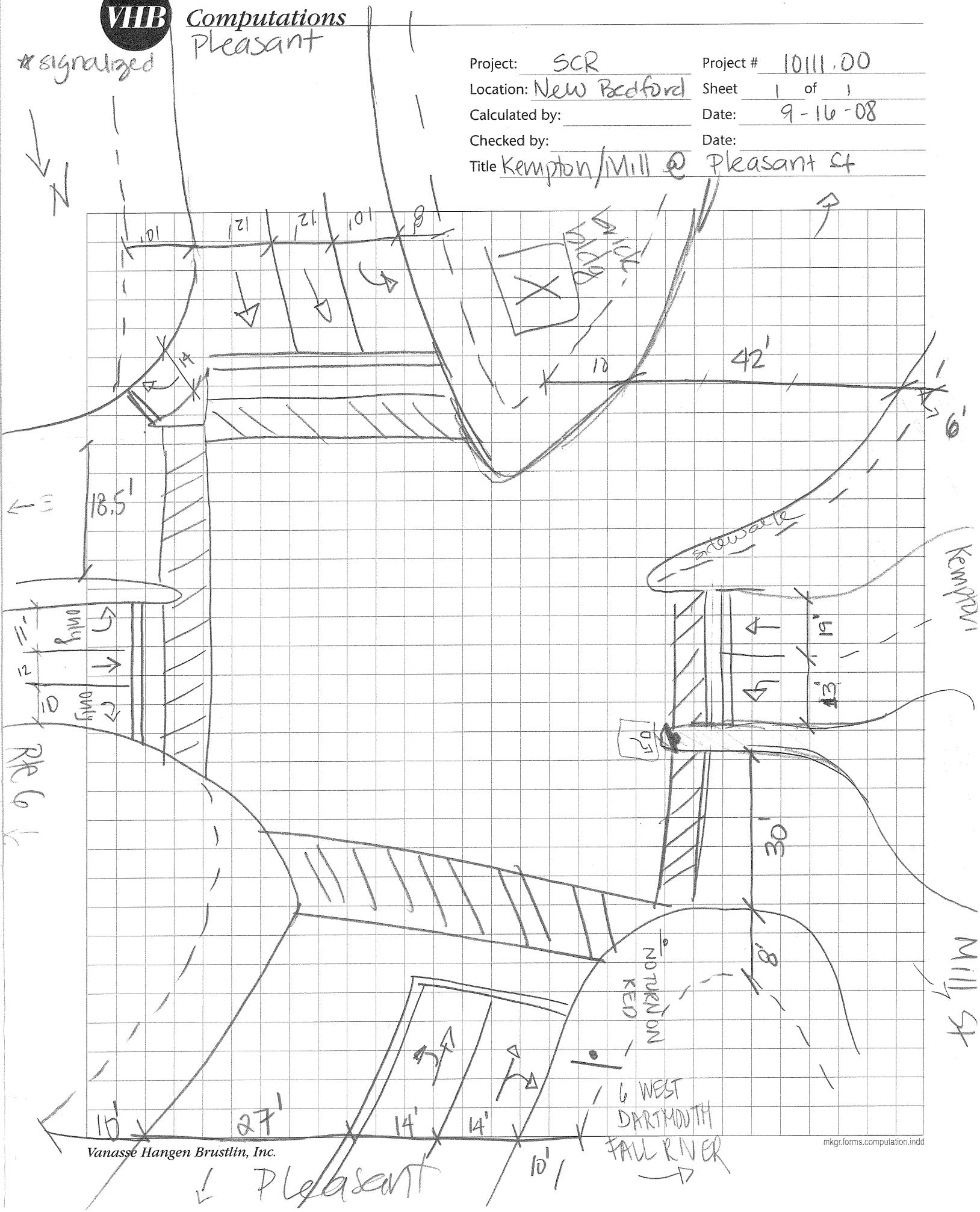


FREETOWN
PROJECT. 4474.10



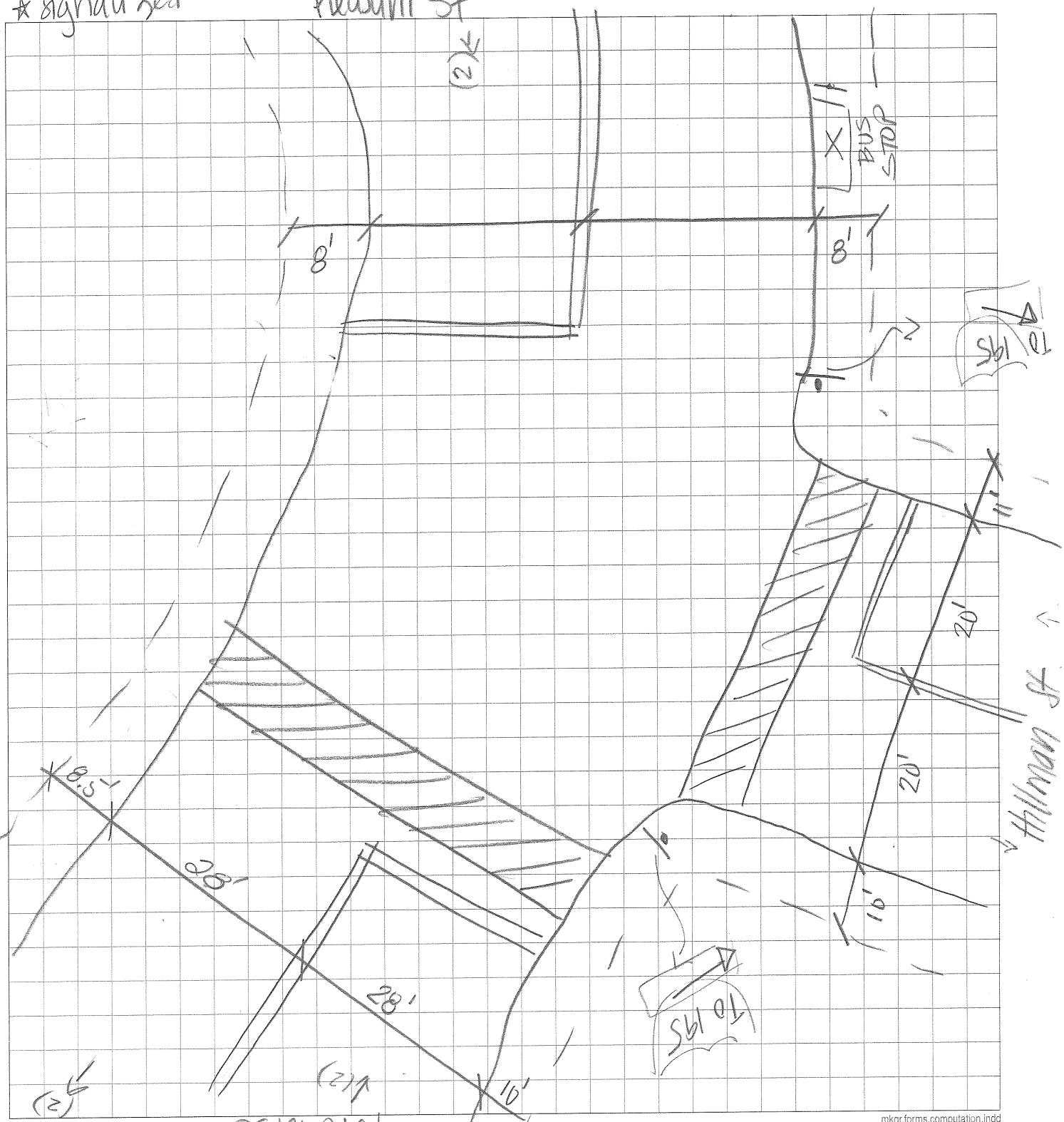
VHB **Computations**

Project: SCR | Project # 10111.00
Location: New Bedford | Sheet 1 of 1
Calculated by: | Date: 9-16-08
Checked by: | Date:
Title Kempton/Mill @ Pleasant St



VHB **Computations**

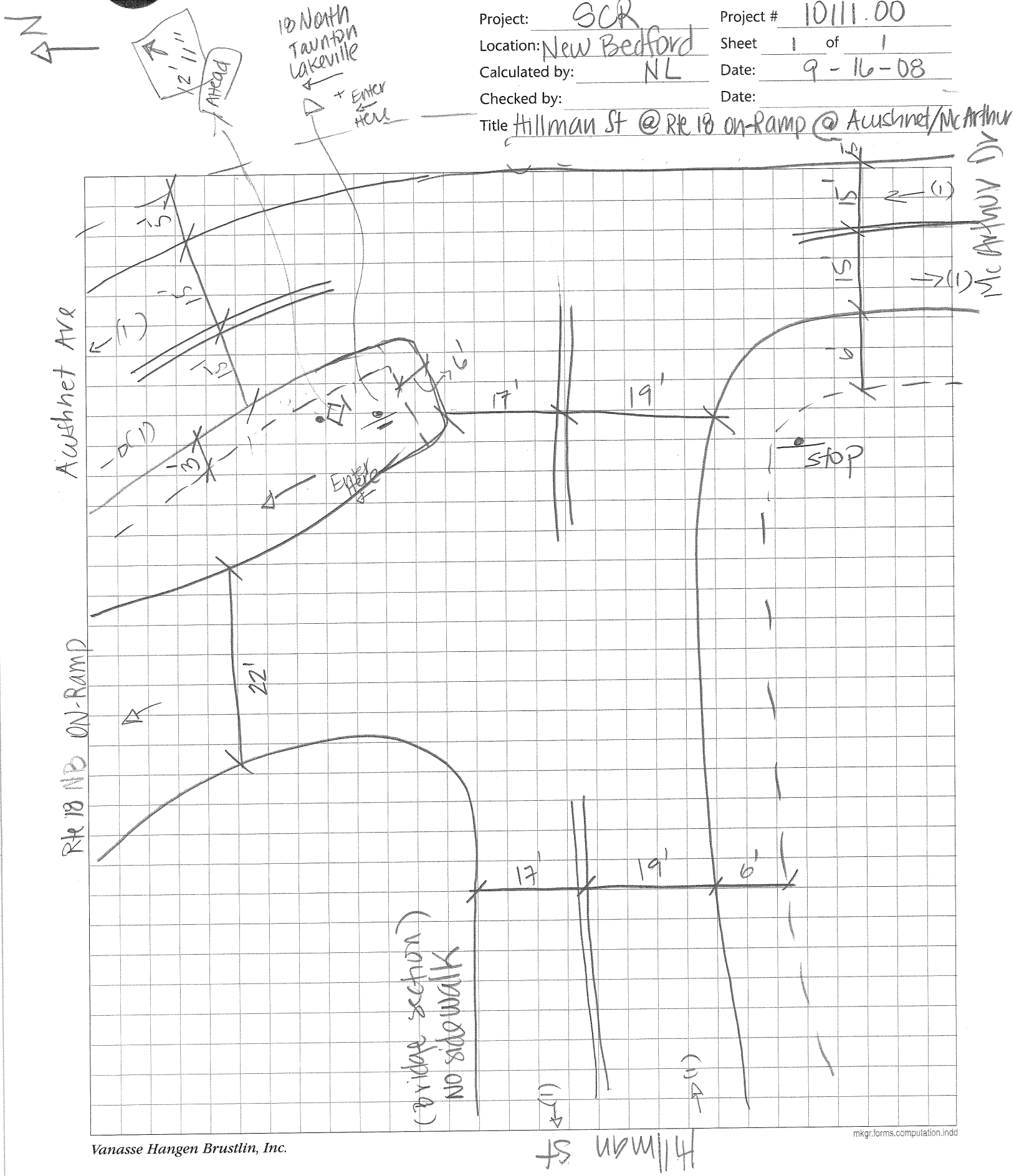
Project: SCR | Project # 10111.00
Location: New Bedford | Sheet 1 of 1
Calculated by: NL | Date: 9-16-08
Checked by: | Date:
Title (1) Hillman St @ Pleasant St/Purchase



* locations 2 and 3 together

VHB **Computations**

Project: SCR
Project #: 10111.00
Location: New Bedford
Sheet 1 of 1
Calculated by: NL
Date: 9-16-08
Checked by:
Date:
Title: Hillman St @ Rte 18 on-Ramp @ Acushnet/McArthur



Vanasse Hangen Brustlin, Inc.

mkgr.forms.computation.indd

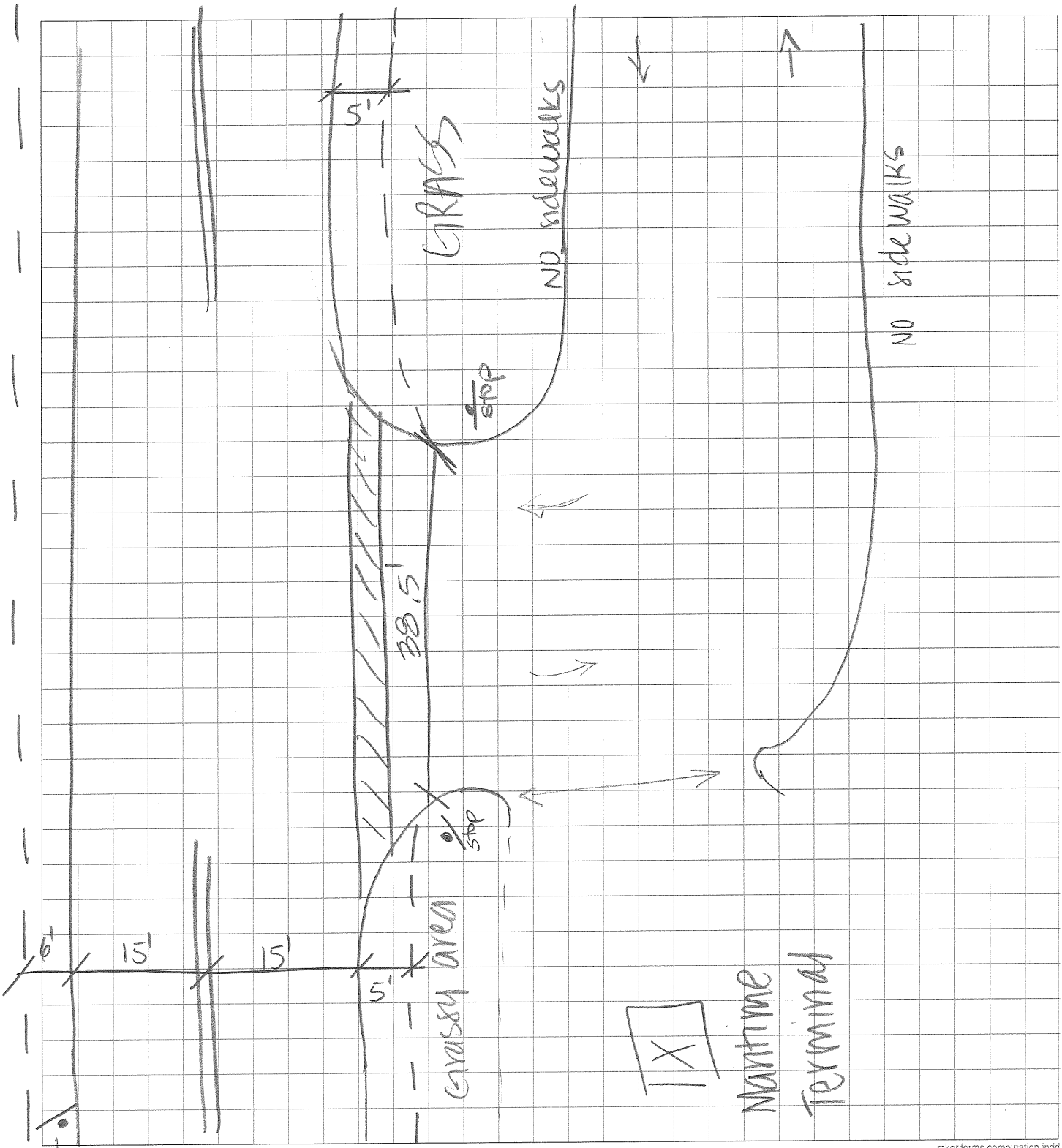
N

VHB **Computations**

☆ no markings

☆ unsig

Project:	SCR	Project #	10111.00
Location:	New Bedford	Sheet	1 of 1
Calculated by:	NL	Date:	9-16-08
Checked by:		Date:	
Title	McArthur Dr @ Herman Mellville Blvd		



Vanasse Hangen Brustlin, Inc.

mkgr.forms.computation.indd

20MPH speed limit

N

VHB **Computations**

☆ signalized

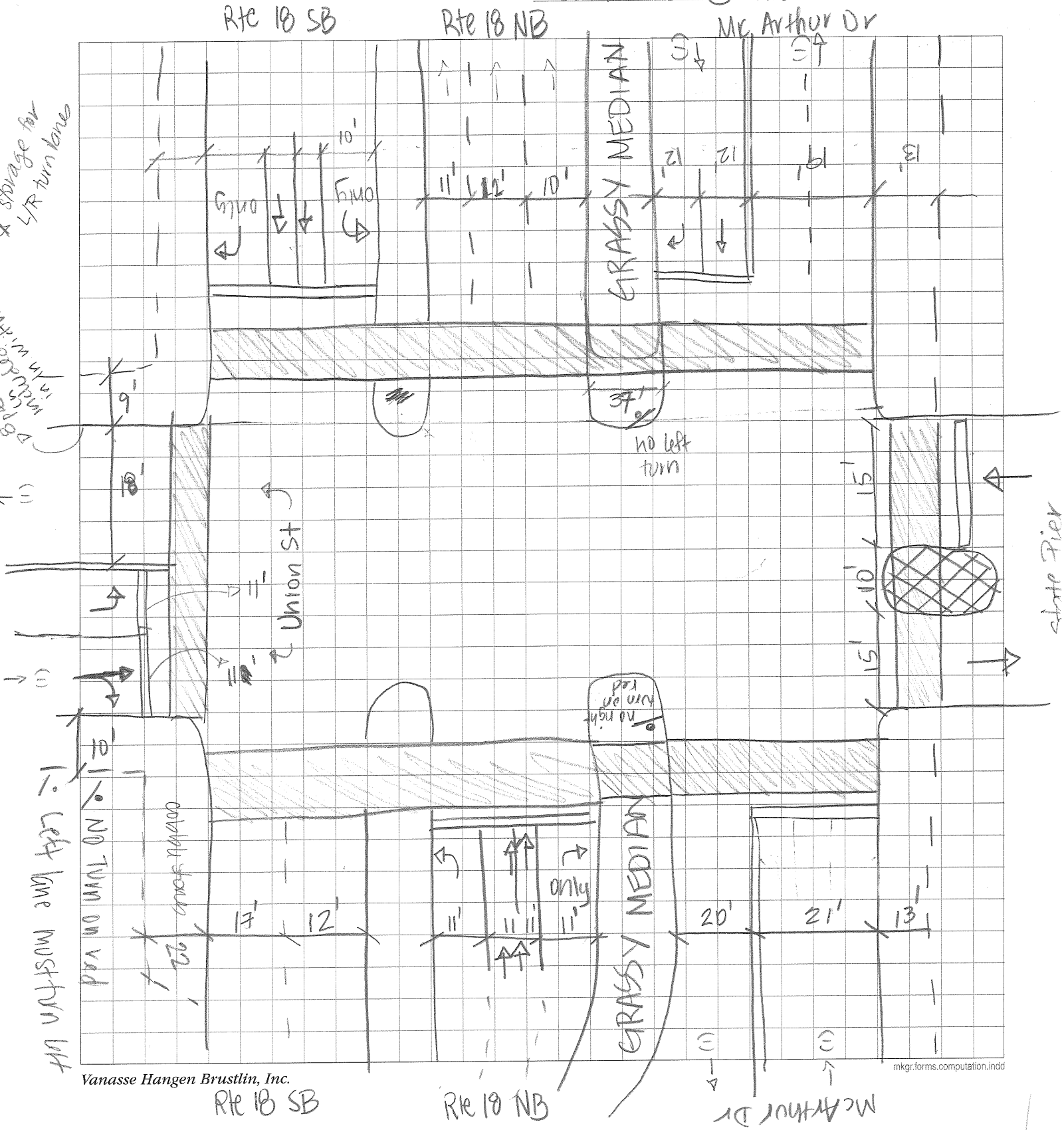
Project: SCR | Project # 10111.00

Location: New Bedford | Sheet 1 of 1

Calculated by: NL | Date: 9-16-08

Checked by: | Date:

Title McArthur Dr @ Union @ Rte 18



Vanasse Hangen Brustlin, Inc.

mkgr.forms.computation.indd

VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
#5 Title Signal Timing & Phasing

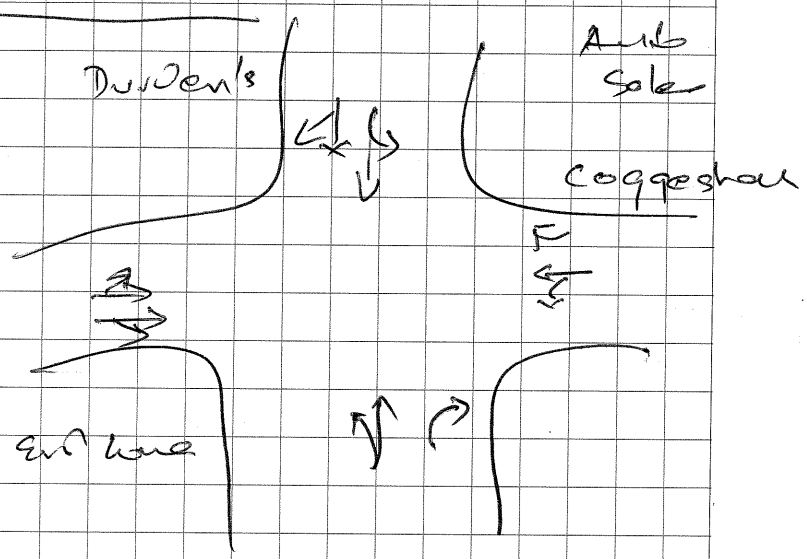
Belleville @ Coggeshall St

$\phi 1$ G = 9 15
Y = 4 4
R =

$\phi 2$ G = ~~12~~ 12 14
Y = 4 4 4
R = 1 1 1

$\phi 3$ W = 7
PED FDW = 17

$\phi 4$ G = 21 27
Y = 4 4
R = 1 1



Auto Sales owner curious about when the rail will come to New Bedford

Do you think it is ever going to come to New Bedford → there?

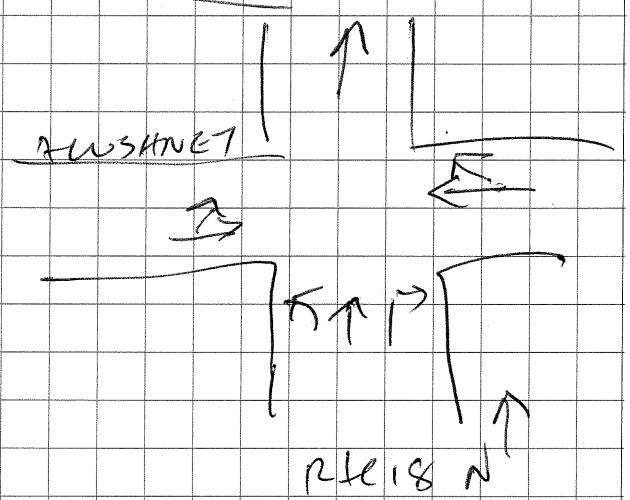
VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
#2 Title Signal Timing & Phasing

Coggeshall
~~Acushnet Ave~~ @ Rte 18 North

ϕ_1 Rte 18 N

ϕ_2 Acushnet Ave



ϕ_1

G = 33 33 33
Y = 4 4 4
R = 1 1 1

ϕ_2

G = 32 32 32
Y = 4 4 4
R = 1 1 1

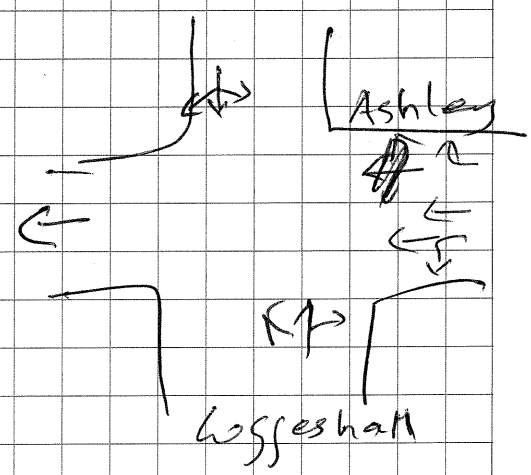
VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
#3 Title Signal Timing & Phasing

Ashley Blvd (SB) @ Coggeshall

ϕ_1 Ashley

ϕ_2 Coggeshall



ϕ_1

G = 29 29 29

Y = 4/3 4/3 3/1

R = 1 1

ϕ_2

G = 25 25 25

Y = 4/3 4/3 4/3

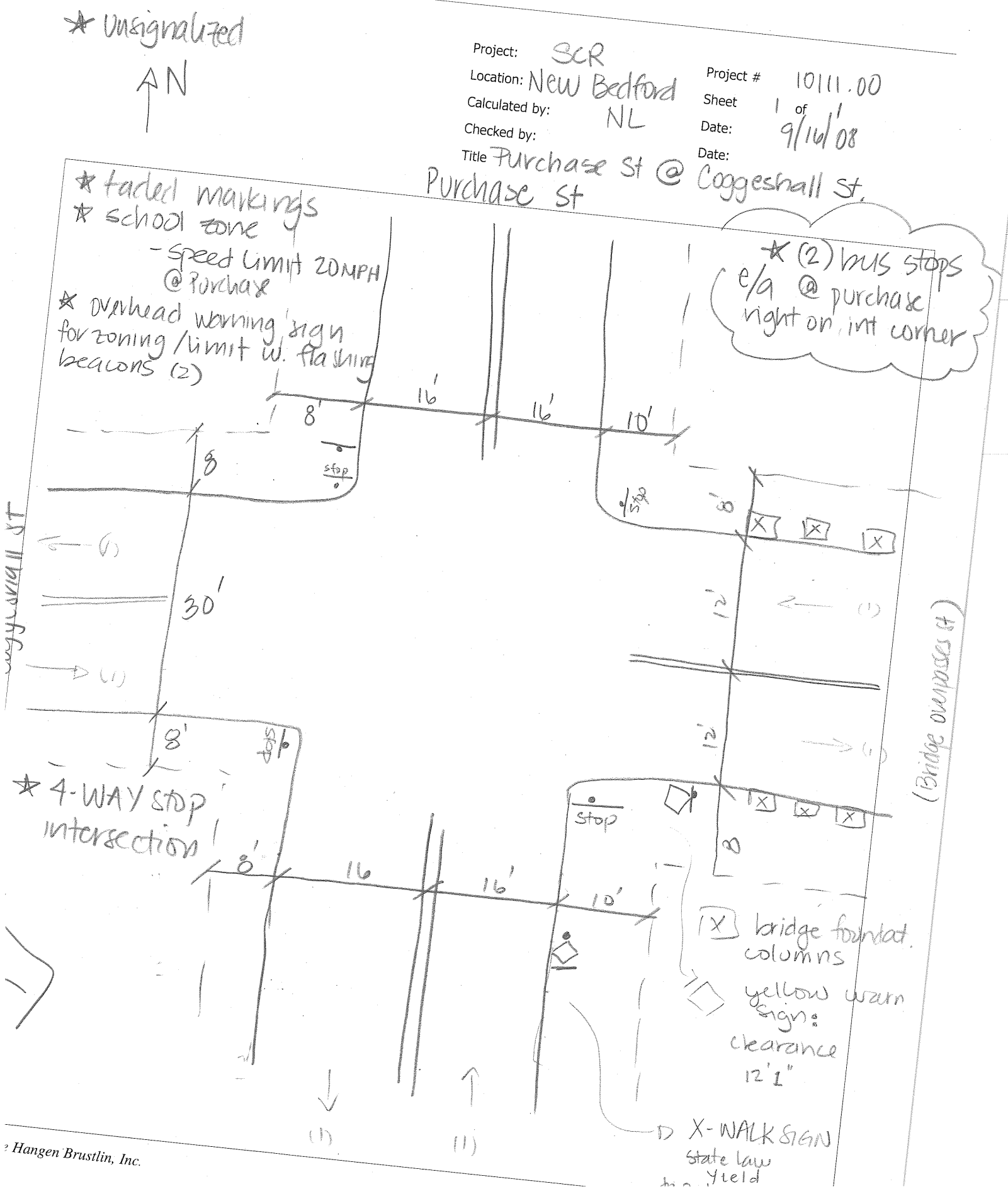
R = 1 1 1

VHB

Computations

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title Purchase St @ Coggeshall St.

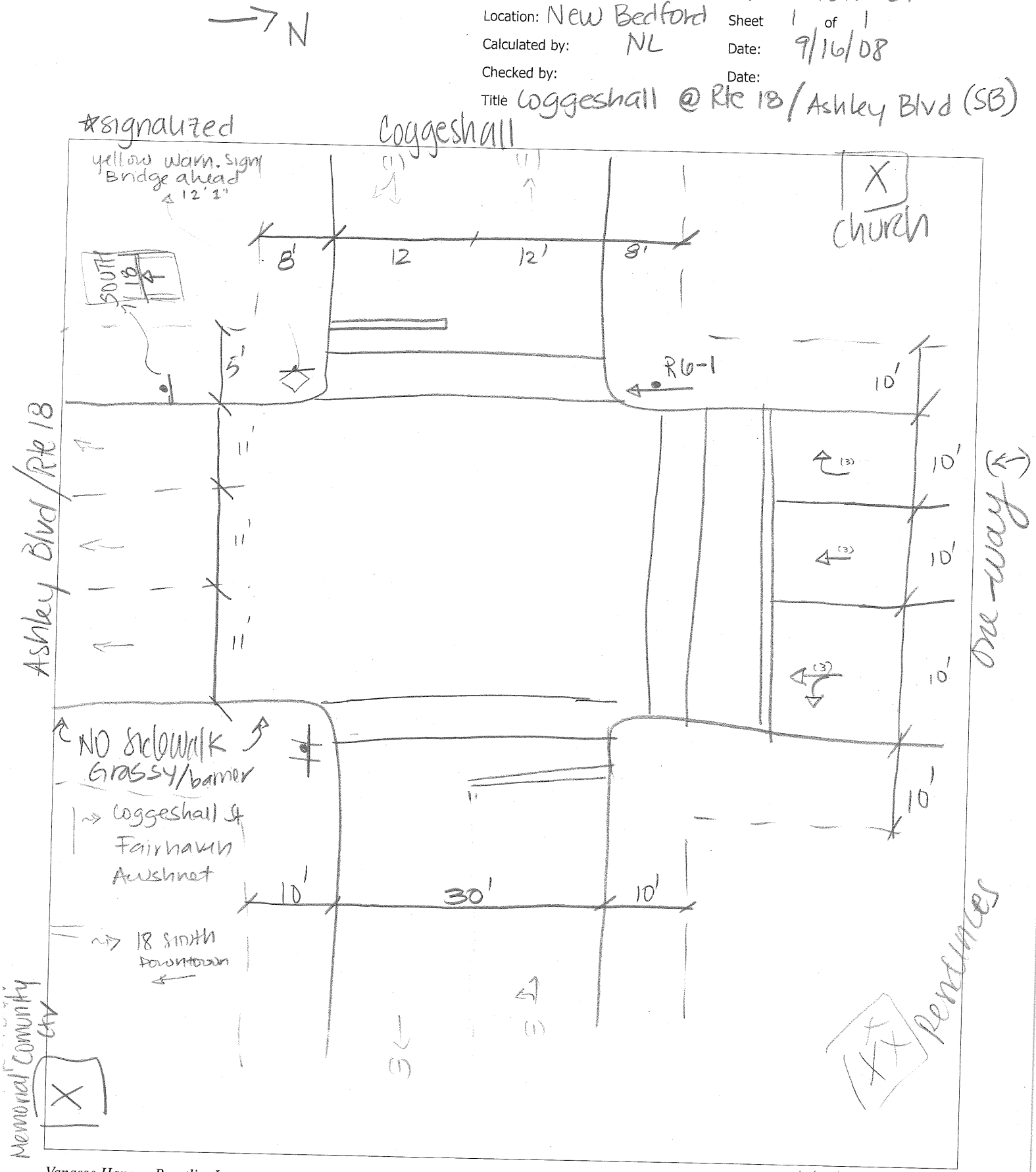
Project # 10111.00
Sheet 1 of 1
Date: 9/16/08
Date:



VHB

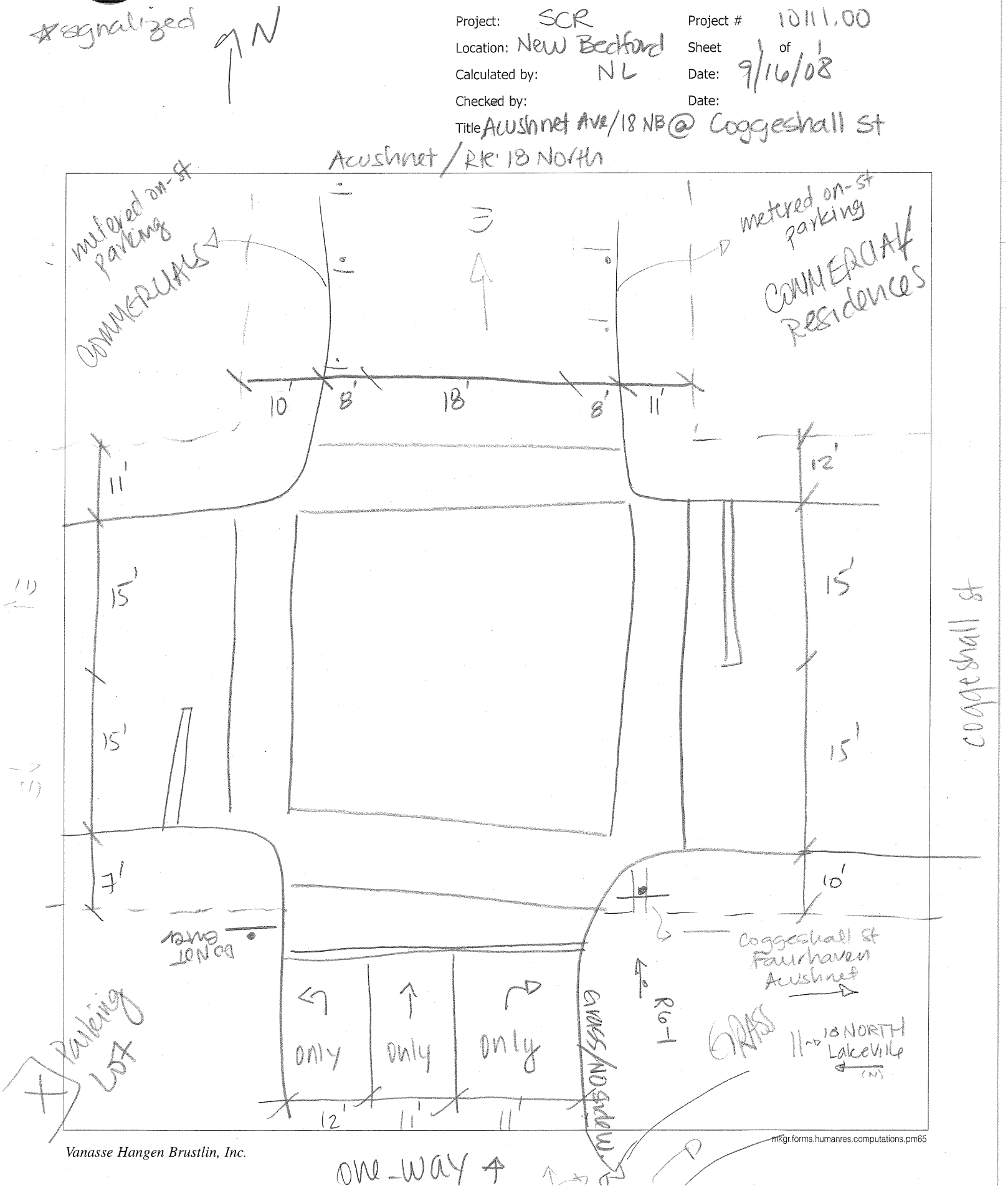
Computations

Project: SCR
Project # 10111.31
Location: New Bedford
Sheet 1 of 1
Calculated by: NL
Date: 9/16/08
Checked by:
Date:
Title Coggeshall @ Rte 18/Ashley Blvd (SB)



Computations

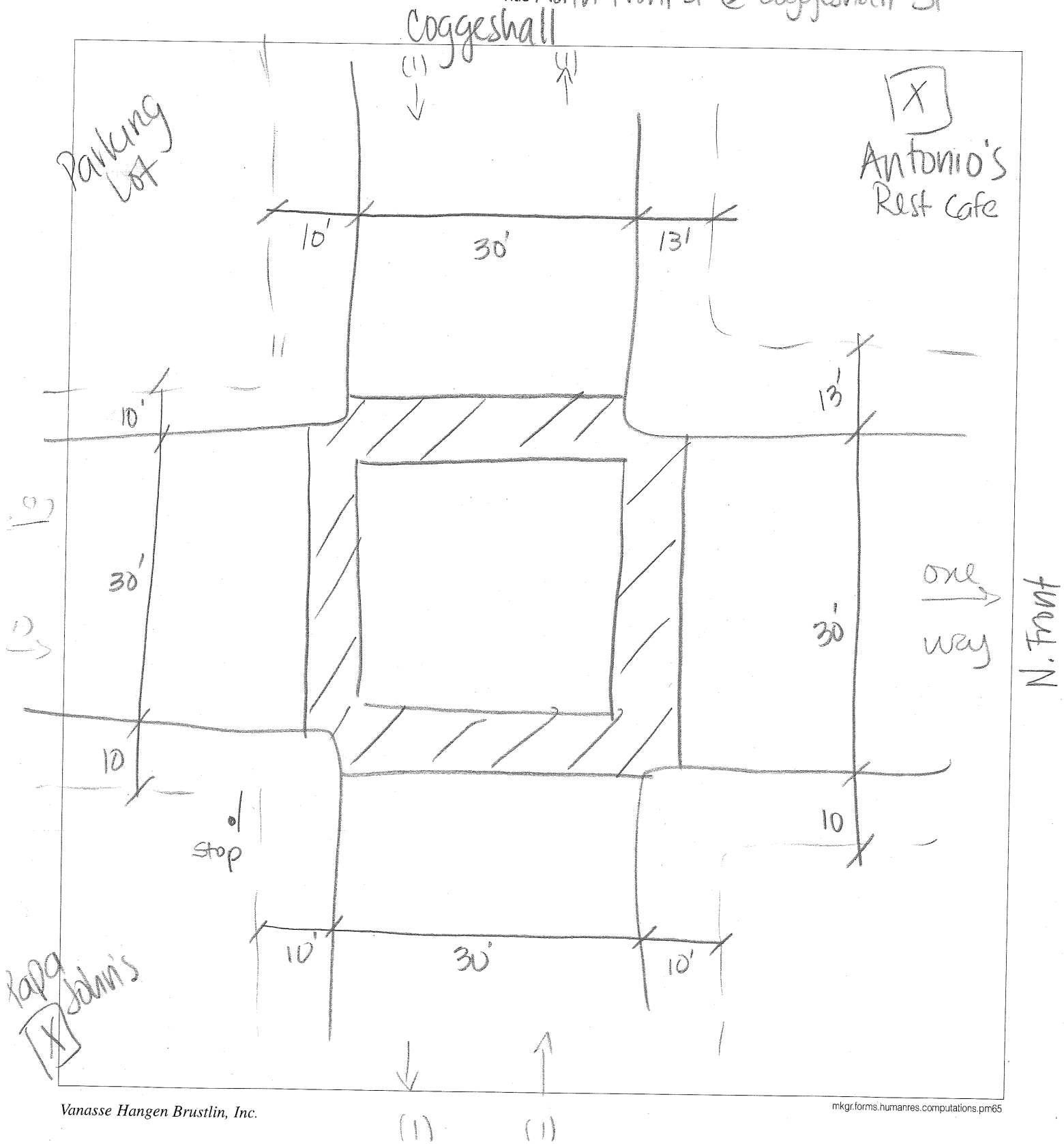
Project: SCR
Project #: 10111.00
Location: New Bedford
Sheet 1 of 1
Calculated by: NL
Date: 9/16/08
Checked by:
Date:
Title: Acushnet Ave/18 NB @ Coggeshall St



VHB Computations

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title North Front St @ Coggeshall St

Project # 10111.00
Sheet 1 of 1
Date: 9/16/08
Date:



VHB **Computations**

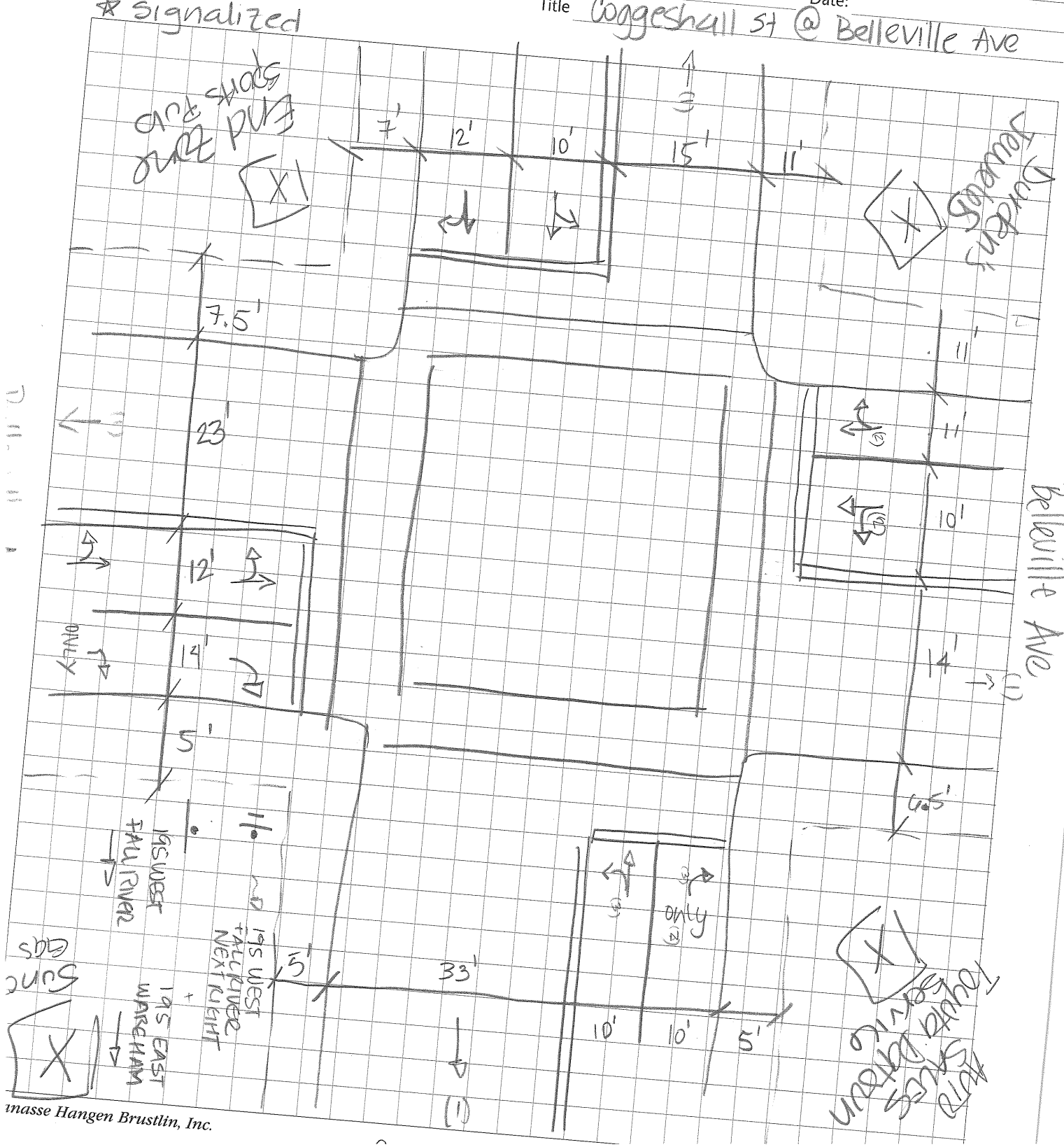
→ N

46
− 32
14

37
− 22
15

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title Coggeshall St @ Belleville Ave

Project # 10111.00
Sheet 1 of 1
Date: 9/16/08
Date:

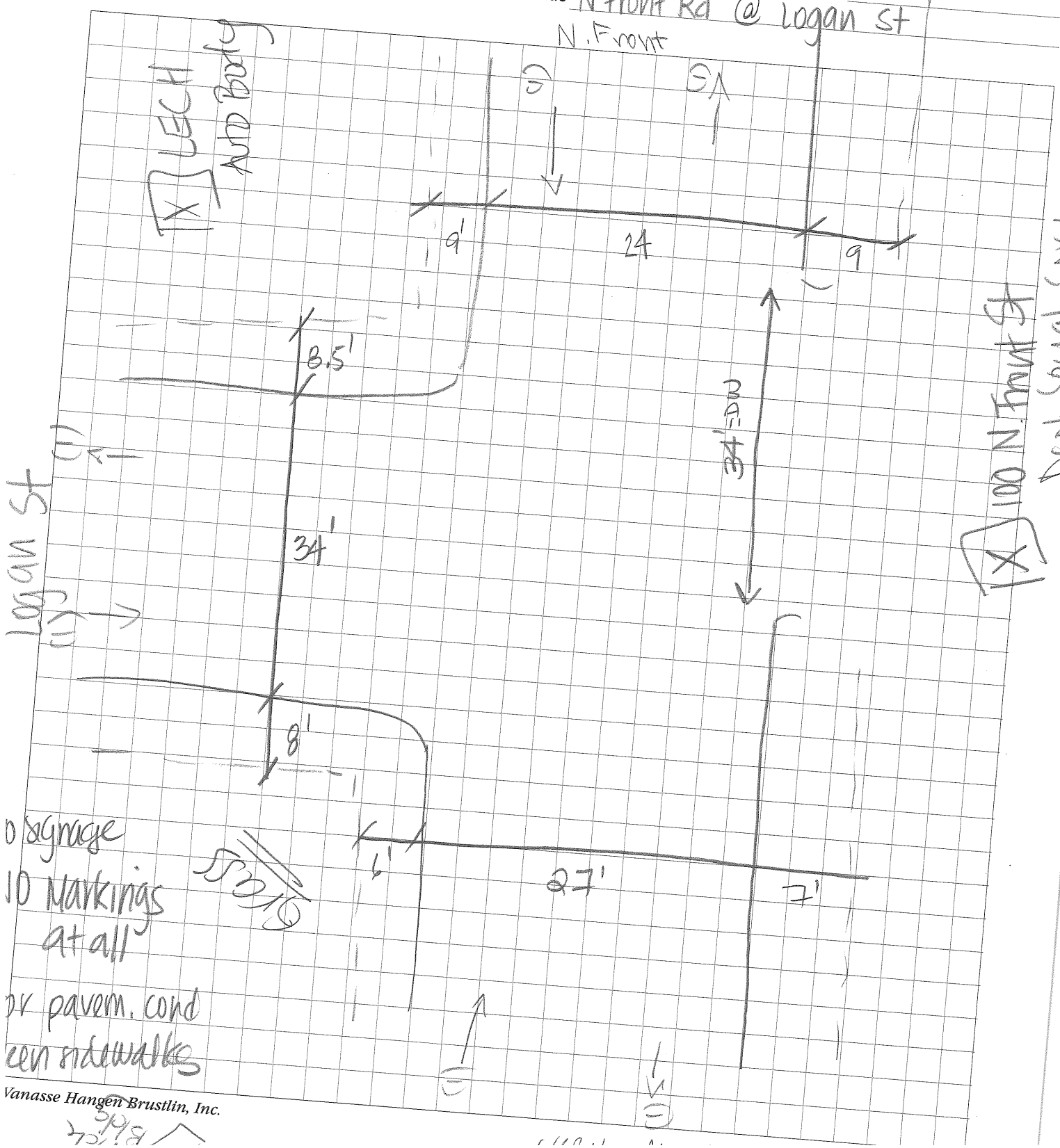


VHB *Computations*

☆ UNSIG. ↑ N

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title: N Front Rd @ Logan St

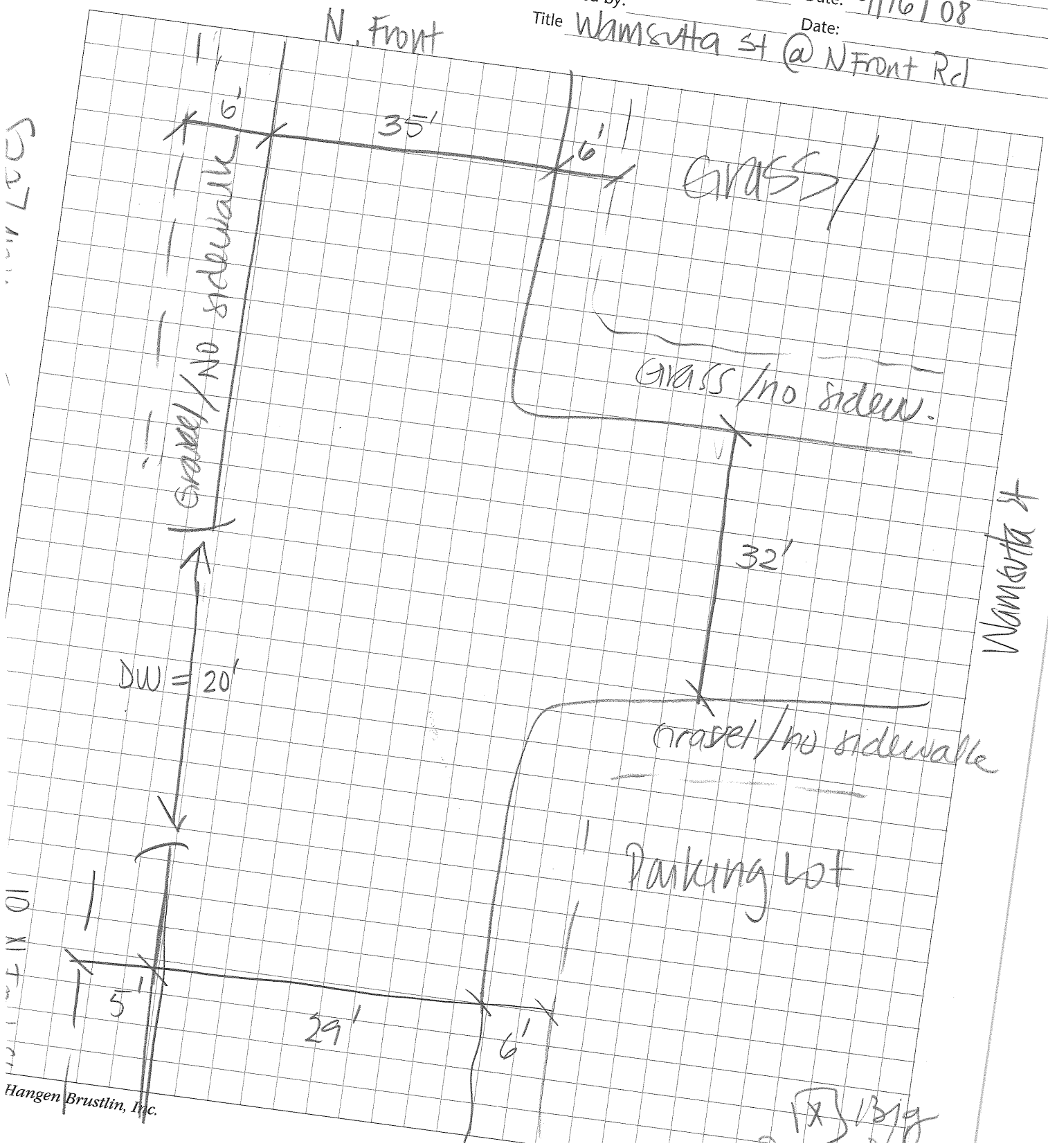
Project #: 10111.00
Sheet 1 of 1
Date: 9/16/08
Date:



VHB **Computations**

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title: Wamsutta St @ N Front Rd

Project #: 10111.00
Sheet 1 of 1
Date: 9/16/08
Date:



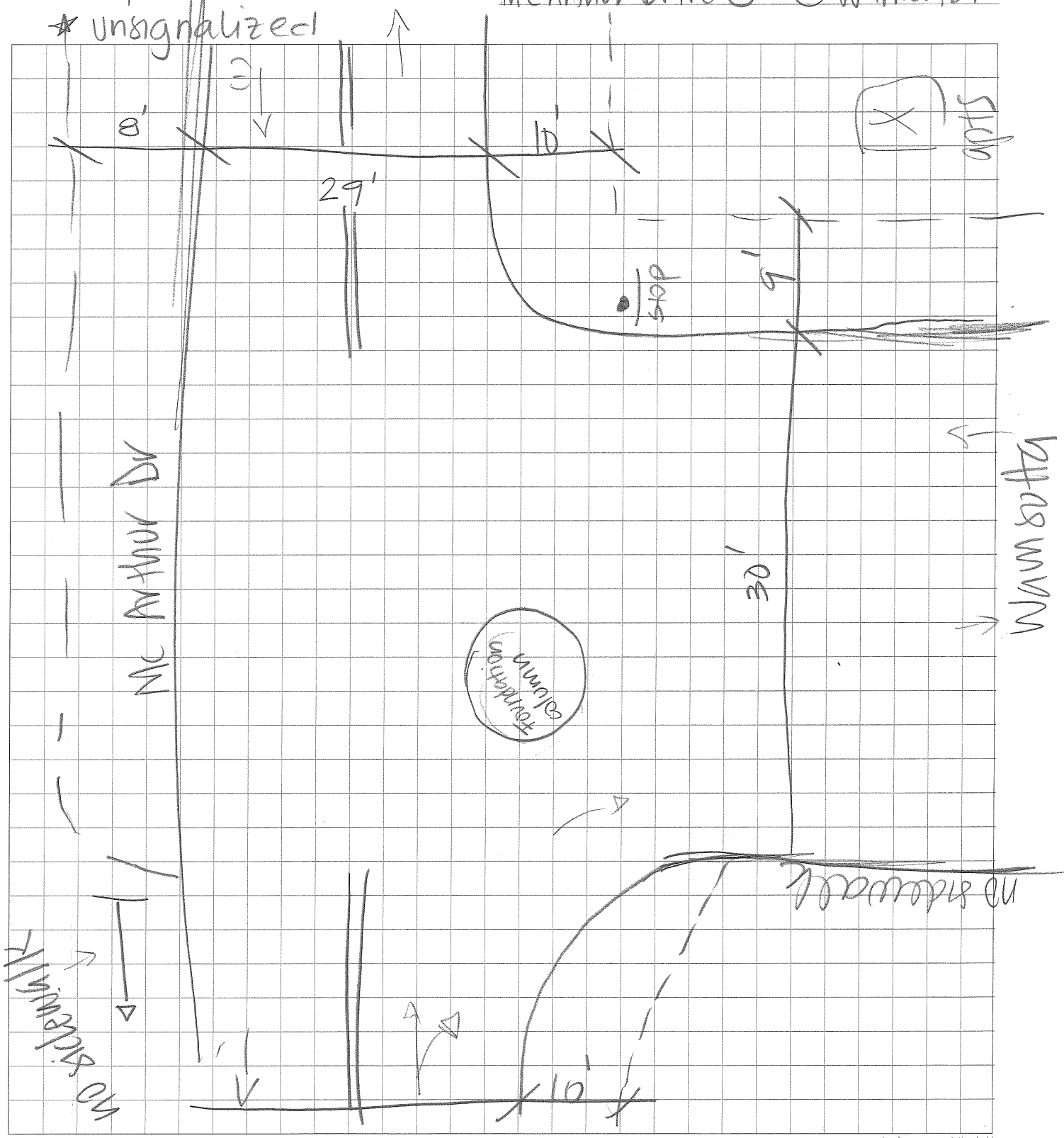
Hangen Brustlin, Inc.

VHB **Computations**

★ Bridge (RR) over intersection
★ its foundations lie on sidewalks @ int.

★ markings faded

Project:	SCR	Project #	10111.00
Location:	New Bedford	Sheet	of
Calculated by:		Date:	9/16/08
Checked by:		Date:	
Title	McArthur Drive @ @ Wamsutta St		



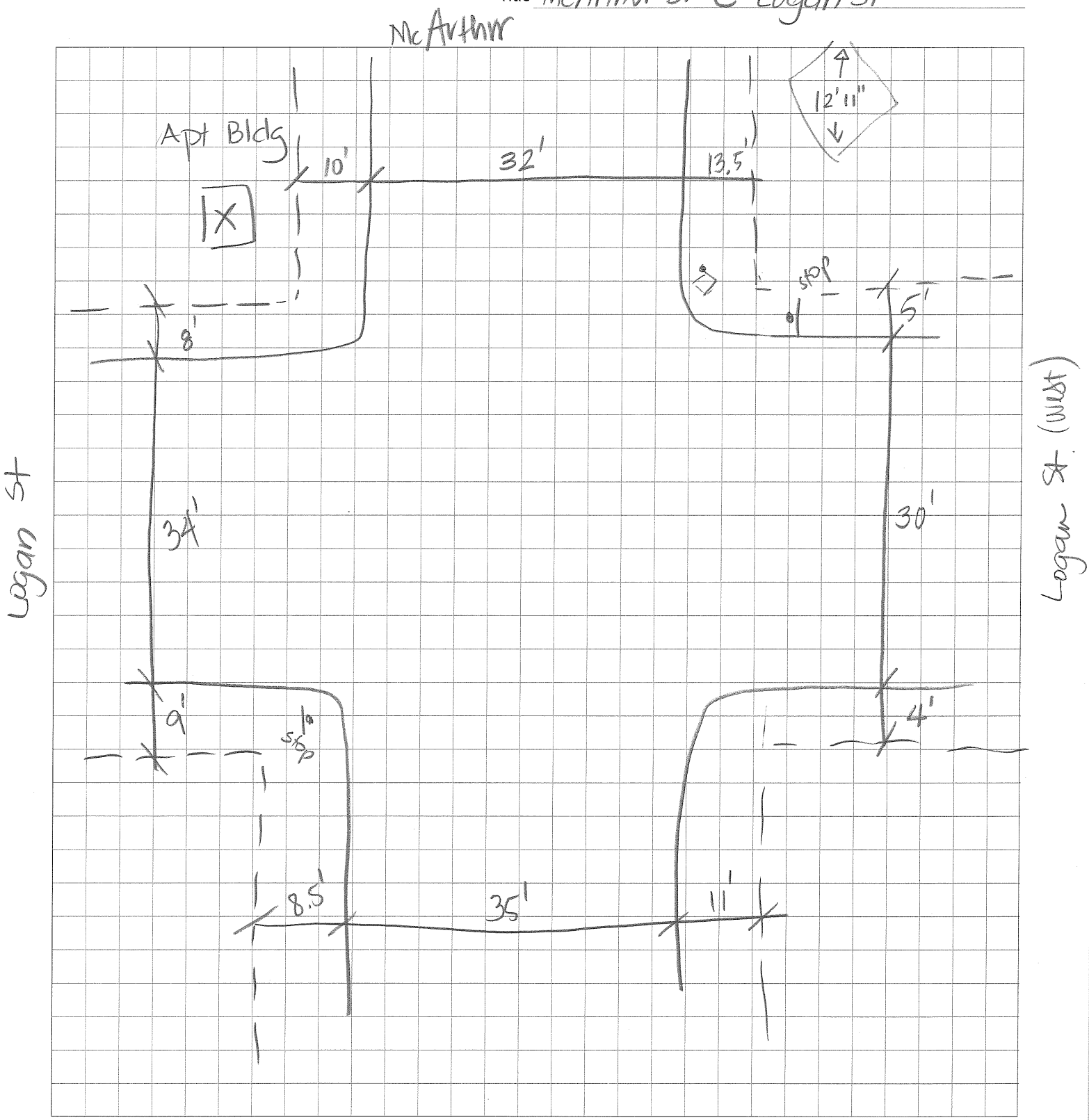
★ Bridge clearance =

VHB **Computations**

* unsig
* markings faded
* Rte 18 goes over Logan (westside)

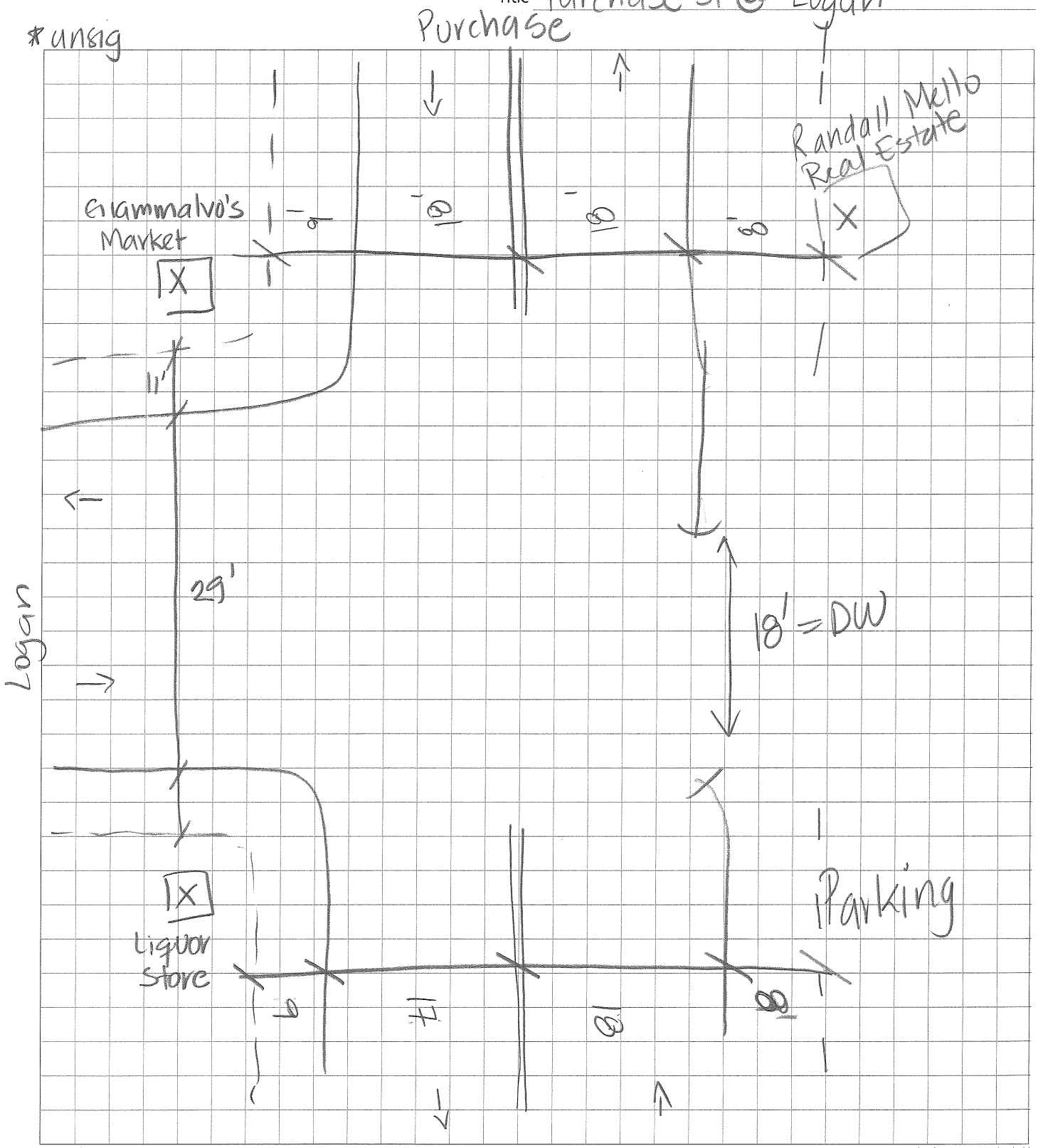
N

Project: SCR
Project # 10111.00
Location: New Bedford
Sheet of
Calculated by:
Date: 9-16-08
Checked by:
Date:
Title McArthur Dr @ Logan St



VHB **Computations**

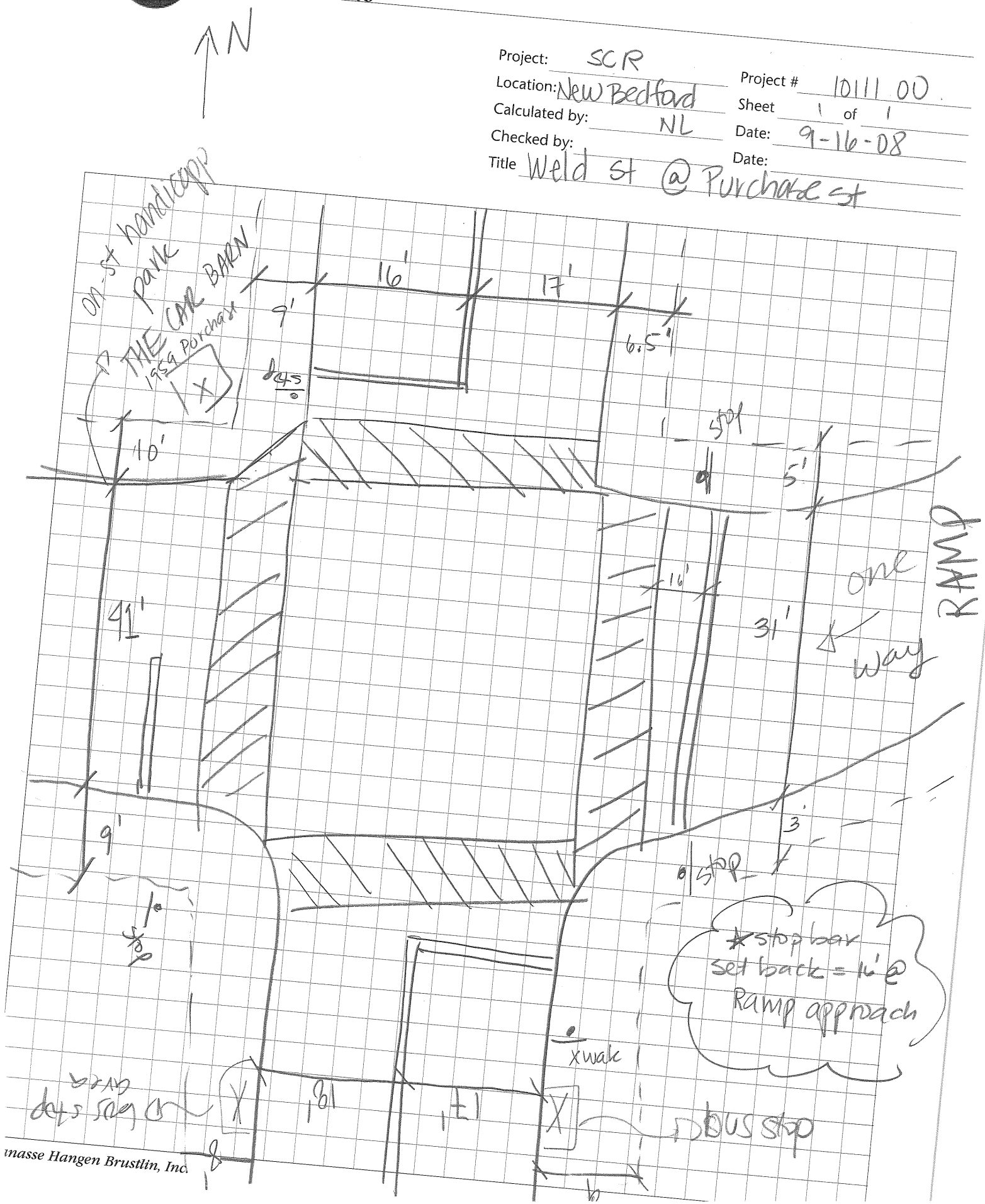
Project:	SCR	Project #	10111.00
Location:	New Bedford	Sheet	of
Calculated by:	NL	Date:	9-16-08
Checked by:		Date:	
Title	Purchase St @ Logan		



VHB **Computations**

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title Weld St @ Purchase St

Project # 10111.00
Sheet 1 of 1
Date: 9-16-08
Date:



VHB **Computations**

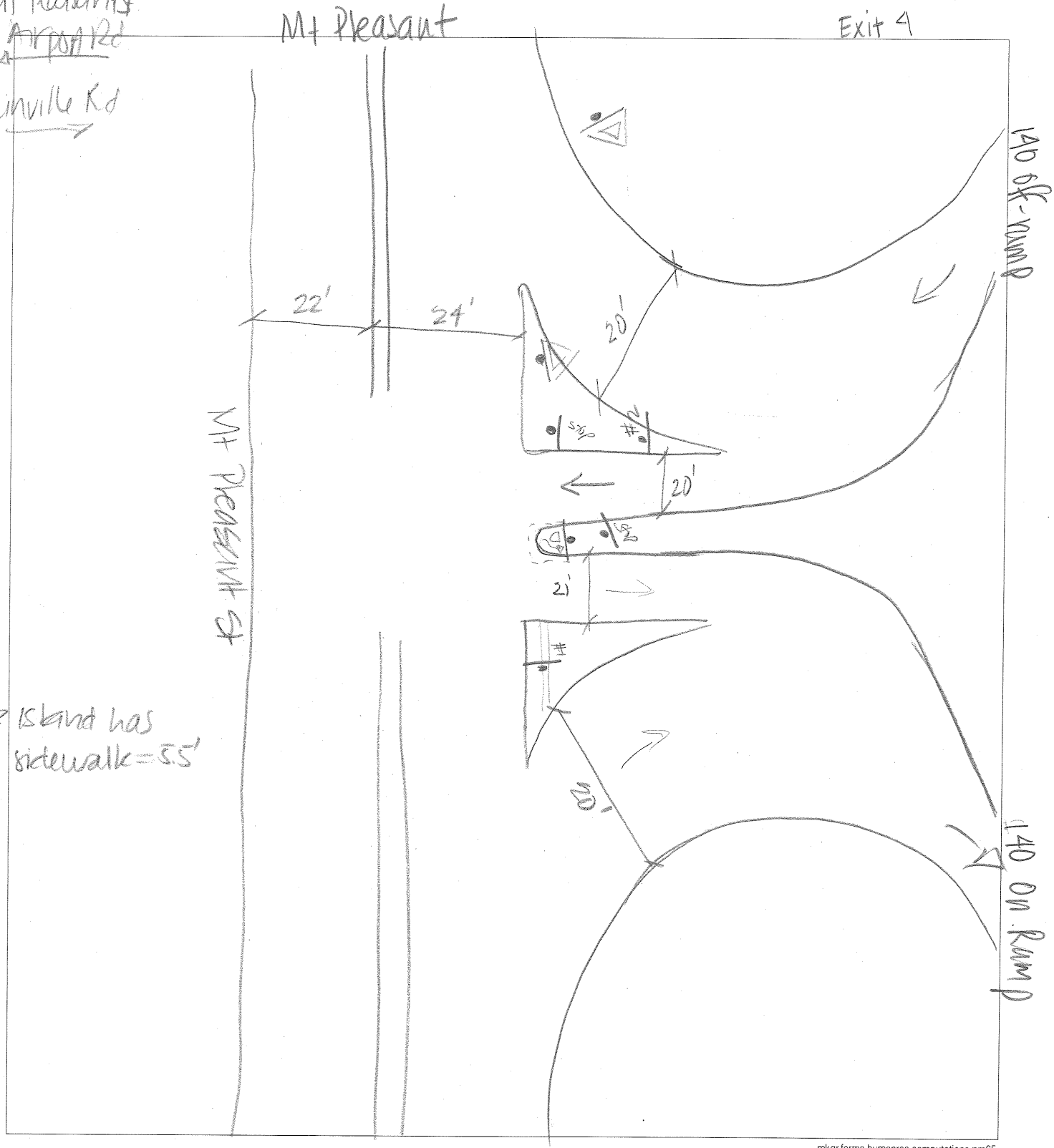
#1 140 South
New Bedford
Dartmouth

#2 MT Pleasant St
Airport Rd
Plainville Rd

N

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title Mt Pleasant St @ Rte 140 SB Off-Ramp

Project # 10111.00
Sheet 1 of 1
Date: 9/16/08
Date:

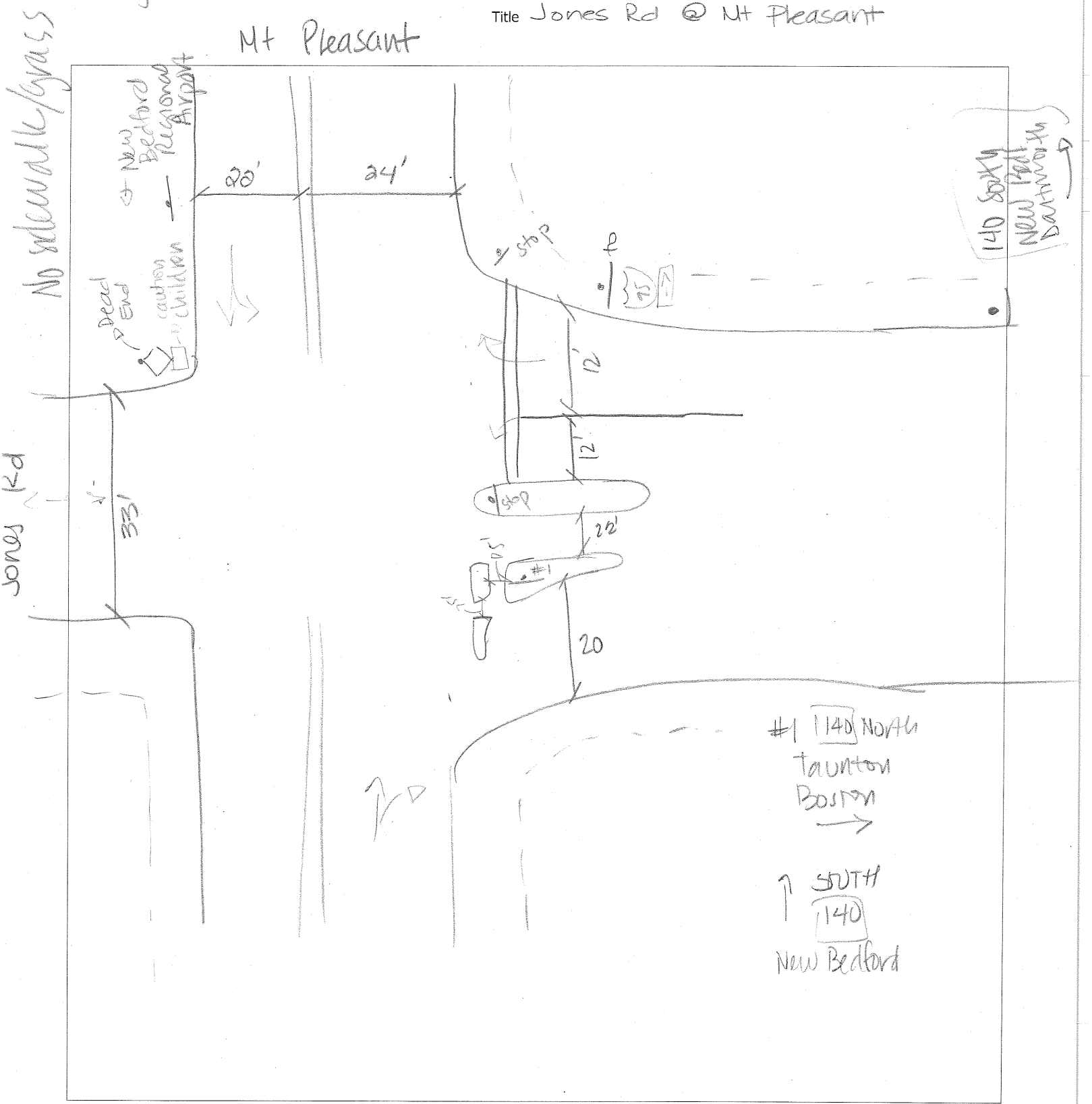


☆ Island has sidewalk = 5.5'

VHB **Computations** N

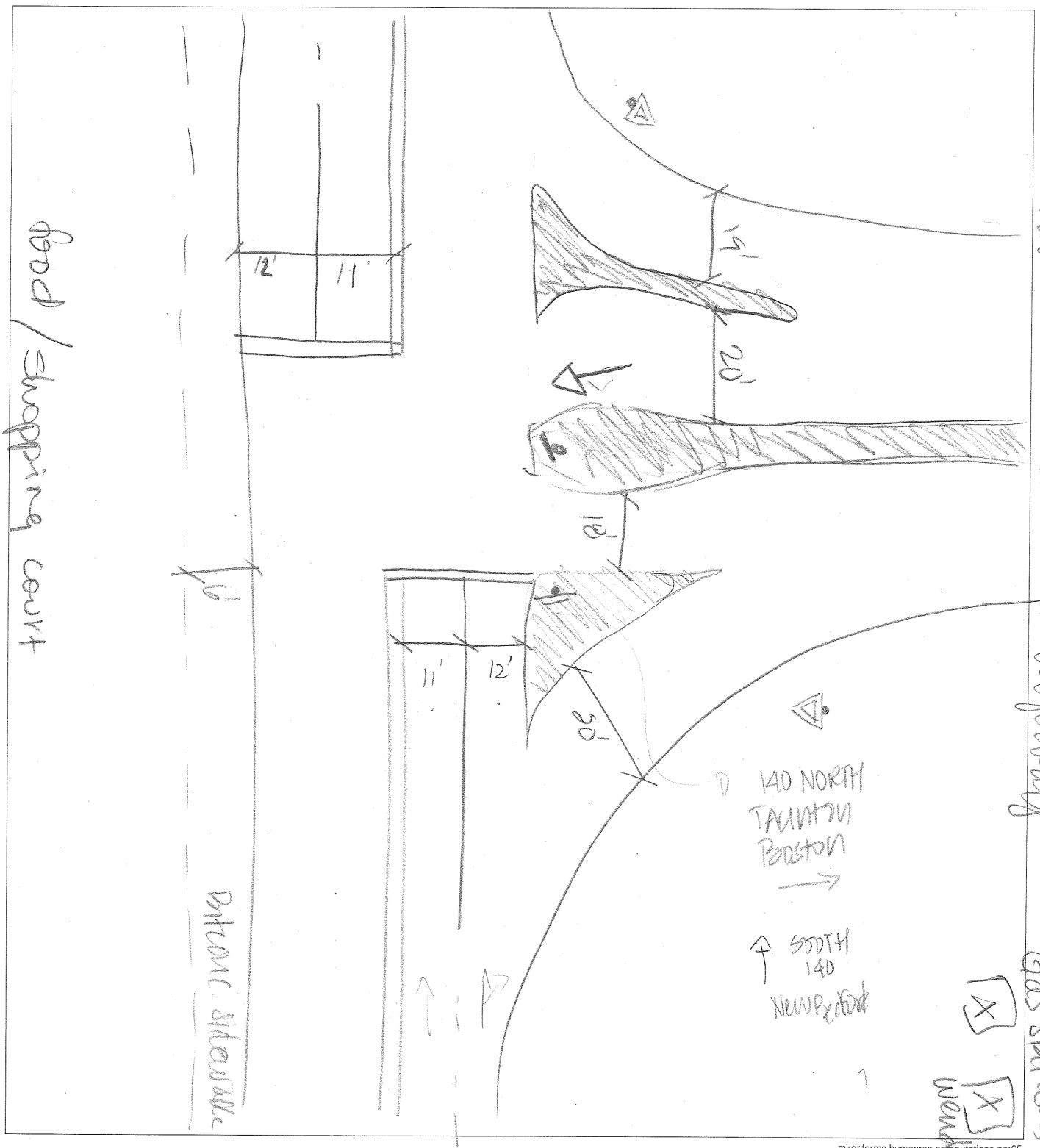
*signalized under const
- signals not working yet

Project: SCR | Project # 10111.00
Location: New Bedford | Sheet 1 of 1
Calculated by: NL | Date: 9/16/08
Checked by: | Date:
Title Jones Rd @ Mt Pleasant



Computations

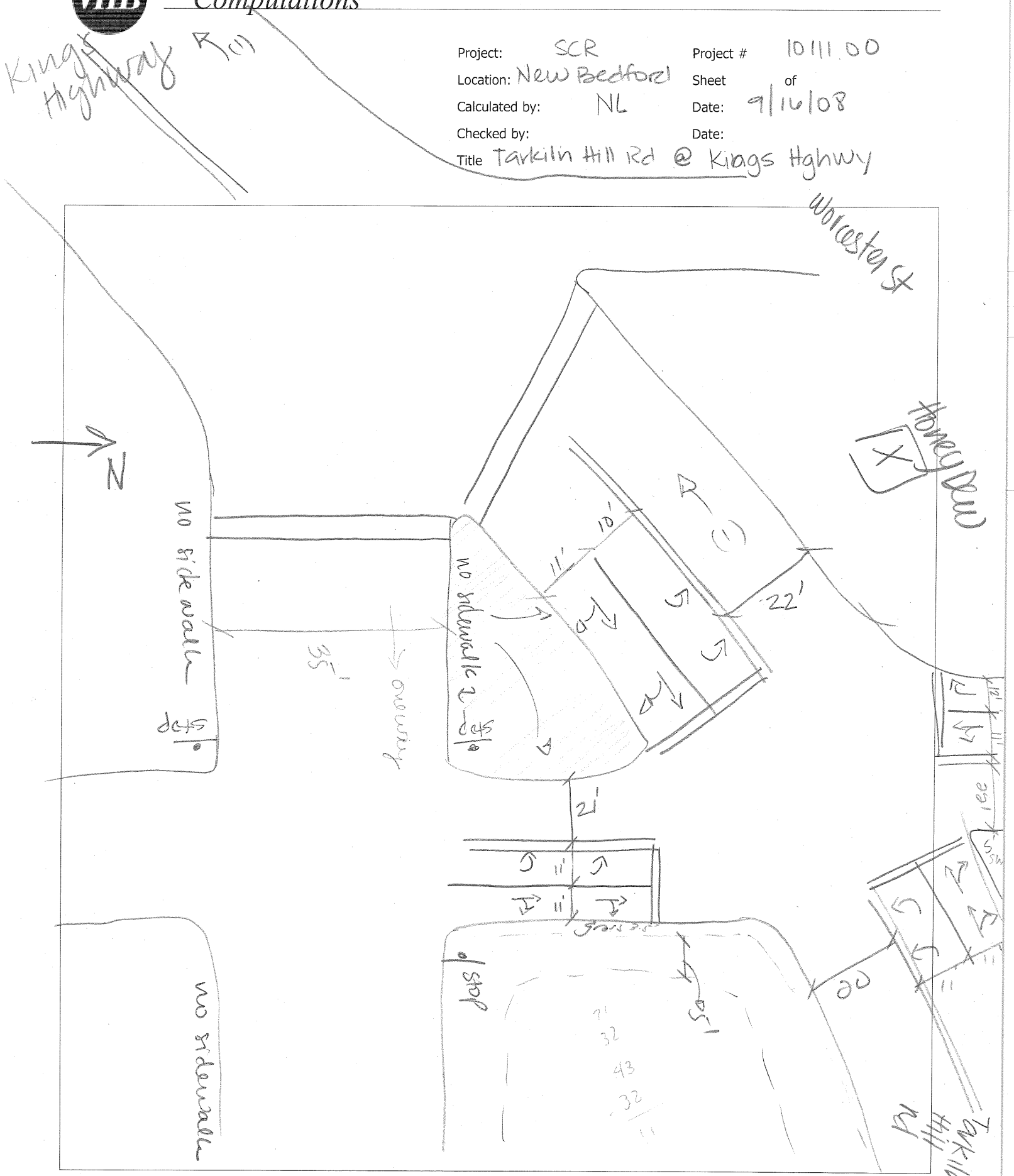
Project: SCR
Project # 10111.00
Location: New Bedford
Sheet 1 of
Calculated by:
Date: 9/16/08
Checked by:
Date:
Title Kings Highway @ 140 ON-Ramps



VHB

Computations

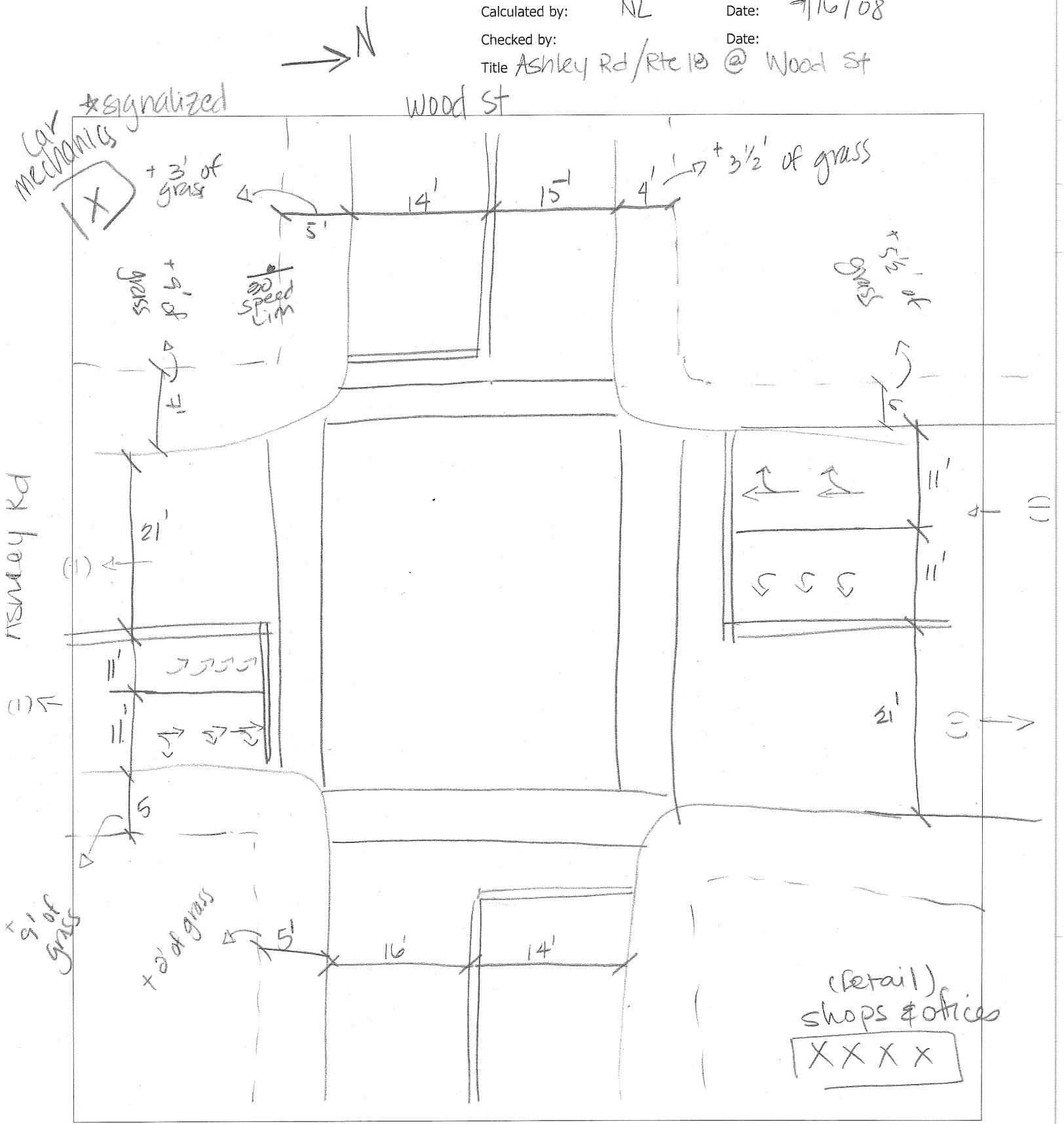
Project: SCR
Project #: 10111.00
Location: New Bedford
Sheet of
Calculated by: NL
Date: 9/16/08
Checked by:
Date:
Title: Tarkiln Hill Rd @ Kings Hghwy



Computations

Project: SCR
Location: New Bedford
Calculated by: NL
Checked by:
Title Ashley Rd/Rte 18 @ Wood St

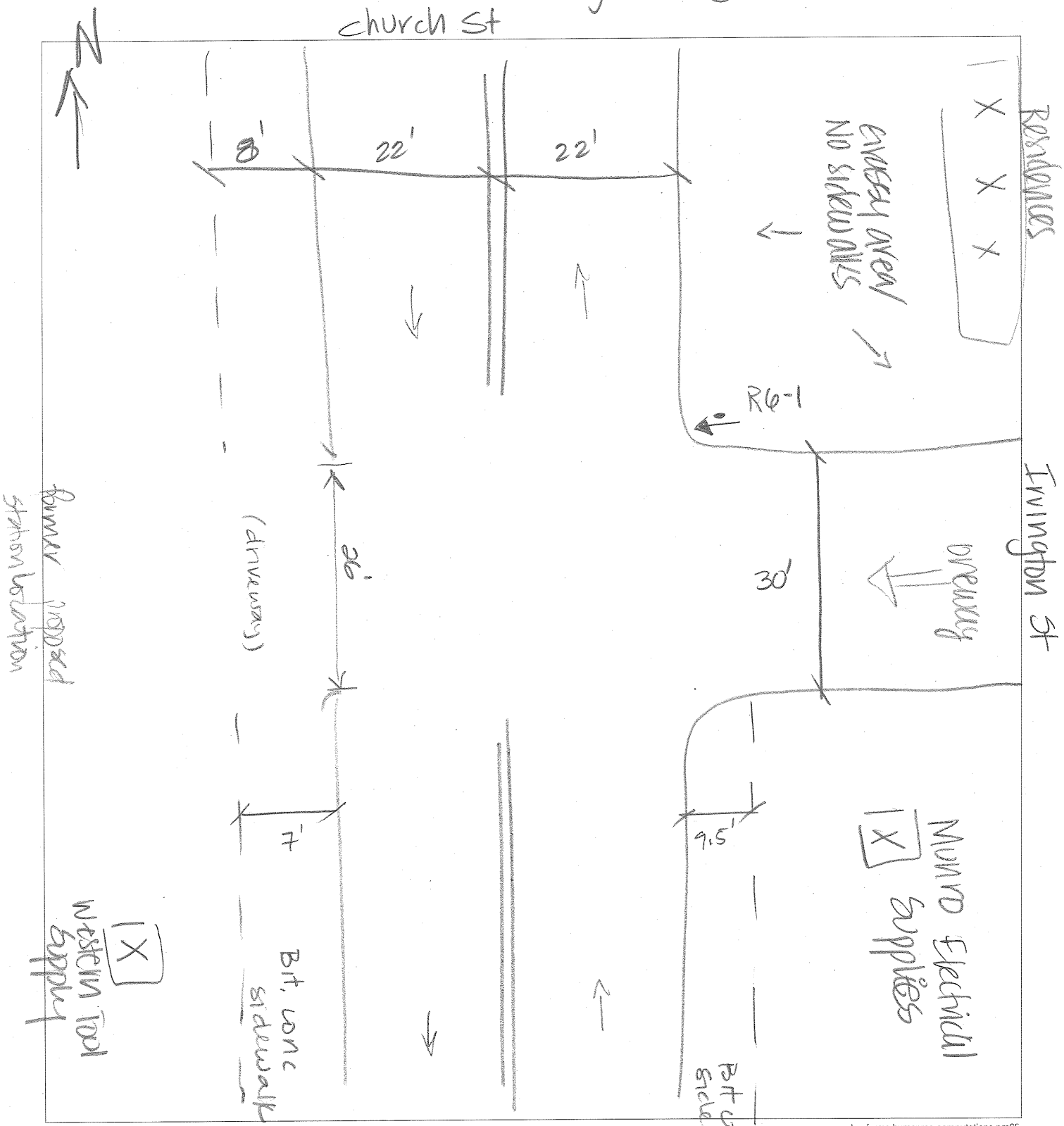
Project # 10111.00
Sheet 1 of 1
Date: 7/16/08
Date:



Computations

★ Unsignalized
- no stop signs
- almost no markings

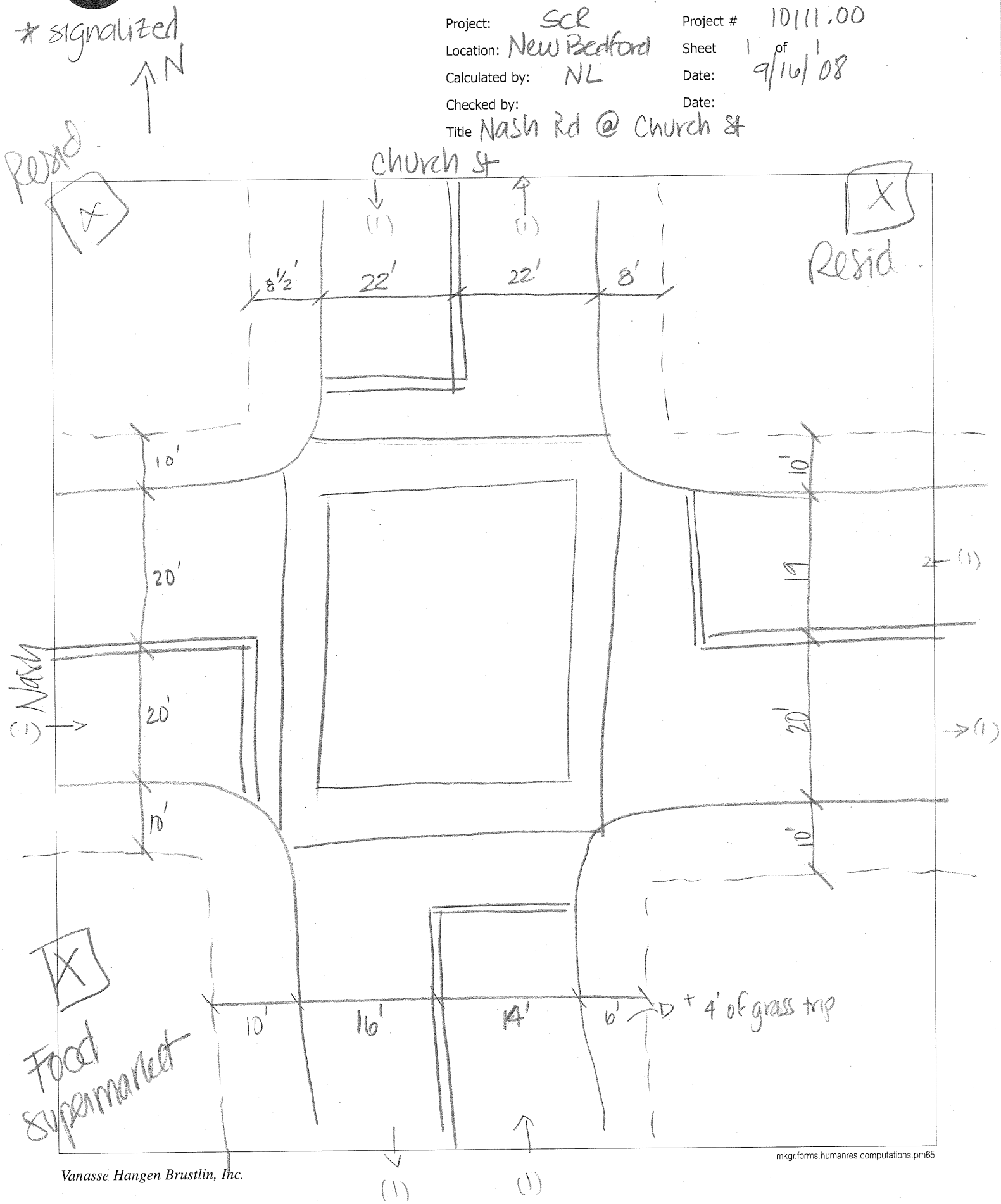
Project: SCR
Project #: 10111.00
Location: New Bedford
Sheet 1 of 1
Calculated by: NL
Date: 9/16/08
Checked by:
Date:
Title: Irvington St @ Church St



VHB

Computations

Project:	SCR	Project #	10111.00
Location:	New Bedford	Sheet	1 of 1
Calculated by:	NL	Date:	9/16/08
Checked by:		Date:	
Title	Nash Rd @ Church St		

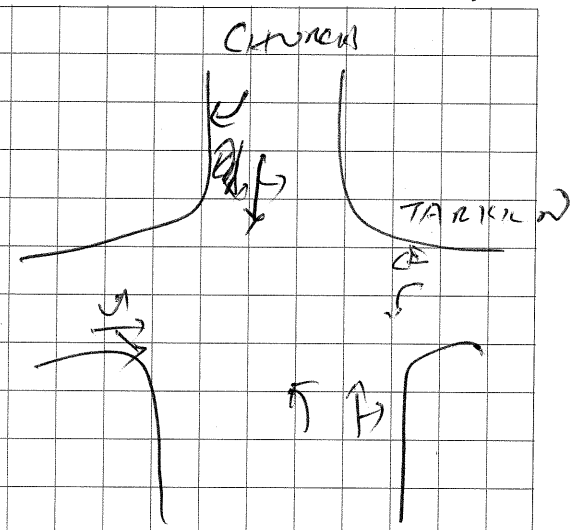


VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
#8 Title Signal Timing & Phasing

CHURCH ST / TARKILN RD

$\phi 1$ TARKILN RD | $\phi 2$ CHURCH



$\phi 1$ G = 28, 28
Y = 4, 4
R = 1, 1

$\phi 2$ G = 28, 28
Y = 4 4
R = 1 1

VHB Computations

Project: SCR | Project # 1D111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
#2 Title Signal Timing & Phasing

Route 140 N ON/OFF RAMP @ Kings Hwy

ϕ_1 Kings Hwy

ϕ_2 Ramp

ϕ_1

G = 39 56 58
Y = 4 4 4
R = 1 1 1

ϕ_2

G = 31, 13 27
Y = 4, 4 4
R = 1 1 1

ϕ_3

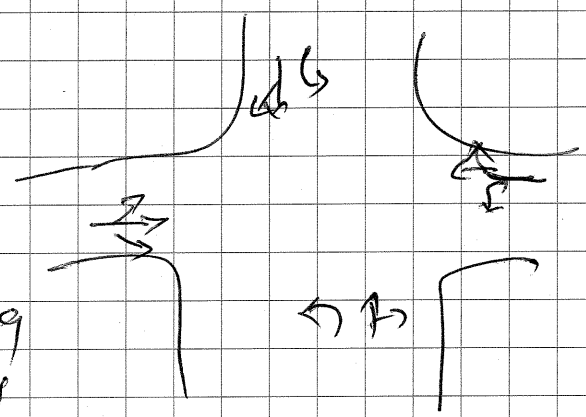
G = 8
Y = 3
R =

VHB *Computations*

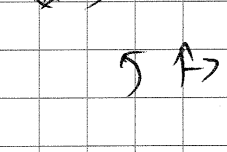
Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RAK | Date: 9/16/08
Checked by: | Date:
Title Signal Timing & Phasing

Ashley Blvd @ Wood St.

ϕ_1 ~~Ashley~~ PUSH BUTTON
ϕ_2 PED
ϕ_3 WOOD



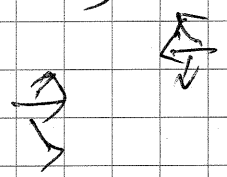
ϕ_1



G = 28 28 29
Y = 4 4 4
R = 1 1 1

ϕ_2 W = 7
PED FDW = 8

ϕ_3



G = 8 6 7 12
Y = 4 4 4 4
R = 1 1 1 1

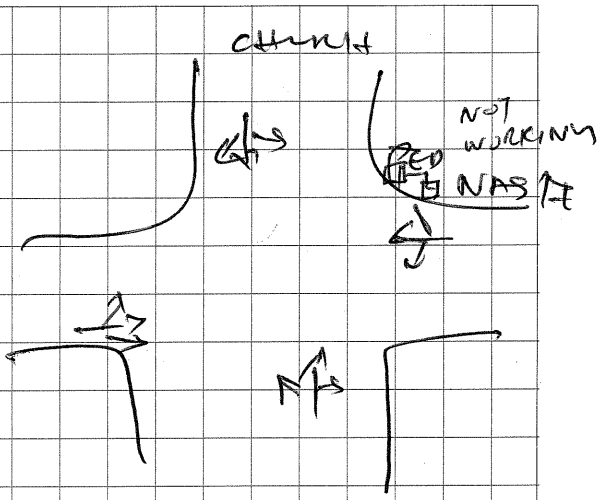
VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
#7 Title Signal Timing & Phasing

CHURCH ST @ NASH

ϕ_1 CHURCH ST

ϕ_2 NASH



ϕ_1

G =	22	22	22
Y =	4	4	4
R =	1	1	1

No Ped call on Push Button Act

ϕ_2

G =	29	30	30
Y =	4	4	4
R =	1	1	1

VHB Computations

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
Title #9 Signal Timing & Phasing

Kempton & Hill & Pleasant

ϕ_1 Kempton
ϕ_2 Rowlett
ϕ_3 Peel
ϕ_4 Pleasant SB
ϕ_5 Pleasant NB

ϕ_1 G = 30 23
Y = 4 4
R = 1 1

ϕ_2 G = 27 30
Y = 4 4
R = 1 1

ϕ_3 Ped
W = 9
FDW = 11

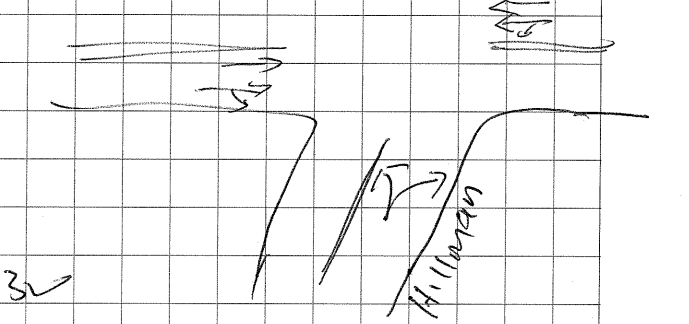
ϕ_4 MP G = 31, 30
Y = 4 4
R = 1 1

ϕ_5 G = 20 29
Y = 4 4
R = 1 1

VHB *Computations*

Project: SCR | Project # 10111-37
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
Title: Signal Timing & Phasing

Hillman @ Pleasant/Purchase



ϕ_1 Purchase St/Pleasant

ϕ_2 Hillman

ϕ_1

G = 30, 30 30
Y = 4, 4 4
R = 1, 1 1

ϕ_2

G = 20, 20 20
Y = 3, 3, 4
R = 1 1, 1

VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/16/08
Checked by: | Date:
Title Signal Timing & Phasing

#7 + #6

Route 18 @ McCarthy / Union Street

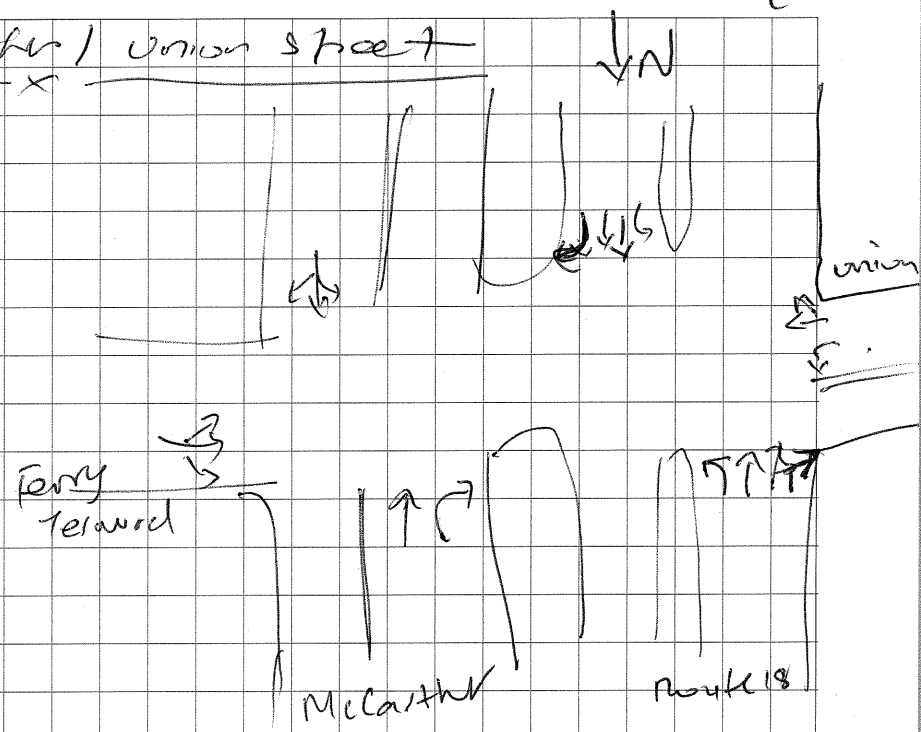
ϕ_1 McCarthy SB RT
Rte 18 NB RT

ϕ_2 Rte 18 NB & SB LT

ϕ_3 McCarthy & Rte 18
THRUS

ϕ_4 PED

ϕ_5 Union & Ferry



ϕ_1

	G	Y	R
	14	2	1
	15	2	1

ϕ_4 PED W = 17, FDW = 13 } 30

ϕ_2

	G	Y	R
	12	4	6
	11	4	5

ϕ_5

	G	Y	R
	22	4	6
	27	4	6

Long red bar

ϕ_3 thrs

	G	Y	R
	42	4	4
	42	4	4

NEW BEDFORD KING'S HIGHWAY AT RTE 140 NB RAMPS				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1319	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT
KING'S HIGHWAY AT RTE 140 NB RAMPS

IN THE TOWN OF

NEW BEDFORD
BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

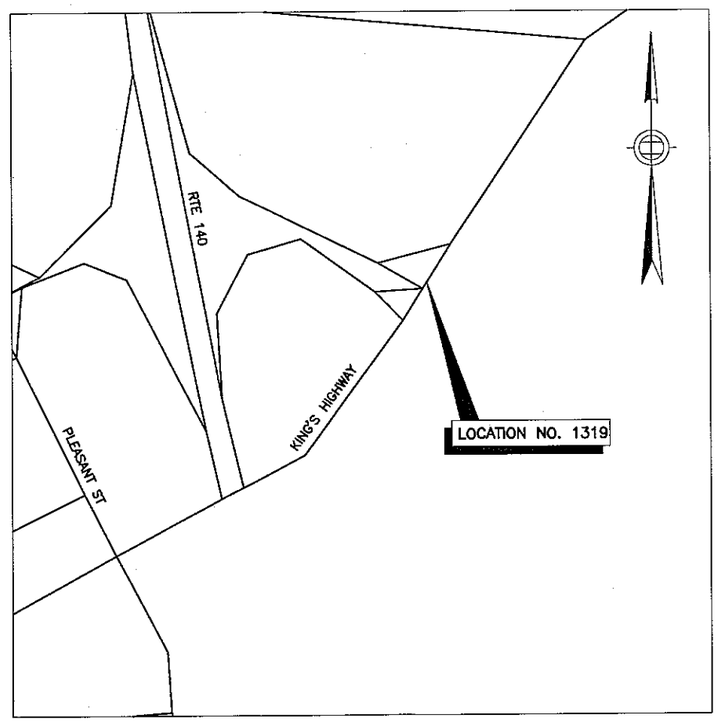
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I. STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II. OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: COORDINATED
(c) Special connection: TIME-BASED
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50-60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR SCALE IN FEET
0 200 400 800

REVISION NO 01	
DATE: 01-18-02	
INSERT BY: I. TETER	COMMENTS:
DATE:	
FILE NAME: 1319T0101.DWG	

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

APPROVED BY:

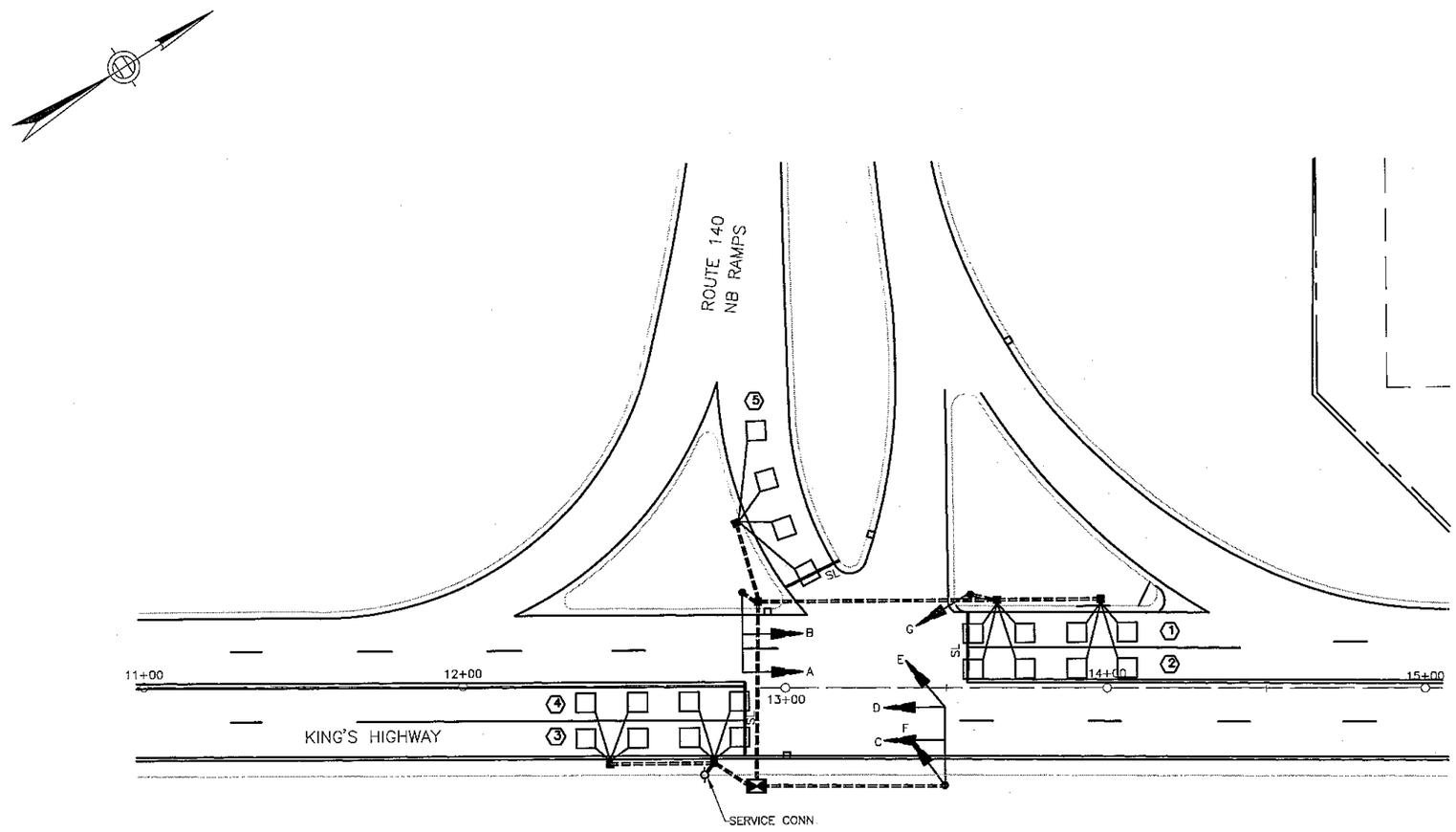
STATE TRAFFIC ENGINEER Date

NEW BEDFORD

KING'S HIGHWAY AT RTE 140 NB RAMPS

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1319	01	2	

TRAFFIC SIGNAL PLAN



0 20 50 100 FEET

1" = 20' HORIZONTAL

LEGEND

	SIGNAL CONTROLLER
	VEHICULAR SIGNAL
	OPTICALLY PROGRAMMED VEHICULAR SIGNAL
	FIRE PRE-EMPTION RECEIVER
	FIRE PRE-EMPTION STROBE LIGHT
	PEDESTRIAN SIGNAL
	PEDESTRIAN PUSH BUTTON
	PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

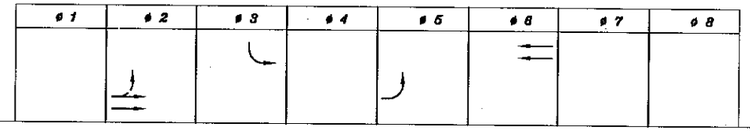
1319P0101.DWG

NEW BEDFORD
KING'S HIGHWAY AT RTE 140 NB RAMPS

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1319	01	3	

TRAFFIC SIGNAL DATA

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
KING'S HIGHWAY	WB	A,B				R	R	R	R	R	R				R	R	R	G	Y	R							FY
KING'S HIGHWAY	EB	D,G				G	Y	R	R	R	R				GL/R	YL/R	R	R	R	R							FY
KING'S HIGHWAY	EB	C				G	Y	R	R	R	R				R	R	R	R	R	R							FY
FIELDSTONE MARKETPLACE	SB	E,F				R	R	R	G	Y	R				R	R	R	R	R	R							FR
PEDESTRIAN																											
TIMING IN SECONDS																											
MINIMUM GREEN (INITIAL)						8			8						5			8									EMERGENCY ONLY
PASSAGE TIME (VEHICLE)						3			3						3			3									
MAXIMUM 1						30			35						10			30									
MAXIMUM 2						25			15						25			25									
YELLOW CLEARANCE							4			4						4			4								
RED CLEARANCE								1			1						1			1							
WALK (W)																											
PEDESTRIAN CLEARANCE																											
RECALL						OFF			OFF						OFF			OFF									
MEMORY						NON-LOCKING			NON-LOCKING						NON-LOCKING			NON-LOCKING									

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
1	10' SIGNAL POLE, BASE, & FDN.
2	MAST ARM ASSEMBLY, BASE, & FDN.
5	1 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
1	1 WAY, 5 SECTION SIGNAL HOUSING (12" LENS)
1	2 WAY, 3&5 SECTION SIGNAL HOUSING (12" LENS)
3	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
20	ROADWAY LOOP DETECTOR
6	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø1, ø4 , ø7 AND ø8 NOT USED.

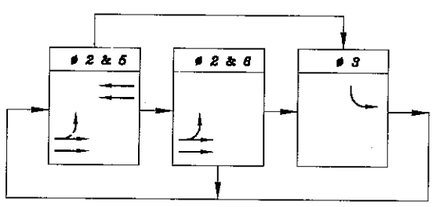
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR

PREFERENTIAL PHASING SEQUENCE



COORDINATION DATA
(ALL ENTRIES IN SECONDS)

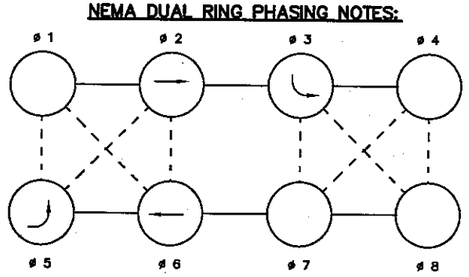
CYCLE	TIME PERIOD	OFFSET	CYCLE LENGTH
CYCLE 1	ALL DAY MONDAY-FRIDAY ALL DAY SATURDAY AND SUNDAY	0	80
CYCLE 2			
CYCLE 3			
CYCLE 4			

SPLIT	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
SPLIT 1		80	30		15	35		
SPLIT 2								
SPLIT 3								
SPLIT 4								

LOOP DETECTOR DATA

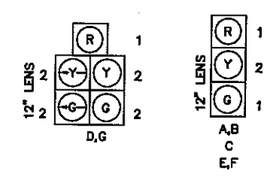
DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	4	6'X6'		ø6	ø6	PRESENCE		
2	4	6'X6'		ø6	ø6	PRESENCE		
3	4	6'X6'		ø2	ø2	PRESENCE		
4	4	6'X6'		ø2&5	ø2&5	PRESENCE		
5	4	6'X6'		ø3	ø3	PRESENCE		

NEMA DUAL RING PHASING NOTES:



SIGNAL IDENTIFICATION

1: LED 2: INCANDESCENT 3: FIBEROPTIC



CONTROLLER MAKE & MODEL: EPAC 300
UTILITY POLE No. COM. ELEC. # 382/9
METER No. 97-028-673 (7526257)
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER Date

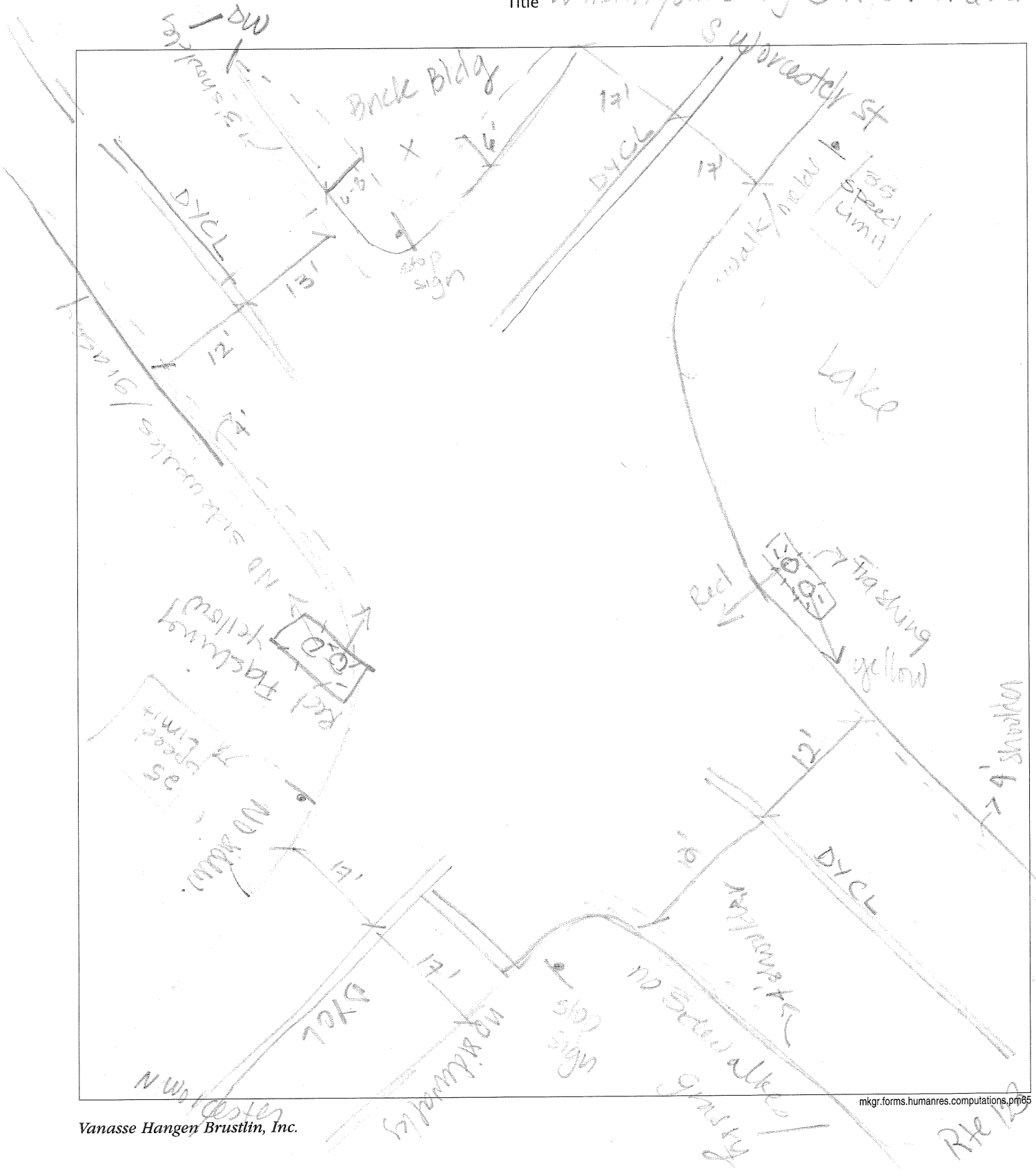
1319D010I.DWG

(1)

VHB **Computations**

Rte 123/Main St

Project:	SCR	Project #	10111.31
Location:	NORION	Sheet	1 of 1
Calculated by:	NL	Date:	9/10/08
Checked by:		Date:	
Title	W Main/old colony @ N/S Worcester St		

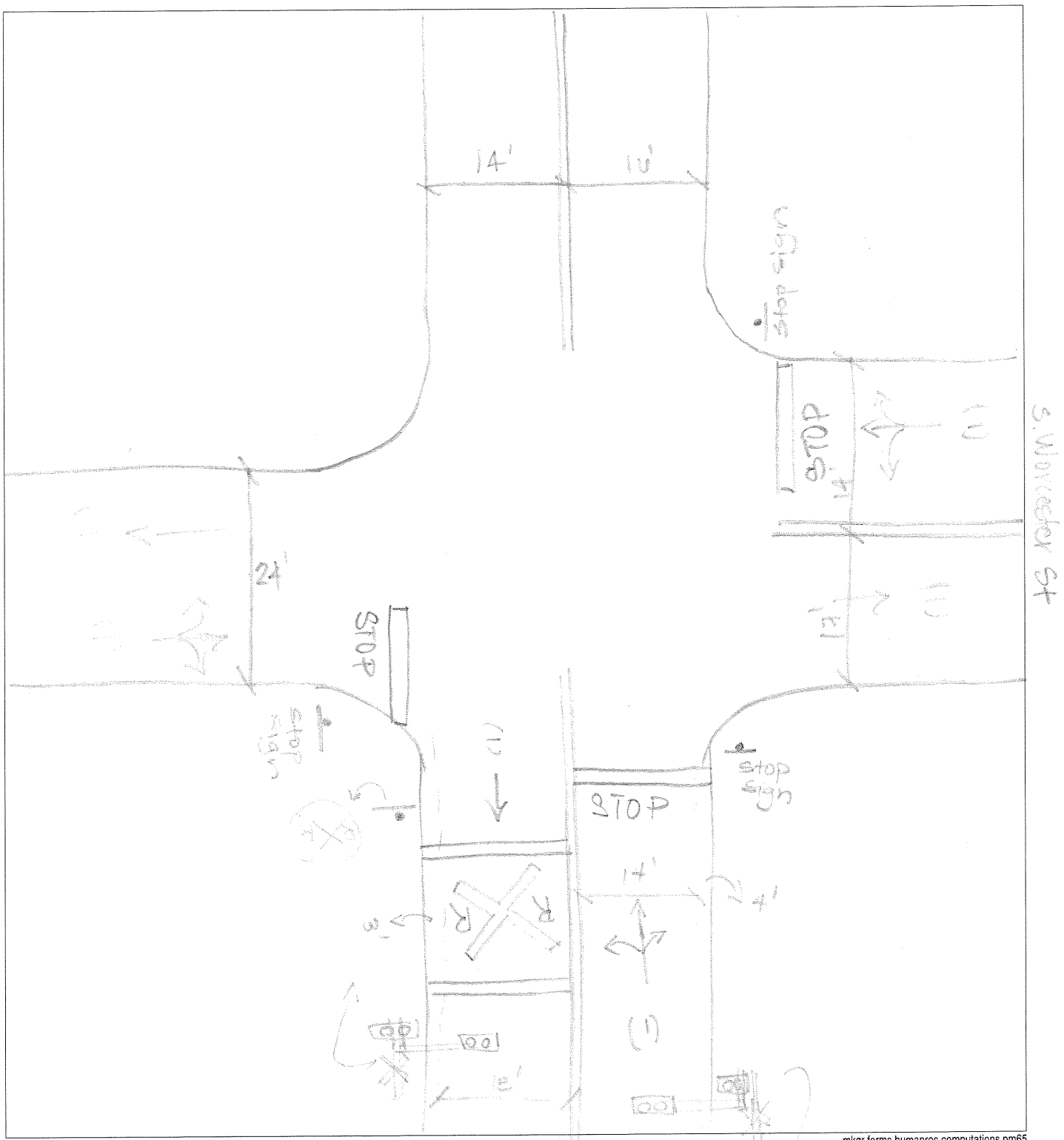


(2)

VHB *Computations*

* no sidewalks on any approach

Project: SCR
Project # 10111 31
Location: Norton
Sheet of
Calculated by:
Date:
Checked by:
Date:
Title S. Worcester St/Sturdy @ John B Scott.



mkgr.forms.humanres.computations.pm65

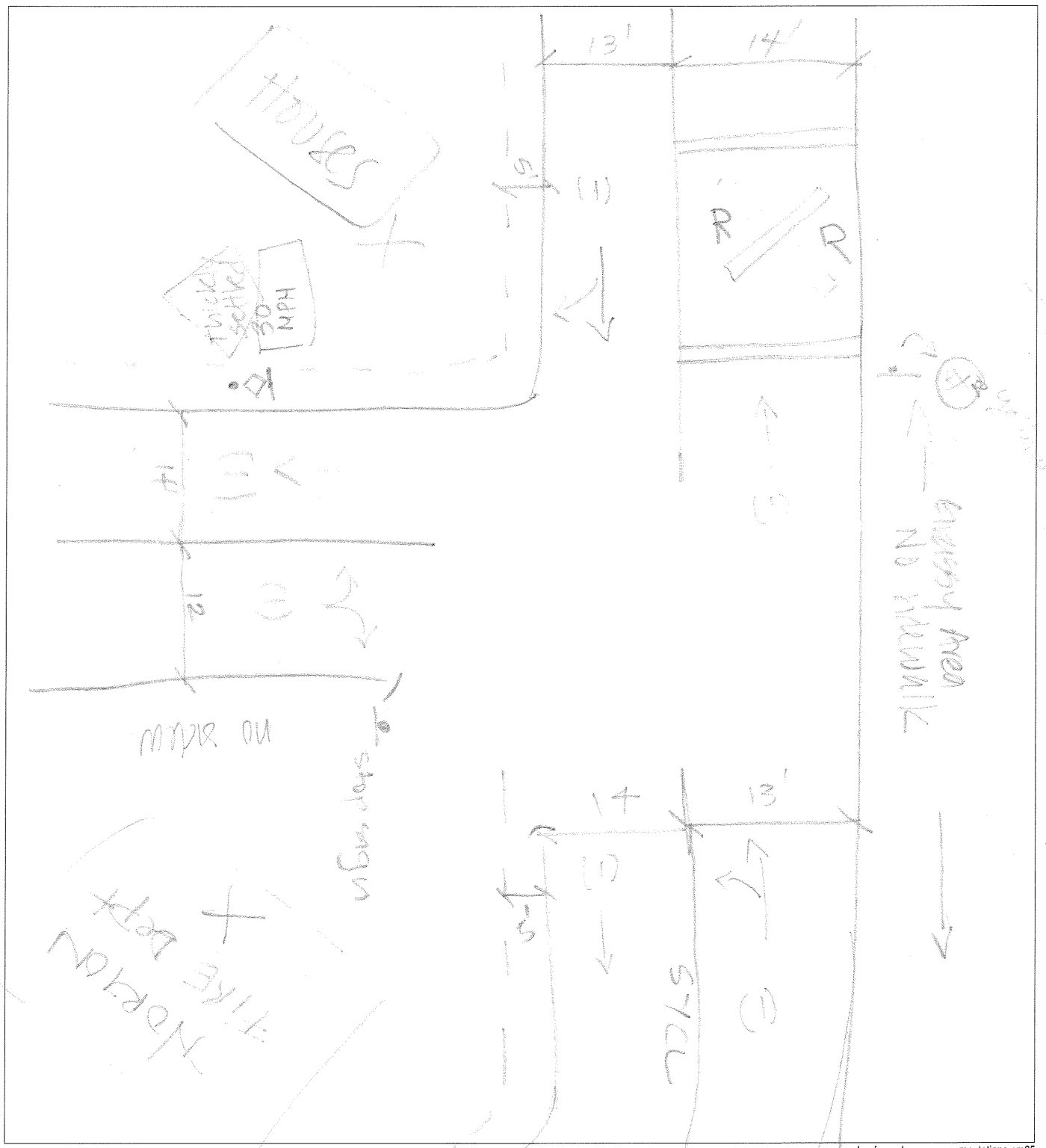
(3)

VHB

Computations

* stopping very fast'd

Project: SCR
Project # 10111.31
Location: Norton
Sheet of
Calculated by: XL
Date: 9/10/08
Checked by:
Date:
Title Burrows St @ Dean St/S. Worcester St


13'
14'
5'
(1)
R
R
Trees
Sign
Sign
Sign

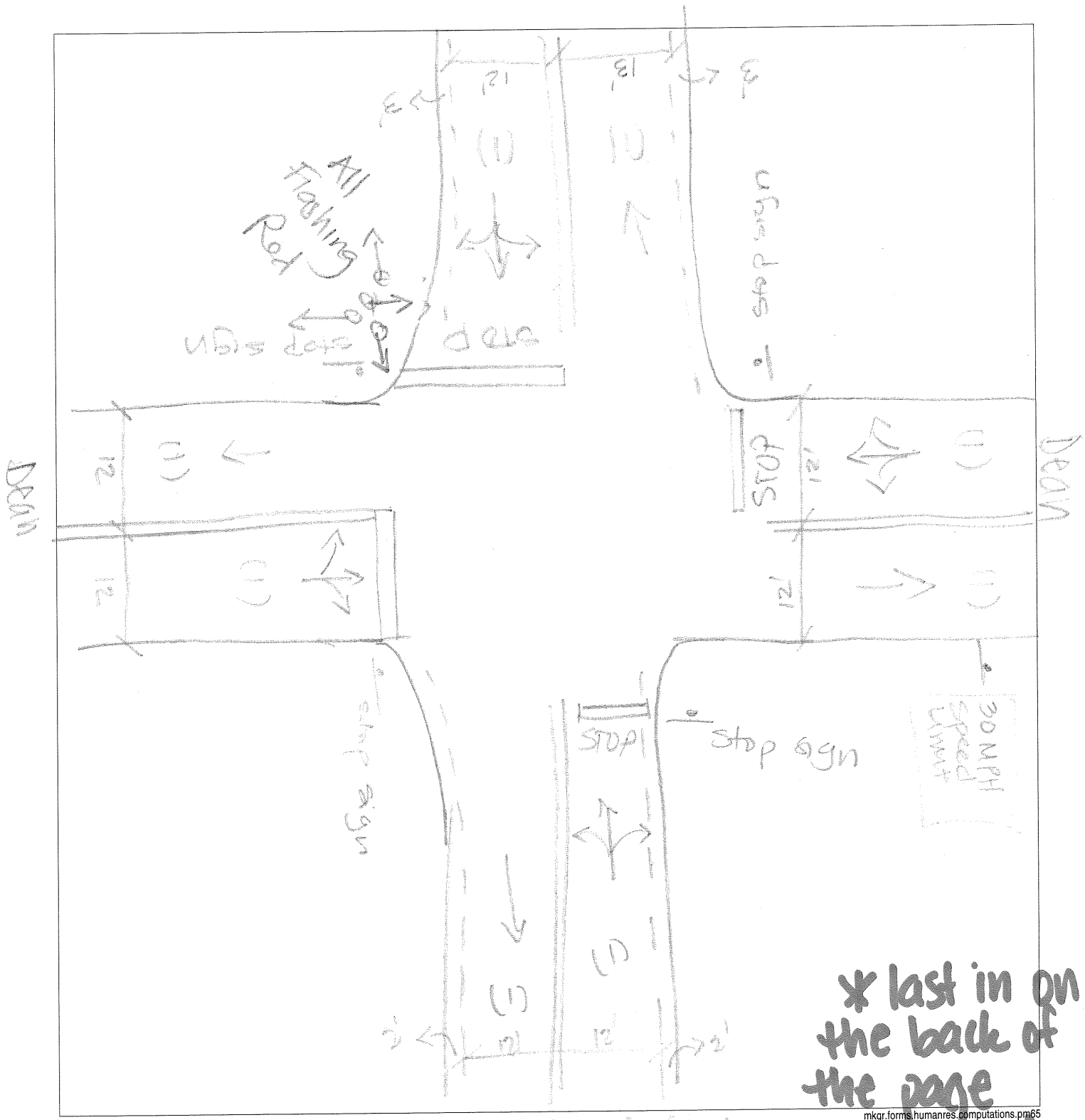
4)

VHB Computations

* No sidewalk on any approach

Project: SCR
Location: Norton
Calculated by: NL
Checked by:
Title John B Scott @ Dean St

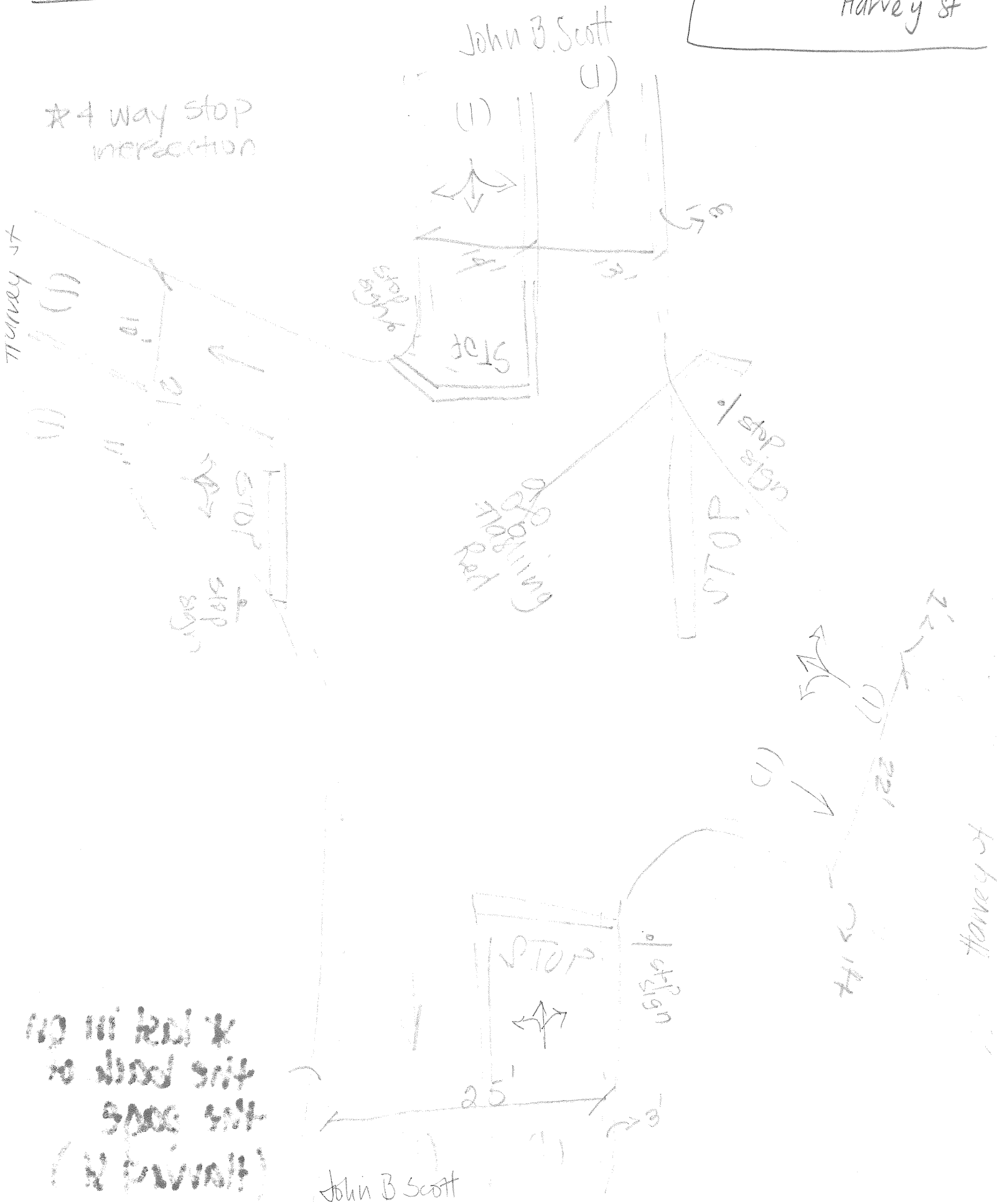
Project # 10111.31
Sheet 1 of
Date: 9/10/08
Date:



* last in on the back of the page (Harvey St)

South Coast Rail
10111.00

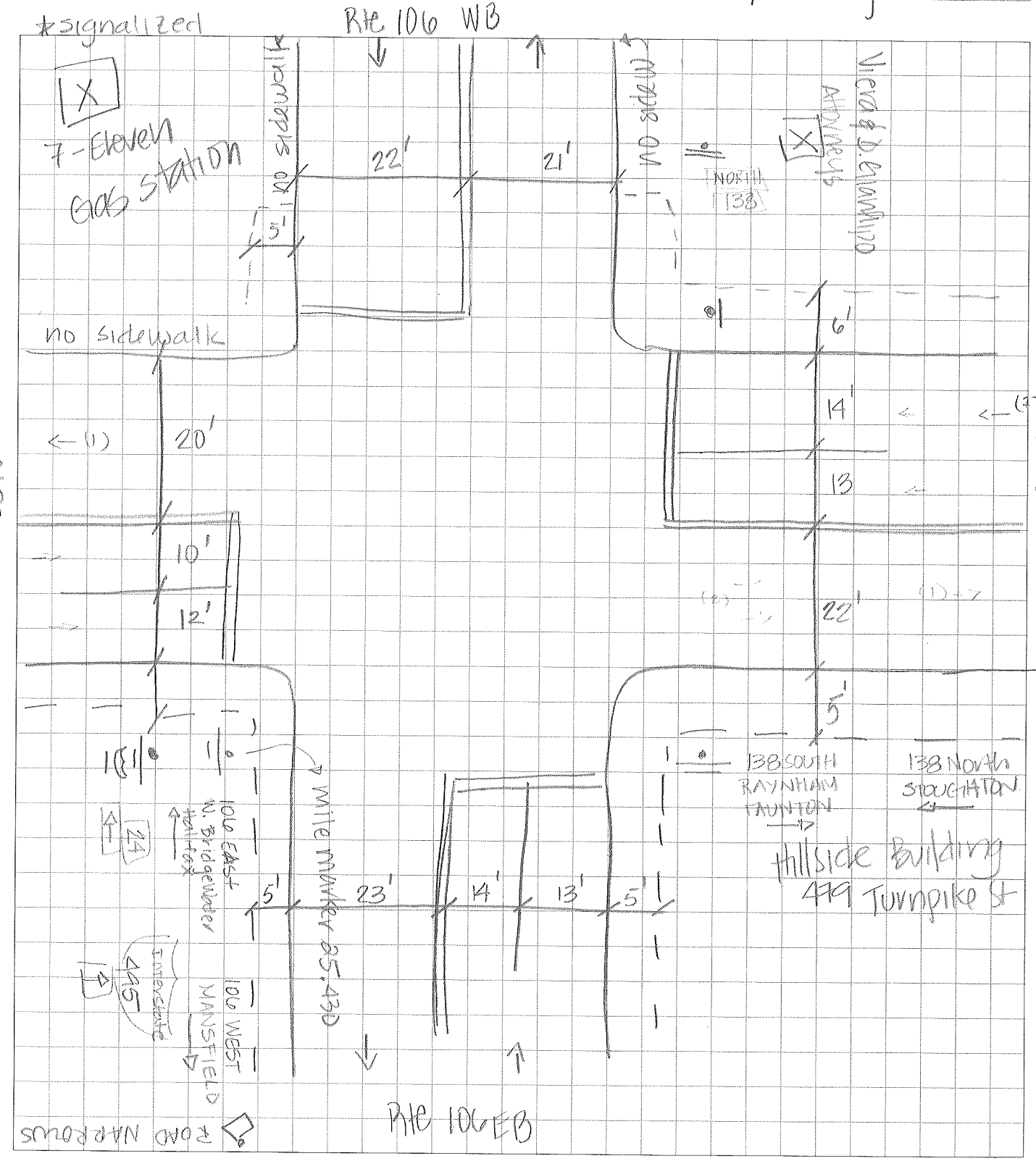
9-10-08
Int: John B Scott @
Harvey St



(1)

VHB *Computations* pictures 1 - 12

Project: SCR | Project # 10111.00
Location: Raynham | Sheet 1 of 1
Calculated by: NL | Date: 9-17-08
Checked by: | Date:
Title Rte 138 at Rte 106/Foundry St

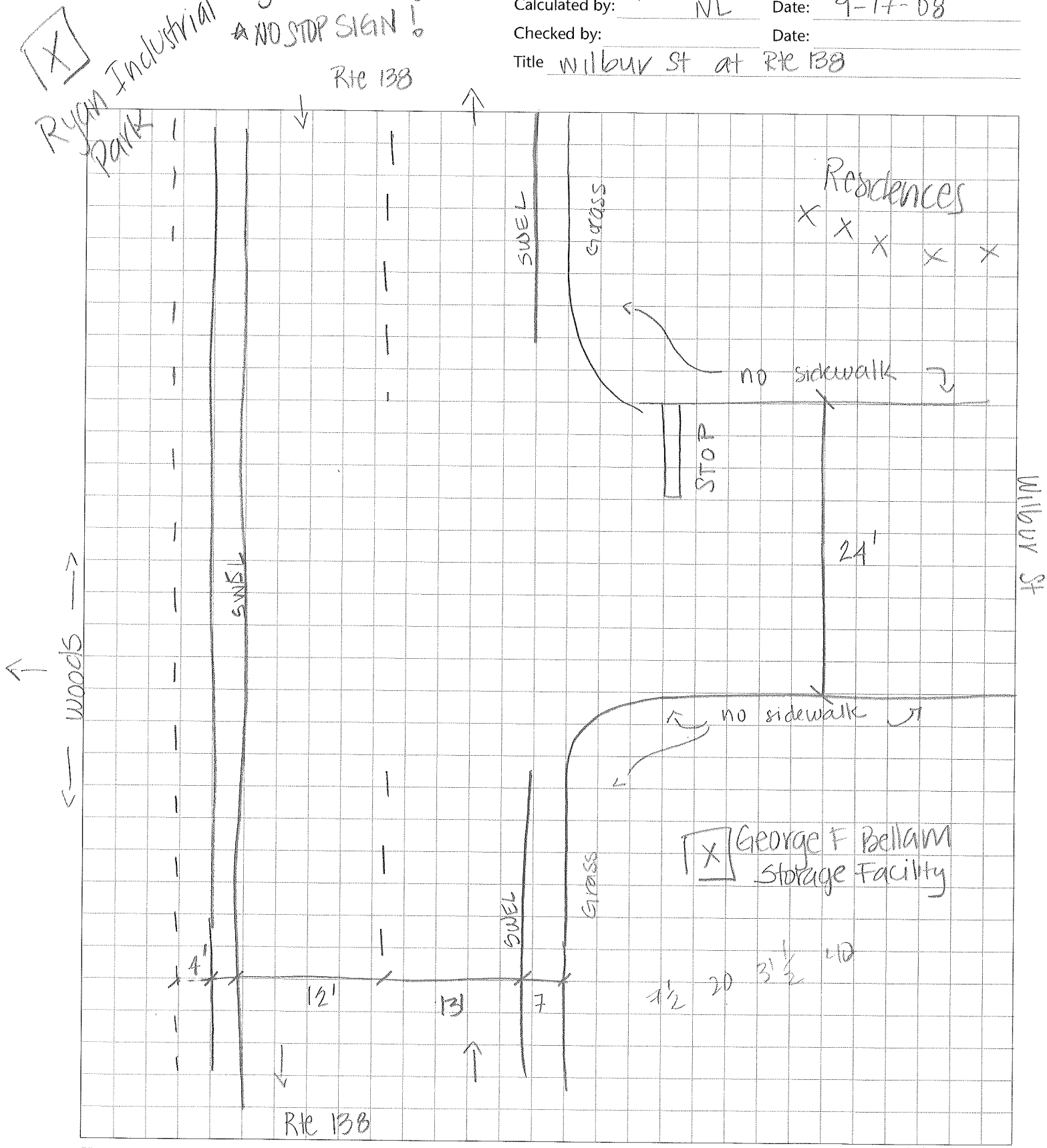


(2)

VHB *Computations* pictures 13 – 19

* unsignalized
* good pavem. cond.
* good markings
* NO STOP SIGN !

Project:	SCR	Project #	10111.00
Location:	Raynham	Sheet	1 of 1
Calculated by:	NL	Date:	9-17-08
Checked by:		Date:	
Title	Wilbur St at Rte 138		

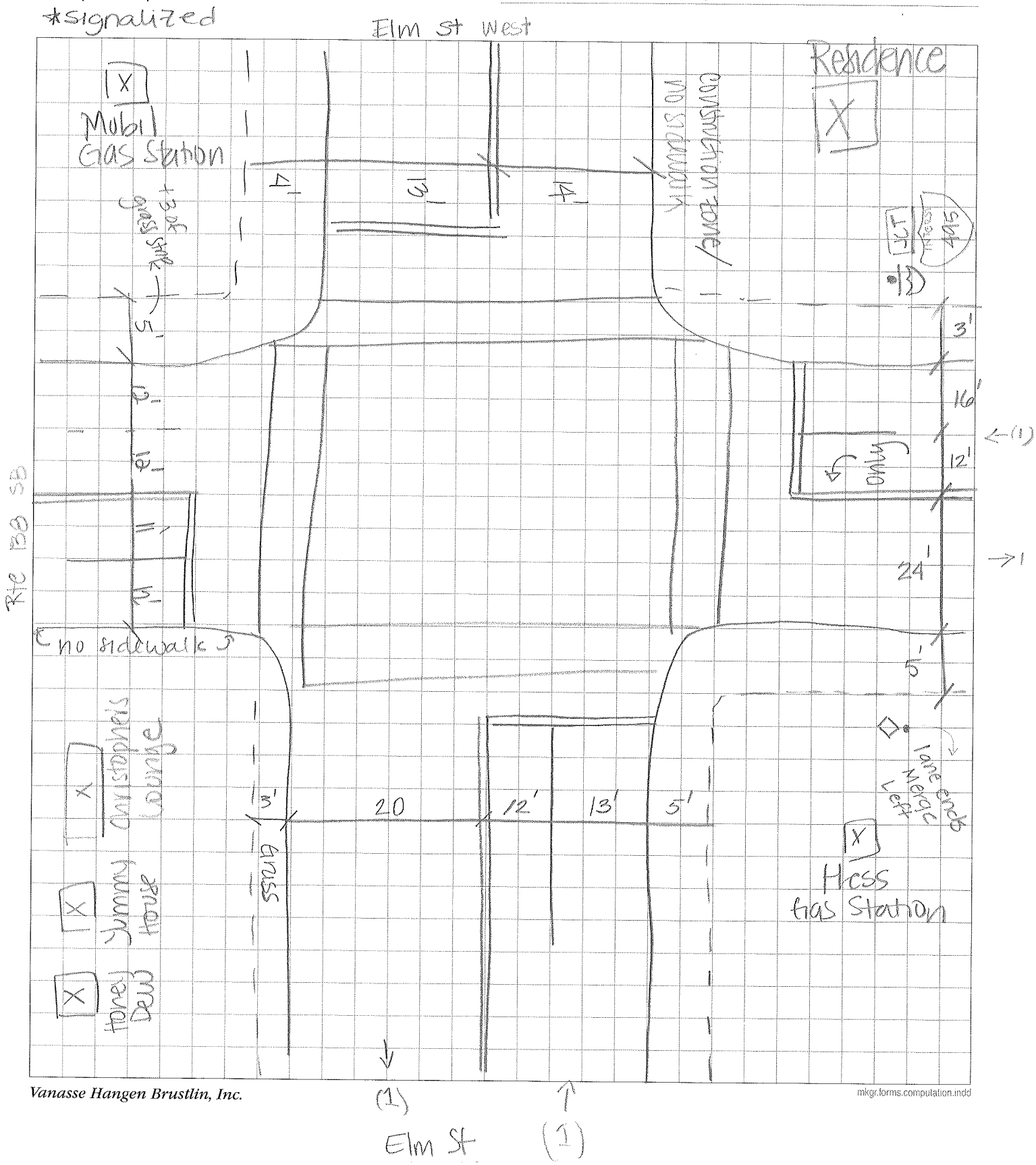


VHB *Computations* pictures 20 - 29

→N

Project:	SCR	Project #	10111.00
Location:	Raynham	Sheet	1 of 1
Calculated by:		Date:	9-17-08
Checked by:		Date:	
Title	Elm St at Rte 138		

*construction zone @ Elm St West
*good marking cond.
*good pavem cond
*signalized

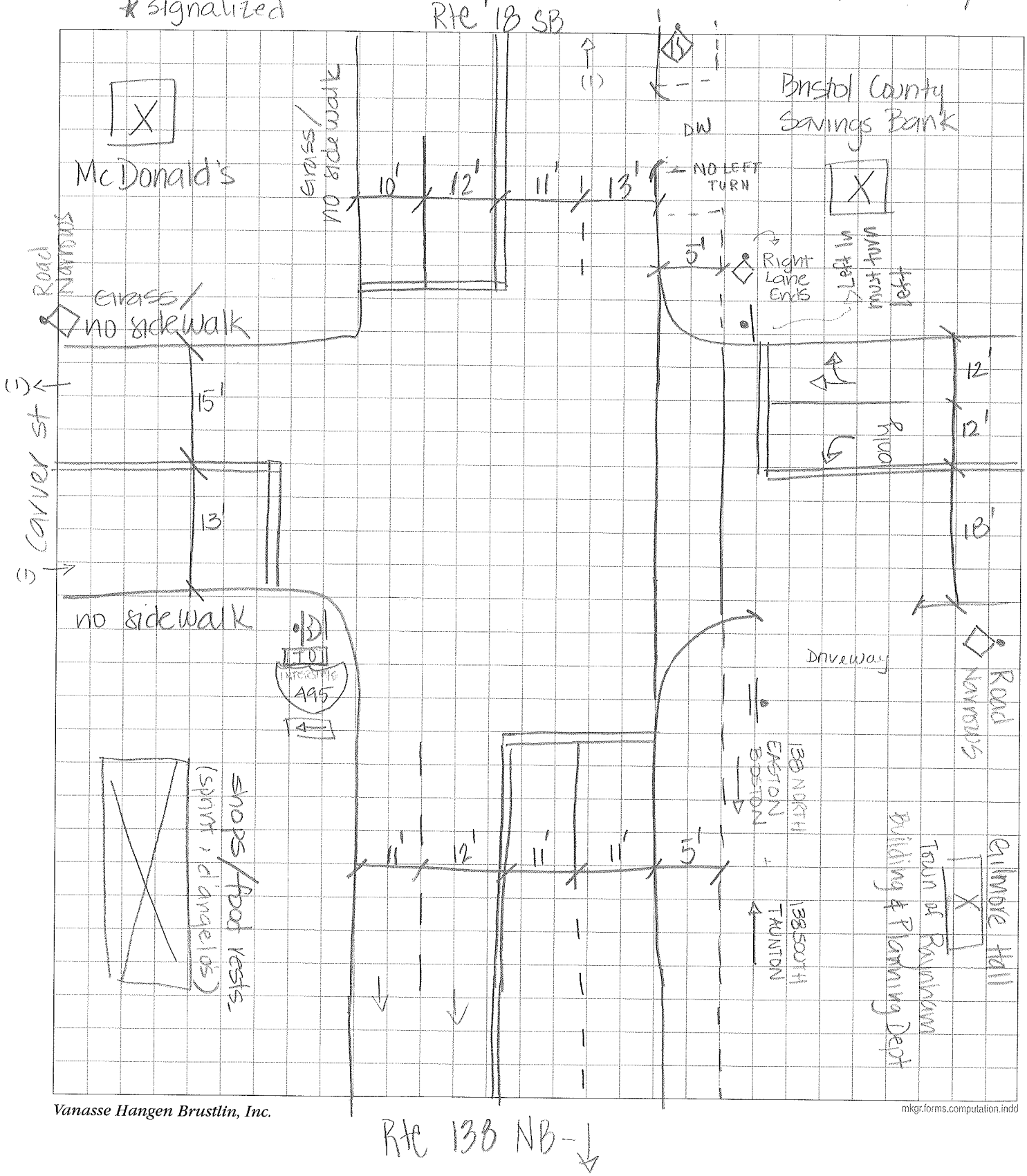


VHB *Computations* pictures: 30-41

★ good pavem. cond
★ good markings
★ BUSY INT. DURING PM HRS
★ signalized

N

Project:	SCR	Project #	10111.00
Location:	Raynham	Sheet	1 of 1
Calculated by:	NL	Date:	9-17-08
Checked by:		Date:	
Title	Carver St @ Rte 138/Broadway St		



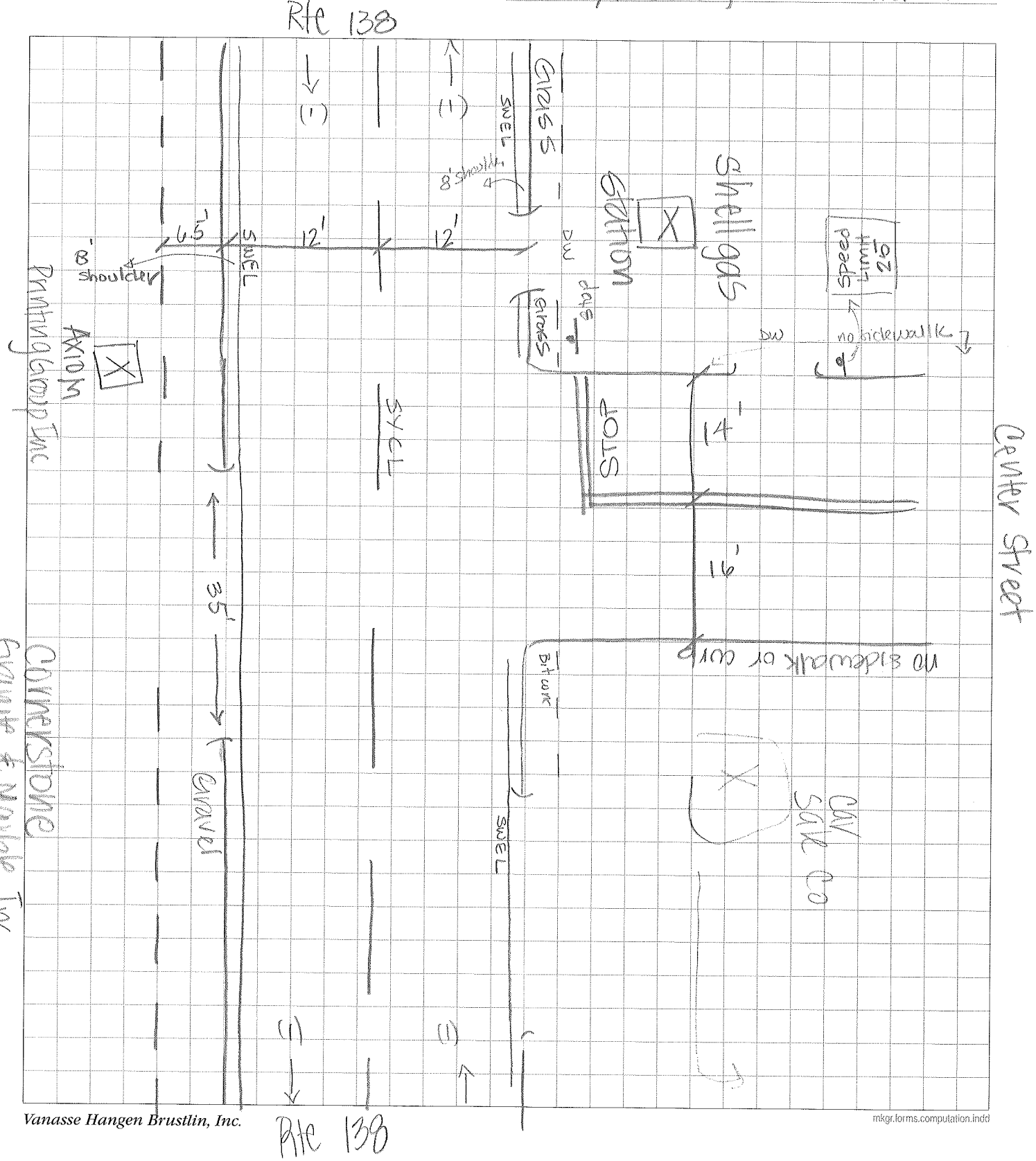
N ↑

VHB *Computations* pictures 42 - 46

* unsignalized
* pavem. fair to good
* good markings
* LOTS OF TRAFFIC (NOON)

Project: SCR
Location: Raynham
Calculated by: NL
Checked by:
Title Rte 138/Broadway St at Center St

Project # 10111.00
Sheet 1 of 1
Date: 9-17-08
Date:

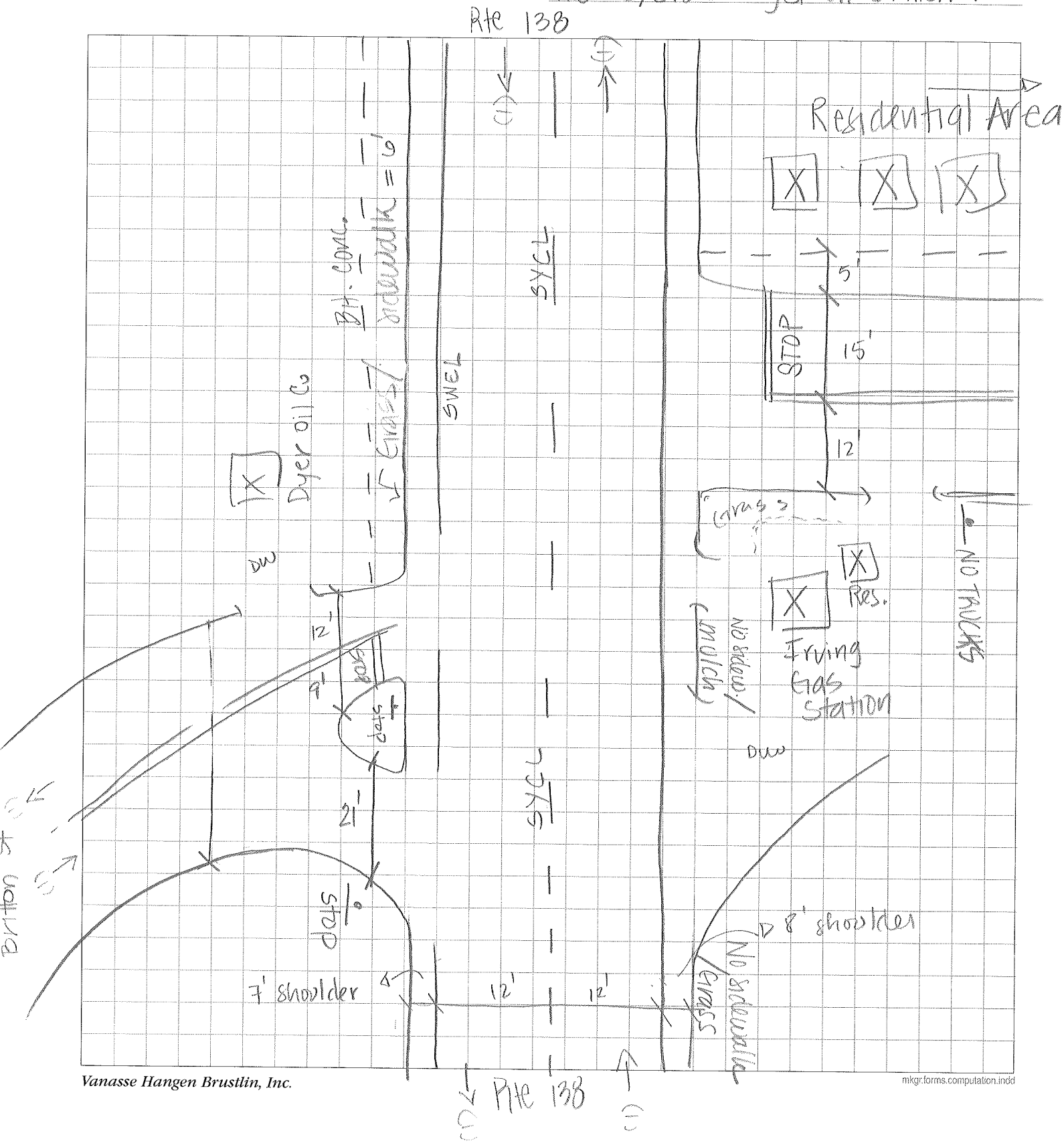


N

VHB *Computations* pictures: 47 - 52

☆ offset intersection

Project:	SCR	Project #	10111.00
Location:	Raynham	Sheet	1 of 1
Calculated by:	NL	Date:	9-17-08
Checked by:		Date:	
Title	Rte 138/Broadway St at Brittan St		

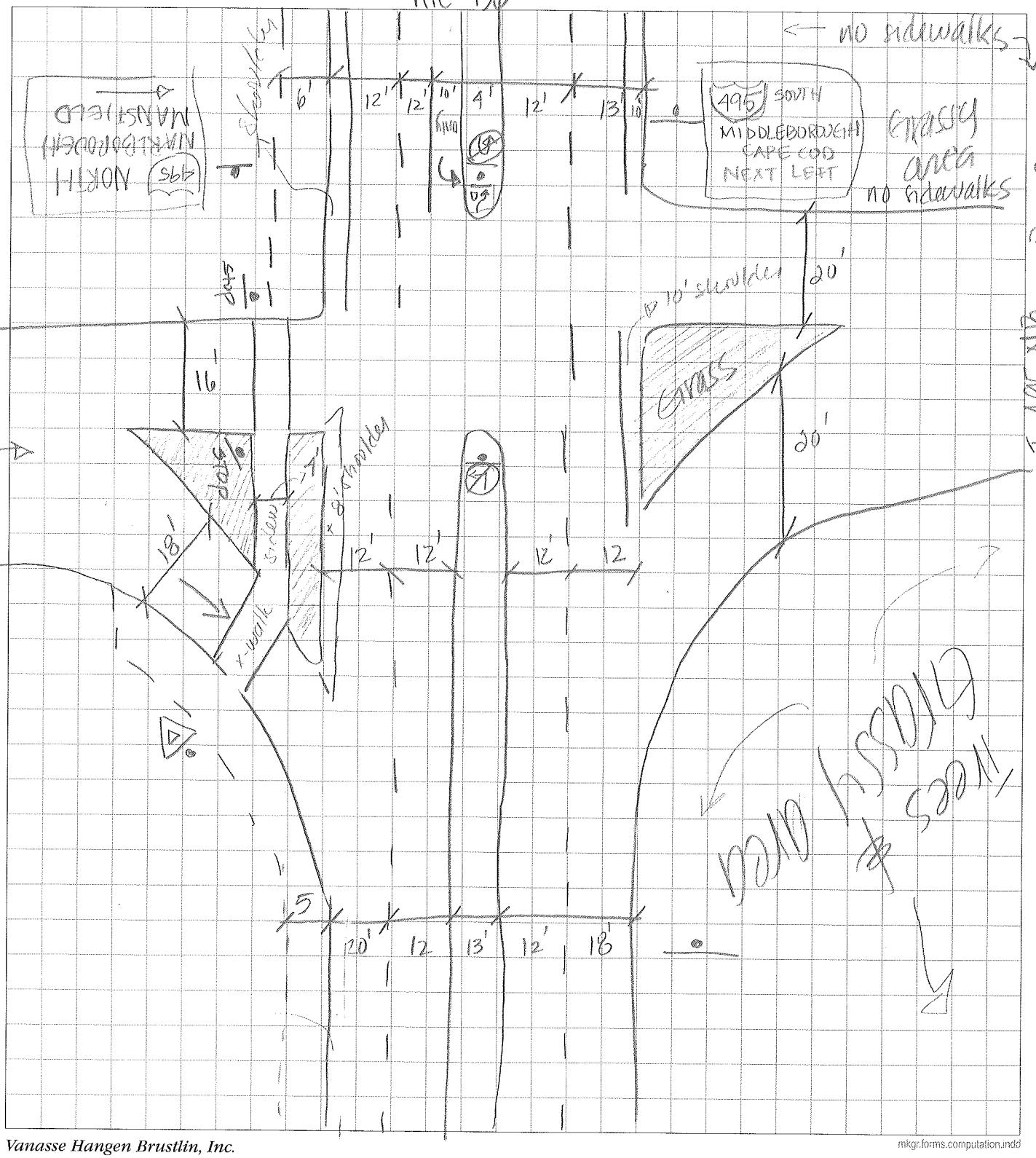


VHB *Computations* pictures 53 - 60

* unsignalized
* 4a = 495 off-Ramp (left)
* 4b = 495 on-ramp (right

Project:	SCR	Project #	10111.00
Location:	Raynham	Sheet	1 of 1
Calculated by:	NL	Date:	9-17-08
Checked by:		Date:	

Title Rte 138 at I-495 ON-OFF RAMPS (4a & 4b)

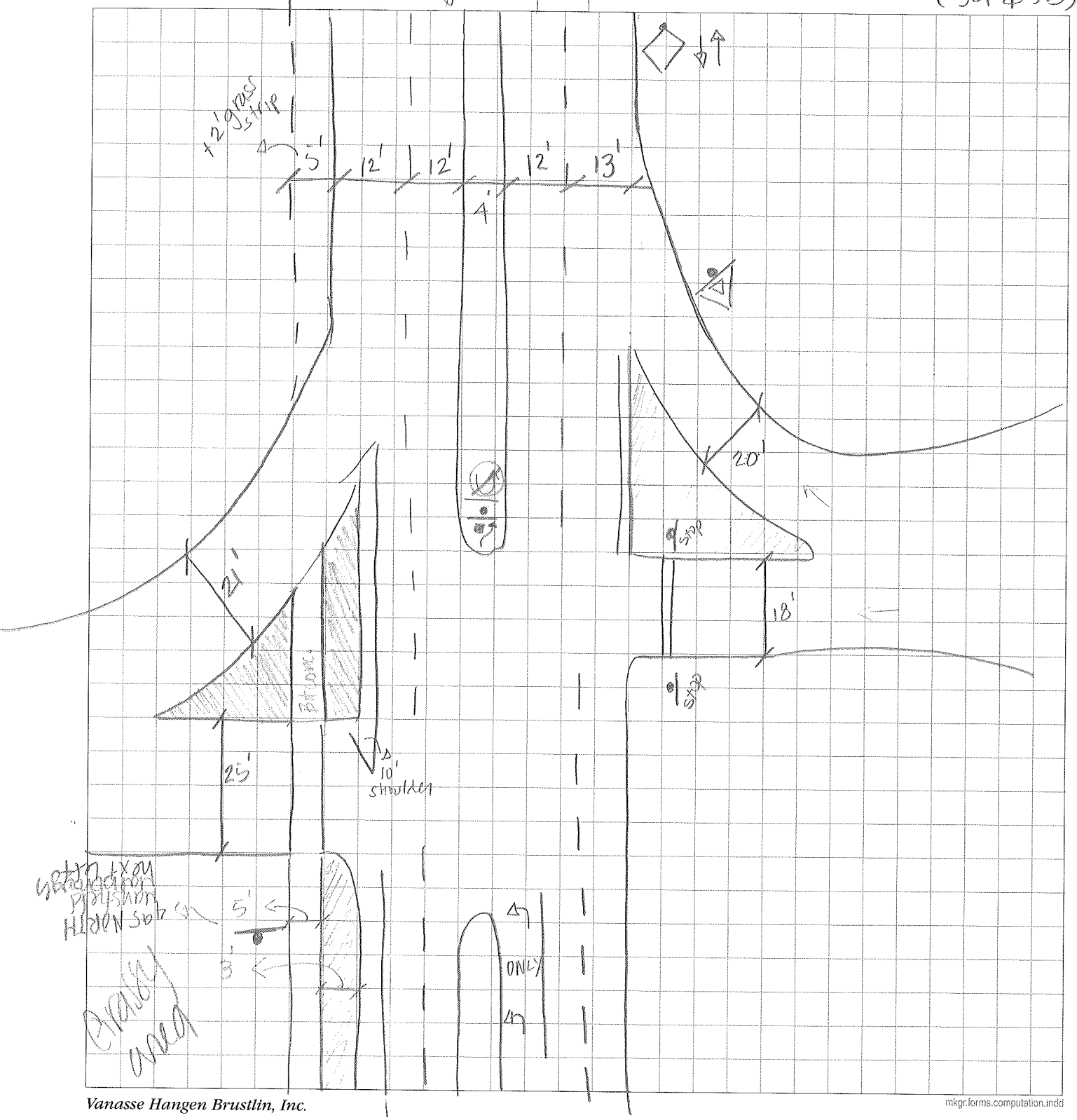


VHB **Computations** PICS: 61 - 69

N

*Unsign.

Project: SCR
Project # 10111.00
Location: Raynham
Sheet 1 of 1
Calculated by: NL
Date: 9-17-08
Checked by:
Date:
Title Rte 138 at I-495 SB ON/OFF RAMPS (5a & 5b)



VHB Computations

Project: SER
Location:
Calculated by: RNR
Checked by:
Title: Signal Timing & Phasing

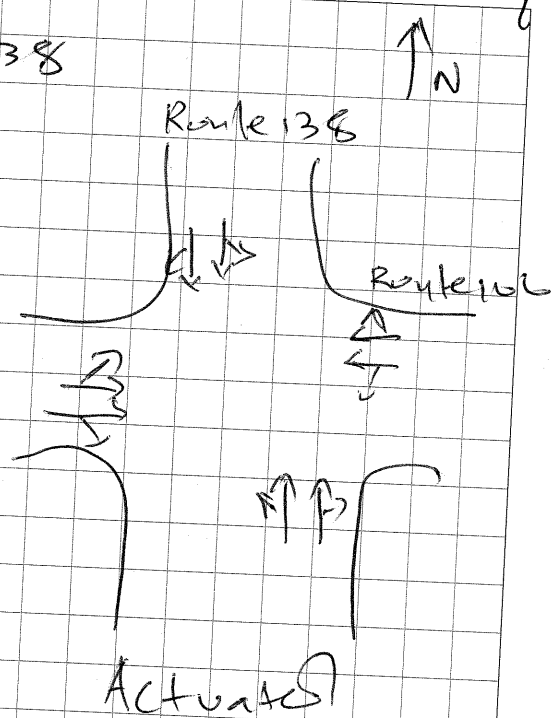
Project #: 10111.37
Sheet of
Date: 9/18/08
Date:

1-12 Raynham/Easton #1

Route 106 @ Route 138

$\phi 1$ Route 106

$\phi 2$ Route 138



$\phi 1$

G =	11	24	30
Y =	4	4	4
R =	1	1	1

$\phi 2$

G =	30	30	30
Y =	4	4	4
R =	1	1	1

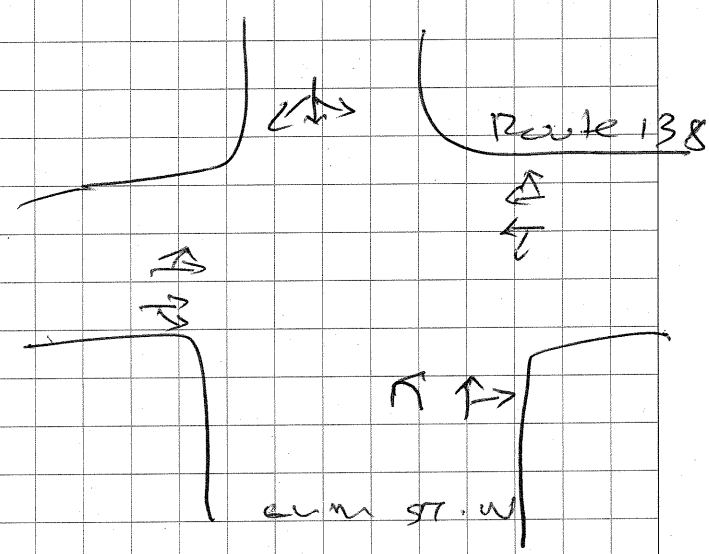
VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RWR | Date: 9/18/08
Checked by: | Date:
#3 Title Signal Timing & Phasing

20-20

Route 138 @ Elm St. West

→ N



φ1 Route 138

φ2 Elm St. WB LEAD

φ3 Elm St. BOTH

φ1

G = 25 44 18
Y = 4 4 4
R = 1 1 1

φ2

G = 8 11 12
Y = 3 3 4
R = 1 1 1

φ3

G = 20 11 12
Y = 4 4 4
R = 1 1 1

VHB *Computations*

HEAVY LEFTS DIFFICULT TO MAKE TURN – TOWN OF FILLAL (4 TWEN OPPT) INTERSECTION IN A MASS DURING EVENING PEAK

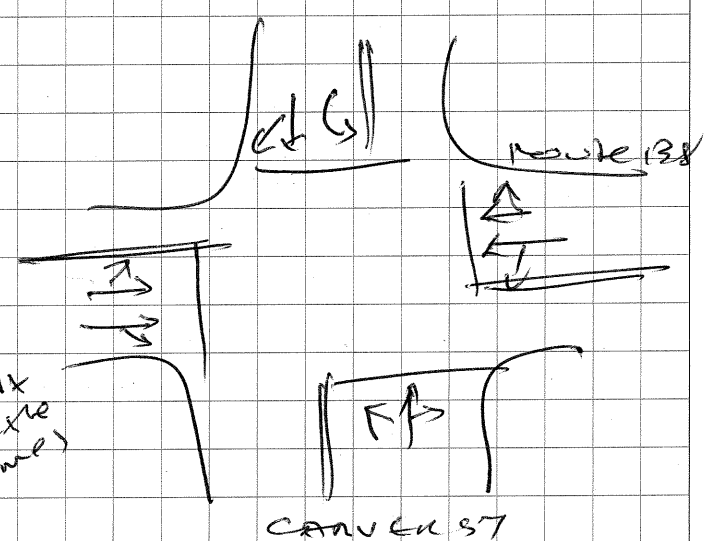
Signals

Project:	SCR	Project #	10111.31
Location:		Sheet	of
Calculated by:	RNR	Date:	9/18/08
Checked by:		Date:	
Title	Signal Timing & Phasing		

#6

31-41

Route 138 @ Canton St



φ1 Rte 138 SNB
φ2 Rte 138 Both
φ3 Canton St.

Phase 2 is not common path only during field visit the instructor times

φ1

G	= 6
Y	= 3
R	=

φ2

Rest on Green

G =	25	16	55	37
Y =	4	4	4	4
R =	1	1	1	1

φ3

G =	7	10	15	12
Y =	4	4	4	4
R =	1	1	1	1

RAYNHAM RTE. 138 AT ELM STREET				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1338	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT
BROADWAY (ROUTE 138) AT ELM STREET

IN THE TOWN OF

RAYNHAM
BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

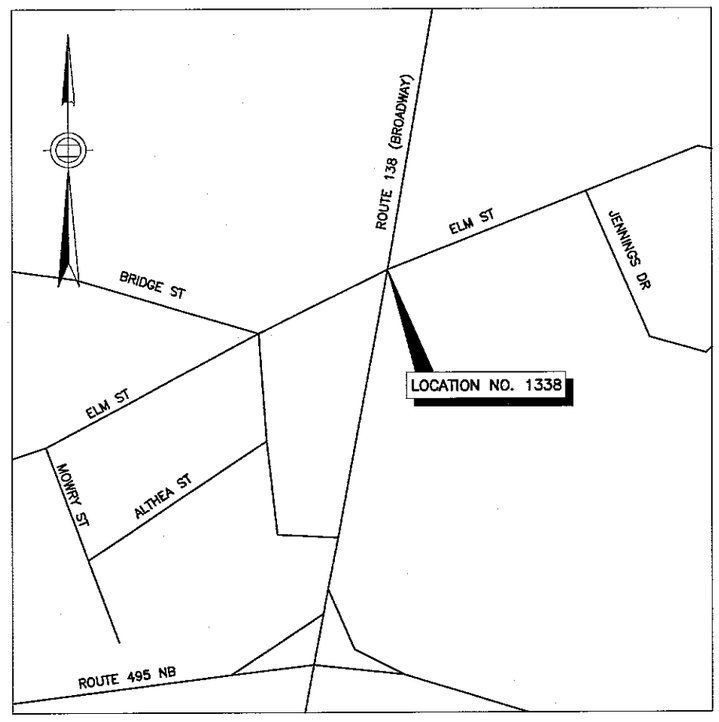
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued* or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR SCALE IN FEET
0 200 400 800

REVISION NO. 01
DATE: 12–12–01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 1338T0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

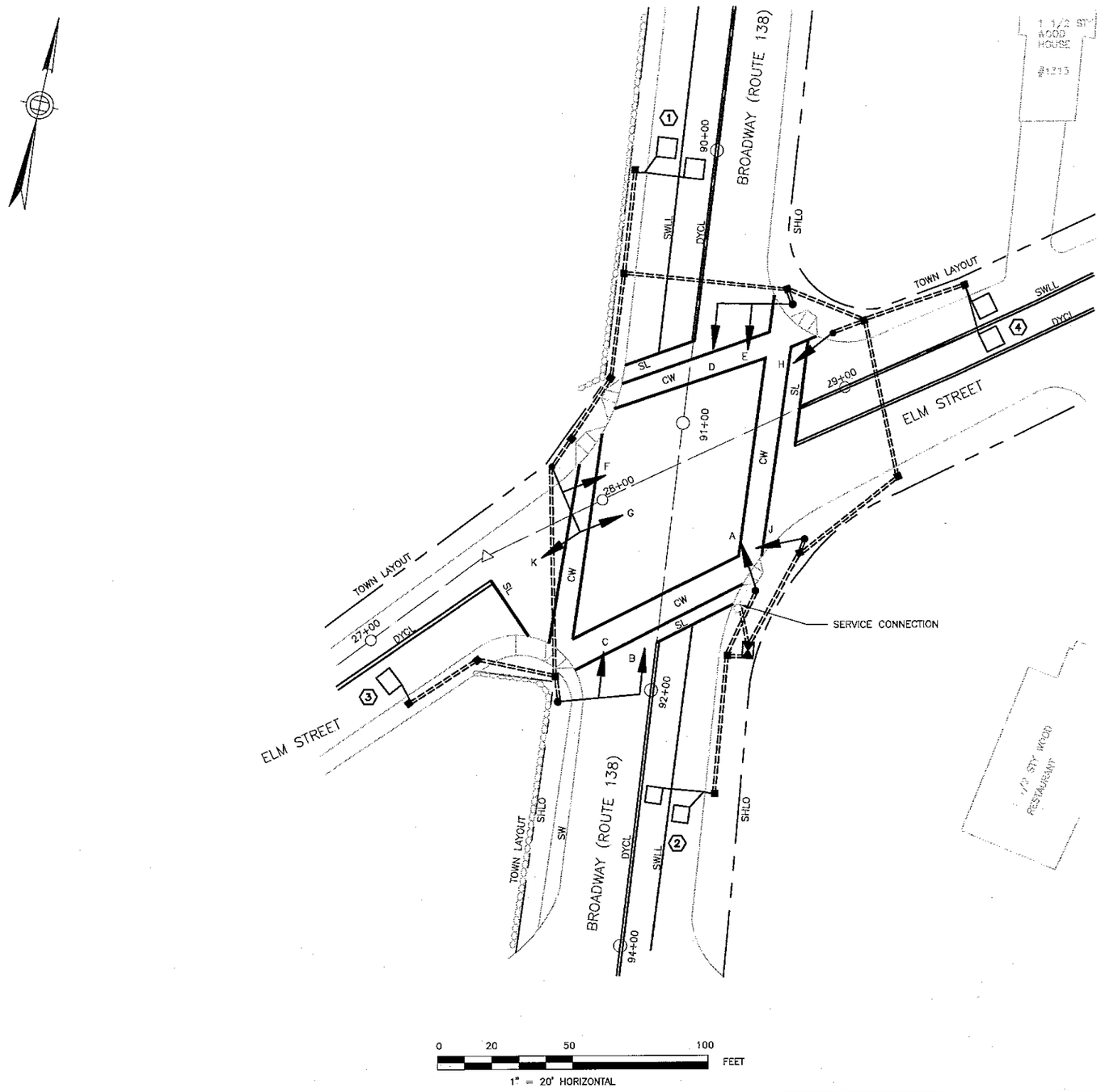
APPROVED BY:

STATE TRAFFIC ENGINEER Date

RAYNHAM
RTE. 138 AT ELM STREET

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1338	01	2	3

TRAFFIC SIGNAL PLAN



⊠	SIGNAL CONTROLLER
◄	VEHICULAR SIGNAL
◄	OPTICALLY PROGRAMMED VEHICULAR SIGNAL
—	FIRE PRE-EMPTION RECEIVER
*	FIRE PRE-EMPTION STROBE LIGHT
▭	PEDESTRIAN SIGNAL
●	PEDESTRIAN PUSH BUTTON
■	PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

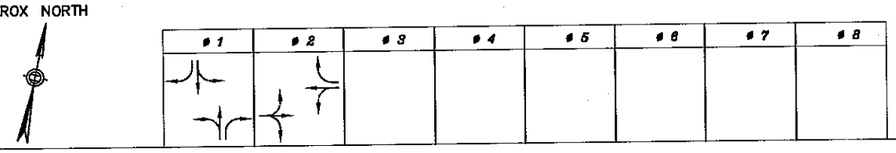
1338P0101.DWG

RAYNHAM
RTE. 138 AT ELM STREET

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1338	01	3	

TRAFFIC SIGNAL DATA

APPROX NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
BROADWAY (ROUTE 138)	NB	D,E	G	Y	R	R	R	R																			FY
BROADWAY (ROUTE 138)	SB	A,B,C	G	Y	R	R	R	R																			FY
ELM STREET	EB	K,H,J	R	R	R	G	Y	R																			FR
ELM STREET	WB	F,G	R	R	R	G	Y	R																			FR

TIMING IN SECONDS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MINIMUM GREEN (INITIAL)	9			9																				
PASSAGE TIME (VEHICLE)	4			4																				
MAXIMUM 1	35			20																				
MAXIMUM 2	35			20																				
YELLOW CLEARANCE		4			4																			
RED CLEARANCE			1			1																		
WALK (W)																								
PEDESTRIAN CLEARANCE																								
RECALL	EXT			OFF																				
MEMORY	LOCKING			LOCKING																				

FLASH OPER. FY / FY / FR / FR

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
3	10' SIGNAL POLE, BASE, & FDN.
1	25' MAST ARM ASSEMBLY, BASE, & FDN.
2	30' MAST ARM ASSEMBLY, BASE, & FDN.
8	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
1	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
7	ROADWAY LOOP DETECTOR
14	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø4, ø5, ø6, ø7 AND ø8 NOT USED.

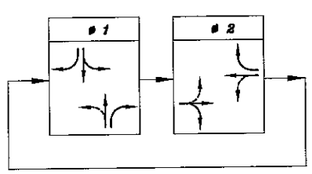
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

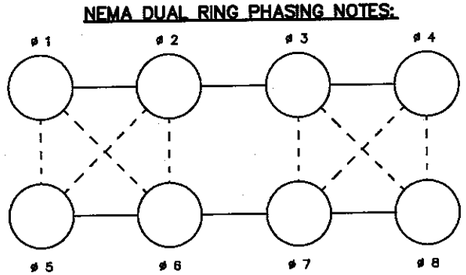
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:

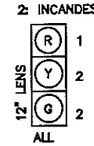


LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	2	6'X6'		ø1	ø1	PRESENCE		
2	2	6'X6'		ø1	ø1	PRESENCE		
3	1	6'X9'		ø2	ø2	PRESENCE		
4	2	6'X6'		ø2	ø2	PRESENCE		

SIGNAL IDENTIFICATION

1: LED 2: INCANDESCENT 3: FIBEROPTIC



CONTROLLER MAKE & MODEL: TCT LMD
UTILITY POLE No. TMLP #210
METER No. 57-888-265
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

1338D0101.DWG

RAYNHAM BROADWAY (RTE 138) AT CARVER ST				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	5-1339	01	1	3

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT
BROADWAY (ROUTE 138) AT CARVER STREET

IN THE TOWN OF

RAYNHAM

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

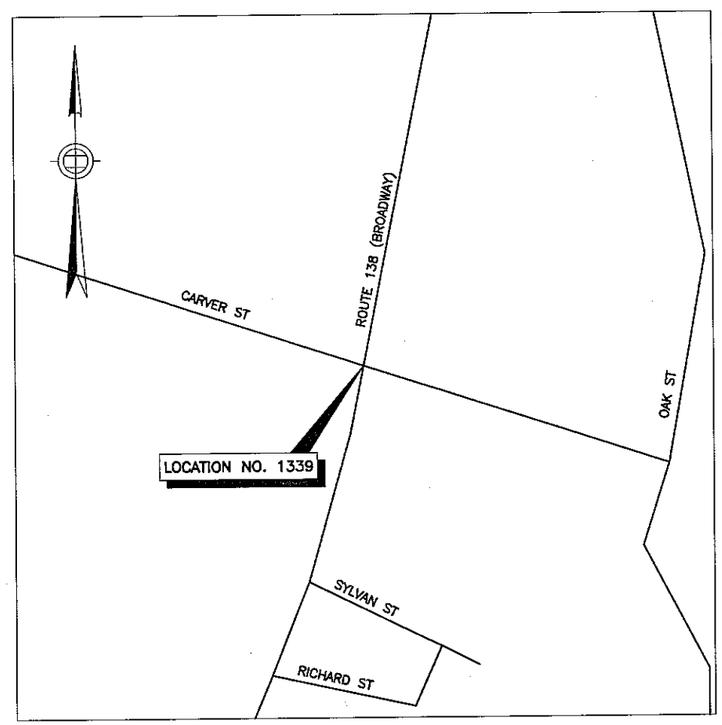
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued* or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I. STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II. OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50-60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR. SCALE IN FEET
0 200 400 800

REVISION NO 01
DATE: 12-12-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 1339T0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

APPROVED BY:

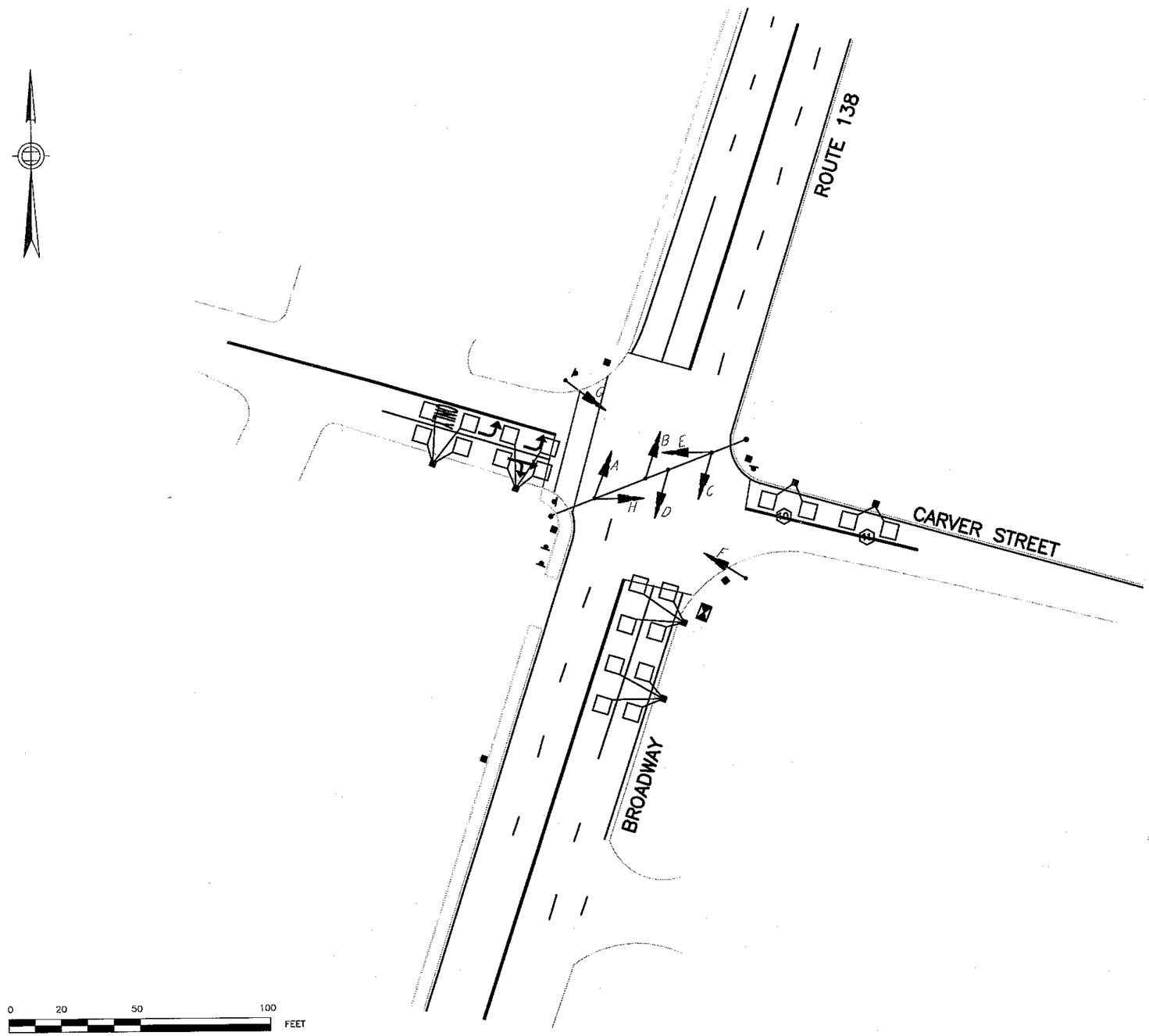
STATE TRAFFIC ENGINEER Date

RAYNHAM

BROADWAY (RTE 138) AT CARVER ST

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	5-1339	01	2	3

TRAFFIC SIGNAL PLAN



LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

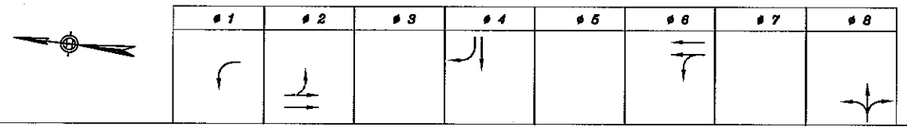
STATE TRAFFIC ENGINEER **Date**

1339P0101.DWG

RAYNHAM
BROADWAY (RTE 138) AT CARVER ST

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	5–1339	01	3	3

TRAFFIC SIGNAL DATA



SEQUENCE AND TIMING FOR FULLY–ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
BROADWAY (RTE. 138)	NB	C	R	R	R	R	R	R				R	R	R				G	Y	R				R	R	R	FY
BROADWAY (RTE. 138)	NB	D	G/GL	G/YL	R	R	R	R				R	R	R				G	Y	R				R	R	R	FY
BROADWAY (RTE. 138)	SB	A,B	R	R	R	G	Y	R				R	R	R				R	R	R				R	R	R	FY
CARVER STREET	WB	G,H	R	R	R	R	R	R				G	Y	R				R	R	R				R	R	R	FR
CARVER STREET	EB	E,F	R	R	R	R	R	R				R	R	R				R	R	R				G	Y	R	FR
TIMING IN SECONDS																											
MINIMUM GREEN (INITIAL)			5			5						5						5						5			EMERGENCY ONLY
PASSAGE TIME (VEHICLE)			2			2						2						2						2			
MAXIMUM 1			10			60						20						60						20			
MAXIMUM 2			10			40						15						40						15			
YELLOW CLEARANCE				4.3			4.3						4						4.3						4		
RED CLEARANCE					1.7			1.7						1.2						1.7						1.2	
WALK (W)																											
PEDESTRIAN CLEARANCE																											
RECALL			OFF			MIN						OFF						MIN						OFF			
MEMORY			NON–LOCKING			NON–LOCKING						NON–LOCKING						NON–LOCKING						NON–LOCKING			

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION
1	SPANWIRE ASSEMBLY BASE & FDN. (85')
2	10' SIGNAL POLE, BASE, & FDN.
3	3 SECTION SIGNAL HOUSING (12" LENS)
2	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
1	5 SECTION SIGNAL HOUSING (12" LENS)
6	LOOP DETECTOR AMPLIFIER
20	ROADWAY LOOP DETECTOR
10	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø3, ø5, ø7 NOT USED.

NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

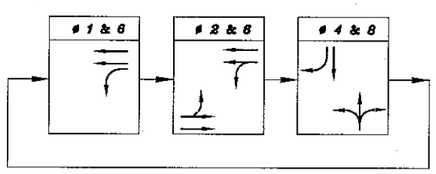
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

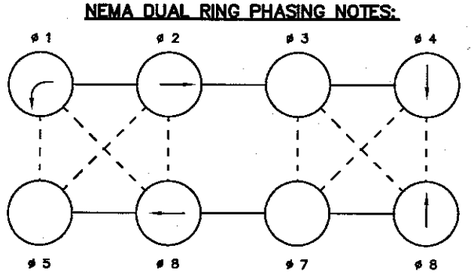
FIELD NOTES:

1. LOOP DETECTORS NOT VISIBLE DURING THE FIELD INSPECTION.

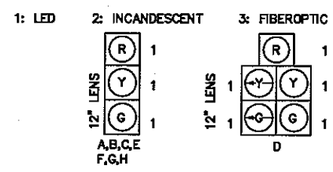
PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:



SIGNAL IDENTIFICATION



LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1				ø6	ø6	PRESENCE		
2				ø6	ø6	PRESENCE		
3				ø6	ø6	PRESENCE		
4				ø6	ø6	PRESENCE		
5				ø2	ø2	PRESENCE		
6	SEE FIELD NOTES			ø2	ø2	PRESENCE		
7				ø8	ø8	PRESENCE		
8				ø8	ø8	PRESENCE		
9				ø8	ø8	PRESENCE		
10				ø4	ø4	PRESENCE		
11				ø4	ø4	PRESENCE		
12				ø1	ø1	PRESENCE		

CONTROLLER MAKE & MODEL: PEEK 3000E
UTILITY POLE No. TMLP #179
METER No. 79–031–110
EMERGENCY PRE–EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

1339D0101.DWG

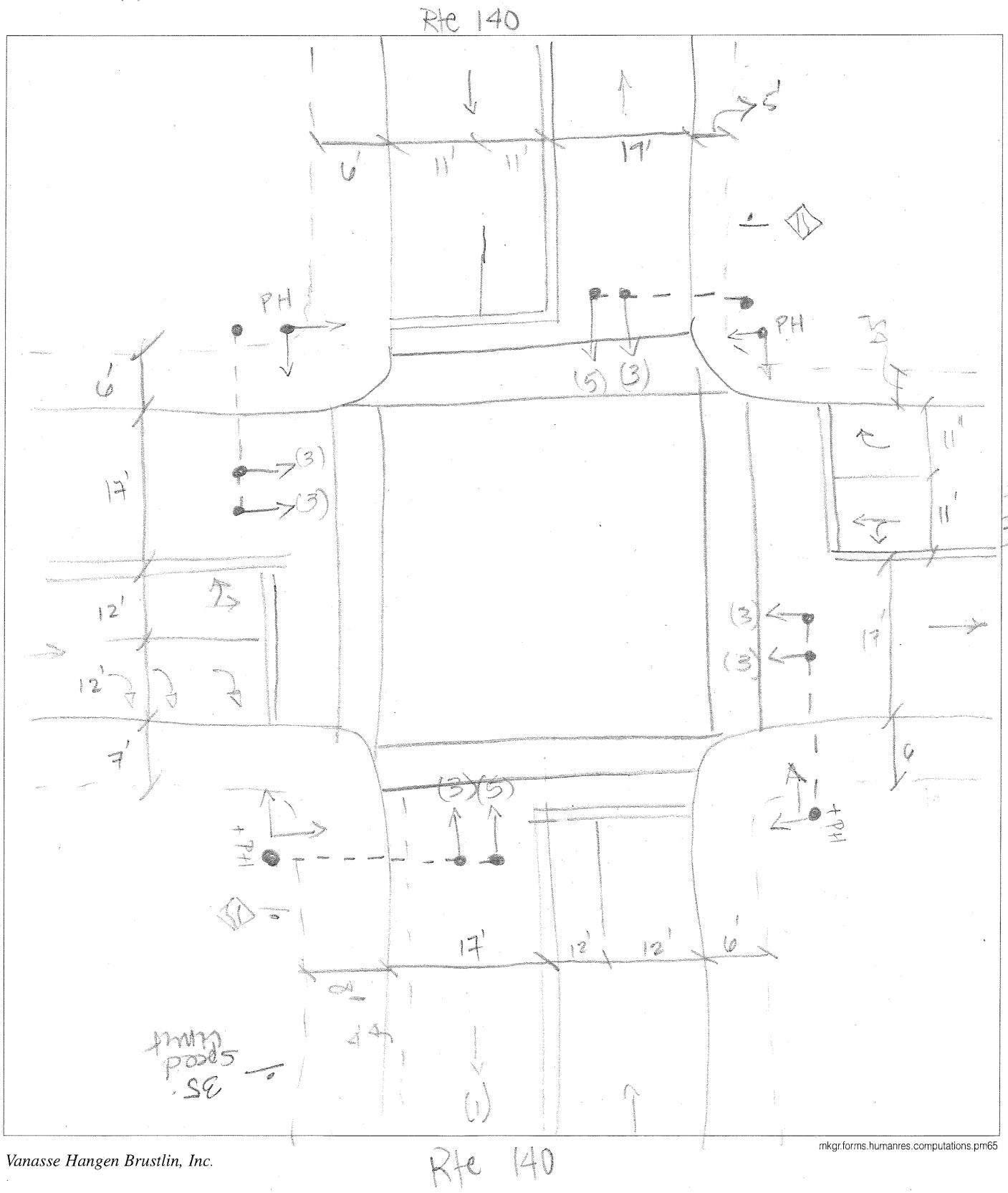
VHB

Computations

Project: SCR
Location: Taunton
Calculated by: NL
Checked by:
Title Hart St @ Rte 140

Project # 10111.31
Sheet of
Date: 9/11/08
Date:

N

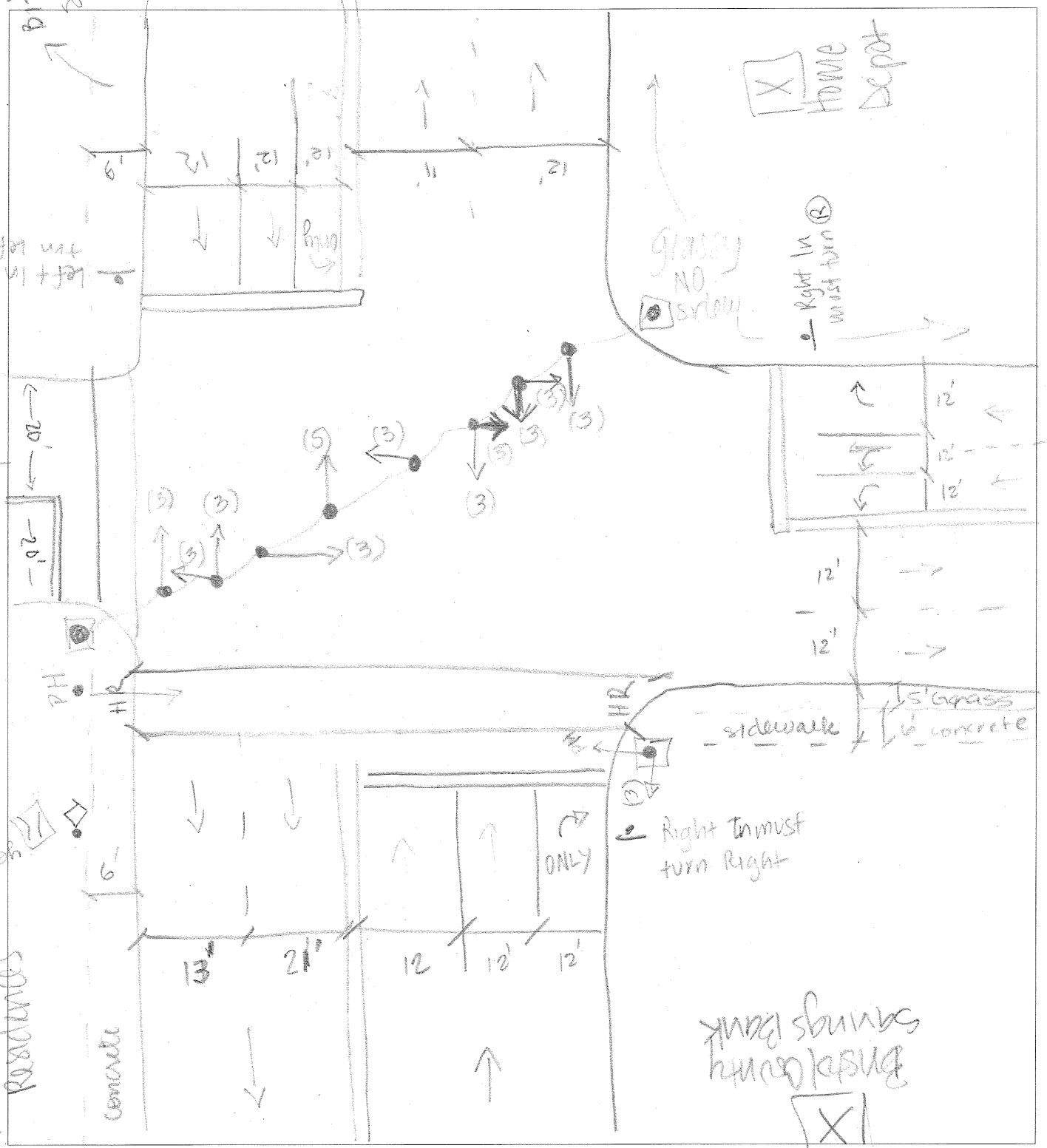


VHB

Computations

Project: SCR
Location: Taunton
Calculated by: NL
Checked by:
Title Taunton Depot @ Rte 140

Project # 10111 31
Sheet 1 of
Date: 9/11/08
Date:



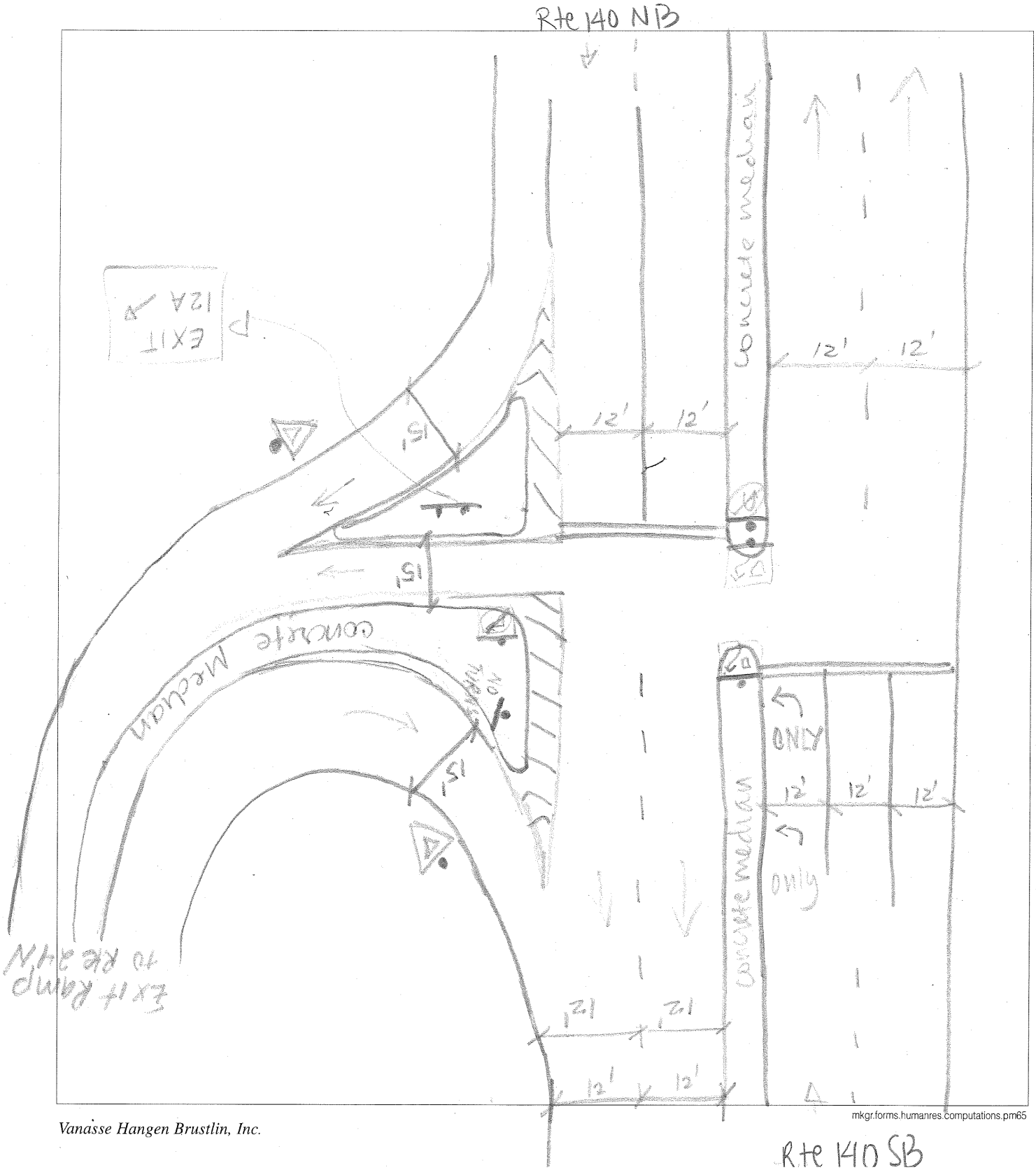
VHB *Computations*

*signalized

Project: SCR
Location: Taunton, MA
Calculated by:
Checked by:

Project # 10111.31
Sheet 1 of
Date: 9/11/08
Date:

#2 Title Rte 140 @ Exit 12A NORTH RAMP

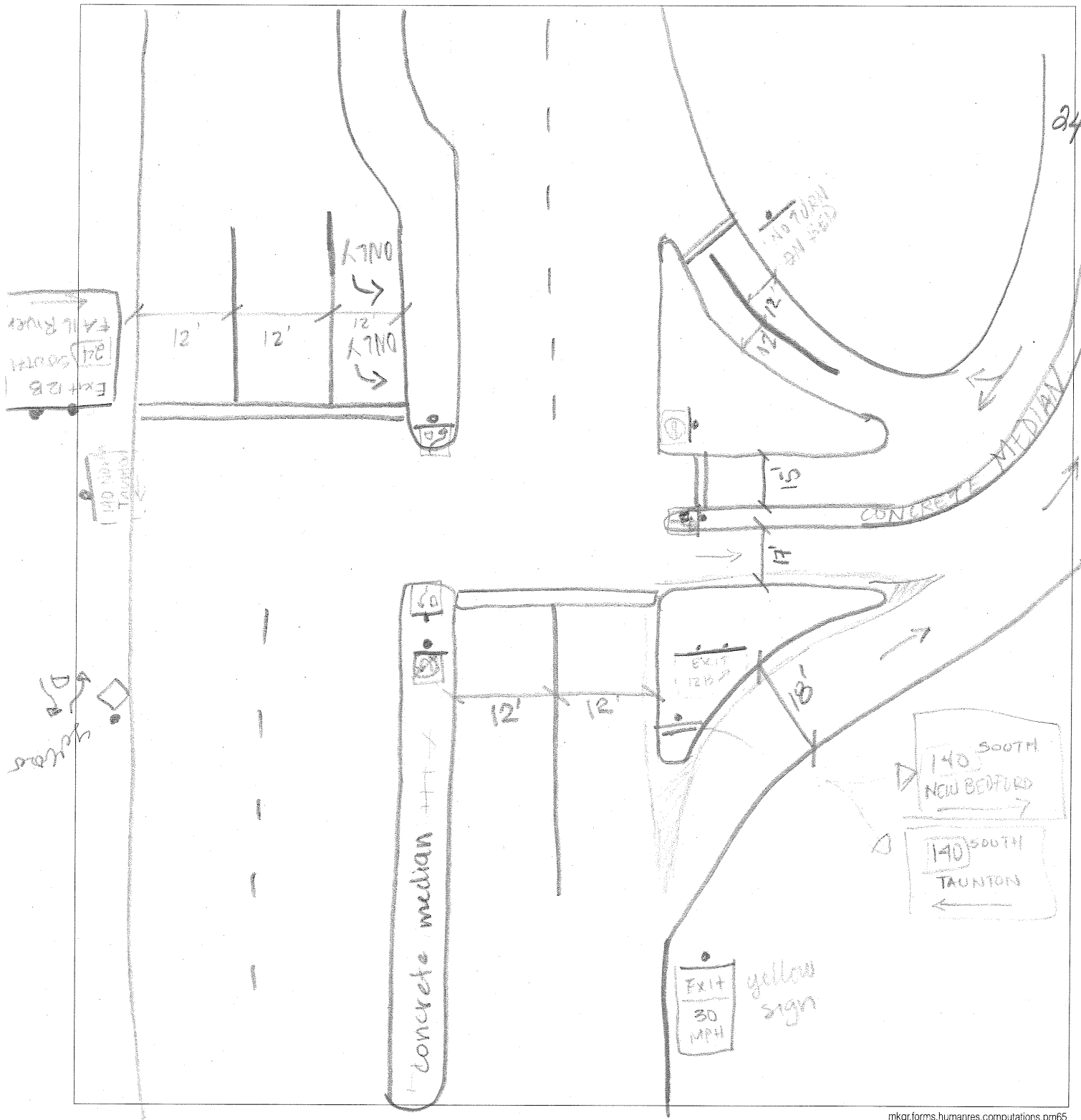


VHB

Computations

Project: SCR
Project # 10111.31
Location: Taunton, MA
Sheet of
Calculated by:
Date:
Checked by:
Date:
Title Rte 140 @ Exit 12B Route 24 South

#3



Rte. 140

VHB

Computations

Project: ~~County St~~ SCR

Project # 10111.31

Location: Taunton

Sheet of

Calculated by:

Date: 9/11/08

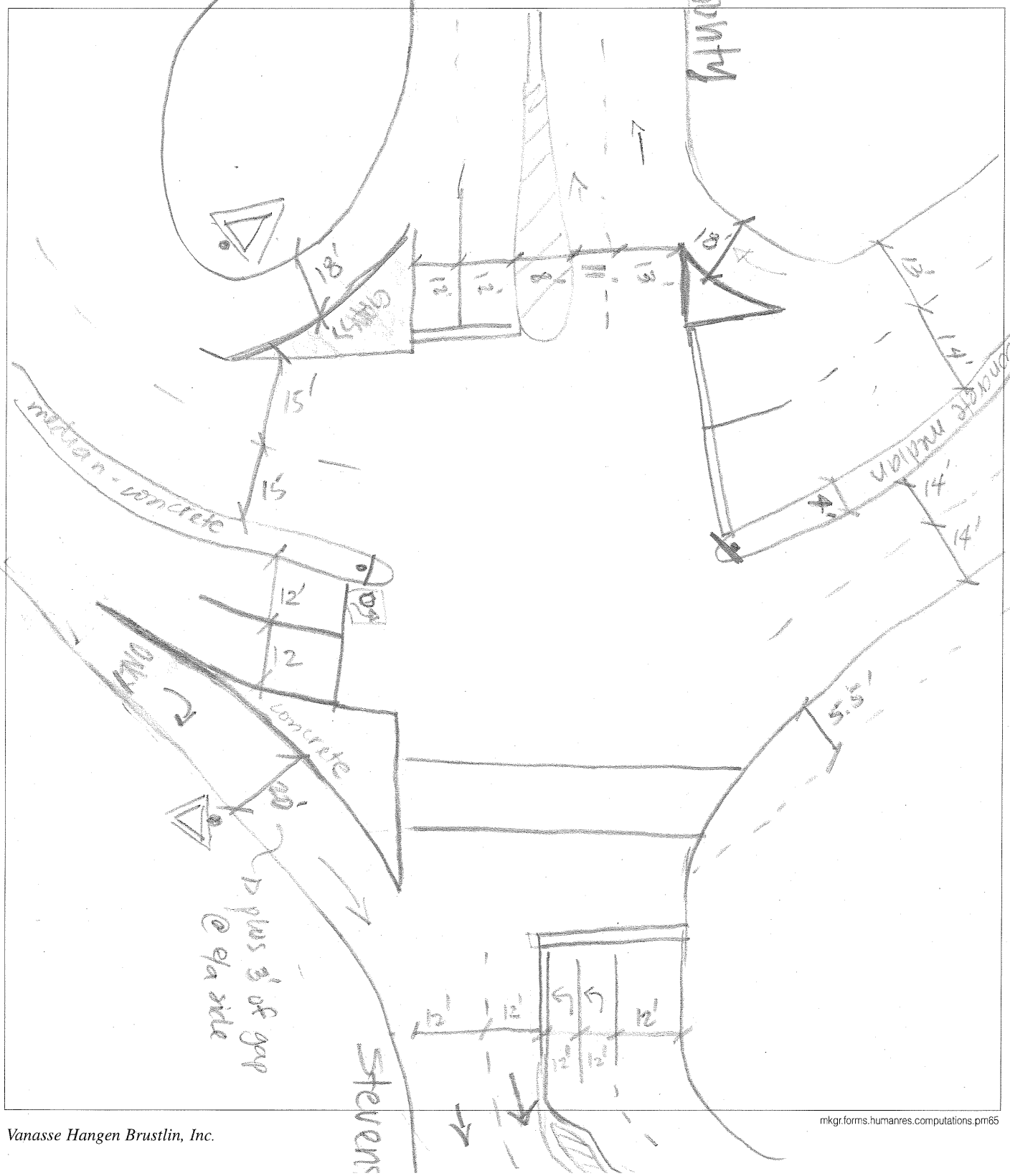
Checked by:

Date:

Title: Stevens St @ Rte 140 NB Off/ON Ramps

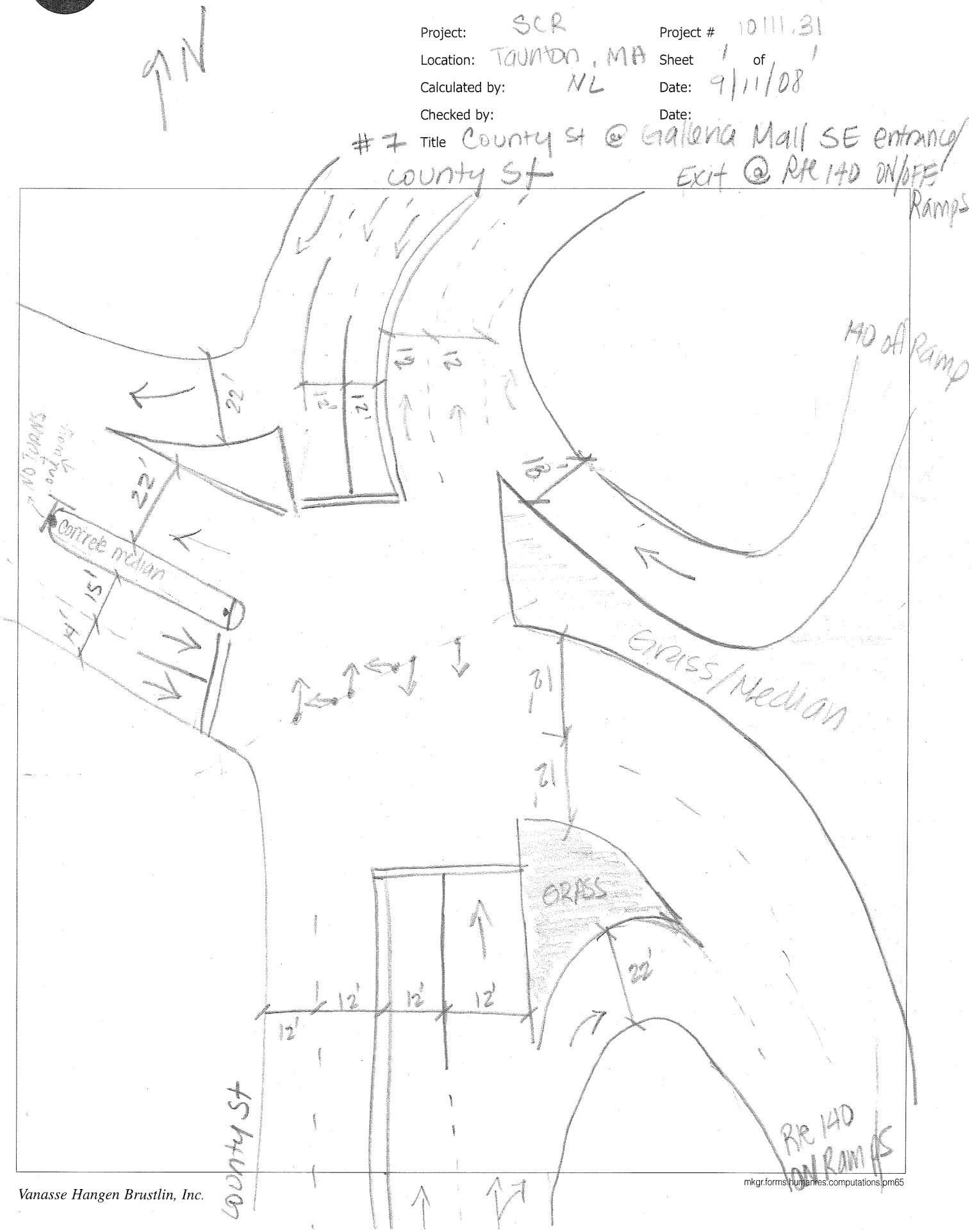
#6

#6 signalized



Computations

Project: SCR
Project # 10111.31
Location: Taunton, MA
Sheet 1 of 1
Calculated by: NL
Date: 9/11/08
Checked by:
Date:
Title #7 County St @ Galleria Mall SE entrance/ Exit @ RR 140 ON/OFF Ramps



VHB Computations

Project: SCR | Project # 10111-31
Location: | Sheet of
Calculated by: RNR | Date: 9/11/08
Checked by: | Date:
Title Signal Timing & Phasing

Route 140 @ Hart Street

Five section on Route 140 NB & SB

$\phi 1$

G = 46; 34 36
Y = 4 4 4
R = 1 1 1

$\phi 1A$ $\phi 1B$

$\phi 2$

PED = 24 sec

$\phi 3$

G = 19 19
Y = 4 4
R = 1 1

$\phi 1_A$ or $\phi 1_B$ is seconds.

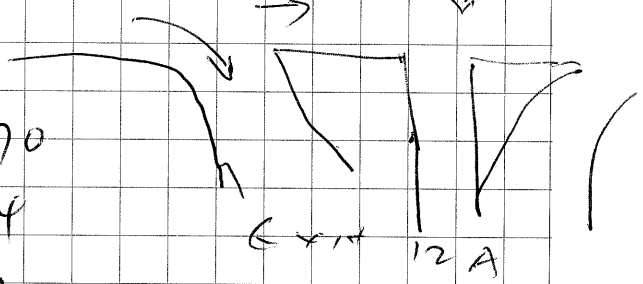
VHB Computations

Project: SCR
Project # 10111.31
Location:
Sheet of
Calculated by: RNR
Date: 9/11/08
Checked by:
Date:
Title Signal Timing & Phasing

Route 140 @ Exit 12A to Route 24 NB

N

Route 140



$\phi 1$ G = 17 10 17 18
Y = 4 4 4 4
R = 1 1 1 1

$\phi 2$ G = 69 65 85 70
Y = 4 4 4 4
R = 1 1 1 1

VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet ___ of ___
Calculated by: RNR | Date: 9/11/08
Checked by: | Date:
#3 Title Signal Timing & Phasing

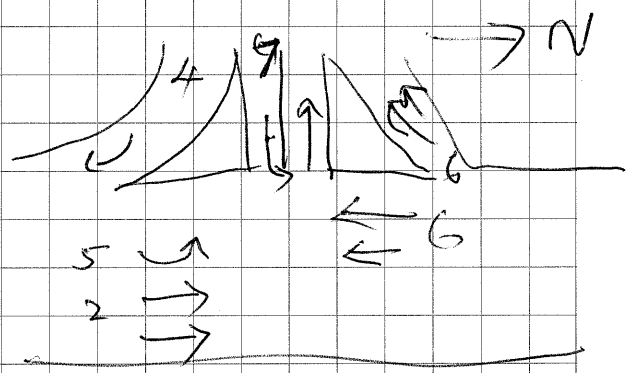
Route 140 @ Exit 12B to Route 24 SB

0/1

← G G = 35, 27
← Y = 4 4
R = 4 1

2 →
→

ϕ_2



5
2 →
55 (2W) →

G = 10 12 20
Y = 4 4 4
R = 1 1 1

ϕ_3

4

G = 13, 23 42 40
Y = 4 4 4 4
R = 1 1 1 1

VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/11/08
Checked by: | Date:
Title #5 Signal Timing & Phasing

Rte 140 @ Taunton Depot Drive

$\phi 1$

G = 15 16 12
Y = 4 4 4
R = 1 1 1

$\phi 2$

G = 31 40 34
Y = 4 4 4
R = 1 1 1

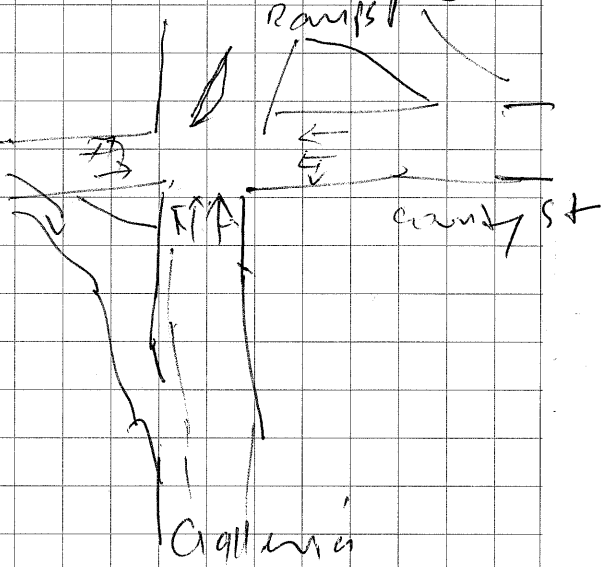
#3 Ped 25 7
upon push button activation.

G = 8 17
Y = 4 4
R = 1 1

VHB *Computations*

Project: SCR | Project # 10111.51
Location: | Sheet of
Calculated by: RNR | Date: 9/11/08
Checked by: | Date:
#X Title Signal Timing & Phasing

County St / Gallerie Mall / Rte 140 SB Ramps



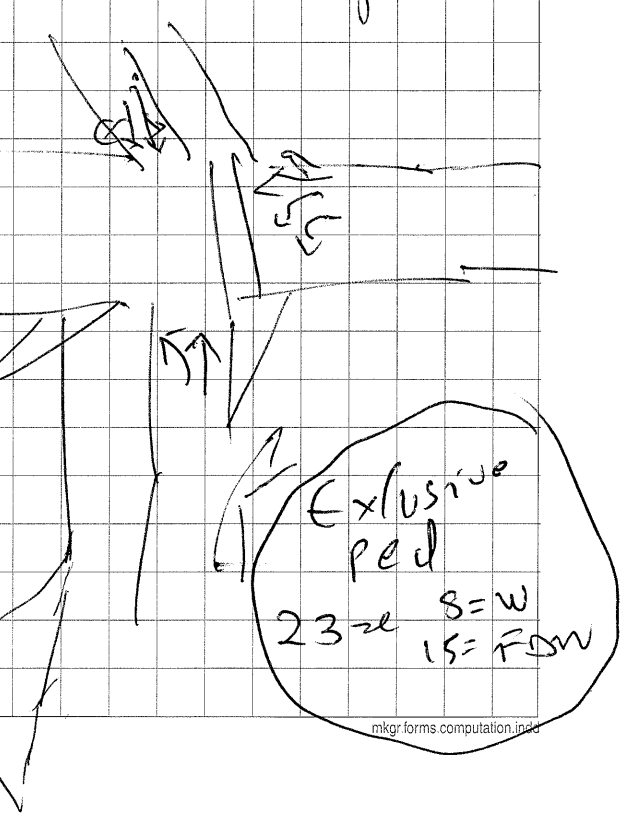
$\phi 1$

G: 9 20 7 29
Y: 4 4 4 4
R: 1 1 1 1

ϕ_2

G: 10 9 13 8
Y: 4 4 4 4
R: 1 1 1 1

#6 Stevens St / Gallerie Mall / Rte 140 NB Ramps



ϕ_1 G: 12 9 8
Y: 4 4 4
R: 1 1 1

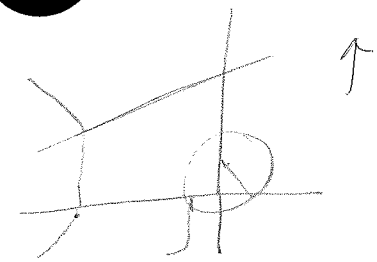
ϕ_2 G: 29 18 120 58
Y: 4 4 4 4
R: 1 1 1 1

ϕ_3 G: 8 9 18
Y: 4 4 4
R: 1 1 1

Exclusive ped
23 sec S=W
15 = FDW

VHB

Computations



Project:

Location:

Calculated by: TV

Checked by:

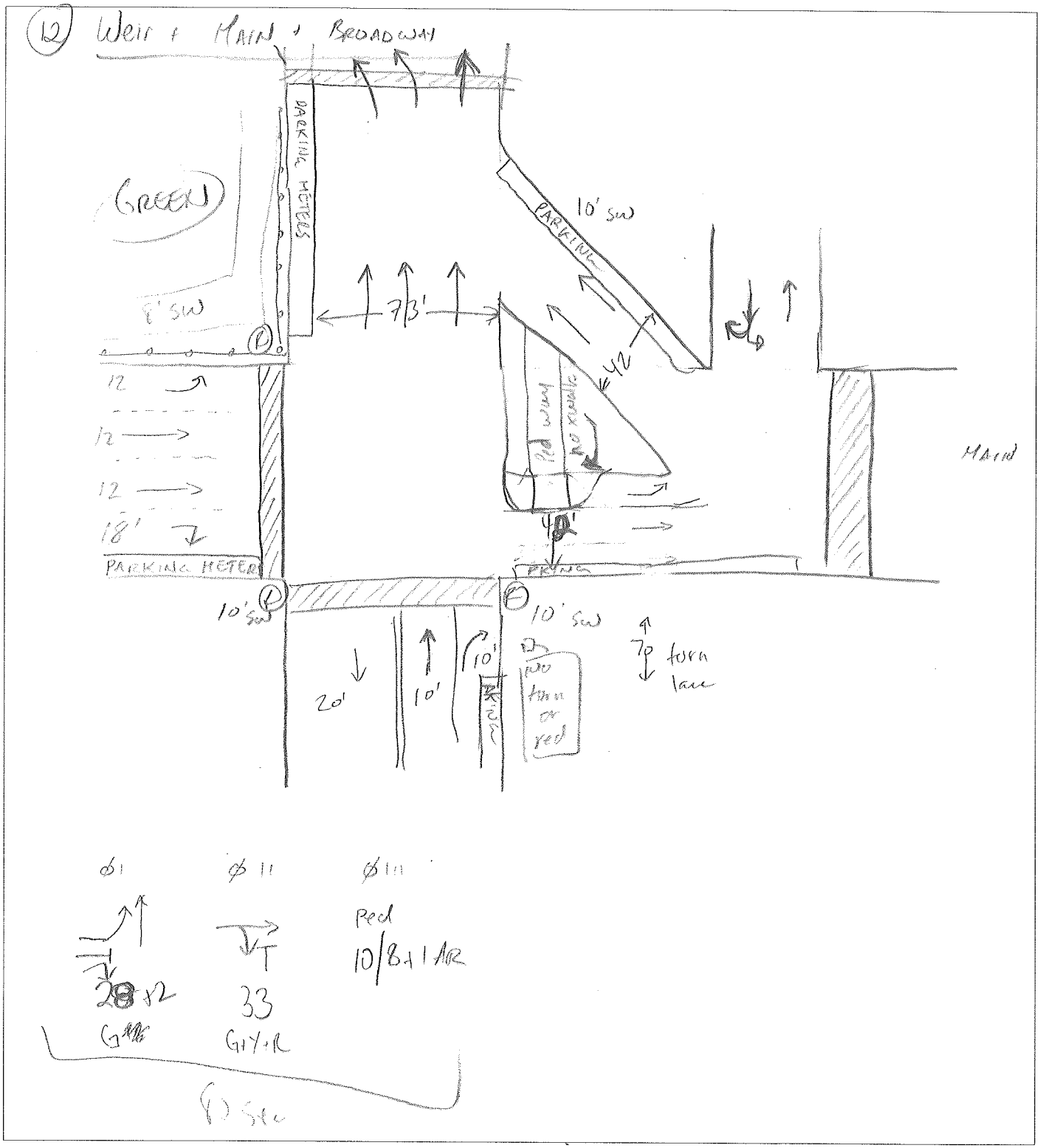
Title

Project # 71914.06

Sheet of

Date: July 2006

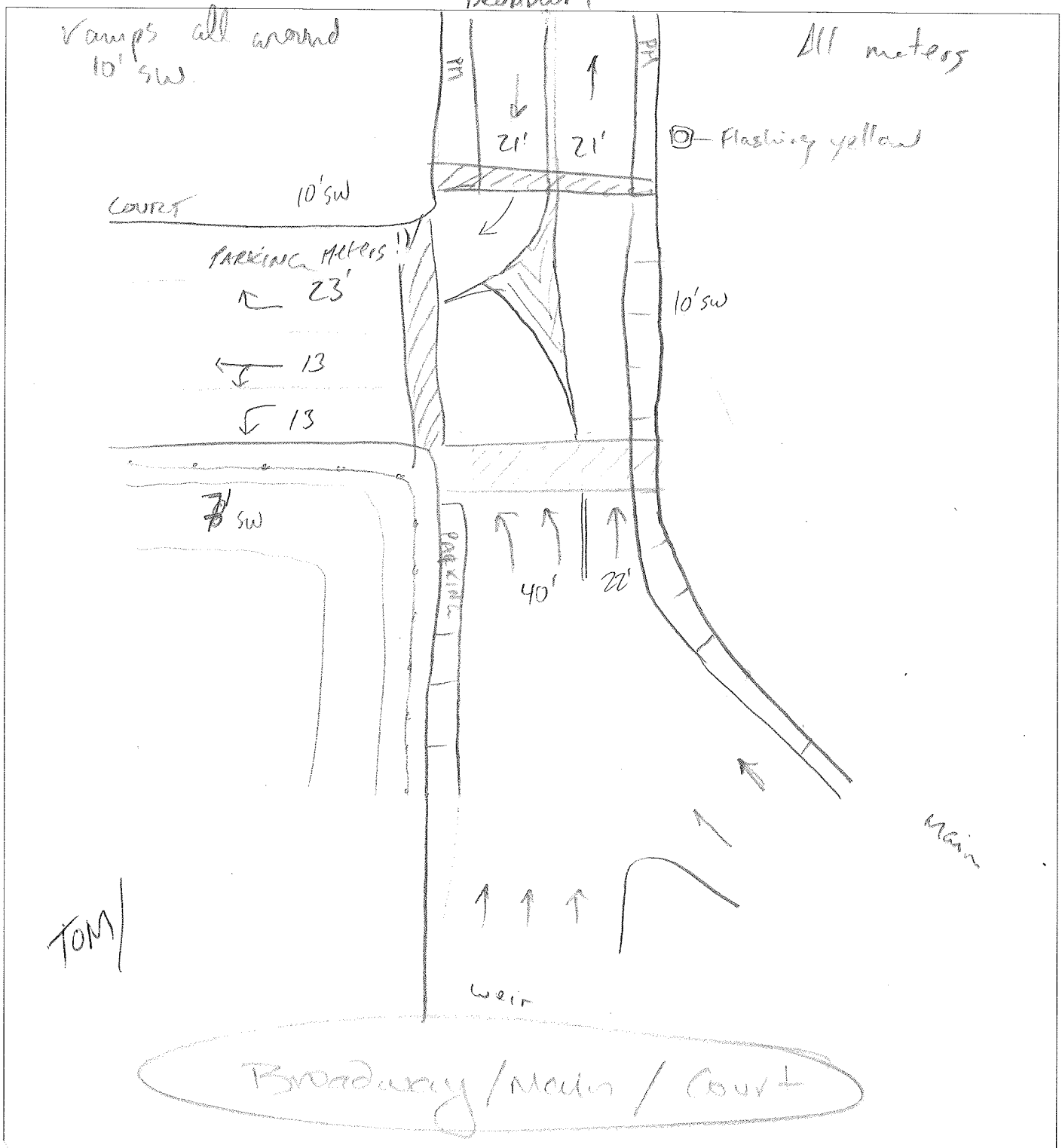
Date:



3

Computations

Project:		Project #	7-914-02
Location:		Sheet	of
Calculated by:	TV	Date:	July 2006
Checked by:		Date:	
Title			

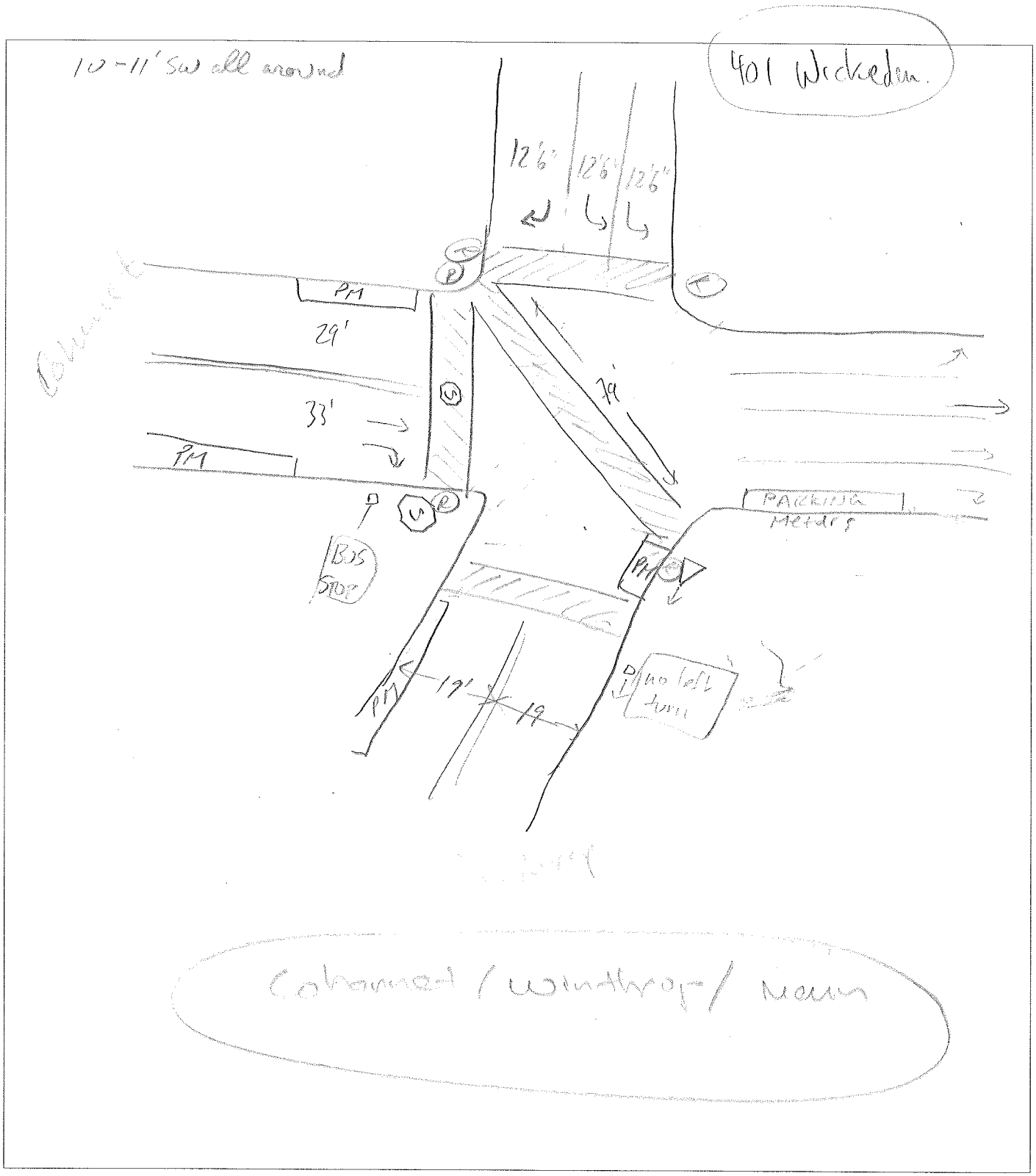


A

Computations

Project:
Location:
Calculated by: TV
Checked by:
Title

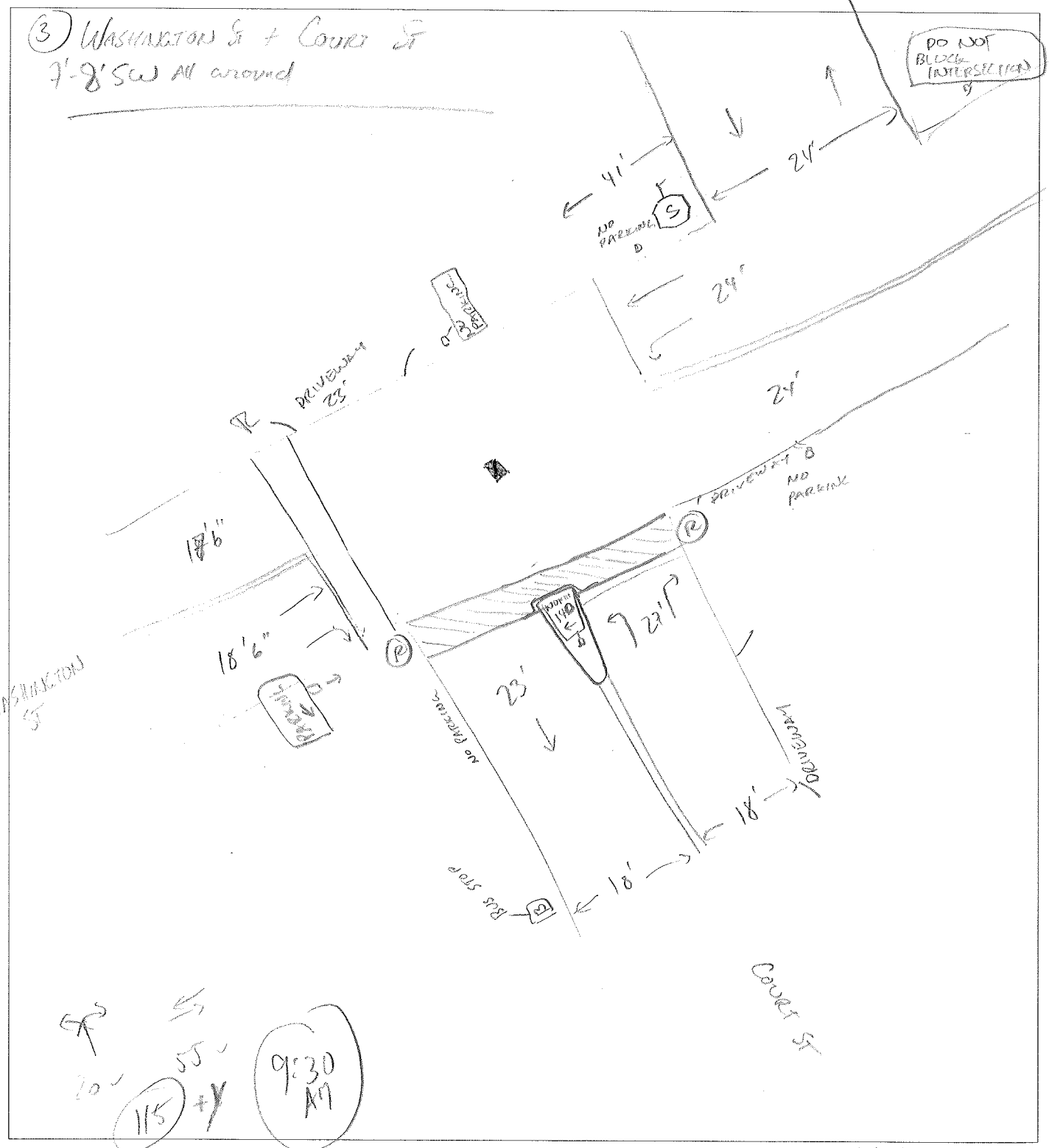
Project # 91914.02
Sheet of
Date: July 2006
Date:



5

Computations

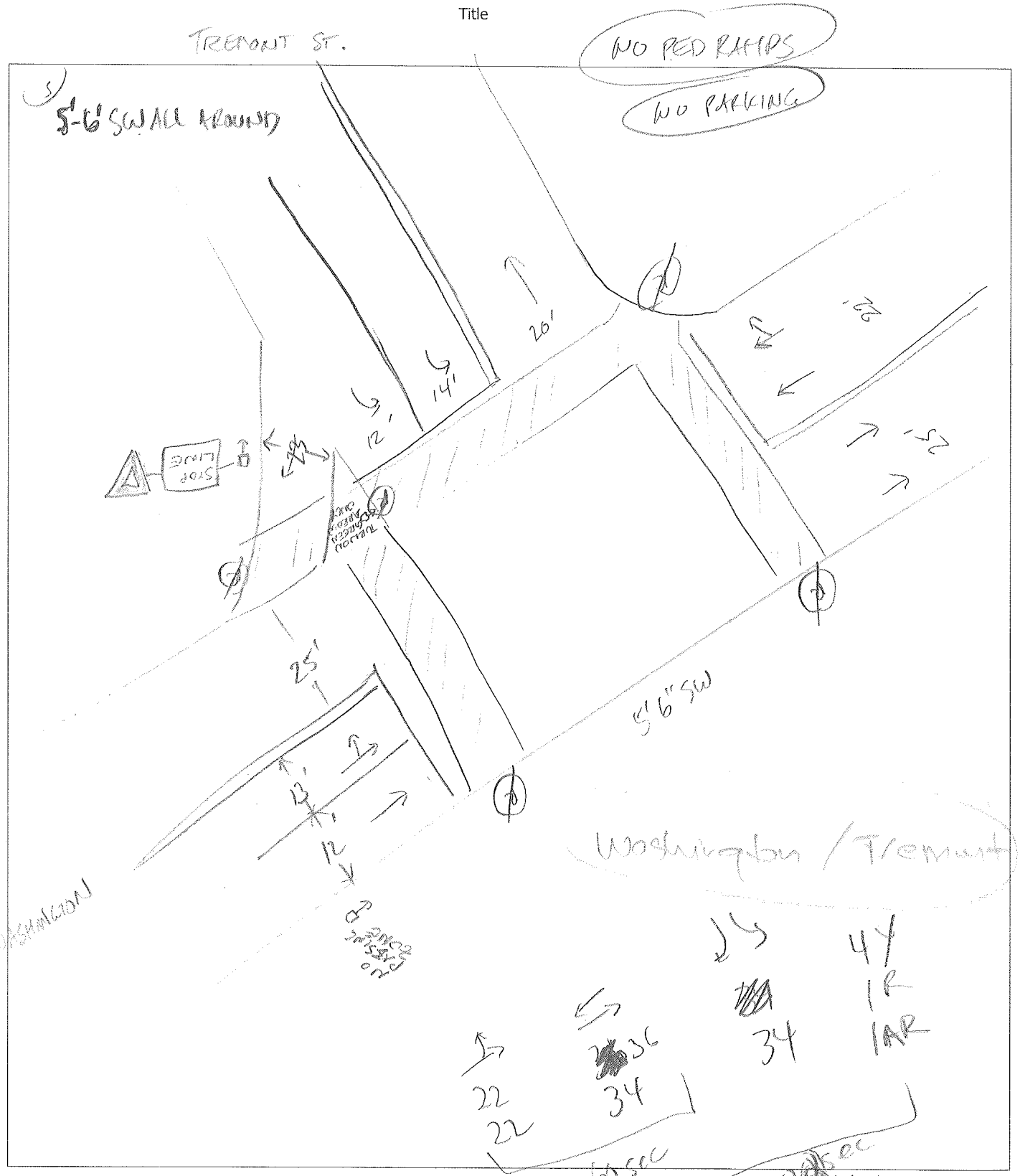
Project:		Project #	719-[illegible]
Location:		Sheet	of
Calculated by:	TV	Date:	July 2006
Checked by:		Date:	
Title			



4

Computations

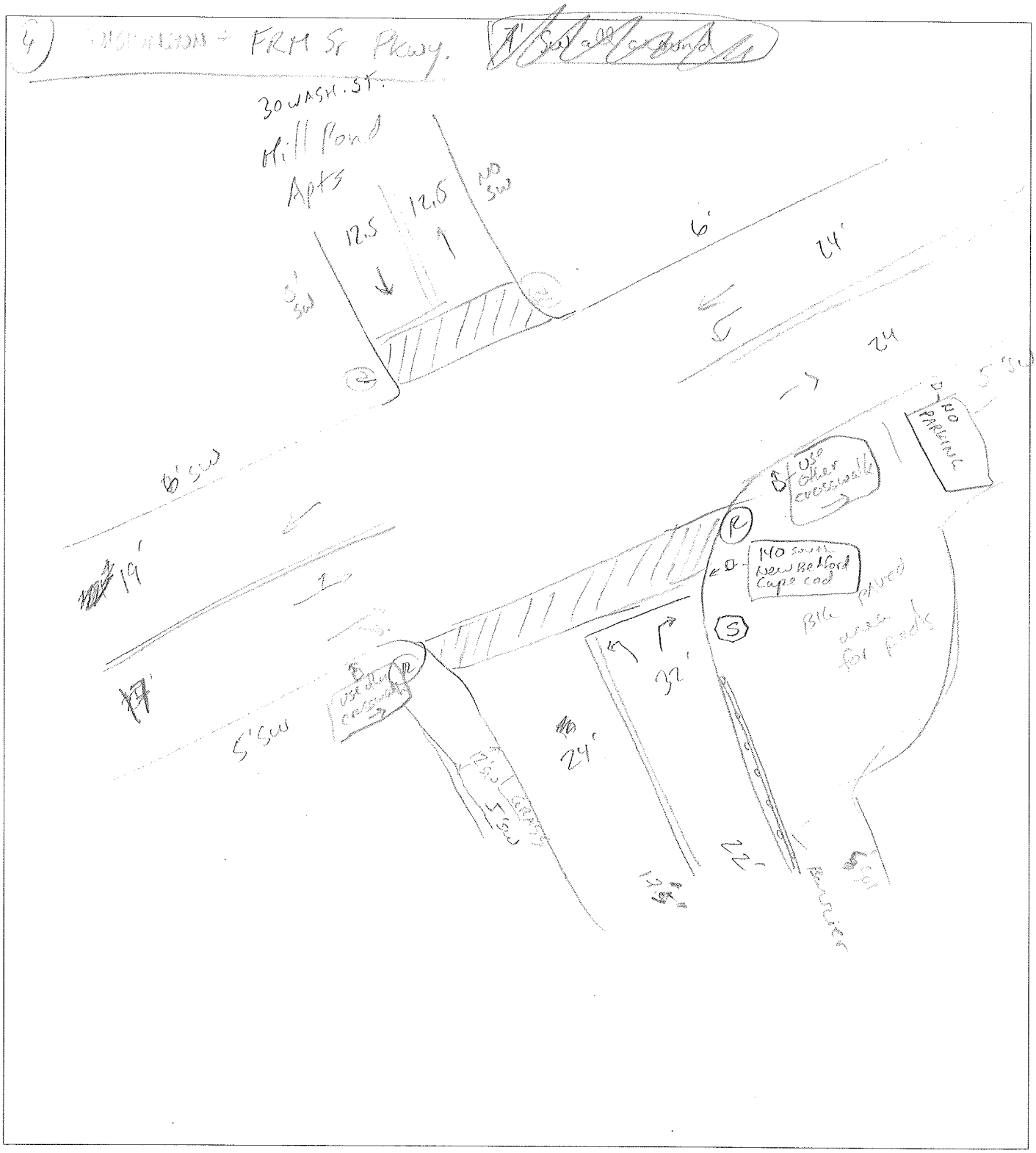
Project:		Project #	71944.02
Location:		Sheet	of
Calculated by:	TV	Date:	July 2006
Checked by:		Date:	
Title			



8

Computations

Project:		Project #	[illegible]
Location:		Sheet	of
Calculated by:	TN	Date:	July 2006
Checked by:		Date:	
Title			



VHB *Computations* pictures I : 1-9

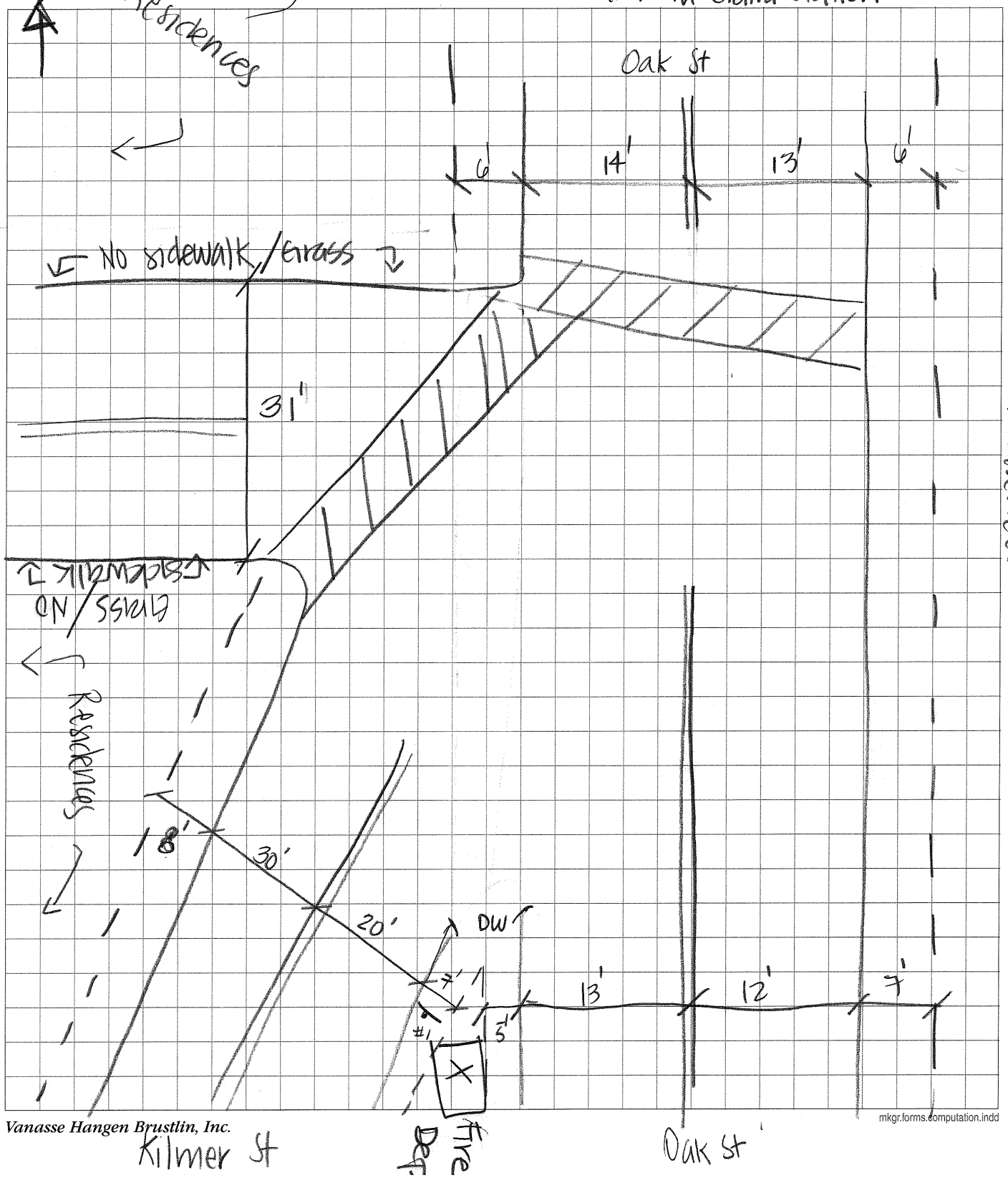
* unsignalized
* NO SIGNAGE
* faded markings
* flashing beacon on Oak St appr.

#1 Handicap Parking Fine $300

Project:	SCR	Project #	10111.00
Location:	Taunton	Sheet	1 of 1
Calculated by:	NL	Date:	9-24-08
Checked by:		Date:	

Title Lowell St @ Kilmer St @ Oak St

#7 in Cratra Station



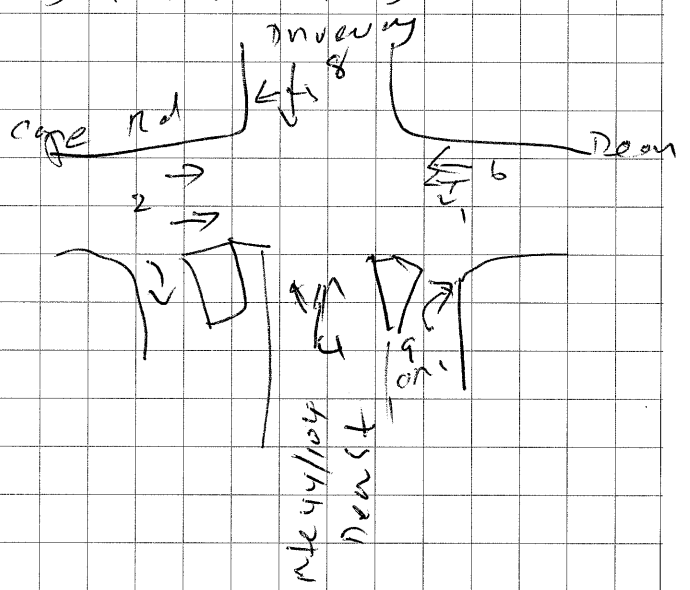
Vanasse Hangen Brustlin, Inc.

mkgr.forms.computation.indd

VHB *Computations*

Project: SCR | Project # 1011.31
Location: | Sheet of
Calculated by: RNR | Date: 9/11/08
Checked by: | Date:
Title Signal Timing & Phasing

Deon Street / Cape Rd / South Main Street



$\phi 1$

G = 5
Y = 3
R = 1

$\phi 2$

G = 57, 33
Y = 4, 4
R = 1, 1

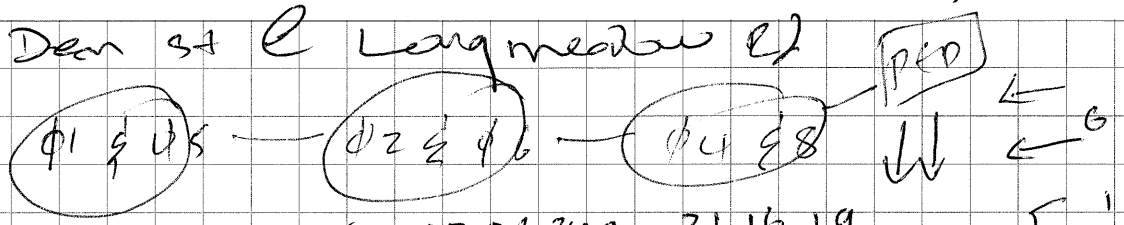
$\phi 3$

G = 13, 13
Y = 4 4
R = 1 1

VHB *Computations*

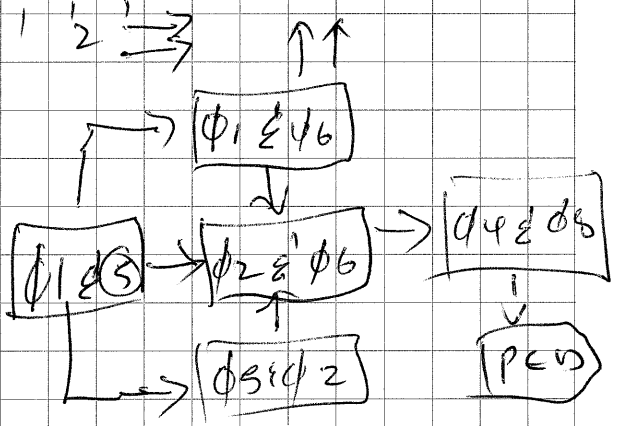
Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/11/08
Checked by: | Date:
Title Signal Timing & Phasing

Dean St @ Longmeadow Rd



G = 27, 36, 34 G = 21, 16, 19

	φ1	φ3	φ1	φ3	φ2	φ4	φ2	φ4
G =	13,	14	13	4	4	4	4	4
Y =	4,	4,	4	4	4	4	5	4
R =	1	1	1	1	1	1	2	1



Ped = ~~7~~ WALK
" FDW

pods are served after side street (Longmeadow)

VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 4/11/08
Checked by: | Date:
Title Signal Timing & Phasing

TAUNTON

Dean St @ ARLINGTON

Dean St

$\phi 1$ 6 30 17 35 37

Dean Sheet 4 4 4 4 4

← 1 1 1 1

→ ↓ R 1

Push Button's not working

$\phi 2$ 8 5 22 18

Arlington 1 1 1 1

VHB *Computations*

Project: SCR | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 4/11/08
Checked by: | Date:
Title Signal Timing & Phasing

TAUNTON #8

Summer / Spring / Church Green

25 13 12

Summer

$\phi 1$ G 22 22

Summer Street Y 4 4 27

R 1 1 12/13

$\phi 2$ 7 13 15

+ 8

PED

Church Green

50' 22/28

$\phi 3$ G 23 23

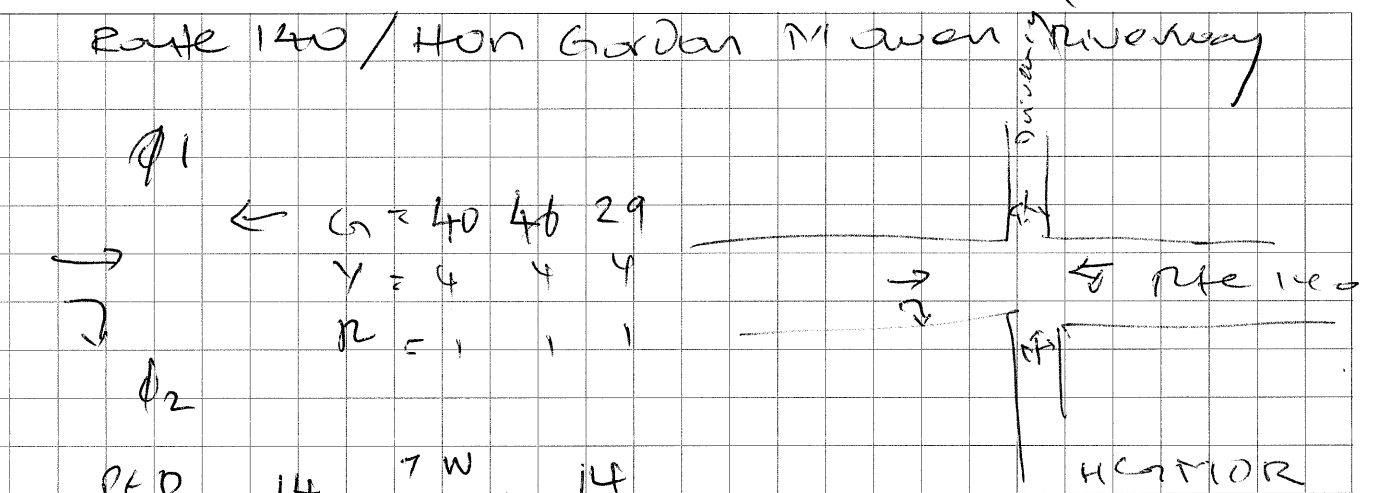
Y 4 4

R 1 1

VHB Computations

Project: SER | Project # 10111.31
Location: | Sheet of
Calculated by: RNR | Date: 9/11/08
Checked by: | Date:
#9 Title Signal Timing & Phasing

Route 140 / Hon Gordan Mawan Driveway



$\phi 1$

G = 40 40 29
Y = 4 4 4
R = 1 1 1

$\phi 2$

PED 14 7 W 7 FDW 14

$\phi 3$

G = 20 20 16
Y = 4 4 4
R = 1 1 1

Video Detection

(1)

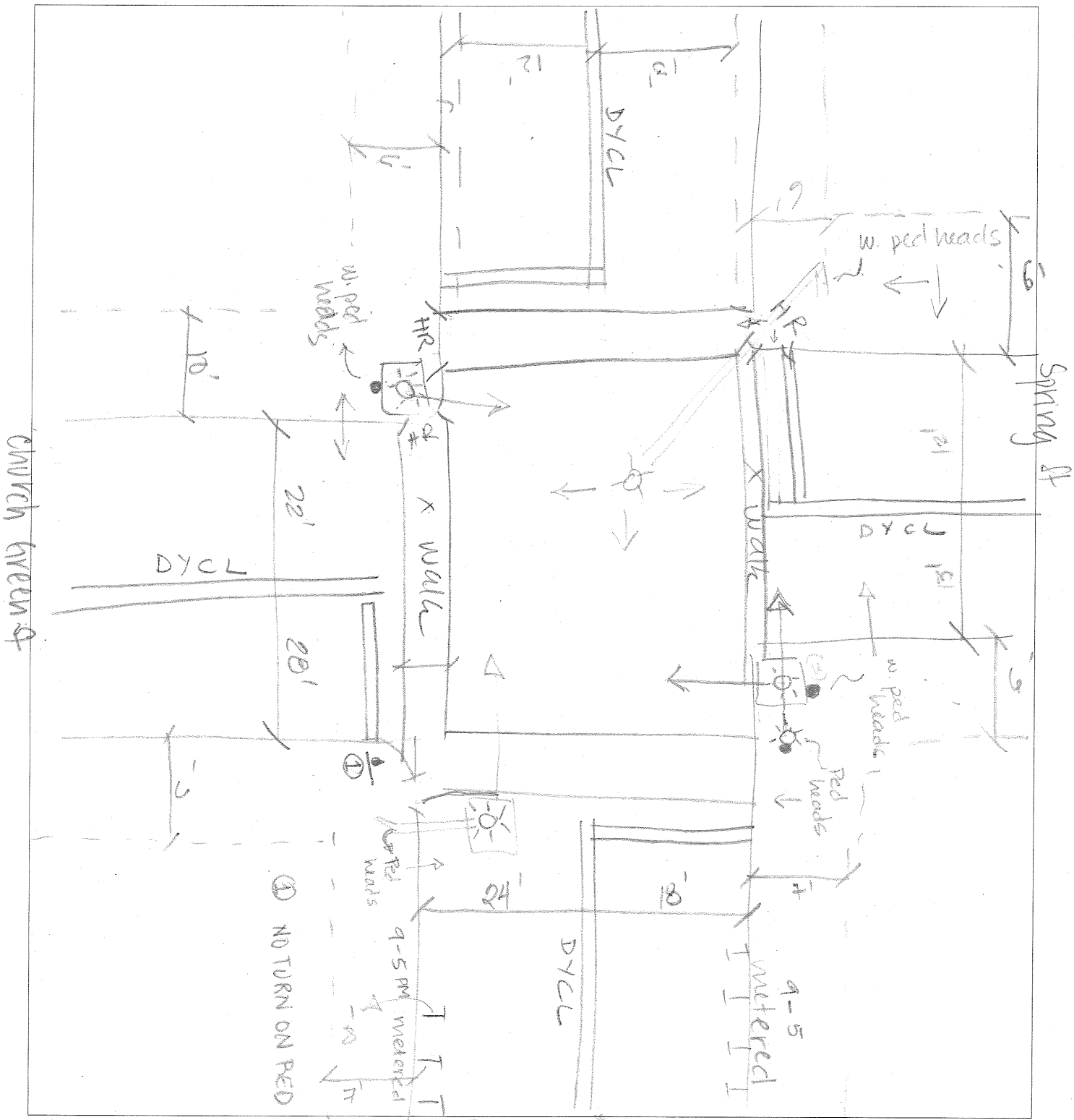
CFE
center for Ed.

VHB **Computations** Dean St, Rte 44 Station

* bit skewed
* signalized w. ped phase
  * push button (thin little one)

Project: SCR
Location: TAUNTON
Calculated by: NL
Checked by:
Title Spring St / Church Green St @ Summer St

Project # 10111
Sheet of
Date: 9/11/08
Date:



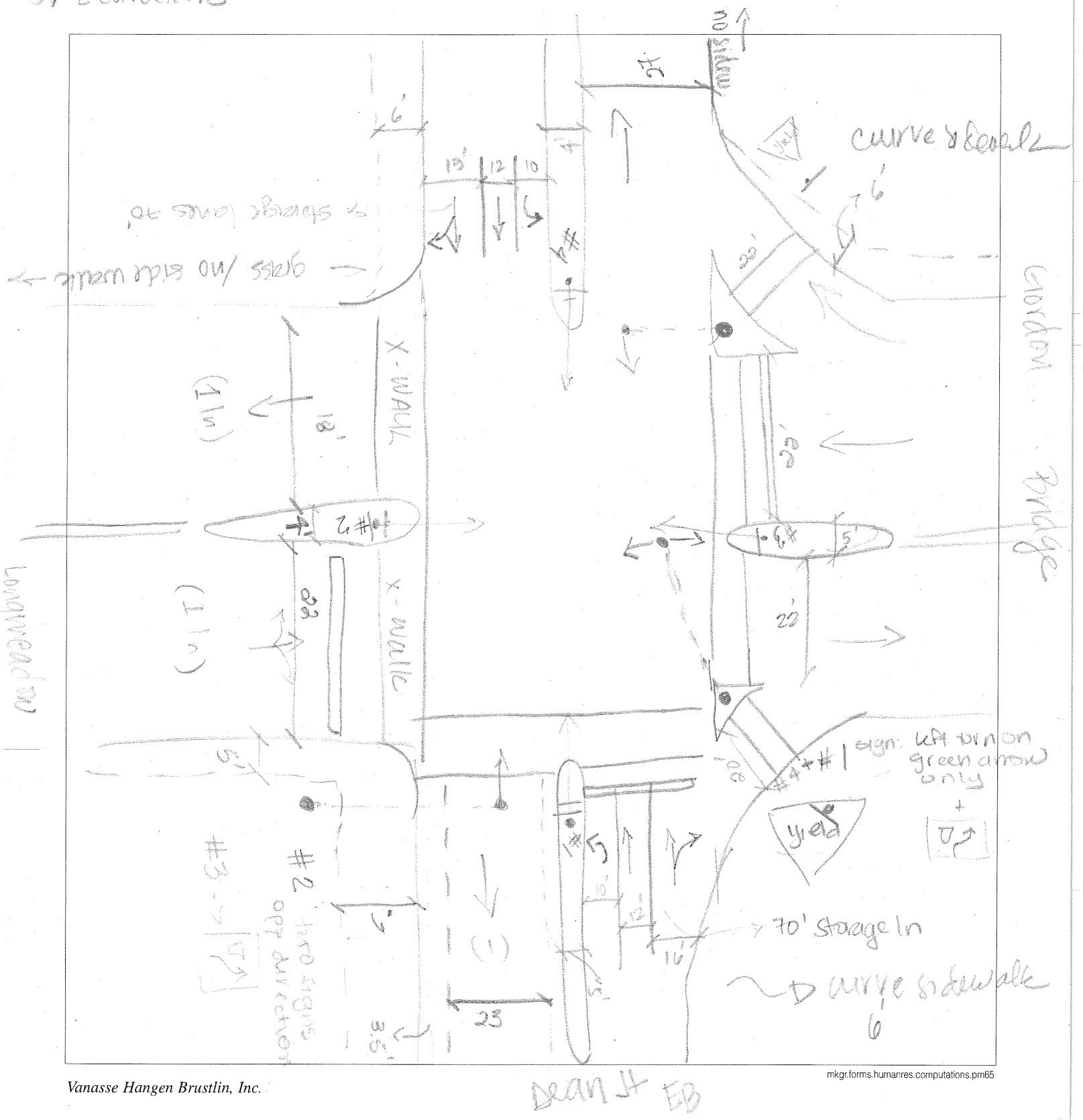
2

Computations

signal heads including signs

* mastarms include ped heads for 2 directions

Project:	SCR	Project #	10111.31
Location:	Taunton	Sheet	1 of 1
Calculated by:	NL	Date:	
Checked by:		Date:	
Title	Dean St @ Longmeadow St.		



3

VHB

Computations

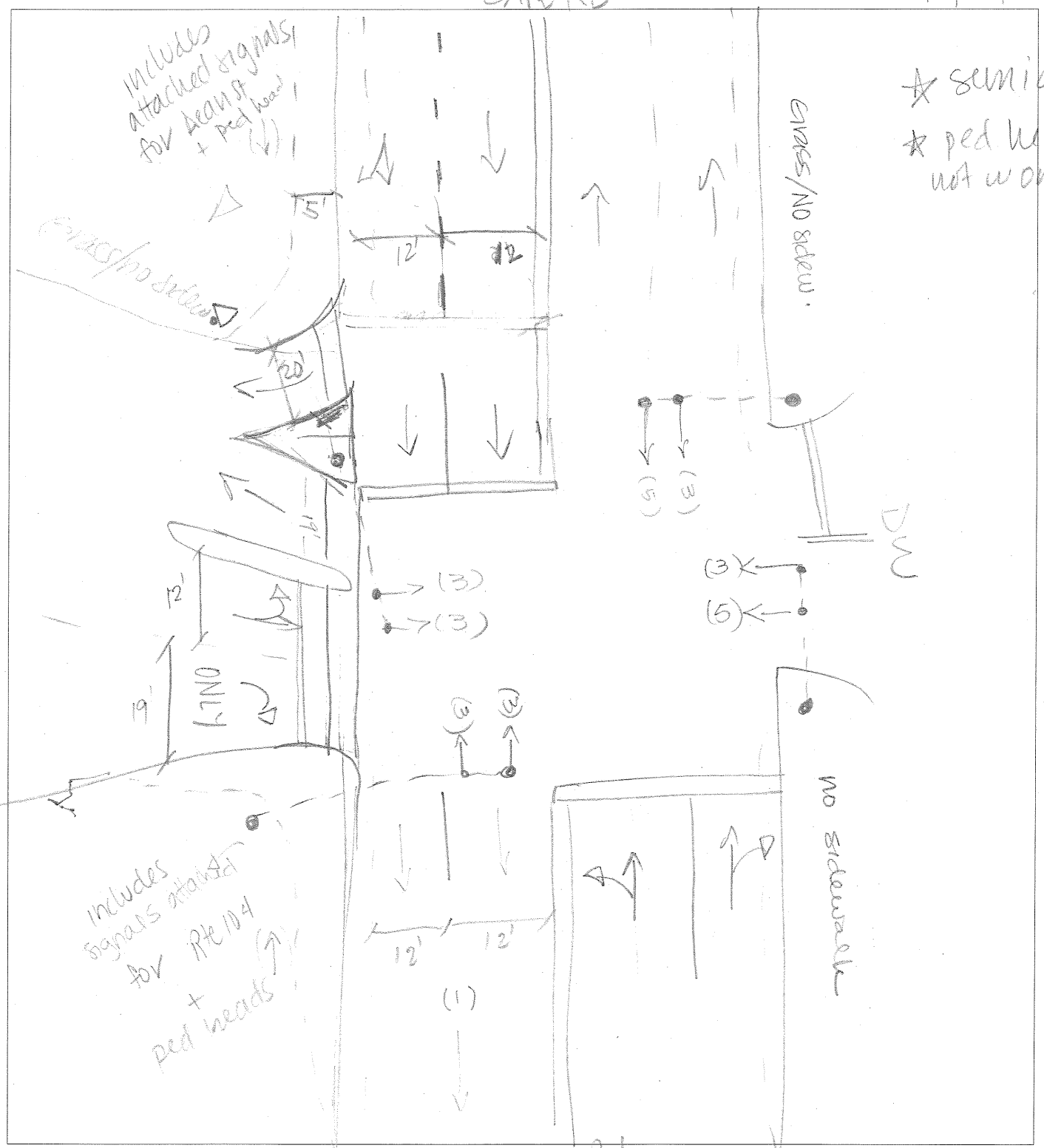
R6-1 = one way
R5-1 = do not enter

R1-1 = stop sign
R1-2 = yield
R4-7 = ⊽
R3-7R = Right Turn must turn right
R3-7L = Left " " " left

Project:	SCR	Project #	10111.31
Location:	Taunton	Sheet 1	of
Calculated by:		Date:	9/11/08
Checked by:		Date:	
Title	Cape Rd @ Rte 104		

CAPE RD

R4-7



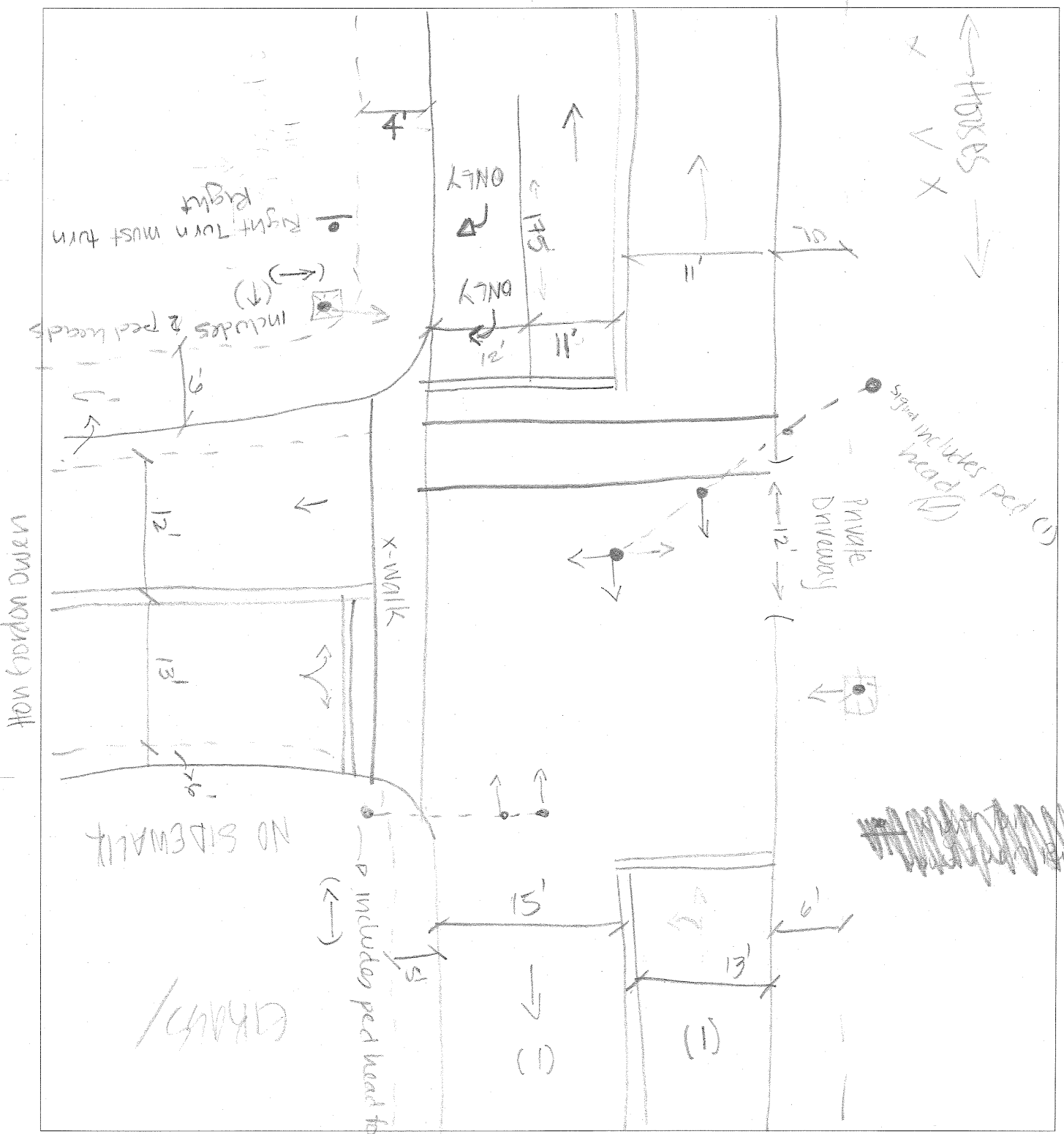
★ semi act
★ ped heads not w one

(4)

Computations

Project: SCR
Location: Taunton NL
Calculated by:
Checked by:
Title Hon Gordon M Owen @ Rte 140

Project # 10111.31
Sheet of
Date:
Date:

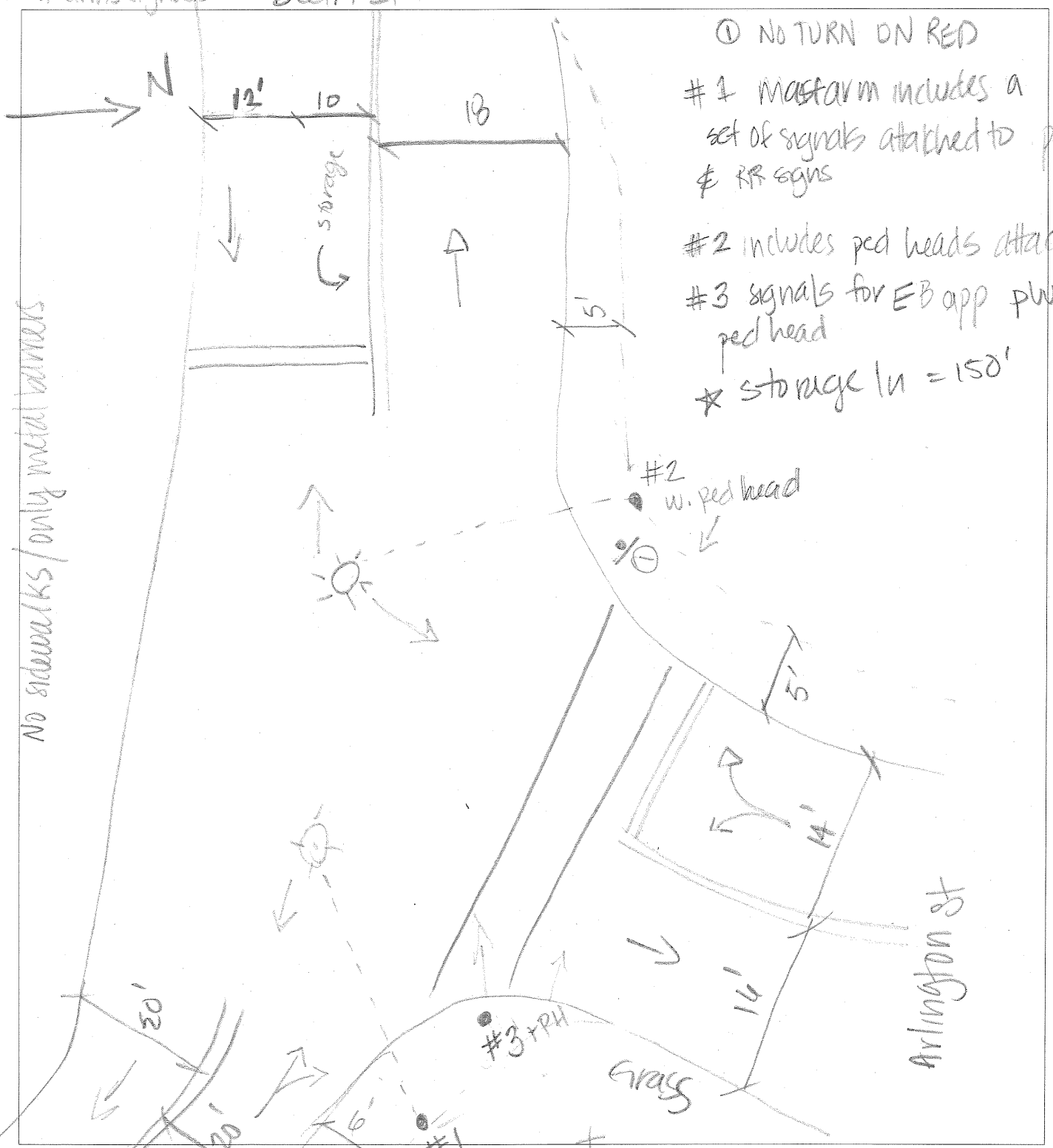


semi-actuated

Computations

Project:	SCR	Project #	10111.31
Location:	Taunton	Sheet	of
Calculated by:	NL	Date:	9/10/08
Checked by:		Date:	
Title	Arlington St @ Dean St		

* signalized w. ped phases
  - push buttons
* no x-walk on Dean St.
* no Handicap ramps
* mast arms signals



VHB

Computations

Project: SCR

Project # 10111.31

Location: Taunton

Sheet of

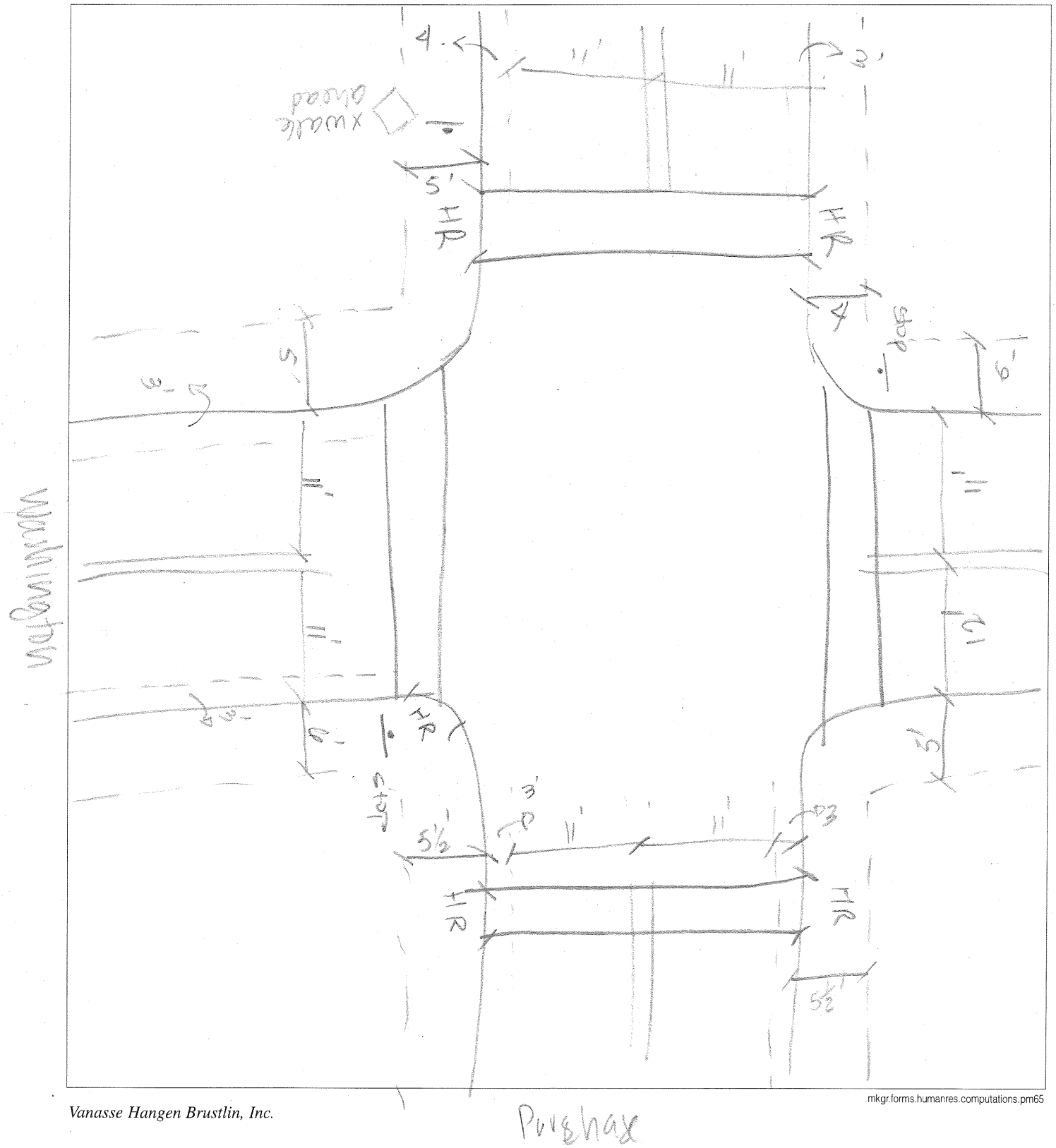
Calculated by:

Date: 9/11/08

Checked by:

Date:

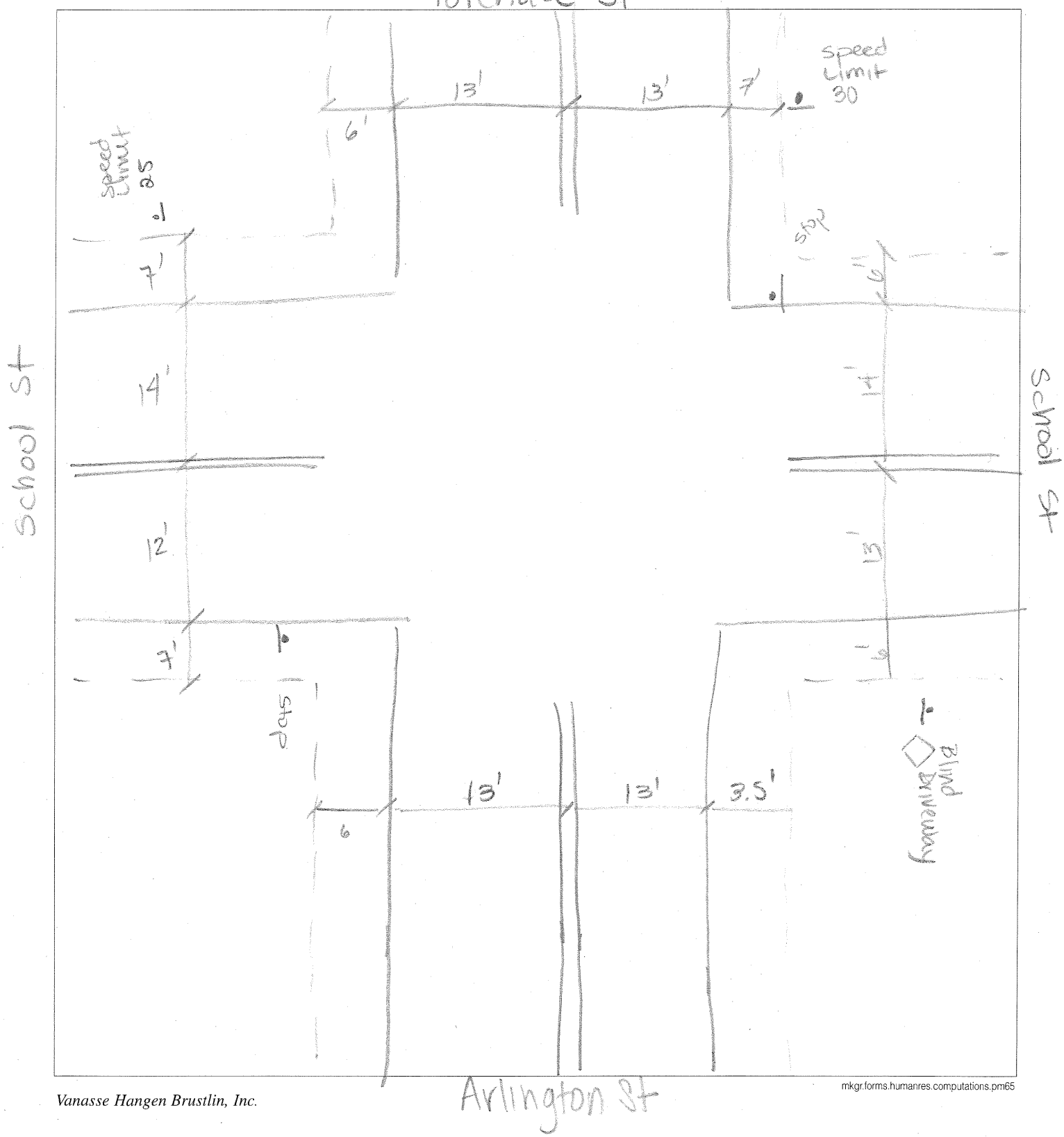
Title Washington St @ Purchase St



Computations

* Flashing signal overhead
Red for school St
Yellow for Arlington/
Purchase

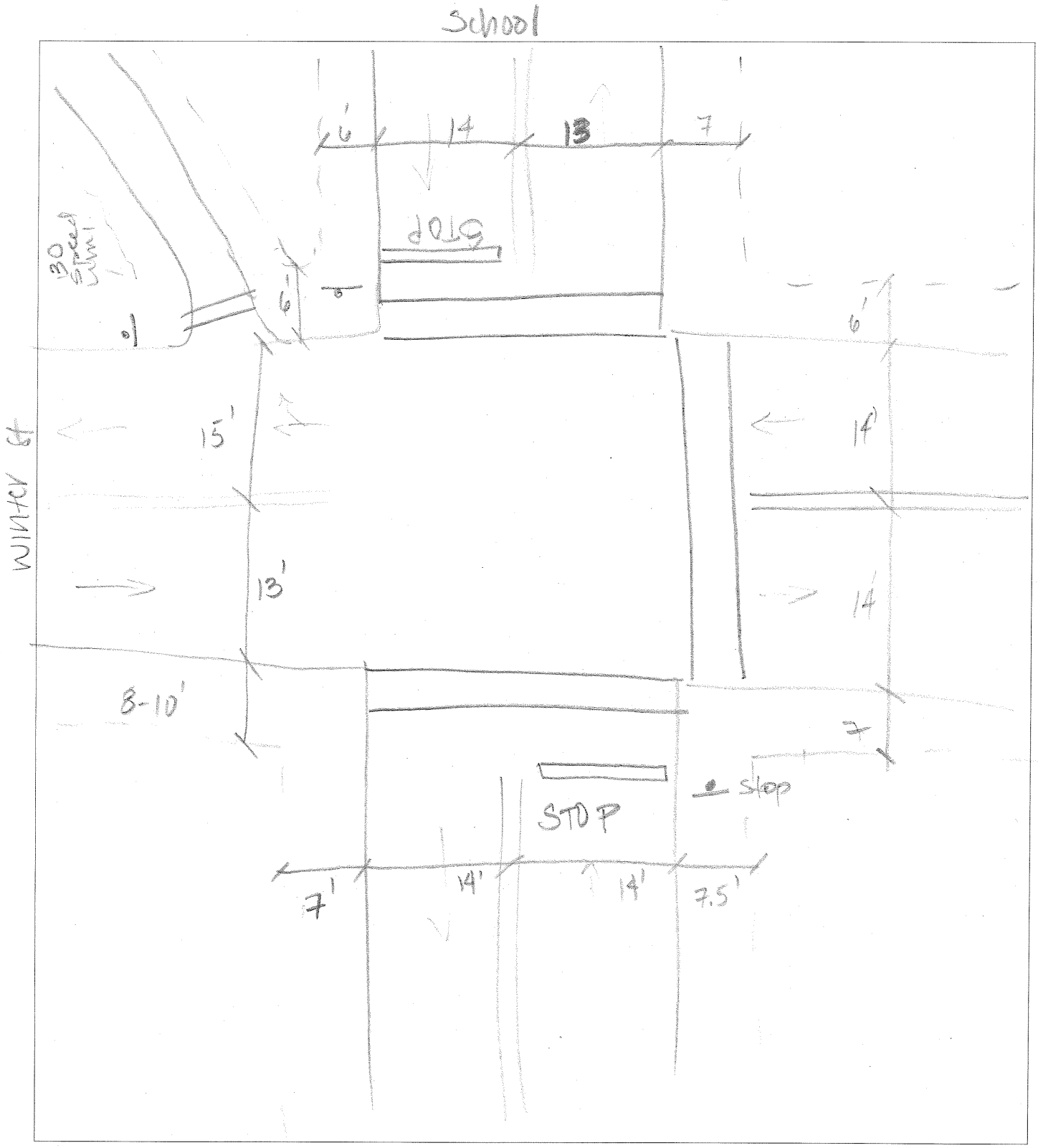
Project:	SCR	Project #	10111.31
Location:	Taunton, MA	Sheet	of
Calculated by:		Date:	
Checked by:		Date:	
Title	School St @ Arlington/Purchase St		



Computations

N

Project: SCR
Project # 10111.31
Location: Taunton
Sheet of
Calculated by: NL
Date: 9/11/08
Checked by:
Date:
Title Winter St @ School St



2 Dean

Computations

Project:

Location:

Calculated by: TV

Checked by:

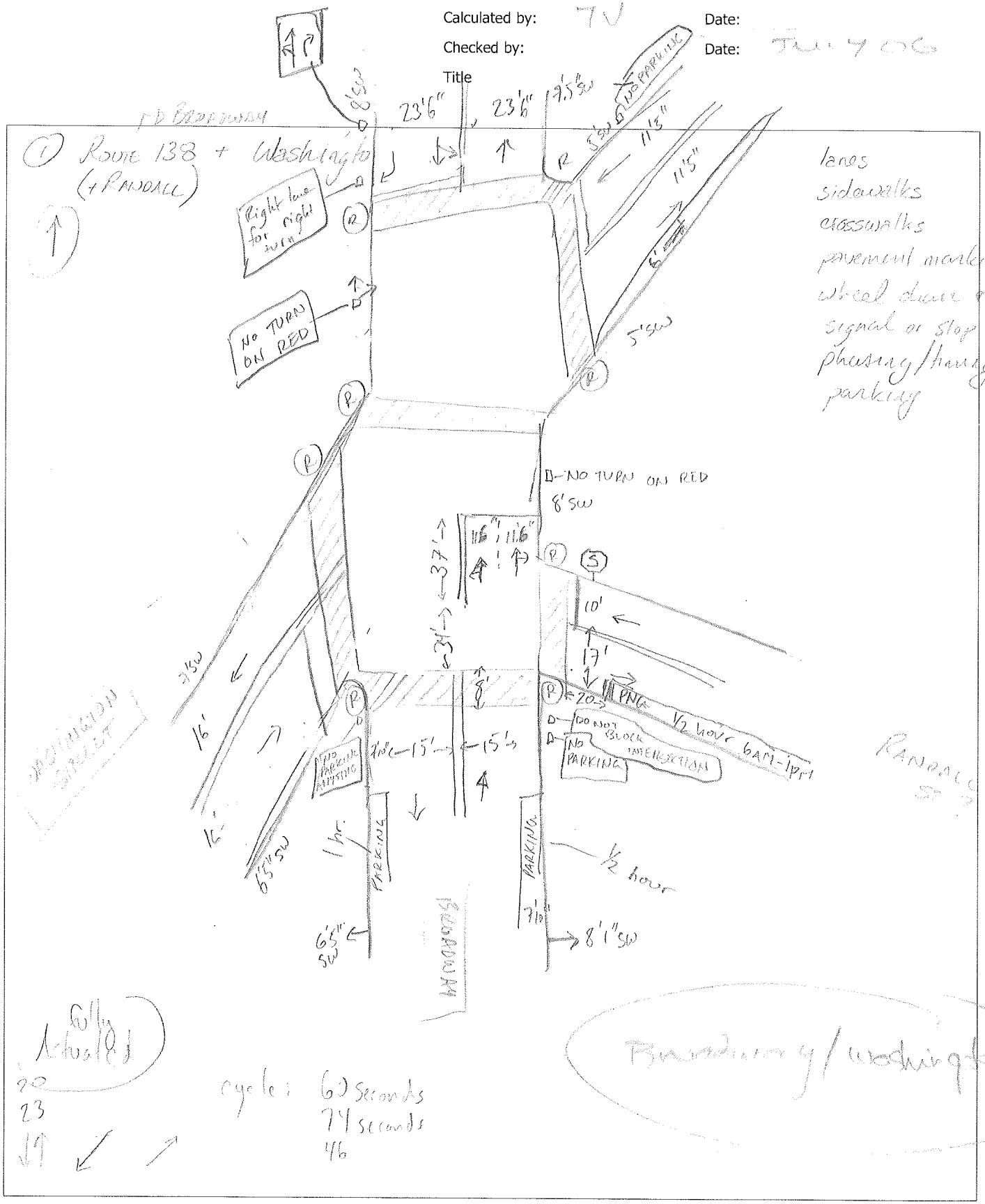
Title

Project # 71914.002

Sheet of

Date:

Date: July 2006



7 Beam

Computations

Project:

Location:

Calculated by: TV

Checked by:

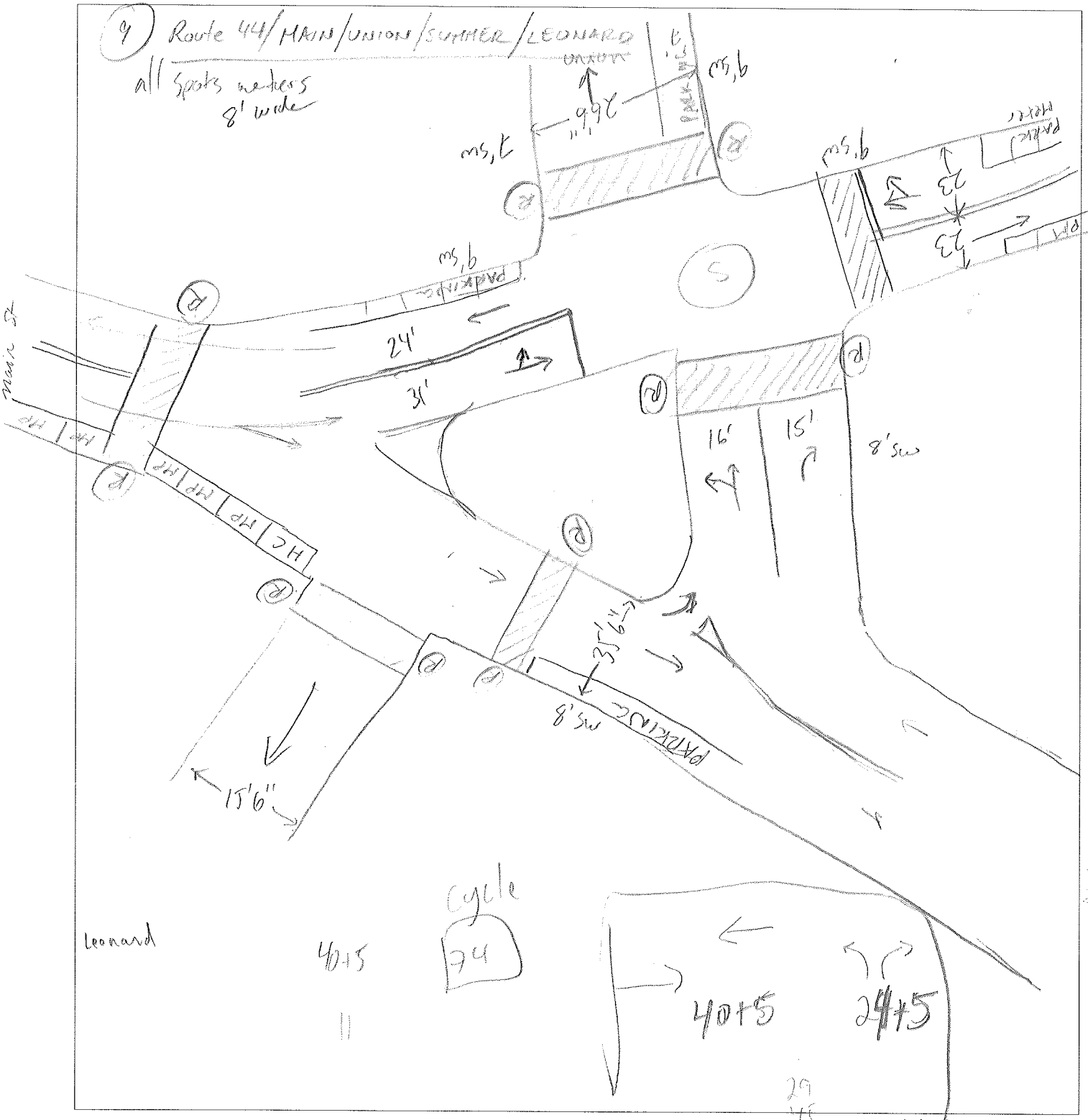
Title

Project # 71914.02

Sheet of

Date: Friday June 6

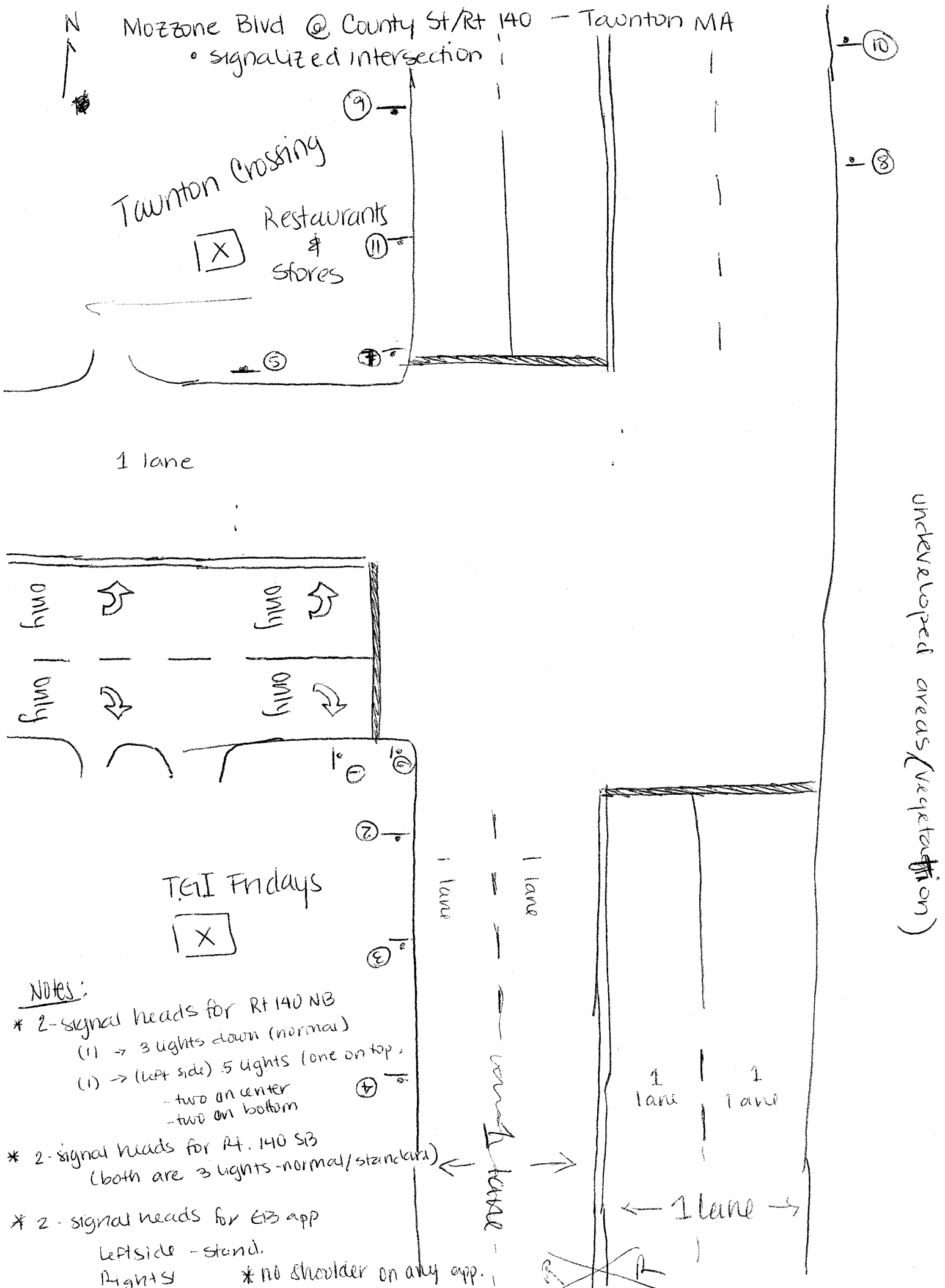
Date:



N

Mozzone Blvd @ County St/Rt 140 – Taunton MA

• signalized intersection



Notes:

* 2-signal heads for Rt 140 NB
  - (1) → 3 lights down (normal)
  - (1) → (left side) 5 lights (one on top, two on center, two on bottom)
* 2-signal heads for Rt. 140 SB (both are 3 lights-normal/standard)
* 2-signal heads for EB app
  - Leftside - stand.
  - Rights
* no shoulder on any app.

Sign Inventory

1. only | only

2. RIGHT LANE ENDS → yellow

3. → yellow

4. SOUTH
   140

5. No parking this side → white / red letters

6. 4 7
   TO REQUEST GREEN

   WAIT ON

8. → yellow

9. SPEED LIMIT 40

10. SPEED LIMIT 35

11. STATE HIGHWAY PARKING PROHIBITED

TAUNTON
RTE. 44 AT LONGMEADOW RD & GORDON M. OWEN PKY

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0852	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT

DEAN STREET (ROUTE 44) AT LONGMEADOW ROAD & GORDON M. OWEN PKY

IN THE TOWN OF

TAUNTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

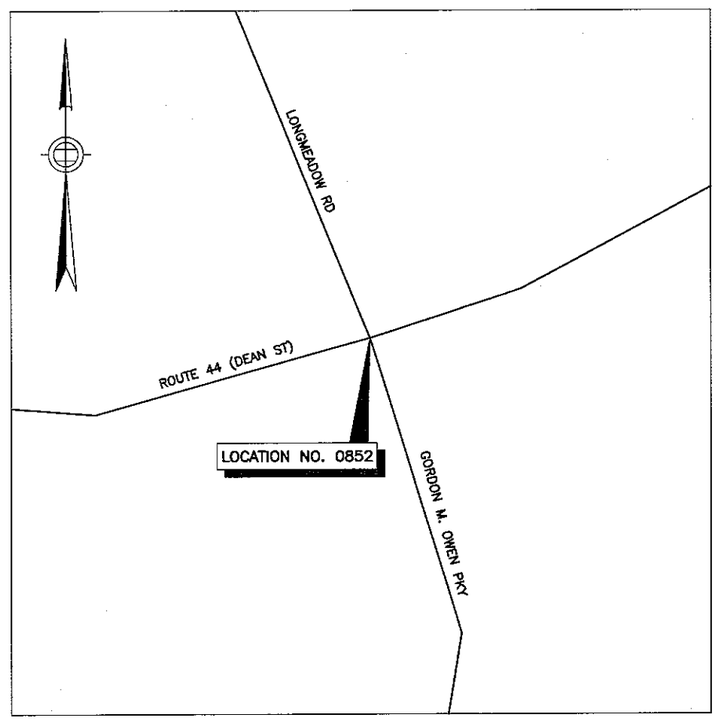
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II. OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR SCALE IN FEET
0 200 400 800

REVISION NO. 01
DATE: 12-06-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 0852T01.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

APPROVED BY:

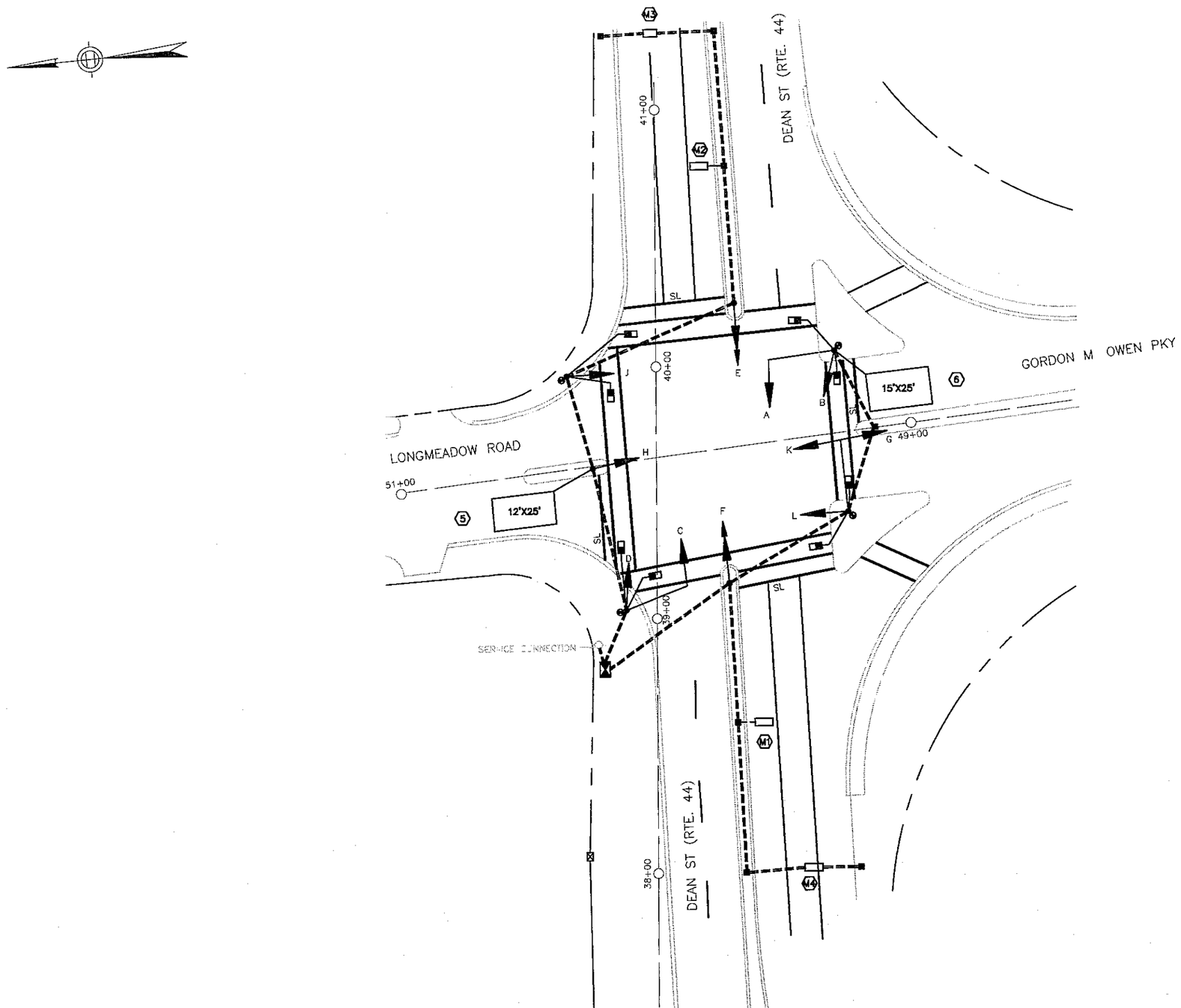
STATE TRAFFIC ENGINEER Date

TAUNTON

RTE. 44 AT LONGMEADOW RD & GORDON M. OWEN PKY

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0852	01	2	

TRAFFIC SIGNAL PLAN



LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

0852P0101.DWG

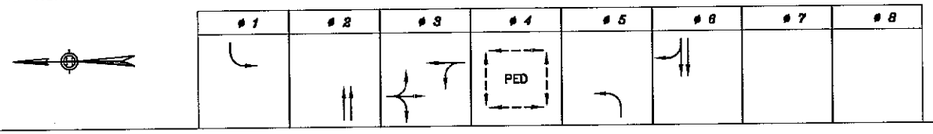
TAUNTON

RTE 44 AT LONGMEADOW RD & GORDON M. OWEN PKY

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	0852	01	3	

TRAFFIC SIGNAL DATA

APPROX NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
DEAN STREET (ROUTE 44)	EB	E	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL		GL	YL	RL	RL	RL	RL							FRL
DEAN STREET (ROUTE 44)	EB	A,B	R	R	R	G	Y	R	R	R	R	R	R		R	R	R	R	R	R							FY
DEAN STREET (ROUTE 44)	WB	F	GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL		RL	RL	RL	RL	RL	RL							FRL
DEAN STREET (ROUTE 44)	WB	C,D	R	R	R	R	R	R	R	R	R	R	R		R	R	R	G	Y	R							FY
GORDON M. OWEN PKY	NB	J,H,G	R	R	R	R	R	R	G	Y	R	R	R		R	R	R	R	R	R							FR
LONGMEADOW ROAD	SB	K,L	R	R	R	R	R	R	G	Y	R	R	R		R	R	R	R	R	R							FR
PEDESTRIAN	ALL	ALL	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW		DW	DW	DW	DW	DW	DW							OFF

TIMING IN SECONDS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
MINIMUM GREEN (INITIAL)	9			12			9						9			12									EMERGENCY ONLY
PASSAGE TIME (VEHICLE)	4			5			4						4			5									
MAXIMUM 1	18			35			25						18			35									
MAXIMUM 2	18			35			25						18			35									
YELLOW CLEARANCE		4			4			4						4			4								
RED CLEARANCE			1			1			1						1			1							
WALK (W)										8															
PEDESTRIAN CLEARANCE											10														
RECALL	OFF			ON			OFF			OFF			OFF			ON									
MEMORY	LOCKING			LOCKING			LOCKING			LOCKING			LOCKING			LOCKING									

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
4	10' SIGNAL POLE, BASE, & FDN.
3	MAST ARM ASSEMBLY, BASE, & FDN.
8	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
1	1 WAY, 4 SECTION, SIGNAL HOUSING (12" LENS)
1	2 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
8	PEDESTRIAN HOUSING
4	PEDESTRIAN PUSH BUTTON, SIGN, & SADDLES
1	LOOP DETECTOR AMPLIFIER
2	ROADWAY LOOP DETECTOR
4	MAGNETIC AMPLIFIERS
4	MAGNETIC DETECTOR
7	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø7 AND ø8 NOT USED.

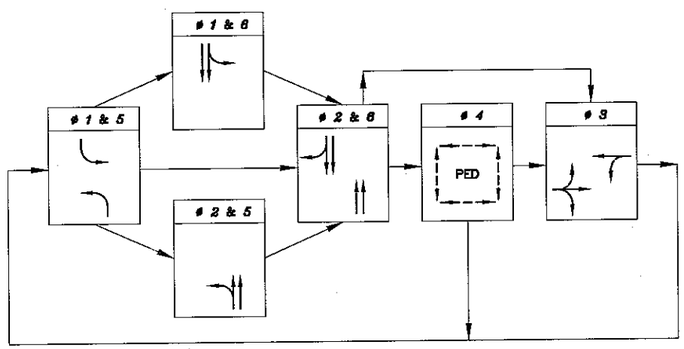
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

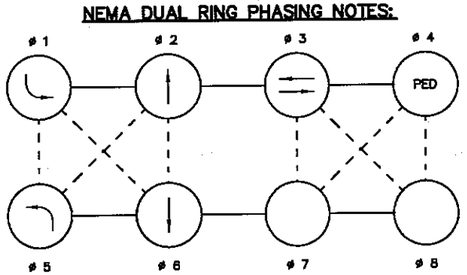
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTORS WERE NOT VISIBLE DURING SIGNAL INVENTORY.

PREFERENTIAL PHASING SEQUENCE



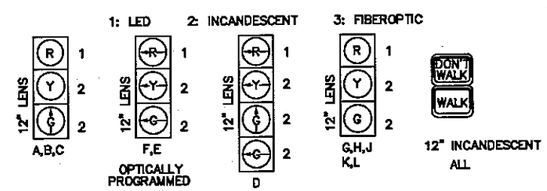
NEMA DUAL RING PHASING NOTES:



LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
M1	1	MAGNETIC		ø5	ø5	PRESENCE		
M2	1	MAGNETIC		ø1	ø1	PRESENCE		
M3	1	MAGNETIC		ø6	ø6	PRESENCE		
M4	1	MAGNETIC		ø2	ø2	PRESENCE		
5	1	12'X25'		ø3	ø3	PRESENCE		
6	1	15'X25'		ø3	ø3	PRESENCE		

SIGNAL IDENTIFICATION



CONTROLLER MAKE & MODEL: EPAC 300

UTILITY POLE No. NO #

METER No. 60-371-881 (231 72 5)

EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER Date

0852D01.DWG

TAUNTON ROUTE 44 AT ROUTE 104				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1365	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT

CAPE HIGHWAY (ROUTE 44) & DEAN ST (ROUTE 44) AT DEAN STREET (ROUTE 104)

IN THE TOWN OF

TAUNTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

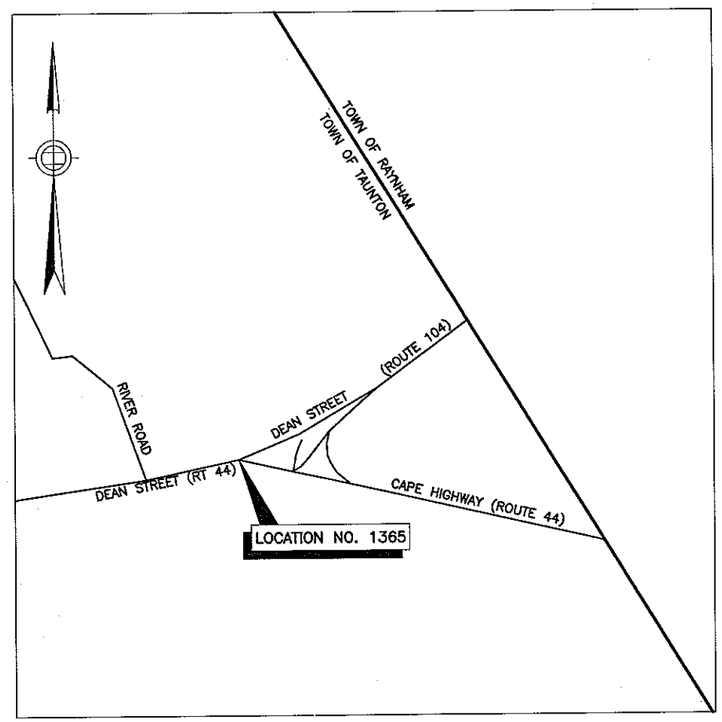
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I. STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR SCALE IN FEET
0 200 400 800

REVISION NO 01
DATE: 12-06-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 1365T0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116
MASSACHUSETTS
HIGHWAY DEPARTMENT

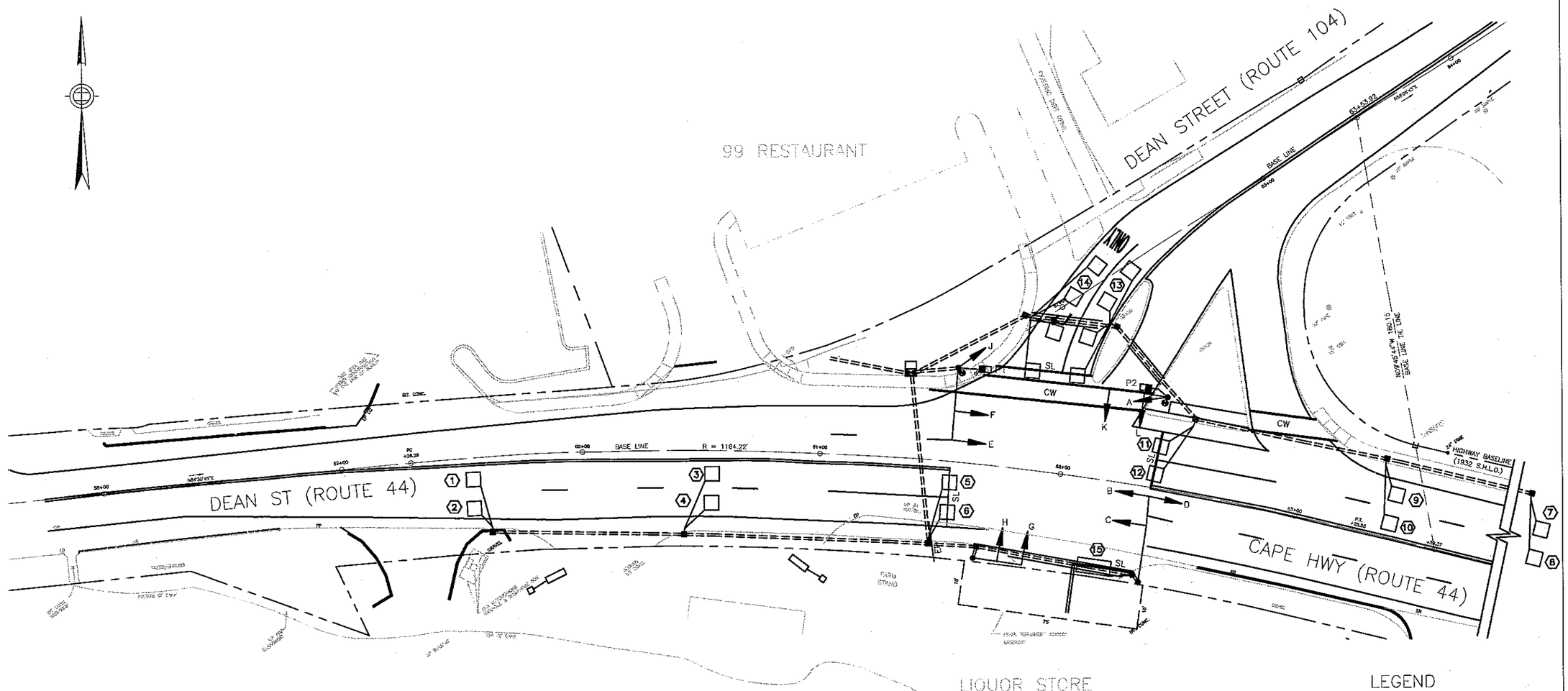
APPROVED BY:

STATE TRAFFIC ENGINEER Date

TAUNTON
ROUTE 44 AT ROUTE 104

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1365	01	2	

TRAFFIC SIGNAL PLAN



LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

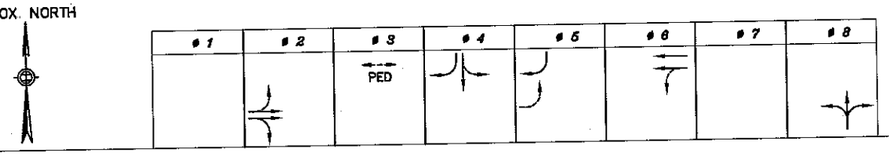
1365P0101.DWG

TAUNTON
ROUTE 44 AT ROUTE 104

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1365	01	3	

TRAFFIC SIGNAL DATA

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH MODE
DEAN STREET (ROUTE 44)	EB	A,B				G	Y	R	R	R	R	R	R	R	GL	YL	R	R	R	R				R	R	R	FY
DEAN STREET (ROUTE 44)	EB	C				G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R				R	R	R	FY
CAPE HWY (ROUTE 44)	WB	D,E,F				R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R				R	R	R	FY
DEAN ST (ROUTE 104)	SB	H,J				R	R	R	R	R	R	G	Y	R	GR	YR	R	R	R	R				R	R	R	FR
DEAN ST (ROUTE 104)	SB	G				R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R				R	R	R	FR
DRIVEWAY	NB	K,L				R	R	R	R	R	R	R	R	R	R	R	R	R	R	R				G	Y	R	FR
PEDESTRIAN		P1-P2				DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW			DW	DW	DW	OFF

TIMING IN SECONDS	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MINIMUM GREEN (INITIAL)	14						6			6			14						6		
PASSAGE TIME (VEHICLE)	2						2			2			2						2		
MAXIMUM 1	60						20			15			60						20		
MAXIMUM 2	60						25			15			60						20		
YELLOW CLEARANCE		4						4			4			4						4	
RED CLEARANCE			1						1			1			1						1
WALK (W)				6																	
PEDESTRIAN CLEARANCE					13	2															
RECALL	MIN LOCKING			OFF LOCKING			OFF NON-LOCKING			OFF NON-LOCKING			MIN LOCKING						OFF NON-LOCKING		
MEMORY																					

EMERGENCY ONLY

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
4	MAST ARM ASSEMBLY, BASE, & FDN.
4	8" SIGNAL POLE, BASE, & FDN.
7	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
4	1 WAY, 5 SECTION SIGNAL HOUSING (12" LENS)
2	PEDESTRIAN HOUSING
2	PEDESTRIAN PUSH BUTTON, SIGN, & SADDLES
8	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
21	ROADWAY LOOP DETECTOR
10	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø1 AND ø7 NOT USED.

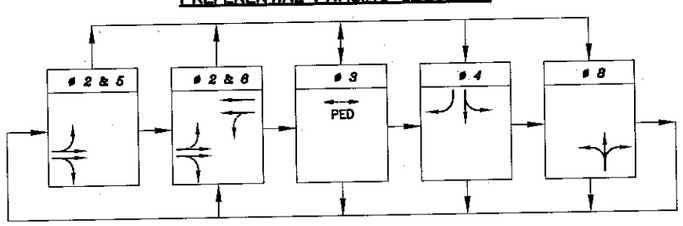
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

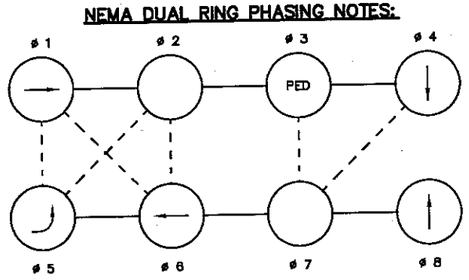
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTORS WERE NOT VISIBLE DURING SIGNAL INVENTORY.

PREFERENTIAL PHASING SEQUENCE



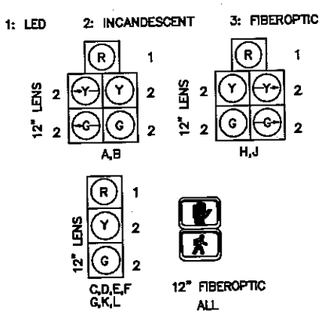
NEMA DUAL RING PHASING NOTES:



LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	1	6'X6'		ø2	ø2	PULSE		
2	1	6'X6'		ø2	ø2	PRESENCE		
3	1	6'X6'		ø2	ø2	PRESENCE		
4	1	6'X6'		ø2	ø2	PRESENCE		
5	1	6'X6'		ø5	ø5	PRESENCE		
6	1	6'X6'		ø2	ø2	PRESENCE		
7	1	6'X6'		ø6	ø6	PRESENCE		
8	1	6'X6'		ø6	ø6	PRESENCE		
9	1	6'X6'		ø6	ø6	PRESENCE		
10	1	6'X6'		ø6	ø6	PRESENCE		
11	1	6'X6'		ø6	ø6	PRESENCE		
12	1	6'X6'		ø6	ø6	PRESENCE		
13	4	6'X6'		ø4	ø4	PRESENCE		
14	4	6'X15'		ø4	ø4	PRESENCE		
15	1	6'X6'		ø8	ø8	PRESENCE		

SIGNAL IDENTIFICATION



CONTROLLER MAKE & MODEL: EPAC 300
UTILITY POLE No. TMLP #15
METER No. CPN2MN2182
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

1365D0101.DWG

TAUNTON GALLERIA MALL ENT. NEAR 140 AND 24				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1361	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT

GALLERIA MALL ENTRANCE NEAR COUNTY ROAD (ROUTE 140) AND ROUTE 24

IN THE TOWN OF

TAUNTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

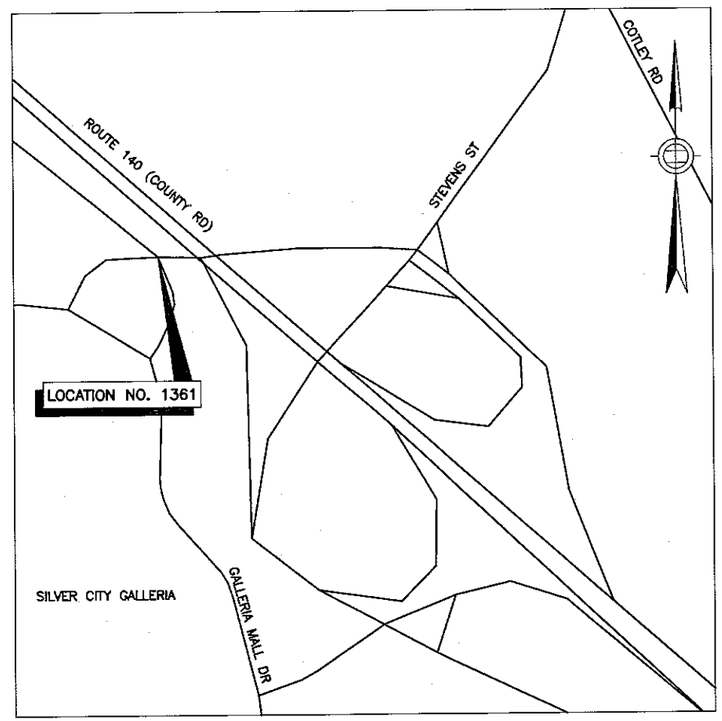
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued* or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I. STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR. SCALE IN FEET
0 200 400 800

REVISION NO 01
DATE: 12-05-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 1361T0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

APPROVED BY:

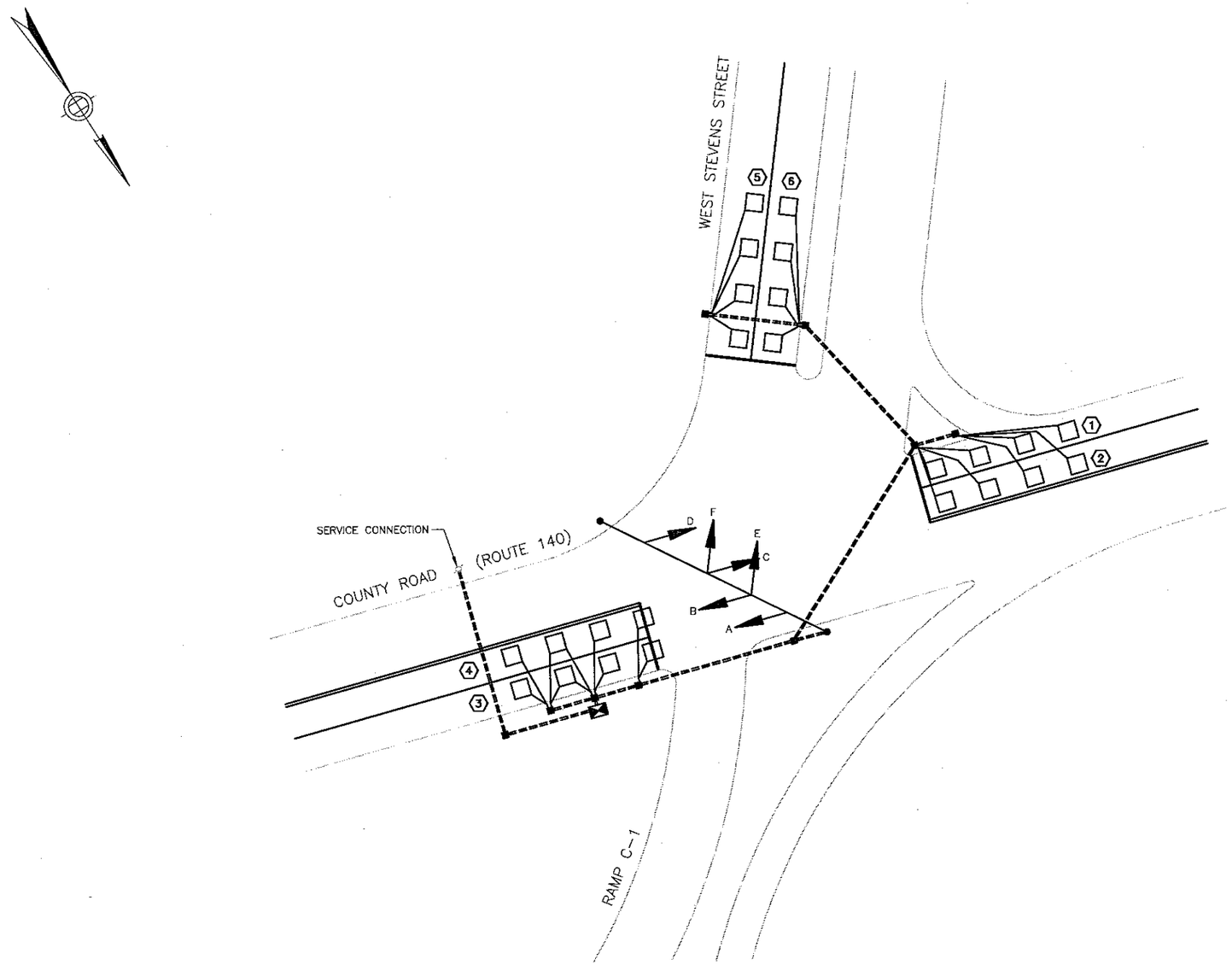
STATE TRAFFIC ENGINEER Date

TAUNTON

GALLERIA MALL ENT. NEAR 140 AND 24

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1361	01	2	

TRAFFIC SIGNAL PLAN



0 20 50 100 FEET

1" = 20' HORIZONTAL

LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

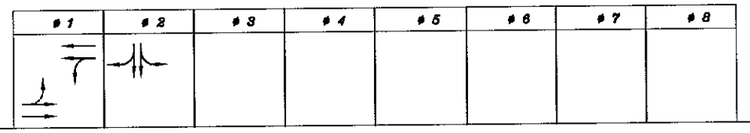
1361P0101.DWG

TAUNTON
GALLERIA MALL ENT. NEAR 140 AND 24

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1361	01	3	

TRAFFIC SIGNAL DATA

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH MODE
COUNTY ROAD (ROUTE 140)	WB	A,B	G	Y	R	R	R	R																			FY
COUNTY ROAD (ROUTE 140)	EB	C,D	G	Y	R	R	R	R																			FY
WEST STEVENS STREET	WB	E,F	R	R	R	G	Y	R																			FR

TIMING IN SECONDS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MINIMUM GREEN (INITIAL)	8			8																				
PASSAGE TIME (VEHICLE)	2			2																				
MAXIMUM 1	46			26																				
MAXIMUM 2	27			45																				
YELLOW CLEARANCE		4			4																			
RED CLEARANCE			1			1																		
WALK (W)																								
PEDESTRIAN CLEARANCE																								
RECALL		SOFT			OFF																			
MEMORY		LOCKING			LOCKING																			

EMERGENCY ONLY

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
1	SPANWIRE ASSEMBLY BASE & FDN.
2	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
2	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
3	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
24	ROADWAY LOOP DETECTOR
9	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø3 – ø8 NOT USED.

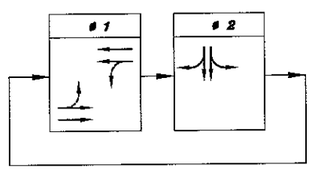
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

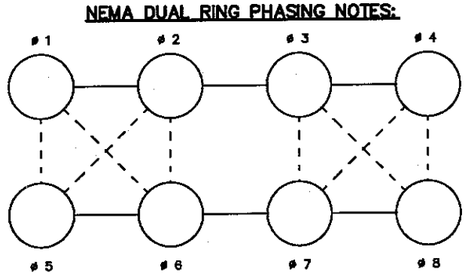
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTORS WERE NOT VISIBLE DURING SIGNAL INVENTORY.

PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:

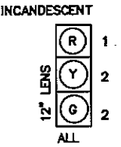


LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	4	6'X6'		ø1	ø1	PRESENCE		
2	4	6'X6'		ø1	ø1	PRESENCE		
3	4	6'X6'		ø1	ø1	PRESENCE		
4	4	6'X6'		ø1	ø1	PRESENCE		
5	4	6'X6'		ø2	ø2	PRESENCE		
6	4	6'X6'		ø2	ø2	PRESENCE		

SIGNAL IDENTIFICATION

1: LED 2: INCANDESCENT 3: FIBEROPTIC



CONTROLLER MAKE & MODEL: EPAC 300
UTILITY POLE No. –
METER No. 97258539 (FNIMN67)
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

1361D0101.DWG

STEVENS ST AT ROUTE 140 OFF RAMP & GALLERIA MALL DR.
TAUNTON

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1362	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT
STEVENS STREET AT ROUTE 140 OFF RAMP & GALLERIA MALL DR.

IN THE TOWN OF

TAUNTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

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I STANDARDS OF INSTALLATION

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II OPERATION OF SIGNALS

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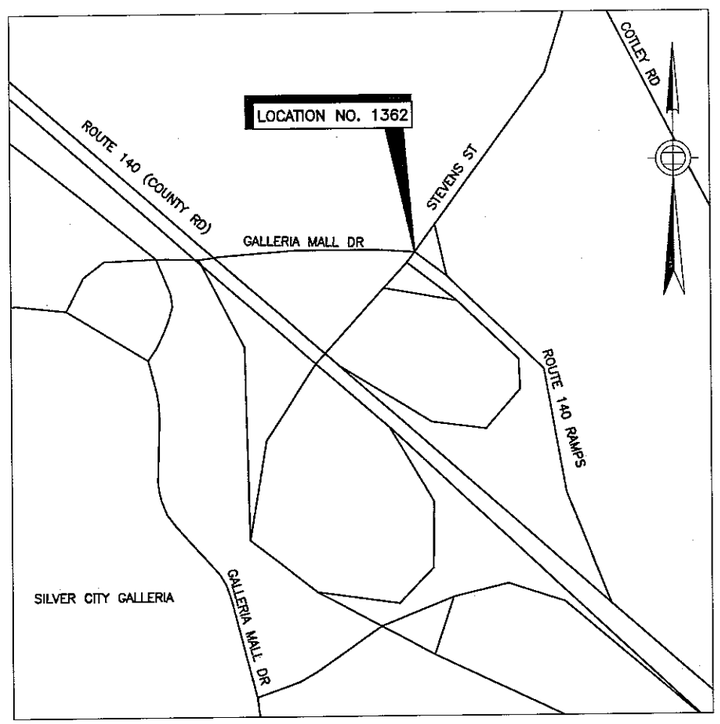
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR. SCALE IN FEET
0 200 400 800

REVISION NO. 01
DATE: 12-05-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 136ZT0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

APPROVED BY:

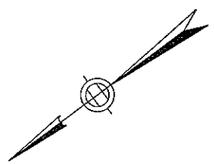
STATE TRAFFIC ENGINEER Date

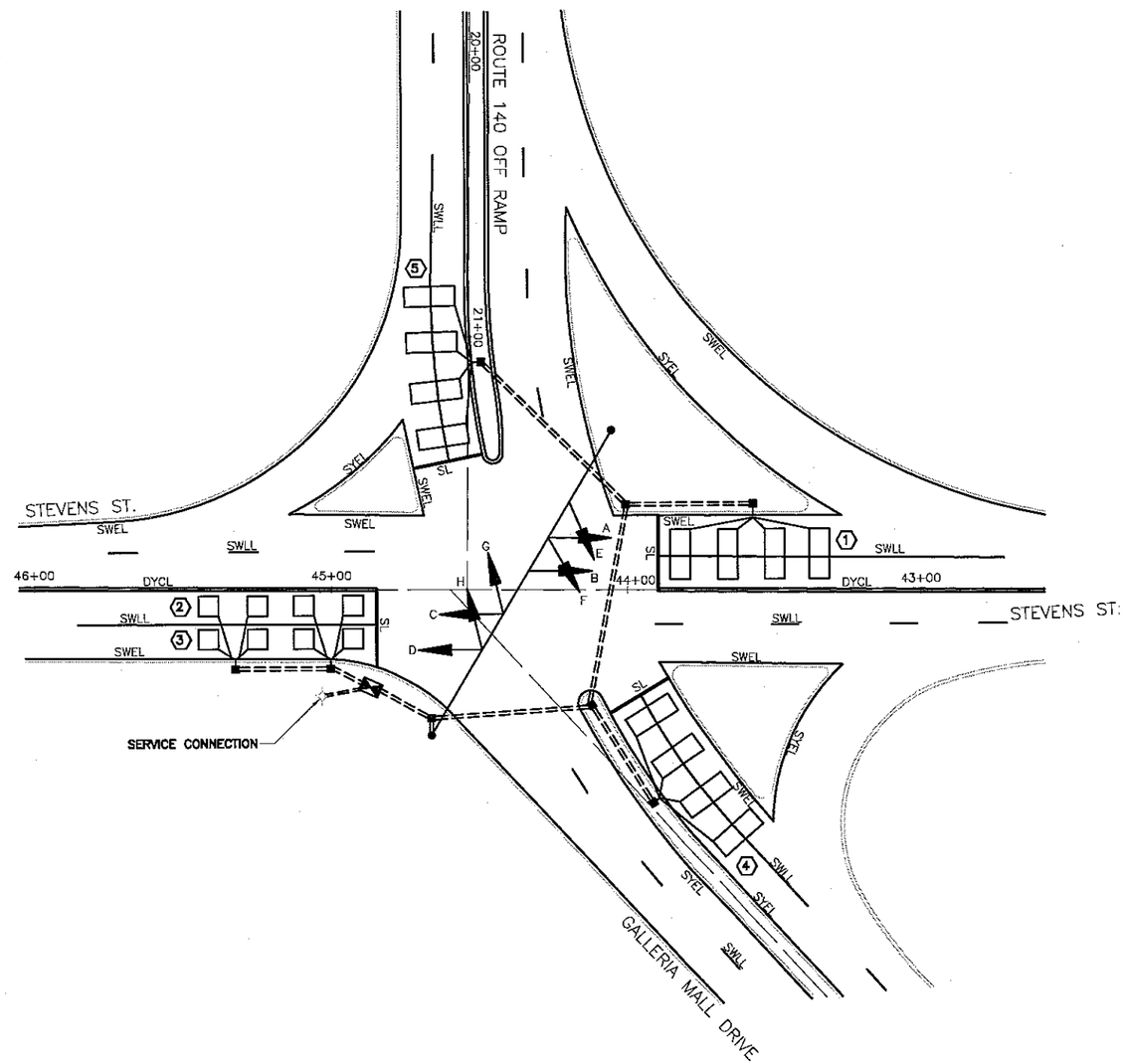
TAUNTON

STEVENS ST AT ROUTE 140 OFF RAMP & GALLERIA MALL DR.

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1362	01	2	

TRAFFIC SIGNAL PLAN





0 20 50 100 FEET

1" = 20' HORIZONTAL

LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

1362P0101.DWG

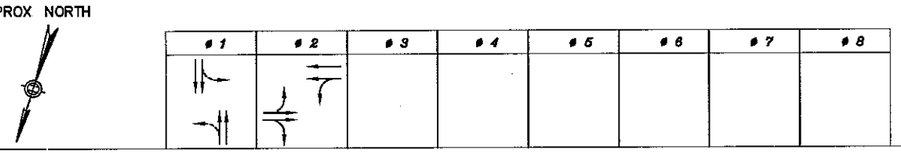
TAUNTON

STEVENS ST AT ROUTE 140 OFF RAMP & GALLERIA MALL DR.

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1362	01	3	

TRAFFIC SIGNAL DATA

APPROX NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
STEVENS STREET	NB	A,B	R	R	R	G	Y	R																			FR
STEVENS STREET	SB	C,D	R	R	R	G	Y	R																			FR
GALLERIA MALL DRIVE	EB	E,F	G	Y	R	R	R	R																			FY
ROUTE 140 OFF RAMP	WB	G,H	G	Y	R	R	R	R																			FY

TIMING IN SECONDS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
MINIMUM GREEN (INITIAL)	8			8																					EMERGENCY ONLY
PASSAGE TIME (VEHICLE)	2			2																					
MAXIMUM 1	48			24																					
MAXIMUM 2	30			42																					
YELLOW CLEARANCE		4			4																				
RED CLEARANCE			1			1.1																			
WALK (W)																									
PEDESTRIAN CLEARANCE																									
RECALL																									
MEMORY																									

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 4DW & 8DW, CAB. & FDN.
1	SERVICE CONNECTION (OVERHEAD)
1	SPANWIRE ASSEMBLY BASE & FDN. W/ TETHER
2	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
2	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
3	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
20	ROADWAY LOOP DETECTOR
8	12" x 12" PULL BOX
1	SPECIAL FUNCTION UNIT-TIME BASED COORD.
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø3 – ø8 NOT USED.

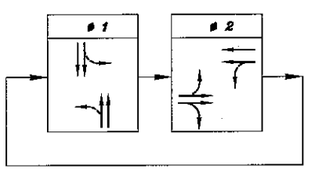
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTORS NOT VISIBLE DURING SIGNAL INVENTORY.

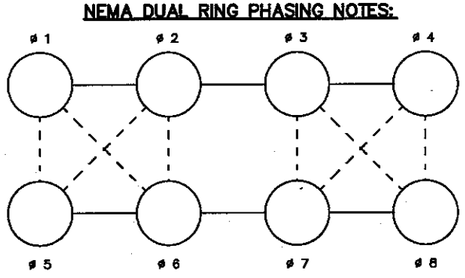
PREFERENTIAL PHASING SEQUENCE



LOOP DETECTOR DATA

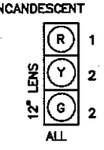
DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	4	6'X20'	3	ø1	ø1	PRESENCE		
2	8	6'X6'	3	ø1	ø1	PRESENCE		
3	4	6'X20'	3	ø1	ø1	PRESENCE		
4	4	6'X20'	3	ø2	ø2	PRESENCE		
5	4	6'X6'	3	ø2	ø2	PRESENCE		

NEMA DUAL RING PHASING NOTES:



SIGNAL IDENTIFICATION

1: LED 2: INCANDESCENT 3: FIBEROPTIC



CONTROLLER MAKE & MODEL: EAGLE

UTILITY POLE No. TMLP / NET&T CO. 4 1/2

METER No. 28-169-006

EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

1362D0101.DWG

TAUNTON
RTE. 140 AT 24. NB. RAMP

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1363	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT

COUNTY STREET (ROUTE 140) AT AMERICAN VETERANS MEMORIAL HIGHWAY (ROUTE 24) NORTHBOUND RAMP

IN THE TOWN OF

TAUNTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

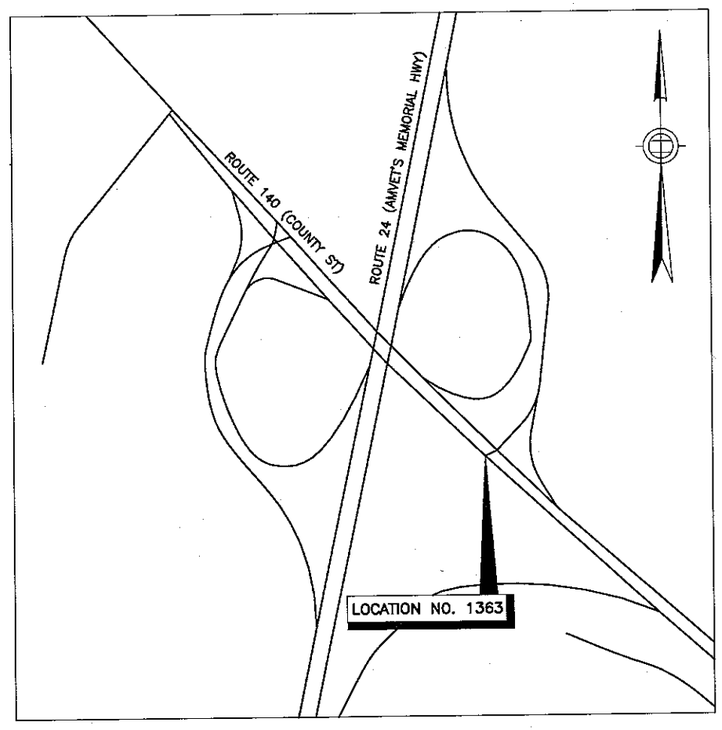
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued* or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR SCALE IN FEET
0 200 400 800

REVISION NO 01
DATE: 12-05-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 1363T0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116
MASSACHUSETTS
HIGHWAY DEPARTMENT

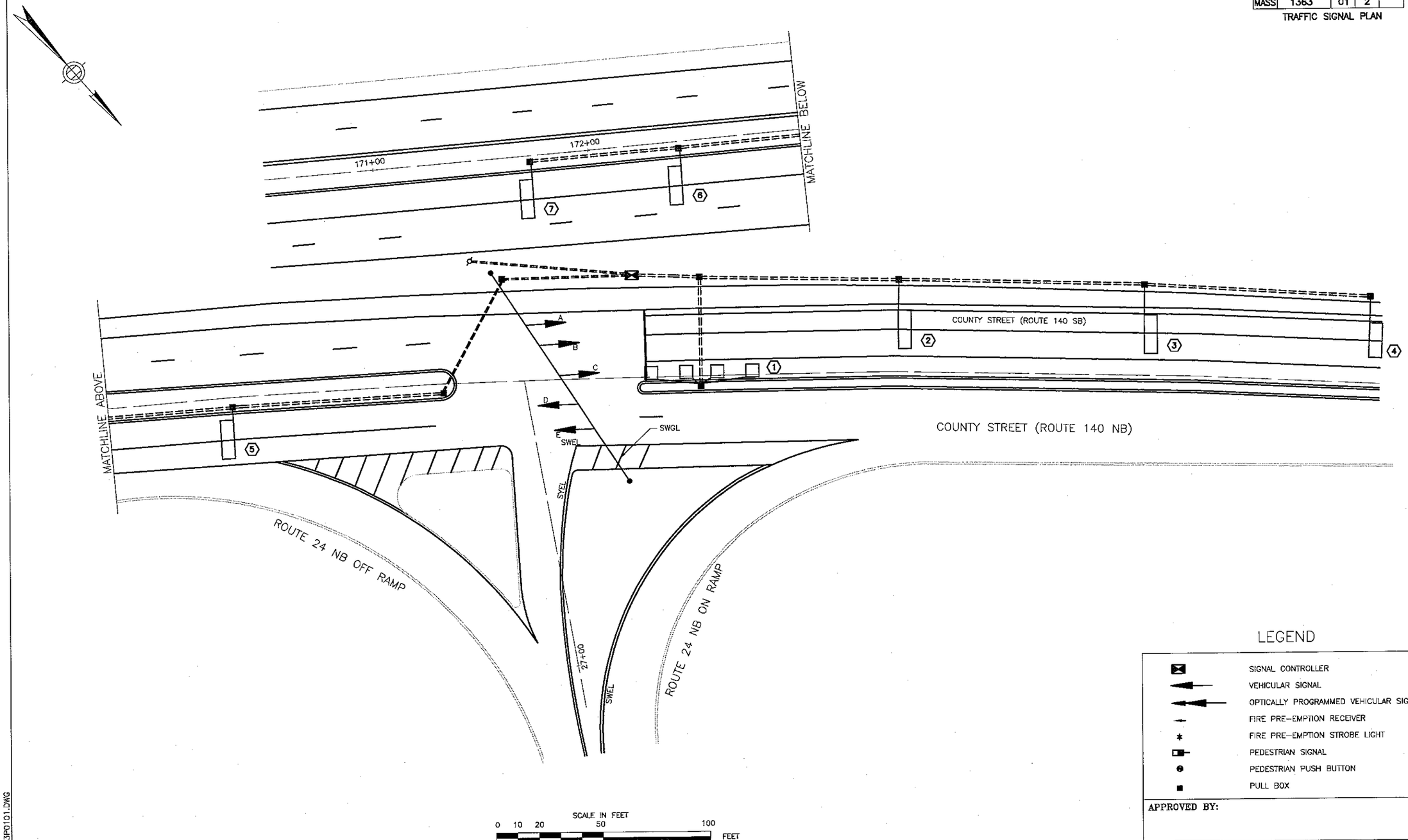
APPROVED BY:

STATE TRAFFIC ENGINEER Date

TAUNTON
RTE. 140 AT 24. NB. RAMP

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1363	01	2	

TRAFFIC SIGNAL PLAN



LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

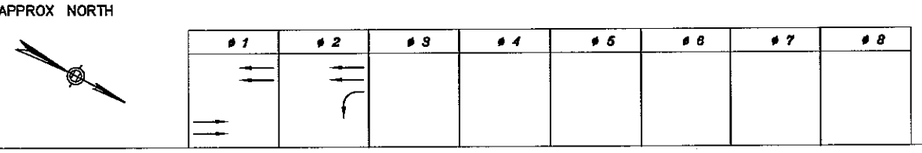
1363P0101.DWG

TAUNTON
RTE. 140 AT 24. NB. RAMP

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1363	01	3	

TRAFFIC SIGNAL DATA

APPROX NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
COUNTY ST (ROUTE 140)	EB-LT	C	RL	RL	RL	GL	YL	RL																			FRL
COUNTY ST (ROUTE 140)	EB	A,B	G	G	G	G	G	G																			FY
COUNTY ST (ROUTE 140)	WB	D,E	GV	Y	R	R	R	R																			FY

TIMING IN SECONDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
MINIMUM GREEN (INITIAL)	16			8																					EMERGENCY ONLY
PASSAGE TIME (VEHICLE)	2			2																					
MAXIMUM 1	42			30																					
MAXIMUM 2	56			20																					
YELLOW CLEARANCE		4			4																				
RED CLEARANCE			1			1																			
WALK (W)																									
PEDESTRIAN CLEARANCE																									
RECALL		EXT			OFF																				
MEMORY	NON-LOCKING			NON-LOCKING																					

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION (UNDERGROUND)
1	SPANWIRE ASSEMBLY BASE & FDN.
5	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
4	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
11	ROADWAY LOOP DETECTOR
10	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

5. ø3 – ø8 NOT USED.

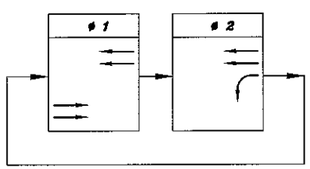
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTOR NOT VISIBLE DURING SIGNAL INVENTORY.

PREFERENTIAL PHASING SEQUENCE



COORDINATION DATA
(ALL ENTRIES IN SECONDS)

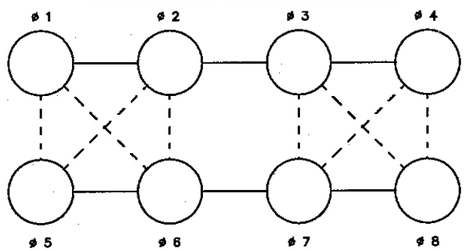
CYCLE	TIME PERIOD	OFFSET	CYCLE LENGTH
CYCLE 1	MONDAY-SATURDAY 1000-1200	0	82
CYCLE 2	SUNDAY 1100-1900	0	82
CYCLE 3	MONDAY-SATURDAY 0600-1000	0	82
CYCLE 4			

SPLIT	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
SPLIT 1								
SPLIT 2								
SPLIT 3								
SPLIT 4								

LOOP DETECTOR DATA

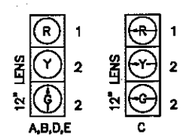
DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	4	6'X6'	3	ø2	ø2	PRESENCE		
2	1	6'X18'	3	ø1	ø1	PULSE		
3	1	6'X18'	3	ø1	ø1	PULSE		
4	1	6'X18'	3	ø1	ø1	PULSE		
5	1	6'X18'	3	ø1	ø1	PULSE		
6	1	6'X18'	3	ø1	ø1	PULSE		
7	1	6'X18'	3	ø1	ø1	PULSE		

NEMA DUAL RING PHASING NOTES:



SIGNAL IDENTIFICATION

1: LED 2: INCANDESCENT 3: FIBEROPTIC



CONTROLLER MAKE & MODEL: TCT LMD 8000
UTILITY POLE No. –
METER No. 21-150-696 (34985H)
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

1363D0101.DWG

TAUNTON RTE. 140 AT 24. SB. RAMP				
STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1364	01	1	

TITLE SHEET

THE COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HIGHWAY DEPARTMENT

TRAFFIC SIGNAL LAYOUT PLAN AND PERMIT

COUNTY STREET (ROUTE 140) AT AMERICAN VETERANS HIGHWAY (ROUTE 24) SOUTHBOUND RAMP

IN THE TOWN OF

TAUNTON

BRISTOL COUNTY

Under authority of Chapter 89, Sec. 8 General Laws, Tercentenary Edition, the Massachusetts Highway Department hereby approves the following described traffic control signal installation, and auxiliary signs and surface markings, for the above location, provided that a permit for the opening of the road and the placing of structures thereon shall be received from the board or officer in charge of the road.

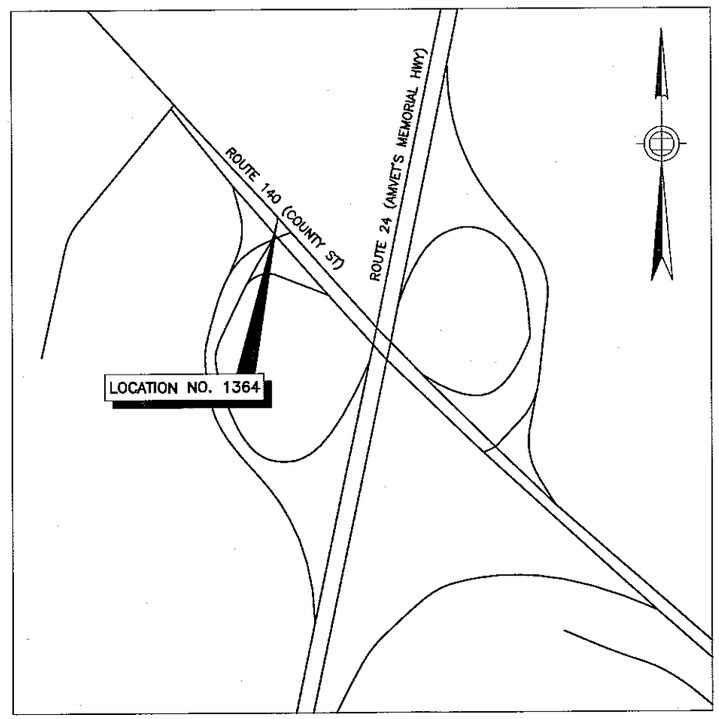
This permit is granted for the specific signal installation described herein and for its operation in accordance with the conditions set forth below and with the requirements of the Massachusetts Highway Department. The details for any material alterations or any continued or substantial departure from the provisions of this permit must be submitted to the department for approval with data sufficient to justify such modification. Failure to comply with these requirements automatically voids this permit during such time as non-compliance exists.

I STANDARDS OF INSTALLATION

The traffic control signal installation and all auxiliary signs and surface markings which are used in connection with such installation shall conform with the requirements of the Massachusetts Highway Department and with the sketch which is attached.

II OPERATION OF SIGNALS

(a) Type of control: AUTOMATIC
(b) Coordination: NONE
(c) Special connection: NONE
(d) Timing for automatic operation: SEE SHEET NO. 3
(e) Hours for Automatic Operation: CONTINUOUS
Signals may be operated automatically for a shorter period of time but not for a greater length of time than is here indicated except when unusual conditions arise which temporarily justify longer operation.
(f) Flashing Operation: Whenever a signal is not operating as a control device (stop and go), it must Flash Yellow or Flash Red as set forth in the signal sequence and at the rate of 50–60 flashes per minute unless otherwise specified in Part II(e) of this Permit.
(g) Manual Operation: Signals may be operated manually at any time irrespective of the hours designated in Part II(3) of this permit
(h) Discontinuance: Signals may be discontinued at any time. When this is done signal faces must be turned away from traffic, taken down or hooded, and the District Highway Engineer notified.



LOCUS MAP
(SCALE AS SHOWN)

HOR. SCALE IN FEET
0 200 400 800

REVISION NO. 01
DATE: 12-05-01
INSERT BY: J.C.CONNOR
DATE:
FILE NAME: 1364T0101.DWG

COMMENTS:

MASS HIGHWAY
10 PARK PLAZA
BOSTON, MA 02116

MASSACHUSETTS
HIGHWAY DEPARTMENT

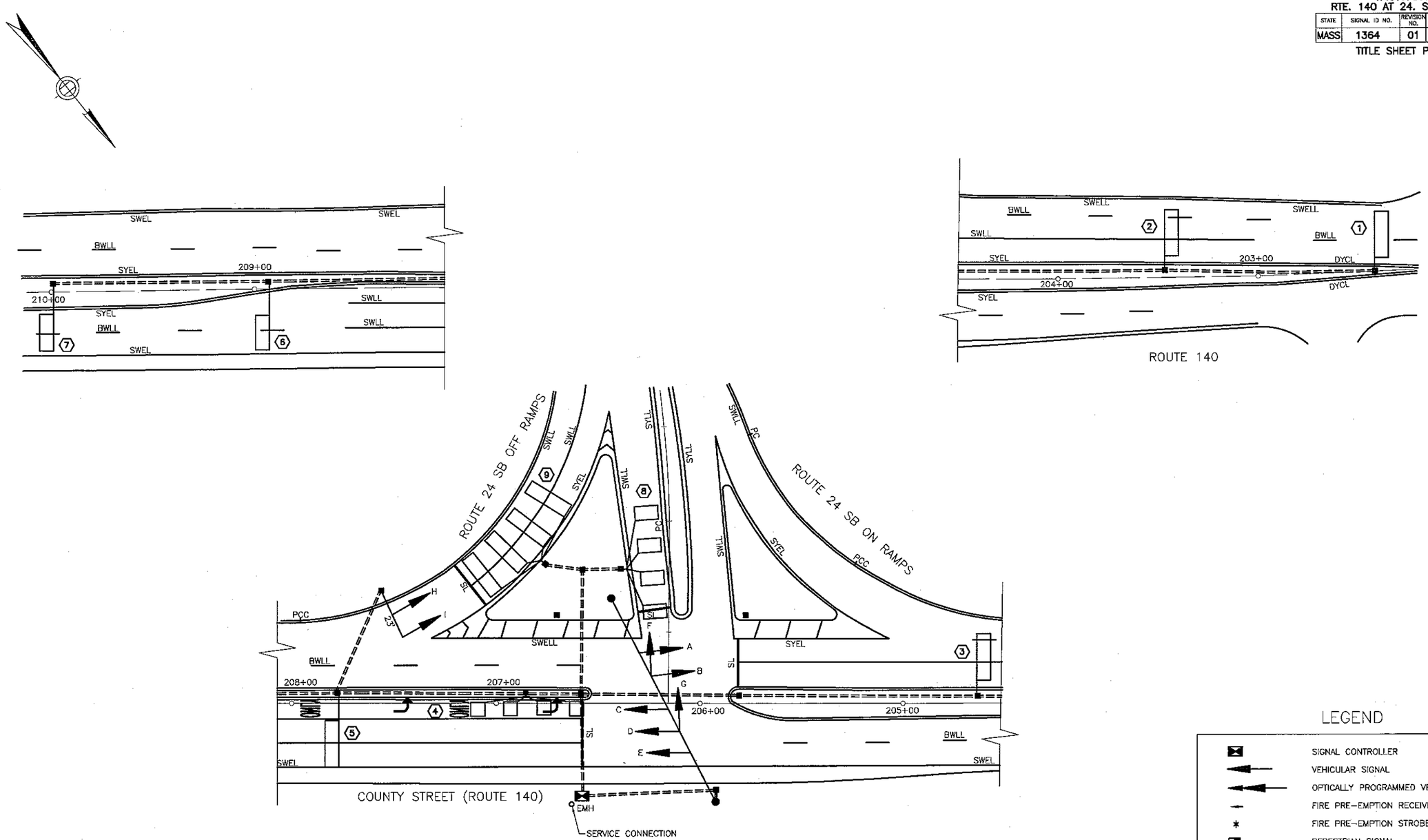
APPROVED BY:

STATE TRAFFIC ENGINEER Date

TAUNTON
RTE. 140 AT 24. SB. RAMP

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1364	01	2	

TITLE SHEET PLAN



0 10 20 50 100
SCALE IN FEET

LEGEND

- SIGNAL CONTROLLER
- VEHICULAR SIGNAL
- OPTICALLY PROGRAMMED VEHICULAR SIGNAL
- FIRE PRE-EMPTION RECEIVER
- FIRE PRE-EMPTION STROBE LIGHT
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PULL BOX

APPROVED BY:

STATE TRAFFIC ENGINEER Date

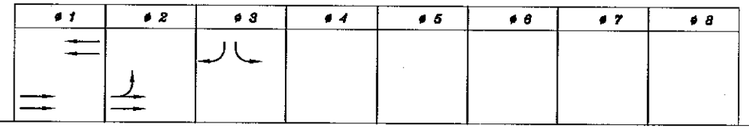
1364P0101.DWG

TAUNTON
RTE. 140 AT 24. SB. RAMP

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1364	01	3	

TRAFFIC SIGNAL DATA

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH MODE
COUNTY ST (ROUTE 140)	EB	A,B	G	Y	R	R	R	R	R	R	R																FY
COUNTY ST (ROUTE 140)	WB	C	RL	RL	RL	GL	YL	RL	RL	RL	RL																FRL
COUNTY ST (ROUTE 140)	WB	D,E	G	G	G	G	Y	R	R	R	R																FY
ROUTE 24 SB RAMP	NB	F,G	R	R	R	R	R	R	GL	Y	R																FR
ROUTE 24 SB RAMP	NB	H,I	R	R	R	G	G	G	GV	Y	R																FR

TIMING IN SECONDS

MINIMUM GREEN (INITIAL)	10			8			12																		
PASSAGE TIME (VEHICLE)	4			3			4																		
MAXIMUM 1	34			20			40																		
MAXIMUM 2	34			20			40																		
YELLOW CLEARANCE		4			4			4																	
RED CLEARANCE			1			1			1																
WALK (W)																									
PEDESTRIAN CLEARANCE																									
RECALL	EXT			OFF			OFF																		
MEMORY	LOCKING			NON-LOCKING			NON-LOCKING																		

EMERGENCY ONLY

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
1	CONTROLLER TYPE 4DW & 8DW, CAB. & FDN.
1	SERVICE CONNECTION
1	SPANWIRE ASSEMBLY BASE & FDN.
5	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
2	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
1	SPECIAL FUNCTION UNIT-TIME BASED COORDINATION
5	LOOP DETECTOR AMPLIFIER (DUAL CHANNEL)
9	ROADWAY LOOP DETECTOR
13	12" x 12" PULL BOX
	Necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø4 – ø8 NOT USED.

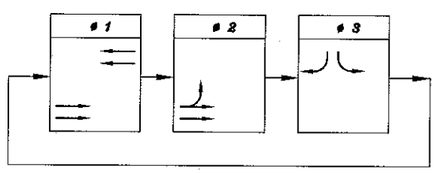
NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

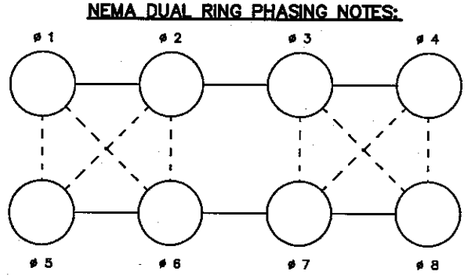
LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.
4. LOOP DETECTORS WERE NOT VISIBLE DURING SIGNAL INVENTORY.

PREFERENTIAL PHASING SEQUENCE



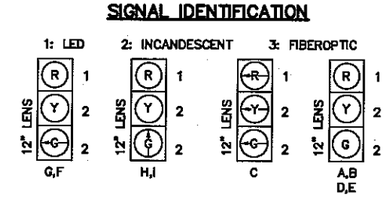
NEMA DUAL RING PHASING NOTES:



LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	1	6'X20'		ø1	ø1	PRESENCE		
2	1	6'X20'		ø1	ø1	PRESENCE		
3	1	6'X20'		ø1	ø1	PRESENCE		
4	4	6'X6'		ø2	ø2	PRESENCE		
5	1	6'X20'		ø1	ø1	PRESENCE		
6	1	6'X20'		ø1	ø1	PRESENCE		
7	1	6'X20'		ø1	ø1	PRESENCE		
8	4	6'X10'		ø3	ø3	PRESENCE		
9	4	6'X20'		ø3	ø3	PRESENCE		

SIGNAL IDENTIFICATION



CONTROLLER MAKE & MODEL: TCT LMD 8000
UTILITY POLE No. –
METER No. 312-32-714 (34424R)
EMERGENCY PRE-EMPTION (TYPE): NONE

APPROVED BY:

STATE TRAFFIC ENGINEER **Date**

13640D101.DWG

Appendix 4.1-D

Description of Roadways and Intersections

New Bedford

Inventory of Roadways and Intersections

The study area for the whale's Tooth station traffic analysis is bounded by Coggeshall Street to the north, Union Street and the State Pier to the south, the Acushnet River to the east and Purchase Street to the west. The traffic study area for the King's Highway station in bounded by Tarkiln Hill Road, King's Highway and Route 140 interchange 4 to the north; Nash Street to the south; Ashley Boulevard to the east and Mt. Pleasant Street to the west. A comprehensive field inventory of traffic conditions on the study area roadways was conducted in October 2008. The field reconnaissance consisted of an inventory of existing roadway geometry, traffic volumes, and traffic operations. The transportation infrastructure in the vicinity of each site is described below.

Roadways

The following key roadways within the vicinity of the station sites provide access to the proposed stations.

Downtown Connector (Route 18) is a high speed, multi-lane, limited access highway that connects the northern sections of New Bedford and I-195 with downtown New Bedford and Route 6. The road begins at Coggeshall Street, Ashley Boulevard and Acushnet Avenue and terminates at the New Bedford/Fairhaven Bridge (Route 6) where the roadway continues as the J.F.K. Memorial Highway. The Downtown Connector is a state-owned and maintained roadway.

Ashley Boulevard (Route 18) is a major north-south roadway in New Bedford extending from Route 140 near the Freetown town line to Coggeshall Street where the Downtown Connector begins. Ashley Boulevard is a two-lane, urban arterial roadway with a mixture of commercial and multi-unit residential buildings. For the majority of its length, Ashley Boulevard is a two-lane two-way roadway; however, in the vicinity of Coggeshall Street, it is one-way southbound. Ashley Boulevard is a city owned and maintained roadway, which provides access to the surrounding community.

Acushnet Avenue extends in a north-south direction from the Freetown town line to Coggeshall Street where the Downtown Connector begins. For the majority of its length, Acushnet Avenue is a two-lane two-way roadway; however, in the vicinity of Coggeshall Street it is one-way northbound. The land use on this portion of Acushnet Avenue is primarily residential and commercial. South of I-195, Acushnet Avenue begins again at Washburn Street. It continues as a two-lane two-way roadway along the west side of the project site until Hillman Street where MacArthur Drive begins. The land use along this portion of Acushnet Avenue is primarily industrial. Acushnet Avenue is a city owned and maintained roadway. The proposed site driveway would be located on Acushnet Avenue south of Wamsutta Street.

J.F.K. Memorial Highway traverses the study area in a north-south direction from the New Bedford-Fairhaven Bridge (Route 6) to Cove Road. J.F.K. Memorial Highway is a multi-lane, divided, limited access highway that provides access from the southern portions of New Bedford and Dartmouth to the downtown area. The land use along J.F.K. Memorial Highway includes residential, commercial, industrial, port and marine uses. J.F.K. Memorial Highway is a city owned and maintained roadway.

Purchase Street is a minor arterial roadway that parallels the Downtown Connector through the study area from north of Coggeshall Street to Route 6 (Kempton Street). Purchase Street provides access to the site via Logan Street, North Front Street and Hillman Street. Purchase Street is a city owned and maintained roadway of variable width. In the vicinity of Logan Street, Purchase Street is a narrow two-lane roadway with parking on both sides of the street. In the vicinity of Hillman Street and Kempton Street, Purchase Street generally provides two travel lanes in each direction. The land uses along Purchase Street are a combination of commercial and residential.

North Front Street is a north-south roadway extending from Acushnet Avenue, north of Coggeshall Street to Wamsutta Street, south of I-195, where it becomes Herman Melville Boulevard. North of Coggeshall Street, North Front Street is a two-lane, one-way northbound urban roadway. Land uses in this section are mixed residential and commercial. South of Coggeshall Street and I-195, North Front Street is a two-lane, two-way roadway. Land use in this section is primarily industrial. North Front Street is a city owned and maintained roadway.

Logan Street is a two-lane, two-way, roadway that connects Purchase Street with Herman Melville Boulevard, North Front Street and the waterfront area. Land use along Logan Street is primarily industrial.

Hillman Street provides one of the only connections between the downtown area, the waterfront and Route 18. Hillman Street begins at Purchase Street and continues over Route 18 to Acushnet Avenue and MacArthur Drive. Hillman Street is a two-lane, two-way roadway of varying widths.

Herman Melville Boulevard is a north-south roadway extending from Wamsutta Street to the north to MacArthur Drive to the south. Herman Melville Boulevard is a two-lane, city owned and maintained roadway providing access to industrial and port facilities.

Coggeshall Street is a major east-west arterial roadway connecting New Bedford and Fairhaven. In the study area, Coggeshall Street is a two-lane, two-way roadway of varying width with parking on the north side of the street. Land use along Coggeshall Street is primarily commercial. Coggeshall Street is a city owned and maintained roadway.

MacArthur Drive is a north-south roadway that primarily serves as a frontage road to J.F.K. Memorial Highway. MacArthur Drive provides access to the waterfront land uses located along the east side of the roadway. This roadway provides one travel lane in each direction and is city owned and maintained.

Route 140 is a four-lane limited access highway. It runs north-south extending from Route 6 (Kempton Street) in the south to Taunton in the north. In New Bedford, Route 140 connects with I-195 and Route 6 (Kempton Street), providing easy access to along the South Coast. Its intersections with Mount Pleasant Street and King's Highway provide direct access to the proposed King's Highway station, which is located south of the Route 140 southbound ramps at King's Highway Street. South, by the piers, Route 140 intersects with Route 6 (Kempton Street) providing easy access to the proposed State Pier station, which its proposed location would be at the pier east of the intersections of Union Street at MacArthur Drive. Land uses in the vicinity of Route 140 are mainly commercial.

Mount Pleasant Street is a two-lane local roadway running north-south from Tarkiln Hill Road, to Durfee Street in downtown New Bedford. Its intersection with Route 140 in New Bedford provides connection to the New Bedford Regional Airport, (located west of Mt. Pleasant Street) as well as, easy access to the proposed King's Highway station. Land uses along Mt. Pleasant Street consist of a mix of residential and commercial uses.

King's Highway Street is a short four-lane local roadway located north of the proposed King's Highway station in New Bedford. It runs east-west from Jones Street to Tarkiln Road. In between, it intersects with the Route 140 northbound ramps, providing easy access to the shopping centers at both sides of the road and the proposed King's Highway Rail station. Land uses in the vicinity of the King's Highway station are commercial.

Church Street is a two-lane local roadway which runs north-south through the center of New Bedford. It connects with Route 140 in New Bedford and extends south to downtown, passing to the east of the proposed King's Highway station. Land uses along Church Street are characterized by a mix of commercial and residential areas.

Intersections

The following key intersections within the vicinity of the sites provide access to the proposed stations.

Hillman Street and Purchase Street intersect to form a three-legged, signalized intersection. The Purchase Street northbound approach consists of a through lane and a through/right-turn lane. The Purchase Street southbound approach consists of a shared left-turn/through lane and a through lane. The Hillman Street westbound approach accommodates one general purpose lane. This intersection is controlled by a two-phase signal. The first phase permits northbound and southbound movements. The second phase permits Hillman Street westbound movements. Sidewalks are present on all approaches and crosswalks are present across Hillman Street and northbound Purchase Street. Land uses in the vicinity of the intersection are primarily commercial and residential.

Purchase Street and the Route 18 Southbound Off-Ramp intersect to form a three-legged, unsignalized intersection. Purchase Street consists of a shared left-turn/through lane on the northbound approach and a shared through/right-turn lane on the southbound approach. The Route 18 southbound off-ramp is the westbound approach, with one general purpose lane, which is STOP-controlled. Traffic control includes signal heads with flashing yellow lights for the northbound and southbound approaches and a flashing red light for the westbound approaches. A crosswalk is provided on the northbound approach only and sidewalks are provided along both sides of Purchase Street. Land uses in the vicinity of this intersection are entirely commercial.

McArthur Drive and Herman Melville Boulevard intersect at a three-legged, unsignalized intersection. The northbound and southbound approaches on MacArthur Drive consist of one general purpose lane. The westbound Herman Melville Boulevard approach, which is under STOP-control, has sufficient width to accommodate two lanes. There are no sidewalks present along any approach. A crosswalk is located across Herman Melville Boulevard. Land uses in the vicinity of this intersection are primarily industrial.

Route 6 and Pleasant Street intersect to form a complex signalized intersection with four approaches. The eastbound Route 6 (Kempton Street) approach consists of a left-turn lane and a shared through/right-turn lane. The westbound Route 6 approach consists of an exclusive left-turn lane, a through lane and an exclusive right-turn lane. The northbound Pleasant Street approach consists of an exclusive left-turn lane, two through lanes and a channelized right-turn lane. The southbound Pleasant Street approach consists of two general purpose lanes. Mill Street is one-way in the westbound direction leaving the intersection and forms a one-way pair with Kempton Street. North 6th Street is one-way in the southbound direction leaving the intersection and forms a one-way pair with the northbound Pleasant Street approach.

The intersection is controlled by a five-phase traffic signal. The first phase is for eastbound traffic from Kempton Street. The second phase permits westbound Route 6 movements. The third phase is an exclusive pedestrian phase upon push button activation. The fourth phase permits southbound Pleasant Street movements. Finally, the fifth phase accommodates northbound Pleasant Street traffic. Right turns on red are not permitted for the westbound approach on Route 6. Sidewalks and crosswalks are present along all approaches of the intersection. Land uses in the vicinity include residential and commercial.

Route 18/MacArthur Drive and Union Street/State Pier intersect to form a six-legged, signalized intersection. Route 18 and MacArthur Drive run in the north-south direction and are parallel to each other separated by a median. The northbound MacArthur Drive approach consists of one general purpose lane but left turns are not permitted from this approach. The southbound approach consists of a shared left-turn/through lane and an exclusive right-turn lane. The northbound and southbound Route 18 approaches consist of an exclusive left-turn lane, two through lanes and a right-turn lane. The eastbound Union Street approach accommodates an exclusive left-turn lane and a shared through/right-turn lane. The westbound State Pier Driveway approach accommodates one general purpose lane.

This intersection is controlled by a five-phase signal. The first phase permits southbound MacArthur Street and northbound Route 18 right turns. The second phase is a protected phase for the northbound and southbound Route 18 left turns. The third phase permits the northbound and southbound through movements from MacArthur Street and Route 18. The fourth phase is an exclusive pedestrian phase upon push button activation. Finally, the fifth phase permits all movements from Union Street and State Pier Driveway. Right turns on red are not permitted for the southbound MacArthur Drive and eastbound Union Street approaches. Sidewalks are present along all approaches of the intersection. Crosswalks are provided across all approaches. Land uses at this intersection consist of residential and commercial to the west and a ferry terminal to the east.

Coggeshall Street intersects Purchase Street to form a four-legged, unsignalized intersection. All approaches consist of one general purpose lane and are STOP-controlled. Sidewalks are present on all sides of the intersection. Crosswalks are present across all approaches. Land uses at this intersection consist primarily of residential and commercial to the west and a school at the southwest corner of the intersection.

Route 18 Northbound and Coggeshall Street intersect to form a four-legged, signalized intersection. The northbound approach consists of an exclusive left-turn lane, one through lane and a right-turn lane. There is no southbound approach because Route 18 is one-way

northbound. The eastbound Coggeshall Street approach consists of one shared left-turn/through lane. The westbound Coggeshall Street approach accommodates one shared through/right-turn lane. The traffic signal operates on two phases: Route 18 northbound traffic proceeds; then Coggeshall Street eastbound and westbound traffic is released. Sidewalks are present on all approaches of the intersection except on the southern leg of the intersection. Crosswalks are present across all approaches. Metered parking is present on Route 18 north of the intersection. Land uses in the vicinity of this intersection are primarily commercial and residential to the north and undeveloped land with a parking lot to the south.

Route 18 Southbound and Coggeshall Street intersect to form a four-legged, signalized intersection. The southbound approach consists of a shared left-turn/through lane, one through lane and a right-turn lane. There is no northbound approach because Route 18 is one-way southbound. The eastbound Coggeshall Street approach consists of one shared through/right-turn lane. The westbound Coggeshall Street approach accommodates one shared left-turn/through lane. This intersection is controlled by a two-phase signal. The first phase permits southbound Route 18 movements. The second phase permits eastbound and westbound Coggeshall Street movements. Sidewalks and crosswalks are present on all approaches of the intersection except on the southern leg of the intersection. Land uses in the vicinity of this intersection consist of a church and residential buildings to the north and a community center to the south.

Coggeshall Street intersects North Front Street to form a four-legged unsignalized intersection. All approaches of the intersection consist of one general purpose lane. North Front Street is two-way south of the intersection and one-way north of the intersection. The northbound North Front Street approach is under STOP-control. Sidewalks are present along all approaches of the intersection. Crosswalks are located across all approaches. Land uses in the vicinity of this intersection are primarily commercial uses and a parking lot.

Coggeshall Street and Belleville Avenue intersect to form a four-legged, signalized intersection. The northbound Belleville Avenue approach includes a shared left-turn/through lane and an exclusive right-turn lane. The southbound Belleville Avenue approach consists of one shared left-turn/through and a shared through/right-turn lane. The eastbound Coggeshall Street approach accommodates one shared left-turn/through lane and a shared through/right-turn lane. The westbound Coggeshall Street approach consists of a shared left-turn/through lane and a right-turn lane. This intersection is controlled by a four-phase signal. The first phase is a lead phase for southbound Belleville Avenue movements. The second phase permits northbound and southbound Belleville Avenue movements. The third phase is an exclusive pedestrian phase upon push button activation. The fourth phase permits eastbound and westbound Coggeshall Street movements. Sidewalks and crosswalks are present on all approaches of the intersection. Land uses in the vicinity of this intersection are primarily retail and commercial.

Purchase Street and Weld Street/Route 18 Off-Ramp intersect to form a four-legged unsignalized intersection. All approaches to the intersection consist of one general purpose lane except for the Route 18 off-ramp which operates as two lanes. All the approaches are under STOP-control. Sidewalks and crosswalks are present on all approaches. Land uses in the vicinity of this intersection are primarily residential, commercial and retail uses.

Logan Street intersects Purchase Street to form a three-legged, unsignalized intersection. All approaches consist of one general purpose lane. There is no traffic control. Sidewalks are

present along all of the approaches of the intersection. Land uses in the vicinity of this intersection are primarily commercial and retail.

Logan Street and Acushnet Avenue intersect to form a four-legged unsignalized intersection. Acushnet Avenue is a north-south roadway and Logan Street runs east-west. All approaches consist of one general purpose lane and there are no pavement-markings present on any of the approaches. The Logan Street approaches are under STOP-control. Sidewalks are present on all approaches. There are no crosswalks. A 12-foot 11-inch bridge vertical clearance sign is located on the southwest corner of the intersection. Land uses at this intersection consist primarily of commercial and residential to the east and undeveloped land to the west.

Logan Street and North Front Street/Herman Melville Boulevard intersect to form a three-legged unsignalized intersection. All the approaches consist of one general purpose lane. There is no signage, pavement markings or traffic control present at this intersection. Sidewalks are present on all approaches of the intersection. The pavement and sidewalks are in poor condition. Land uses at this intersection consist primarily of an auto body shop to the east and the Department of Social Services is located a few hundred feet to the east.

Wamsutta Street intersects North Front Street/Herman Melville Boulevard to form a three-legged unsignalized intersection. All the approaches consist of one general purpose lane. There is no signage, pavement markings or traffic control present at this intersection. Land uses at this intersection consist primarily of a parking lot and railroad dockyard to the west and the Mar-Lees Seafood production and distribution center is located to the east.

Wamsutta Street and Acushnet Avenue intersect to form a three-legged unsignalized intersection. The northbound Acushnet Avenue approach consists of a shared through/right-turn lane. The southbound Acushnet Avenue approach consists of a shared left-turn/through lane. The westbound Acushnet Avenue approach operates as a shared left-turn/right-turn lane. The Wamsutta Street approach is under STOP control. Sidewalks are present along Acushnet Avenue and the westbound side of Wamsutta Street. Land uses at this intersection consist primarily of a new residential development to the north and undeveloped land to the south.

Mount Pleasant intersects the Route 140 southbound ramps to form an unsignalized T-intersection. The northbound Mount Pleasant Street approach consists of a through lane and a channelized right-turn lane that provides access to Route 140 southbound. The southbound Mount Pleasant Street approach operates as a shared left-turn/through lane. The Route 140 southbound off-ramp approach consists of a left-turn lane and a channelized right-turn lane. The left-turns from southbound Route 140 off-ramp are under STOP control and the right turns yield to northbound Mount Pleasant traffic. Sidewalks are present along the northbound approach of Mount Pleasant Street. Land uses in the vicinity of this intersection are primarily residential and undeveloped land.

King's Highway and Route 140 northbound ramps intersect to form signalized T-intersection. The northbound King's Highway approach consists of a shared left-turn/through lane and a through lane. The southbound King's Highway approach operates as two through lanes and a channelized right-turn lane that provides access to Route 140 northbound. The Route 140 northbound off-ramp approach consists of a left-turn lane and a channelized right-turn lane. The right-turns yield to southbound King's Highway traffic.

This intersection is controlled by a three-phase signal. The first phase is a lead phase for northbound traffic. The second phase permits northbound and southbound King's Highway movements. The third phase permits left-turns from the Route 140 off-ramp. Sidewalks are present along the northbound approach of King's Highway. Land uses in the vicinity of this intersection are primarily commercial and retail.

Mount Pleasant Street intersects Jones Road/King's Highway to form a four-legged signalized intersection. This intersection is under construction and the traffic signals were turned off during the field visit. Due to construction activity and milled condition of the roadway pavement, lane configuration and crosswalk locations could not be determined. However, the roadway width is sufficient to accommodate two lanes on every approach. Land uses in the vicinity of this intersection are primarily residential.

Park Avenue and Church Street intersect to form a four-legged, unsignalized intersection. All approaches consist of one general purpose lane. Park Avenue is one-way from the west and two-way to the east. The eastbound and westbound Park Avenue approaches are under STOP control. There are no sidewalks or crosswalks present on any of the approaches. Land uses at this intersection are primarily commercial and residential.

Route 18 and Wood Street intersect to form a four-legged, signalized intersection. The northbound and southbound Route 18 approaches accommodate an exclusive left-turn lane and a shared through/right-turn lane. The eastbound and westbound Wood Street approaches consist of one general purpose lane. This intersection is controlled by a three-phase signal. The first phase permits northbound and southbound Route 18 movements. The second phase is an exclusive pedestrian phase upon push button activation. The third phase permits eastbound and westbound Wood Street movements. Sidewalks and crosswalks are present on all approaches of the intersection. Land uses in the vicinity of this intersection are primarily retail and commercial.

Church Street and Irvington Street intersect to form a four-legged, unsignalized intersection. All approaches at this intersection consist of one general purpose lane and the westbound Irvington Street approach is one-way into the intersection. A driveway exists opposite Irvington Street which provides access to a tool supply store. There are no STOP signs present at any of the approaches. Sidewalks are present along Church Street approaches. Land uses at this intersection are commercial and residential.

Church Street and Nash Road intersect to form a four-legged, signalized intersection. All approaches of the intersection consist of one general purpose lane. This intersection is controlled by a two-phase signal. The first phase permits northbound and southbound Church Street movements. The second phase is for eastbound and westbound Nash Road traffic. During the field visit, there was a malfunction of the pedestrian push buttons as the pedestrian calls did not activate any pedestrian phase. Sidewalks and crosswalks are present on all approaches of the intersection. Land uses in the vicinity of this intersection are primarily residential uses.

Church Street and Tarkiln Hill Road intersect to form a four-legged signalized intersection. The northbound Church Street approach accommodates an exclusive left-turn lane and a shared through/right-turn lane. The southbound Church Street approach consists of a shared left-turn/through lane and an exclusive right-turn lane. The eastbound and westbound approaches on Tarkiln Hill Road consist of an exclusive left-turn lane and a shared through/right-turn lane. This intersection is controlled by a two-phase signal. The first phase permits northbound and

southbound Church Street movements. The second phase permits eastbound and westbound Tarkiln Hill Road movements. There are no sidewalks or crosswalks present on any of the approaches. Land uses at this intersection are primarily commercial and retail.

King's Highway intersects Shaw's driveway to form a three-legged signalized intersection. The northbound Shaw's driveway approach accommodates an exclusive left-turn lane and an exclusive right-turn lane. The eastbound approach consists of a through lane and a shared through/right-turn lane. The westbound approach provides a through lane and a shared through/left-turn lane.

This intersection is controlled by a three-phase signal. The first phase allows the eastbound and westbound movements. The second phase is a lag phase for the westbound traffic. The third phase allows the northbound movements. Sidewalks are present along the westbound approach of King's Highway. Land uses in the vicinity of this intersection are primarily commercial and retail.

King's Highway intersects Stop & Shop driveway to form a four-legged signalized intersection. All the approaches in this intersection provide one shared through/left-turn lane and one shared through/right-turn lane. This intersection is controlled by a four-phase signal. The first phase is a lead phase for the westbound traffic. The second phase permits the eastbound and westbound movements. The third phase is a lag phase for the eastbound traffic. The fourth phase permits the northbound and southbound movements. Sidewalks are present along the eastbound approach of King's Highway. Land uses in the vicinity of this intersection are primarily commercial and retail.

King's Highway intersects Tarkiln Hill Road to form a three-legged unsignalized intersection. The King's Highway westbound approach provides one shared through/right-turn lane. The eastbound approach provides a shared through/left-turn lane, however, it operates as an exclusive through lane with a shared through-left-turn lane. The Tarkiln Hill Road southbound approach provides a wide shared left/right-turn lane, however it operates as an exclusive left-turn lane with an exclusive right-turn lane. Land uses in the vicinity of this intersection are primarily commercial and retail land uses.

Freetown

Inventory of Roadways and Intersections

The study area for this analysis focused on the segment of South Main Street (Route 79) between Copicut Road to the south and High Street to the north. The study area includes the Route 24/Route 79 interchange. A comprehensive field inventory of traffic conditions on the study area roadways and at study area intersections was conducted in October 2008. The field inventory consisted of data collected on existing roadway geometry, traffic volumes, and operating characteristics.

Roadways

The following key roadways within the vicinity of the site provide access to the proposed station.

Ridge Hill Road is a two-lane local street located east of the interchange of Route 24 and Route 79. It extends from the Mobile Gas station located off of South Main Street to the west to south of the interchange of Routes 24 and 79. Land uses along the vicinity of this street are entirely commercial uses.

South Main Street is a two-lane arterial roadway connecting Fall River to Freetown. It runs north-south extending from Fall River Country Club Road in the south to Water Street in the north, providing easy access to the proposed Freetown station. In between, it intersects with the Route 24 interchange providing direct access to Fall River to the south and to Taunton to the north. Land uses surrounding the vicinity of this roadway consist of a mix of commercial and residential uses.

Narrows Road is a two-lane local street in Freetown. It runs east-west extending from the densely populated Pine Island eastward to South Main Street. Its intersection with South Main Street is located north of the proposed Freetown station. Land uses along this local street are mainly residential.

Intersections

The following key intersections provide access to the proposed station.

South Main Street intersects Ridge Hill Road to form a four-legged, unsignalized intersection. All approaches consist of one general purpose lane. There are no pavement markings on Ridge Hill Road. The westbound Ridge Hill Road approach is under STOP control. Sidewalks are present along the northbound South Main Street approach. Land uses in the vicinity of this intersection include commercial uses to the north and undeveloped land to the south.

South Main Street and High Street intersect to form a three-legged, unsignalized intersection. All approaches to the intersection consist of one general purpose lane. The westbound High Street approach is under STOP control. Sidewalks are present along the northbound and southbound South Main Street approaches. A yellow painted crosswalk is present across the southbound South Main Street approach. Land uses in the vicinity of this intersection consist of residential uses to the south and a church to the north.

South Main Street and Narrows Road intersect to form a three-legged, unsignalized intersection. All approaches of the intersection consist of one general purpose lane. The Narrows Road approach is under STOP control. There are no sidewalks or crosswalks present at any of the approaches of the intersection. Land uses in the vicinity of this intersection are primarily residential uses to the north and vegetation to the south.

South Main Street and the Route 24 southbound ramps intersect to form an unsignalized T-intersection. The northbound South Main Street approach consists of a shared left-turn/through lane. The southbound South Main Street approach operates as through lane and a channelized right-turn lane that provides access to Route 24 southbound. The Route 24 southbound off-ramp approach consists of a left-turn lane and a channelized right-turn lane. The left-turns from southbound Route 24 off-ramp are under STOP control and the right turns yield to the southbound South Main Street traffic. A 14 feet 2 inches bridge vertical clearance sign is present along the northbound direction alerting truck traffic approaching the Route 24 overpass. Land in the vicinity of this intersection is primarily undeveloped.

South Main Street and the Route 24 southbound ramps intersect to form an unsignalized T-intersection. The northbound South Main Street approach consists of a through lane and a channelized right-turn lane that provides access to Route 24 northbound. The southbound South Main Street approach accommodates a shared left-turn/through lane. The Route 24 northbound off-ramp approach consists of a left-turn lane and a channelized right-turn lane. The left-turns from northbound Route 24 off-ramp is under STOP control and the right turns yield to the northbound South Main Street traffic. A 14 feet 2 inches bridge vertical clearance sign is present along the southbound direction alerting truck traffic approaching the Route 24 overpass. Land uses in the vicinity of this intersection are primarily undeveloped land.

South Main Street and Copicut Road intersect to form a three-legged, unsignalized intersection. All approaches of the intersection consist of one general purpose lane. The westbound Copicut Road approach is under STOP control. Sidewalks are present along the northbound South Main Street approach. Land uses in the vicinity of this intersection are primarily residential uses to the east and undeveloped land to the west.

Fall River

Inventory of Roadways and Intersections

A comprehensive field inventory of traffic conditions on the study area roadways and at study area intersections was conducted as part of the study. The field inventory consisted of data collected on existing roadway geometry, traffic volumes, and operating characteristics.

Roadways

The following key roadways provide access to the proposed station site.

President Avenue (Route 6) is a four-lane arterial roadway extending from South Davol Street and continuing east through Fall River providing direct access to Route 24 at Exit 5. President Avenue runs east-west just north of the proposed Fall River Depot station. Its intersection with South Davol Street provides access to the proposed the Fall River Depot station via a U-turn under Route 79. Land uses along President Avenue consist of commercial uses.

Davol Street traverses the study area in a north-south direction from Brightman Street to Broadway. Davol Street serves as a frontage route to Routes 138 and 79, which connects Route 24 with I-195. North Davol Street provides easy access to the proposed Fall River Depot station, south of President Avenue, while South Davol provides direct access to the proposed Battleship Cove station through its intersection with Anawan Street/Pocasset Street.

North Main Street is a minor arterial roadway traversing downtown Fall River. It runs north-south extending from the Fall River Country Club in the north to Central Street in the south. Its intersection with President Avenue is located just to the north of the proposed Fall River Depot station. On its southern end, North Main Street intersects with Central Street providing easy access to the proposed Battleship Cove station. Land uses along this road are a mix of commercial and residential.

Turner Street is a short two-lane local street. It runs east-west connecting North Davol Street to North Main Street. Its intersection with North Davol Street lies just to the south of the proposed Fall River Depot station, providing easy access to Routes 138 and 79 to the west and direct access to the center of town to the east. Land uses along this street are a mix of residential and commercial.

Intersections

The following key intersections provide access to the proposed stations:

Water Street and Anawan Street intersect to form a four-legged, unsignalized intersection. All approaches consist of one general purpose lane and the westbound Anawan Street approach is under STOP control. Sidewalks are present along all sides of the intersection. Crosswalks are present across all approaches. Land uses at this intersection are primarily commercial and industrial.

Ferry Street and Water Street (Ponta Delgada Street) intersect to form a slightly skewed three-legged, unsignalized intersection. All approaches consist of one general purpose lane and the eastbound Ferry Street approach is under STOP control. Sidewalks are present on both sides of Water Street and the eastbound side of Ferry Street. The southbound Water Street pavement is striped for parking. Land uses in the vicinity of this intersection are primarily commercial.

Anawan Street/Pocasset Street intersects Davol Street to form a five-legged, unsignalized intersection. All approaches consist of one general purpose lane and a concrete median separates Davol Street northbound and southbound movements. All approaches are under STOP control. Sidewalks are present on all approaches of the intersection except on the northeast corner of the intersection. A crosswalk runs diagonally across from the northwest corner of the intersection to the southeast corner. Land uses in the vicinity of this intersection include commercial, residential and an undeveloped area with a parking lot.

Davol Street and Central Street intersect to form a four-legged unsignalized intersection. The northbound and southbound Davol Street approaches consist of one general purpose lane. The Central Street westbound approach, which is under STOP control, is striped as two general purpose lanes and is one-way. Sidewalks are present on all approaches to the intersection. Crosswalks are located across Davol Street. A 14 feet 5 inches bridge height restriction sign is located on the southwest corner of the intersection. Land uses at this intersection are primarily commercial and residential.

North Main Street and President Avenue intersect to form a four-legged signalized intersection. The eastbound and westbound approaches on President Avenue accommodate an exclusive left lane and a shared through/right-turn lane. Right turns on red are not permitted for the westbound approach on President Avenue. The northbound and southbound approaches on North Main Street consist of one general purpose lane. The traffic signal operates on three phases. The first phase permits the northbound and southbound traffic concurrently, then the second phase is an exclusive pedestrian phase, and the third phase permits the eastbound and westbound traffic concurrently. Bus stops are located on both sides of North Main Street south of the intersection. Sidewalks and crosswalks are present on all approaches of the intersection. Land uses at this intersection consist of residential and commercial uses.

North Davol Street and President Avenue intersects to form a four-legged signalized intersection. The northbound Davol Street approach is one-way and consists of a shared left-turn/through lane, a through lane and an exclusive right turn lane. The eastbound approach on President Avenue consists of two general-purpose lanes. The westbound President Avenue approach consists of a shared left-turn/through lane, a through lane, and a channelized right turn lane. This intersection is controlled by a four-phase signal, including an exclusive pedestrian phase. The first phase permits the northbound approach movements. The second phase is a lead phase for the eastbound left-turn traffic. The third phase accommodates the eastbound and westbound traffic concurrently, and finally, the fourth phase is the exclusive pedestrian phase. Crosswalks are present across all approaches of the intersection. Land uses at this intersection are retail and commercial.

South Davol Street and President Avenue intersect to form a four-legged signalized intersection. The southbound Davol Street approach is one-way and accommodates two general purpose lanes with a wide shoulder. The eastbound approach on President Avenue consists of a general purpose lane. The westbound President Avenue approach consists of two general purpose lanes. This intersection is controlled by a three-phase signal. The first phase permits all southbound movements. The second phase is a concurrent phase that permits the eastbound and westbound traffic with a permitted westbound left-turn. The third phase is an exclusive pedestrian phase. Sidewalks and crosswalks are present on all approaches of the intersection. Land uses at this intersection consist of a public park area to the north and a power sub-station to the south.

Pearce Street and Davol Street intersect to form a three-legged, unsignalized intersection. Davol Street is one-way northbound and consists of two general purpose lanes. Pearce Street is one-way westbound and consists of one general purpose lane and is under STOP-control. Parking is permitted on both sides of Pearce Street. A crosswalk is present across Pearce Street. Land uses in the vicinity of this intersection consist primarily of commercial and retail uses.

Davol Street and Turner Street intersect to form a three-legged, unsignalized intersection. Davol Street is one-way and consists of two general purpose lanes. The Turner Street westbound approach consists of one general purpose lane and is under STOP-control. A crosswalk is present across Turner Street. Land in the vicinity of this intersection consist primarily of commercial uses and undeveloped areas.

South Davol Street U-turn at Route 138/79 Overpass. Davol Street southbound intersects with the U-turn ramp to provide access to the north on Davol Street. Davol Street consists of two general purpose lanes and the U-turn ramp consists of one lane. There is no STOP sign present controlling the U-turn merge. The U-turn ramp traffic yields to northbound Davol Street traffic. Land use is primarily undeveloped area near the intersection and water front to the west.

North Davol Street U-turn at Route 138/79 Overpass. Davol Street northbound intersects the U-turn ramp to provide access to the south on Davol Street. Davol Street consists of two general purpose lanes and the U-turn ramp accommodates one lane. The land uses in the vicinity of this intersection are primarily undeveloped land and a gas station.

Easton

Inventory of Roadways and Intersections

This section provides a description of major roadways and key intersections within the vicinity of the proposed Easton Village and North Easton stations.

Roadways

A comprehensive field inventory of traffic conditions on study area roadways was conducted as part of the study. The field inventory consisted of data collected on existing roadway geometry, traffic volumes, crash history, and operating characteristics. The following key roadways within the vicinity of the site provide access to the proposed station.

Route 138 (Washington Street) is a four-lane north-south arterial roadway, extending from Stoughton (to the north) to Taunton Center (to the south). Route 138 connects with I-93, I-495, Routes 106 and 140. Its intersection with Route 123 (Depot Street) provides key access to the Easton Village station. Land uses along this roadway include both residential and commercial.

Union Street is a two-lane local roadway extending east–west from Route 138 in Easton to Route 27, providing easy access to Route 24. Land uses along Union Street are mainly residential.

Elm Street is a two-lane local roadway which extends in a east–west direction from Pearl Street (Brockton) in the east to Main Street (Easton) in the west, just south of Canton Street. Along its entire length, land uses consist only of residential.

Main Street is a two-lane local roadway running east-west parallel to Elm Street. It extends from Lincoln Street, to the west, to Stonehill Street to the east. Its intersection with Route 138 provides easy access to Routes 123 and Route 24, as well as both of the proposed rail station locations in Easton. Land uses along this road are mainly commercial.

Route 123 (Belmont Street) is a two-lane east-west arterial roadway extending from Route 138 in Easton to Main Street in Brockton. In between, Belmont Street connects with Route 24, obtaining easy access to Routes 27 and 28. Its intersection with Route 138 (Washington Street) provides a key access point to both proposed rail stations in Easton.

Intersections

The following key intersections provide access to the proposed station sites.

Route 138 at Elm Street is a four-legged, slightly offset, unsignalized intersection. The northbound and southbound approaches consist of one general purpose lane and each have seven-foot shoulders on both sides of the roadway. The eastbound and westbound approaches consist of one general purpose lane and are under STOP control. No sidewalks or crosswalks are present at this intersection. Land uses in the vicinity are commercial and residential.

Route 138 intersects Belmont Street (Route 123) to form a four-legged signalized intersection. The northbound approach consists of a channelized right-turn, a through lane and a shared

through/left-turn lane. The southbound approach consists of a shared through/left-turn lane and a shared through/right-turn lane. The westbound approach consists of a shared through/right-turn lane and a left-turn only storage lane. The eastbound approach consists of a CVS driveway with one general purpose lane. The intersection operates with a two-phase signal. The first phase allows the eastbound and westbound movements followed by the northbound and southbound movements. Sidewalks are present an all approaches, except for the eastbound approach. Crosswalks are present only across the northbound and westbound approach. Land uses in the vicinity of this intersection are mainly commercial.

Route 138 intersects with Main Street to form a four-legged signalized intersection. The northbound and southbound approaches consist of an exclusive left-turn lane, an exclusive through lane and a shared through/right-turn lane. The posted speed limit on both these approaches is 40 mph. The westbound approach consists of an exclusive left-turn lane, an exclusive through lane and a shared through/right-turn lane and has a posted speed limit of 45 mph for the eastbound direction. The eastbound approach consists of an exclusive left-turn lane, an exclusive through lane and an exclusive right–turn lane, and has a posted speed limit of 35 mph for the westbound direction.

This intersection operates as a full-quadrant operation having concurrent pedestrian phases. The first phase allows the left turns from Route 138, followed by the through and right movements from Route 138. Phase three allows the left turns from Main Street, followed by the through and right movements from Main Street. Sidewalks are present on the right side of both approaches of Route 138 and on the north side of both approaches on Main Street. Crosswalks are present on the westbound and southbound approaches only. Land uses in the vicinity of this intersection are mainly commercial.

Elm Street intersects North Main Street to form an unsignalized T-type intersection. All approaches in this intersection consist of one general-purpose lane. The westbound approach is under STOP control. The posted speed limit for the westbound approach is 30 mph. A crosswalk is present on the northbound approach only. Sidewalks are present on all approaches. Land uses in the vicinity of this intersection are residential.

Barrows Street intersects Lincoln Street to form an unsignalized T-type intersection. The Barrows Street southbound approach has one general purpose lane under STOP control. Lincoln Street consists of the eastbound and westbound approaches, each having one general purpose lane. Crosswalks and are present across all approaches and sidewalks are present along each approach, except on the north side of the westbound approach. Land uses in the vicinity of the intersection are primarily residential.

Lincoln Street intersects with Main Street and Center Street to form a four-legged unsignalized intersection. The eastbound Lincoln Street approach has one general purpose lane under STOP control. A speed limit of 30 mph is posted on this approach for the westbound traffic. The Main Street westbound approach has one general purpose lane and a speed limit of 20 mph is posted on this approach for the eastbound traffic. The northbound Center Street approach consists of one general purpose lane under STOP control. A speed limit of 20 mph is posted on this approach for southbound traffic. The southbound North Main Street approach consists of one general purpose lane under STOP control. There are no posted speed limits. A median is located at the center of the intersection to separate the through movements from the right turns coming from Main Street (westbound approach). Crosswalks and sidewalks are present on the

northbound and westbound approaches only. Land uses in the vicinity of this intersection consist of commercial and residential

Union Street intersects Route 138 to form an unsignalized T-type intersection. Route 138 southbound approach has a shared through/right-turn lane and the northbound approach has a shared through/left-turn lane. Six-foot shoulders are present at both sides of both Route 138 approaches. The Union Street westbound approach consists of one shared left-turn/right-turn lane under STOP control. A 30-mph speed limit is posted on this approach. Crosswalks are present across the northbound approach only. No sidewalks are present on any approach. Land uses in the vicinity of this intersection are commercial and residential.

Roche Brothers Way intersects Route 138 to form a four-legged signalized intersection. The Route 138 northbound and southbound approaches both have a shared through/right-turn lane and a shared through/left-turn lane. A 45-mph speed limit is posted on the northbound approach. The Roche Brothers Way eastbound approach has an exclusive right-turn lane and a shared through/left-turn lane. A raised median separates eastbound and westbound traffic. The Stonehedge Village driveway is the westbound approach and has one general purpose lane.

This intersection currently operates with a four-phase signal. The first phase is a lead phase for the northbound movements with the southbound right-turns, followed by the southbound and northbound movements, simultaneously. The third phase is an exclusive pedestrian phase, followed by the eastbound and westbound movement, simultaneously. Crosswalks are not present on any approach and sidewalks are present along the south side of the eastbound approach. Land uses in the vicinity of this intersection are commercial and residential.

Roosevelt Circle intersects Route 138 to form a three-legged unsignalized intersection. The Route 138 northbound approach has a shared through/left-turn lane and the southbound approach has a shared through/right-turn lane. Roosevelt Circle is the eastbound approach with a shared left-turn/right-turn lane. Land uses near this intersection consist of a mix of residential, university-related uses and undeveloped areas.

Raynham

Inventory of Roadways and Intersections

This section provides a description of major roadways and key intersections within the vicinity of the proposed Raynham station.

Roadways

The following key roadways provide access to the proposed station site.

Route 138 (Broadway) is a state-owned, two-lane roadway which provides direct access to the proposed station site. Within the project study area, Route 138 extends in a north-south direction from Stoughton to Taunton. The roadway generally provides one 15-foot travel lane in each direction with 4- to 6-foot wide shoulders on each side of the roadway. Land uses along Route 138 include the Raynham-Taunton Greyhound Park as well as some other small commercial and industrial uses and residential property.

Route 106 (Foundry Street) is a state-owned, two-lane roadway located in Easton. Within the project study area, Route 106 extends in an east-west direction linking Mansfield to Bridgewater. The roadway generally provides one travel lane in each direction.

Interstate 495 (I-495) is part of the federal interstate highway system that is maintained by the Commonwealth of Massachusetts. I-495 is a six lane, divided circumferential highway traversing eastern Massachusetts from Salisbury to Wareham. Access to the proposed site from I-495 is provided via an interchange with Route 138, approximately two miles south of the proposed site.

Intersections

The following key intersections provide access to the proposed station site:

Route 138 and Route 106 intersect to form a four-legged signalized intersection. All approaches to the intersection consist of two general purpose lanes. The intersection is located in Easton but provides access to northern Raynham to the south and a Route 24 interchange to the east. The intersection is controlled by a two-phase signal. The first phase permits Route 106 eastbound and westbound movements. The second phase permits Route 138 northbound and southbound movements. Sidewalks are present along all approaches. There are no crosswalks across any of the approaches. Land uses in the vicinity of the intersection are primarily residential.

Route 138, Robinson Street and the Dog Track driveway intersect to form an unsignalized, slightly offset four-way intersection. The Route 138 northbound and southbound approaches, Robinson Street eastbound approach and the Dog Track driveway westbound approach provide one general purpose lane. The eastbound and westbound approaches are controlled by a STOP sign. No crosswalks or sidewalks are provided on any approach. Land uses in the vicinity of this intersection are predominantly undeveloped areas.

Route 138 at Wilbur Street is a three-legged unsignalized intersection located north of I-495 in Raynham. Route 138 runs north-south providing one-general purpose lane in each direction. The Wilbur Street runs westbound approach provides one general-purpose lane. There are no sidewalks present in this intersection, no crosswalks located across any of the three approaches, and no STOP sign installed on the Wilbur Street westbound approach although there is a STOP bar. Land uses in the vicinity of this intersection consisted primarily of residential with some commercial mixed in the area.

Route 138 at I-495 Northbound On and Off Ramps. Route 138 and I-495 intersect at a diamond interchange. The I-495 northbound off ramp intersects Route 138 from the east and the northbound on-ramp exits the intersection to the west. The intersection is unsignalized. The southbound Route 138 approach consists of two through lanes and a channelized right-turn lane. The northbound Route 138 approach accommodates two through lanes and an exclusive left-turn lane that provides access to northbound I-495. A concrete median divides Route 138. The I-495 northbound off-ramp provides a STOP-controlled left-turn lane and a channelized right-turn lane which yields to northbound Route 138 traffic. U-turns are not permitted on northbound Route 138. A sidewalk is present along northbound Route 138 and there are crosswalks across the I-495 northbound off-ramp. Land uses in the vicinity of this intersection are predominantly undeveloped areas.

Route 138 at I-495 Southbound On and Off Ramps. Route 138 and I-495 intersect at a diamond interchange. The I-495 southbound off ramp intersects Route 138 from the west and the southbound on-ramp exits the intersection to the east. The intersection is unsignalized. The northbound Route 138 approach consists of two through lanes and a channelized right-turn lane. The southbound Route 138 approach accommodates two through lanes and an exclusive left-turn lane that provides access to southbound I-495. A concrete median divides Route 138. The I-495 southbound off-ramp provides a STOP-controlled left-turn lane and a channelized right-turn lane which yields to southbound Route 138 traffic. U-turns are not permitted on southbound Route 138. A sidewalk is present along northbound Route 138 and there are crosswalks across the I-495 southbound on-ramp. Land uses in the vicinity of this intersection are predominantly undeveloped areas.

Route 138 and Carver Street intersect to form a four-legged signalized intersection. The northbound and southbound Route 138 approaches consist of two general purpose lanes. The eastbound Carver Street approach accommodates an exclusive left-turn lane and a shared through/right-turn lane. The westbound Carver Street approach consists of one general purpose lane. This intersection is controlled by a three-phase signal. The first phase is a lead for northbound Route 138 movements. The second phase permits all movements from northbound and southbound Route 138. The third phase is for eastbound and westbound Carver Street traffic. The only sidewalk is on the west side of Route 138 and the only crosswalk crosses the Carver Street eastbound approach. The land use in the vicinity of this intersection is predominantly commercial.

Route 138 and Center Street intersect to form a unsignalized T-type intersection. All approaches to the intersection consist of one general purpose lane. The Center Street approach is under STOP control. A wide driveway across from Center Street provides access to a retail establishment. Sidewalks are present along northbound and southbound Route 138 south of the intersection. There are no crosswalks located across any approaches. Land uses in the vicinity of this intersection include a gas station, an auto loan company, and the Granite & Marble Company.

Route 138 intersects Britton Street to form two T-type offset unsignalized intersections. All approaches consist of one general purpose lane except the eastbound Britton Street approach which accommodates a shared left-turn/through lane and a channelized right-turn lane. The Britton Street approaches are under STOP control. Sidewalks are present along the west side of Route 138 and on westbound Britton Street. There are no crosswalks located across any approaches. Land uses in the vicinity of this intersection include residential buildings and a gas station at the southeast corner of the intersection.

Taunton

Inventory of Roadways and Intersections

This section provides a description of major roadways and key intersections within the vicinity of the proposed Taunton commuter rail and Rapid Bus stations.

Roadways

The following key roadways provide access to the proposed stations.

Route 140 (County Street) extends in a northwest-southeast direction through Taunton Center. It goes to Norton in the northwest and to Freetown and New Bedford in the southeast. South of Route 24, the roadway is a limited access, four-lane divided highway. Route 140 connects with Route 24 approximately one-half mile south of the proposed station.

Hart Street extends in an east-west direction from Middleborough Avenue to Plain Street.

Route 138 (Broadway) extends in a north-south direction from Stoughton to Taunton. Route 138 would provide access to the Taunton Station site (via Arlington Street) for residents of the northern sections of Taunton. Within Taunton, Route 138 varies between a two-lane and a four-lane cross-section.

Route 44 extends in an east–west direction from Plymouth to Seekonk where it continues into Rhode Island. Route 44 would serve as the primary access route for commuters originating from the eastern and western sections of Taunton. Between Route 24 and Route 104, Route 44 is a four-lane roadway. West of Route 104, Route 44 narrows to a two-lane cross-section.

Washington Street extends in a north–south direction from west Raynham to Taunton Center. The two-lane roadway serves as a secondary collector roadway for those travelers accessing either the Downtown Taunton Station sites.

Arlington Street extends in a north–south direction from Route 44, passes by the Taunton Station site and Route 138, and terminates near Taunton Center. Arlington Street is named Purchase Street north of School Street. The Taunton Station will be accessed off of Arlington Street near its intersection with Route 44 (Dean Street).

Winter Street is a two-lane local road northwest-southeast roadway located northeast of the proposed Taunton station, in Taunton. It extends from Washington Street to the northwest to Bristol Avenue on the southeast, where it becomes Longmeadow Road, which provides direct access to Route 44.

Tremont Street is a two-lane arterial roadway serving as a segment of Route 140, and farther west as Route 118 in Taunton. It extends from western Taunton to Washington Street/Oak Street at the center of town. Its intersection with Washington Street/Oak Street lies just west of the proposed location for the Downtown Taunton station, providing easy access between the suburbs and the proposed rail station. Land uses in the vicinity of this roadway consist of a mix of residential uses as well as commercial uses.

Frederick Martin Parkway is a short two-lane east-west local roadway connecting Washington Street (Route 140) on its west end to Cohannet Street on its east end. This roadway would provide direct access to the proposed Downtown Taunton station, since its intersection with Washington Street is located just north of the proposed rail station. Land uses in the vicinity of this road are primarily commercial uses.

Intersections

The following key intersections provide access to the proposed station sites.

Route 140 and Hart Street intersect to form a four-legged signalized intersection. The northbound and southbound Route 140 approaches accommodate two general purpose lanes. The eastbound and westbound Hart Street approaches consist of a shared left-turn/through lane and an exclusive right-turn lane. This intersection is controlled by a three-phase signal. The first phase permits northbound and southbound Route 140 movements. The second phase is an exclusive pedestrian phase upon push button activation. The third phase permits eastbound and westbound Hart Street movements. Sidewalks and crosswalks are present on all approaches of the intersection. Land uses at this intersection are primarily residential.

Route 140 and Route 24 northbound ramps intersect to form a three-legged, signalized intersection. The Route 140 northbound approach consists of two through lanes and a channelized right-turn lane. The southbound Route 140 approach consists of an exclusive left-turn lane and two through lanes. The northbound and southbound Route 140 traffic is separated by a concrete median. The Route 24 northbound off ramp to Route 140 northbound accommodates a channelized right-turn lane and is under a YIELD control. This intersection is controlled by a two-phase signal. The first phase is a lead phase for southbound traffic. The second phase permits northbound and southbound Route 140 movements. There are no sidewalks or crosswalks present at this intersection. Land use at this intersection consists primarily of undeveloped areas.

Route 140 and Route 24 southbound ramps intersect to form a three-legged, signalized intersection. The Route 140 southbound approach consists of two through lanes and a channelized right-turn lane. The northbound Route 140 approach consists of an exclusive left-turn lane and two through lanes. The northbound and southbound Route 140 traffic is separated by a concrete median. The Route 24 northbound off ramp accommodates an exclusive left-turn lane and a channelized right-turn lane. This intersection is controlled by a three-phase signal. The first phase permits Route 140 northbound and southbound movements. The second phase is a lagging phase for the northbound Route 140 movements. The third phase permits Route 24 southbound off-ramp left and right turns. Right turns on red are not permitted for the Route 24 off-ramp traffic. There are no sidewalks or crosswalks present at this intersection. Land use at this intersection consists primarily of thickly wooded areas.

Route 140 and Taunton Depot Drive intersect to form a four-legged, signalized intersection. The northbound Route 140 approach accommodates an exclusive left-turn lane, one through lane and a shared through/right-turn lane. The southbound Route 140 approach consists of a shared left-turn/through lane, a through lane and an exclusive right-turn lane. The eastbound Taunton Depot Drive consists of an exclusive left-turn lane, a shared left-turn/through lane and a single right-turn lane. The westbound driveway opposite Taunton Depot Drive serves a storage facility and consists of one general purpose lane.

This intersection is controlled by a four-phase signal. The first phase is a lead phase for the northbound Route 140 movements along with the right turns from Taunton Depot Drive. The second phase permits northbound and southbound Route 140 movements. The third phase is an exclusive pedestrian phase upon push button activation. The fourth phase permits movements from Taunton Depot Drive and the storage facility driveway. Sidewalks are present on all approaches of the intersection. Crosswalks are provided across driveway and the Route 140

southbound approach. Land uses in the vicinity of this intersection consist of residential uses to the east and a shopping complex to the west.

Route 140 northbound ramps intersect Stevens Street and Galleria Mall Drive to form a four-legged, signalized intersection. This intersection serves as a major connection from Route 140 northbound to the Galleria Mall. The northbound Stevens Street approach consists of a shared left-turn/through lane, one through lane and a channelized right-turn lane. The southbound Stevens Street approach consists of a shared through/left-turn lane and a shared through/right-turn lane. The eastbound Galleria Mall Drive approach accommodates shared through/left-turn lane and a through lane with a channelized right-turn lane. The Route 140 northbound off- ramp approach accommodates an exclusive left-turn lane, one through lane and a channelized right-turn lane. A concrete median provides directional separation for the traffic on the Route 140 on- and off-ramps and on Galleria Mall Drive.

This intersection is controlled by a four-phase signal. The first phase is a lead phase for the southbound Stevens Street movements. The second phase permits northbound and southbound Stevens Street movements. The third phase is an exclusive pedestrian phase upon push button activation. The fourth phase permits Galleria Mall Drive and Route 140 northbound off-ramp traffic. Sidewalks are present along Galleria Mall Drive. A crosswalk is provided across the southbound Stevens Street approach. Land uses in the vicinity of this intersection are primarily the Galleria Mall to the west and undeveloped areas.

Route 140 southbound ramps and Galleria Mall Driveway intersect County Street to form a four-legged, signalized intersection. The northbound and southbound County Street approaches accommodate a shared left-turn/through lane, one through lane and a channelized right-turn lane. The eastbound Galleria Mall Drive approach consists of two general purpose lanes. The Route 140 southbound off-ramp consists of a single right-turn only lane and is under YIELD control. Through movements and left turns are not permitted from this approach. This intersection is controlled by a two-phase signal. The first phase permits northbound and southbound County Street movements. The second phase is for Galleria Mall Drive traffic. There are no sidewalks or crosswalks present at this intersection. Land uses in the vicinity of this intersection are primarily the Galleria Mall to the west with undeveloped areas to the east.

Weir Street intersects Route 44/140 at the southeast corner of Taunton Green to form a four-legged signalized intersection. Circulation around Taunton Green is one-way in the counter clockwise direction. The eastbound Cohannet Street approach is one-way toward the intersection and consists of an exclusive left-turn lane, dual through lanes and one exclusive right-turn lane. The northbound Weir Street (Route 138) approach consists of one through lane and a right-turn lane. The westbound Route 44/140 (Main Street) approach consists of two channelized right-turn lanes. There is no southbound approach as Weir Street on the north side of the intersection is one-way northbound. Traffic at this intersection is controlled by a three-phase, pre-timed signal. The first phase permits northbound Weir Street and westbound Route 44/140 right-turns. The second phase is for eastbound Cohannet Street and the third is an exclusive pedestrian phase. Metered parking is provided along the south side of Cohannet Street, both sides of Route 44/140, and both sides of northbound Route 138. All four streets provide sidewalks and the three approaches to the intersection have crosswalks. Land uses in the vicinity of the intersection are primarily commercial and office.

Route 140/44 at Court Street/Route 138. A weave segment occurs at the northeast corner of the Taunton Green where traffic from Route 138 and Route 140/44 merge. The northbound Route 138/140/44 approach consists of two free-flow, exclusive left-turns onto Court Street and one free-flow through lane. The southbound Route 138 approach consists of one free-flow, exclusive right-turn lane onto Court Street. Court Street is one-way westbound away from the intersection. There are no controls at the intersection except a flashing yellow signal indicating that vehicles should yield to pedestrians. Metered parking is provided along both sides of Route 138/140/44 and the north side of Court Street. Sidewalks are located along both sides of Route 138/140/44 and Court Street. Crosswalks are present on all approaches but are in poor condition and only some are accessible. Land uses in the vicinity of the intersection are primarily commercial and office.

Taunton Green/Court Street at Post Office Square. This four-legged unsignalized intersection is at the northwest corner of Taunton Green. The westbound Court Street approach consists of one exclusive left-turn lane, a shared left-turn/through land and a channelized right-turn lane. There are no controls for this approach. The southbound Court Street approach has a single through/right-turn lane and is controlled by a YIELD sign. The eastbound Post Office Square approach has one right-turn lane and is under STOP control. Taunton Green is one-way southbound away from the intersection and accommodates three lanes. Metered parking is provided along both sides of Post Office Square and on the west side of Court Street. A bus stop is located in the vicinity of the intersection, at Downtown Court House. Sidewalks are present along both sides of Court Street and Post Office Square. Crosswalks are provided across all approaches. Land uses in the vicinity of the intersection are primarily commercial and office.

Taunton Green Street at Cohannet Street/Route 44. This four-legged unsignalized intersection is at the southwest corner of Taunton Green. The eastbound Cohannet Street approach has one through lane and one exclusive right-turn lane and is STOP controlled. Cohannet Street is one-way eastbound away from the intersection. The northbound Winthrop Street (Route 44) approach consists of one right-turn lane controlled by a YIELD sign. Left turns from Winthrop Street onto Cohannet Street are not allowed. The southbound Taunton Green approach has two exclusive left-turn lanes and a shared through/right-turn lane. There are no controls for this approach. Metered parking is provided along both sides of Cohannet Street and on the west side of Winthrop Street. Sidewalks are present along Winthrop Street and Cohannet Street approaches. Crosswalks are located across all approaches to the intersection. Land uses in the vicinity of the intersection are primarily commercial and offices.

Court Street intersects Washington Street from the east to form a signalized three- legged intersection. The Court Street westbound approach consists of an exclusive left-turn lane and one right-turn lane. The Washington Street northbound approach accommodates one through lane and an exclusive right-turn lane. The Washington Street southbound approach consists of an exclusive left-turn lane and a through lane. Traffic at the intersection is controlled by a two-phase pre-timed signal. A Washington Street northbound/southbound phase is followed by a Court Street eastbound phase. Pedestrians move concurrently with vehicular movements upon push button activation. Parking is not permitted along any of the approaches. A bus stop is located on the eastbound travel lane on Court Street. Sidewalks are located along both sides of Washington Street and Court Street. Crosswalks are present across all approaches of the intersection. Land uses in the vicinity of the intersection is primarily commercial and office uses.

Tremont Street intersects Washington Street (which becomes Oak Street south of the intersection) from the west to form a signalized T-type intersection. The Tremont Street approach consists of two-exclusive left-turn lanes and one channelized right-turn lane. The Washington Street southbound approach consists of a through lane and a shared through/right-turn lane while the Oak Street northbound approach consists of a shared left-turn/through lane and one through lane. Traffic at the intersection is controlled by a three-phase, pre-timed signal. The signal currently operates with a leading protected northbound left-turn/through phase, followed by a northbound/southbound phase. The third phase permits the eastbound movements. The pedestrians move concurrently with vehicular movements upon push button activation. Parking is not permitted along any of the approaches. Sidewalks and crosswalks are present on all approaches of the intersection. Land uses in the vicinity of the intersection are primarily commercial and undeveloped land with parking.

Oak Street intersects Lowell Street and Kilmer Street to form a four-legged, unsignalized intersection. All approaches at this intersection consist of one general purpose lane. A driveway exists adjacent to the Kilmer Street northbound approach which provides access to the Fire Department building. There are no STOP signs or stop bars present at any of the approaches. A non-operational beacon is present on Oak Street. The Kilmer Street and Lowell Street approaches are configured in a way that creates sight problems for vehicles turning onto Oak Street from these two approaches. Sidewalks are present along all approaches except on the Lowell Street approach. There are crosswalks located across Lowell Street and the southbound Oak Street approach. Land uses at this intersection include residential and an inactive fire station.

Frederick R. Martin Sr. Parkway (FRM Parkway) intersects Washington Street from the east while a private road that provides access to Mill Pond Apartments intersects Washington Street from the west to form an unsignalized four-way intersection. The FRM Parkway westbound approach consists of an exclusive left-turn lane and a shared through/right-turn lane and is under STOP control. The Washington Street southbound approach consists of an exclusive left-turn lane and a shared through/right-turn lane. The northbound Washington Street approach consists of a shared left-turn/through lane and a shared through/right-turn lane. The Mill Pond Apartments road is STOP sign controlled and has one general purpose lane. Parking is not permitted along any of the approaches. Sidewalks are located along both sides of Washington Street and FRM Parkway. No sidewalks are provided on Mill Pond Apartments driveway. Crosswalks are provided across all approaches but are in poor condition. Land uses in the vicinity of the intersection are primarily commercial and residential.

School Street intersects Purchase Street and Arlington Street to form a four-legged unsignalized intersection. All approaches to the intersection consist of one general purpose lane. The School Street Approaches are under STOP control. Sidewalks are present along all approaches of the intersection. There are1 no crosswalks present across any of the approaches. Land uses in the vicinity of this intersection are primarily residential.

Route 138 (Broadway) intersects Washington Street at a sharp angle to form a four-legged signalized intersection (St. Mary's Square). The Route 138 northbound approach consists of an exclusive left-turn lane and a shared through/right lane. The Route 138 southbound approach consists of one shared left-turn/through lane and a right-turn lane. Both the Washington Street northeast and southwest approaches consist of one general purpose lane. Randall Street intersects Route 138 just south of Washington Street and is STOP sign controlled.

This intersection is controlled by a two-phase signal. The first phase permits northbound and southbound Route 138 movements. The second phase permits northeast and southwest traffic on Washington Street. Pedestrians move concurrently with vehicular movements upon push button activation. Parking is permitted for thirty minutes on Broadway south of the intersection and along the eastbound lane on Randall Street. Sidewalks are located along both sides of Route 138 and Washington Street. Crosswalks are provided across all approaches. Land uses at this intersection are primarily commercial and residential.

Washington Street and Purchase Street intersect to form a four-legged signalized intersection. All approaches to the intersection consist of one general purpose lane. The Purchase Street approaches are under STOP control while the Washington Street approaches operate freely. Sidewalks and crosswalks are present along all approaches of the intersection. Land uses in the vicinity of this intersection are primarily residential.

Route 44 (Cape Highway) at Route 104 (Dean Street). Route 44 and Route 104 intersect to form a four-legged, signalized intersection. The eastbound Route 44 approach accommodates two general purpose lanes. The westbound Route 44 approach consists of a shared left-turn/through lane, a through lane and a channelized right-turn lane. The southbound Route 104 consists of a shared left-turn/through and an exclusive right-turn lane. The northbound driveway opposite the Route 104 approach consists of one general purpose lane.

This intersection is controlled by a three-phase signal. The first phase is a lead phase for the eastbound Route 44 movements with the right turns from Route 104 southbound overlapping. The second phase permits eastbound and westbound Route 44 movements. The third phase permits movements from Route 104 and the driveway. Pedestrian indications are present at the intersection but were not in operation. Sidewalks are present along the westbound Route 44 approach and a crosswalk is provided across Route 104. Land uses in the vicinity of this intersection are primarily commercial.

Longmeadow Road intersects Route 44 (Dean Street) from the north and Honorable Gordon Owen Parkway intersects Route 44 from the south to form a four-legged, signalized intersection. The eastbound Route 44 approach consists of an exclusive left-turn lane, two through lanes and a short, channelized right-turn lane. The westbound Route 44 approach consists of an exclusive left-turn lane, a through lane and a shared through/right lane. A concrete median provides directional separation for the traffic on Route 44. The northbound Honorable Gordon Owen Parkway accommodates one general purpose lane and a channelized right-turn lane. The southbound Longmeadow Road approach accommodates one general purpose lane. The right-turns on the eastbound and northbound approaches are under YIELD control.

This intersection is controlled by a four-phase signal. The first phase is a protected phase for the eastbound and westbound Route 44 left turns. The second phase permits eastbound and westbound Route 44 through and right turns. The third phase permits the Honorable Gordon Owen Parkway and Longmeadow Road traffic. The fourth phase is an exclusive pedestrian phase upon push button activation. Sidewalks and crosswalks are present on all approaches. Land uses in the vicinity of this intersection are primarily commercial and residential.

Arlington Street intersects Route 44 from the north to form a three-legged, Y-type signalized intersection. The westbound Route 44 approach consists of a shared through/right lane. The

eastbound Route 44 approach accommodates an exclusive left-turn lane and one through lane. The southbound Arlington Street approach consists of a shared left-turn/right-turn lane. This intersection is controlled by a two-phase signal. The first phase permits eastbound and westbound Route 44 movements. The second phase permits southbound Arlington Street left and right turns. Pedestrians move concurrently with vehicular movements upon push button activation. Sidewalks are present along the north side of the eastbound Route 44 approach and the Arlington Street corner of the intersection. The land use in the vicinity of this intersection is predominantly residential to the north and undeveloped area to the south.

Summer Street intersects Route 44 (Main Street and Church Green Street) from the southeast to form a five-legged intersection. Summer Street becomes Union Street north of the intersection and is one-way in the northbound direction, away from the intersection. The northbound Summer Street approach has a shared left-turn/through lane and a right-turn lane. The westbound Church Green approach has one through/right-turn lane while the eastbound Main Street approach has a single left-turn/through lane. Left turns are not permitted from the westbound Church Green approach. In addition, there is a free-flow channelized right-turn lane from the eastbound Main Street approach onto Summer Street.

Traffic at this signal is controlled by a two-phase pre-timed signal. The signal currently operates with a northbound Summer Street phase followed by the eastbound and westbound Main Street/Church Green movements. Pedestrians move concurrently with vehicles upon push button activation. Metered parking is provided along both sides of Church Green, the west side of Summer Street, the east side of Union Street and both sides of Main Street. Sidewalks and crosswalks are located on all approaches. Land uses near the intersection are predominantly commercial.

Spring Street, Church Green and Summer Street intersect to form a four-legged, signalized intersection. All four approaches have a single general purpose lane. Because the westbound Church Green approach is slightly skewed, it is wide enough to accommodate right turning vehicles separately from through and left-turning vehicles. The intersection is controlled by a two-phase signal that lets the Church Green and Spring Street approaches move in one phase and the Summer Street northbound and southbound approaches to move in another phase.

Route 140 (County Street) and Honorable Gordon Owen Parkway intersect to form a T-type signalized intersection. The westbound Route 140 approach consists of a through lane and a right-turn lane. The eastbound Route 44 approach accommodates a shared left-turn/through lane. The southbound Honorable Gordon Owen Parkway approach consists of a shared left-turn and right-turn lane. There is a driveway located across from the southbound approach serving a residential building. This intersection is controlled by a three-phase signal with video detection for all approaches. The first phase permits eastbound and westbound Route 140 movements. The second phase is an exclusive pedestrian phase upon push button activation. The third phase permits movement from the Honorable Gordon Owen Parkway and the residential driveway. Sidewalks are present along both sides of Route 140. There is a crosswalk across the westbound Route 140 and Owen Parkway approaches. The land use in the vicinity of this intersection is predominantly residential.

School Street and Winter Street intersect to form a four-legged unsignalized intersection. All approaches to the intersection consist of one general purpose lane. The School Street approaches are under STOP control. Sidewalks are present on all approaches of the intersection.

There are crosswalks located across all approaches except on Winter Street west of the intersection. Land uses in the vicinity of this intersection are primarily residential.

Norton

Inventory of Roadways and Intersections

This section provides a description of major roadways and key intersections within the vicinity of the proposed Barrowsville station.

Roadways

The following key roadways provide access to the proposed station.

South Worcester Street is a two-lane local road that connects Route 123 with Route 140. It runs north-south, intersecting with Route 123, John B. Scott Boulevard, and Barrows Street, among others. Its intersection with Barrows Street is just west of the proposed Barrowsville station. Land uses along this road are entirely residential.

Route 123/Old Colony Road is a two-to-four lane east-west arterial, extending from Route 106 in Raynham to I-95 in South Attleboro. It provides access to and from I-495 and intersects with South Worcester Street near the proposed rail station. Land uses along this road are a combination of residential and commercial.

Dean Street is a two-lane local roadway extending from South Worcester Street to Tremont Street. It runs north-south and intersects with John B. Scott Boulevard south of the proposed Barrowsville station. Land uses along this road are entirely residential.

Barrows Street is a two-lane local roadway, running east-west and extending from South Worcester Street on the west to Route 140 on the east. Barrows Street intersects with South Worcester Street, which lies just east of the proposed Barrowsville station. Land uses along this roadway are mainly residential.

Intersections

The following key intersections provide access to the proposed station.

South Worcester Street and North Worcester Street intersect Route 123 at a skewed angle to form a four-legged unsignalized intersection. The North and South Worcester Street approaches are slightly offset making it difficult for vehicles turning left into or out of these approaches. All approaches to the intersection consist of one general purpose lane. The intersection operates with red and yellow flashing indications. Flashing yellow indications are present for the eastbound and westbound Route 123 approaches. The northbound and southbound approaches have the flashing red indications. STOP signs are located on the South and North Worcester Street approaches. There are no sidewalks or crosswalks present at any of the approaches. The land use in the vicinity of this intersection is predominantly residential to the east and undeveloped areas to the west.

John B. Scott Boulevard at Harvey Street is a four-legged unsignalized intersection located south of the proposed Barrowsville station location. John B. Scott Boulevard, which is the major roadway, travels northwest and southeast, while Harvey Street runs in the northeast and southwest direction. All four approaches consist of one general purpose lane and are STOP sign controlled with a red-flashing beacon overhead facing each approach. No crosswalks and sidewalks are present on any of the approaches. Land uses around this intersection are entirely residential.

South Worcester Street intersects John B. Scott Boulevard and Sturdy Street to form a four-legged unsignalized intersection. All approaches to the intersection consist of one general purpose lane. STOP signs are located on all approaches except for the southbound South Worcester Street approach. An at-grade railroad crossing is located south of the intersection across John B. Scott Boulevard. There are no sidewalks or crosswalks present at any of the approaches. The land use in the vicinity of this intersection is predominantly residential and undeveloped.

John B. Scott Boulevard and Dean Street intersect to form a four-legged unsignalized intersection. All approaches to the intersection consist of one general purpose lane and are under STOP control. A flashing all red beacon is located at the intersection to reinforce the all-way STOP control. There are no sidewalks or crosswalks present at any of the approaches. The land use in the vicinity of this intersection is predominantly residential and undeveloped areas.

Barrows Street intersects South Worcester Street from the east to form an unsignalized T-type intersection. All approaches to the intersection consist of one general purpose lane. The westbound Barrows Street approach is under STOP-control. The Norton Fire Department is located at the northeast corner of the intersection. Sidewalks are present along the northbound South Worcester Street and westbound Barrows Street approaches. There are no crosswalks present at any of the approaches. The land uses in the vicinity of this intersection are mainly residential.

Appendix 4.1-E

Traffic Counts

PRECISION DATA INDUSTRIES, LLC

PRECISION DATA INDUSTRIES, LLC

Office: 508.481.3999 Fax: 508.545.1234

Email: datarequests@pdillc.com

Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Sat 9/6/08 and Tues 9/9/08	81676	Fall River, MA

PRECISION DATA INDUSTRIES, LLC
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N/S: North Main Street
E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-A
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Main Street From North			President Avenue (Route 6) From East			North Main Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	32	38	8	54	5	17	45	19	13	123	17	386
07:15 AM	15	35	31	14	59	11	21	53	24	7	93	42	405
07:30 AM	12	33	12	19	78	8	17	47	20	16	95	48	405
07:45 AM	21	49	34	16	79	20	16	49	24	14	128	22	472
Total	63	149	115	57	270	44	71	194	87	50	439	129	1668
08:00 AM	16	36	20	16	69	9	14	30	27	27	145	16	425
08:15 AM	14	41	34	15	58	14	17	57	24	21	138	14	447
08:30 AM	8	41	27	15	57	8	20	49	30	26	163	19	463
08:45 AM	14	26	26	22	69	8	12	43	17	17	143	15	412
Total	52	144	107	68	253	39	63	179	98	91	589	64	1747
Grand Total	115	293	222	125	523	83	134	373	185	141	1028	193	3415
Apprch %	18.3	46.5	35.2	17.1	71.5	11.4	19.4	53.9	26.7	10.4	75.5	14.2	
Total %	3.4	8.6	6.5	3.7	15.3	2.4	3.9	10.9	5.4	4.1	30.1	5.7	
Cars	110	280	212	125	513	82	123	352	174	137	1016	189	3313
% Cars	95.7	95.6	95.5	100	98.1	98.8	91.8	94.4	94.1	97.2	98.8	97.9	97
Heavy Vehicles	5	13	10	0	10	1	11	21	11	4	12	4	102
% Heavy Vehicles	4.3	4.4	4.5	0	1.9	1.2	8.2	5.6	5.9	2.8	1.2	2.1	3

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**21**	**49**	**34**	**104**	**16**	**79**	**20**	**115**	16	49	24	89	14	128	**22**	164	**472**
08:00 AM	16	36	20	72	16	69	9	94	14	30	27	71	**27**	145	16	188	425
08:15 AM	14	41	34	89	15	58	14	87	17	**57**	24	98	21	138	14	173	447
08:30 AM	8	41	27	76	15	57	8	80	**20**	49	**30**	**99**	26	**163**	19	**208**	463
Total Volume	59	167	115	341	62	263	51	376	67	185	105	357	88	574	71	733	1807
% App. Total	17.3	49	33.7		16.5	69.9	13.6		18.8	51.8	29.4		12	78.3	9.7		
PHF	.702	.852	.846	.820	.969	.832	.638	.817	.838	.811	.875	.902	.815	.880	.807	.881	.957
Cars	57	161	111	329	62	257	51	370	64	173	101	338	85	567	71	723	1760
% Cars	96.6	96.4	96.5	96.5	100	97.7	100	98.4	95.5	93.5	96.2	94.7	96.6	98.8	100	98.6	97.4
Heavy Vehicles	2	6	4	12	0	6	0	6	3	12	4	19	3	7	0	10	47
% Heavy Vehicles	3.4	3.6	3.5	3.5	0	2.3	0	1.6	4.5	6.5	3.8	5.3	3.4	1.2	0	1.4	2.6

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N/S: North Main Street
E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-A
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	North Main Street From North			President Avenue (Route 6) From East			North Main Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	29	35	8	54	4	14	42	18	13	122	17	371
07:15 AM	13	34	29	14	58	11	19	51	21	7	92	39	388
07:30 AM	11	32	12	19	76	8	15	45	17	16	94	48	393
07:45 AM	20	47	32	16	77	20	14	44	24	14	124	22	454
Total	59	142	108	57	265	43	62	182	80	50	432	126	1606
08:00 AM	16	36	18	16	69	9	14	28	24	25	143	16	414
08:15 AM	14	37	34	15	56	14	16	54	24	20	137	14	435
08:30 AM	7	41	27	15	55	8	20	47	29	26	163	19	457
08:45 AM	14	24	25	22	68	8	11	41	17	16	141	14	401
Total	51	138	104	68	248	39	61	170	94	87	584	63	1707
Grand Total	110	280	212	125	513	82	123	352	174	137	1016	189	3313
Apprch %	18.3	46.5	35.2	17.4	71.2	11.4	19	54.2	26.8	10.2	75.7	14.1	
Total %	3.3	8.5	6.4	3.8	15.5	2.5	3.7	10.6	5.3	4.1	30.7	5.7	

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**20**	**47**	32	**99**	**16**	**77**	**20**	**113**	14	44	24	82	14	124	**22**	160	454
08:00 AM	16	36	18	70	16	69	9	94	14	28	24	66	25	143	16	184	414
08:15 AM	14	37	**34**	85	15	56	14	85	16	**54**	24	94	20	137	14	171	435
08:30 AM	7	41	27	75	15	55	8	78	**20**	47	**29**	**96**	**26**	**163**	19	**208**	**457**
Total Volume	57	161	111	329	62	257	51	370	64	173	101	338	85	567	71	723	1760
% App. Total	17.3	48.9	33.7		16.8	69.5	13.8		18.9	51.2	29.9		11.8	78.4	9.8		
PHF	.713	.856	.816	.831	.969	.834	.638	.819	.800	.801	.871	.880	.817	.870	.807	.869	.963

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File Name : 81676B-A
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Main Street From North			President Avenue (Route 6) From East			North Main Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	3	3	0	0	1	3	3	1	0	1	0	15
07:15 AM	2	1	2	0	1	0	2	2	3	0	1	3	17
07:30 AM	1	1	0	0	2	0	2	2	3	0	1	0	12
07:45 AM	1	2	2	0	2	0	2	5	0	0	4	0	18
Total	4	7	7	0	5	1	9	12	7	0	7	3	62
08:00 AM	0	0	2	0	0	0	0	2	3	2	2	0	11
08:15 AM	0	4	0	0	2	0	1	3	0	1	1	0	12
08:30 AM	1	0	0	0	2	0	0	2	1	0	0	0	6
08:45 AM	0	2	1	0	1	0	1	2	0	1	2	1	11
Total	1	6	3	0	5	0	2	9	4	4	5	1	40
Grand Total	5	13	10	0	10	1	11	21	11	4	12	4	102
Apprch %	17.9	46.4	35.7	0	90.9	9.1	25.6	48.8	25.6	20	60	20	
Total %	4.9	12.7	9.8	0	9.8	1	10.8	20.6	10.8	3.9	11.8	3.9	

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**3**	**3**	**6**	0	0	**1**	1	**3**	3	1	**7**	0	1	0	1	15
07:15 AM	**2**	1	2	5	0	1	0	1	2	2	**3**	7	0	1	**3**	**4**	17
07:30 AM	1	1	0	2	0	**2**	0	**2**	2	2	3	7	0	1	0	1	12
07:45 AM	1	2	2	5	0	2	0	2	2	**5**	0	7	0	**4**	0	4	**18**
Total Volume	4	7	7	18	0	5	1	6	9	12	7	28	0	7	3	10	62
% App. Total	22.2	38.9	38.9		0	83.3	16.7		32.1	42.9	25		0	70	30		
PHF	.500	.583	.583	.750	.000	.625	.250	.750	.750	.600	.583	1.000	.000	.438	.250	.625	.861

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Groups Printed- Peds and Bicycles

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	15	0	0	0	4	0	0	0	2	0	0	0	2	23
07:15 AM	0	0	0	7	0	0	0	8	0	0	0	7	0	0	0	3	25
07:30 AM	0	0	0	6	0	0	0	6	0	0	0	14	0	0	0	5	31
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	29	0	0	0	18	0	0	0	23	0	0	0	10	80
08:00 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3	5
08:15 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	2	5
08:30 AM	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	3
08:45 AM	0	0	0	0	0	1	0	2	0	0	0	2	0	0	0	0	5
Total	0	0	0	3	0	1	0	6	0	0	0	3	0	0	0	5	18
Grand Total	0	0	0	32	0	1	0	24	0	0	0	26	0	0	0	15	98
Apprch %	0	0	0	100	0	4	0	96	0	0	0	100	0	0	0	100	
Total %	0	0	0	32.7	0	1	0	24.5	0	0	0	26.5	0	0	0	15.3	

	North Main Street From North					President Avenue (Route 6) From East					North Main Street From South					President Avenue (Route 6) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	**15**	**15**	0	0	0	4	4	0	0	0	2	2	0	0	0	2	2	23
07:15 AM	0	0	0	7	7	0	0	0	**8**	**8**	0	0	0	7	7	0	0	0	3	3	25
07:30 AM	0	0	0	6	6	0	0	0	6	6	0	0	0	**14**	**14**	0	0	0	**5**	**5**	**31**
07:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	29	29	0	0	0	18	18	0	0	0	23	23	0	0	0	10	10	80
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.483	.483	.000	.000	.000	.563	.563	.000	.000	.000	.411	.411	.000	.000	.000	.500	.500	.645

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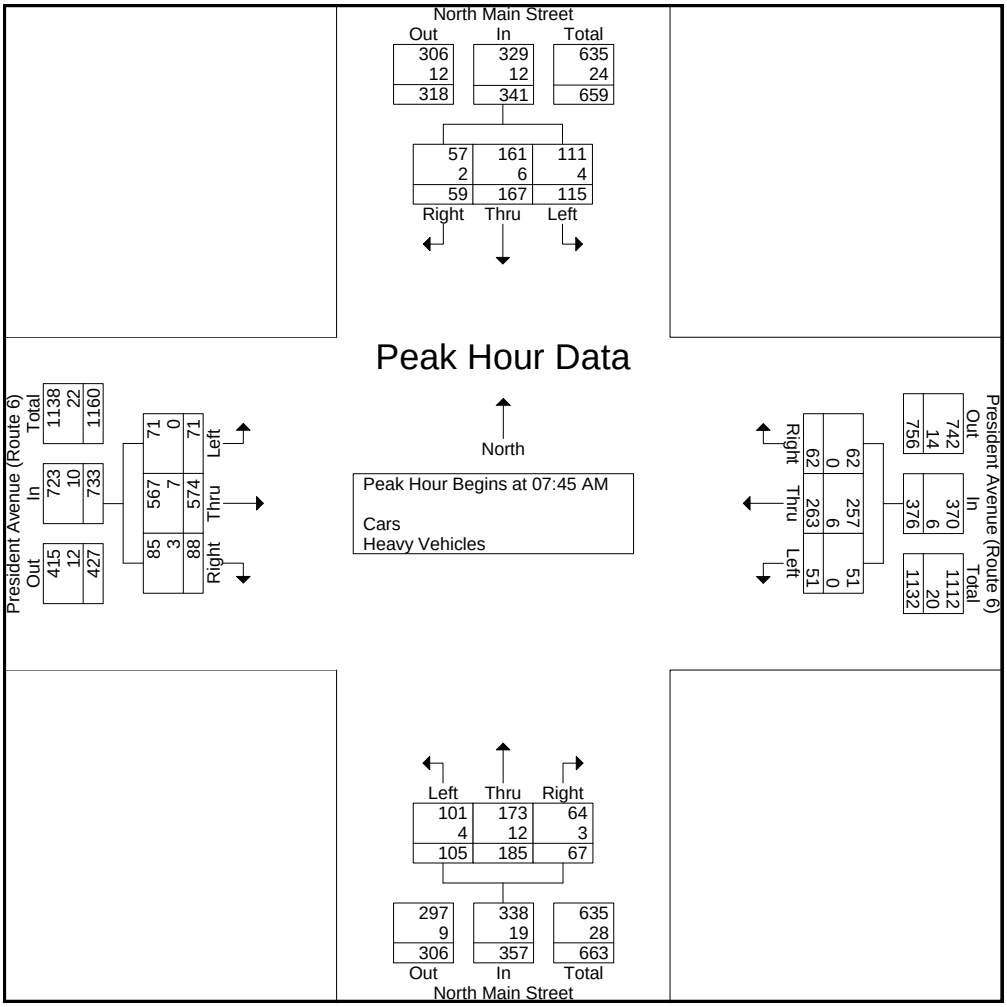
	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**21**	**49**	**34**	**104**	**16**	**79**	**20**	**115**	16	49	24	89	14	128	**22**	164	**472**
08:00 AM	16	36	20	72	16	69	9	94	14	30	27	71	**27**	145	16	188	425
08:15 AM	14	41	34	89	15	58	14	87	17	**57**	24	98	21	138	14	173	447
08:30 AM	8	41	27	76	15	57	8	80	**20**	49	**30**	**99**	26	**163**	19	**208**	463
Total Volume	59	167	115	341	62	263	51	376	67	185	105	357	88	574	71	733	1807
% App. Total	17.3	49	33.7		16.5	69.9	13.6		18.8	51.8	29.4		12	78.3	9.7		
PHF	.702	.852	.846	.820	.969	.832	.638	.817	.838	.811	.875	.902	.815	.880	.807	.881	.957
Cars	57	161	111	329	62	257	51	370	64	173	101	338	85	567	71	723	1760
% Cars	96.6	96.4	96.5	96.5	100	97.7	100	98.4	95.5	93.5	96.2	94.7	96.6	98.8	100	98.6	97.4
Heavy Vehicles	2	6	4	12	0	6	0	6	3	12	4	19	3	7	0	10	47
% Heavy Vehicles	3.4	3.6	3.5	3.5	0	2.3	0	1.6	4.5	6.5	3.8	5.3	3.4	1.2	0	1.4	2.6



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N/S: North Main Street
E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-AAA
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Main Street From North			President Avenue (Route 6) From East			North Main Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	13	45	36	21	124	16	9	57	31	20	142	20	534
04:15 PM	24	40	42	16	109	13	23	54	37	26	131	21	536
04:30 PM	25	42	30	16	87	15	14	71	30	20	127	36	513
04:45 PM	21	53	32	9	79	18	12	54	23	36	118	25	480
Total	83	180	140	62	399	62	58	236	121	102	518	102	2063
05:00 PM	15	43	39	13	128	11	22	61	22	26	154	27	561
05:15 PM	19	38	29	19	111	10	24	46	26	30	154	23	529
05:30 PM	18	48	29	15	76	13	26	51	24	26	130	28	484
05:45 PM	29	41	22	16	98	8	19	59	21	23	103	18	457
Total	81	170	119	63	413	42	91	217	93	105	541	96	2031
Grand Total	164	350	259	125	812	104	149	453	214	207	1059	198	4094
Apprch %	21.2	45.3	33.5	12	78	10	18.3	55.5	26.2	14.1	72.3	13.5	
Total %	4	8.5	6.3	3.1	19.8	2.5	3.6	11.1	5.2	5.1	25.9	4.8	
Cars	158	338	256	123	803	101	147	436	212	203	1046	193	4016
% Cars	96.3	96.6	98.8	98.4	98.9	97.1	98.7	96.2	99.1	98.1	98.8	97.5	98.1
Heavy Vehicles	6	12	3	2	9	3	2	17	2	4	13	5	78
% Heavy Vehicles	3.7	3.4	1.2	1.6	1.1	2.9	1.3	3.8	0.9	1.9	1.2	2.5	1.9

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	24	40	**42**	**106**	**16**	109	13	138	**23**	54	**37**	114	26	131	21	178	536
04:30 PM	**25**	42	30	97	16	87	15	118	14	**71**	30	**115**	20	127	**36**	183	513
04:45 PM	21	**53**	32	106	9	79	**18**	106	12	54	23	89	**36**	118	25	179	480
05:00 PM	15	43	39	97	13	**128**	11	**152**	22	61	22	105	26	**154**	27	**207**	**561**
Total Volume	85	178	143	406	54	403	57	514	71	240	112	423	108	530	109	747	2090
% App. Total	20.9	43.8	35.2		10.5	78.4	11.1		16.8	56.7	26.5		14.5	71	14.6		
PHF	.850	.840	.851	.958	.844	.787	.792	.845	.772	.845	.757	.920	.750	.860	.757	.902	.931
Cars	84	174	142	400	53	399	54	506	71	237	111	419	105	524	106	735	2060
% Cars	98.8	97.8	99.3	98.5	98.1	99.0	94.7	98.4	100	98.8	99.1	99.1	97.2	98.9	97.2	98.4	98.6
Heavy Vehicles	1	4	1	6	1	4	3	8	0	3	1	4	3	6	3	12	30
% Heavy Vehicles	1.2	2.2	0.7	1.5	1.9	1.0	5.3	1.6	0	1.3	0.9	0.9	2.8	1.1	2.8	1.6	1.4

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E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-AAA
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	North Main Street From North			President Avenue (Route 6) From East			North Main Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	12	43	34	21	123	16	8	52	30	20	139	18	516
04:15 PM	23	39	41	16	107	13	23	54	36	26	129	20	527
04:30 PM	25	41	30	16	86	14	14	70	30	20	125	36	507
04:45 PM	21	51	32	8	78	17	12	52	23	34	118	24	470
Total	81	174	137	61	394	60	57	228	119	100	511	98	2020
05:00 PM	15	43	39	13	128	10	22	61	22	25	152	26	556
05:15 PM	19	37	29	19	108	10	23	42	26	30	154	23	520
05:30 PM	18	46	29	15	76	13	26	48	24	26	128	28	477
05:45 PM	25	38	22	15	97	8	19	57	21	22	101	18	443
Total	77	164	119	62	409	41	90	208	93	103	535	95	1996
Grand Total	158	338	256	123	803	101	147	436	212	203	1046	193	4016
Apprch %	21	44.9	34	12	78.2	9.8	18.5	54.8	26.7	14.1	72.5	13.4	
Total %	3.9	8.4	6.4	3.1	20	2.5	3.7	10.9	5.3	5.1	26	4.8	

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	23	39	**41**	103	**16**	107	13	136	**23**	54	**36**	113	26	129	20	175	527
04:30 PM	**25**	41	30	96	16	86	14	116	14	**70**	30	**114**	20	125	**36**	181	507
04:45 PM	21	**51**	32	**104**	8	78	**17**	103	12	52	23	87	**34**	118	24	176	470
05:00 PM	15	43	39	97	13	**128**	10	**151**	22	61	22	105	25	**152**	26	**203**	**556**
Total Volume	84	174	142	400	53	399	54	506	71	237	111	419	105	524	106	735	2060
% App. Total	21	43.5	35.5		10.5	78.9	10.7		16.9	56.6	26.5		14.3	71.3	14.4		
PHF	.840	.853	.866	.962	.828	.779	.794	.838	.772	.846	.771	.919	.772	.862	.736	.905	.926

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Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Main Street From North			President Avenue (Route 6) From East			North Main Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	2	2	0	1	0	1	5	1	0	3	2	18
04:15 PM	1	1	1	0	2	0	0	0	1	0	2	1	9
04:30 PM	0	1	0	0	1	1	0	1	0	0	2	0	6
04:45 PM	0	2	0	1	1	1	0	2	0	2	0	1	10
Total	2	6	3	1	5	2	1	8	2	2	7	4	43
05:00 PM	0	0	0	0	0	1	0	0	0	1	2	1	5
05:15 PM	0	1	0	0	3	0	1	4	0	0	0	0	9
05:30 PM	0	2	0	0	0	0	0	3	0	0	2	0	7
05:45 PM	4	3	0	1	1	0	0	2	0	1	2	0	14
Total	4	6	0	1	4	1	1	9	0	2	6	1	35
Grand Total	6	12	3	2	9	3	2	17	2	4	13	5	78
Apprch %	28.6	57.1	14.3	14.3	64.3	21.4	9.5	81	9.5	18.2	59.1	22.7	
Total %	7.7	15.4	3.8	2.6	11.5	3.8	2.6	21.8	2.6	5.1	16.7	6.4	

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**2**	**2**	**5**	0	1	0	1	**1**	**5**	**1**	**7**	0	**3**	**2**	**5**	**18**
04:15 PM	1	1	1	3	0	**2**	0	2	0	0	1	1	0	2	1	3	9
04:30 PM	0	1	0	1	0	1	**1**	2	0	1	0	1	0	2	0	2	6
04:45 PM	0	2	0	2	**1**	1	1	**3**	0	2	0	2	**2**	0	1	3	10
Total Volume	2	6	3	11	1	5	2	8	1	8	2	11	2	7	4	13	43
% App. Total	18.2	54.5	27.3		12.5	62.5	25		9.1	72.7	18.2		15.4	53.8	30.8		
PHF	.500	.750	.375	.550	.250	.625	.500	.667	.250	.400	.500	.393	.250	.583	.500	.650	.597

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File Name : 81676B-AAA
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
04:15 PM	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	3
04:30 PM	0	0	0	1	0	0	0	5	0	0	0	1	0	0	0	3	10
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Total	0	1	0	1	0	0	0	6	0	0	0	3	0	0	0	9	20
05:00 PM	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	5	8
05:15 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	6
05:30 PM	0	0	0	0	0	0	0	2	0	3	0	1	0	0	0	0	6
05:45 PM	0	1	0	1	0	0	0	1	0	0	0	3	0	0	0	7	13
Total	0	1	0	2	0	0	0	7	0	3	0	8	0	0	0	12	33
Grand Total	0	2	0	3	0	0	0	13	0	3	0	11	0	0	0	21	53
Apprch %	0	40	0	60	0	0	0	100	0	21.4	0	78.6	0	0	0	100	
Total %	0	3.8	0	5.7	0	0	0	24.5	0	5.7	0	20.8	0	0	0	39.6	

	North Main Street From North					President Avenue (Route 6) From East					North Main Street From South					President Avenue (Route 6) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**5**	**5**	**8**
05:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	0	0	0	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**6**
05:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**3**	**0**	**1**	**4**	0	0	0	0	0	6
05:45 PM	0	**1**	0	1	**2**	0	0	0	1	1	0	0	0	3	3	0	0	0	**7**	**7**	**13**
Total Volume	0	1	0	2	3	0	0	0	7	7	0	3	0	8	11	0	0	0	12	12	33
% App. Total	0	33.3	0	66.7		0	0	0	100		0	27.3	0	72.7		0	0	0	100		
PHF	.000	.250	.000	.500	.375	.000	.000	.000	.583	.583	.000	.250	.000	.667	.688	.000	.000	.000	.429	.429	.635

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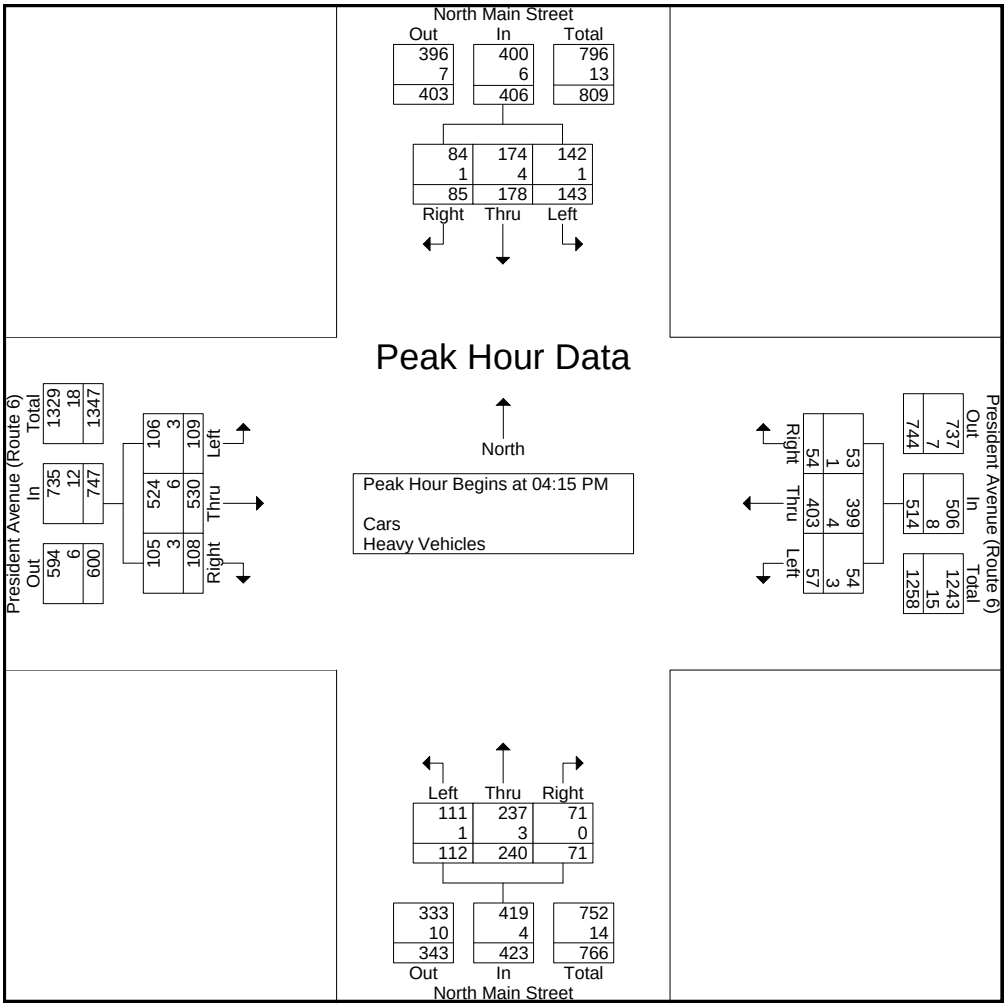
	North Main Street From North				President Avenue (Route 6) From East				North Main Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	24	40	**42**	**106**	**16**	109	13	138	**23**	54	**37**	114	26	131	21	178	536
04:30 PM	**25**	42	30	97	16	87	15	118	14	**71**	30	**115**	20	127	**36**	183	513
04:45 PM	21	**53**	32	106	9	79	**18**	106	12	54	23	89	**36**	118	25	179	480
05:00 PM	15	43	39	97	13	**128**	11	**152**	22	61	22	105	26	**154**	27	**207**	**561**
Total Volume	85	178	143	406	54	403	57	514	71	240	112	423	108	530	109	747	2090
% App. Total	20.9	43.8	35.2		10.5	78.4	11.1		16.8	56.7	26.5		14.5	71	14.6		
PHF	.850	.840	.851	.958	.844	.787	.792	.845	.772	.845	.757	.920	.750	.860	.757	.902	.931
Cars	84	174	142	400	53	399	54	506	71	237	111	419	105	524	106	735	2060
% Cars	98.8	97.8	99.3	98.5	98.1	99.0	94.7	98.4	100	98.8	99.1	99.1	97.2	98.9	97.2	98.4	98.6
Heavy Vehicles	1	4	1	6	1	4	3	8	0	3	1	4	3	6	3	12	30
% Heavy Vehicles	1.2	2.2	0.7	1.5	1.9	1.0	5.3	1.6	0	1.3	0.9	0.9	2.8	1.1	2.8	1.6	1.4



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Groups Printed- Cars - Heavy Vehicles

	North Davol Street From North			President Avenue (Route 6) From East			North Davol Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	40	63	0	63	80	14	0	91	2	353
07:15 AM	0	0	0	39	79	0	78	98	17	0	83	6	400
07:30 AM	0	0	0	34	89	0	71	120	23	0	74	7	418
07:45 AM	0	0	0	56	85	0	67	118	19	0	103	6	454
Total	0	0	0	169	316	0	279	416	73	0	351	21	1625
08:00 AM	0	0	0	61	55	0	53	103	20	0	118	4	414
08:15 AM	0	0	0	52	64	0	69	85	15	0	130	4	419
08:30 AM	0	0	0	57	34	0	61	75	15	0	136	11	389
08:45 AM	0	0	0	44	57	0	52	101	7	0	123	6	390
Total	0	0	0	214	210	0	235	364	57	0	507	25	1612
Grand Total	0	0	0	383	526	0	514	780	130	0	858	46	3237
Apprch %	0	0	0	42.1	57.9	0	36.1	54.8	9.1	0	94.9	5.1	
Total %	0	0	0	11.8	16.2	0	15.9	24.1	4	0	26.5	1.4	
Cars	0	0	0	371	515	0	507	755	127	0	847	40	3162
% Cars	0	0	0	96.9	97.9	0	98.6	96.8	97.7	0	98.7	87	97.7
Heavy Vehicles	0	0	0	12	11	0	7	25	3	0	11	6	75
% Heavy Vehicles	0	0	0	3.1	2.1	0	1.4	3.2	2.3	0	1.3	13	2.3

	North Davol Street From North				President Avenue (Route 6) From East				North Davol Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	34	**89**	0	123	**71**	**120**	**23**	**214**	0	74	**7**	81	418
07:45 AM	0	0	0	0	56	85	0	**141**	67	118	19	204	0	103	6	109	**454**
08:00 AM	0	0	0	0	**61**	55	0	116	53	103	20	176	0	118	4	122	414
08:15 AM	0	0	0	0	52	64	0	116	69	85	15	169	0	**130**	4	**134**	419
Total Volume	0	0	0	0	203	293	0	496	260	426	77	763	0	425	21	446	1705
% App. Total	0	0	0		40.9	59.1	0		34.1	55.8	10.1		0	95.3	4.7		
PHF	.000	.000	.000	.000	.832	.823	.000	.879	.915	.888	.837	.891	.000	.817	.750	.832	.939
Cars	0	0	0	0	195	284	0	479	258	416	76	750	0	419	17	436	1665
% Cars	0	0	0	0	96.1	96.9	0	96.6	99.2	97.7	98.7	98.3	0	98.6	81.0	97.8	97.7
Heavy Vehicles	0	0	0	0	8	9	0	17	2	10	1	13	0	6	4	10	40
% Heavy Vehicles	0	0	0	0	3.9	3.1	0	3.4	0.8	2.3	1.3	1.7	0	1.4	19.0	2.2	2.3

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N/S: North Davol Street
E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-B
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars

	North Davol Street From North			President Avenue (Route 6) From East			North Davol Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	39	63	0	63	78	14	0	90	2	349
07:15 AM	0	0	0	39	77	0	75	91	16	0	80	6	384
07:30 AM	0	0	0	32	83	0	70	118	23	0	74	5	405
07:45 AM	0	0	0	52	83	0	66	114	19	0	102	5	441
Total	0	0	0	162	306	0	274	401	72	0	346	18	1579
08:00 AM	0	0	0	61	55	0	53	101	20	0	116	4	410
08:15 AM	0	0	0	50	63	0	69	83	14	0	127	3	409
08:30 AM	0	0	0	54	34	0	61	74	15	0	136	10	384
08:45 AM	0	0	0	44	57	0	50	96	6	0	122	5	380
Total	0	0	0	209	209	0	233	354	55	0	501	22	1583
Grand Total	0	0	0	371	515	0	507	755	127	0	847	40	3162
Apprch %	0	0	0	41.9	58.1	0	36.5	54.4	9.1	0	95.5	4.5	
Total %	0	0	0	11.7	16.3	0	16	23.9	4	0	26.8	1.3	

	North Davol Street From North				President Avenue (Route 6) From East				North Davol Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	32	**83**	0	115	**70**	**118**	**23**	**211**	0	74	**5**	79	405
07:45 AM	0	0	0	0	52	83	0	**135**	66	114	19	199	0	102	5	107	**441**
08:00 AM	0	0	0	0	**61**	55	0	116	53	101	20	174	0	116	4	120	410
08:15 AM	0	0	0	0	50	63	0	113	69	83	14	166	0	**127**	3	**130**	409
Total Volume	0	0	0	0	195	284	0	479	258	416	76	750	0	419	17	436	1665
% App. Total	0	0	0		40.7	59.3	0		34.4	55.5	10.1		0	96.1	3.9		
PHF	.000	.000	.000	.000	.799	.855	.000	.887	.921	.881	.826	.889	.000	.825	.850	.838	.944

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Client: VHB/J. Quitter

File Name : 81676B-B
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	North Davol Street From North			President Avenue (Route 6) From East			North Davol Street From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	1	0	0	0	2	0	0	1	0	4
07:15 AM	0	0	0	0	2	0	3	7	1	0	3	0	16
07:30 AM	0	0	0	2	6	0	1	2	0	0	0	2	13
07:45 AM	0	0	0	4	2	0	1	4	0	0	1	1	13
Total	0	0	0	7	10	0	5	15	1	0	5	3	46
08:00 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
08:15 AM	0	0	0	2	1	0	0	2	1	0	3	1	10
08:30 AM	0	0	0	3	0	0	0	1	0	0	0	1	5
08:45 AM	0	0	0	0	0	0	2	5	1	0	1	1	10
Total	0	0	0	5	1	0	2	10	2	0	6	3	29
Grand Total	0	0	0	12	11	0	7	25	3	0	11	6	75
Apprch %	0	0	0	52.2	47.8	0	20	71.4	8.6	0	64.7	35.3	
Total %	0	0	0	16	14.7	0	9.3	33.3	4	0	14.7	8	

	North Davol Street From North				President Avenue (Route 6) From East				North Davol Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	1	0	0	1	0	2	0	2	0	1	0	1	4
07:15 AM	0	0	0	0	0	2	0	2	**3**	**7**	**1**	**11**	0	**3**	0	**3**	**16**
07:30 AM	0	0	0	0	2	**6**	0	**8**	1	2	0	3	0	0	**2**	2	13
07:45 AM	0	0	0	0	**4**	2	0	6	1	4	0	5	0	1	1	2	13
Total Volume	0	0	0	0	7	10	0	17	5	15	1	21	0	5	3	8	46
% App. Total	0	0	0		41.2	58.8	0		23.8	71.4	4.8		0	62.5	37.5		
PHF	.000	.000	.000	.000	.438	.417	.000	.531	.417	.536	.250	.477	.000	.417	.375	.667	.719

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File Name : 81676B-B
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	North Davol Street From North				President Avenue (Route 6) From East				North Davol Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	2	0	0	6
07:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	3	0	3	0	0	0	0	0	0	0	2	0	0	8
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
08:45 AM	0	0	0	1	0	2	0	0	0	0	0	3	0	0	0	1	7
Total	0	0	0	2	0	2	0	1	0	0	0	3	0	0	0	2	10
Grand Total	0	0	0	5	0	5	0	1	0	0	0	3	0	2	0	2	18
Apprch %	0	0	0	100	0	83.3	0	16.7	0	0	0	100	0	50	0	50	
Total %	0	0	0	27.8	0	27.8	0	5.6	0	0	0	16.7	0	11.1	0	11.1	

	North Davol Street From North					President Avenue (Route 6) From East					North Davol Street From South					President Avenue (Route 6) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	**1**	**1**	2
08:45 AM	0	0	0	1	1	0	**2**	**0**	**0**	**2**	0	0	0	**3**	**3**	0	0	0	1	1	**7**
Total Volume	0	0	0	2	2	0	2	0	1	3	0	0	0	3	3	0	0	0	2	2	10
% App. Total	0	0	0	100		0	66.7	0	33.3		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.500	.500	.000	.250	.000	.250	.375	.000	.000	.000	.250	.250	.000	.000	.000	.500	.500	.357

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Site Code : 10111.31
Start Date : 9/9/2008
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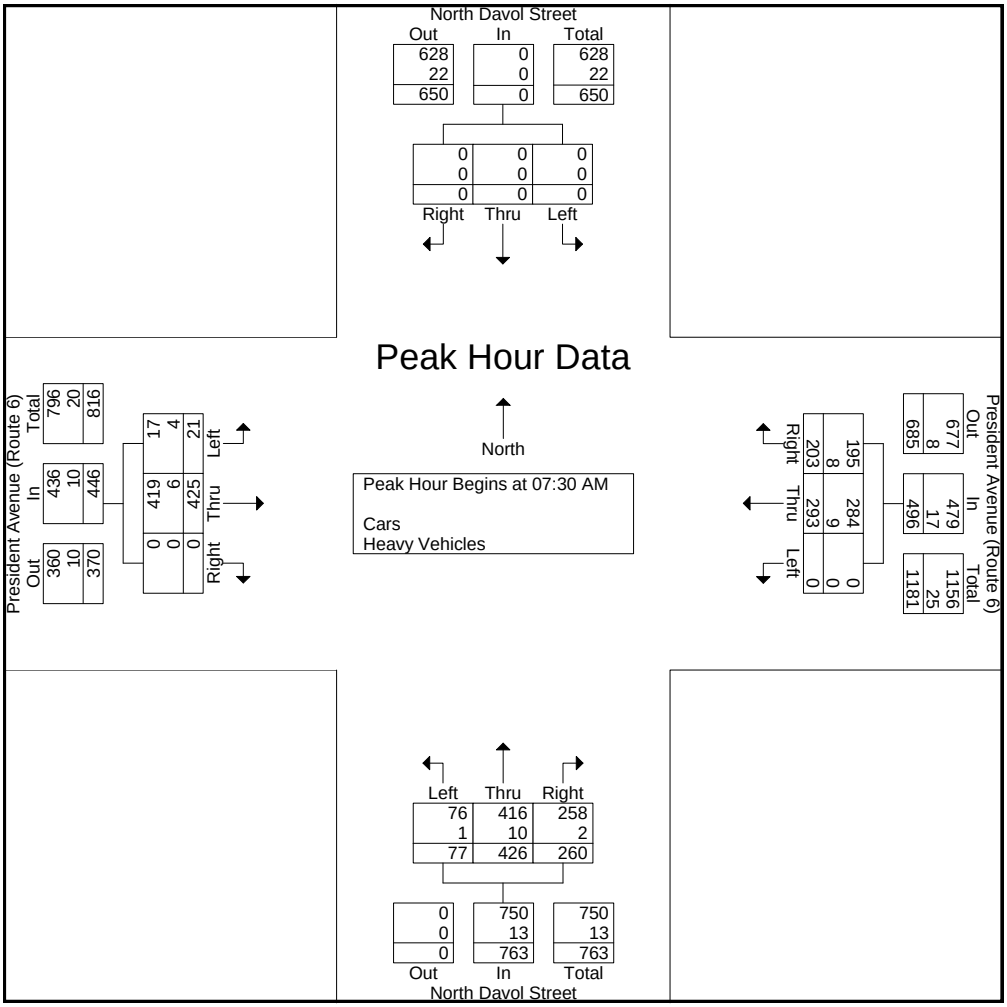
	North Davol Street From North				President Avenue (Route 6) From East				North Davol Street From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	34	**89**	0	123	**71**	**120**	**23**	**214**	0	74	**7**	81	418
07:45 AM	0	0	0	0	56	85	0	**141**	67	118	19	204	0	103	6	109	**454**
08:00 AM	0	0	0	0	**61**	55	0	116	53	103	20	176	0	118	4	122	414
08:15 AM	0	0	0	0	52	64	0	116	69	85	15	169	0	**130**	4	**134**	419
Total Volume	0	0	0	0	203	293	0	496	260	426	77	763	0	425	21	446	1705
% App. Total	0	0	0		40.9	59.1	0		34.1	55.8	10.1		0	95.3	4.7		
PHF	.000	.000	.000	.000	.832	.823	.000	.879	.915	.888	.837	.891	.000	.817	.750	.832	.939
Cars	0	0	0	0	195	284	0	479	258	416	76	750	0	419	17	436	1665
% Cars	0	0	0	0	96.1	96.9	0	96.6	99.2	97.7	98.7	98.3	0	98.6	81.0	97.8	97.7
Heavy Vehicles	0	0	0	0	8	9	0	17	2	10	1	13	0	6	4	10	40
% Heavy Vehicles	0	0	0	0	3.9	3.1	0	3.4	0.8	2.3	1.3	1.7	0	1.4	19.0	2.2	2.3



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E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-BBB
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB From North			President Avenue (Route 6) From East			Davol Street NB From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	90	80	0	72	120	21	0	111	7	501
04:15 PM	0	0	0	91	80	0	65	131	17	0	110	10	504
04:30 PM	0	0	0	84	73	0	67	175	20	0	109	11	539
04:45 PM	0	0	0	74	65	0	64	118	15	0	124	8	468
Total	0	0	0	339	298	0	268	544	73	0	454	36	2012
05:00 PM	0	0	0	89	51	0	78	145	12	0	133	5	513
05:15 PM	0	0	0	99	73	0	66	114	15	0	140	15	522
05:30 PM	0	0	0	64	57	0	56	102	14	0	106	10	409
05:45 PM	0	0	0	75	60	0	46	113	7	0	91	7	399
Total	0	0	0	327	241	0	246	474	48	0	470	37	1843
Grand Total	0	0	0	666	539	0	514	1018	121	0	924	73	3855
Apprch %	0	0	0	55.3	44.7	0	31.1	61.6	7.3	0	92.7	7.3	
Total %	0	0	0	17.3	14	0	13.3	26.4	3.1	0	24	1.9	
Cars	0	0	0	657	534	0	508	1006	120	0	914	71	3810
% Cars	0	0	0	98.6	99.1	0	98.8	98.8	99.2	0	98.9	97.3	98.8
Heavy Vehicles	0	0	0	9	5	0	6	12	1	0	10	2	45
% Heavy Vehicles	0	0	0	1.4	0.9	0	1.2	1.2	0.8	0	1.1	2.7	1.2

	Davol Street NB From North				President Avenue (Route 6) From East				Davol Street NB From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	84	**73**	0	157	67	**175**	**20**	**262**	0	109	11	120	**539**
04:45 PM	0	0	0	0	74	65	0	139	64	118	15	197	0	124	8	132	468
05:00 PM	0	0	0	0	89	51	0	140	**78**	145	12	235	0	133	5	138	513
05:15 PM	0	0	0	0	**99**	73	0	**172**	66	114	15	195	0	**140**	**15**	**155**	522
Total Volume	0	0	0	0	346	262	0	608	275	552	62	889	0	506	39	545	2042
% App. Total	0	0	0		56.9	43.1	0		30.9	62.1	7		0	92.8	7.2		
PHF	.000	.000	.000	.000	.874	.897	.000	.884	.881	.789	.775	.848	.000	.904	.650	.879	.947
Cars	0	0	0	0	341	261	0	602	275	547	61	883	0	502	38	540	2025
% Cars	0	0	0	0	98.6	99.6	0	99.0	100	99.1	98.4	99.3	0	99.2	97.4	99.1	99.2
Heavy Vehicles	0	0	0	0	5	1	0	6	0	5	1	6	0	4	1	5	17
% Heavy Vehicles	0	0	0	0	1.4	0.4	0	1.0	0	0.9	1.6	0.7	0	0.8	2.6	0.9	0.8

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Client: VHB/J. Quitter

File Name : 81676B-BBB
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars

	Davol Street NB From North			President Avenue (Route 6) From East			Davol Street NB From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	89	79	0	69	118	21	0	111	7	494
04:15 PM	0	0	0	90	77	0	64	129	17	0	108	10	495
04:30 PM	0	0	0	83	72	0	67	174	20	0	108	10	534
04:45 PM	0	0	0	73	65	0	64	116	15	0	122	8	463
Total	0	0	0	335	293	0	264	537	73	0	449	35	1986
05:00 PM	0	0	0	89	51	0	78	143	12	0	132	5	510
05:15 PM	0	0	0	96	73	0	66	114	14	0	140	15	518
05:30 PM	0	0	0	64	57	0	56	102	14	0	105	9	407
05:45 PM	0	0	0	73	60	0	44	110	7	0	88	7	389
Total	0	0	0	322	241	0	244	469	47	0	465	36	1824
Grand Total	0	0	0	657	534	0	508	1006	120	0	914	71	3810
Apprch %	0	0	0	55.2	44.8	0	31.1	61.6	7.3	0	92.8	7.2	
Total %	0	0	0	17.2	14	0	13.3	26.4	3.1	0	24	1.9	

	Davol Street NB From North				President Avenue (Route 6) From East				Davol Street NB From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	83	72	0	155	67	**174**	**20**	**261**	0	108	10	118	**534**
04:45 PM	0	0	0	0	73	65	0	138	64	116	15	195	0	122	8	130	463
05:00 PM	0	0	0	0	89	51	0	140	**78**	143	12	233	0	132	5	137	510
05:15 PM	0	0	0	0	**96**	**73**	0	**169**	66	114	14	194	0	**140**	**15**	**155**	518
Total Volume	0	0	0	0	341	261	0	602	275	547	61	883	0	502	38	540	2025
% App. Total	0	0	0		56.6	43.4	0		31.1	61.9	6.9		0	93	7		
PHF	.000	.000	.000	.000	.888	.894	.000	.891	.881	.786	.763	.846	.000	.896	.633	.871	.948

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File Name : 81676B-BBB
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Heavy Vehicles

	Davol Street NB From North			President Avenue (Route 6) From East			Davol Street NB From South			President Avenue (Route 6) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	1	1	0	3	2	0	0	0	0	7
04:15 PM	0	0	0	1	3	0	1	2	0	0	2	0	9
04:30 PM	0	0	0	1	1	0	0	1	0	0	1	1	5
04:45 PM	0	0	0	1	0	0	0	2	0	0	2	0	5
Total	0	0	0	4	5	0	4	7	0	0	5	1	26
05:00 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
05:15 PM	0	0	0	3	0	0	0	0	1	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
05:45 PM	0	0	0	2	0	0	2	3	0	0	3	0	10
Total	0	0	0	5	0	0	2	5	1	0	5	1	19
Grand Total	0	0	0	9	5	0	6	12	1	0	10	2	45
Apprch %	0	0	0	64.3	35.7	0	31.6	63.2	5.3	0	83.3	16.7	
Total %	0	0	0	20	11.1	0	13.3	26.7	2.2	0	22.2	4.4	

	Davol Street NB From North				President Avenue (Route 6) From East				Davol Street NB From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	**1**	1	0	2	**3**	**2**	0	**5**	0	0	0	0	7
04:15 PM	0	0	0	0	1	**3**	0	**4**	1	2	0	3	0	**2**	0	**2**	**9**
04:30 PM	0	0	0	0	1	1	0	2	0	1	0	1	0	1	**1**	2	5
04:45 PM	0	0	0	0	1	0	0	1	0	2	0	2	0	2	0	2	5
Total Volume	0	0	0	0	4	5	0	9	4	7	0	11	0	5	1	6	26
% App. Total	0	0	0		44.4	55.6	0		36.4	63.6	0		0	83.3	16.7		
PHF	.000	.000	.000	.000	1.000	.417	.000	.563	.333	.875	.000	.550	.000	.625	.250	.750	.722

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N/S: Davol Street NB
E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-BBB
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street NB From North				President Avenue (Route 6) From East				Davol Street NB From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	4	0	1	0	2	0	0	0	2	0	0	0	0	9
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	0	4
Total	0	0	0	5	0	2	0	2	0	0	0	4	0	1	0	0	14
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3
05:45 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	4	0	2	0	0	0	0	0	0	0	0	0	1	7
Grand Total	0	0	0	9	0	4	0	2	0	0	0	4	0	1	0	1	21
Apprch %	0	0	0	100	0	66.7	0	33.3	0	0	0	100	0	50	0	50	
Total %	0	0	0	42.9	0	19	0	9.5	0	0	0	19	0	4.8	0	4.8	

	Davol Street NB From North					President Avenue (Route 6) From East					Davol Street NB From South					President Avenue (Route 6) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	**4**	**4**	0	**1**	**0**	**2**	**3**	0	0	0	**2**	**2**	0	0	0	0	0	**9**
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	2	2	0	**1**	0	0	**1**	4
Total Volume	0	0	0	5	5	0	2	0	2	4	0	0	0	4	4	0	1	0	0	1	14
% App. Total	0	0	0	100		0	50	0	50		0	0	0	100		0	100	0	0		
PHF	.000	.000	.000	.313	.313	.000	.500	.000	.250	.333	.000	.000	.000	.500	.500	.000	.250	.000	.000	.250	.389

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E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-BBB
Site Code : 10111.31
Start Date : 9/9/2008
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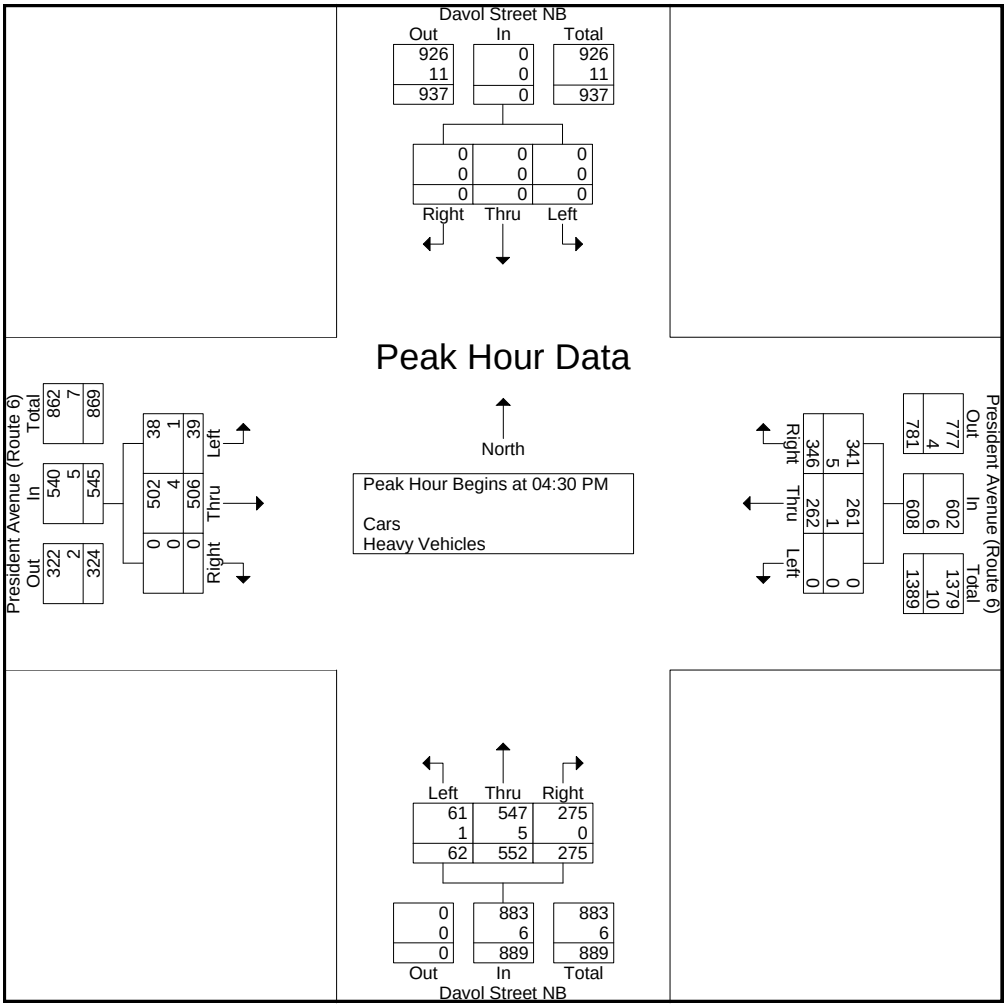
	Davol Street NB From North				President Avenue (Route 6) From East				Davol Street NB From South				President Avenue (Route 6) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	84	**73**	0	157	67	**175**	**20**	**262**	0	109	11	120	**539**
04:45 PM	0	0	0	0	74	65	0	139	64	118	15	197	0	124	8	132	468
05:00 PM	0	0	0	0	89	51	0	140	**78**	145	12	235	0	133	5	138	513
05:15 PM	0	0	0	0	**99**	73	0	**172**	66	114	15	195	0	**140**	**15**	**155**	522
Total Volume	0	0	0	0	346	262	0	608	275	552	62	889	0	506	39	545	2042
% App. Total	0	0	0		56.9	43.1	0		30.9	62.1	7		0	92.8	7.2		
PHF	.000	.000	.000	.000	.874	.897	.000	.884	.881	.789	.775	.848	.000	.904	.650	.879	.947
Cars	0	0	0	0	341	261	0	602	275	547	61	883	0	502	38	540	2025
% Cars	0	0	0	0	98.6	99.6	0	99.0	100	99.1	98.4	99.3	0	99.2	97.4	99.1	99.2
Heavy Vehicles	0	0	0	0	5	1	0	6	0	5	1	6	0	4	1	5	17
% Heavy Vehicles	0	0	0	0	1.4	0.4	0	1.0	0	0.9	1.6	0.7	0	0.8	2.6	0.9	0.8



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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-C
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street SB From North			President Avenue (Route 6) From East			Davol Street SB From South			President Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	83	91	0	3	71	0	0	0	3	1	0	252
07:15 AM	2	108	87	0	2	91	0	0	0	0	3	0	293
07:30 AM	0	104	80	0	5	104	0	0	0	1	1	0	295
07:45 AM	0	132	111	0	6	104	0	0	0	3	4	0	360
Total	2	427	369	0	16	370	0	0	0	7	9	0	1200
08:00 AM	1	107	126	0	3	74	0	0	0	1	3	0	315
08:15 AM	0	100	133	0	3	74	0	0	0	3	1	0	314
08:30 AM	0	96	144	0	7	45	0	0	0	1	3	0	296
08:45 AM	4	94	134	0	3	61	0	0	0	0	0	0	296
Total	5	397	537	0	16	254	0	0	0	5	7	0	1221
Grand Total	7	824	906	0	32	624	0	0	0	12	16	0	2421
Apprch %	0.4	47.4	52.2	0	4.9	95.1	0	0	0	42.9	57.1	0	
Total %	0.3	34	37.4	0	1.3	25.8	0	0	0	0.5	0.7	0	
Cars	7	813	890	0	32	611	0	0	0	12	16	0	2381
% Cars	100	98.7	98.2	0	100	97.9	0	0	0	100	100	0	98.3
Heavy Vehicles	0	11	16	0	0	13	0	0	0	0	0	0	40
% Heavy Vehicles	0	1.3	1.8	0	0	2.1	0	0	0	0	0	0	1.7

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**132**	111	**243**	0	6	**104**	**110**	0	0	0	0	**3**	**4**	0	**7**	**360**
08:00 AM	**1**	107	126	234	0	3	74	77	0	0	0	0	1	3	0	4	315
08:15 AM	0	100	133	233	0	3	74	77	0	0	0	0	3	1	0	4	314
08:30 AM	0	96	**144**	240	0	**7**	45	52	0	0	0	0	1	3	0	4	296
Total Volume	1	435	514	950	0	19	297	316	0	0	0	0	8	11	0	19	1285
% App. Total	0.1	45.8	54.1		0	6	94		0	0	0		42.1	57.9	0		
PHF	.250	.824	.892	.977	.000	.679	.714	.718	.000	.000	.000	.000	.667	.688	.000	.679	.892
Cars	1	425	506	932	0	19	290	309	0	0	0	0	8	11	0	19	1260
% Cars	100	97.7	98.4	98.1	0	100	97.6	97.8	0	0	0	0	100	100	0	100	98.1
Heavy Vehicles	0	10	8	18	0	0	7	7	0	0	0	0	0	0	0	0	25
% Heavy Vehicles	0	2.3	1.6	1.9	0	0	2.4	2.2	0	0	0	0	0	0	0	0	1.9

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E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-C
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Davol Street SB From North			President Avenue (Route 6) From East			Davol Street SB From South			President Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	83	90	0	3	71	0	0	0	3	1	0	251
07:15 AM	2	107	84	0	2	90	0	0	0	0	3	0	288
07:30 AM	0	104	79	0	5	100	0	0	0	1	1	0	290
07:45 AM	0	132	110	0	6	101	0	0	0	3	4	0	356
Total	2	426	363	0	16	362	0	0	0	7	9	0	1185
08:00 AM	1	105	124	0	3	74	0	0	0	1	3	0	311
08:15 AM	0	97	129	0	3	70	0	0	0	3	1	0	303
08:30 AM	0	91	143	0	7	45	0	0	0	1	3	0	290
08:45 AM	4	94	131	0	3	60	0	0	0	0	0	0	292
Total	5	387	527	0	16	249	0	0	0	5	7	0	1196
Grand Total	7	813	890	0	32	611	0	0	0	12	16	0	2381
Apprch %	0.4	47.5	52	0	5	95	0	0	0	42.9	57.1	0	
Total %	0.3	34.1	37.4	0	1.3	25.7	0	0	0	0.5	0.7	0	

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	104	79	183	0	5	100	105	0	0	0	0	1	1	0	2	290
07:45 AM	0	**132**	110	**242**	0	**6**	**101**	**107**	0	0	0	0	**3**	**4**	0	**7**	**356**
08:00 AM	**1**	105	124	230	0	3	74	77	0	0	0	0	1	3	0	4	311
08:15 AM	0	97	**129**	226	0	3	70	73	0	0	0	0	3	1	0	4	303
Total Volume	1	438	442	881	0	17	345	362	0	0	0	0	8	9	0	17	1260
% App. Total	0.1	49.7	50.2		0	4.7	95.3		0	0	0		47.1	52.9	0		
PHF	.250	.830	.857	.910	.000	.708	.854	.846	.000	.000	.000	.000	.667	.563	.000	.607	.885

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Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street SB From North			President Avenue (Route 6) From East			Davol Street SB From South			President Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	1	3	0	0	1	0	0	0	0	0	0	5
07:30 AM	0	0	1	0	0	4	0	0	0	0	0	0	5
07:45 AM	0	0	1	0	0	3	0	0	0	0	0	0	4
Total	0	1	6	0	0	8	0	0	0	0	0	0	15
08:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	4
08:15 AM	0	3	4	0	0	4	0	0	0	0	0	0	11
08:30 AM	0	5	1	0	0	0	0	0	0	0	0	0	6
08:45 AM	0	0	3	0	0	1	0	0	0	0	0	0	4
Total	0	10	10	0	0	5	0	0	0	0	0	0	25
Grand Total	0	11	16	0	0	13	0	0	0	0	0	0	40
Apprch %	0	40.7	59.3	0	0	100	0	0	0	0	0	0	
Total %	0	27.5	40	0	0	32.5	0	0	0	0	0	0	

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	1	1	0	0	3	3	0	0	0	0	0	0	0	0	4
08:00 AM	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
08:15 AM	0	3	**4**	**7**	0	0	**4**	**4**	0	0	0	0	0	0	0	0	**11**
08:30 AM	0	**5**	1	6	0	0	0	0	0	0	0	0	0	0	0	0	6
Total Volume	0	10	8	18	0	0	7	7	0	0	0	0	0	0	0	0	25
% App. Total	0	55.6	44.4		0	0	100		0	0	0		0	0	0		
PHF	.000	.500	.500	.643	.000	.000	.438	.438	.000	.000	.000	.000	.000	.000	.000	.000	.568

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Groups Printed- Peds and Bicycles

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	4
07:15 AM	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	2	6
07:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	1	0	3	0	3	0	0	0	0	0	2	0	4	13
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3
08:45 AM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	5	8
Total	0	0	0	1	0	0	0	1	0	0	0	3	0	0	0	9	14
Grand Total	0	0	0	2	0	3	0	4	0	0	0	3	0	2	0	13	27
Apprch %	0	0	0	100	0	42.9	0	57.1	0	0	0	100	0	13.3	0	86.7	
Total %	0	0	0	7.4	0	11.1	0	14.8	0	0	0	11.1	0	7.4	0	48.1	

	Davol Street SB From North					President Avenue (Route 6) From East					Davol Street SB From South					President Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1	1	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	3
08:45 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	**5**	**5**	**8**
Total Volume	0	0	0	1	1	0	0	0	1	1	0	0	0	3	3	0	0	0	9	9	14
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.000	.000	.000	.375	.375	.000	.000	.000	.450	.450	.438

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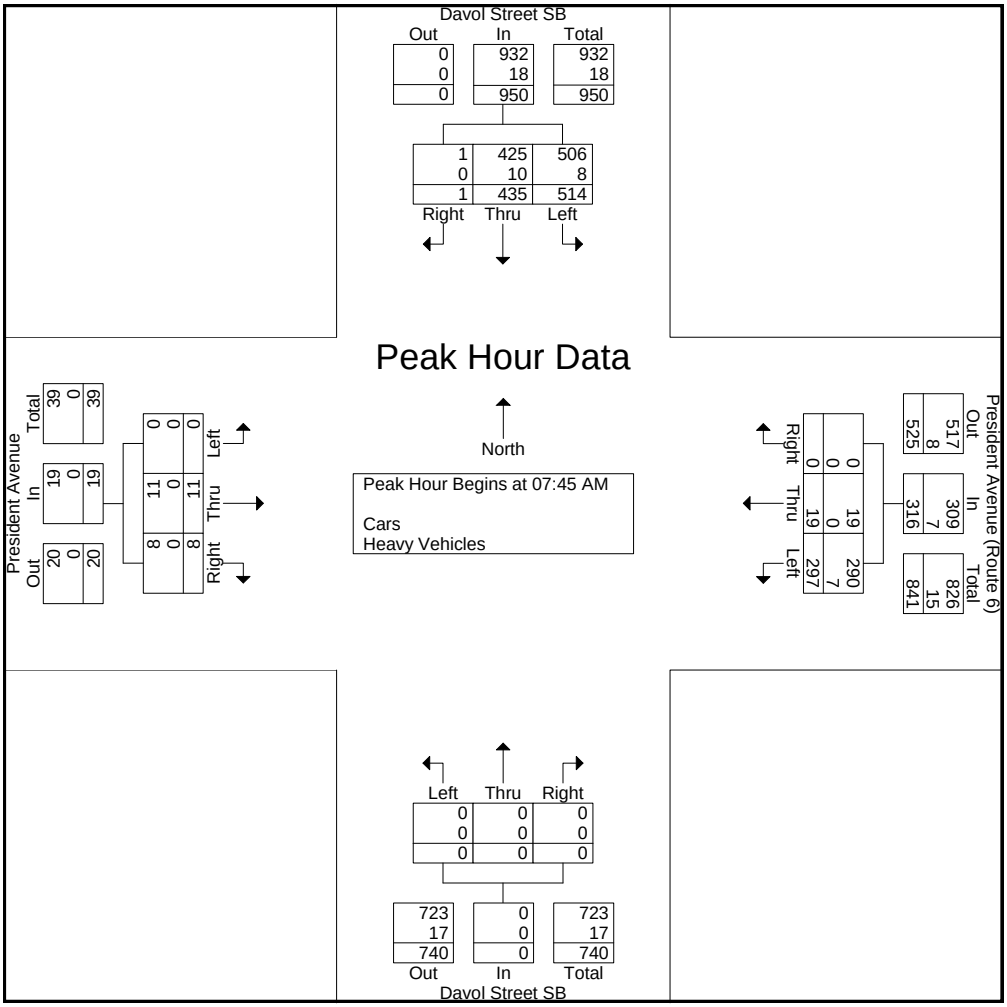
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**132**	111	**243**	0	6	**104**	**110**	0	0	0	0	**3**	**4**	0	**7**	**360**
08:00 AM	**1**	107	126	234	0	3	74	77	0	0	0	0	1	3	0	4	315
08:15 AM	0	100	133	233	0	3	74	77	0	0	0	0	3	1	0	4	314
08:30 AM	0	96	**144**	240	0	**7**	45	52	0	0	0	0	1	3	0	4	296
Total Volume	1	435	514	950	0	19	297	316	0	0	0	0	8	11	0	19	1285
% App. Total	0.1	45.8	54.1		0	6	94		0	0	0		42.1	57.9	0		
PHF	.250	.824	.892	.977	.000	.679	.714	.718	.000	.000	.000	.000	.667	.688	.000	.679	.892
Cars	1	425	506	932	0	19	290	309	0	0	0	0	8	11	0	19	1260
% Cars	100	97.7	98.4	98.1	0	100	97.6	97.8	0	0	0	0	100	100	0	100	98.1
Heavy Vehicles	0	10	8	18	0	0	7	7	0	0	0	0	0	0	0	0	25
% Heavy Vehicles	0	2.3	1.6	1.9	0	0	2.4	2.2	0	0	0	0	0	0	0	0	1.9



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N/S: Davol Street SB
E/W: President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-CCC
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars - Heavy Vehicles

	Davol Street SB From North			President Avenue (Route 6) From East			Davol Street SB From South			President Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	118	102	0	2	88	0	0	0	3	4	0	318
04:15 PM	0	113	115	0	5	93	0	0	0	0	0	0	326
04:30 PM	0	131	133	0	0	87	0	0	0	0	0	0	351
04:45 PM	1	111	125	0	0	73	0	0	0	2	0	0	312
Total	2	473	475	0	7	341	0	0	0	5	4	0	1307
05:00 PM	0	143	136	0	1	76	0	0	0	0	1	0	357
05:15 PM	0	94	141	0	2	85	0	0	0	2	5	0	329
05:30 PM	0	84	114	0	3	68	0	0	0	0	1	0	270
05:45 PM	0	95	96	0	5	72	0	0	0	0	1	0	269
Total	0	416	487	0	11	301	0	0	0	2	8	0	1225
Grand Total	2	889	962	0	18	642	0	0	0	7	12	0	2532
Apprch %	0.1	48	51.9	0	2.7	97.3	0	0	0	36.8	63.2	0	
Total %	0.1	35.1	38	0	0.7	25.4	0	0	0	0.3	0.5	0	
Cars	2	870	951	0	18	636	0	0	0	7	12	0	2496
% Cars	100	97.9	98.9	0	100	99.1	0	0	0	100	100	0	98.6
Heavy Vehicles	0	19	11	0	0	6	0	0	0	0	0	0	36
% Heavy Vehicles	0	2.1	1.1	0	0	0.9	0	0	0	0	0	0	1.4

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	131	133	264	0	0	**87**	**87**	0	0	0	0	0	0	0	0	351
04:45 PM	**1**	111	125	237	0	0	73	73	0	0	0	0	**2**	0	0	2	312
05:00 PM	0	**143**	136	**279**	0	1	76	77	0	0	0	0	0	1	0	1	**357**
05:15 PM	0	94	**141**	235	0	**2**	85	87	0	0	0	0	2	**5**	0	**7**	329
Total Volume	1	479	535	1015	0	3	321	324	0	0	0	0	4	6	0	10	1349
% App. Total	0.1	47.2	52.7		0	0.9	99.1		0	0	0		40	60	0		
PHF	.250	.837	.949	.909	.000	.375	.922	.931	.000	.000	.000	.000	.500	.300	.000	.357	.945
Cars	1	465	529	995	0	3	320	323	0	0	0	0	4	6	0	10	1328
% Cars	100	97.1	98.9	98.0	0	100	99.7	99.7	0	0	0	0	100	100	0	100	98.4
Heavy Vehicles	0	14	6	20	0	0	1	1	0	0	0	0	0	0	0	0	21
% Heavy Vehicles	0	2.9	1.1	2.0	0	0	0.3	0.3	0	0	0	0	0	0	0	0	1.6

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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-CCC
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars

	Davol Street SB From North			President Avenue (Route 6) From East			Davol Street SB From South			President Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	116	102	0	2	84	0	0	0	3	4	0	312
04:15 PM	0	112	114	0	5	92	0	0	0	0	0	0	323
04:30 PM	0	125	131	0	0	87	0	0	0	0	0	0	343
04:45 PM	1	109	123	0	0	73	0	0	0	2	0	0	308
Total	2	462	470	0	7	336	0	0	0	5	4	0	1286
05:00 PM	0	139	134	0	1	76	0	0	0	0	1	0	351
05:15 PM	0	92	141	0	2	84	0	0	0	2	5	0	326
05:30 PM	0	83	112	0	3	68	0	0	0	0	1	0	267
05:45 PM	0	94	94	0	5	72	0	0	0	0	1	0	266
Total	0	408	481	0	11	300	0	0	0	2	8	0	1210
Grand Total	2	870	951	0	18	636	0	0	0	7	12	0	2496
Apprch %	0.1	47.7	52.2	0	2.8	97.2	0	0	0	36.8	63.2	0	
Total %	0.1	34.9	38.1	0	0.7	25.5	0	0	0	0.3	0.5	0	

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	125	131	256	0	0	**87**	**87**	0	0	0	0	0	0	0	0	343
04:45 PM	**1**	109	123	233	0	0	73	73	0	0	0	0	**2**	0	0	2	308
05:00 PM	0	**139**	134	**273**	0	1	76	77	0	0	0	0	0	1	0	1	**351**
05:15 PM	0	92	**141**	233	0	**2**	84	86	0	0	0	0	2	**5**	0	**7**	326
Total Volume	1	465	529	995	0	3	320	323	0	0	0	0	4	6	0	10	1328
% App. Total	0.1	46.7	53.2		0	0.9	99.1		0	0	0		40	60	0		
PHF	.250	.836	.938	.911	.000	.375	.920	.928	.000	.000	.000	.000	.500	.300	.000	.357	.946

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Client: VHB/J. Quitter

File Name : 81676B-CCC
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Heavy Vehicles

	Davol Street SB From North			President Avenue (Route 6) From East			Davol Street SB From South			President Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	0	0	4	0	0	0	0	0	0	6
04:15 PM	0	1	1	0	0	1	0	0	0	0	0	0	3
04:30 PM	0	6	2	0	0	0	0	0	0	0	0	0	8
04:45 PM	0	2	2	0	0	0	0	0	0	0	0	0	4
Total	0	11	5	0	0	5	0	0	0	0	0	0	21
05:00 PM	0	4	2	0	0	0	0	0	0	0	0	0	6
05:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	3
05:30 PM	0	1	2	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	1	2	0	0	0	0	0	0	0	0	0	3
Total	0	8	6	0	0	1	0	0	0	0	0	0	15
Grand Total	0	19	11	0	0	6	0	0	0	0	0	0	36
Apprch %	0	63.3	36.7	0	0	100	0	0	0	0	0	0	
Total %	0	52.8	30.6	0	0	16.7	0	0	0	0	0	0	

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	0	0	**4**	**4**	0	0	0	0	0	0	0	0	6
04:15 PM	0	1	1	2	0	0	1	1	0	0	0	0	0	0	0	0	3
04:30 PM	0	**6**	**2**	**8**	0	0	0	0	0	0	0	0	0	0	0	0	**8**
04:45 PM	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	11	5	16	0	0	5	5	0	0	0	0	0	0	0	0	21
% App. Total	0	68.8	31.2		0	0	100		0	0	0		0	0	0		
PHF	.000	.458	.625	.500	.000	.000	.313	.313	.000	.000	.000	.000	.000	.000	.000	.000	.656

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File Name : 81676B-CCC
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
04:30 PM	0	0	0	6	0	1	0	1	0	0	0	0	0	0	0	0	8
04:45 PM	0	1	0	0	0	1	0	0	0	0	0	2	0	1	0	0	5
Total	0	1	0	7	0	2	0	1	0	0	0	2	0	1	0	1	15
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	1	0	2	0	0	0	0	0	0	0	2	0	0	0	0	5
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	1	0	5	0	2	0	0	0	0	0	2	0	0	0	0	10
Grand Total	0	2	0	12	0	4	0	1	0	0	0	4	0	1	0	1	25
Apprch %	0	14.3	0	85.7	0	80	0	20	0	0	0	100	0	50	0	50	
Total %	0	8	0	48	0	16	0	4	0	0	0	16	0	4	0	4	

	Davol Street SB From North					President Avenue (Route 6) From East					Davol Street SB From South					President Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	**6**	**6**	0	**1**	**0**	**1**	**2**	0	0	0	0	0	0	0	0	0	0	**8**
04:45 PM	0	**1**	0	0	1	0	1	0	0	1	0	0	0	**2**	**2**	0	**1**	0	0	**1**	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	1	0	9	10	0	2	0	1	3	0	0	0	2	2	0	1	0	0	1	16
% App. Total	0	10	0	90		0	66.7	0	33.3		0	0	0	100		0	100	0	0		
PHF	.000	.250	.000	.375	.417	.000	.500	.000	.250	.375	.000	.000	.000	.250	.250	.000	.250	.000	.000	.250	.500

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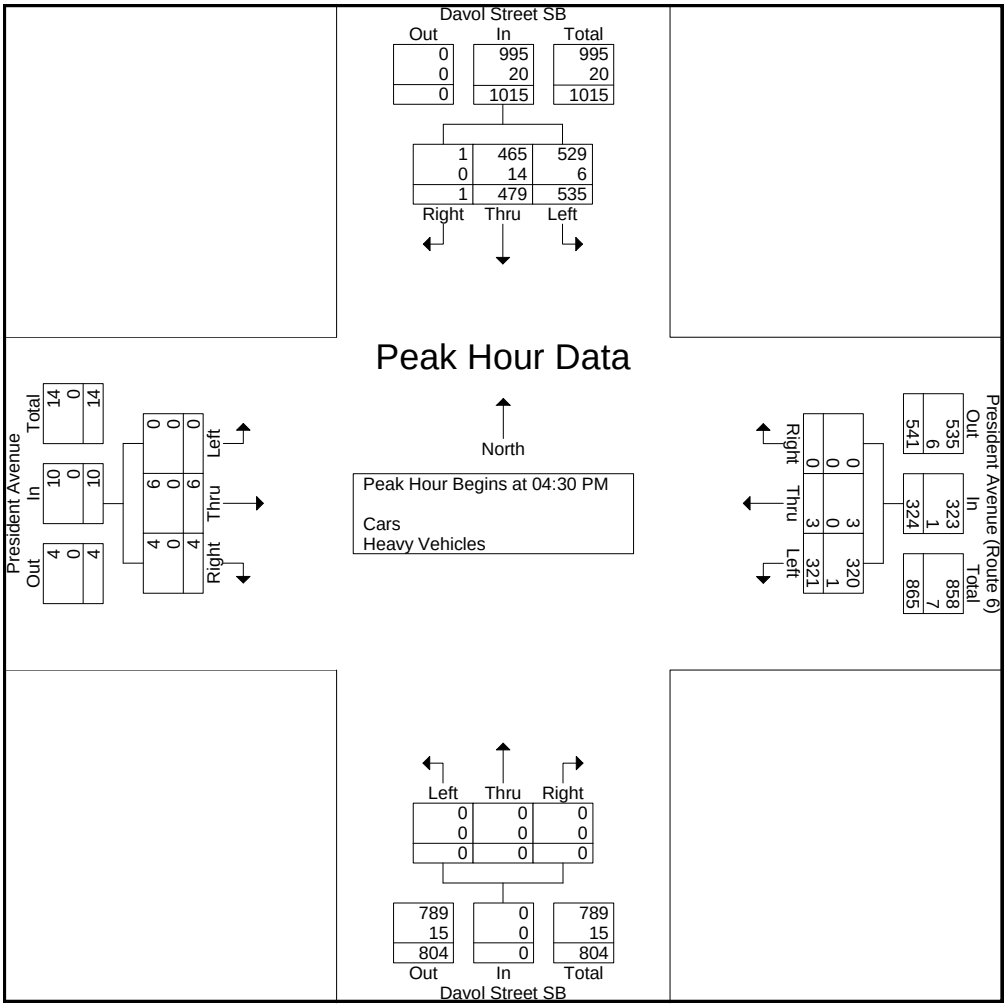
	Davol Street SB From North				President Avenue (Route 6) From East				Davol Street SB From South				President Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	131	133	264	0	0	**87**	**87**	0	0	0	0	0	0	0	0	351
04:45 PM	**1**	111	125	237	0	0	73	73	0	0	0	0	**2**	0	0	2	312
05:00 PM	0	**143**	136	**279**	0	1	76	77	0	0	0	0	0	1	0	1	**357**
05:15 PM	0	94	**141**	235	0	**2**	85	87	0	0	0	0	2	**5**	0	**7**	329
Total Volume	1	479	535	1015	0	3	321	324	0	0	0	0	4	6	0	10	1349
% App. Total	0.1	47.2	52.7		0	0.9	99.1		0	0	0		40	60	0		
PHF	.250	.837	.949	.909	.000	.375	.922	.931	.000	.000	.000	.000	.500	.300	.000	.357	.945
Cars	1	465	529	995	0	3	320	323	0	0	0	0	4	6	0	10	1328
% Cars	100	97.1	98.9	98.0	0	100	99.7	99.7	0	0	0	0	100	100	0	100	98.4
Heavy Vehicles	0	14	6	20	0	0	1	1	0	0	0	0	0	0	0	0	21
% Heavy Vehicles	0	2.9	1.1	2.0	0	0	0.3	0.3	0	0	0	0	0	0	0	0	1.6



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E: Pearce Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-D
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars - Heavy Vehicles

	Davol Street NB From North		Pearce Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	0	0	13	0	0	148	161
07:15 AM	0	0	19	0	0	175	194
07:30 AM	0	0	18	0	1	188	207
07:45 AM	0	0	18	0	0	170	188
Total	0	0	68	0	1	681	750
08:00 AM	0	0	15	0	0	152	167
08:15 AM	0	0	9	0	0	147	156
08:30 AM	0	0	11	0	0	146	157
08:45 AM	0	0	8	0	0	142	150
Total	0	0	43	0	0	587	630
Grand Total	0	0	111	0	1	1268	1380
Apprch %	0	0	100	0	0.1	99.9	
Total %	0	0	8	0	0.1	91.9	
Cars	0	0	109	0	1	1221	1331
% Cars	0	0	98.2	0	100	96.3	96.4
Heavy Vehicles	0	0	2	0	0	47	49
% Heavy Vehicles	0	0	1.8	0	0	3.7	3.6

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**19**	0	**19**	0	175	175	194
07:30 AM	0	0	0	18	0	18	**1**	**188**	**189**	**207**
07:45 AM	**0**	**0**	**0**	**18**	**0**	**18**	**0**	**170**	**170**	**188**
08:00 AM	**0**	**0**	**0**	**15**	**0**	**15**	**0**	**152**	**152**	**167**
Total Volume	**0**	**0**	**0**	**70**	**0**	**70**	**1**	**685**	**686**	**756**
% App. Total	**0**	**0**		**100**	**0**		**0.1**	**99.9**		
PHF	**.000**	**.000**	**.000**	**.921**	**.000**	**.921**	**.250**	**.911**	**.907**	**.913**
Cars	**0**	**0**	**0**	**69**	**0**	**69**	**1**	**656**	**657**	**726**
% Cars	**0**	**0**	**0**	**98.6**	**0**	**98.6**	**100**	**95.8**	**95.8**	**96.0**
Heavy Vehicles	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**29**	**29**	**30**
% Heavy Vehicles	**0**	**0**	**0**	**1.4**	**0**	**1.4**	**0**	**4.2**	**4.2**	**4.0**

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Client: VHB/J. Quitter

File Name : 81676B-D
Site Code : 10111.31
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Groups Printed- Cars

	Davol Street NB From North		Pearce Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	0	0	13	0	0	144	157
07:15 AM	0	0	18	0	0	164	182
07:30 AM	0	0	18	0	1	182	201
07:45 AM	0	0	18	0	0	163	181
Total	0	0	67	0	1	653	721
08:00 AM	0	0	15	0	0	147	162
08:15 AM	0	0	9	0	0	142	151
08:30 AM	0	0	10	0	0	143	153
08:45 AM	0	0	8	0	0	136	144
Total	0	0	42	0	0	568	610
Grand Total	0	0	109	0	1	1221	1331
Apprch %	0	0	100	0	0.1	99.9	
Total %	0	0	8.2	0	0.1	91.7	

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**18**	0	**18**	0	164	164	182
07:30 AM	0	0	0	18	0	18	**1**	**182**	**183**	**201**
07:45 AM	**0**	**0**	**0**	**18**	**0**	**18**	**0**	**163**	**163**	**181**
08:00 AM	**0**	**0**	**0**	**15**	**0**	**15**	**0**	**147**	**147**	**162**
Total Volume	**0**	**0**	**0**	**69**	**0**	**69**	**1**	**656**	**657**	**726**
% App. Total	**0**	**0**		**100**	**0**		**0.2**	**99.8**		
PHF	**.000**	**.000**	**.000**	**.958**	**.000**	**.958**	**.250**	**.901**	**.898**	**.903**

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E: Pearce Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-D
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street NB From North		Pearce Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	0	0	0	0	0	4	4
07:15 AM	0	0	1	0	0	11	12
07:30 AM	0	0	0	0	0	6	6
07:45 AM	0	0	0	0	0	7	7
Total	0	0	1	0	0	28	29
08:00 AM	0	0	0	0	0	5	5
08:15 AM	0	0	0	0	0	5	5
08:30 AM	0	0	1	0	0	3	4
08:45 AM	0	0	0	0	0	6	6
Total	0	0	1	0	0	19	20
Grand Total	0	0	2	0	0	47	49
Apprch %	0	0	100	0	0	100	
Total %	0	0	4.1	0	0	95.9	

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**1**	0	**1**	0	**11**	**11**	**12**
07:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**6**	**6**
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**7**	**7**
08:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**5**
Total Volume	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**29**	**29**	**30**
% App. Total	**0**	**0**		**100**	**0**		**0**	**100**		
PHF	**.000**	**.000**	**.000**	**.250**	**.000**	**.250**	**.000**	**.659**	**.659**	**.625**

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N/S: Davol Street NB
E: Pearce Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-D
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	2	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	2	0	0	0	2
Apprch %	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	100	0	0	0	

	Davol Street NB From North				Pearce Street From East				Davol Street NB From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	0	0	0	2
% App. Total	0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250

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File Name : 81676B-D
Site Code : 10111.31
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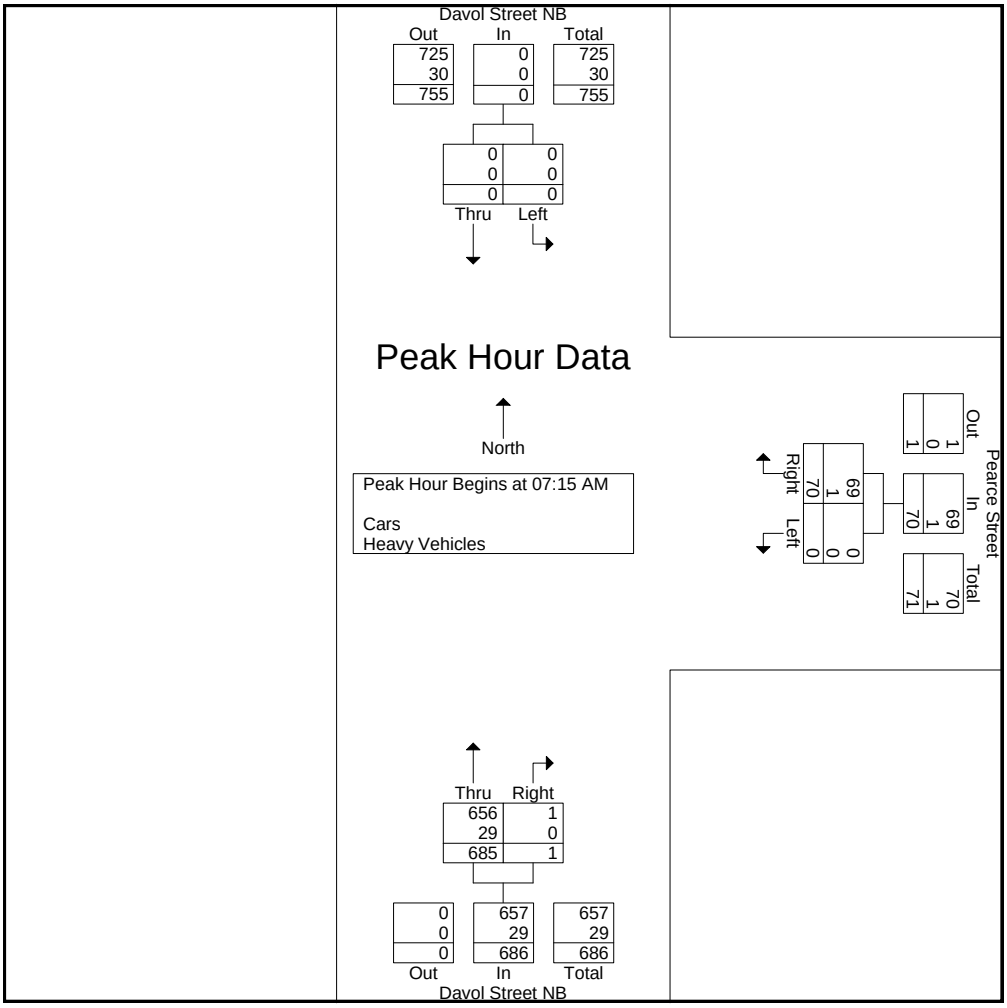
	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	19	0	19	0	175	175	194
07:30 AM	0	0	0	18	0	18	1	188	189	207
07:45 AM	**0**	**0**	**0**	**18**	**0**	**18**	**0**	**170**	**170**	**188**
08:00 AM	**0**	**0**	**0**	**15**	**0**	**15**	**0**	**152**	**152**	**167**
Total Volume	**0**	**0**	**0**	**70**	**0**	**70**	**1**	**685**	**686**	**756**
% App. Total	**0**	**0**		**100**	**0**		**0.1**	**99.9**		
PHF	**.000**	**.000**	**.000**	**.921**	**.000**	**.921**	**.250**	**.911**	**.907**	**.913**
Cars	**0**	**0**	**0**	**69**	**0**	**69**	**1**	**656**	**657**	**726**
% Cars	**0**	**0**	**0**	**98.6**	**0**	**98.6**	**100**	**95.8**	**95.8**	**96.0**
Heavy Vehicles	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**29**	**29**	**30**
% Heavy Vehicles	**0**	**0**	**0**	**1.4**	**0**	**1.4**	**0**	**4.2**	**4.2**	**4.0**



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E: Pearce Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB From North		Pearce Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	15	0	0	222	237
04:15 PM	0	0	26	0	0	198	224
04:30 PM	0	0	15	0	0	248	263
04:45 PM	0	0	12	0	0	176	188
Total	0	0	68	0	0	844	912
05:00 PM	0	0	17	0	0	232	249
05:15 PM	0	0	12	0	0	182	194
05:30 PM	0	0	9	0	0	175	184
05:45 PM	0	0	11	0	1	158	170
Total	0	0	49	0	1	747	797
Grand Total	0	0	117	0	1	1591	1709
Apprch %	0	0	100	0	0.1	99.9	
Total %	0	0	6.8	0	0.1	93.1	
Cars	0	0	116	0	1	1568	1685
% Cars	0	0	99.1	0	100	98.6	98.6
Heavy Vehicles	0	0	1	0	0	23	24
% Heavy Vehicles	0	0	0.9	0	0	1.4	1.4

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	**26**	0	**26**	0	198	198	224
04:30 PM	0	0	0	15	0	15	0	**248**	**248**	**263**
04:45 PM	**0**	**0**	**0**	**12**	**0**	**12**	**0**	**176**	**176**	**188**
05:00 PM	**0**	**0**	**0**	**17**	**0**	**17**	**0**	**232**	**232**	**249**
Total Volume	**0**	**0**	**0**	**70**	**0**	**70**	**0**	**854**	**854**	**924**
% App. Total	**0**	**0**		**100**	**0**		**0**	**100**		
PHF	**.000**	**.000**	**.000**	**.673**	**.000**	**.673**	**.000**	**.861**	**.861**	**.878**
Cars	**0**	**0**	**0**	**69**	**0**	**69**	**0**	**845**	**845**	**914**
% Cars	**0**	**0**	**0**	**98.6**	**0**	**98.6**	**0**	**98.9**	**98.9**	**98.9**
Heavy Vehicles	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**9**	**9**	**10**
% Heavy Vehicles	**0**	**0**	**0**	**1.4**	**0**	**1.4**	**0**	**1.1**	**1.1**	**1.1**

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File Name : 81676B-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Davol Street NB From North		Pearce Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	15	0	0	215	230
04:15 PM	0	0	26	0	0	193	219
04:30 PM	0	0	15	0	0	248	263
04:45 PM	0	0	12	0	0	174	186
Total	0	0	68	0	0	830	898
05:00 PM	0	0	16	0	0	230	246
05:15 PM	0	0	12	0	0	181	193
05:30 PM	0	0	9	0	0	174	183
05:45 PM	0	0	11	0	1	153	165
Total	0	0	48	0	1	738	787
Grand Total	0	0	116	0	1	1568	1685
Apprch %	0	0	100	0	0.1	99.9	
Total %	0	0	6.9	0	0.1	93.1	

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	**26**	0	**26**	0	193	193	219
04:30 PM	0	0	0	15	0	15	0	**248**	**248**	**263**
04:45 PM	**0**	**0**	**0**	**12**	**0**	**12**	**0**	**174**	**174**	**186**
05:00 PM	**0**	**0**	**0**	**16**	**0**	**16**	**0**	**230**	**230**	**246**
Total Volume	**0**	**0**	**0**	**69**	**0**	**69**	**0**	**845**	**845**	**914**
% App. Total	**0**	**0**		**100**	**0**		**0**	**100**		
PHF	**.000**	**.000**	**.000**	**.663**	**.000**	**.663**	**.000**	**.852**	**.852**	**.869**

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Client: VHB/J. Quitter

File Name : 81676B-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street NB From North		Pearce Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	0	0	0	7	7
04:15 PM	0	0	0	0	0	5	5
04:30 PM	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	2	2
Total	0	0	0	0	0	14	14
05:00 PM	0	0	1	0	0	2	3
05:15 PM	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	5	5
Total	0	0	1	0	0	9	10
Grand Total	0	0	1	0	0	23	24
Apprch %	0	0	100	0	0	100	
Total %	0	0	4.2	0	0	95.8	

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	7	7	7
04:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**5**
04:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
04:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**2**
Total Volume	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**14**	**14**
% App. Total	**0**	**0**		**0**	**0**		**0**	**100**		
PHF	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.500**	**.500**	**.500**

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Client: VHB/J. Quitter

File Name : 81676B-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	0	0	2
05:00 PM	0	0	0	0	0	1	0	0	0	1
05:15 PM	0	0	0	0	0	1	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	3	0	0	0	3
Grand Total	0	0	0	0	0	5	0	0	0	5
Apprch %	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	100	0	0	0	

	Davol Street NB From North				Pearce Street From East				Davol Street NB From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	**1**
05:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	3	3	0	0	0	0	3
% App. Total	0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.750	.000	.000	.000	.000	.750

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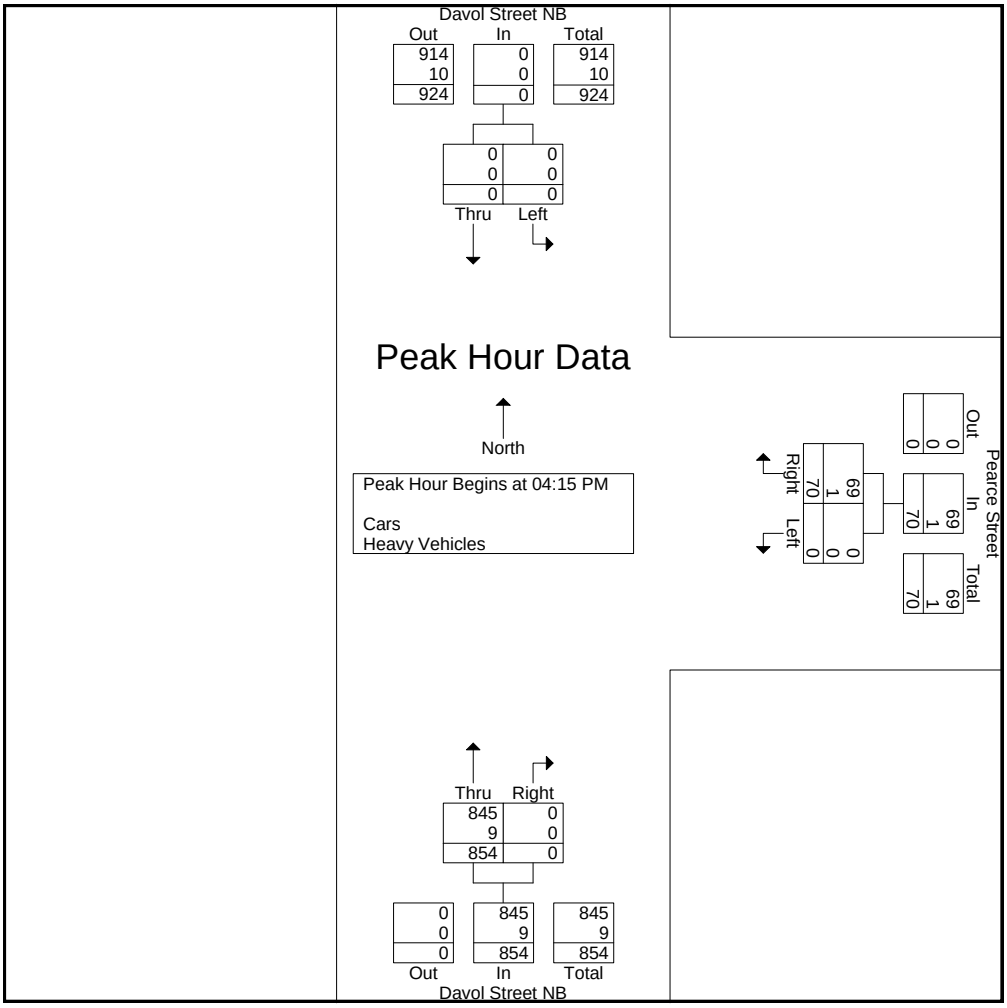
	Davol Street NB From North			Pearce Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	26	0	26	0	198	198	224
04:30 PM	0	0	0	15	0	15	0	248	248	263
04:45 PM	**0**	**0**	**0**	**12**	**0**	**12**	**0**	**176**	**176**	**188**
05:00 PM	**0**	**0**	**0**	**17**	**0**	**17**	**0**	**232**	**232**	**249**
Total Volume	**0**	**0**	**0**	**70**	**0**	**70**	**0**	**854**	**854**	**924**
% App. Total	**0**	**0**		**100**	**0**		**0**	**100**		
PHF	**.000**	**.000**	**.000**	**.673**	**.000**	**.673**	**.000**	**.861**	**.861**	**.878**
Cars	**0**	**0**	**0**	**69**	**0**	**69**	**0**	**845**	**845**	**914**
% Cars	**0**	**0**	**0**	**98.6**	**0**	**98.6**	**0**	**98.9**	**98.9**	**98.9**
Heavy Vehicles	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**9**	**9**	**10**
% Heavy Vehicles	**0**	**0**	**0**	**1.4**	**0**	**1.4**	**0**	**1.1**	**1.1**	**1.1**



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N/S: Davol Street NB
E: Turner Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-E
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB From North		Turner Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	0	0	1	0	27	149	177
07:15 AM	0	0	17	0	39	156	212
07:30 AM	0	0	12	0	35	180	227
07:45 AM	0	0	11	0	56	172	239
Total	0	0	41	0	157	657	855
08:00 AM	0	0	6	0	32	161	199
08:15 AM	0	0	1	0	43	145	189
08:30 AM	0	0	6	0	34	145	185
08:45 AM	0	0	6	0	28	136	170
Total	0	0	19	0	137	587	743
Grand Total	0	0	60	0	294	1244	1598
Apprch %	0	0	100	0	19.1	80.9	
Total %	0	0	3.8	0	18.4	77.8	
Cars	0	0	56	0	288	1201	1545
% Cars	0	0	93.3	0	98	96.5	96.7
Heavy Vehicles	0	0	4	0	6	43	53
% Heavy Vehicles	0	0	6.7	0	2	3.5	3.3

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**17**	0	**17**	39	156	195	212
07:30 AM	0	0	0	12	0	12	35	**180**	215	227
07:45 AM	0	0	0	11	0	11	**56**	172	**228**	**239**
08:00 AM	**0**	**0**	**0**	**6**	**0**	**6**	**32**	**161**	**193**	**199**
Total Volume	**0**	**0**	**0**	**46**	**0**	**46**	**162**	**669**	**831**	**877**
% App. Total	**0**	**0**		**100**	**0**		**19.5**	**80.5**		
PHF	**.000**	**.000**	**.000**	**.676**	**.000**	**.676**	**.723**	**.929**	**.911**	**.917**
Cars	**0**	**0**	**0**	**42**	**0**	**42**	**158**	**641**	**799**	**841**
% Cars	**0**	**0**	**0**	**91.3**	**0**	**91.3**	**97.5**	**95.8**	**96.1**	**95.9**
Heavy Vehicles	**0**	**0**	**0**	**4**	**0**	**4**	**4**	**28**	**32**	**36**
% Heavy Vehicles	**0**	**0**	**0**	**8.7**	**0**	**8.7**	**2.5**	**4.2**	**3.9**	**4.1**

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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-E
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Davol Street NB From North		Turner Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	0	0	1	0	27	145	173
07:15 AM	0	0	16	0	36	145	197
07:30 AM	0	0	10	0	35	176	221
07:45 AM	0	0	11	0	55	164	230
Total	0	0	38	0	153	630	821
08:00 AM	0	0	5	0	32	156	193
08:15 AM	0	0	1	0	43	143	187
08:30 AM	0	0	6	0	33	142	181
08:45 AM	0	0	6	0	27	130	163
Total	0	0	18	0	135	571	724
Grand Total	0	0	56	0	288	1201	1545
Apprch %	0	0	100	0	19.3	80.7	
Total %	0	0	3.6	0	18.6	77.7	

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**16**	0	**16**	36	145	181	197
07:30 AM	0	0	0	10	0	10	35	**176**	211	221
07:45 AM	0	0	0	11	0	11	**55**	164	**219**	**230**
08:00 AM	**0**	**0**	**0**	**5**	**0**	**5**	**32**	**156**	**188**	**193**
Total Volume	**0**	**0**	**0**	**42**	**0**	**42**	**158**	**641**	**799**	**841**
% App. Total	**0**	**0**		**100**	**0**		**19.8**	**80.2**		
PHF	**.000**	**.000**	**.000**	**.656**	**.000**	**.656**	**.718**	**.911**	**.912**	**.914**

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N/S: Davol Street NB
E: Turner Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-E
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street NB From North		Turner Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	0	0	0	0	0	4	4
07:15 AM	0	0	1	0	3	11	15
07:30 AM	0	0	2	0	0	4	6
07:45 AM	0	0	0	0	1	8	9
Total	0	0	3	0	4	27	34
08:00 AM	0	0	1	0	0	5	6
08:15 AM	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	1	3	4
08:45 AM	0	0	0	0	1	6	7
Total	0	0	1	0	2	16	19
Grand Total	0	0	4	0	6	43	53
Apprch %	0	0	100	0	12.2	87.8	
Total %	0	0	7.5	0	11.3	81.1	

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	1	0	1	**3**	**11**	**14**	**15**
07:30 AM	**0**	**0**	**0**	**2**	0	**2**	0	4	4	6
07:45 AM	0	0	0	0	0	0	1	8	9	9
08:00 AM	0	0	0	1	0	1	0	5	5	6
Total Volume	0	0	0	4	0	4	4	28	32	36
% App. Total	0	0		100	0		12.5	87.5		
PHF	.000	.000	.000	.500	.000	.500	.333	.636	.571	.600

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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-E
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	1	0	0	0	1
Apprch %	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	100	0	0	0	

	Davol Street NB From North				Turner Street From East				Davol Street NB From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	**1**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	1
% App. Total	0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250

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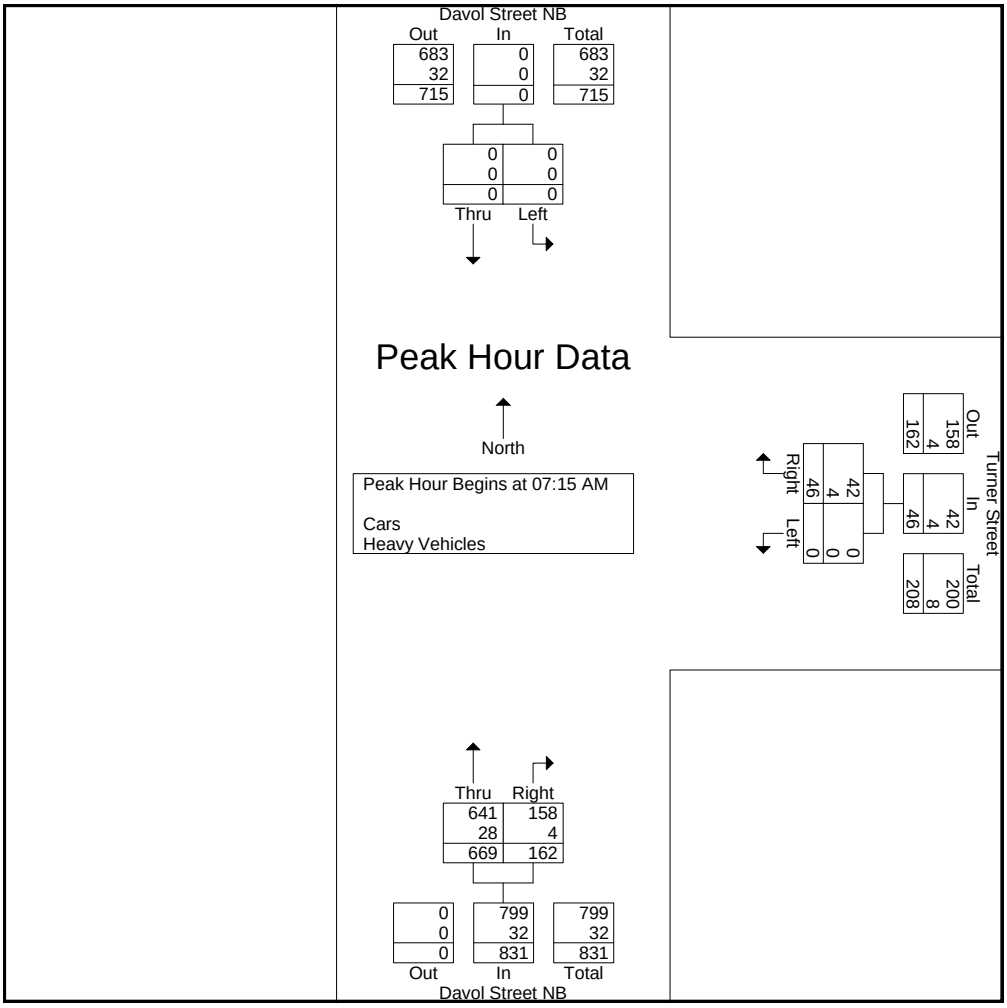
E: Turner Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-E
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**17**	0	**17**	39	156	195	212
07:30 AM	0	0	0	12	0	12	35	**180**	215	227
07:45 AM	0	0	0	11	0	11	**56**	172	**228**	**239**
08:00 AM	**0**	**0**	**0**	**6**	**0**	**6**	**32**	**161**	**193**	**199**
Total Volume	**0**	**0**	**0**	**46**	**0**	**46**	**162**	**669**	**831**	**877**
% App. Total	**0**	**0**		**100**	**0**		**19.5**	**80.5**		
PHF	**.000**	**.000**	**.000**	**.676**	**.000**	**.676**	**.723**	**.929**	**.911**	**.917**
Cars	**0**	**0**	**0**	**42**	**0**	**42**	**158**	**641**	**799**	**841**
% Cars	**0**	**0**	**0**	**91.3**	**0**	**91.3**	**97.5**	**95.8**	**96.1**	**95.9**
Heavy Vehicles	**0**	**0**	**0**	**4**	**0**	**4**	**4**	**28**	**32**	**36**
% Heavy Vehicles	**0**	**0**	**0**	**8.7**	**0**	**8.7**	**2.5**	**4.2**	**3.9**	**4.1**



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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-EEE
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB From North		Turner Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	16	0	28	199	243
04:15 PM	0	0	15	0	30	187	232
04:30 PM	0	0	27	0	33	215	275
04:45 PM	0	0	8	0	27	166	201
Total	0	0	66	0	118	767	951
05:00 PM	0	0	10	0	27	212	249
05:15 PM	0	0	5	0	32	185	222
05:30 PM	0	0	9	0	18	156	183
05:45 PM	0	0	9	0	21	145	175
Total	0	0	33	0	98	698	829
Grand Total	0	0	99	0	216	1465	1780
Apprch %	0	0	100	0	12.8	87.2	
Total %	0	0	5.6	0	12.1	82.3	
Cars	0	0	98	0	215	1447	1760
% Cars	0	0	99	0	99.5	98.8	98.9
Heavy Vehicles	0	0	1	0	1	18	20
% Heavy Vehicles	0	0	1	0	0.5	1.2	1.1

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	15	0	15	30	187	217	232
04:30 PM	0	0	0	**27**	0	**27**	**33**	**215**	**248**	**275**
04:45 PM	**0**	**0**	**0**	**8**	**0**	**8**	**27**	**166**	**193**	**201**
05:00 PM	**0**	**0**	**0**	**10**	**0**	**10**	**27**	**212**	**239**	**249**
Total Volume	**0**	**0**	**0**	**60**	**0**	**60**	**117**	**780**	**897**	**957**
% App. Total	**0**	**0**		**100**	**0**		**13**	**87**		
PHF	**.000**	**.000**	**.000**	**.556**	**.000**	**.556**	**.886**	**.907**	**.904**	**.870**
Cars	**0**	**0**	**0**	**59**	**0**	**59**	**116**	**772**	**888**	**947**
% Cars	**0**	**0**	**0**	**98.3**	**0**	**98.3**	**99.1**	**99.0**	**99.0**	**99.0**
Heavy Vehicles	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**8**	**9**	**10**
% Heavy Vehicles	**0**	**0**	**0**	**1.7**	**0**	**1.7**	**0.9**	**1.0**	**1.0**	**1.0**

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E: Turner Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-EEE
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Davol Street NB From North		Turner Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	16	0	28	194	238
04:15 PM	0	0	15	0	30	182	227
04:30 PM	0	0	27	0	32	214	273
04:45 PM	0	0	7	0	27	165	199
Total	0	0	65	0	117	755	937
05:00 PM	0	0	10	0	27	211	248
05:15 PM	0	0	5	0	32	184	221
05:30 PM	0	0	9	0	18	155	182
05:45 PM	0	0	9	0	21	142	172
Total	0	0	33	0	98	692	823
Grand Total	0	0	98	0	215	1447	1760
Apprch %	0	0	100	0	12.9	87.1	
Total %	0	0	5.6	0	12.2	82.2	

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	15	0	15	30	182	212	227
04:30 PM	0	0	0	**27**	0	**27**	**32**	**214**	**246**	**273**
04:45 PM	**0**	**0**	**0**	**7**	**0**	**7**	**27**	**165**	**192**	**199**
05:00 PM	**0**	**0**	**0**	**10**	**0**	**10**	**27**	**211**	**238**	**248**
Total Volume	**0**	**0**	**0**	**59**	**0**	**59**	**116**	**772**	**888**	**947**
% App. Total	**0**	**0**		**100**	**0**		**13.1**	**86.9**		
PHF	**.000**	**.000**	**.000**	**.546**	**.000**	**.546**	**.906**	**.902**	**.902**	**.867**

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N/S: Davol Street NB
E: Turner Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-EEE
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street NB From North		Turner Street From East		Davol Street NB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	0	0	0	5	5
04:15 PM	0	0	0	0	0	5	5
04:30 PM	0	0	0	0	1	1	2
04:45 PM	0	0	1	0	0	1	2
Total	0	0	1	0	1	12	14
05:00 PM	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	3	3
Total	0	0	0	0	0	6	6
Grand Total	0	0	1	0	1	18	20
Apprch %	0	0	100	0	5.3	94.7	
Total %	0	0	5	0	5	90	

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	**5**	**5**	**5**
04:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**5**
04:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1	2	2
04:45 PM	0	0	0	**1**	0	**1**	0	1	1	2
Total Volume	0	0	0	1	0	1	1	12	13	14
% App. Total	0	0		100	0		7.7	92.3		
PHF	.000	.000	.000	.250	.000	.250	.250	.600	.650	.700

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E: Turner Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-EEE
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	1	0	0	2
05:30 PM	0	0	0	0	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	3	1	0	0	4
Grand Total	0	0	0	0	0	4	1	0	0	5
Apprch %	0	0	0	0	0	100	100	0	0	
Total %	0	0	0	0	0	80	20	0	0	

	Davol Street NB From North				Turner Street From East				Davol Street NB From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	**1**	**1**	**1**	0	0	**1**	**2**
05:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	3	3	1	0	0	1	4
% App. Total	0	0	0		0	0	100		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.750	.250	.000	.000	.250	.500

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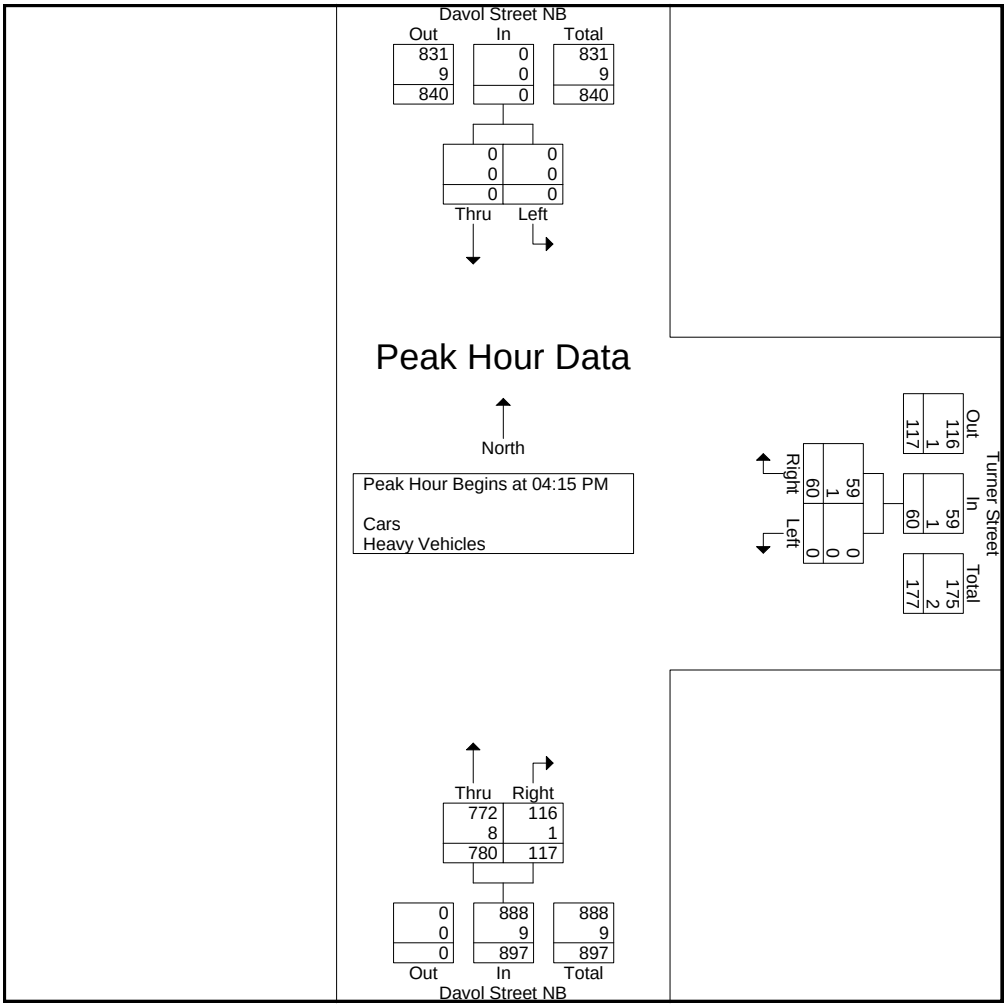
E: Turner Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-EEE
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

	Davol Street NB From North			Turner Street From East			Davol Street NB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	15	0	15	30	187	217	232
04:30 PM	0	0	0	27	0	27	33	215	248	275
04:45 PM	**0**	**0**	**0**	**8**	**0**	**8**	**27**	**166**	**193**	**201**
05:00 PM	**0**	**0**	**0**	**10**	**0**	**10**	**27**	**212**	**239**	**249**
Total Volume	**0**	**0**	**0**	**60**	**0**	**60**	**117**	**780**	**897**	**957**
% App. Total	**0**	**0**		**100**	**0**		**13**	**87**		
PHF	**.000**	**.000**	**.000**	**.556**	**.000**	**.556**	**.886**	**.907**	**.904**	**.870**
Cars	**0**	**0**	**0**	**59**	**0**	**59**	**116**	**772**	**888**	**947**
% Cars	**0**	**0**	**0**	**98.3**	**0**	**98.3**	**99.1**	**99.0**	**99.0**	**99.0**
Heavy Vehicles	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**8**	**9**	**10**
% Heavy Vehicles	**0**	**0**	**0**	**1.7**	**0**	**1.7**	**0.9**	**1.0**	**1.0**	**1.0**



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N/S: Davol Street NB
W: UTurn to/from Davol Street SB
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-F
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB From North		Davol Street NB From South		UTurn to/from Davol Street SB From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	0	0	160	5	0	14	179
07:15 AM	0	0	177	3	0	23	203
07:30 AM	0	0	198	4	0	19	221
07:45 AM	0	0	166	8	0	34	208
Total	0	0	701	20	0	90	811
08:00 AM	0	0	166	6	0	22	194
08:15 AM	0	0	146	10	0	29	185
08:30 AM	0	0	158	17	0	26	201
08:45 AM	0	0	141	6	0	18	165
Total	0	0	611	39	0	95	745
Grand Total	0	0	1312	59	0	185	1556
Apprch %	0	0	95.7	4.3	0	100	
Total %	0	0	84.3	3.8	0	11.9	
Cars	0	0	1270	54	0	182	1506
% Cars	0	0	96.8	91.5	0	98.4	96.8
Heavy Vehicles	0	0	42	5	0	3	50
% Heavy Vehicles	0	0	3.2	8.5	0	1.6	3.2

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	177	3	180	0	23	23	203
07:30 AM	0	0	0	**198**	4	**202**	0	19	19	**221**
07:45 AM	**0**	**0**	**0**	**166**	**8**	174	0	**34**	**34**	208
08:00 AM	0	0	0	166	6	172	0	22	22	194
Total Volume	0	0	0	707	21	728	0	98	98	826
% App. Total	0	0		97.1	2.9		0	100		
PHF	.000	.000	.000	.893	.656	.901	.000	.721	.721	.934
Cars	0	0	0	683	18	701	0	97	97	798
% Cars	0	0	0	96.6	85.7	96.3	0	99.0	99.0	96.6
Heavy Vehicles	0	0	0	24	3	27	0	1	1	28
% Heavy Vehicles	0	0	0	3.4	14.3	3.7	0	1.0	1.0	3.4

PRECISION
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N/S: Davol Street NB
W: UTurn to/from Davol Street SB
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-F
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Davol Street NB From North		Davol Street NB From South		UTurn to/from Davol Street SB From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	0	0	157	5	0	14	176
07:15 AM	0	0	166	1	0	23	190
07:30 AM	0	0	193	3	0	19	215
07:45 AM	0	0	162	8	0	33	203
Total	0	0	678	17	0	89	784
08:00 AM	0	0	162	6	0	22	190
08:15 AM	0	0	142	10	0	29	181
08:30 AM	0	0	154	16	0	25	195
08:45 AM	0	0	134	5	0	17	156
Total	0	0	592	37	0	93	722
Grand Total	0	0	1270	54	0	182	1506
Apprch %	0	0	95.9	4.1	0	100	
Total %	0	0	84.3	3.6	0	12.1	

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	166	1	167	0	23	23	190
07:30 AM	0	0	0	**193**	3	**196**	0	19	19	**215**
07:45 AM	**0**	**0**	**0**	**162**	**8**	170	0	**33**	**33**	203
08:00 AM	0	0	0	162	6	168	0	22	22	190
Total Volume	0	0	0	683	18	701	0	97	97	798
% App. Total	0	0		97.4	2.6		0	100		
PHF	.000	.000	.000	.885	.563	.894	.000	.735	.735	.928

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File Name : 81676B-F
Site Code : 10111.31
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Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street NB From North		Davol Street NB From South		UTurn to/from Davol Street SB From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	0	0	3	0	0	0	3
07:15 AM	0	0	11	2	0	0	13
07:30 AM	0	0	5	1	0	0	6
07:45 AM	0	0	4	0	0	1	5
Total	0	0	23	3	0	1	27
08:00 AM	0	0	4	0	0	0	4
08:15 AM	0	0	4	0	0	0	4
08:30 AM	0	0	4	1	0	1	6
08:45 AM	0	0	7	1	0	1	9
Total	0	0	19	2	0	2	23
Grand Total	0	0	42	5	0	3	50
Apprch %	0	0	89.4	10.6	0	100	
Total %	0	0	84	10	0	6	

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**11**	**2**	**13**	0	0	0	**13**
07:30 AM	**0**	**0**	**0**	**5**	**1**	**6**	**0**	**0**	**0**	**6**
07:45 AM	**0**	**0**	**0**	**4**	**0**	**4**	**0**	**1**	**1**	5
08:00 AM	0	0	0	4	0	4	0	0	0	4
Total Volume	0	0	0	24	3	27	0	1	1	28
% App. Total	0	0		88.9	11.1		0	100		
PHF	.000	.000	.000	.545	.375	.519	.000	.250	.250	.538

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File Name : 81676B-F
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Peds and Bicycles

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	1	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	0	1	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	1	0	0	0	0	1	0	2
Apprch %	0	0	100	0	0	0	0	100	0	
Total %	0	0	50	0	0	0	0	50	0	

	Davol Street NB From North				Davol Street NB From South				UTurn to/from Davol Street SB From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	**1**	**1**	0	0	0	0	0	**1**	**0**	**1**	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	0	0	0	0	0	1	0	1	2
% App. Total	0	0	100		0	0	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250	.000	.250	.250

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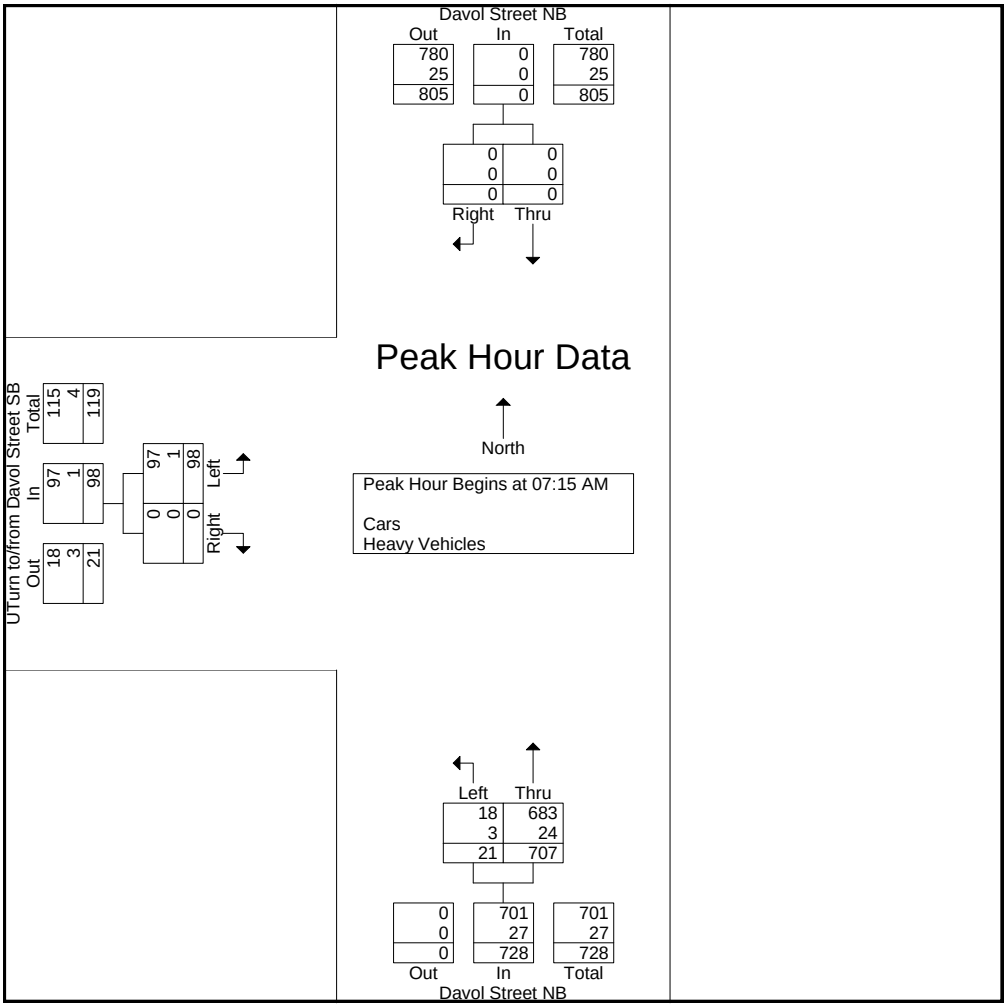
File Name : 81676B-F
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	177	3	180	0	23	23	203
07:30 AM	0	0	0	**198**	4	**202**	0	19	19	**221**
07:45 AM	**0**	**0**	**0**	**166**	**8**	174	0	**34**	**34**	208
08:00 AM	0	0	0	166	6	172	0	22	22	194
Total Volume	0	0	0	707	21	728	0	98	98	826
% App. Total	0	0		97.1	2.9		0	100		
PHF	.000	.000	.000	.893	.656	.901	.000	.721	.721	.934
Cars	0	0	0	683	18	701	0	97	97	798
% Cars	0	0	0	96.6	85.7	96.3	0	99.0	99.0	96.6
Heavy Vehicles	0	0	0	24	3	27	0	1	1	28
% Heavy Vehicles	0	0	0	3.4	14.3	3.7	0	1.0	1.0	3.4



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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-FFF
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB From North		Davol Street NB From South		UTurn to/from Davol Street SB From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	0	0	227	9	0	17	253
04:15 PM	0	0	194	10	0	13	217
04:30 PM	0	0	233	3	0	19	255
04:45 PM	0	0	164	6	0	19	189
Total	0	0	818	28	0	68	914
05:00 PM	0	0	232	2	0	20	254
05:15 PM	0	0	191	8	0	17	216
05:30 PM	0	0	165	3	0	12	180
05:45 PM	0	0	150	6	0	12	168
Total	0	0	738	19	0	61	818
Grand Total	0	0	1556	47	0	129	1732
Apprch %	0	0	97.1	2.9	0	100	
Total %	0	0	89.8	2.7	0	7.4	
Cars	0	0	1541	44	0	126	1711
% Cars	0	0	99	93.6	0	97.7	98.8
Heavy Vehicles	0	0	15	3	0	3	21
% Heavy Vehicles	0	0	1	6.4	0	2.3	1.2

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	194	**10**	204	0	13	13	217
04:30 PM	0	0	0	**233**	3	**236**	0	19	19	**255**
04:45 PM	**0**	**0**	**0**	**164**	**6**	**170**	**0**	**19**	**19**	**189**
05:00 PM	**0**	**0**	**0**	**232**	**2**	**234**	**0**	**20**	**20**	254
Total Volume	0	0	0	823	21	844	0	71	71	915
% App. Total	0	0		97.5	2.5		0	100		
PHF	.000	.000	.000	.883	.525	.894	.000	.888	.888	.897
Cars	0	0	0	817	19	836	0	69	69	905
% Cars	0	0	0	99.3	90.5	99.1	0	97.2	97.2	98.9
Heavy Vehicles	0	0	0	6	2	8	0	2	2	10
% Heavy Vehicles	0	0	0	0.7	9.5	0.9	0	2.8	2.8	1.1

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W: UTurn to/from Davol Street SB
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-FFF
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Davol Street NB From North		Davol Street NB From South		UTurn to/from Davol Street SB From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	0	0	222	8	0	17	247
04:15 PM	0	0	190	10	0	13	213
04:30 PM	0	0	233	2	0	17	252
04:45 PM	0	0	163	5	0	19	187
Total	0	0	808	25	0	66	899
05:00 PM	0	0	231	2	0	20	253
05:15 PM	0	0	191	8	0	16	215
05:30 PM	0	0	163	3	0	12	178
05:45 PM	0	0	148	6	0	12	166
Total	0	0	733	19	0	60	812
Grand Total	0	0	1541	44	0	126	1711
Apprch %	0	0	97.2	2.8	0	100	
Total %	0	0	90.1	2.6	0	7.4	

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	**233**	2	**235**	0	17	17	252
04:45 PM	0	0	0	163	5	168	0	19	19	187
05:00 PM	0	0	0	231	2	233	0	**20**	**20**	**253**
05:15 PM	**0**	**0**	**0**	**191**	**8**	199	0	16	16	215
Total Volume	0	0	0	818	17	835	0	72	72	907
% App. Total	0	0		98	2		0	100		
PHF	.000	.000	.000	.878	.531	.888	.000	.900	.900	.896

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Client: VHB/J. Quitter

File Name : 81676B-FFF
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Heavy Vehicles

	Davol Street NB From North		Davol Street NB From South		UTurn to/from Davol Street SB From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	0	0	5	1	0	0	6
04:15 PM	0	0	4	0	0	0	4
04:30 PM	0	0	0	1	0	2	3
04:45 PM	0	0	1	1	0	0	2
Total	0	0	10	3	0	2	15
05:00 PM	0	0	1	0	0	0	1
05:15 PM	0	0	0	0	0	1	1
05:30 PM	0	0	2	0	0	0	2
05:45 PM	0	0	2	0	0	0	2
Total	0	0	5	0	0	1	6
Grand Total	0	0	15	3	0	3	21
Apprch %	0	0	83.3	16.7	0	100	
Total %	0	0	71.4	14.3	0	14.3	

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	**5**	**1**	**6**	0	0	0	**6**
04:15 PM	**0**	**0**	**0**	**4**	**0**	**4**	**0**	**0**	**0**	**4**
04:30 PM	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**2**	3
04:45 PM	0	0	0	1	1	2	0	0	0	2
Total Volume	0	0	0	10	3	13	0	2	2	15
% App. Total	0	0		76.9	23.1		0	100		
PHF	.000	.000	.000	.500	.750	.542	.000	.250	.250	.625

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File Name : 81676B-FFF
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	1	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	0	0	0	0	0	1
05:30 PM	0	0	1	0	0	0	0	0	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	0	0	0	0	1	3
Grand Total	0	0	2	0	0	0	0	1	2	5
Apprch %	0	0	100	0	0	0	0	33.3	66.7	
Total %	0	0	40	0	0	0	0	20	40	

	Davol Street NB From North				Davol Street NB From South				UTurn to/from Davol Street SB From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	1	1	0	0	0	0	0	0	**1**	**1**	**2**
Total Volume	0	0	2	2	0	0	0	0	0	1	1	2	4
% App. Total	0	0	100		0	0	0		0	50	50		
PHF	.000	.000	.500	.500	.000	.000	.000	.000	.000	.250	.250	.500	.500

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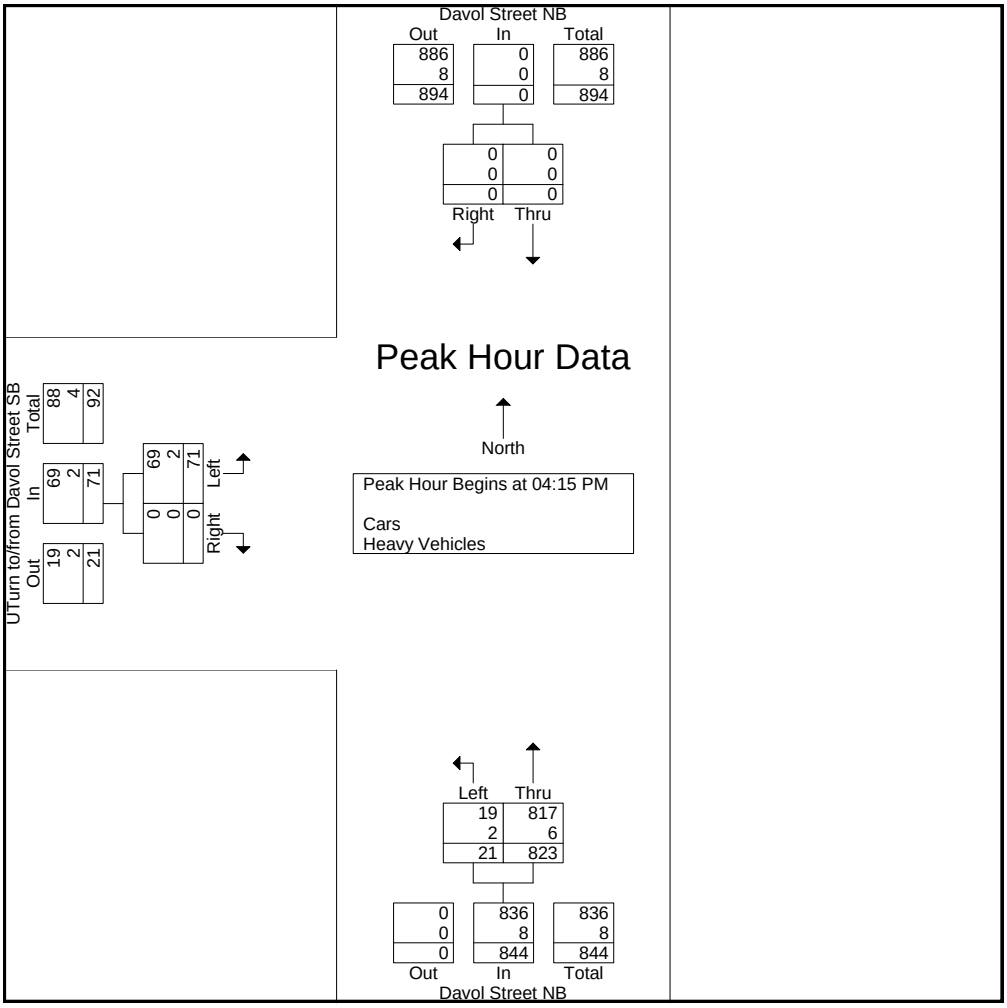
	Davol Street NB From North			Davol Street NB From South			UTurn to/from Davol Street SB From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	194	**10**	204	0	13	13	217
04:30 PM	0	0	0	**233**	3	**236**	0	19	19	**255**
04:45 PM	**0**	**0**	**0**	**164**	**6**	**170**	**0**	**19**	**19**	**189**
05:00 PM	**0**	**0**	**0**	**232**	**2**	**234**	**0**	**20**	**20**	254
Total Volume	0	0	0	823	21	844	0	71	71	915
% App. Total	0	0		97.5	2.5		0	100		
PHF	.000	.000	.000	.883	.525	.894	.000	.888	.888	.897
Cars	0	0	0	817	19	836	0	69	69	905
% Cars	0	0	0	99.3	90.5	99.1	0	97.2	97.2	98.9
Heavy Vehicles	0	0	0	6	2	8	0	2	2	10
% Heavy Vehicles	0	0	0	0.7	9.5	0.9	0	2.8	2.8	1.1



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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-G
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars - Heavy Vehicles

	Davol Street SB From North		UTurn to/from Davol Street NB From East		Davol Street SB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	144	15	0	5	0	0	164
07:15 AM	189	23	0	3	0	0	215
07:30 AM	182	19	0	5	0	0	206
07:45 AM	206	34	0	7	0	0	247
Total	721	91	0	20	0	0	832
08:00 AM	145	29	0	6	0	0	180
08:15 AM	159	24	0	11	0	0	194
08:30 AM	125	24	0	16	0	0	165
08:45 AM	136	18	0	6	0	0	160
Total	565	95	0	39	0	0	699
Grand Total	1286	186	0	59	0	0	1531
Apprch %	87.4	12.6	0	100	0	0	
Total %	84	12.1	0	3.9	0	0	
Cars	1264	183	0	54	0	0	1501
% Cars	98.3	98.4	0	91.5	0	0	98
Heavy Vehicles	22	3	0	5	0	0	30
% Heavy Vehicles	1.7	1.6	0	8.5	0	0	2

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	189	23	212	0	3	3	0	0	0	215
07:30 AM	182	19	201	0	5	5	0	0	0	206
07:45 AM	**206**	**34**	**240**	0	**7**	**7**	0	0	0	**247**
08:00 AM	**145**	**29**	**174**	**0**	**6**	**6**	**0**	**0**	**0**	**180**
Total Volume	**722**	**105**	**827**	**0**	**21**	**21**	**0**	**0**	**0**	**848**
% App. Total	**87.3**	**12.7**		**0**	**100**		**0**	**0**		
PHF	**.876**	**.772**	**.861**	**.000**	**.750**	**.750**	**.000**	**.000**	**.000**	**.858**
Cars	**713**	**104**	**817**	**0**	**18**	**18**	**0**	**0**	**0**	**835**
% Cars	**98.8**	**99.0**	**98.8**	**0**	**85.7**	**85.7**	**0**	**0**	**0**	**98.5**
Heavy Vehicles	**9**	**1**	**10**	**0**	**3**	**3**	**0**	**0**	**0**	**13**
% Heavy Vehicles	**1.2**	**1.0**	**1.2**	**0**	**14.3**	**14.3**	**0**	**0**	**0**	**1.5**

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N/S: Davol Street SB
E: UTurn to/from Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676B-G
Site Code : 10111.31
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Groups Printed- Cars

	Davol Street SB From North		UTurn to/from Davol Street NB From East		Davol Street SB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	143	15	0	5	0	0	163
07:15 AM	186	23	0	1	0	0	210
07:30 AM	179	19	0	4	0	0	202
07:45 AM	204	33	0	7	0	0	244
Total	712	90	0	17	0	0	819
08:00 AM	144	29	0	6	0	0	179
08:15 AM	152	24	0	11	0	0	187
08:30 AM	123	23	0	15	0	0	161
08:45 AM	133	17	0	5	0	0	155
Total	552	93	0	37	0	0	682
Grand Total	1264	183	0	54	0	0	1501
Apprch %	87.4	12.6	0	100	0	0	
Total %	84.2	12.2	0	3.6	0	0	

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	186	23	209	0	1	1	0	0	0	210
07:30 AM	179	19	198	0	4	4	0	0	0	202
07:45 AM	**204**	**33**	**237**	0	**7**	**7**	0	0	0	**244**
08:00 AM	**144**	**29**	**173**	**0**	**6**	**6**	**0**	**0**	**0**	**179**
Total Volume	**713**	**104**	**817**	**0**	**18**	**18**	**0**	**0**	**0**	**835**
% App. Total	**87.3**	**12.7**		**0**	**100**		**0**	**0**		
PHF	**.874**	**.788**	**.862**	**.000**	**.643**	**.643**	**.000**	**.000**	**.000**	**.856**

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File Name : 81676B-G
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Davol Street SB From North		UTurn to/from Davol Street NB From East		Davol Street SB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	1	0	0	0	0	0	1
07:15 AM	3	0	0	2	0	0	5
07:30 AM	3	0	0	1	0	0	4
07:45 AM	2	1	0	0	0	0	3
Total	9	1	0	3	0	0	13
08:00 AM	1	0	0	0	0	0	1
08:15 AM	7	0	0	0	0	0	7
08:30 AM	2	1	0	1	0	0	4
08:45 AM	3	1	0	1	0	0	5
Total	13	2	0	2	0	0	17
Grand Total	22	3	0	5	0	0	30
Apprch %	88	12	0	100	0	0	
Total %	73.3	10	0	16.7	0	0	

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	1	0	1	0	0	0	0	0	0	1
08:15 AM	**7**	0	**7**	0	0	0	0	0	0	**7**
08:30 AM	**2**	**1**	3	0	**1**	**1**	0	0	0	4
08:45 AM	3	1	4	0	1	1	0	0	0	5
Total Volume	13	2	15	0	2	2	0	0	0	17
% App. Total	86.7	13.3		0	100		0	0		
PHF	.464	.500	.536	.000	.500	.500	.000	.000	.000	.607

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Groups Printed- Peds and Bicycles

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	0	0	2	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	0	0	0	0	1
Grand Total	1	0	0	0	0	1	0	0	2	4
Apprch %	100	0	0	0	0	100	0	0	100	
Total %	25	0	0	0	0	25	0	0	50	

	Davol Street SB From North				UTurn to/from Davol Street NB From East				Davol Street SB From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	**1**	**1**	0	0	**1**	**1**	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	1	1	0	0	2	2	3
% App. Total	0	0	0		0	0	100		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.500	.500	.375

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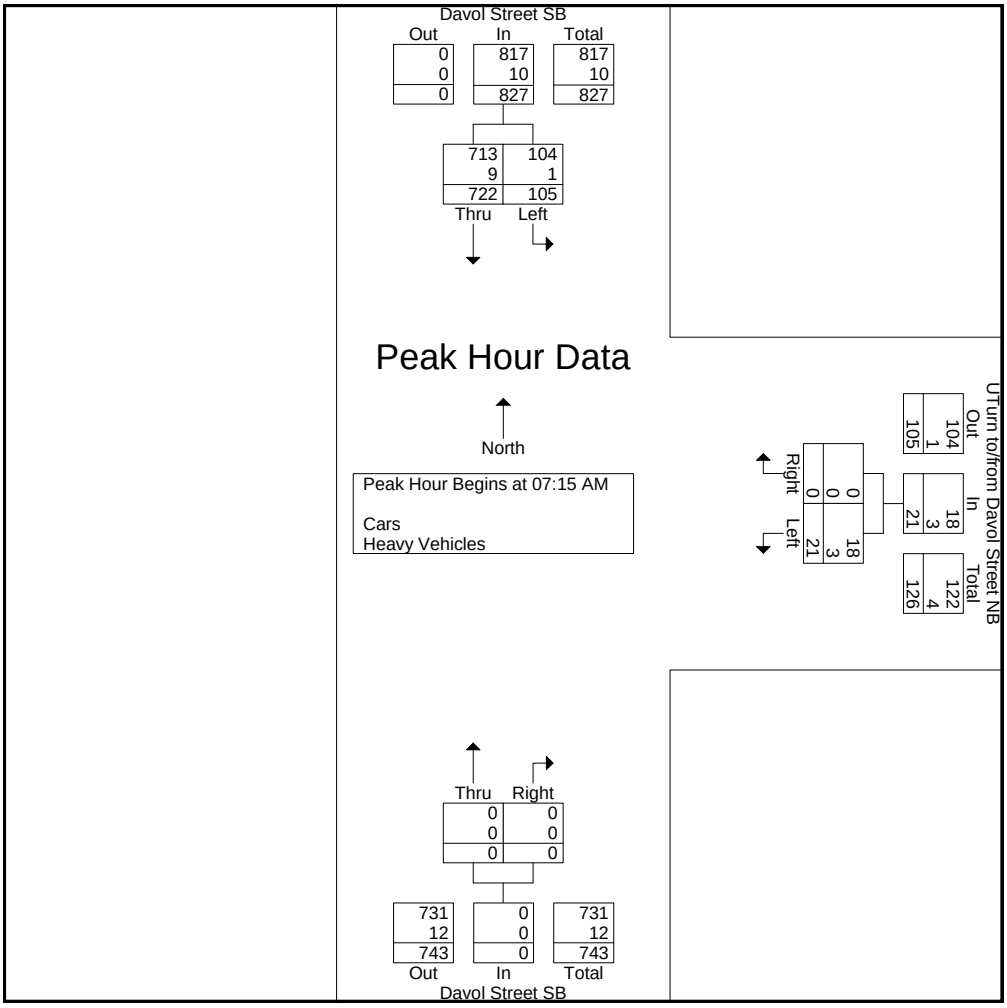
	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	189	23	212	0	3	3	0	0	0	215
07:30 AM	182	19	201	0	5	5	0	0	0	206
07:45 AM	**206**	**34**	**240**	0	**7**	**7**	0	0	0	**247**
08:00 AM	**145**	**29**	**174**	**0**	**6**	**6**	**0**	**0**	**0**	**180**
Total Volume	**722**	**105**	**827**	**0**	**21**	**21**	**0**	**0**	**0**	**848**
% App. Total	**87.3**	**12.7**		**0**	**100**		**0**	**0**		
PHF	**.876**	**.772**	**.861**	**.000**	**.750**	**.750**	**.000**	**.000**	**.000**	**.858**
Cars	**713**	**104**	**817**	**0**	**18**	**18**	**0**	**0**	**0**	**835**
% Cars	**98.8**	**99.0**	**98.8**	**0**	**85.7**	**85.7**	**0**	**0**	**0**	**98.5**
Heavy Vehicles	**9**	**1**	**10**	**0**	**3**	**3**	**0**	**0**	**0**	**13**
% Heavy Vehicles	**1.2**	**1.0**	**1.2**	**0**	**14.3**	**14.3**	**0**	**0**	**0**	**1.5**



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Groups Printed- Cars - Heavy Vehicles

	Davol Street SB From North		UTurn to/from Davol Street NB From East		Davol Street SB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	182	17	0	10	0	0	209
04:15 PM	187	14	0	10	0	0	211
04:30 PM	191	18	0	3	0	0	212
04:45 PM	161	20	0	6	0	0	187
Total	721	69	0	29	0	0	819
05:00 PM	198	22	0	1	0	0	221
05:15 PM	159	17	0	8	0	0	184
05:30 PM	143	11	0	3	0	0	157
05:45 PM	150	12	0	6	0	0	168
Total	650	62	0	18	0	0	730
Grand Total	1371	131	0	47	0	0	1549
Apprch %	91.3	8.7	0	100	0	0	
Total %	88.5	8.5	0	3	0	0	
Cars	1347	128	0	44	0	0	1519
% Cars	98.2	97.7	0	93.6	0	0	98.1
Heavy Vehicles	24	3	0	3	0	0	30
% Heavy Vehicles	1.8	2.3	0	6.4	0	0	1.9

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	187	14	201	0	**10**	**10**	0	0	0	211
04:30 PM	191	18	209	0	3	3	0	0	0	212
04:45 PM	161	20	181	0	6	6	0	0	0	187
05:00 PM	**198**	**22**	**220**	0	1	1	0	0	0	**221**
Total Volume	**737**	**74**	**811**	**0**	**20**	**20**	**0**	**0**	**0**	**831**
% App. Total	**90.9**	**9.1**		**0**	**100**		**0**	**0**		
PHF	**.931**	**.841**	**.922**	**.000**	**.500**	**.500**	**.000**	**.000**	**.000**	**.940**
Cars	**722**	**72**	**794**	**0**	**18**	**18**	**0**	**0**	**0**	**812**
% Cars	**98.0**	**97.3**	**97.9**	**0**	**90.0**	**90.0**	**0**	**0**	**0**	**97.7**
Heavy Vehicles	**15**	**2**	**17**	**0**	**2**	**2**	**0**	**0**	**0**	**19**
% Heavy Vehicles	**2.0**	**2.7**	**2.1**	**0**	**10.0**	**10.0**	**0**	**0**	**0**	**2.3**

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Groups Printed- Cars

	Davol Street SB From North		UTurn to/from Davol Street NB From East		Davol Street SB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	178	17	0	9	0	0	204
04:15 PM	184	14	0	10	0	0	208
04:30 PM	186	16	0	2	0	0	204
04:45 PM	158	20	0	5	0	0	183
Total	706	67	0	26	0	0	799
05:00 PM	194	22	0	1	0	0	217
05:15 PM	156	16	0	8	0	0	180
05:30 PM	142	11	0	3	0	0	156
05:45 PM	149	12	0	6	0	0	167
Total	641	61	0	18	0	0	720
Grand Total	1347	128	0	44	0	0	1519
Apprch %	91.3	8.7	0	100	0	0	
Total %	88.7	8.4	0	2.9	0	0	

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	184	14	198	0	**10**	**10**	0	0	0	208
04:30 PM	186	16	202	0	2	2	0	0	0	204
04:45 PM	158	20	178	0	5	5	0	0	0	183
05:00 PM	**194**	**22**	**216**	0	1	1	0	0	0	**217**
Total Volume	**722**	**72**	**794**	**0**	**18**	**18**	**0**	**0**	**0**	**812**
% App. Total	**90.9**	**9.1**		**0**	**100**		**0**	**0**		
PHF	**.930**	**.818**	**.919**	**.000**	**.450**	**.450**	**.000**	**.000**	**.000**	**.935**

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Groups Printed- Heavy Vehicles

	Davol Street SB From North		UTurn to/from Davol Street NB From East		Davol Street SB From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	4	0	0	1	0	0	5
04:15 PM	3	0	0	0	0	0	3
04:30 PM	5	2	0	1	0	0	8
04:45 PM	3	0	0	1	0	0	4
Total	15	2	0	3	0	0	20
05:00 PM	4	0	0	0	0	0	4
05:15 PM	3	1	0	0	0	0	4
05:30 PM	1	0	0	0	0	0	1
05:45 PM	1	0	0	0	0	0	1
Total	9	1	0	0	0	0	10
Grand Total	24	3	0	3	0	0	30
Apprch %	88.9	11.1	0	100	0	0	
Total %	80	10	0	10	0	0	

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	4	0	4	0	**1**	**1**	0	0	0	5
04:15 PM	3	0	3	0	0	0	0	0	0	3
04:30 PM	**5**	**2**	**7**	0	1	1	0	0	0	**8**
04:45 PM	**3**	**0**	**3**	**0**	**1**	**1**	**0**	**0**	**0**	**4**
Total Volume	**15**	**2**	**17**	**0**	**3**	**3**	**0**	**0**	**0**	**20**
% App. Total	**88.2**	**11.8**		**0**	**100**		**0**	**0**		
PHF	**.750**	**.250**	**.607**	**.000**	**.750**	**.750**	**.000**	**.000**	**.000**	**.625**

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Groups Printed- Peds and Bicycles

	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	0	0	0	0	0	0	0	1
04:45 PM	1	0	0	1	0	0	1	0	0	3
Total	2	0	0	1	0	0	1	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	1	2
05:30 PM	1	0	0	0	0	0	0	0	0	1
05:45 PM	3	0	0	0	0	0	0	0	1	4
Total	4	0	0	0	0	0	0	1	2	7
Grand Total	6	0	0	1	0	0	1	1	2	11
Apprch %	100	0	0	100	0	0	25	25	50	
Total %	54.5	0	0	9.1	0	0	9.1	9.1	18.2	

	Davol Street SB From North				UTurn to/from Davol Street NB From East				Davol Street SB From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	2
05:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	**3**	0	0	**3**	0	0	0	0	0	0	1	1	**4**
Total Volume	4	0	0	4	0	0	0	0	0	1	2	3	7
% App. Total	100	0	0		0	0	0		0	33.3	66.7		
PHF	.333	.000	.000	.333	.000	.000	.000	.000	.000	.250	.500	.375	.438

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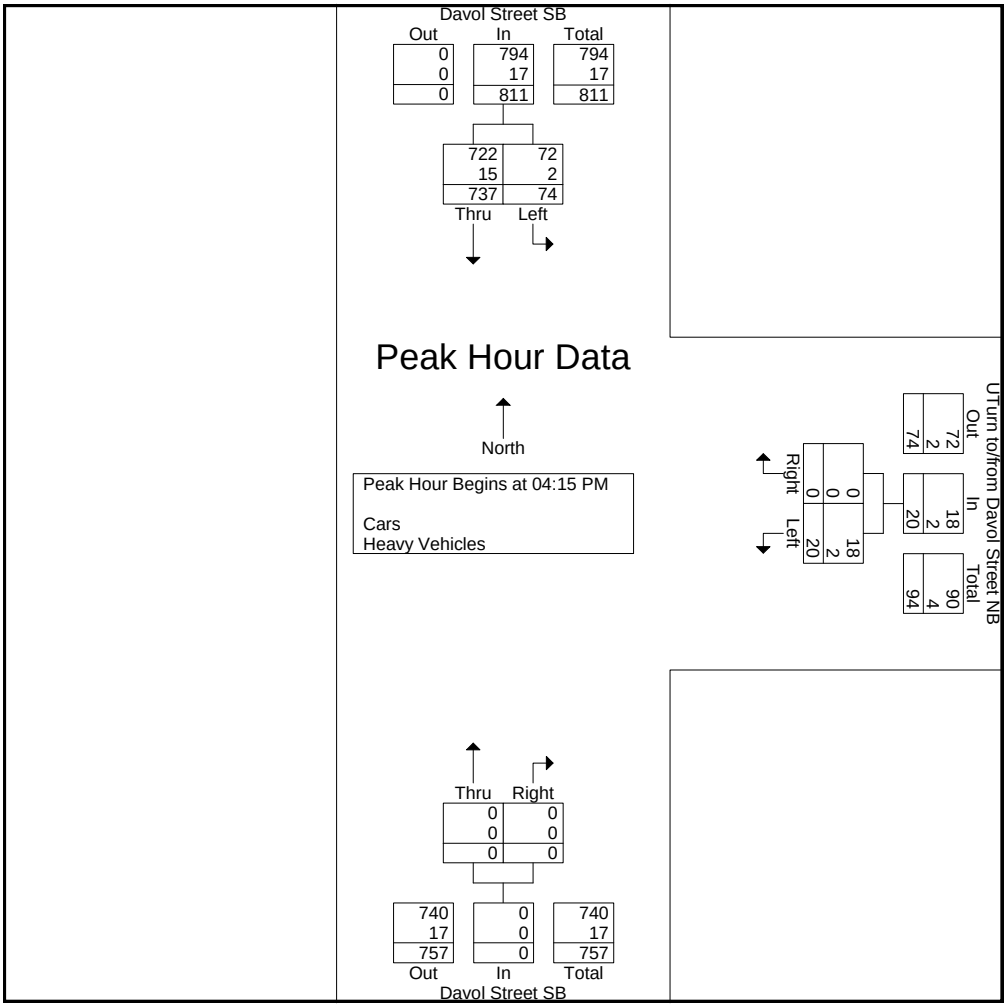
	Davol Street SB From North			UTurn to/from Davol Street NB From East			Davol Street SB From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	187	14	201	0	**10**	**10**	0	0	0	211
04:30 PM	191	18	209	0	3	3	0	0	0	212
04:45 PM	161	20	181	0	6	6	0	0	0	187
05:00 PM	**198**	**22**	**220**	0	1	1	0	0	0	**221**
Total Volume	**737**	**74**	**811**	**0**	**20**	**20**	**0**	**0**	**0**	**831**
% App. Total	**90.9**	**9.1**		**0**	**100**		**0**	**0**		
PHF	**.931**	**.841**	**.922**	**.000**	**.500**	**.500**	**.000**	**.000**	**.000**	**.940**
Cars	**722**	**72**	**794**	**0**	**18**	**18**	**0**	**0**	**0**	**812**
% Cars	**98.0**	**97.3**	**97.9**	**0**	**90.0**	**90.0**	**0**	**0**	**0**	**97.7**
Heavy Vehicles	**15**	**2**	**17**	**0**	**2**	**2**	**0**	**0**	**0**	**19**
% Heavy Vehicles	**2.0**	**2.7**	**2.1**	**0**	**10.0**	**10.0**	**0**	**0**	**0**	**2.3**



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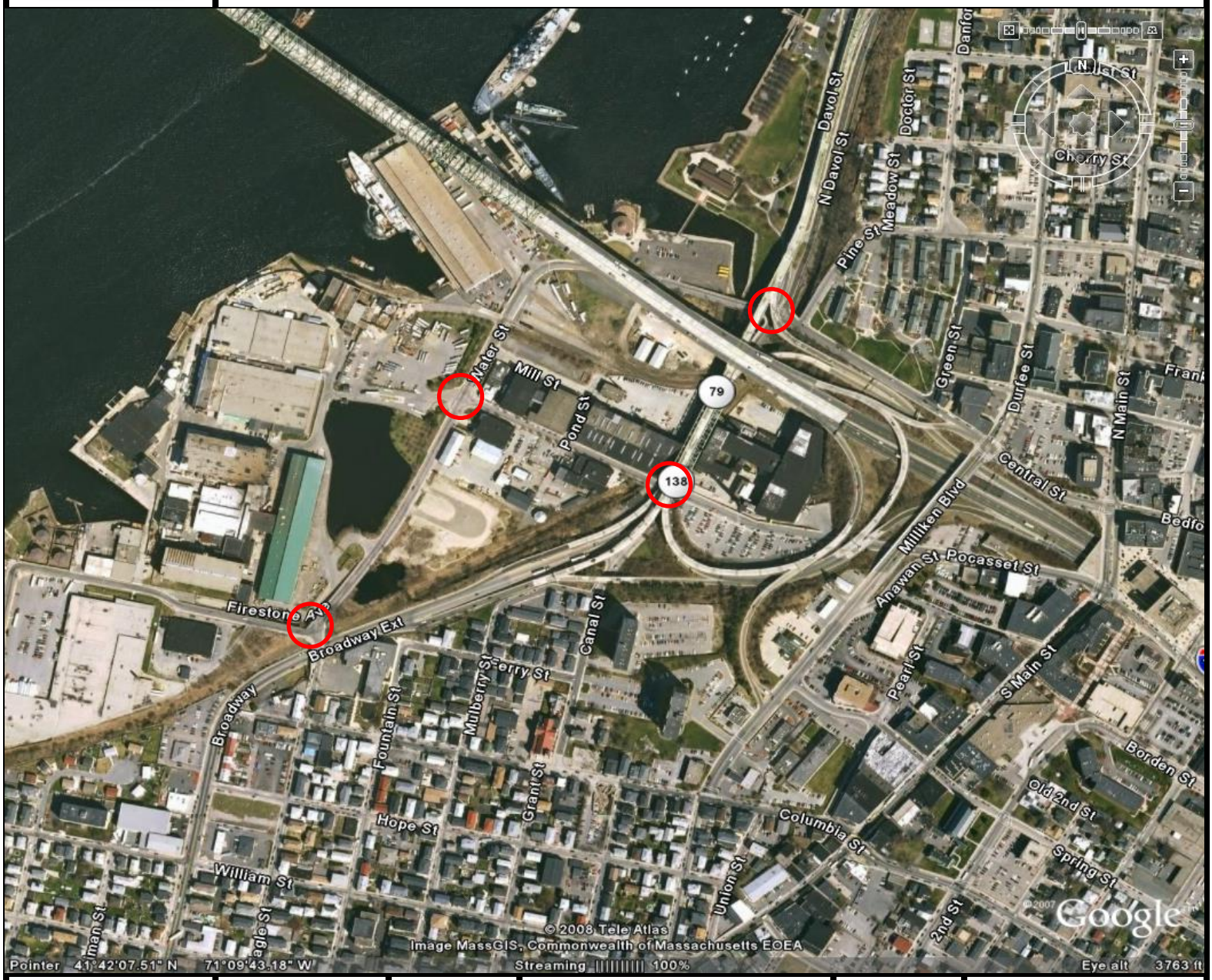
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Saturday 9/6/08 Tuesday 9/9/08	81676	Fall River, MA

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N/S: Water Street
E/W: Ananwan Street/Tillotson Complex
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-A
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Water Street From North			Ananwan Street From East			Water Street From South			Tillotson Complex From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	31	7	2	4	7	65	1	0	0	4	0	124
07:15 AM	6	33	6	0	3	6	82	1	1	0	2	1	141
07:30 AM	2	49	4	2	2	9	72	4	1	1	5	0	151
07:45 AM	11	37	7	3	1	14	67	2	2	1	8	0	153
Total	22	150	24	7	10	36	286	8	4	2	19	1	569
08:00 AM	3	29	4	2	2	8	68	4	2	0	5	0	127
08:15 AM	4	23	4	4	1	4	58	5	1	0	4	0	108
08:30 AM	5	19	8	3	2	5	44	6	2	0	4	0	98
08:45 AM	3	15	5	3	3	5	41	4	1	0	2	0	82
Total	15	86	21	12	8	22	211	19	6	0	15	0	415
Grand Total	37	236	45	19	18	58	497	27	10	2	34	1	984
Apprch %	11.6	74.2	14.2	20	18.9	61.1	93.1	5.1	1.9	5.4	91.9	2.7	
Total %	3.8	24	4.6	1.9	1.8	5.9	50.5	2.7	1	0.2	3.5	0.1	
Cars	35	232	43	19	18	58	478	27	10	2	31	1	954
% Cars	94.6	98.3	95.6	100	100	100	96.2	100	100	100	91.2	100	97
Heavy Vehicles	2	4	2	0	0	0	19	0	0	0	3	0	30
% Heavy Vehicles	5.4	1.7	4.4	0	0	0	3.8	0	0	0	8.8	0	3

	Water Street From North				Ananwan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	6	33	6	45	0	**3**	6	9	**82**	1	1	**84**	0	2	**1**	3	141
07:30 AM	2	**49**	4	**55**	2	2	9	13	72	**4**	1	77	**1**	5	0	6	151
07:45 AM	**11**	37	**7**	55	**3**	1	**14**	**18**	67	2	**2**	71	1	**8**	0	**9**	**153**
08:00 AM	3	29	4	36	2	2	8	12	68	4	2	74	0	5	0	5	127
Total Volume	22	148	21	191	7	8	37	52	289	11	6	306	2	20	1	23	572
% App. Total	11.5	77.5	11		13.5	15.4	71.2		94.4	3.6	2		8.7	87	4.3		
PHF	.500	.755	.750	.868	.583	.667	.661	.722	.881	.688	.750	.911	.500	.625	.250	.639	.935
Cars	21	146	20	187	7	8	37	52	277	11	6	294	2	17	1	20	553
% Cars	95.5	98.6	95.2	97.9	100	100	100	100	95.8	100	100	96.1	100	85.0	100	87.0	96.7
Heavy Vehicles	1	2	1	4	0	0	0	0	12	0	0	12	0	3	0	3	19
% Heavy Vehicles	4.5	1.4	4.8	2.1	0	0	0	0	4.2	0	0	3.9	0	15.0	0	13.0	3.3

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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-A
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Water Street From North			Ananwan Street From East			Water Street From South			Tillotson Complex From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	31	7	2	4	7	62	1	0	0	4	0	121
07:15 AM	5	33	6	0	3	6	76	1	1	0	1	1	133
07:30 AM	2	49	4	2	2	9	70	4	1	1	4	0	148
07:45 AM	11	37	6	3	1	14	66	2	2	1	8	0	151
Total	21	150	23	7	10	36	274	8	4	2	17	1	553
08:00 AM	3	27	4	2	2	8	65	4	2	0	4	0	121
08:15 AM	4	21	3	4	1	4	56	5	1	0	4	0	103
08:30 AM	4	19	8	3	2	5	43	6	2	0	4	0	96
08:45 AM	3	15	5	3	3	5	40	4	1	0	2	0	81
Total	14	82	20	12	8	22	204	19	6	0	14	0	401
Grand Total	35	232	43	19	18	58	478	27	10	2	31	1	954
Apprch %	11.3	74.8	13.9	20	18.9	61.1	92.8	5.2	1.9	5.9	91.2	2.9	
Total %	3.7	24.3	4.5	2	1.9	6.1	50.1	2.8	1	0.2	3.2	0.1	

	Water Street From North				Ananwan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	31	**7**	41	2	**4**	7	13	62	1	0	63	0	4	0	4	121
07:15 AM	5	33	6	44	0	3	6	9	**76**	1	1	**78**	0	1	**1**	2	133
07:30 AM	2	**49**	4	**55**	2	2	9	13	70	**4**	1	75	**1**	4	0	5	148
07:45 AM	**11**	37	6	54	**3**	1	**14**	**18**	66	2	**2**	70	1	**8**	0	**9**	**151**
Total Volume	21	150	23	194	7	10	36	53	274	8	4	286	2	17	1	20	553
% App. Total	10.8	77.3	11.9		13.2	18.9	67.9		95.8	2.8	1.4		10	85	5		
PHF	.477	.765	.821	.882	.583	.625	.643	.736	.901	.500	.500	.917	.500	.531	.250	.556	.916

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File Name : 81676A-A
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Heavy Vehicles

	Water Street From North			Ananwan Street From East			Water Street From South			Tillotson Complex From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	3	0	0	0	0	0	3
07:15 AM	1	0	0	0	0	0	6	0	0	0	1	0	8
07:30 AM	0	0	0	0	0	0	2	0	0	0	1	0	3
07:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	2
Total	1	0	1	0	0	0	12	0	0	0	2	0	16
08:00 AM	0	2	0	0	0	0	3	0	0	0	1	0	6
08:15 AM	0	2	1	0	0	0	2	0	0	0	0	0	5
08:30 AM	1	0	0	0	0	0	1	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	1	4	1	0	0	0	7	0	0	0	1	0	14
Grand Total	2	4	2	0	0	0	19	0	0	0	3	0	30
Apprch %	25	50	25	0	0	0	100	0	0	0	100	0	
Total %	6.7	13.3	6.7	0	0	0	63.3	0	0	0	10	0	

	Water Street From North				Ananwan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	0	0	1	0	0	0	0	**6**	0	0	**6**	0	**1**	0	**1**	**8**
07:30 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	1	3
07:45 AM	0	0	**1**	1	0	0	0	0	1	0	0	1	0	0	0	0	2
08:00 AM	0	**2**	0	**2**	0	0	0	0	3	0	0	3	0	1	0	1	6
Total Volume	1	2	1	4	0	0	0	0	12	0	0	12	0	3	0	3	19
% App. Total	25	50	25		0	0	0		100	0	0		0	100	0		
PHF	.250	.250	.250	.500	.000	.000	.000	.000	.500	.000	.000	.500	.000	.750	.000	.750	.594

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File Name : 81676A-A
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Peds and Bicycles

	Water Street From North				Ananwan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	5	0	0	0	2	0	0	0	0	0	0	0	0	8
Total	0	1	0	5	0	0	0	2	0	0	0	0	0	0	0	0	8
08:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3
08:15 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	2	7
08:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	3	15
Grand Total	0	1	0	5	0	0	0	14	0	0	0	0	0	0	0	3	23
Apprch %	0	16.7	0	83.3	0	0	0	100	0	0	0	0	0	0	0	100	
Total %	0	4.3	0	21.7	0	0	0	60.9	0	0	0	0	0	0	0	13	

	Water Street From North					Ananwan Street From East					Water Street From South					Tillotson Complex From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	**1**	0	**5**	**6**	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	**8**
08:00 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	1	1	3
08:15 AM	0	0	0	0	0	0	0	0	**5**	**5**	0	0	0	0	0	0	0	0	**2**	**2**	7
08:30 AM	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	1	0	5	6	0	0	0	13	13	0	0	0	0	0	0	0	0	3	3	22
% App. Total	0	16.7	0	83.3		0	0	0	100		0	0	0	0		0	0	0	100		
PHF	.000	.250	.000	.250	.250	.000	.000	.000	.650	.650	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.688

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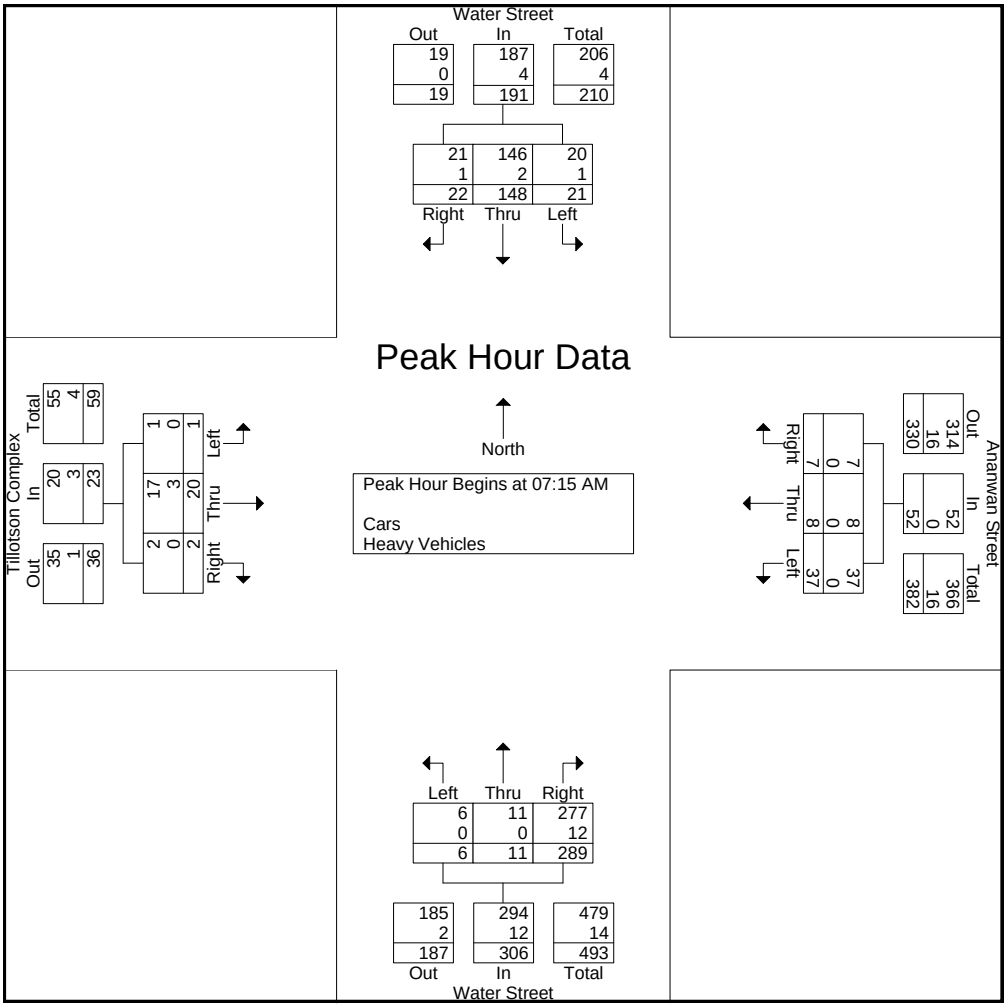
	Water Street From North				Ananwan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	6	33	6	45	0	**3**	6	9	**82**	1	1	**84**	0	2	**1**	3	141
07:30 AM	2	**49**	4	**55**	2	2	9	13	72	**4**	1	77	**1**	5	0	6	151
07:45 AM	**11**	37	**7**	55	**3**	1	**14**	**18**	67	2	**2**	71	1	**8**	0	**9**	**153**
08:00 AM	3	29	4	36	2	2	8	12	68	4	2	74	0	5	0	5	127
Total Volume	22	148	21	191	7	8	37	52	289	11	6	306	2	20	1	23	572
% App. Total	11.5	77.5	11		13.5	15.4	71.2		94.4	3.6	2		8.7	87	4.3		
PHF	.500	.755	.750	.868	.583	.667	.661	.722	.881	.688	.750	.911	.500	.625	.250	.639	.935
Cars	21	146	20	187	7	8	37	52	277	11	6	294	2	17	1	20	553
% Cars	95.5	98.6	95.2	97.9	100	100	100	100	95.8	100	100	96.1	100	85.0	100	87.0	96.7
Heavy Vehicles	1	2	1	4	0	0	0	0	12	0	0	12	0	3	0	3	19
% Heavy Vehicles	4.5	1.4	4.8	2.1	0	0	0	0	4.2	0	0	3.9	0	15.0	0	13.0	3.3



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City, State: Fall River, MA
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File Name : 81676A-AAA
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Water Street From North			Anawan Street From East			Water Street From South			Tillotson Complex From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	50	5	1	4	28	43	1	0	0	11	0	143
04:15 PM	1	38	11	2	0	18	34	2	0	2	7	0	115
04:30 PM	4	51	10	0	1	14	40	0	1	0	8	0	129
04:45 PM	4	52	5	0	0	10	37	4	0	0	1	0	113
Total	9	191	31	3	5	70	154	7	1	2	27	0	500
05:00 PM	1	72	10	2	1	24	43	2	0	1	9	0	165
05:15 PM	1	40	9	0	0	15	32	1	0	0	4	0	102
05:30 PM	3	25	5	0	0	7	33	1	0	0	2	0	76
05:45 PM	1	31	2	0	0	10	15	0	0	0	3	0	62
Total	6	168	26	2	1	56	123	4	0	1	18	0	405
Grand Total	15	359	57	5	6	126	277	11	1	3	45	0	905
Apprch %	3.5	83.3	13.2	3.6	4.4	92	95.8	3.8	0.3	6.2	93.8	0	
Total %	1.7	39.7	6.3	0.6	0.7	13.9	30.6	1.2	0.1	0.3	5	0	
Cars	5	357	56	5	5	126	277	11	0	3	42	0	887
% Cars	33.3	99.4	98.2	100	83.3	100	100	100	0	100	93.3	0	98
Heavy Vehicles	10	2	1	0	1	0	0	0	1	0	3	0	18
% Heavy Vehicles	66.7	0.6	1.8	0	16.7	0	0	0	100	0	6.7	0	2

	Water Street From North				Anawan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	38	**11**	50	**2**	0	18	20	34	2	0	36	**2**	7	0	9	115
04:30 PM	**4**	51	10	65	0	**1**	14	15	40	0	**1**	41	0	8	0	8	129
04:45 PM	4	52	5	61	0	0	10	10	37	**4**	0	41	0	1	0	1	113
05:00 PM	1	**72**	10	**83**	2	1	**24**	**27**	**43**	2	0	**45**	1	**9**	0	**10**	**165**
Total Volume	10	213	36	259	4	2	66	72	154	8	1	163	3	25	0	28	522
% App. Total	3.9	82.2	13.9		5.6	2.8	91.7		94.5	4.9	0.6		10.7	89.3	0		
PHF	.625	.740	.818	.780	.500	.500	.688	.667	.895	.500	.250	.906	.375	.694	.000	.700	.791
Cars	4	212	35	251	4	2	66	72	154	8	0	162	3	23	0	26	511
% Cars	40.0	99.5	97.2	96.9	100	100	100	100	100	100	0	99.4	100	92.0	0	92.9	97.9
Heavy Vehicles	6	1	1	8	0	0	0	0	0	0	1	1	0	2	0	2	11
% Heavy Vehicles	60.0	0.5	2.8	3.1	0	0	0	0	0	0	100	0.6	0	8.0	0	7.1	2.1

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N/S: Water Street
E/W: Anawan Street/Tillotson Complex
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-AAA
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars

	Water Street From North			Anawan Street From East			Water Street From South			Tillotson Complex From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	49	5	1	3	28	43	1	0	0	10	0	140
04:15 PM	1	38	10	2	0	18	34	2	0	2	7	0	114
04:30 PM	2	51	10	0	1	14	40	0	0	0	8	0	126
04:45 PM	0	52	5	0	0	10	37	4	0	0	0	0	108
Total	3	190	30	3	4	70	154	7	0	2	25	0	488
05:00 PM	1	71	10	2	1	24	43	2	0	1	8	0	163
05:15 PM	0	40	9	0	0	15	32	1	0	0	4	0	101
05:30 PM	0	25	5	0	0	7	33	1	0	0	2	0	73
05:45 PM	1	31	2	0	0	10	15	0	0	0	3	0	62
Total	2	167	26	2	1	56	123	4	0	1	17	0	399
Grand Total	5	357	56	5	5	126	277	11	0	3	42	0	887
Apprch %	1.2	85.4	13.4	3.7	3.7	92.6	96.2	3.8	0	6.7	93.3	0	
Total %	0.6	40.2	6.3	0.6	0.6	14.2	31.2	1.2	0	0.3	4.7	0	

	Water Street From North				Anawan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	38	**10**	49	**2**	0	18	20	34	2	0	36	**2**	7	0	**9**	114
04:30 PM	**2**	51	10	63	0	**1**	14	15	40	0	0	40	0	**8**	0	8	126
04:45 PM	0	52	5	57	0	0	10	10	37	**4**	0	41	0	0	0	0	108
05:00 PM	1	**71**	10	**82**	2	1	**24**	**27**	**43**	2	0	**45**	1	8	0	9	**163**
Total Volume	4	212	35	251	4	2	66	72	154	8	0	162	3	23	0	26	511
% App. Total	1.6	84.5	13.9		5.6	2.8	91.7		95.1	4.9	0		11.5	88.5	0		
PHF	.500	.746	.875	.765	.500	.500	.688	.667	.895	.500	.000	.900	.375	.719	.000	.722	.784

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File Name : 81676A-AAA
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Groups Printed- Heavy Vehicles

	Water Street From North			Anawan Street From East			Water Street From South			Tillotson Complex From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	3
04:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
04:30 PM	2	0	0	0	0	0	0	0	1	0	0	0	3
04:45 PM	4	0	0	0	0	0	0	0	0	0	1	0	5
Total	6	1	1	0	1	0	0	0	1	0	2	0	12
05:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
05:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	3	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	1	0	0	0	0	0	0	0	0	1	0	6
Grand Total	10	2	1	0	1	0	0	0	1	0	3	0	18
Apprch %	76.9	15.4	7.7	0	100	0	0	0	100	0	100	0	
Total %	55.6	11.1	5.6	0	5.6	0	0	0	5.6	0	16.7	0	

	Water Street From North				Anawan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**1**	0	1	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	3
04:15 PM	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	2	0	0	2	0	0	0	0	0	0	**1**	**1**	0	0	0	0	3
04:45 PM	**4**	0	0	**4**	0	0	0	0	0	0	0	0	0	1	0	1	**5**
Total Volume	6	1	1	8	0	1	0	1	0	0	1	1	0	2	0	2	12
% App. Total	75	12.5	12.5		0	100	0		0	0	100		0	100	0		
PHF	.375	.250	.250	.500	.000	.250	.000	.250	.000	.000	.250	.250	.000	.500	.000	.500	.600

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Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Water Street From North				Anawan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	3
Total	0	1	0	0	0	0	0	5	0	0	0	0	0	0	0	1	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	3	1	0	0	0	0	2	0	0	0	0	0	0	0	0	6
Total	0	3	1	0	0	0	0	2	0	1	0	0	0	0	0	0	7
Grand Total	0	4	1	0	0	0	0	7	0	1	0	0	0	0	0	1	14
Apprch %	0	80	20	0	0	0	0	100	0	100	0	0	0	0	0	100	
Total %	0	28.6	7.1	0	0	0	0	50	0	7.1	0	0	0	0	0	7.1	

	Water Street From North					Anawan Street From East					Water Street From South					Tillotson Complex From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	**3**	**3**	0	0	0	0	0	0	0	0	0	0	**3**
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	**1**	0	0	**1**	0	0	0	1	1	0	0	0	0	0	0	0	0	**1**	**1**	3
Total Volume	0	1	0	0	1	0	0	0	5	5	0	0	0	0	0	0	0	0	1	1	7
% App. Total	0	100	0	0		0	0	0	100		0	0	0	0		0	0	0	100		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.417	.417	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.583

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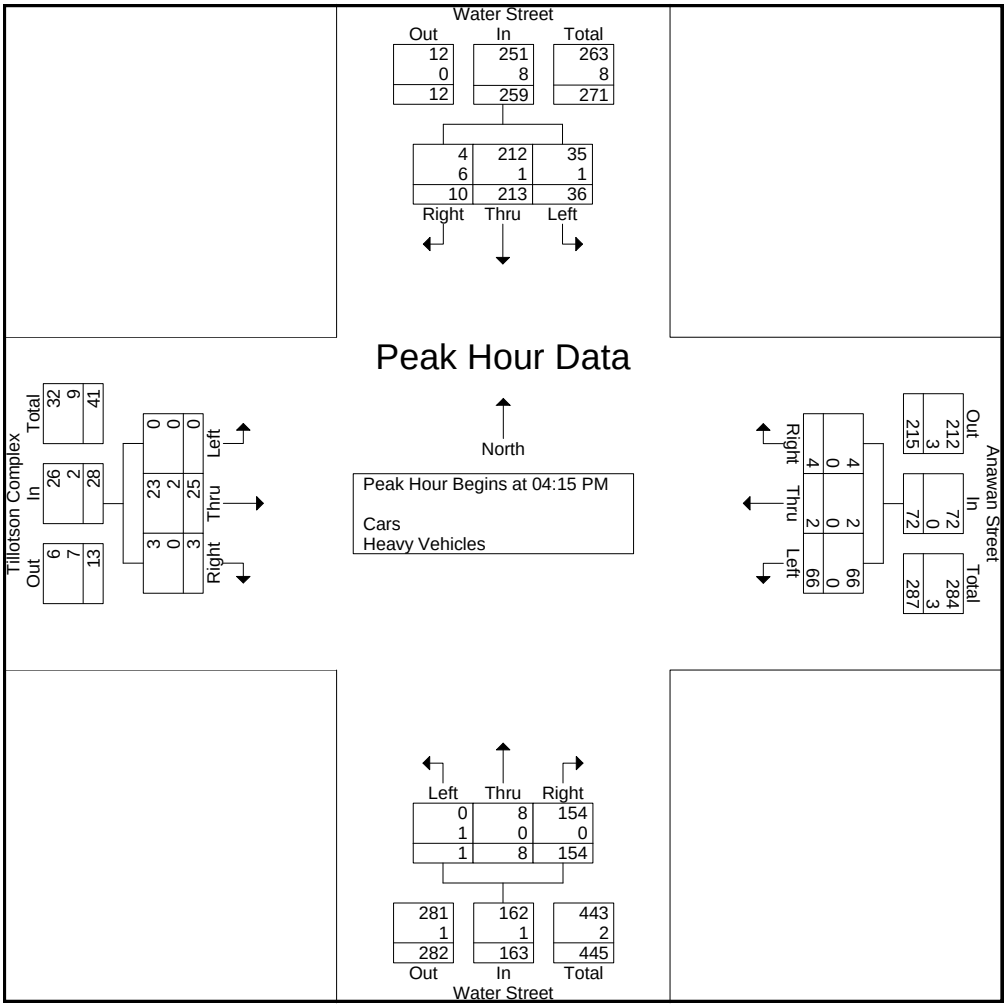
	Water Street From North				Anawan Street From East				Water Street From South				Tillotson Complex From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	38	**11**	50	**2**	0	18	20	34	2	0	36	**2**	7	0	9	115
04:30 PM	**4**	51	10	65	0	**1**	14	15	40	0	**1**	41	0	8	0	8	129
04:45 PM	4	52	5	61	0	0	10	10	37	**4**	0	41	0	1	0	1	113
05:00 PM	1	**72**	10	**83**	2	1	**24**	**27**	**43**	2	0	**45**	1	**9**	0	**10**	**165**
Total Volume	10	213	36	259	4	2	66	72	154	8	1	163	3	25	0	28	522
% App. Total	3.9	82.2	13.9		5.6	2.8	91.7		94.5	4.9	0.6		10.7	89.3	0		
PHF	.625	.740	.818	.780	.500	.500	.688	.667	.895	.500	.250	.906	.375	.694	.000	.700	.791
Cars	4	212	35	251	4	2	66	72	154	8	0	162	3	23	0	26	511
% Cars	40.0	99.5	97.2	96.9	100	100	100	100	100	100	0	99.4	100	92.0	0	92.9	97.9
Heavy Vehicles	6	1	1	8	0	0	0	0	0	0	1	1	0	2	0	2	11
% Heavy Vehicles	60.0	0.5	2.8	3.1	0	0	0	0	0	0	100	0.6	0	8.0	0	7.1	2.1



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N/S: Water Street/Eagle Street
W: Ferry Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-B
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Water Street From North		Eagle Street From South		Ferry Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	34	3	4	3	15	59	118
07:15 AM	37	5	8	3	11	70	134
07:30 AM	55	5	9	2	13	65	149
07:45 AM	44	5	18	3	11	59	140
Total	170	18	39	11	50	253	541
08:00 AM	26	9	27	2	11	51	126
08:15 AM	25	2	11	3	9	52	102
08:30 AM	18	5	5	0	7	46	81
08:45 AM	19	2	5	5	5	36	72
Total	88	18	48	10	32	185	381
Grand Total	258	36	87	21	82	438	922
Apprch %	87.8	12.2	80.6	19.4	15.8	84.2	
Total %	28	3.9	9.4	2.3	8.9	47.5	
Cars	257	35	86	21	82	434	915
% Cars	99.6	97.2	98.9	100	100	99.1	99.2
Heavy Vehicles	1	1	1	0	0	4	7
% Heavy Vehicles	0.4	2.8	1.1	0	0	0.9	0.8

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	37	5	42	8	**3**	11	11	**70**	**81**	134
07:30 AM	**55**	5	**60**	9	2	11	**13**	65	78	**149**
07:45 AM	**44**	**5**	**49**	**18**	**3**	**21**	**11**	**59**	**70**	**140**
08:00 AM	**26**	**9**	35	**27**	2	**29**	11	51	62	126
Total Volume	162	24	186	62	10	72	46	245	291	549
% App. Total	87.1	12.9		86.1	13.9		15.8	84.2		
PHF	.736	.667	.775	.574	.833	.621	.885	.875	.898	.921
Cars	161	23	184	61	10	71	46	242	288	543
% Cars	99.4	95.8	98.9	98.4	100	98.6	100	98.8	99.0	98.9
Heavy Vehicles	1	1	2	1	0	1	0	3	3	6
% Heavy Vehicles	0.6	4.2	1.1	1.6	0	1.4	0	1.2	1.0	1.1

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File Name : 81676A-B
Site Code : 10111.31
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Page No : 1

Groups Printed- Cars

	Water Street From North		Eagle Street From South		Ferry Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	34	3	4	3	15	58	117
07:15 AM	37	4	8	3	11	70	133
07:30 AM	54	5	9	2	13	63	146
07:45 AM	44	5	18	3	11	59	140
Total	169	17	39	11	50	250	536
08:00 AM	26	9	26	2	11	50	124
08:15 AM	25	2	11	3	9	52	102
08:30 AM	18	5	5	0	7	46	81
08:45 AM	19	2	5	5	5	36	72
Total	88	18	47	10	32	184	379
Grand Total	257	35	86	21	82	434	915
Apprch %	88	12	80.4	19.6	15.9	84.1	
Total %	28.1	3.8	9.4	2.3	9	47.4	

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	37	4	41	8	**3**	11	11	**70**	**81**	133
07:30 AM	**54**	5	**59**	9	2	11	**13**	63	76	**146**
07:45 AM	**44**	**5**	**49**	**18**	**3**	**21**	**11**	**59**	**70**	**140**
08:00 AM	**26**	**9**	35	**26**	2	**28**	11	50	61	124
Total Volume	161	23	184	61	10	71	46	242	288	543
% App. Total	87.5	12.5		85.9	14.1		16	84		
PHF	.745	.639	.780	.587	.833	.634	.885	.864	.889	.930

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Groups Printed- Heavy Vehicles

	Water Street From North		Eagle Street From South		Ferry Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	0	0	0	0	0	1	1
07:15 AM	0	1	0	0	0	0	1
07:30 AM	1	0	0	0	0	2	3
07:45 AM	0	0	0	0	0	0	0
Total	1	1	0	0	0	3	5
08:00 AM	0	0	1	0	0	1	2
08:15 AM	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0
Total	0	0	1	0	0	1	2
Grand Total	1	1	1	0	0	4	7
Apprch %	50	50	100	0	0	100	
Total %	14.3	14.3	14.3	0	0	57.1	

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	**1**	**1**	0	0	0	0	0	0	1
07:30 AM	**1**	0	1	0	0	0	0	**2**	**2**	**3**
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 AM	**0**	**0**	**0**	**1**	0	**1**	0	1	1	2
Total Volume	1	1	2	1	0	1	0	3	3	6
% App. Total	50	50		100	0		0	100		
PHF	.250	.250	.500	.250	.000	.250	.000	.375	.375	.500

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File Name : 81676A-B
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Peds and Bicycles

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	0	0	1	0	0	0	0	0	0	1
07:15 AM	0	0	1	0	0	4	0	0	0	5
07:30 AM	0	0	3	0	0	3	0	0	0	6
07:45 AM	1	0	8	0	0	4	0	0	0	13
Total	1	0	13	0	0	11	0	0	0	25
08:00 AM	0	0	0	0	0	7	0	1	0	8
08:15 AM	0	0	1	0	0	2	0	0	0	3
08:30 AM	0	0	0	0	0	1	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	10	0	1	0	12
Grand Total	1	0	14	0	0	21	0	1	0	37
Apprch %	6.7	0	93.3	0	0	100	0	100	0	
Total %	2.7	0	37.8	0	0	56.8	0	2.7	0	

	Water Street From North				Eagle Street From South				Ferry Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	0	1	1	0	0	4	4	0	0	0	0	5
07:30 AM	0	0	3	3	0	0	3	3	0	0	0	0	6
07:45 AM	**1**	0	**8**	**9**	0	0	4	4	0	0	0	0	**13**
08:00 AM	0	0	0	0	0	0	**7**	**7**	0	**1**	**0**	**1**	8
Total Volume	1	0	12	13	0	0	18	18	0	1	0	1	32
% App. Total	7.7	0	92.3		0	0	100		0	100	0		
PHF	.250	.000	.375	.361	.000	.000	.643	.643	.000	.250	.000	.250	.615

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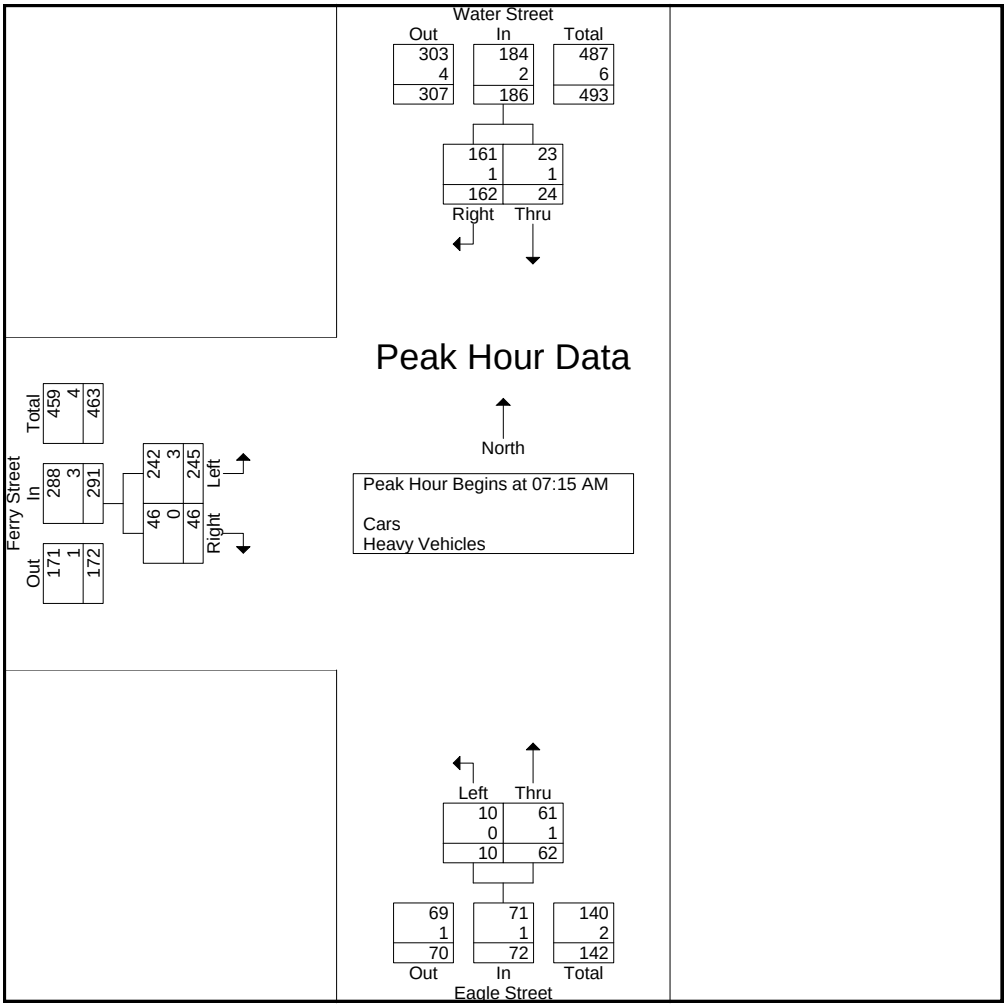
	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	37	5	42	8	**3**	11	11	**70**	**81**	134
07:30 AM	**55**	5	**60**	9	2	11	**13**	65	78	**149**
07:45 AM	**44**	**5**	**49**	**18**	**3**	**21**	**11**	**59**	**70**	**140**
08:00 AM	**26**	**9**	35	**27**	2	**29**	11	51	62	126
Total Volume	162	24	186	62	10	72	46	245	291	549
% App. Total	87.1	12.9		86.1	13.9		15.8	84.2		
PHF	.736	.667	.775	.574	.833	.621	.885	.875	.898	.921
Cars	161	23	184	61	10	71	46	242	288	543
% Cars	99.4	95.8	98.9	98.4	100	98.6	100	98.8	99.0	98.9
Heavy Vehicles	1	1	2	1	0	1	0	3	3	6
% Heavy Vehicles	0.6	4.2	1.1	1.6	0	1.4	0	1.2	1.0	1.1



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N/S: Water Street/Eagle Street
W: Ferry Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-BBB
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars - Heavy Vehicles

	Water Street From North		Eagle Street From South		Ferry Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	75	2	3	6	5	40	131
04:15 PM	51	4	2	5	4	31	97
04:30 PM	60	8	2	5	7	42	124
04:45 PM	57	5	4	3	10	36	115
Total	243	19	11	19	26	149	467
05:00 PM	86	8	6	2	7	38	147
05:15 PM	51	5	4	5	5	27	97
05:30 PM	31	1	3	2	6	32	75
05:45 PM	32	7	0	2	5	14	60
Total	200	21	13	11	23	111	379
Grand Total	443	40	24	30	49	260	846
Apprch %	91.7	8.3	44.4	55.6	15.9	84.1	
Total %	52.4	4.7	2.8	3.5	5.8	30.7	
Cars	440	39	24	30	49	257	839
% Cars	99.3	97.5	100	100	100	98.8	99.2
Heavy Vehicles	3	1	0	0	0	3	7
% Heavy Vehicles	0.7	2.5	0	0	0	1.2	0.8

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	51	4	55	2	**5**	7	4	31	35	97
04:30 PM	60	**8**	68	2	5	7	7	**42**	**49**	124
04:45 PM	57	5	62	4	3	7	**10**	36	46	115
05:00 PM	**86**	8	**94**	**6**	2	**8**	7	38	45	**147**
Total Volume	**254**	**25**	**279**	**14**	**15**	**29**	**28**	**147**	**175**	**483**
% App. Total	**91**	**9**		**48.3**	**51.7**		**16**	**84**		
PHF	**.738**	**.781**	**.742**	**.583**	**.750**	**.906**	**.700**	**.875**	**.893**	**.821**
Cars	**252**	**25**	**277**	**14**	**15**	**29**	**28**	**145**	**173**	**479**
% Cars	**99.2**	**100**	**99.3**	**100**	**100**	**100**	**100**	**98.6**	**98.9**	**99.2**
Heavy Vehicles	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2**	**4**
% Heavy Vehicles	**0.8**	**0**	**0.7**	**0**	**0**	**0**	**0**	**1.4**	**1.1**	**0.8**

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File Name : 81676A-BBB
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars

	Water Street From North		Eagle Street From South		Ferry Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	74	2	3	6	5	40	130
04:15 PM	50	4	2	5	4	30	95
04:30 PM	60	8	2	5	7	41	123
04:45 PM	57	5	4	3	10	36	115
Total	241	19	11	19	26	147	463
05:00 PM	85	8	6	2	7	38	146
05:15 PM	51	5	4	5	5	27	97
05:30 PM	31	0	3	2	6	31	73
05:45 PM	32	7	0	2	5	14	60
Total	199	20	13	11	23	110	376
Grand Total	440	39	24	30	49	257	839
Apprch %	91.9	8.1	44.4	55.6	16	84	
Total %	52.4	4.6	2.9	3.6	5.8	30.6	

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	60	**8**	68	2	**5**	7	7	**41**	**48**	123
04:45 PM	57	5	62	4	3	7	**10**	36	46	115
05:00 PM	**85**	8	**93**	**6**	2	8	7	38	45	**146**
05:15 PM	**51**	**5**	**56**	**4**	**5**	**9**	5	27	32	97
Total Volume	253	26	279	16	15	31	29	142	171	481
% App. Total	90.7	9.3		51.6	48.4		17	83		
PHF	.744	.813	.750	.667	.750	.861	.725	.866	.891	.824

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File Name : 81676A-BBB
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Heavy Vehicles

	Water Street From North		Eagle Street From South		Ferry Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	1	0	0	0	0	0	1
04:15 PM	1	0	0	0	0	1	2
04:30 PM	0	0	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0
Total	2	0	0	0	0	2	4
05:00 PM	1	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	1	2
05:45 PM	0	0	0	0	0	0	0
Total	1	1	0	0	0	1	3
Grand Total	3	1	0	0	0	3	7
Apprch %	75	25	0	0	0	100	
Total %	42.9	14.3	0	0	0	42.9	

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**1**	0	**1**	0	0	0	0	0	0	1
04:15 PM	1	0	1	0	0	0	0	**1**	**1**	**2**
04:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**
04:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Volume	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2**	**4**
% App. Total	**100**	**0**		**0**	**0**		**0**	**100**		
PHF	**.500**	**.000**	**.500**	**.000**	**.000**	**.000**	**.000**	**.500**	**.500**	**.500**

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Groups Printed- Peds and Bicycles

	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	1	0	1
04:45 PM	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	0	0	1	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	0	0	0	0	1
Grand Total	2	0	0	0	0	0	0	1	0	3
Apprch %	100	0	0	0	0	0	0	100	0	
Total %	66.7	0	0	0	0	0	0	33.3	0	

	Water Street From North				Eagle Street From South				Ferry Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	**1**
04:45 PM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	0	0	0	0	1	0	1	2
% App. Total	100	0	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.500

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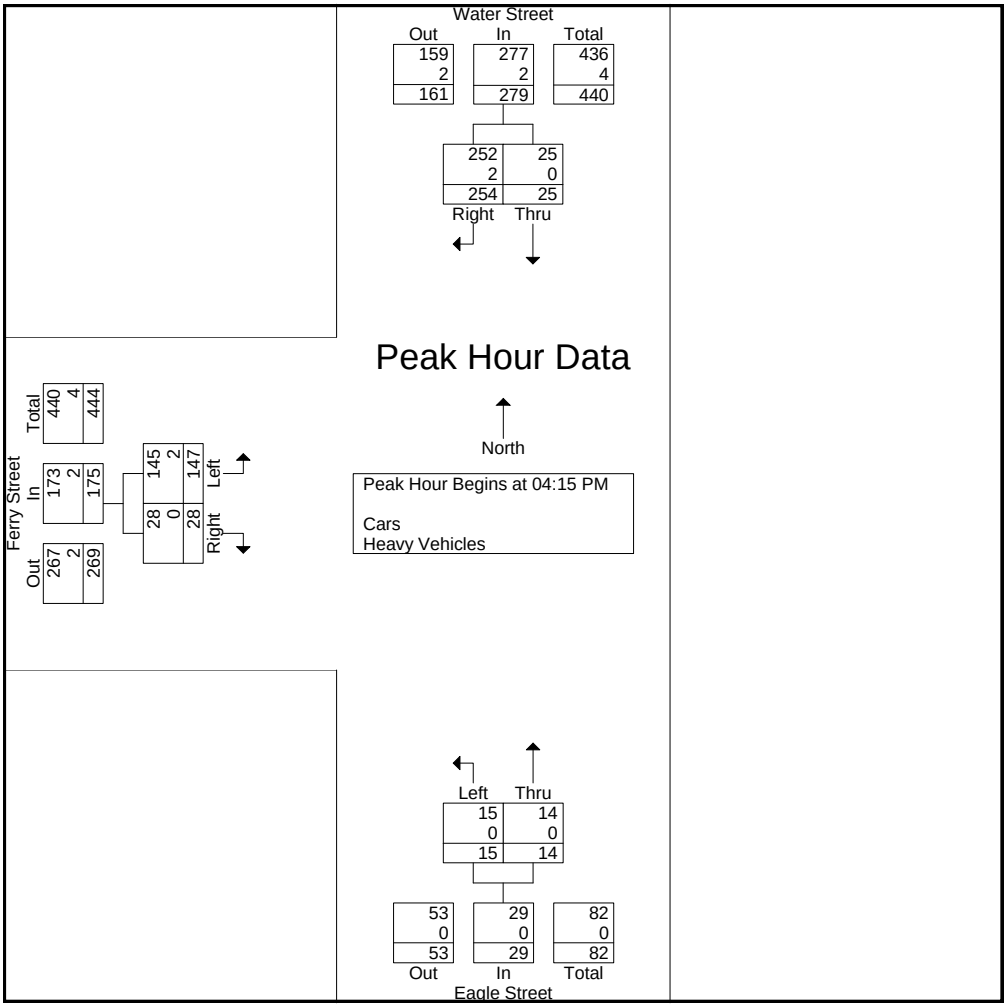
	Water Street From North			Eagle Street From South			Ferry Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	51	4	55	2	**5**	7	4	31	35	97
04:30 PM	60	**8**	68	2	5	7	7	**42**	**49**	124
04:45 PM	57	5	62	4	3	7	**10**	36	46	115
05:00 PM	**86**	8	**94**	**6**	2	**8**	7	38	45	**147**
Total Volume	**254**	**25**	**279**	**14**	**15**	**29**	**28**	**147**	**175**	**483**
% App. Total	**91**	**9**		**48.3**	**51.7**		**16**	**84**		
PHF	**.738**	**.781**	**.742**	**.583**	**.750**	**.906**	**.700**	**.875**	**.893**	**.821**
Cars	**252**	**25**	**277**	**14**	**15**	**29**	**28**	**145**	**173**	**479**
% Cars	**99.2**	**100**	**99.3**	**100**	**100**	**100**	**100**	**98.6**	**98.9**	**99.2**
Heavy Vehicles	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2**	**4**
% Heavy Vehicles	**0.8**	**0**	**0.7**	**0**	**0**	**0**	**0**	**1.4**	**1.1**	**0.8**



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N/S: Davol Street/Columbia Street
E/W: Anawan Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-C
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street From North			Anawan Street From East			Columbia Street From South			Anawan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	9	58	37	5	6	8	28	31	1	7	31	31	252
07:15 AM	5	67	48	8	4	12	15	20	3	5	33	51	271
07:30 AM	10	61	53	3	6	6	12	41	3	5	30	48	278
07:45 AM	6	91	64	4	12	4	19	41	2	12	35	38	328
Total	30	277	202	20	28	30	74	133	9	29	129	168	1129
08:00 AM	7	56	53	5	6	3	24	38	4	13	30	33	272
08:15 AM	3	66	51	5	5	8	24	35	4	8	30	27	266
08:30 AM	6	43	37	6	5	4	26	33	5	5	27	25	222
08:45 AM	4	54	37	4	8	3	30	32	1	4	28	16	221
Total	20	219	178	20	24	18	104	138	14	30	115	101	981
Grand Total	50	496	380	40	52	48	178	271	23	59	244	269	2110
Apprch %	5.4	53.6	41	28.6	37.1	34.3	37.7	57.4	4.9	10.3	42.7	47	
Total %	2.4	23.5	18	1.9	2.5	2.3	8.4	12.8	1.1	2.8	11.6	12.7	
Cars	49	482	377	38	50	47	175	268	23	41	233	256	2039
% Cars	98	97.2	99.2	95	96.2	97.9	98.3	98.9	100	69.5	95.5	95.2	96.6
Heavy Vehicles	1	14	3	2	2	1	3	3	0	18	11	13	71
% Heavy Vehicles	2	2.8	0.8	5	3.8	2.1	1.7	1.1	0	30.5	4.5	4.8	3.4

	Davol Street From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	67	48	120	**8**	4	**12**	**24**	15	20	3	38	5	33	**51**	**89**	271
07:30 AM	**10**	61	53	124	3	6	6	15	12	**41**	3	56	5	30	48	83	278
07:45 AM	6	**91**	**64**	**161**	4	**12**	4	20	19	41	2	62	12	**35**	38	85	**328**
08:00 AM	7	56	53	116	5	6	3	14	**24**	38	**4**	**66**	**13**	30	33	76	272
Total Volume	28	275	218	521	20	28	25	73	70	140	12	222	35	128	170	333	1149
% App. Total	5.4	52.8	41.8		27.4	38.4	34.2		31.5	63.1	5.4		10.5	38.4	51.1		
PHF	.700	.755	.852	.809	.625	.583	.521	.760	.729	.854	.750	.841	.673	.914	.833	.935	.876
Cars	28	270	218	516	19	27	24	70	68	140	12	220	24	120	158	302	1108
% Cars	100	98.2	100	99.0	95.0	96.4	96.0	95.9	97.1	100	100	99.1	68.6	93.8	92.9	90.7	96.4
Heavy Vehicles	0	5	0	5	1	1	1	3	2	0	0	2	11	8	12	31	41
% Heavy Vehicles	0	1.8	0	1.0	5.0	3.6	4.0	4.1	2.9	0	0	0.9	31.4	6.3	7.1	9.3	3.6

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File Name : 81676A-C
Site Code : 10111.31
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Groups Printed- Cars

	Davol Street From North			Anawan Street From East			Columbia Street From South			Anawan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	9	57	37	5	6	8	27	31	1	4	31	31	247
07:15 AM	5	67	48	7	3	12	14	20	3	3	30	48	260
07:30 AM	10	58	53	3	6	6	12	41	3	2	29	44	267
07:45 AM	6	90	64	4	12	4	18	41	2	8	34	36	319
Total	30	272	202	19	27	30	71	133	9	17	124	159	1093
08:00 AM	7	55	53	5	6	2	24	38	4	11	27	30	262
08:15 AM	3	62	49	5	5	8	24	35	4	6	28	27	256
08:30 AM	5	40	37	5	5	4	26	32	5	3	26	24	212
08:45 AM	4	53	36	4	7	3	30	30	1	4	28	16	216
Total	19	210	175	19	23	17	104	135	14	24	109	97	946
Grand Total	49	482	377	38	50	47	175	268	23	41	233	256	2039
Apprch %	5.4	53.1	41.5	28.1	37	34.8	37.6	57.5	4.9	7.7	44	48.3	
Total %	2.4	23.6	18.5	1.9	2.5	2.3	8.6	13.1	1.1	2	11.4	12.6	

	Davol Street From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	67	48	120	**7**	3	**12**	**22**	14	20	3	37	3	30	**48**	**81**	260
07:30 AM	**10**	58	53	121	3	6	6	15	12	**41**	3	56	2	29	44	75	267
07:45 AM	6	**90**	**64**	**160**	4	**12**	4	20	18	41	2	61	8	**34**	36	78	**319**
08:00 AM	7	55	53	115	5	6	2	13	**24**	38	**4**	**66**	**11**	27	30	68	262
Total Volume	28	270	218	516	19	27	24	70	68	140	12	220	24	120	158	302	1108
% App. Total	5.4	52.3	42.2		27.1	38.6	34.3		30.9	63.6	5.5		7.9	39.7	52.3		
PHF	.700	.750	.852	.806	.679	.563	.500	.795	.708	.854	.750	.833	.545	.882	.823	.932	.868

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File Name : 81676A-C
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Heavy Vehicles

	Davol Street From North			Anawan Street From East			Columbia Street From South			Anawan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	1	0	0	0	0	1	0	0	3	0	0	5
07:15 AM	0	0	0	1	1	0	1	0	0	2	3	3	11
07:30 AM	0	3	0	0	0	0	0	0	0	3	1	4	11
07:45 AM	0	1	0	0	0	0	1	0	0	4	1	2	9
Total	0	5	0	1	1	0	3	0	0	12	5	9	36
08:00 AM	0	1	0	0	0	1	0	0	0	2	3	3	10
08:15 AM	0	4	2	0	0	0	0	0	0	2	2	0	10
08:30 AM	1	3	0	1	0	0	0	1	0	2	1	1	10
08:45 AM	0	1	1	0	1	0	0	2	0	0	0	0	5
Total	1	9	3	1	1	1	0	3	0	6	6	4	35
Grand Total	1	14	3	2	2	1	3	3	0	18	11	13	71
Apprch %	5.6	77.8	16.7	40	40	20	50	50	0	42.9	26.2	31	
Total %	1.4	19.7	4.2	2.8	2.8	1.4	4.2	4.2	0	25.4	15.5	18.3	

	Davol Street From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	**1**	**1**	0	**2**	**1**	0	0	**1**	2	**3**	3	**8**	**11**
07:30 AM	0	**3**	0	**3**	0	0	0	0	0	0	0	0	3	1	**4**	8	11
07:45 AM	0	1	0	1	0	0	0	0	1	0	0	1	**4**	1	2	7	9
08:00 AM	0	1	0	1	0	0	**1**	1	0	0	0	0	2	3	3	8	10
Total Volume	0	5	0	5	1	1	1	3	2	0	0	2	11	8	12	31	41
% App. Total	0	100	0		33.3	33.3	33.3		100	0	0		35.5	25.8	38.7		
PHF	.000	.417	.000	.417	.250	.250	.250	.375	.500	.000	.000	.500	.688	.667	.750	.969	.932

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E/W: Anawan Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-C
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:30 AM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	2	7
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4
Total	0	0	0	5	0	0	0	0	0	0	0	3	0	0	0	5	13
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	2	5
08:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
Total	0	0	0	2	0	0	0	1	0	0	0	2	0	1	0	5	11
Grand Total	0	0	0	7	0	0	0	1	0	0	0	5	0	1	0	10	24
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	0	9.1	0	90.9	
Total %	0	0	0	29.2	0	0	0	4.2	0	0	0	20.8	0	4.2	0	41.7	

	Davol Street From North					Anawan Street From East					Columbia Street From South					Anawan Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
07:30 AM	0	0	0	**5**	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**7**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	2	2	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	**1**	0	2	**3**	5
Total Volume	0	0	0	5	5	0	0	0	0	0	0	0	0	5	5	0	1	0	6	7	17
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		0	14.3	0	85.7		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.625	.625	.000	.250	.000	.750	.583	.607

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File Name : 81676A-C
Site Code : 10111.31
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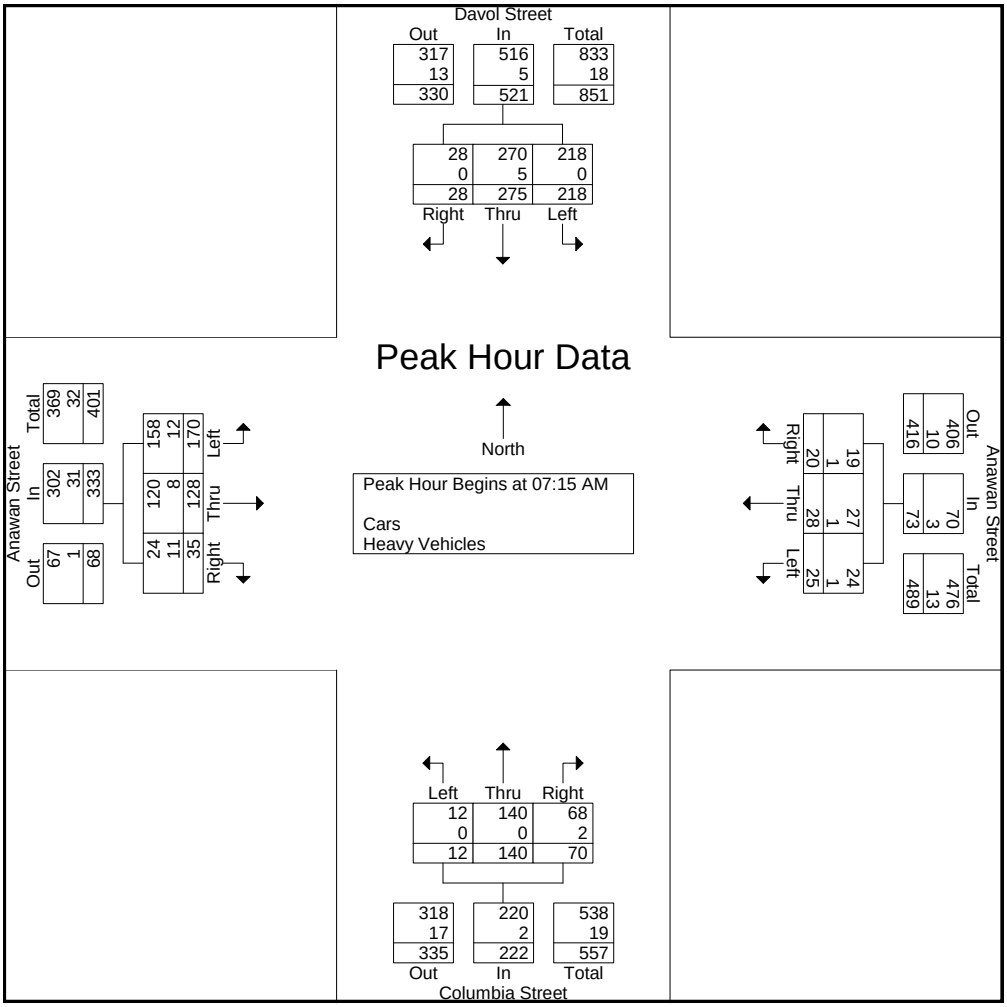
	Davol Street From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	67	48	120	**8**	4	**12**	**24**	15	20	3	38	5	33	**51**	**89**	271
07:30 AM	**10**	61	53	124	3	6	6	15	12	**41**	3	56	5	30	48	83	278
07:45 AM	6	**91**	**64**	**161**	4	**12**	4	20	19	41	2	62	12	**35**	38	85	**328**
08:00 AM	7	56	53	116	5	6	3	14	**24**	38	**4**	**66**	**13**	30	33	76	272
Total Volume	28	275	218	521	20	28	25	73	70	140	12	222	35	128	170	333	1149
% App. Total	5.4	52.8	41.8		27.4	38.4	34.2		31.5	63.1	5.4		10.5	38.4	51.1		
PHF	.700	.755	.852	.809	.625	.583	.521	.760	.729	.854	.750	.841	.673	.914	.833	.935	.876
Cars	28	270	218	516	19	27	24	70	68	140	12	220	24	120	158	302	1108
% Cars	100	98.2	100	99.0	95.0	96.4	96.0	95.9	97.1	100	100	99.1	68.6	93.8	92.9	90.7	96.4
Heavy Vehicles	0	5	0	5	1	1	1	3	2	0	0	2	11	8	12	31	41
% Heavy Vehicles	0	1.8	0	1.0	5.0	3.6	4.0	4.1	2.9	0	0	0.9	31.4	6.3	7.1	9.3	3.6



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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-CCC
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Sreet From North			Anawan Street From East			Columbia Street From South			Anawan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	13	103	43	14	14	35	23	35	1	18	25	29	353
04:15 PM	8	81	47	12	10	21	28	33	0	11	15	30	296
04:30 PM	6	89	39	12	8	30	20	40	1	15	26	27	313
04:45 PM	7	92	40	8	6	17	17	26	2	6	20	22	263
Total	34	365	169	46	38	103	88	134	4	50	86	108	1225
05:00 PM	12	94	42	22	14	25	20	47	3	18	22	29	348
05:15 PM	7	71	36	14	13	16	24	24	2	15	19	22	263
05:30 PM	6	74	32	15	2	9	17	40	0	4	21	17	237
05:45 PM	5	85	33	13	6	9	19	39	0	5	11	11	236
Total	30	324	143	64	35	59	80	150	5	42	73	79	1084
Grand Total	64	689	312	110	73	162	168	284	9	92	159	187	2309
Apprch %	6	64.7	29.3	31.9	21.2	47	36.4	61.6	2	21	36.3	42.7	
Total %	2.8	29.8	13.5	4.8	3.2	7	7.3	12.3	0.4	4	6.9	8.1	
Cars	64	677	309	110	70	162	166	281	9	90	157	183	2278
% Cars	100	98.3	99	100	95.9	100	98.8	98.9	100	97.8	98.7	97.9	98.7
Heavy Vehicles	0	12	3	0	3	0	2	3	0	2	2	4	31
% Heavy Vehicles	0	1.7	1	0	4.1	0	1.2	1.1	0	2.2	1.3	2.1	1.3

	Davol Sreet From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**13**	**103**	43	**159**	**14**	**14**	**35**	**63**	23	35	1	59	**18**	25	29	**72**	**353**
04:15 PM	8	81	**47**	136	12	10	21	43	**28**	33	0	**61**	11	15	**30**	56	296
04:30 PM	6	89	39	134	12	8	30	50	20	**40**	1	61	15	**26**	27	68	313
04:45 PM	7	92	40	139	8	6	17	31	17	26	**2**	45	6	20	22	48	263
Total Volume	34	365	169	568	46	38	103	187	88	134	4	226	50	86	108	244	1225
% App. Total	6	64.3	29.8		24.6	20.3	55.1		38.9	59.3	1.8		20.5	35.2	44.3		
PHF	.654	.886	.899	.893	.821	.679	.736	.742	.786	.838	.500	.926	.694	.827	.900	.847	.868
Cars	34	359	166	559	46	36	103	185	88	132	4	224	50	84	105	239	1207
% Cars	100	98.4	98.2	98.4	100	94.7	100	98.9	100	98.5	100	99.1	100	97.7	97.2	98.0	98.5
Heavy Vehicles	0	6	3	9	0	2	0	2	0	2	0	2	0	2	3	5	18
% Heavy Vehicles	0	1.6	1.8	1.6	0	5.3	0	1.1	0	1.5	0	0.9	0	2.3	2.8	2.0	1.5

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File Name : 81676A-CCC
Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Cars

	Davol Sreet From North			Anawan Street From East			Columbia Street From South			Anawan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	13	102	42	14	13	35	23	34	1	18	25	28	348
04:15 PM	8	79	47	12	10	21	28	32	0	11	15	28	291
04:30 PM	6	87	38	12	7	30	20	40	1	15	25	27	308
04:45 PM	7	91	39	8	6	17	17	26	2	6	19	22	260
Total	34	359	166	46	36	103	88	132	4	50	84	105	1207
05:00 PM	12	92	42	22	14	25	20	46	3	16	22	29	343
05:15 PM	7	70	36	14	12	16	22	24	2	15	19	22	259
05:30 PM	6	73	32	15	2	9	17	40	0	4	21	16	235
05:45 PM	5	83	33	13	6	9	19	39	0	5	11	11	234
Total	30	318	143	64	34	59	78	149	5	40	73	78	1071
Grand Total	64	677	309	110	70	162	166	281	9	90	157	183	2278
Apprch %	6.1	64.5	29.4	32.2	20.5	47.4	36.4	61.6	2	20.9	36.5	42.6	
Total %	2.8	29.7	13.6	4.8	3.1	7.1	7.3	12.3	0.4	4	6.9	8	

	Davol Sreet From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**13**	**102**	42	**157**	**14**	**13**	**35**	**62**	23	34	1	58	**18**	**25**	**28**	**71**	**348**
04:15 PM	8	79	**47**	134	12	10	21	43	**28**	32	0	60	11	15	28	54	291
04:30 PM	6	87	38	131	12	7	30	49	20	**40**	1	**61**	15	25	27	67	308
04:45 PM	7	91	39	137	8	6	17	31	17	26	**2**	45	6	19	22	47	260
Total Volume	34	359	166	559	46	36	103	185	88	132	4	224	50	84	105	239	1207
% App. Total	6.1	64.2	29.7		24.9	19.5	55.7		39.3	58.9	1.8		20.9	35.1	43.9		
PHF	.654	.880	.883	.890	.821	.692	.736	.746	.786	.825	.500	.918	.694	.840	.938	.842	.867

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File Name : 81676A-CCC
Site Code : 10111.31
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Page No : 1

Groups Printed- Heavy Vehicles

	Davol Sreet From North			Anawan Street From East			Columbia Street From South			Anawan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	1	0	1	0	0	1	0	0	0	1	5
04:15 PM	0	2	0	0	0	0	0	1	0	0	0	2	5
04:30 PM	0	2	1	0	1	0	0	0	0	0	1	0	5
04:45 PM	0	1	1	0	0	0	0	0	0	0	1	0	3
Total	0	6	3	0	2	0	0	2	0	0	2	3	18
05:00 PM	0	2	0	0	0	0	0	1	0	2	0	0	5
05:15 PM	0	1	0	0	1	0	2	0	0	0	0	0	4
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	6	0	0	1	0	2	1	0	2	0	1	13
Grand Total	0	12	3	0	3	0	2	3	0	2	2	4	31
Apprch %	0	80	20	0	100	0	40	60	0	25	25	50	
Total %	0	38.7	9.7	0	9.7	0	6.5	9.7	0	6.5	6.5	12.9	

	Davol Sreet From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	**1**	2	0	**1**	0	**1**	0	**1**	0	**1**	0	0	1	1	**5**
04:15 PM	0	**2**	0	2	0	0	0	0	0	1	0	1	0	0	**2**	**2**	5
04:30 PM	0	2	1	**3**	0	1	0	1	0	0	0	0	0	**1**	0	1	5
04:45 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Total Volume	0	6	3	9	0	2	0	2	0	2	0	2	0	2	3	5	18
% App. Total	0	66.7	33.3		0	100	0		0	100	0		0	40	60		
PHF	.000	.750	.750	.750	.000	.500	.000	.500	.000	.500	.000	.500	.000	.500	.375	.625	.900

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File Name : 81676A-CCC
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Groups Printed- Peds and Bicycles

	Davol Sreet From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	1	4	0	0	0	2	0	0	0	0	7
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	5	0	1	0	2	0	0	0	0	9
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
05:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	3	5
05:45 PM	0	0	0	2	0	0	0	5	0	0	0	0	0	0	0	0	7
Total	0	0	0	2	0	0	0	7	0	0	0	2	0	0	0	4	15
Grand Total	0	0	0	2	0	0	1	12	0	1	0	4	0	0	0	4	24
Apprch %	0	0	0	100	0	0	7.7	92.3	0	20	0	80	0	0	0	100	
Total %	0	0	0	8.3	0	0	4.2	50	0	4.2	0	16.7	0	0	0	16.7	

	Davol Sreet From North					Anawan Street From East					Columbia Street From South					Anawan Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	1	1	2
05:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	**3**	**3**	5
05:45 PM	0	0	0	**2**	**2**	0	0	0	**5**	**5**	0	0	0	0	0	0	0	0	0	0	**7**
Total Volume	0	0	0	2	2	0	0	0	7	7	0	0	0	2	2	0	0	0	4	4	15
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.350	.350	.000	.000	.000	.500	.500	.000	.000	.000	.333	.333	.536

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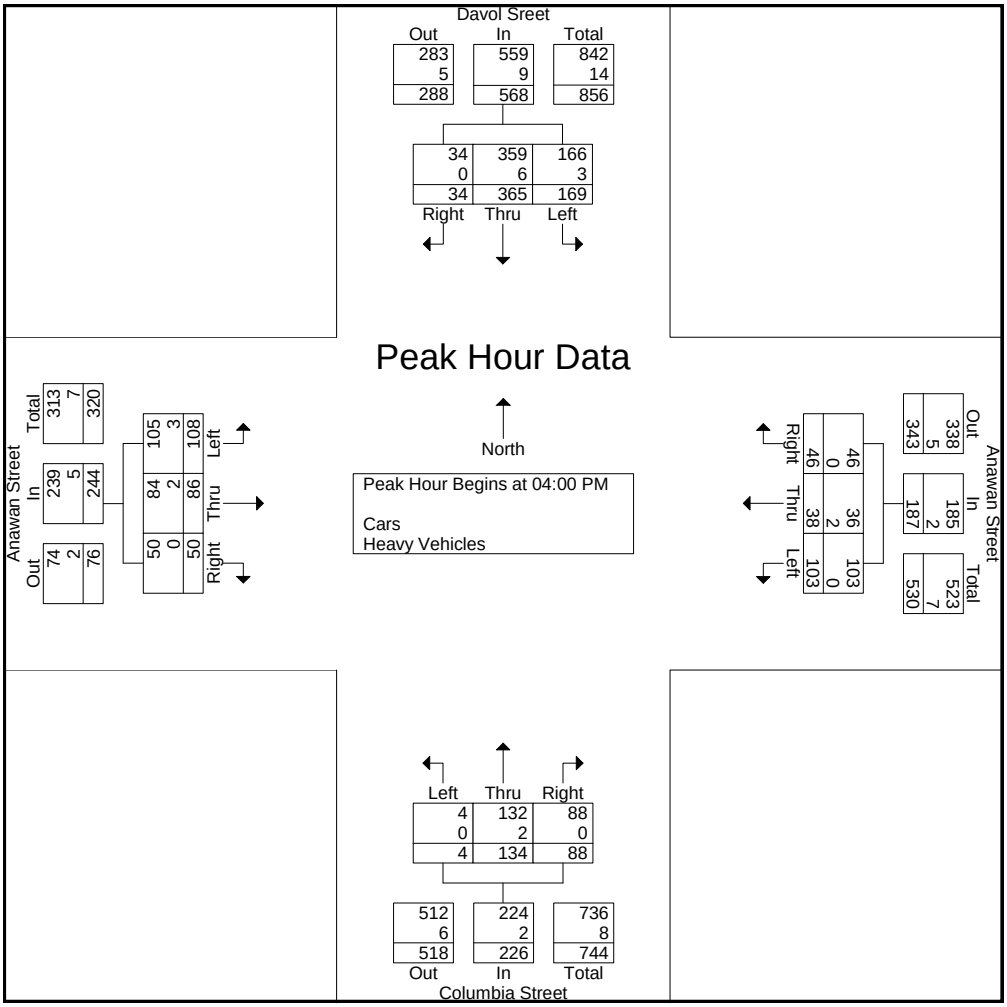
	Davol Sreet From North				Anawan Street From East				Columbia Street From South				Anawan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**13**	**103**	43	**159**	**14**	**14**	**35**	**63**	23	35	1	59	**18**	25	29	**72**	**353**
04:15 PM	8	81	**47**	136	12	10	21	43	**28**	33	0	**61**	11	15	**30**	56	296
04:30 PM	6	89	39	134	12	8	30	50	20	**40**	1	61	15	**26**	27	68	313
04:45 PM	7	92	40	139	8	6	17	31	17	26	**2**	45	6	20	22	48	263
Total Volume	34	365	169	568	46	38	103	187	88	134	4	226	50	86	108	244	1225
% App. Total	6	64.3	29.8		24.6	20.3	55.1		38.9	59.3	1.8		20.5	35.2	44.3		
PHF	.654	.886	.899	.893	.821	.679	.736	.742	.786	.838	.500	.926	.694	.827	.900	.847	.868
Cars	34	359	166	559	46	36	103	185	88	132	4	224	50	84	105	239	1207
% Cars	100	98.4	98.2	98.4	100	94.7	100	98.9	100	98.5	100	99.1	100	97.7	97.2	98.0	98.5
Heavy Vehicles	0	6	3	9	0	2	0	2	0	2	0	2	0	2	3	5	18
% Heavy Vehicles	0	1.6	1.8	1.6	0	5.3	0	1.1	0	1.5	0	0.9	0	2.3	2.8	2.0	1.5



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N/S: Davol Street
E/W: Central Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-D
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB/SB From North			Central Street From East			Davol Street From South			Central Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	16	88	0	21	18	14	0	67	0	0	0	0	224
07:15 AM	21	100	0	30	18	19	0	69	0	0	0	0	257
07:30 AM	14	116	0	44	37	17	0	87	0	1	0	0	316
07:45 AM	28	135	0	29	25	22	0	81	1	0	0	0	321
Total	79	439	0	124	98	72	0	304	1	1	0	0	1118
08:00 AM	14	91	0	24	19	12	0	60	1	0	0	0	221
08:15 AM	20	93	0	22	13	10	0	49	0	1	0	0	208
08:30 AM	10	65	0	30	19	13	0	55	2	0	0	1	195
08:45 AM	15	80	0	31	18	16	0	43	0	0	0	0	203
Total	59	329	0	107	69	51	0	207	3	1	0	1	827
Grand Total	138	768	0	231	167	123	0	511	4	2	0	1	1945
Apprch %	15.2	84.8	0	44.3	32.1	23.6	0	99.2	0.8	66.7	0	33.3	
Total %	7.1	39.5	0	11.9	8.6	6.3	0	26.3	0.2	0.1	0	0.1	
Cars	135	756	0	221	161	119	0	499	2	2	0	0	1895
% Cars	97.8	98.4	0	95.7	96.4	96.7	0	97.7	50	100	0	0	97.4
Heavy Vehicles	3	12	0	10	6	4	0	12	2	0	0	1	50
% Heavy Vehicles	2.2	1.6	0	4.3	3.6	3.3	0	2.3	50	0	0	100	2.6

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	16	88	0	104	21	18	14	53	0	67	0	67	0	0	0	0	224
07:15 AM	21	100	0	121	30	18	19	67	0	69	0	69	0	0	0	0	257
07:30 AM	14	116	0	130	**44**	**37**	17	**98**	0	**87**	0	**87**	**1**	0	0	**1**	316
07:45 AM	**28**	**135**	0	**163**	29	25	**22**	76	0	81	**1**	82	0	0	0	0	**321**
Total Volume	79	439	0	518	124	98	72	294	0	304	1	305	1	0	0	1	1118
% App. Total	15.3	84.7	0		42.2	33.3	24.5		0	99.7	0.3		100	0	0		
PHF	.705	.813	.000	.794	.705	.662	.818	.750	.000	.874	.250	.876	.250	.000	.000	.250	.871
Cars	78	436	0	514	118	97	70	285	0	298	0	298	1	0	0	1	1098
% Cars	98.7	99.3	0	99.2	95.2	99.0	97.2	96.9	0	98.0	0	97.7	100	0	0	100	98.2
Heavy Vehicles	1	3	0	4	6	1	2	9	0	6	1	7	0	0	0	0	20
% Heavy Vehicles	1.3	0.7	0	0.8	4.8	1.0	2.8	3.1	0	2.0	100	2.3	0	0	0	0	1.8

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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-D
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars

	Davol Street NB/SB From North			Central Street From East			Davol Street From South			Central Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	16	88	0	20	18	14	0	67	0	0	0	0	223
07:15 AM	20	100	0	28	18	19	0	68	0	0	0	0	253
07:30 AM	14	113	0	43	37	16	0	84	0	1	0	0	308
07:45 AM	28	135	0	27	24	21	0	79	0	0	0	0	314
Total	78	436	0	118	97	70	0	298	0	1	0	0	1098
08:00 AM	14	90	0	24	16	11	0	58	1	0	0	0	214
08:15 AM	19	88	0	21	13	10	0	49	0	1	0	0	201
08:30 AM	10	64	0	29	18	12	0	53	1	0	0	0	187
08:45 AM	14	78	0	29	17	16	0	41	0	0	0	0	195
Total	57	320	0	103	64	49	0	201	2	1	0	0	797
Grand Total	135	756	0	221	161	119	0	499	2	2	0	0	1895
Apprch %	15.2	84.8	0	44.1	32.1	23.8	0	99.6	0.4	100	0	0	
Total %	7.1	39.9	0	11.7	8.5	6.3	0	26.3	0.1	0.1	0	0	

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	16	88	0	104	20	18	14	52	0	67	0	67	0	0	0	0	223
07:15 AM	20	100	0	120	28	18	19	65	0	68	0	68	0	0	0	0	253
07:30 AM	14	113	0	127	**43**	**37**	16	**96**	0	**84**	0	**84**	**1**	0	0	**1**	308
07:45 AM	**28**	**135**	0	**163**	27	24	**21**	72	0	79	0	79	0	0	0	0	**314**
Total Volume	78	436	0	514	118	97	70	285	0	298	0	298	1	0	0	1	1098
% App. Total	15.2	84.8	0		41.4	34	24.6		0	100	0		100	0	0		
PHF	.696	.807	.000	.788	.686	.655	.833	.742	.000	.887	.000	.887	.250	.000	.000	.250	.874

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File Name : 81676A-D
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street NB/SB From North			Central Street From East			Davol Street From South			Central Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	1	0	0	2	0	0	0	1	0	0	0	0	4
07:30 AM	0	3	0	1	0	1	0	3	0	0	0	0	8
07:45 AM	0	0	0	2	1	1	0	2	1	0	0	0	7
Total	1	3	0	6	1	2	0	6	1	0	0	0	20
08:00 AM	0	1	0	0	3	1	0	2	0	0	0	0	7
08:15 AM	1	5	0	1	0	0	0	0	0	0	0	0	7
08:30 AM	0	1	0	1	1	1	0	2	1	0	0	1	8
08:45 AM	1	2	0	2	1	0	0	2	0	0	0	0	8
Total	2	9	0	4	5	2	0	6	1	0	0	1	30
Grand Total	3	12	0	10	6	4	0	12	2	0	0	1	50
Apprch %	20	80	0	50	30	20	0	85.7	14.3	0	0	100	
Total %	6	24	0	20	12	8	0	24	4	0	0	2	

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	1	0	1	0	**3**	**1**	**4**	0	**2**	0	2	0	0	0	0	7
08:15 AM	**1**	**5**	0	**6**	1	0	0	1	0	0	0	0	0	0	0	0	7
08:30 AM	0	1	0	1	1	1	1	3	0	2	**1**	**3**	0	0	**1**	**1**	**8**
08:45 AM	1	2	0	3	**2**	1	0	3	0	2	0	2	0	0	0	0	8
Total Volume	2	9	0	11	4	5	2	11	0	6	1	7	0	0	1	1	30
% App. Total	18.2	81.8	0		36.4	45.5	18.2		0	85.7	14.3		0	0	100		
PHF	.500	.450	.000	.458	.500	.417	.500	.688	.000	.750	.250	.583	.000	.000	.250	.250	.938

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Site Code : 10111.31
Start Date : 9/9/2008
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Groups Printed- Peds and Bicycles

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	6	0	0	0	0	0	0	0	1	0	0	0	1	8
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	5
Grand Total	0	0	0	9	0	0	0	0	0	0	0	3	0	0	0	1	13
Apprch %	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	
Total %	0	0	0	69.2	0	0	0	0	0	0	0	23.1	0	0	0	7.7	

	Davol Street NB/SB From North					Central Street From East					Davol Street From South					Central Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	**5**	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**6**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	1
Total Volume	0	0	0	6	6	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	8
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.300	.300	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.333

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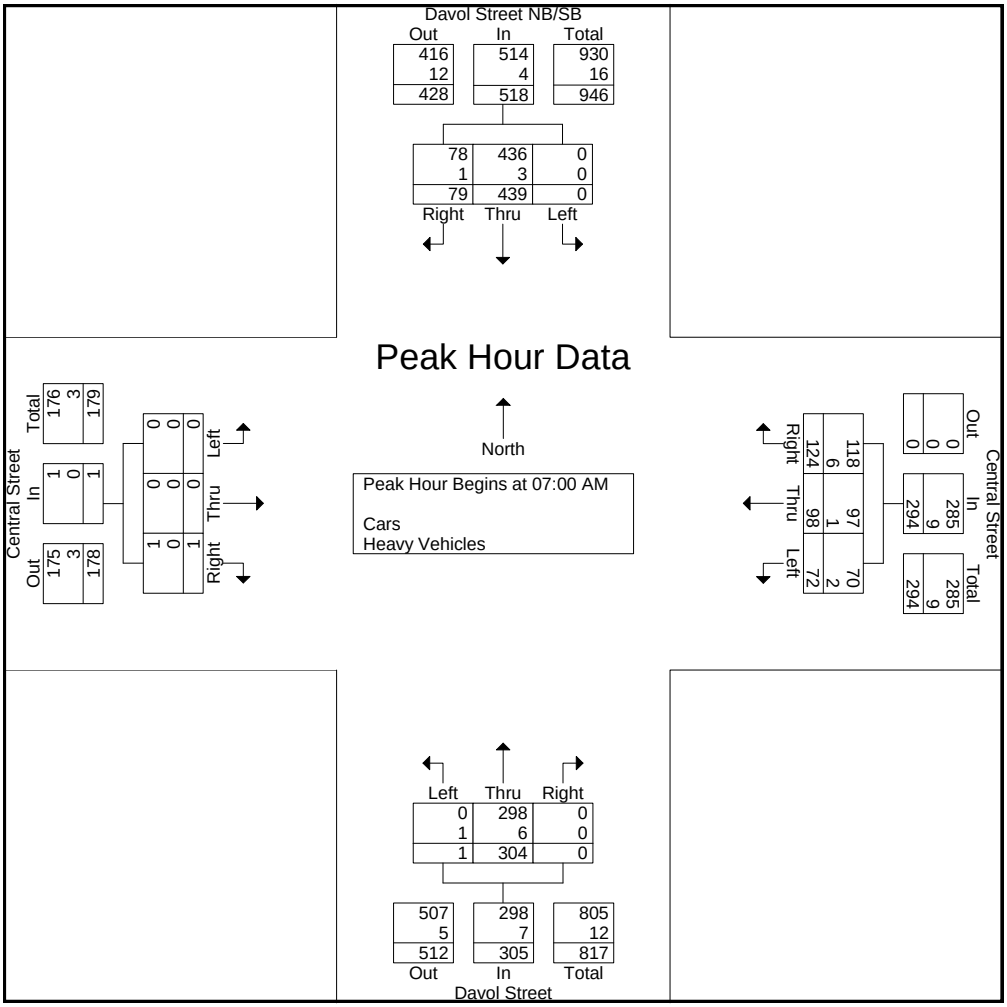
	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	16	88	0	104	21	18	14	53	0	67	0	67	0	0	0	0	224
07:15 AM	21	100	0	121	30	18	19	67	0	69	0	69	0	0	0	0	257
07:30 AM	14	116	0	130	**44**	**37**	17	**98**	0	**87**	0	**87**	**1**	0	0	**1**	316
07:45 AM	**28**	**135**	0	**163**	29	25	**22**	76	0	81	**1**	82	0	0	0	0	**321**
Total Volume	79	439	0	518	124	98	72	294	0	304	1	305	1	0	0	1	1118
% App. Total	15.3	84.7	0		42.2	33.3	24.5		0	99.7	0.3		100	0	0		
PHF	.705	.813	.000	.794	.705	.662	.818	.750	.000	.874	.250	.876	.250	.000	.000	.250	.871
Cars	78	436	0	514	118	97	70	285	0	298	0	298	1	0	0	1	1098
% Cars	98.7	99.3	0	99.2	95.2	99.0	97.2	96.9	0	98.0	0	97.7	100	0	0	100	98.2
Heavy Vehicles	1	3	0	4	6	1	2	9	0	6	1	7	0	0	0	0	20
% Heavy Vehicles	1.3	0.7	0	0.8	4.8	1.0	2.8	3.1	0	2.0	100	2.3	0	0	0	0	1.8



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City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Davol Street NB/SB From North			Central Street From East			Davol Street From South			Central Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	32	115	0	52	23	36	0	79	2	0	0	0	339
04:15 PM	20	114	0	53	22	19	0	75	1	1	0	0	305
04:30 PM	30	97	0	78	30	31	0	74	1	0	0	0	341
04:45 PM	30	97	0	61	27	36	0	59	0	0	0	0	310
Total	112	423	0	244	102	122	0	287	4	1	0	0	1295
05:00 PM	34	115	0	61	32	29	0	99	1	0	0	0	371
05:15 PM	28	88	0	50	18	30	0	62	0	0	0	0	276
05:30 PM	15	87	0	48	18	26	0	68	1	0	0	0	263
05:45 PM	15	98	0	37	20	18	0	58	1	0	0	0	247
Total	92	388	0	196	88	103	0	287	3	0	0	0	1157
Grand Total	204	811	0	440	190	225	0	574	7	1	0	0	2452
Apprch %	20.1	79.9	0	51.5	22.2	26.3	0	98.8	1.2	100	0	0	
Total %	8.3	33.1	0	17.9	7.7	9.2	0	23.4	0.3	0	0	0	
Cars	194	808	0	437	184	222	0	571	7	1	0	0	2424
% Cars	95.1	99.6	0	99.3	96.8	98.7	0	99.5	100	100	0	0	98.9
Heavy Vehicles	10	3	0	3	6	3	0	3	0	0	0	0	28
% Heavy Vehicles	4.9	0.4	0	0.7	3.2	1.3	0	0.5	0	0	0	0	1.1

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	20	114	0	134	53	22	19	94	0	75	**1**	76	**1**	0	0	**1**	305
04:30 PM	30	97	0	127	**78**	30	31	**139**	0	74	1	75	0	0	0	0	341
04:45 PM	30	97	0	127	61	27	**36**	124	0	59	0	59	0	0	0	0	310
05:00 PM	**34**	**115**	0	**149**	61	**32**	29	122	0	**99**	1	**100**	0	0	0	0	**371**
Total Volume	114	423	0	537	253	111	115	479	0	307	3	310	1	0	0	1	1327
% App. Total	21.2	78.8	0		52.8	23.2	24		0	99	1		100	0	0		
PHF	.838	.920	.000	.901	.811	.867	.799	.862	.000	.775	.750	.775	.250	.000	.000	.250	.894
Cars	107	421	0	528	252	107	113	472	0	304	3	307	1	0	0	1	1308
% Cars	93.9	99.5	0	98.3	99.6	96.4	98.3	98.5	0	99.0	100	99.0	100	0	0	100	98.6
Heavy Vehicles	7	2	0	9	1	4	2	7	0	3	0	3	0	0	0	0	19
% Heavy Vehicles	6.1	0.5	0	1.7	0.4	3.6	1.7	1.5	0	1.0	0	1.0	0	0	0	0	1.4

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Groups Printed- Cars

	Davol Street NB/SB From North			Central Street From East			Davol Street From South			Central Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	31	115	0	52	23	36	0	79	2	0	0	0	338
04:15 PM	19	114	0	53	21	19	0	73	1	1	0	0	301
04:30 PM	25	96	0	78	30	31	0	74	1	0	0	0	335
04:45 PM	29	97	0	60	25	35	0	59	0	0	0	0	305
Total	104	422	0	243	99	121	0	285	4	1	0	0	1279
05:00 PM	34	114	0	61	31	28	0	98	1	0	0	0	367
05:15 PM	27	88	0	50	18	30	0	62	0	0	0	0	275
05:30 PM	14	87	0	47	16	26	0	68	1	0	0	0	259
05:45 PM	15	97	0	36	20	17	0	58	1	0	0	0	244
Total	90	386	0	194	85	101	0	286	3	0	0	0	1145
Grand Total	194	808	0	437	184	222	0	571	7	1	0	0	2424
Apprch %	19.4	80.6	0	51.8	21.8	26.3	0	98.8	1.2	100	0	0	
Total %	8	33.3	0	18	7.6	9.2	0	23.6	0.3	0	0	0	

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	19	**114**	0	133	53	21	19	93	0	73	**1**	74	**1**	0	0	**1**	301
04:30 PM	25	96	0	121	**78**	30	31	**139**	0	74	1	75	0	0	0	0	335
04:45 PM	29	97	0	126	60	25	**35**	120	0	59	0	59	0	0	0	0	305
05:00 PM	**34**	114	0	**148**	61	**31**	28	120	0	**98**	1	**99**	0	0	0	0	**367**
Total Volume	107	421	0	528	252	107	113	472	0	304	3	307	1	0	0	1	1308
% App. Total	20.3	79.7	0		53.4	22.7	23.9		0	99	1		100	0	0		
PHF	.787	.923	.000	.892	.808	.863	.807	.849	.000	.776	.750	.775	.250	.000	.000	.250	.891

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N/S: Davol Street
E/W: Central Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Davol Street NB/SB From North			Central Street From East			Davol Street From South			Central Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	1	0	0	0	1	0	0	2	0	0	0	0	4
04:30 PM	5	1	0	0	0	0	0	0	0	0	0	0	6
04:45 PM	1	0	0	1	2	1	0	0	0	0	0	0	5
Total	8	1	0	1	3	1	0	2	0	0	0	0	16
05:00 PM	0	1	0	0	1	1	0	1	0	0	0	0	4
05:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	1	0	0	1	2	0	0	0	0	0	0	0	4
05:45 PM	0	1	0	1	0	1	0	0	0	0	0	0	3
Total	2	2	0	2	3	2	0	1	0	0	0	0	12
Grand Total	10	3	0	3	6	3	0	3	0	0	0	0	28
Apprch %	76.9	23.1	0	25	50	25	0	100	0	0	0	0	
Total %	35.7	10.7	0	10.7	21.4	10.7	0	10.7	0	0	0	0	

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	0	0	1	0	1	0	1	0	**2**	0	**2**	0	0	0	0	4
04:30 PM	**5**	**1**	0	**6**	0	0	0	0	0	0	0	0	0	0	0	0	**6**
04:45 PM	1	0	0	1	**1**	**2**	**1**	**4**	0	0	0	0	0	0	0	0	5
05:00 PM	0	1	0	1	0	1	1	2	0	1	0	1	0	0	0	0	4
Total Volume	7	2	0	9	1	4	2	7	0	3	0	3	0	0	0	0	19
% App. Total	77.8	22.2	0		14.3	57.1	28.6		0	100	0		0	0	0		
PHF	.350	.500	.000	.375	.250	.500	.500	.438	.000	.375	.000	.375	.000	.000	.000	.000	.792

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E/W: Central Street
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	3
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	4
Total	0	0	0	3	0	0	0	2	0	1	0	2	0	0	0	1	9
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	4
05:45 PM	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	2	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	8
Grand Total	2	0	0	5	0	0	0	2	0	1	0	4	0	0	0	3	17
Apprch %	28.6	0	0	71.4	0	0	0	100	0	20	0	80	0	0	0	100	
Total %	11.8	0	0	29.4	0	0	0	11.8	0	5.9	0	23.5	0	0	0	17.6	

	Davol Street NB/SB From North					Central Street From East					Davol Street From South					Central Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	**1**	**1**	0	**1**	**0**	**1**	**2**	0	0	0	0	0	3
04:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	1	1	0	0	0	**1**	**1**	**4**
Total Volume	0	0	0	3	3	0	0	0	2	2	0	1	0	2	3	0	0	0	1	1	9
% App. Total	0	0	0	100		0	0	0	100		0	33.3	0	66.7		0	0	0	100		
PHF	.000	.000	.000	.375	.375	.000	.000	.000	.500	.500	.000	.250	.000	.500	.375	.000	.000	.000	.250	.250	.563

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N/S: Davol Street
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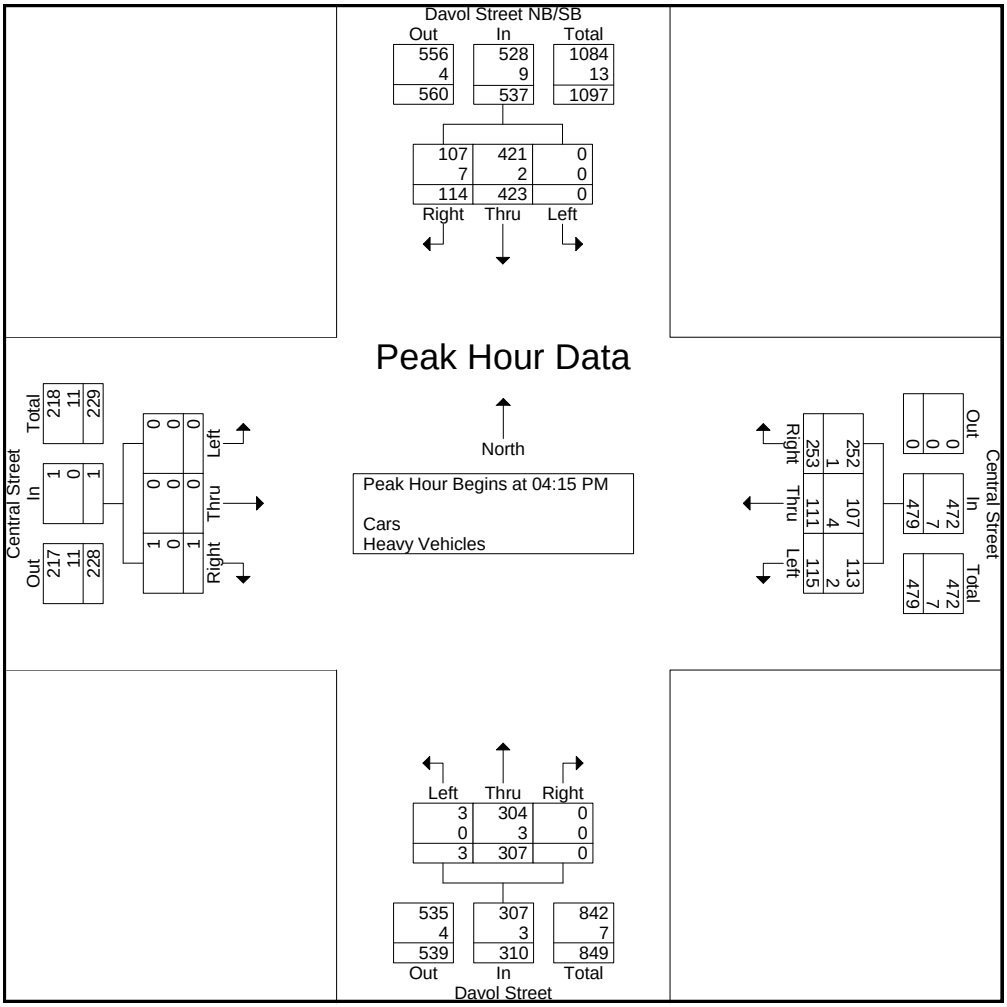
City, State: Fall River, MA
Client: VHB/J. Quitter

File Name : 81676A-DDD
Site Code : 10111.31
Start Date : 9/9/2008
Page No : 1

	Davol Street NB/SB From North				Central Street From East				Davol Street From South				Central Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	20	114	0	134	53	22	19	94	0	75	**1**	76	**1**	0	0	**1**	305
04:30 PM	30	97	0	127	**78**	30	31	**139**	0	74	1	75	0	0	0	0	341
04:45 PM	30	97	0	127	61	27	**36**	124	0	59	0	59	0	0	0	0	310
05:00 PM	**34**	**115**	0	**149**	61	**32**	29	122	0	**99**	1	**100**	0	0	0	0	**371**
Total Volume	114	423	0	537	253	111	115	479	0	307	3	310	1	0	0	1	1327
% App. Total	21.2	78.8	0		52.8	23.2	24		0	99	1		100	0	0		
PHF	.838	.920	.000	.901	.811	.867	.799	.862	.000	.775	.750	.775	.250	.000	.000	.250	.894
Cars	107	421	0	528	252	107	113	472	0	304	3	307	1	0	0	1	1308
% Cars	93.9	99.5	0	98.3	99.6	96.4	98.3	98.5	0	99.0	100	99.0	100	0	0	100	98.6
Heavy Vehicles	7	2	0	9	1	4	2	7	0	3	0	3	0	0	0	0	19
% Heavy Vehicles	6.1	0.5	0	1.7	0.4	3.6	1.7	1.5	0	1.0	0	1.0	0	0	0	0	1.4



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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Sat 9/6/08 and Wed 9/10/08	81676	Freetown, MA

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N/S: Mobil Driveway/ Ridge Hill Road
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-A
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Mobil Driveway From North			South Main Street (Route 79) From East			Ridge Hill Road From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	23	0	1	1	112	5	1	0	3	6	80	13	245
07:15 AM	35	0	4	1	110	1	0	1	1	4	101	7	265
07:30 AM	45	0	3	0	116	4	3	0	5	5	120	7	308
07:45 AM	28	2	5	1	103	3	0	0	5	4	91	4	246
Total	131	2	13	3	441	13	4	1	14	19	392	31	1064
08:00 AM	31	1	3	0	101	5	3	0	4	4	81	12	245
08:15 AM	32	1	5	1	92	2	0	0	3	8	93	2	239
08:30 AM	18	0	5	0	86	3	4	2	8	5	67	5	203
08:45 AM	28	0	3	1	114	4	7	0	1	1	91	3	253
Total	109	2	16	2	393	14	14	2	16	18	332	22	940
Grand Total	240	4	29	5	834	27	18	3	30	37	724	53	2004
Apprch %	87.9	1.5	10.6	0.6	96.3	3.1	35.3	5.9	58.8	4.5	88.9	6.5	
Total %	12	0.2	1.4	0.2	41.6	1.3	0.9	0.1	1.5	1.8	36.1	2.6	
Cars	228	2	29	5	806	25	16	2	18	30	690	46	1897
% Cars	95	50	100	100	96.6	92.6	88.9	66.7	60	81.1	95.3	86.8	94.7
Heavy Vehicles	12	2	0	0	28	2	2	1	12	7	34	7	107
% Heavy Vehicles	5	50	0	0	3.4	7.4	11.1	33.3	40	18.9	4.7	13.2	5.3

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	23	0	1	24	**1**	112	**5**	118	1	0	3	4	**6**	80	**13**	99	245
07:15 AM	35	0	4	39	1	110	1	112	0	**1**	1	2	4	101	7	112	265
07:30 AM	**45**	0	3	**48**	0	**116**	4	**120**	**3**	0	**5**	**8**	5	**120**	7	**132**	**308**
07:45 AM	28	**2**	**5**	35	1	103	3	107	0	0	5	5	4	91	4	99	246
Total Volume	131	2	13	146	3	441	13	457	4	1	14	19	19	392	31	442	1064
% App. Total	89.7	1.4	8.9		0.7	96.5	2.8		21.1	5.3	73.7		4.3	88.7	7		
PHF	.728	.250	.650	.760	.750	.950	.650	.952	.333	.250	.700	.594	.792	.817	.596	.837	.864
Cars	127	1	13	141	3	430	12	445	3	1	11	15	15	376	27	418	1019
% Cars	96.9	50.0	100	96.6	100	97.5	92.3	97.4	75.0	100	78.6	78.9	78.9	95.9	87.1	94.6	95.8
Heavy Vehicles	4	1	0	5	0	11	1	12	1	0	3	4	4	16	4	24	45
% Heavy Vehicles	3.1	50.0	0	3.4	0	2.5	7.7	2.6	25.0	0	21.4	21.1	21.1	4.1	12.9	5.4	4.2

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N/S: Mobil Driveway/ Ridge Hill Road
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-A
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Mobil Driveway From North			South Main Street (Route 79) From East			Ridge Hill Road From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	23	0	1	1	110	5	1	0	3	6	78	12	240
07:15 AM	33	0	4	1	107	1	0	1	0	1	96	6	250
07:30 AM	44	0	3	0	112	3	2	0	3	4	114	6	291
07:45 AM	27	1	5	1	101	3	0	0	5	4	88	3	238
Total	127	1	13	3	430	12	3	1	11	15	376	27	1019
08:00 AM	29	1	3	0	97	4	3	0	2	4	78	11	232
08:15 AM	32	0	5	1	88	2	0	0	0	7	89	2	226
08:30 AM	14	0	5	0	83	3	4	1	4	3	62	4	183
08:45 AM	26	0	3	1	108	4	6	0	1	1	85	2	237
Total	101	1	16	2	376	13	13	1	7	15	314	19	878
Grand Total	228	2	29	5	806	25	16	2	18	30	690	46	1897
Apprch %	88	0.8	11.2	0.6	96.4	3	44.4	5.6	50	3.9	90.1	6	
Total %	12	0.1	1.5	0.3	42.5	1.3	0.8	0.1	0.9	1.6	36.4	2.4	

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	23	0	1	24	**1**	110	**5**	**116**	1	0	3	4	**6**	78	**12**	96	240
07:15 AM	33	0	4	37	1	107	1	109	0	**1**	0	1	1	96	6	103	250
07:30 AM	**44**	0	3	**47**	0	**112**	3	115	**2**	0	3	**5**	4	**114**	6	**124**	**291**
07:45 AM	27	**1**	**5**	33	1	101	3	105	0	0	**5**	5	4	88	3	95	238
Total Volume	127	1	13	141	3	430	12	445	3	1	11	15	15	376	27	418	1019
% App. Total	90.1	0.7	9.2		0.7	96.6	2.7		20	6.7	73.3		3.6	90	6.5		
PHF	.722	.250	.650	.750	.750	.960	.600	.959	.375	.250	.550	.750	.625	.825	.563	.843	.875

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E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-A
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Mobil Driveway From North			South Main Street (Route 79) From East			Ridge Hill Road From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	2	0	0	0	0	0	2	1	5
07:15 AM	2	0	0	0	3	0	0	0	1	3	5	1	15
07:30 AM	1	0	0	0	4	1	1	0	2	1	6	1	17
07:45 AM	1	1	0	0	2	0	0	0	0	0	3	1	8
Total	4	1	0	0	11	1	1	0	3	4	16	4	45
08:00 AM	2	0	0	0	4	1	0	0	2	0	3	1	13
08:15 AM	0	1	0	0	4	0	0	0	3	1	4	0	13
08:30 AM	4	0	0	0	3	0	0	1	4	2	5	1	20
08:45 AM	2	0	0	0	6	0	1	0	0	0	6	1	16
Total	8	1	0	0	17	1	1	1	9	3	18	3	62
Grand Total	12	2	0	0	28	2	2	1	12	7	34	7	107
Apprch %	85.7	14.3	0	0	93.3	6.7	13.3	6.7	80	14.6	70.8	14.6	
Total %	11.2	1.9	0	0	26.2	1.9	1.9	0.9	11.2	6.5	31.8	6.5	

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	2	0	0	2	0	4	**1**	5	0	0	2	2	0	3	**1**	4	13
08:15 AM	0	**1**	0	1	0	4	0	4	0	0	3	3	1	4	0	5	13
08:30 AM	**4**	0	0	**4**	0	3	0	3	0	**1**	**4**	**5**	**2**	5	1	**8**	**20**
08:45 AM	2	0	0	2	0	**6**	0	**6**	**1**	0	0	1	0	**6**	1	7	16
Total Volume	8	1	0	9	0	17	1	18	1	1	9	11	3	18	3	24	62
% App. Total	88.9	11.1	0		0	94.4	5.6		9.1	9.1	81.8		12.5	75	12.5		
PHF	.500	.250	.000	.563	.000	.708	.250	.750	.250	.250	.563	.550	.375	.750	.750	.750	.775

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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Mobil Driveway/ Ridge Hill Road
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-A
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
Apprch %	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	50	0	0	0	0	0	0	0	50	0	0	

	Mobil Driveway From North					South Main Street (Route 79) From East					Ridge Hill Road From South					South Main Street (Route 79) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

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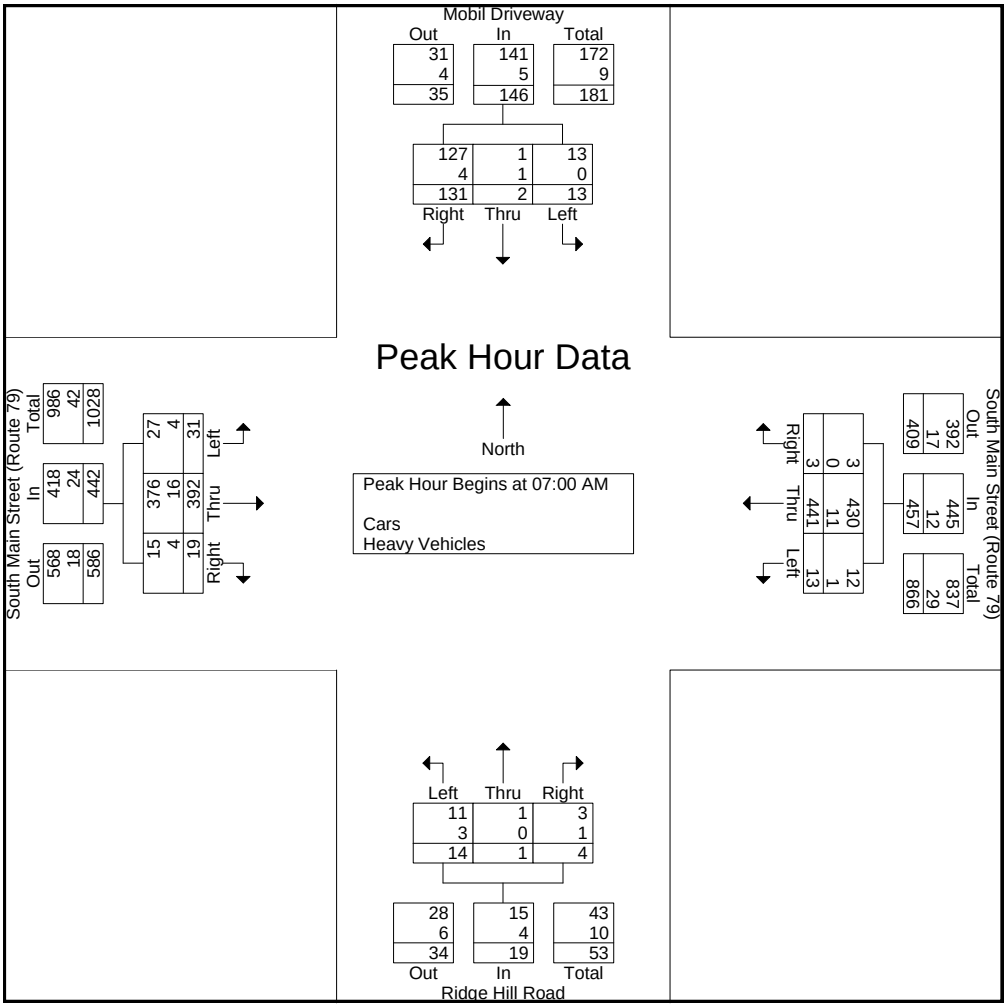
	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	23	0	1	24	**1**	112	**5**	118	1	0	3	4	**6**	80	**13**	99	245
07:15 AM	35	0	4	39	1	110	1	112	0	**1**	1	2	4	101	7	112	265
07:30 AM	**45**	0	3	**48**	0	**116**	4	**120**	**3**	0	**5**	**8**	5	**120**	7	**132**	**308**
07:45 AM	28	**2**	**5**	35	1	103	3	107	0	0	5	5	4	91	4	99	246
Total Volume	131	2	13	146	3	441	13	457	4	1	14	19	19	392	31	442	1064
% App. Total	89.7	1.4	8.9		0.7	96.5	2.8		21.1	5.3	73.7		4.3	88.7	7		
PHF	.728	.250	.650	.760	.750	.950	.650	.952	.333	.250	.700	.594	.792	.817	.596	.837	.864
Cars	127	1	13	141	3	430	12	445	3	1	11	15	15	376	27	418	1019
% Cars	96.9	50.0	100	96.6	100	97.5	92.3	97.4	75.0	100	78.6	78.9	78.9	95.9	87.1	94.6	95.8
Heavy Vehicles	4	1	0	5	0	11	1	12	1	0	3	4	4	16	4	24	45
% Heavy Vehicles	3.1	50.0	0	3.4	0	2.5	7.7	2.6	25.0	0	21.4	21.1	21.1	4.1	12.9	5.4	4.2



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Client: VHB/ J. Quitter

File Name : 81676F-AAA
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Mobil Driveway From North			South Main Street (Route 79) From East			Ridge Hill Road From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	11	0	1	0	86	2	2	2	7	9	104	4	228
04:15 PM	20	0	3	0	99	2	2	0	11	6	122	13	278
04:30 PM	23	0	1	1	79	2	4	0	8	6	129	10	263
04:45 PM	24	0	2	0	99	1	5	0	7	9	140	7	294
Total	78	0	7	1	363	7	13	2	33	30	495	34	1063
05:00 PM	14	1	1	0	113	2	6	0	5	4	122	5	273
05:15 PM	12	2	2	1	89	2	0	0	4	8	120	8	248
05:30 PM	11	0	2	0	82	2	3	0	5	6	121	8	240
05:45 PM	10	0	2	0	71	3	4	0	4	5	85	5	189
Total	47	3	7	1	355	9	13	0	18	23	448	26	950
Grand Total	125	3	14	2	718	16	26	2	51	53	943	60	2013
Apprch %	88	2.1	9.9	0.3	97.6	2.2	32.9	2.5	64.6	5	89.3	5.7	
Total %	6.2	0.1	0.7	0.1	35.7	0.8	1.3	0.1	2.5	2.6	46.8	3	
Cars	122	3	13	2	701	16	26	1	44	44	918	59	1949
% Cars	97.6	100	92.9	100	97.6	100	100	50	86.3	83	97.3	98.3	96.8
Heavy Vehicles	3	0	1	0	17	0	0	1	7	9	25	1	64
% Heavy Vehicles	2.4	0	7.1	0	2.4	0	0	50	13.7	17	2.7	1.7	3.2

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	20	0	**3**	23	0	99	**2**	101	2	0	**11**	**13**	6	122	**13**	141	278
04:30 PM	23	0	1	24	**1**	79	2	82	4	0	8	12	6	129	10	145	263
04:45 PM	**24**	0	2	**26**	0	99	1	100	5	0	7	12	**9**	**140**	7	**156**	**294**
05:00 PM	14	**1**	1	16	0	**113**	2	**115**	**6**	0	5	11	4	122	5	131	273
Total Volume	81	1	7	89	1	390	7	398	17	0	31	48	25	513	35	573	1108
% App. Total	91	1.1	7.9		0.3	98	1.8		35.4	0	64.6		4.4	89.5	6.1		
PHF	.844	.250	.583	.856	.250	.863	.875	.865	.708	.000	.705	.923	.694	.916	.673	.918	.942
Cars	80	1	6	87	1	378	7	386	17	0	26	43	20	498	35	553	1069
% Cars	98.8	100	85.7	97.8	100	96.9	100	97.0	100	0	83.9	89.6	80.0	97.1	100	96.5	96.5
Heavy Vehicles	1	0	1	2	0	12	0	12	0	0	5	5	5	15	0	20	39
% Heavy Vehicles	1.2	0	14.3	2.2	0	3.1	0	3.0	0	0	16.1	10.4	20.0	2.9	0	3.5	3.5

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Client: VHB/ J. Quitter

File Name : 81676F-AAA
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Mobil Driveway From North			South Main Street (Route 79) From East			Ridge Hill Road From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	9	0	1	0	84	2	2	1	6	6	100	3	214
04:15 PM	20	0	3	0	93	2	2	0	10	5	118	13	266
04:30 PM	23	0	1	1	77	2	4	0	7	6	125	10	256
04:45 PM	24	0	2	0	97	1	5	0	5	5	136	7	282
Total	76	0	7	1	351	7	13	1	28	22	479	33	1018
05:00 PM	13	1	0	0	111	2	6	0	4	4	119	5	265
05:15 PM	12	2	2	1	87	2	0	0	4	8	118	8	244
05:30 PM	11	0	2	0	82	2	3	0	4	5	120	8	237
05:45 PM	10	0	2	0	70	3	4	0	4	5	82	5	185
Total	46	3	6	1	350	9	13	0	16	22	439	26	931
Grand Total	122	3	13	2	701	16	26	1	44	44	918	59	1949
Apprch %	88.4	2.2	9.4	0.3	97.5	2.2	36.6	1.4	62	4.3	89.9	5.8	
Total %	6.3	0.2	0.7	0.1	36	0.8	1.3	0.1	2.3	2.3	47.1	3	

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	20	0	**3**	23	0	93	**2**	95	2	0	**10**	**12**	5	118	**13**	136	266
04:30 PM	23	0	1	24	**1**	77	2	80	4	0	7	11	**6**	125	10	141	256
04:45 PM	**24**	0	2	**26**	0	97	1	98	5	0	5	10	5	**136**	7	**148**	**282**
05:00 PM	13	**1**	0	14	0	**111**	2	**113**	**6**	0	4	10	4	119	5	128	265
Total Volume	80	1	6	87	1	378	7	386	17	0	26	43	20	498	35	553	1069
% App. Total	92	1.1	6.9		0.3	97.9	1.8		39.5	0	60.5		3.6	90.1	6.3		
PHF	.833	.250	.500	.837	.250	.851	.875	.854	.708	.000	.650	.896	.833	.915	.673	.934	.948

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Groups Printed- Heavy Vehicles

	Mobil Driveway From North			South Main Street (Route 79) From East			Ridge Hill Road From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	2	0	0	0	2	0	0	1	1	3	4	1	14
04:15 PM	0	0	0	0	6	0	0	0	1	1	4	0	12
04:30 PM	0	0	0	0	2	0	0	0	1	0	4	0	7
04:45 PM	0	0	0	0	2	0	0	0	2	4	4	0	12
Total	2	0	0	0	12	0	0	1	5	8	16	1	45
05:00 PM	1	0	1	0	2	0	0	0	1	0	3	0	8
05:15 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
05:30 PM	0	0	0	0	0	0	0	0	1	1	1	0	3
05:45 PM	0	0	0	0	1	0	0	0	0	0	3	0	4
Total	1	0	1	0	5	0	0	0	2	1	9	0	19
Grand Total	3	0	1	0	17	0	0	1	7	9	25	1	64
Apprch %	75	0	25	0	100	0	0	12.5	87.5	25.7	71.4	2.9	
Total %	4.7	0	1.6	0	26.6	0	0	1.6	10.9	14.1	39.1	1.6	

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**2**	0	0	**2**	0	2	0	2	0	**1**	1	**2**	3	**4**	**1**	**8**	**14**
04:15 PM	0	0	0	0	0	**6**	0	**6**	0	0	1	1	1	4	0	5	12
04:30 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	4	0	4	7
04:45 PM	0	0	0	0	0	2	0	2	0	0	**2**	2	**4**	4	0	8	12
Total Volume	2	0	0	2	0	12	0	12	0	1	5	6	8	16	1	25	45
% App. Total	100	0	0		0	100	0		0	16.7	83.3		32	64	4		
PHF	.250	.000	.000	.250	.000	.500	.000	.500	.000	.250	.625	.750	.500	1.000	.250	.781	.804

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Groups Printed- Peds and Bicycles

	Mobil Driveway From North				South Main Street (Route 79) From East				Ridge Hill Road From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	1	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	0	1	0	0	0	3	0	1	0	5	11
Grand Total	0	0	0	0	0	1	0	1	0	0	0	6	0	2	0	5	15
Apprch %	0	0	0	0	0	50	0	50	0	0	0	100	0	28.6	0	71.4	
Total %	0	0	0	0	0	6.7	0	6.7	0	0	0	40	0	13.3	0	33.3	

	Mobil Driveway From North					South Main Street (Route 79) From East					Ridge Hill Road From South					South Main Street (Route 79) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	**1**	0	0	1	3
05:30 PM	0	0	0	0	0	0	**1**	**0**	**1**	**2**	0	0	0	1	1	0	0	0	1	1	**4**
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	1	0	1	2	0	0	0	3	3	0	1	0	5	6	11
% App. Total	0	0	0	0		0	50	0	50		0	0	0	100		0	16.7	0	83.3		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.000	.375	.375	.000	.250	.000	.417	.500	.688

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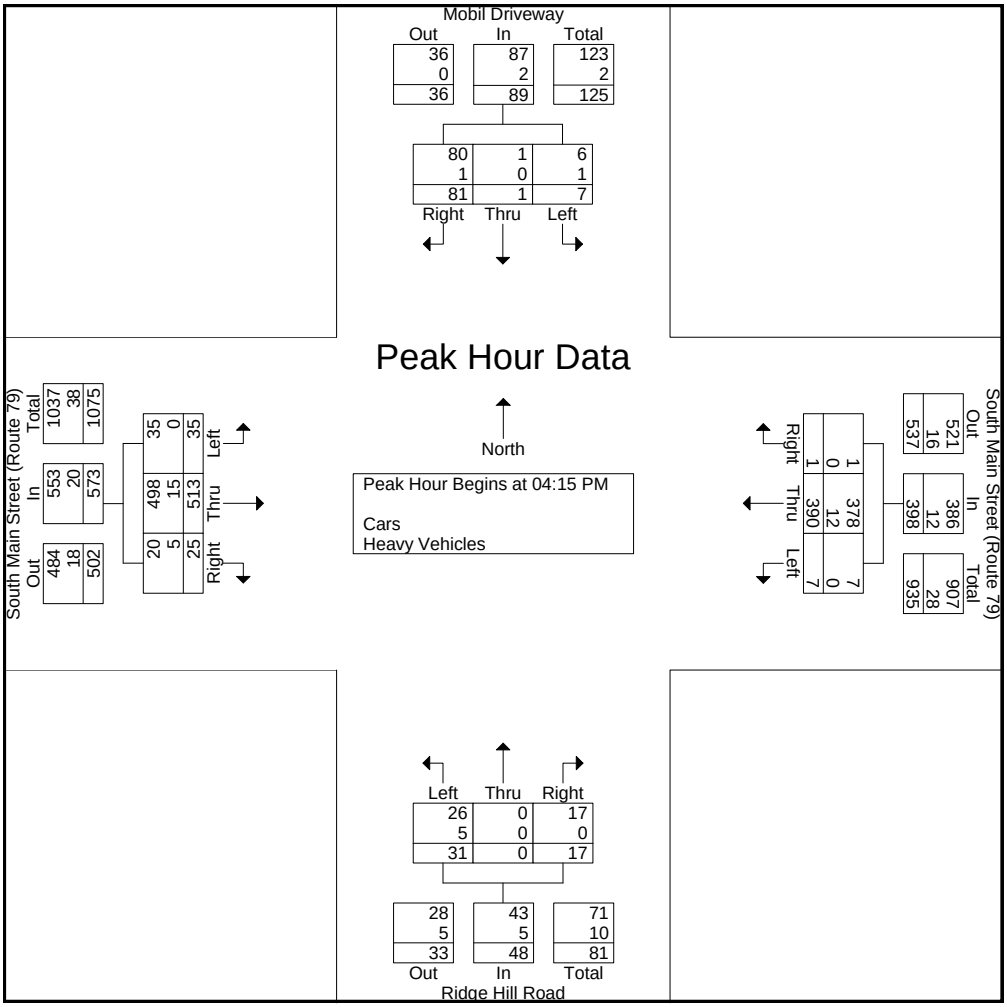
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	20	0	**3**	23	0	99	**2**	101	2	0	**11**	**13**	6	122	**13**	141	278
04:30 PM	23	0	1	24	**1**	79	2	82	4	0	8	12	6	129	10	145	263
04:45 PM	**24**	0	2	**26**	0	99	1	100	5	0	7	12	**9**	**140**	7	**156**	**294**
05:00 PM	14	**1**	1	16	0	**113**	2	**115**	**6**	0	5	11	4	122	5	131	273
Total Volume	81	1	7	89	1	390	7	398	17	0	31	48	25	513	35	573	1108
% App. Total	91	1.1	7.9		0.3	98	1.8		35.4	0	64.6		4.4	89.5	6.1		
PHF	.844	.250	.583	.856	.250	.863	.875	.865	.708	.000	.705	.923	.694	.916	.673	.918	.942
Cars	80	1	6	87	1	378	7	386	17	0	26	43	20	498	35	553	1069
% Cars	98.8	100	85.7	97.8	100	96.9	100	97.0	100	0	83.9	89.6	80.0	97.1	100	96.5	96.5
Heavy Vehicles	1	0	1	2	0	12	0	12	0	0	5	5	5	15	0	20	39
% Heavy Vehicles	1.2	0	14.3	2.2	0	3.1	0	3.0	0	0	16.1	10.4	20.0	2.9	0	3.5	3.5



PRECISION DATA INDUSTRIES, LLC
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N/S: Church Driveway/ High Street
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Driveway From North			South Main Street (Route 79) From East			High Street From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	122	1	3	0	4	0	75	0	205
07:15 AM	0	0	0	2	129	0	3	0	0	1	77	1	213
07:30 AM	0	0	0	0	127	1	3	0	2	0	86	0	219
07:45 AM	0	0	0	2	124	1	3	0	0	1	74	4	209
Total	0	0	0	4	502	3	12	0	6	2	312	5	846
08:00 AM	0	0	0	0	103	2	2	0	0	3	51	0	161
08:15 AM	0	0	0	2	97	1	1	0	2	1	78	2	184
08:30 AM	0	0	0	1	122	1	1	0	1	2	65	5	198
08:45 AM	0	0	0	8	108	1	3	0	1	0	83	4	208
Total	0	0	0	11	430	5	7	0	4	6	277	11	751
Grand Total	0	0	0	15	932	8	19	0	10	8	589	16	1597
Apprch %	0	0	0	1.6	97.6	0.8	65.5	0	34.5	1.3	96.1	2.6	
Total %	0	0	0	0.9	58.4	0.5	1.2	0	0.6	0.5	36.9	1	
Cars	0	0	0	15	909	2	16	0	8	7	566	15	1538
% Cars	0	0	0	100	97.5	25	84.2	0	80	87.5	96.1	93.8	96.3
Heavy Vehicles	0	0	0	0	23	6	3	0	2	1	23	1	59
% Heavy Vehicles	0	0	0	0	2.5	75	15.8	0	20	12.5	3.9	6.2	3.7

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	122	**1**	123	**3**	0	**4**	**7**	0	75	0	75	205
07:15 AM	0	0	0	0	**2**	**129**	0	**131**	3	0	0	3	**1**	77	1	79	213
07:30 AM	0	0	0	0	0	127	1	128	3	0	2	5	0	**86**	0	**86**	**219**
07:45 AM	0	0	0	0	2	124	1	127	3	0	0	3	1	74	**4**	79	209
Total Volume	0	0	0	0	4	502	3	509	12	0	6	18	2	312	5	319	846
% App. Total	0	0	0		0.8	98.6	0.6		66.7	0	33.3		0.6	97.8	1.6		
PHF	.000	.000	.000	.000	.500	.973	.750	.971	1.000	.000	.375	.643	.500	.907	.313	.927	.966
Cars	0	0	0	0	4	492	0	496	10	0	5	15	2	303	5	310	821
% Cars	0	0	0	0	100	98.0	0	97.4	83.3	0	83.3	83.3	100	97.1	100	97.2	97.0
Heavy Vehicles	0	0	0	0	0	10	3	13	2	0	1	3	0	9	0	9	25
% Heavy Vehicles	0	0	0	0	0	2.0	100	2.6	16.7	0	16.7	16.7	0	2.9	0	2.8	3.0

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City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Church Driveway From North			South Main Street (Route 79) From East			High Street From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	120	0	3	0	4	0	74	0	201
07:15 AM	0	0	0	2	126	0	2	0	0	1	71	1	203
07:30 AM	0	0	0	0	126	0	3	0	1	0	86	0	216
07:45 AM	0	0	0	2	120	0	2	0	0	1	72	4	201
Total	0	0	0	4	492	0	10	0	5	2	303	5	821
08:00 AM	0	0	0	0	99	1	2	0	0	3	50	0	155
08:15 AM	0	0	0	2	95	0	0	0	1	0	77	2	177
08:30 AM	0	0	0	1	119	0	1	0	1	2	58	5	187
08:45 AM	0	0	0	8	104	1	3	0	1	0	78	3	198
Total	0	0	0	11	417	2	6	0	3	5	263	10	717
Grand Total	0	0	0	15	909	2	16	0	8	7	566	15	1538
Apprch %	0	0	0	1.6	98.2	0.2	66.7	0	33.3	1.2	96.3	2.6	
Total %	0	0	0	1	59.1	0.1	1	0	0.5	0.5	36.8	1	

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	120	0	120	**3**	0	**4**	**7**	0	74	0	74	201
07:15 AM	0	0	0	0	**2**	**126**	0	**128**	2	0	0	2	**1**	71	1	73	203
07:30 AM	0	0	0	0	0	126	0	126	3	0	1	4	0	**86**	0	**86**	**216**
07:45 AM	0	0	0	0	2	120	0	122	2	0	0	2	1	72	**4**	77	201
Total Volume	0	0	0	0	4	492	0	496	10	0	5	15	2	303	5	310	821
% App. Total	0	0	0		0.8	99.2	0		66.7	0	33.3		0.6	97.7	1.6		
PHF	.000	.000	.000	.000	.500	.976	.000	.969	.833	.000	.313	.536	.500	.881	.313	.901	.950

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Client: VHB/ J. Quitter

File Name : 81676F-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Church Driveway From North			South Main Street (Route 79) From East			High Street From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	2	1	0	0	0	0	1	0	4
07:15 AM	0	0	0	0	3	0	1	0	0	0	6	0	10
07:30 AM	0	0	0	0	1	1	0	0	1	0	0	0	3
07:45 AM	0	0	0	0	4	1	1	0	0	0	2	0	8
Total	0	0	0	0	10	3	2	0	1	0	9	0	25
08:00 AM	0	0	0	0	4	1	0	0	0	0	1	0	6
08:15 AM	0	0	0	0	2	1	1	0	1	1	1	0	7
08:30 AM	0	0	0	0	3	1	0	0	0	0	7	0	11
08:45 AM	0	0	0	0	4	0	0	0	0	0	5	1	10
Total	0	0	0	0	13	3	1	0	1	1	14	1	34
Grand Total	0	0	0	0	23	6	3	0	2	1	23	1	59
Apprch %	0	0	0	0	79.3	20.7	60	0	40	4	92	4	
Total %	0	0	0	0	39	10.2	5.1	0	3.4	1.7	39	1.7	

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	**4**	**1**	**5**	0	0	0	0	0	1	0	1	6
08:15 AM	0	0	0	0	0	2	1	3	**1**	0	**1**	**2**	**1**	1	0	2	7
08:30 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	**7**	0	**7**	**11**
08:45 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	5	**1**	6	10
Total Volume	0	0	0	0	0	13	3	16	1	0	1	2	1	14	1	16	34
% App. Total	0	0	0		0	81.2	18.8		50	0	50		6.2	87.5	6.2		
PHF	.000	.000	.000	.000	.000	.813	.750	.800	.250	.000	.250	.250	.250	.500	.250	.571	.773

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Client: VHB/ J. Quitter

File Name : 81676F-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
Total	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
Apprch %	0	0	0	0	0	0	0	100	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	50	0	0	0	50	0	0	0	0	

	Church Driveway From North					South Main Street (Route 79) From East					High Street From South					South Main Street (Route 79) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	**1**	**1**	0	0	0	0	0	**2**
Total Volume	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	2
% App. Total	0	0	0	0		0	0	0	100		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250

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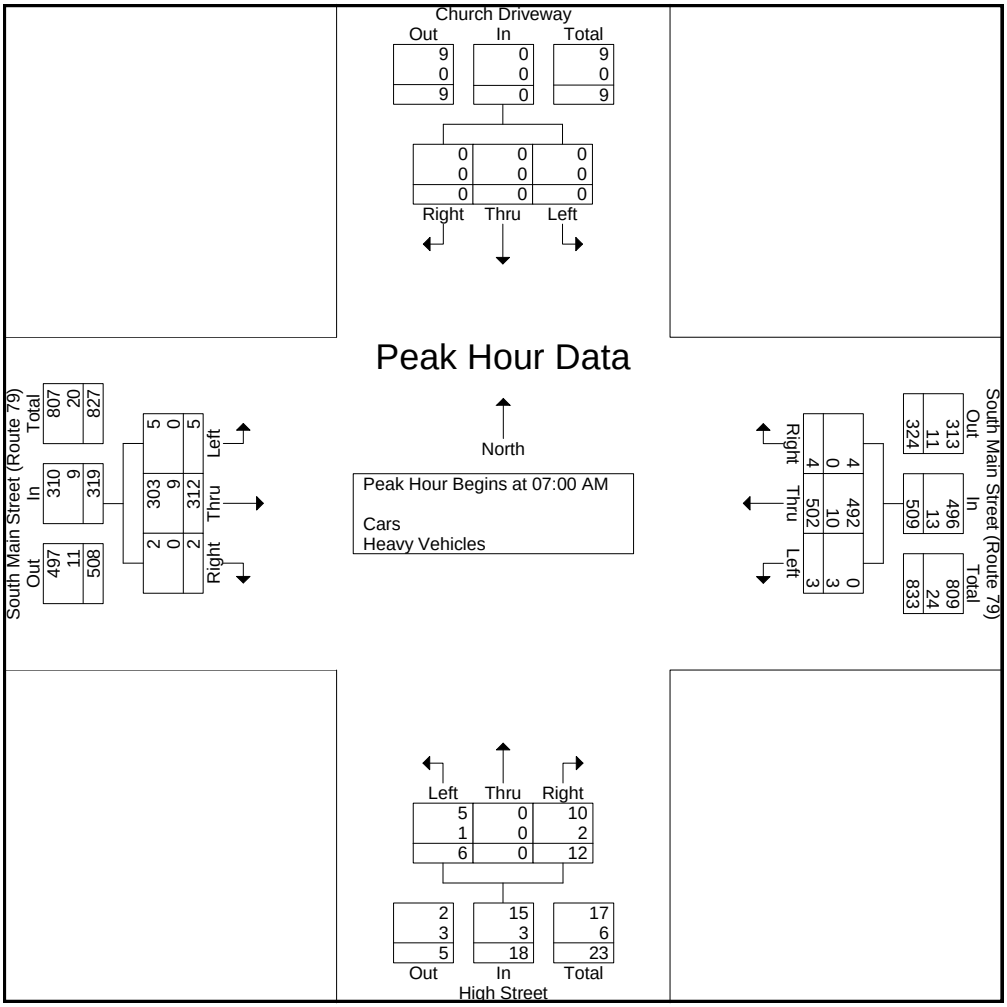
	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	122	**1**	123	**3**	0	**4**	**7**	0	75	0	75	205
07:15 AM	0	0	0	0	**2**	**129**	0	**131**	3	0	0	3	**1**	77	1	79	213
07:30 AM	0	0	0	0	0	127	1	128	3	0	2	5	0	**86**	0	**86**	**219**
07:45 AM	0	0	0	0	2	124	1	127	3	0	0	3	1	74	**4**	79	209
Total Volume	0	0	0	0	4	502	3	509	12	0	6	18	2	312	5	319	846
% App. Total	0	0	0		0.8	98.6	0.6		66.7	0	33.3		0.6	97.8	1.6		
PHF	.000	.000	.000	.000	.500	.973	.750	.971	1.000	.000	.375	.643	.500	.907	.313	.927	.966
Cars	0	0	0	0	4	492	0	496	10	0	5	15	2	303	5	310	821
% Cars	0	0	0	0	100	98.0	0	97.4	83.3	0	83.3	83.3	100	97.1	100	97.2	97.0
Heavy Vehicles	0	0	0	0	0	10	3	13	2	0	1	3	0	9	0	9	25
% Heavy Vehicles	0	0	0	0	0	2.0	100	2.6	16.7	0	16.7	16.7	0	2.9	0	2.8	3.0



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File Name : 81676F-BBB
Site Code : 10111.31
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Driveway From North			South Main Street (Route 79) From East			High Street From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	100	7	3	0	0	1	110	0	221
04:15 PM	0	0	0	0	106	5	2	0	1	1	116	0	231
04:30 PM	0	0	0	1	86	2	3	0	0	4	133	0	229
04:45 PM	0	0	0	0	107	1	1	0	0	3	130	0	242
Total	0	0	0	1	399	15	9	0	1	9	489	0	923
05:00 PM	0	0	0	0	104	4	2	0	3	1	135	0	249
05:15 PM	1	0	0	2	102	2	3	0	3	1	132	2	248
05:30 PM	0	0	0	2	81	2	0	0	1	1	132	2	221
05:45 PM	1	0	0	39	78	3	0	0	0	0	83	11	215
Total	2	0	0	43	365	11	5	0	7	3	482	15	933
Grand Total	2	0	0	44	764	26	14	0	8	12	971	15	1856
Apprch %	100	0	0	5.3	91.6	3.1	63.6	0	36.4	1.2	97.3	1.5	
Total %	0.1	0	0	2.4	41.2	1.4	0.8	0	0.4	0.6	52.3	0.8	
Cars	2	0	0	43	750	24	12	0	8	12	956	14	1821
% Cars	100	0	0	97.7	98.2	92.3	85.7	0	100	100	98.5	93.3	98.1
Heavy Vehicles	0	0	0	1	14	2	2	0	0	0	15	1	35
% Heavy Vehicles	0	0	0	2.3	1.8	7.7	14.3	0	0	0	1.5	6.7	1.9

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	1	86	2	89	**3**	0	0	3	**4**	133	0	**137**	229
04:45 PM	0	0	0	0	0	**107**	1	**108**	1	0	0	1	3	130	0	133	242
05:00 PM	0	0	0	0	0	104	**4**	108	2	0	**3**	5	1	**135**	0	136	**249**
05:15 PM	**1**	0	0	**1**	**2**	102	2	106	3	0	3	**6**	1	132	**2**	135	248
Total Volume	1	0	0	1	3	399	9	411	9	0	6	15	9	530	2	541	968
% App. Total	100	0	0		0.7	97.1	2.2		60	0	40		1.7	98	0.4		
PHF	.250	.000	.000	.250	.375	.932	.563	.951	.750	.000	.500	.625	.563	.981	.250	.987	.972
Cars	1	0	0	1	2	392	8	402	9	0	6	15	9	521	1	531	949
% Cars	100	0	0	100	66.7	98.2	88.9	97.8	100	0	100	100	100	98.3	50.0	98.2	98.0
Heavy Vehicles	0	0	0	0	1	7	1	9	0	0	0	0	0	9	1	10	19
% Heavy Vehicles	0	0	0	0	33.3	1.8	11.1	2.2	0	0	0	0	0	1.7	50.0	1.8	2.0

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File Name : 81676F-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Church Driveway From North			South Main Street (Route 79) From East			High Street From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	98	6	1	0	0	1	106	0	212
04:15 PM	0	0	0	0	102	5	2	0	1	1	115	0	226
04:30 PM	0	0	0	0	84	2	3	0	0	4	129	0	222
04:45 PM	0	0	0	0	104	0	1	0	0	3	128	0	236
Total	0	0	0	0	388	13	7	0	1	9	478	0	896
05:00 PM	0	0	0	0	103	4	2	0	3	1	133	0	246
05:15 PM	1	0	0	2	101	2	3	0	3	1	131	1	245
05:30 PM	0	0	0	2	80	2	0	0	1	1	131	2	219
05:45 PM	1	0	0	39	78	3	0	0	0	0	83	11	215
Total	2	0	0	43	362	11	5	0	7	3	478	14	925
Grand Total	2	0	0	43	750	24	12	0	8	12	956	14	1821
Apprch %	100	0	0	5.3	91.8	2.9	60	0	40	1.2	97.4	1.4	
Total %	0.1	0	0	2.4	41.2	1.3	0.7	0	0.4	0.7	52.5	0.8	

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	84	2	86	**3**	0	0	3	**4**	129	0	133	222
04:45 PM	0	0	0	0	0	**104**	0	104	1	0	0	1	3	128	0	131	236
05:00 PM	0	0	0	0	0	103	**4**	**107**	2	0	**3**	5	1	**133**	0	**134**	**246**
05:15 PM	**1**	0	0	**1**	**2**	101	2	105	3	0	3	**6**	1	131	**1**	133	245
Total Volume	1	0	0	1	2	392	8	402	9	0	6	15	9	521	1	531	949
% App. Total	100	0	0		0.5	97.5	2		60	0	40		1.7	98.1	0.2		
PHF	.250	.000	.000	.250	.250	.942	.500	.939	.750	.000	.500	.625	.563	.979	.250	.991	.964

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N/S: Church Driveway/ High Street
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Church Driveway From North			South Main Street (Route 79) From East			High Street From South			South Main Street (Route 79) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	2	1	2	0	0	0	4	0	9
04:15 PM	0	0	0	0	4	0	0	0	0	0	1	0	5
04:30 PM	0	0	0	1	2	0	0	0	0	0	4	0	7
04:45 PM	0	0	0	0	3	1	0	0	0	0	2	0	6
Total	0	0	0	1	11	2	2	0	0	0	11	0	27
05:00 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
05:15 PM	0	0	0	0	1	0	0	0	0	0	1	1	3
05:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	0	0	0	0	0	4	1	8
Grand Total	0	0	0	1	14	2	2	0	0	0	15	1	35
Apprch %	0	0	0	5.9	82.4	11.8	100	0	0	0	93.8	6.2	
Total %	0	0	0	2.9	40	5.7	5.7	0	0	0	42.9	2.9	

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	2	**1**	3	**2**	0	0	**2**	0	**4**	0	**4**	**9**
04:15 PM	0	0	0	0	0	**4**	0	**4**	0	0	0	0	0	1	0	1	5
04:30 PM	0	0	0	0	**1**	2	0	3	0	0	0	0	0	4	0	4	7
04:45 PM	0	0	0	0	0	3	1	4	0	0	0	0	0	2	0	2	6
Total Volume	0	0	0	0	1	11	2	14	2	0	0	2	0	11	0	11	27
% App. Total	0	0	0		7.1	78.6	14.3		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.250	.688	.500	.875	.250	.000	.000	.250	.000	.688	.000	.688	.750

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City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
05:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	3
Grand Total	0	0	0	2	0	1	0	0	0	0	1	0	0	1	0	2	7
Apprch %	0	0	0	100	0	100	0	0	0	0	100	0	0	33.3	0	66.7	
Total %	0	0	0	28.6	0	14.3	0	0	0	0	14.3	0	0	14.3	0	28.6	

	Church Driveway From North					South Main Street (Route 79) From East					High Street From South					South Main Street (Route 79) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**4**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	1
Total Volume	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	5
% App. Total	0	0	0	100		0	0	0	0		0	0	0	0		0	33.3	0	66.7		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.375	.313

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City, State: Freetown, MA
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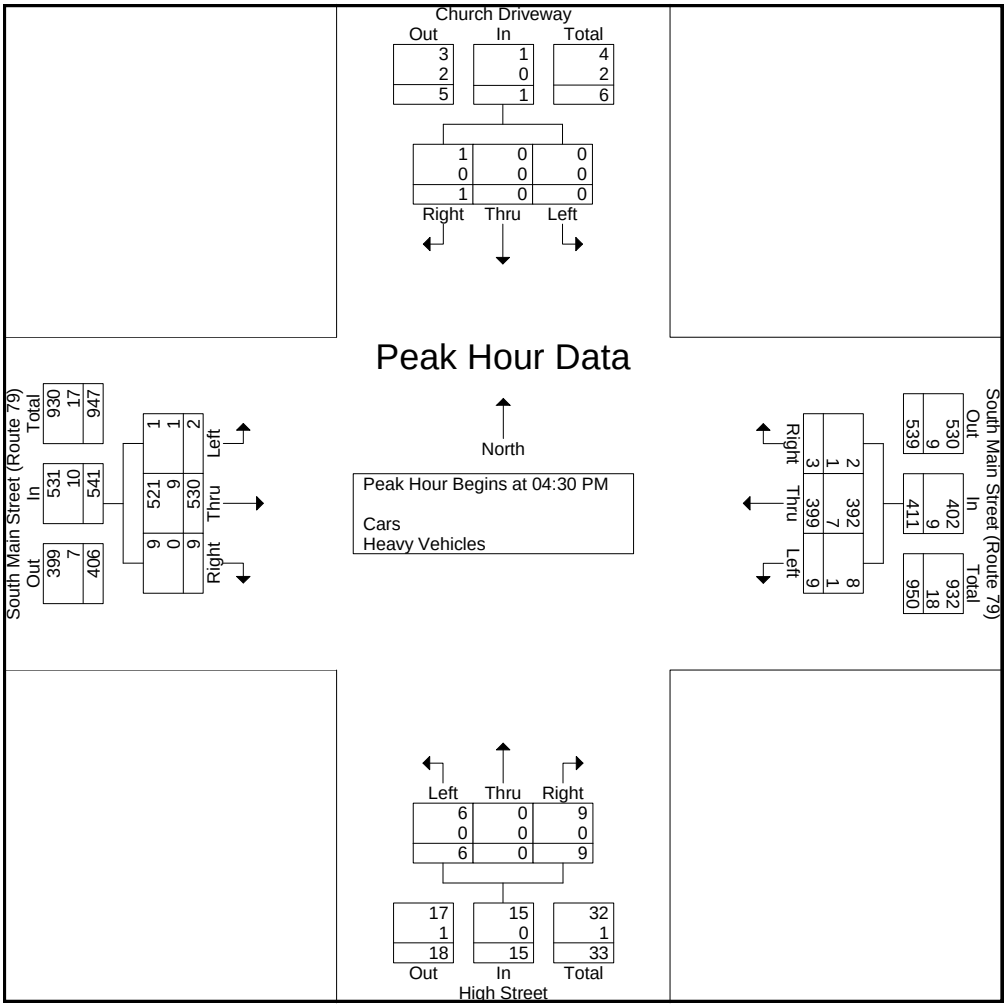
File Name : 81676F-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

	Church Driveway From North				South Main Street (Route 79) From East				High Street From South				South Main Street (Route 79) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	1	86	2	89	**3**	0	0	3	**4**	133	0	**137**	229
04:45 PM	0	0	0	0	0	**107**	1	**108**	1	0	0	1	3	130	0	133	242
05:00 PM	0	0	0	0	0	104	**4**	108	2	0	**3**	5	1	**135**	0	136	**249**
05:15 PM	**1**	0	0	**1**	**2**	102	2	106	3	0	3	**6**	1	132	**2**	135	248
Total Volume	1	0	0	1	3	399	9	411	9	0	6	15	9	530	2	541	968
% App. Total	100	0	0		0.7	97.1	2.2		60	0	40		1.7	98	0.4		
PHF	.250	.000	.000	.250	.375	.932	.563	.951	.750	.000	.500	.625	.563	.981	.250	.987	.972
Cars	1	0	0	1	2	392	8	402	9	0	6	15	9	521	1	531	949
% Cars	100	0	0	100	66.7	98.2	88.9	97.8	100	0	100	100	100	98.3	50.0	98.2	98.0
Heavy Vehicles	0	0	0	0	1	7	1	9	0	0	0	0	0	9	1	10	19
% Heavy Vehicles	0	0	0	0	33.3	1.8	11.1	2.2	0	0	0	0	0	1.7	50.0	1.8	2.0



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E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-C
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Narrows Road From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	2	37	16	41	41	2	139
07:15 AM	3	36	11	45	26	2	123
07:30 AM	1	28	27	44	54	4	158
07:45 AM	4	17	31	54	43	2	151
Total	10	118	85	184	164	10	571
08:00 AM	1	24	32	54	35	1	147
08:15 AM	4	42	27	43	32	2	150
08:30 AM	6	28	27	31	24	2	118
08:45 AM	0	32	18	39	30	0	119
Total	11	126	104	167	121	5	534
Grand Total	21	244	189	351	285	15	1105
Apprch %	7.9	92.1	35	65	95	5	
Total %	1.9	22.1	17.1	31.8	25.8	1.4	
Cars	17	229	168	306	221	12	953
% Cars	81	93.9	88.9	87.2	77.5	80	86.2
Heavy Vehicles	4	15	21	45	64	3	152
% Heavy Vehicles	19	6.1	11.1	12.8	22.5	20	13.8

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	1	28	29	27	44	71	**54**	**4**	**58**	**158**
07:45 AM	**4**	17	21	31	**54**	85	43	2	45	151
08:00 AM	1	24	25	**32**	54	**86**	35	1	36	147
08:15 AM	4	**42**	**46**	27	43	70	32	2	34	150
Total Volume	10	111	121	117	195	312	164	9	173	606
% App. Total	8.3	91.7		37.5	62.5		94.8	5.2		
PHF	.625	.661	.658	.914	.903	.907	.759	.563	.746	.959
Cars	9	100	109	108	171	279	128	8	136	524
% Cars	90.0	90.1	90.1	92.3	87.7	89.4	78.0	88.9	78.6	86.5
Heavy Vehicles	1	11	12	9	24	33	36	1	37	82
% Heavy Vehicles	10.0	9.9	9.9	7.7	12.3	10.6	22.0	11.1	21.4	13.5

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E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-C
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Narrows Road From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	1	37	14	34	36	1	123
07:15 AM	2	35	11	38	21	2	109
07:30 AM	1	27	26	38	44	4	140
07:45 AM	4	16	28	50	36	2	136
Total	8	115	79	160	137	9	508
08:00 AM	1	23	31	48	26	1	130
08:15 AM	3	34	23	35	22	1	118
08:30 AM	5	26	19	28	15	1	94
08:45 AM	0	31	16	35	21	0	103
Total	9	114	89	146	84	3	445
Grand Total	17	229	168	306	221	12	953
Apprch %	6.9	93.1	35.4	64.6	94.8	5.2	
Total %	1.8	24	17.6	32.1	23.2	1.3	

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	1	27	28	26	38	64	**44**	**4**	**48**	**140**
07:45 AM	**4**	16	20	28	**50**	78	36	2	38	136
08:00 AM	1	23	24	**31**	48	**79**	26	1	27	130
08:15 AM	3	**34**	**37**	23	35	58	22	1	23	118
Total Volume	9	100	109	108	171	279	128	8	136	524
% App. Total	8.3	91.7		38.7	61.3		94.1	5.9		
PHF	.563	.735	.736	.871	.855	.883	.727	.500	.708	.936

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File Name : 81676F-C
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Narrows Road From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	1	0	2	7	5	1	16
07:15 AM	1	1	0	7	5	0	14
07:30 AM	0	1	1	6	10	0	18
07:45 AM	0	1	3	4	7	0	15
Total	2	3	6	24	27	1	63
08:00 AM	0	1	1	6	9	0	17
08:15 AM	1	8	4	8	10	1	32
08:30 AM	1	2	8	3	9	1	24
08:45 AM	0	1	2	4	9	0	16
Total	2	12	15	21	37	2	89
Grand Total	4	15	21	45	64	3	152
Apprch %	21.1	78.9	31.8	68.2	95.5	4.5	
Total %	2.6	9.9	13.8	29.6	42.1	2	

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	1	1	3	4	7	7	0	7	15
08:00 AM	0	1	1	1	6	7	9	0	9	17
08:15 AM	**1**	**8**	**9**	4	**8**	**12**	**10**	**1**	**11**	**32**
08:30 AM	**1**	**2**	**3**	**8**	3	11	9	1	10	24
Total Volume	2	12	14	16	21	37	35	2	37	88
% App. Total	14.3	85.7		43.2	56.8		94.6	5.4		
PHF	.500	.375	.389	.500	.656	.771	.875	.500	.841	.688

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File Name : 81676F-C
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	1	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1
Grand Total	0	1	0	0	0	0	0	0	1	2
Apprch %	0	100	0	0	0	0	0	0	100	
Total %	0	50	0	0	0	0	0	0	50	

	Narrows Road From North				South Main Street From East				South Main Street From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	**1**	**0**	**1**	0	0	0	0	0	0	0	0	**1**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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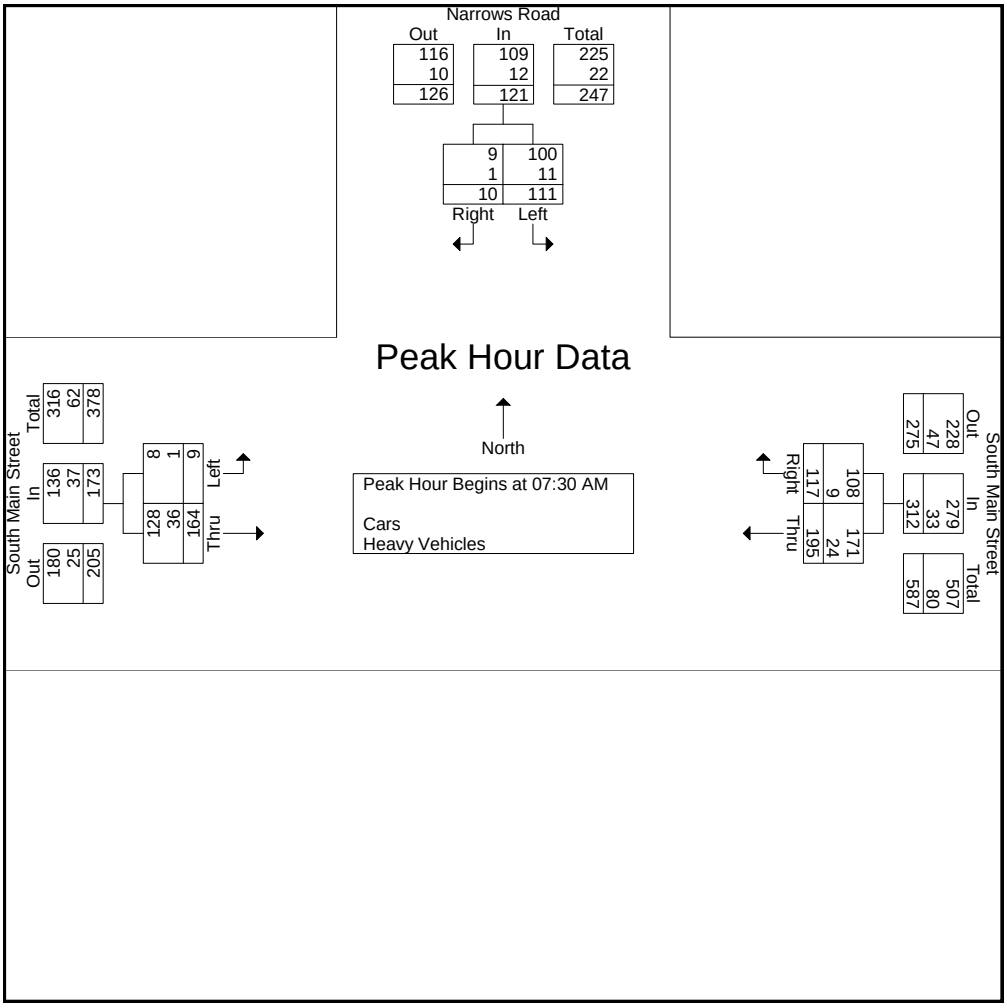
	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	1	28	29	27	44	71	**54**	**4**	**58**	**158**
07:45 AM	**4**	17	21	31	**54**	85	43	2	45	151
08:00 AM	1	24	25	**32**	54	**86**	35	1	36	147
08:15 AM	4	**42**	**46**	27	43	70	32	2	34	150
Total Volume	10	111	121	117	195	312	164	9	173	606
% App. Total	8.3	91.7		37.5	62.5		94.8	5.2		
PHF	.625	.661	.658	.914	.903	.907	.759	.563	.746	.959
Cars	9	100	109	108	171	279	128	8	136	524
% Cars	90.0	90.1	90.1	92.3	87.7	89.4	78.0	88.9	78.6	86.5
Heavy Vehicles	1	11	12	9	24	33	36	1	37	82
% Heavy Vehicles	10.0	9.9	9.9	7.7	12.3	10.6	22.0	11.1	21.4	13.5



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Client: VHB/ J. Quitter

File Name : 81676F-CCC
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Narrows Road From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	3	32	28	50	44	6	163
04:15 PM	4	31	35	59	39	4	172
04:30 PM	7	31	30	66	57	7	198
04:45 PM	1	23	20	65	49	5	163
Total	15	117	113	240	189	22	696
05:00 PM	3	24	34	55	54	6	176
05:15 PM	1	30	41	46	60	10	188
05:30 PM	5	22	24	39	46	1	137
05:45 PM	3	19	39	25	31	8	125
Total	12	95	138	165	191	25	626
Grand Total	27	212	251	405	380	47	1322
Apprch %	11.3	88.7	38.3	61.7	89	11	
Total %	2	16	19	30.6	28.7	3.6	
Cars	24	204	241	366	342	46	1223
% Cars	88.9	96.2	96	90.4	90	97.9	92.5
Heavy Vehicles	3	8	10	39	38	1	99
% Heavy Vehicles	11.1	3.8	4	9.6	10	2.1	7.5

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
04:30 PM	**7**	**31**	**38**	30	**66**	**96**	57	7	64	**198**
04:45 PM	**1**	**23**	**24**	**20**	**65**	**85**	**49**	**5**	**54**	**163**
05:00 PM	**3**	**24**	**27**	**34**	**55**	**89**	**54**	**6**	**60**	**176**
05:15 PM	**1**	**30**	**31**	**41**	46	87	**60**	**10**	**70**	188
Total Volume	12	108	120	125	232	357	220	28	248	725
% App. Total	10	90		35	65		88.7	11.3		
PHF	.429	.871	.789	.762	.879	.930	.917	.700	.886	.915
Cars	9	106	115	121	205	326	198	27	225	666
% Cars	75.0	98.1	95.8	96.8	88.4	91.3	90.0	96.4	90.7	91.9
Heavy Vehicles	3	2	5	4	27	31	22	1	23	59
% Heavy Vehicles	25.0	1.9	4.2	3.2	11.6	8.7	10.0	3.6	9.3	8.1

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Email: datarequests@pdillc.com

N: Narrows Road
E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-CCC
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Narrows Road From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	3	30	26	48	37	6	150
04:15 PM	4	28	31	57	36	4	160
04:30 PM	5	29	28	58	54	7	181
04:45 PM	1	23	19	59	41	5	148
Total	13	110	104	222	168	22	639
05:00 PM	2	24	34	45	48	6	159
05:15 PM	1	30	40	43	55	9	178
05:30 PM	5	22	24	33	41	1	126
05:45 PM	3	18	39	23	30	8	121
Total	11	94	137	144	174	24	584
Grand Total	24	204	241	366	342	46	1223
Apprch %	10.5	89.5	39.7	60.3	88.1	11.9	
Total %	2	16.7	19.7	29.9	28	3.8	

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**5**	29	**34**	28	58	**86**	54	7	61	**181**
04:45 PM	**1**	**23**	**24**	**19**	**59**	78	41	5	46	148
05:00 PM	2	24	26	34	45	79	48	6	54	159
05:15 PM	1	**30**	31	**40**	43	83	**55**	**9**	**64**	178
Total Volume	9	106	115	121	205	326	198	27	225	666
% App. Total	7.8	92.2		37.1	62.9		88	12		
PHF	.450	.883	.846	.756	.869	.948	.900	.750	.879	.920

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File Name : 81676F-CCC
Site Code : 10111.31
Start Date : 9/10/2008
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Groups Printed- Heavy Vehicles

	Narrows Road From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	0	2	2	2	7	0	13
04:15 PM	0	3	4	2	3	0	12
04:30 PM	2	2	2	8	3	0	17
04:45 PM	0	0	1	6	8	0	15
Total	2	7	9	18	21	0	57
05:00 PM	1	0	0	10	6	0	17
05:15 PM	0	0	1	3	5	1	10
05:30 PM	0	0	0	6	5	0	11
05:45 PM	0	1	0	2	1	0	4
Total	1	1	1	21	17	1	42
Grand Total	3	8	10	39	38	1	99
Apprch %	27.3	72.7	20.4	79.6	97.4	2.6	
Total %	3	8.1	10.1	39.4	38.4	1	

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	**3**	3	**4**	2	6	3	0	3	12
04:30 PM	**2**	2	**4**	2	8	**10**	3	0	3	**17**
04:45 PM	**0**	**0**	**0**	**1**	**6**	**7**	**8**	0	**8**	15
05:00 PM	1	0	1	0	**10**	10	6	0	6	17
Total Volume	3	5	8	7	26	33	20	0	20	61
% App. Total	37.5	62.5		21.2	78.8		100	0		
PHF	.375	.417	.500	.438	.650	.825	.625	.000	.625	.897

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File Name : 81676F-CCC
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	0	0	0	0	0	1
Apprch %	0	100	0	0	0	0	0	0	0	
Total %	0	100	0	0	0	0	0	0	0	

	Narrows Road From North				South Main Street From East				South Main Street From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	**1**	**0**	**1**	0	0	0	0	0	0	0	0	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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Client: VHB/ J. Quitter

File Name : 81676F-CCC
Site Code : 10111.31
Start Date : 9/10/2008
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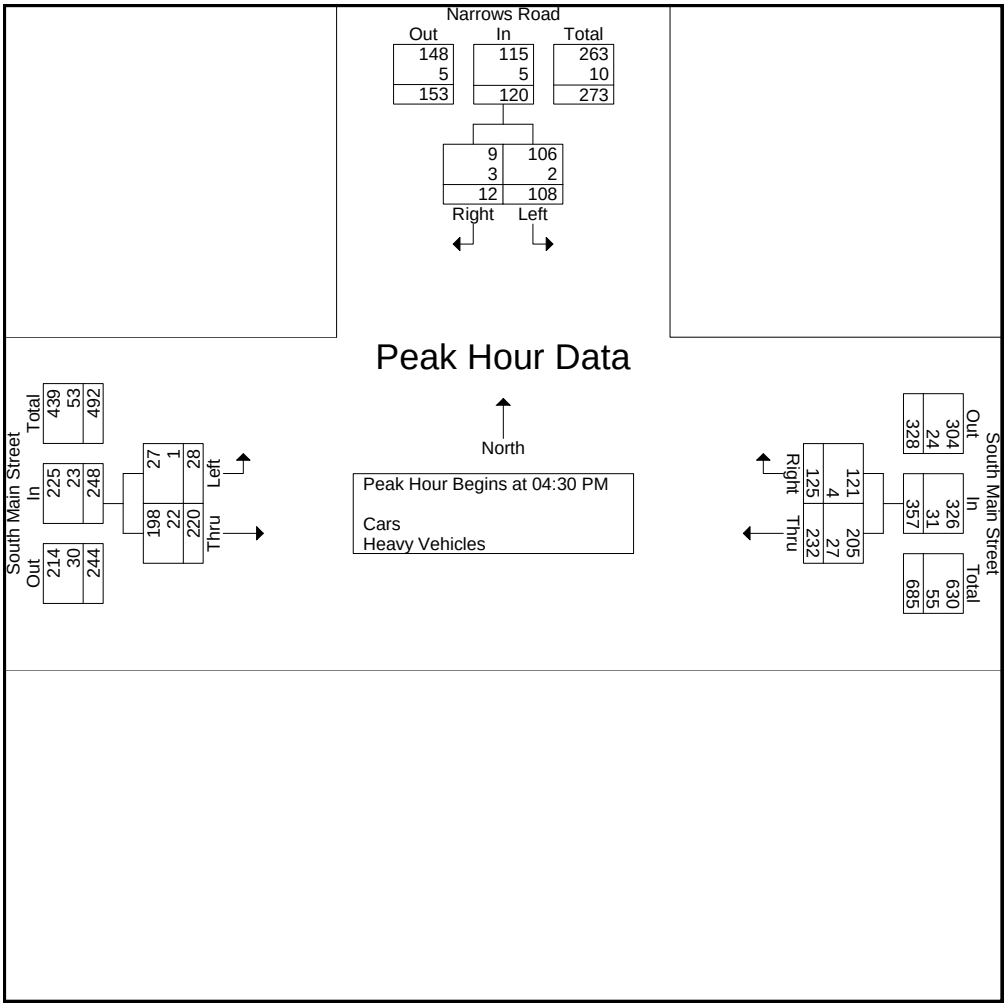
	Narrows Road From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**7**	**31**	**38**	30	**66**	**96**	57	7	64	**198**
04:45 PM	**1**	**23**	**24**	**20**	**65**	**85**	**49**	**5**	**54**	**163**
05:00 PM	**3**	**24**	**27**	**34**	**55**	**89**	**54**	**6**	**60**	**176**
05:15 PM	**1**	**30**	**31**	**41**	46	87	**60**	**10**	**70**	188
Total Volume	12	108	120	125	232	357	220	28	248	725
% App. Total	10	90		35	65		88.7	11.3		
PHF	.429	.871	.789	.762	.879	.930	.917	.700	.886	.915
Cars	9	106	115	121	205	326	198	27	225	666
% Cars	75.0	98.1	95.8	96.8	88.4	91.3	90.0	96.4	90.7	91.9
Heavy Vehicles	3	2	5	4	27	31	22	1	23	59
% Heavy Vehicles	25.0	1.9	4.2	3.2	11.6	8.7	10.0	3.6	9.3	8.1



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N: Route 24 SB Ramps
E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-D
Site Code : 10111.31
Start Date : 9/10/2008
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Groups Printed- Cars - Heavy Vehicles

	Route 24 SB Ramps From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	15	7	87	39	69	16	233
07:15 AM	13	8	91	45	43	21	221
07:30 AM	9	7	95	59	60	23	253
07:45 AM	17	4	54	67	48	8	198
Total	54	26	327	210	220	68	905
08:00 AM	15	6	64	70	51	12	218
08:15 AM	13	10	74	53	53	21	224
08:30 AM	12	4	62	44	39	15	176
08:45 AM	11	6	87	46	50	17	217
Total	51	26	287	213	193	65	835
Grand Total	105	52	614	423	413	133	1740
Apprch %	66.9	33.1	59.2	40.8	75.6	24.4	
Total %	6	3	35.3	24.3	23.7	7.6	
Cars	80	44	590	382	359	113	1568
% Cars	76.2	84.6	96.1	90.3	86.9	85	90.1
Heavy Vehicles	25	8	24	41	54	20	172
% Heavy Vehicles	23.8	15.4	3.9	9.7	13.1	15	9.9

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	15	7	**22**	87	39	126	**69**	16	**85**	233
07:15 AM	13	**8**	21	91	45	136	43	21	64	221
07:30 AM	9	7	16	**95**	59	**154**	60	**23**	83	**253**
07:45 AM	**17**	4	21	54	**67**	121	48	8	56	198
Total Volume	54	26	80	327	210	537	220	68	288	905
% App. Total	67.5	32.5		60.9	39.1		76.4	23.6		
PHF	.794	.813	.909	.861	.784	.872	.797	.739	.847	.894
Cars	41	22	63	319	185	504	195	62	257	824
% Cars	75.9	84.6	78.8	97.6	88.1	93.9	88.6	91.2	89.2	91.0
Heavy Vehicles	13	4	17	8	25	33	25	6	31	81
% Heavy Vehicles	24.1	15.4	21.3	2.4	11.9	6.1	11.4	8.8	10.8	9.0

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N: Route 24 SB Ramps
E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-D
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Route 24 SB Ramps From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	11	5	86	35	63	16	216
07:15 AM	7	6	87	37	39	20	196
07:30 AM	7	7	93	50	49	21	227
07:45 AM	16	4	53	63	44	5	185
Total	41	22	319	185	195	62	824
08:00 AM	10	5	60	67	45	8	195
08:15 AM	11	9	71	45	44	18	198
08:30 AM	9	2	58	40	34	11	154
08:45 AM	9	6	82	45	41	14	197
Total	39	22	271	197	164	51	744
Grand Total	80	44	590	382	359	113	1568
Apprch %	64.5	35.5	60.7	39.3	76.1	23.9	
Total %	5.1	2.8	37.6	24.4	22.9	7.2	

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	11	5	16	86	35	121	**63**	16	**79**	216
07:15 AM	7	6	13	87	37	124	39	20	59	196
07:30 AM	7	**7**	14	**93**	50	**143**	49	**21**	70	**227**
07:45 AM	**16**	4	**20**	53	**63**	116	44	5	49	185
Total Volume	41	22	63	319	185	504	195	62	257	824
% App. Total	65.1	34.9		63.3	36.7		75.9	24.1		
PHF	.641	.786	.788	.858	.734	.881	.774	.738	.813	.907

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Client: VHB/ J. Quitter

File Name : 81676F-D
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Route 24 SB Ramps From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	4	2	1	4	6	0	17
07:15 AM	6	2	4	8	4	1	25
07:30 AM	2	0	2	9	11	2	26
07:45 AM	1	0	1	4	4	3	13
Total	13	4	8	25	25	6	81
08:00 AM	5	1	4	3	6	4	23
08:15 AM	2	1	3	8	9	3	26
08:30 AM	3	2	4	4	5	4	22
08:45 AM	2	0	5	1	9	3	20
Total	12	4	16	16	29	14	91
Grand Total	25	8	24	41	54	20	172
Apprch %	75.8	24.2	36.9	63.1	73	27	
Total %	14.5	4.7	14	23.8	31.4	11.6	

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**5**	1	**6**	4	3	7	6	**4**	10	23
08:15 AM	2	1	3	3	**8**	**11**	**9**	3	**12**	**26**
08:30 AM	**3**	**2**	5	4	4	8	5	4	9	22
08:45 AM	2	0	2	**5**	1	6	9	3	12	20
Total Volume	12	4	16	16	16	32	29	14	43	91
% App. Total	75	25		50	50		67.4	32.6		
PHF	.600	.500	.667	.800	.500	.727	.806	.875	.896	.875

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Client: VHB/ J. Quitter

File Name : 81676F-D
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	1	1	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	1	1	0	0	2
Apprch %	0	0	0	0	0	100	100	0	0	
Total %	0	0	0	0	0	50	50	0	0	

	Route 24 SB Ramps From North				South Main Street From East				South Main Street From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	1	1	0	0	1	2
% App. Total	0	0	0		0	0	100		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.250	.000	.000	.250	.500

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E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-D
Site Code : 10111.31
Start Date : 9/10/2008
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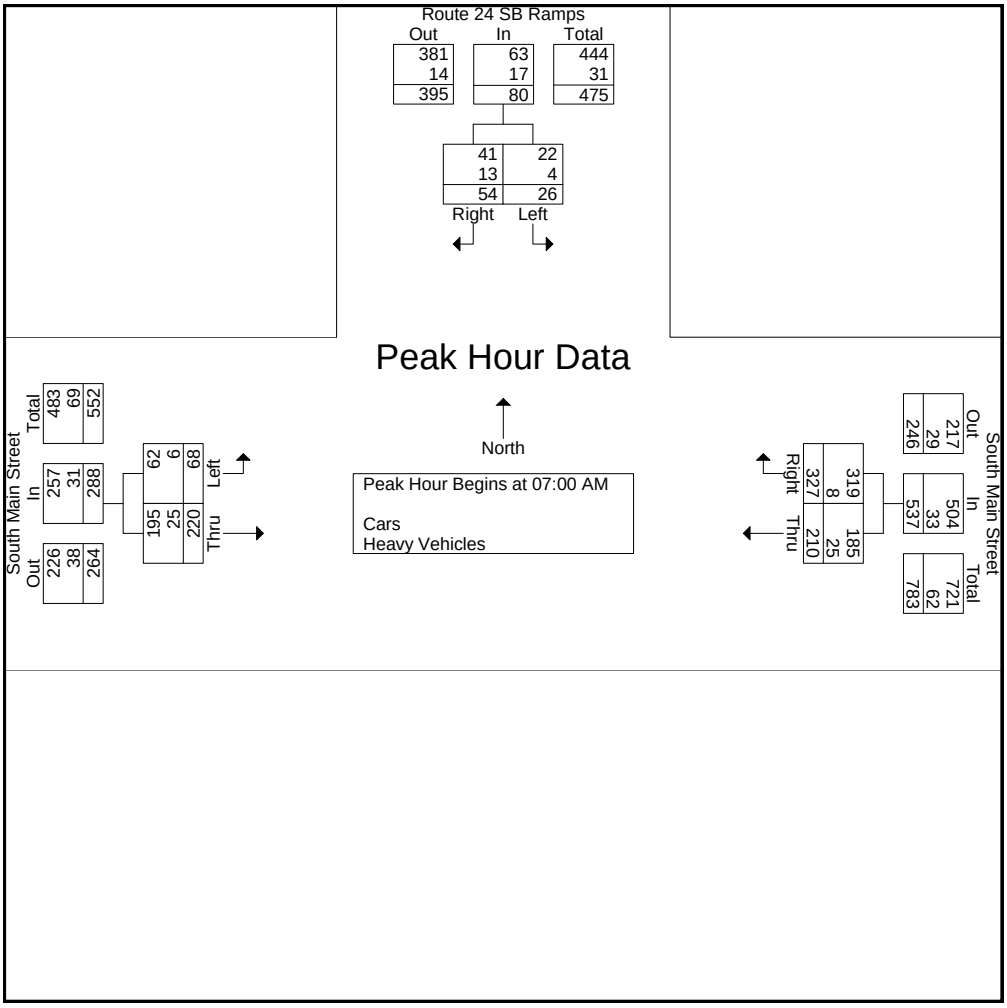
	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	15	7	**22**	87	39	126	**69**	16	**85**	233
07:15 AM	13	**8**	21	91	45	136	43	21	64	221
07:30 AM	9	7	16	**95**	59	**154**	60	**23**	83	**253**
07:45 AM	**17**	4	21	54	**67**	121	48	8	56	198
Total Volume	54	26	80	327	210	537	220	68	288	905
% App. Total	67.5	32.5		60.9	39.1		76.4	23.6		
PHF	.794	.813	.909	.861	.784	.872	.797	.739	.847	.894
Cars	41	22	63	319	185	504	195	62	257	824
% Cars	75.9	84.6	78.8	97.6	88.1	93.9	88.6	91.2	89.2	91.0
Heavy Vehicles	13	4	17	8	25	33	25	6	31	81
% Heavy Vehicles	24.1	15.4	21.3	2.4	11.9	6.1	11.4	8.8	10.8	9.0



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N: Route 24 SB Ramps
E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Route 24 SB Ramps From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	24	13	58	53	51	23	222
04:15 PM	24	16	60	71	59	11	241
04:30 PM	30	13	51	65	72	15	246
04:45 PM	17	10	61	74	67	8	237
Total	95	52	230	263	249	57	946
05:00 PM	19	7	72	66	51	22	237
05:15 PM	14	9	53	80	70	17	243
05:30 PM	10	6	50	50	58	11	185
05:45 PM	23	9	46	39	45	10	172
Total	66	31	221	235	224	60	837
Grand Total	161	83	451	498	473	117	1783
Apprch %	66	34	47.5	52.5	80.2	19.8	
Total %	9	4.7	25.3	27.9	26.5	6.6	
Cars	135	74	442	465	440	105	1661
% Cars	83.9	89.2	98	93.4	93	89.7	93.2
Heavy Vehicles	26	9	9	33	33	12	122
% Heavy Vehicles	16.1	10.8	2	6.6	7	10.3	6.8

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
04:30 PM	**30**	**13**	**43**	51	65	116	**72**	15	**87**	**246**
04:45 PM	**17**	**10**	**27**	**61**	**74**	**135**	**67**	**8**	**75**	**237**
05:00 PM	**19**	**7**	**26**	**72**	66	**138**	51	**22**	73	237
05:15 PM	14	9	23	53	**80**	133	70	17	87	243
Total Volume	80	39	119	237	285	522	260	62	322	963
% App. Total	67.2	32.8		45.4	54.6		80.7	19.3		
PHF	.667	.750	.692	.823	.891	.946	.903	.705	.925	.979
Cars	65	36	101	230	265	495	243	56	299	895
% Cars	81.3	92.3	84.9	97.0	93.0	94.8	93.5	90.3	92.9	92.9
Heavy Vehicles	15	3	18	7	20	27	17	6	23	68
% Heavy Vehicles	18.8	7.7	15.1	3.0	7.0	5.2	6.5	9.7	7.1	7.1

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N: Route 24 SB Ramps
E/W: South Main Street
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Route 24 SB Ramps From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	19	9	58	46	46	20	198
04:15 PM	22	15	59	69	55	9	229
04:30 PM	27	12	51	61	69	15	235
04:45 PM	13	9	59	69	61	8	219
Total	81	45	227	245	231	52	881
05:00 PM	14	7	68	60	48	19	216
05:15 PM	11	8	52	75	65	14	225
05:30 PM	9	6	50	47	53	10	175
05:45 PM	20	8	45	38	43	10	164
Total	54	29	215	220	209	53	780
Grand Total	135	74	442	465	440	105	1661
Apprch %	64.6	35.4	48.7	51.3	80.7	19.3	
Total %	8.1	4.5	26.6	28	26.5	6.3	

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	22	**15**	37	59	**69**	**128**	55	9	64	229
04:30 PM	**27**	12	**39**	51	61	112	**69**	15	**84**	**235**
04:45 PM	**13**	**9**	**22**	**59**	**69**	**128**	**61**	**8**	**69**	**219**
05:00 PM	**14**	**7**	**21**	**68**	60	128	48	**19**	67	216
Total Volume	76	43	119	237	259	496	233	51	284	899
% App. Total	63.9	36.1		47.8	52.2		82	18		
PHF	.704	.717	.763	.871	.938	.969	.844	.671	.845	.956

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File Name : 81676F-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Route 24 SB Ramps From North		South Main Street From East		South Main Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	5	4	0	7	5	3	24
04:15 PM	2	1	1	2	4	2	12
04:30 PM	3	1	0	4	3	0	11
04:45 PM	4	1	2	5	6	0	18
Total	14	7	3	18	18	5	65
05:00 PM	5	0	4	6	3	3	21
05:15 PM	3	1	1	5	5	3	18
05:30 PM	1	0	0	3	5	1	10
05:45 PM	3	1	1	1	2	0	8
Total	12	2	6	15	15	7	57
Grand Total	26	9	9	33	33	12	122
Apprch %	74.3	25.7	21.4	78.6	73.3	26.7	
Total %	21.3	7.4	7.4	27	27	9.8	

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	3	**1**	4	0	4	4	3	0	3	11
04:45 PM	4	1	**5**	2	5	7	**6**	0	6	18
05:00 PM	**5**	0	5	**4**	**6**	**10**	3	**3**	6	**21**
05:15 PM	**3**	**1**	**4**	**1**	**5**	**6**	**5**	**3**	**8**	18
Total Volume	15	3	18	7	20	27	17	6	23	68
% App. Total	83.3	16.7		25.9	74.1		73.9	26.1		
PHF	.750	.750	.900	.438	.833	.675	.708	.500	.719	.810

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File Name : 81676F-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	1	1	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	1
05:30 PM	0	0	0	0	1	0	0	0	0	1
05:45 PM	0	0	0	0	0	2	0	0	0	2
Total	0	0	0	0	1	2	1	0	0	4
Grand Total	0	0	0	0	1	3	2	0	0	6
Apprch %	0	0	0	0	25	75	100	0	0	
Total %	0	0	0	0	16.7	50	33.3	0	0	

	Route 24 SB Ramps From North				South Main Street From East				South Main Street From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	1
05:30 PM	0	0	0	0	0	**1**	0	1	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	**2**
Total Volume	0	0	0	0	0	1	2	3	1	0	0	1	4
% App. Total	0	0	0		0	33.3	66.7		100	0	0		
PHF	.000	.000	.000	.000	.000	.250	.250	.375	.250	.000	.000	.250	.500

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Start Date : 9/10/2008
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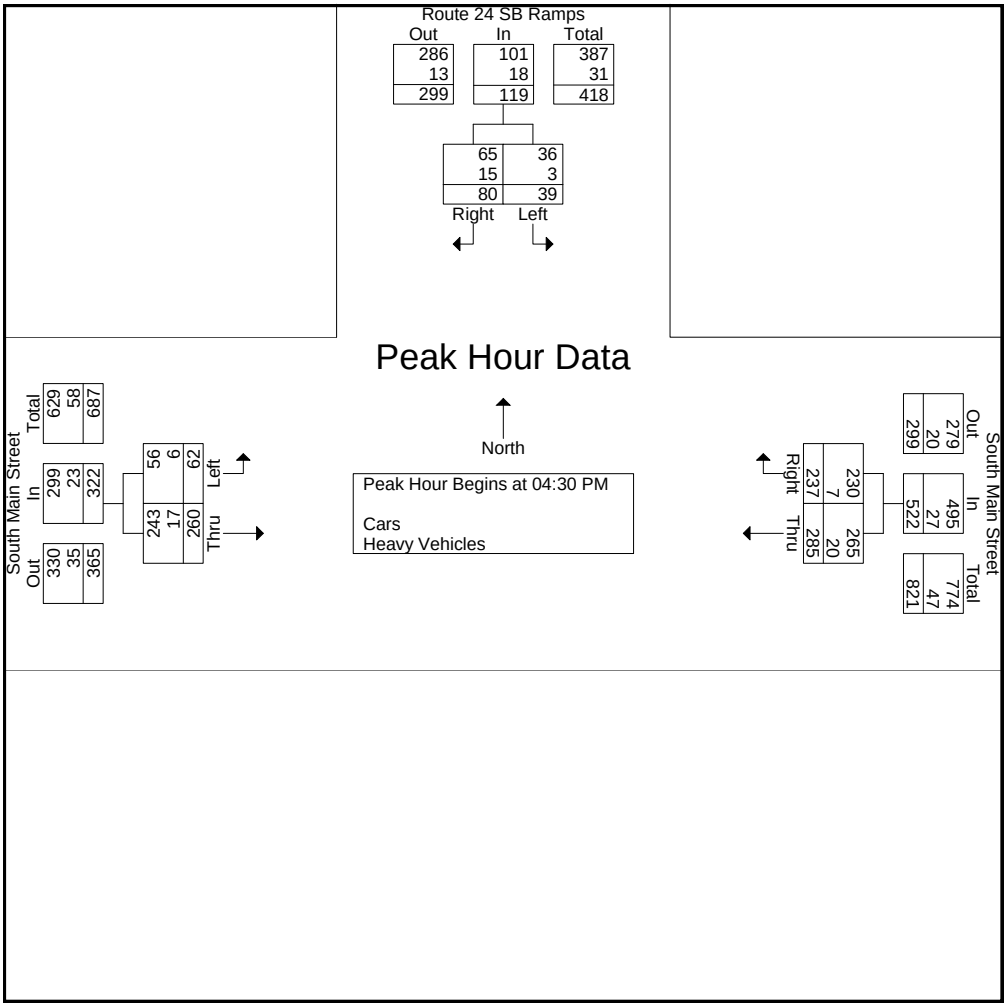
	Route 24 SB Ramps From North			South Main Street From East			South Main Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**30**	**13**	**43**	51	65	116	**72**	15	**87**	**246**
04:45 PM	**17**	**10**	**27**	**61**	**74**	**135**	**67**	**8**	**75**	**237**
05:00 PM	**19**	**7**	**26**	**72**	66	**138**	51	**22**	73	237
05:15 PM	14	9	23	53	**80**	133	70	17	87	243
Total Volume	80	39	119	237	285	522	260	62	322	963
% App. Total	67.2	32.8		45.4	54.6		80.7	19.3		
PHF	.667	.750	.692	.823	.891	.946	.903	.705	.925	.979
Cars	65	36	101	230	265	495	243	56	299	895
% Cars	81.3	92.3	84.9	97.0	93.0	94.8	93.5	90.3	92.9	92.9
Heavy Vehicles	15	3	18	7	20	27	17	6	23	68
% Heavy Vehicles	18.8	7.7	15.1	3.0	7.0	5.2	6.5	9.7	7.1	7.1



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S: Route 24 NB Ramps
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-E
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	South Main Street (Route 79) From East		Route 24 NB Ramps From South		South Main Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	120	16	55	12	26	46	275
07:15 AM	123	17	76	22	14	36	288
07:30 AM	135	29	92	19	23	42	340
07:45 AM	113	25	58	22	13	37	268
Total	491	87	281	75	76	161	1171
08:00 AM	111	27	58	30	16	39	281
08:15 AM	102	24	58	20	21	45	270
08:30 AM	93	14	45	15	12	28	207
08:45 AM	122	14	51	13	12	40	252
Total	428	79	212	78	61	152	1010
Grand Total	919	166	493	153	137	313	2181
Apprch %	84.7	15.3	76.3	23.7	30.4	69.6	
Total %	42.1	7.6	22.6	7	6.3	14.4	
Cars	886	146	470	115	97	289	2003
% Cars	96.4	88	95.3	75.2	70.8	92.3	91.8
Heavy Vehicles	33	20	23	38	40	24	178
% Heavy Vehicles	3.6	12	4.7	24.8	29.2	7.7	8.2

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	123	17	140	76	22	98	14	36	50	288
07:30 AM	**135**	**29**	**164**	**92**	19	**111**	**23**	**42**	**65**	**340**
07:45 AM	**113**	**25**	**138**	**58**	**22**	**80**	**13**	**37**	**50**	**268**
08:00 AM	**111**	**27**	**138**	**58**	**30**	88	16	39	55	281
Total Volume	482	98	580	284	93	377	66	154	220	1177
% App. Total	83.1	16.9		75.3	24.7		30	70		
PHF	.893	.845	.884	.772	.775	.849	.717	.917	.846	.865
Cars	465	88	553	270	69	339	46	143	189	1081
% Cars	96.5	89.8	95.3	95.1	74.2	89.9	69.7	92.9	85.9	91.8
Heavy Vehicles	17	10	27	14	24	38	20	11	31	96
% Heavy Vehicles	3.5	10.2	4.7	4.9	25.8	10.1	30.3	7.1	14.1	8.2

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S: Route 24 NB Ramps
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-E
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	South Main Street (Route 79) From East		Route 24 NB Ramps From South		South Main Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	119	14	54	7	20	44	258
07:15 AM	119	15	71	12	10	31	258
07:30 AM	129	26	88	13	16	39	311
07:45 AM	111	23	56	18	10	36	254
Total	478	78	269	50	56	150	1081
08:00 AM	106	24	55	26	10	37	258
08:15 AM	99	21	56	15	14	42	247
08:30 AM	87	11	40	13	8	24	183
08:45 AM	116	12	50	11	9	36	234
Total	408	68	201	65	41	139	922
Grand Total	886	146	470	115	97	289	2003
Apprch %	85.9	14.1	80.3	19.7	25.1	74.9	
Total %	44.2	7.3	23.5	5.7	4.8	14.4	

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	119	14	133	54	7	61	**20**	**44**	**64**	258
07:15 AM	119	15	134	71	12	83	10	31	41	258
07:30 AM	**129**	**26**	**155**	**88**	13	**101**	16	39	55	**311**
07:45 AM	**111**	**23**	**134**	**56**	**18**	74	10	36	46	254
Total Volume	478	78	556	269	50	319	56	150	206	1081
% App. Total	86	14		84.3	15.7		27.2	72.8		
PHF	.926	.750	.897	.764	.694	.790	.700	.852	.805	.869

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Client: VHB/ J. Quitter

File Name : 81676F-E
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	South Main Street (Route 79) From East		Route 24 NB Ramps From South		South Main Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	1	2	1	5	6	2	17
07:15 AM	4	2	5	10	4	5	30
07:30 AM	6	3	4	6	7	3	29
07:45 AM	2	2	2	4	3	1	14
Total	13	9	12	25	20	11	90
08:00 AM	5	3	3	4	6	2	23
08:15 AM	3	3	2	5	7	3	23
08:30 AM	6	3	5	2	4	4	24
08:45 AM	6	2	1	2	3	4	18
Total	20	11	11	13	20	13	88
Grand Total	33	20	23	38	40	24	178
Apprch %	62.3	37.7	37.7	62.3	62.5	37.5	
Total %	18.5	11.2	12.9	21.3	22.5	13.5	

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	4	2	6	**5**	**10**	**15**	4	**5**	9	**30**
07:30 AM	**6**	**3**	**9**	4	6	10	**7**	3	**10**	29
07:45 AM	2	2	4	2	4	6	3	1	4	14
08:00 AM	5	3	8	3	4	7	6	2	8	23
Total Volume	17	10	27	14	24	38	20	11	31	96
% App. Total	63	37		36.8	63.2		64.5	35.5		
PHF	.708	.833	.750	.700	.600	.633	.714	.550	.775	.800

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E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-E
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	1	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	0	0	0	0	1
Grand Total	1	0	0	0	0	0	0	1	0	2
Apprch %	100	0	0	0	0	0	0	100	0	
Total %	50	0	0	0	0	0	0	50	0	

	South Main Street (Route 79) From East				Route 24 NB Ramps From South				South Main Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	**1**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

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E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-E
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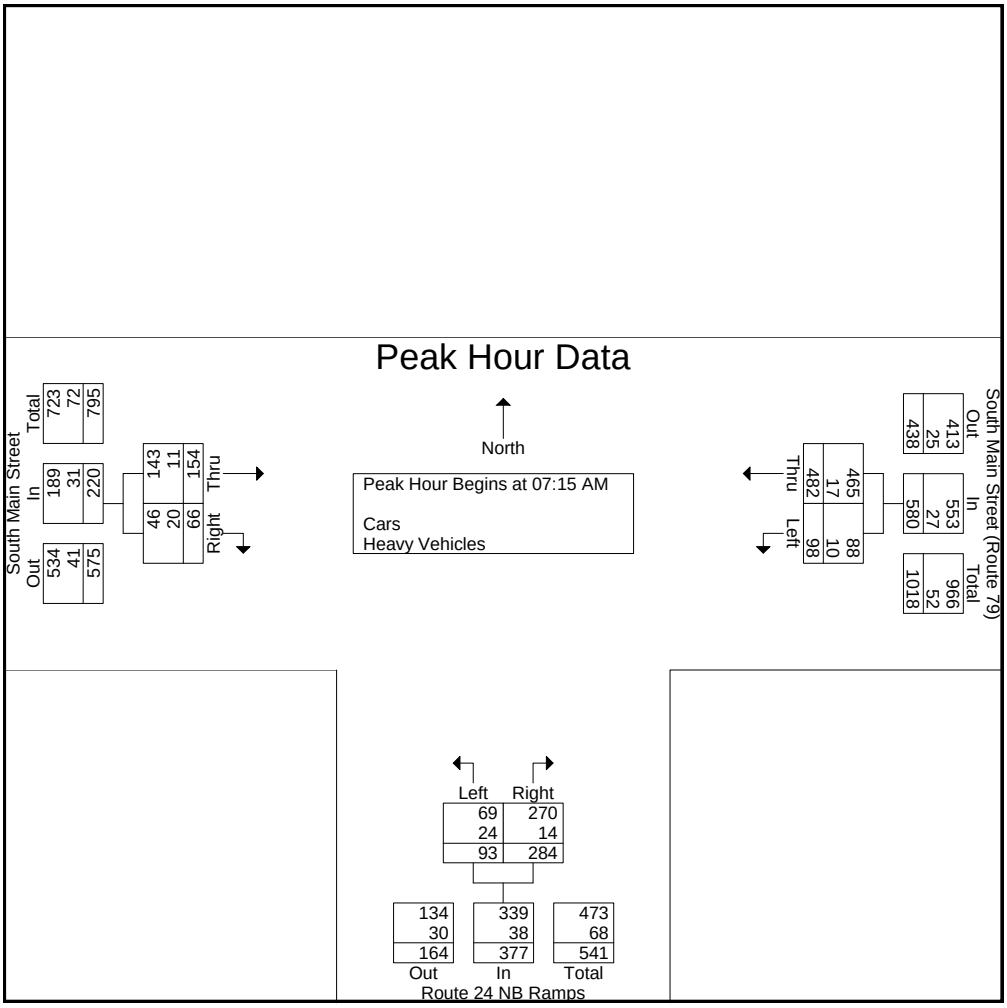
Start Date : 9/10/2008
Page No : 1

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	123	17	140	76	22	98	14	36	50	288
07:30 AM	**135**	**29**	**164**	**92**	19	**111**	**23**	**42**	**65**	**340**
07:45 AM	**113**	**25**	**138**	**58**	**22**	**80**	**13**	**37**	**50**	**268**
08:00 AM	**111**	**27**	**138**	**58**	**30**	88	16	39	55	281
Total Volume	482	98	580	284	93	377	66	154	220	1177
% App. Total	83.1	16.9		75.3	24.7		30	70		
PHF	.893	.845	.884	.772	.775	.849	.717	.917	.846	.865
Cars	465	88	553	270	69	339	46	143	189	1081
% Cars	96.5	89.8	95.3	95.1	74.2	89.9	69.7	92.9	85.9	91.8
Heavy Vehicles	17	10	27	14	24	38	20	11	31	96
% Heavy Vehicles	3.5	10.2	4.7	4.9	25.8	10.1	30.3	7.1	14.1	8.2



PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

S: Route 24 NB Ramps
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-EEE
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	South Main Street (Route 79) From East		Route 24 NB Ramps From South		South Main Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	92	10	77	24	24	42	269
04:15 PM	121	12	94	20	23	45	315
04:30 PM	96	14	82	18	22	64	296
04:45 PM	117	10	95	17	15	62	316
Total	426	46	348	79	84	213	1196
05:00 PM	120	10	92	15	21	39	297
05:15 PM	99	3	83	33	21	58	297
05:30 PM	88	11	85	15	16	46	261
05:45 PM	72	10	62	15	19	33	211
Total	379	34	322	78	77	176	1066
Grand Total	805	80	670	157	161	389	2262
Apprch %	91	9	81	19	29.3	70.7	
Total %	35.6	3.5	29.6	6.9	7.1	17.2	
Cars	783	75	658	131	133	373	2153
% Cars	97.3	93.8	98.2	83.4	82.6	95.9	95.2
Heavy Vehicles	22	5	12	26	28	16	109
% Heavy Vehicles	2.7	6.2	1.8	16.6	17.4	4.1	4.8

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**121**	12	**133**	94	**20**	**114**	**23**	45	68	315
04:30 PM	96	**14**	110	82	18	100	22	**64**	**86**	296
04:45 PM	117	10	127	**95**	17	112	15	62	77	**316**
05:00 PM	**120**	**10**	**130**	**92**	**15**	**107**	**21**	**39**	**60**	**297**
Total Volume	**454**	**46**	**500**	**363**	**70**	**433**	**81**	**210**	**291**	**1224**
% App. Total	**90.8**	**9.2**		**83.8**	**16.2**		**27.8**	**72.2**		
PHF	**.938**	**.821**	**.940**	**.955**	**.875**	**.950**	**.880**	**.820**	**.846**	**.968**
Cars	**438**	**44**	**482**	**355**	**57**	**412**	**69**	**201**	**270**	**1164**
% Cars	**96.5**	**95.7**	**96.4**	**97.8**	**81.4**	**95.2**	**85.2**	**95.7**	**92.8**	**95.1**
Heavy Vehicles	**16**	**2**	**18**	**8**	**13**	**21**	**12**	**9**	**21**	**60**
% Heavy Vehicles	**3.5**	**4.3**	**3.6**	**2.2**	**18.6**	**4.8**	**14.8**	**4.3**	**7.2**	**4.9**

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S: Route 24 NB Ramps
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-EEE
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	South Main Street (Route 79) From East		Route 24 NB Ramps From South		South Main Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	89	8	74	20	18	38	247
04:15 PM	114	12	90	20	18	45	299
04:30 PM	94	14	80	15	21	62	286
04:45 PM	114	8	93	13	11	57	296
Total	411	42	337	68	68	202	1128
05:00 PM	116	10	92	9	19	37	283
05:15 PM	97	3	83	29	17	56	285
05:30 PM	88	10	84	12	11	46	251
05:45 PM	71	10	62	13	18	32	206
Total	372	33	321	63	65	171	1025
Grand Total	783	75	658	131	133	373	2153
Apprch %	91.3	8.7	83.4	16.6	26.3	73.7	
Total %	36.4	3.5	30.6	6.1	6.2	17.3	

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	114	12	**126**	90	**20**	**110**	18	45	63	**299**
04:30 PM	**94**	**14**	108	80	15	95	**21**	**62**	**83**	286
04:45 PM	114	8	122	**93**	13	106	11	57	68	296
05:00 PM	**116**	10	126	92	9	101	19	37	56	283
Total Volume	438	44	482	355	57	412	69	201	270	1164
% App. Total	90.9	9.1		86.2	13.8		25.6	74.4		
PHF	.944	.786	.956	.954	.713	.936	.821	.810	.813	.973

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E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-EEE
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	South Main Street (Route 79) From East		Route 24 NB Ramps From South		South Main Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	3	2	3	4	6	4	22
04:15 PM	7	0	4	0	5	0	16
04:30 PM	2	0	2	3	1	2	10
04:45 PM	3	2	2	4	4	5	20
Total	15	4	11	11	16	11	68
05:00 PM	4	0	0	6	2	2	14
05:15 PM	2	0	0	4	4	2	12
05:30 PM	0	1	1	3	5	0	10
05:45 PM	1	0	0	2	1	1	5
Total	7	1	1	15	12	5	41
Grand Total	22	5	12	26	28	16	109
Apprch %	81.5	18.5	31.6	68.4	63.6	36.4	
Total %	20.2	4.6	11	23.9	25.7	14.7	

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	3	**2**	5	3	**4**	**7**	**6**	4	**10**	**22**
04:15 PM	**7**	0	**7**	**4**	0	4	5	0	5	16
04:30 PM	2	0	2	2	3	5	1	2	3	10
04:45 PM	3	2	5	2	4	6	4	**5**	9	20
Total Volume	15	4	19	11	11	22	16	11	27	68
% App. Total	78.9	21.1		50	50		59.3	40.7		
PHF	.536	.500	.679	.688	.688	.786	.667	.550	.675	.773

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Client: VHB/ J. Quitter

File Name : 81676F-EEE
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	3	0	1	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	1	0	4
05:00 PM	0	0	0	0	0	2	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	1	0	1
05:30 PM	1	0	0	0	0	2	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	4	0	1	0	6
Grand Total	1	0	0	0	0	7	0	2	0	10
Apprch %	100	0	0	0	0	100	0	100	0	
Total %	10	0	0	0	0	70	0	20	0	

	South Main Street (Route 79) From East				Route 24 NB Ramps From South				South Main Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	1
05:30 PM	**1**	0	0	**1**	0	0	2	2	0	0	0	0	**3**
Total Volume	1	0	0	1	0	0	4	4	0	1	0	1	6
% App. Total	100	0	0		0	0	100		0	100	0		
PHF	.250	.000	.000	.250	.000	.000	.500	.500	.000	.250	.000	.250	.500

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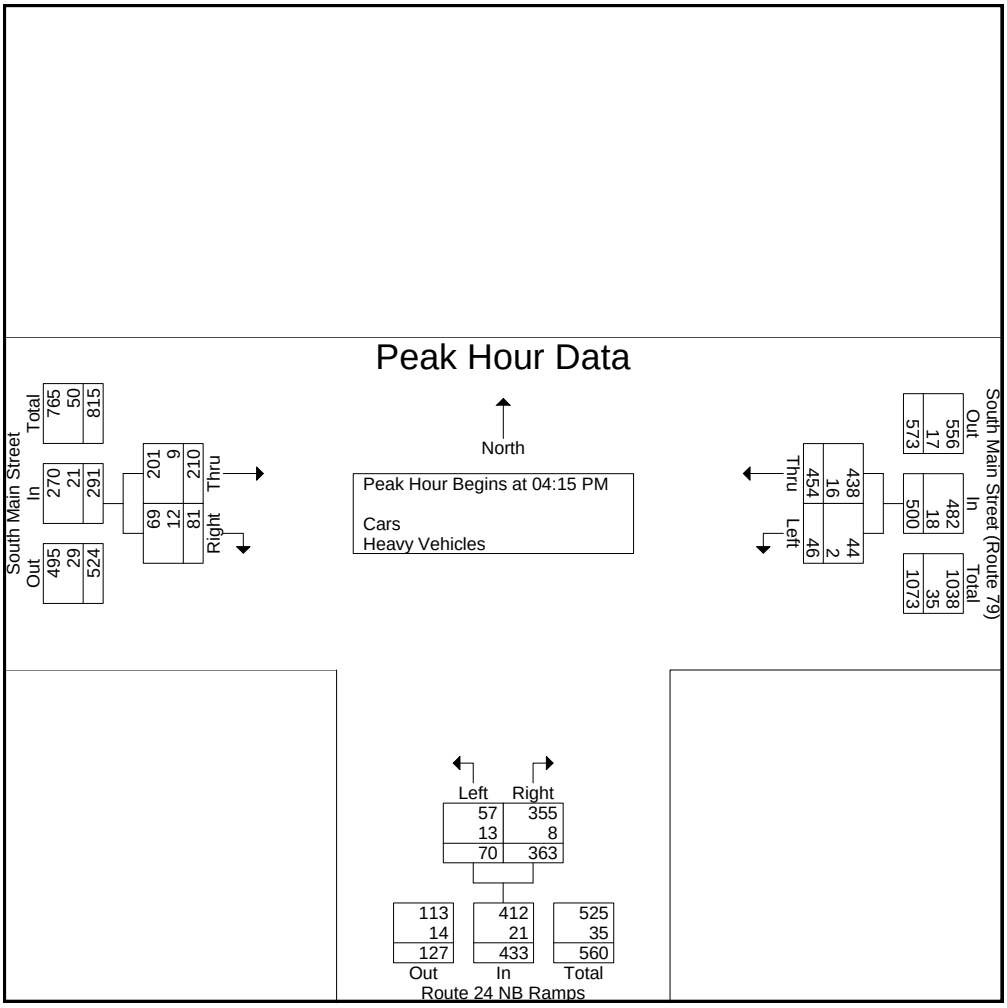
E/W: South Main Street (Route 79)
City, State: Freetown, MA
Client: VHB/ J. Quitter

File Name : 81676F-EEE
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

	South Main Street (Route 79) From East			Route 24 NB Ramps From South			South Main Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**121**	12	**133**	94	**20**	**114**	**23**	45	68	315
04:30 PM	96	**14**	110	82	18	100	22	**64**	**86**	296
04:45 PM	117	10	127	**95**	17	112	15	62	77	**316**
05:00 PM	**120**	**10**	**130**	**92**	**15**	**107**	**21**	**39**	**60**	**297**
Total Volume	**454**	**46**	**500**	**363**	**70**	**433**	**81**	**210**	**291**	**1224**
% App. Total	**90.8**	**9.2**		**83.8**	**16.2**		**27.8**	**72.2**		
PHF	**.938**	**.821**	**.940**	**.955**	**.875**	**.950**	**.880**	**.820**	**.846**	**.968**
Cars	**438**	**44**	**482**	**355**	**57**	**412**	**69**	**201**	**270**	**1164**
% Cars	**96.5**	**95.7**	**96.4**	**97.8**	**81.4**	**95.2**	**85.2**	**95.7**	**92.8**	**95.1**
Heavy Vehicles	**16**	**2**	**18**	**8**	**13**	**21**	**12**	**9**	**21**	**60**
% Heavy Vehicles	**3.5**	**4.3**	**3.6**	**2.2**	**18.6**	**4.8**	**14.8**	**4.3**	**7.2**	**4.9**



PRECISION DATA INDUSTRIES, LLC

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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Wed 9/24/08 and Sat 9/27/08	81676	Freetown, MA

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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N/S: South Main Street
E: Copicut Road
City, State: Freetown, MA
Client: VHB/J. Quitter

File Name : 81676F-F
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	South Main Street From North		Copicut Road From East		South Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	45	1	0	0	0	45	91
07:15 AM	41	1	2	1	0	26	71
07:30 AM	51	1	4	0	0	58	114
07:45 AM	61	1	1	1	0	38	102
Total	198	4	7	2	0	167	378
08:00 AM	66	3	0	1	1	27	98
08:15 AM	53	0	0	2	0	25	80
08:30 AM	34	1	2	1	0	27	65
08:45 AM	33	2	1	1	0	22	59
Total	186	6	3	5	1	101	302
Grand Total	384	10	10	7	1	268	680
Apprch %	97.5	2.5	58.8	41.2	0.4	99.6	
Total %	56.5	1.5	1.5	1	0.1	39.4	
Cars	316	10	8	7	1	213	555
% Cars	82.3	100	80	100	100	79.5	81.6
Heavy Vehicles	68	0	2	0	0	55	125
% Heavy Vehicles	17.7	0	20	0	0	20.5	18.4

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	51	1	52	**4**	0	**4**	0	**58**	**58**	**114**
07:45 AM	**61**	**1**	**62**	**1**	**1**	**2**	**0**	**38**	**38**	**102**
08:00 AM	**66**	**3**	**69**	0	1	1	**1**	27	28	98
08:15 AM	53	0	53	0	**2**	2	0	25	25	80
Total Volume	231	5	236	5	4	9	1	148	149	394
% App. Total	97.9	2.1		55.6	44.4		0.7	99.3		
PHF	.875	.417	.855	.313	.500	.563	.250	.638	.642	.864
Cars	199	5	204	4	4	8	1	124	125	337
% Cars	86.1	100	86.4	80.0	100	88.9	100	83.8	83.9	85.5
Heavy Vehicles	32	0	32	1	0	1	0	24	24	57
% Heavy Vehicles	13.9	0	13.6	20.0	0	11.1	0	16.2	16.1	14.5

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N/S: South Main Street
E: Copicut Road
City, State: Freetown, MA
Client: VHB/J. Quitter

File Name : 81676F-F
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	South Main Street From North		Copicut Road From East		South Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	35	1	0	0	0	34	70
07:15 AM	36	1	2	1	0	21	61
07:30 AM	47	1	3	0	0	53	104
07:45 AM	56	1	1	1	0	30	89
Total	174	4	6	2	0	138	324
08:00 AM	54	3	0	1	1	22	81
08:15 AM	42	0	0	2	0	19	63
08:30 AM	25	1	1	1	0	19	47
08:45 AM	21	2	1	1	0	15	40
Total	142	6	2	5	1	75	231
Grand Total	316	10	8	7	1	213	555
Apprch %	96.9	3.1	53.3	46.7	0.5	99.5	
Total %	56.9	1.8	1.4	1.3	0.2	38.4	

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	47	1	48	**3**	0	**3**	0	**53**	**53**	**104**
07:45 AM	**56**	1	**57**	1	1	2	0	30	30	89
08:00 AM	54	**3**	57	0	1	1	**1**	22	23	81
08:15 AM	42	0	42	0	**2**	2	0	19	19	63
Total Volume	199	5	204	4	4	8	1	124	125	337
% App. Total	97.5	2.5		50	50		0.8	99.2		
PHF	.888	.417	.895	.333	.500	.667	.250	.585	.590	.810

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E: Copicut Road
City, State: Freetown, MA
Client: VHB/J. Quitter

File Name : 81676F-F
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	South Main Street From North		Copicut Road From East		South Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	10	0	0	0	0	11	21
07:15 AM	5	0	0	0	0	5	10
07:30 AM	4	0	1	0	0	5	10
07:45 AM	5	0	0	0	0	8	13
Total	24	0	1	0	0	29	54
08:00 AM	12	0	0	0	0	5	17
08:15 AM	11	0	0	0	0	6	17
08:30 AM	9	0	1	0	0	8	18
08:45 AM	12	0	0	0	0	7	19
Total	44	0	1	0	0	26	71
Grand Total	68	0	2	0	0	55	125
Apprch %	100	0	100	0	0	100	
Total %	54.4	0	1.6	0	0	44	

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**12**	0	**12**	0	0	0	0	5	5	17
08:15 AM	11	0	11	0	0	0	0	6	6	17
08:30 AM	9	0	9	**1**	0	**1**	0	**8**	**8**	18
08:45 AM	12	0	12	0	0	0	0	7	7	**19**
Total Volume	**44**	**0**	**44**	**1**	**0**	**1**	**0**	**26**	**26**	**71**
% App. Total	**100**	**0**		**100**	**0**		**0**	**100**		
PHF	**.917**	**.000**	**.917**	**.250**	**.000**	**.250**	**.000**	**.813**	**.813**	**.934**

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E: Copicut Road
City, State: Freetown, MA
Client: VHB/J. Quitter

File Name : 81676F-F
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	0	0	2
Grand Total	0	0	0	0	0	2	0	0	0	2
Apprch %	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	100	0	0	0	

	South Main Street From North				Copicut Road From East				South Main Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	**2**
Total Volume	0	0	0	0	0	0	2	2	0	0	0	0	2
% App. Total	0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250

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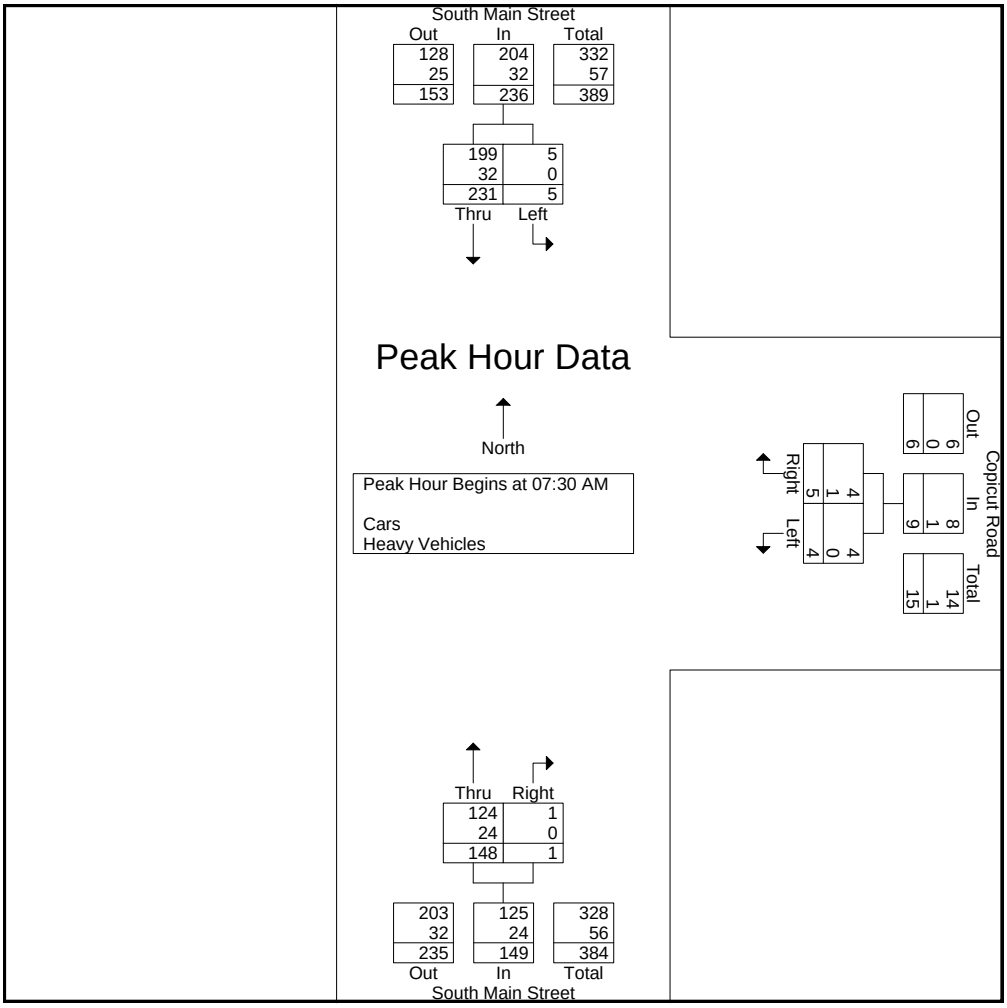
E: Copicut Road
City, State: Freetown, MA
Client: VHB/J. Quitter

File Name : 81676F-F
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	51	1	52	**4**	0	**4**	0	**58**	**58**	**114**
07:45 AM	**61**	**1**	**62**	**1**	**1**	**2**	**0**	**38**	**38**	**102**
08:00 AM	**66**	**3**	**69**	0	1	1	**1**	27	28	98
08:15 AM	53	0	53	0	**2**	2	0	25	25	80
Total Volume	231	5	236	5	4	9	1	148	149	394
% App. Total	97.9	2.1		55.6	44.4		0.7	99.3		
PHF	.875	.417	.855	.313	.500	.563	.250	.638	.642	.864
Cars	199	5	204	4	4	8	1	124	125	337
% Cars	86.1	100	86.4	80.0	100	88.9	100	83.8	83.9	85.5
Heavy Vehicles	32	0	32	1	0	1	0	24	24	57
% Heavy Vehicles	13.9	0	13.6	20.0	0	11.1	0	16.2	16.1	14.5



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City, State: Freetown, MA
Client: VHB/J. Quitter

File Name : 81676F-FFF
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	South Main Street From North		Copicut Road From East		South Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	57	4	4	2	0	47	114
04:15 PM	54	0	1	1	0	49	105
04:30 PM	75	0	2	0	1	38	116
04:45 PM	54	1	3	3	1	46	108
Total	240	5	10	6	2	180	443
05:00 PM	33	1	1	0	1	46	82
05:15 PM	52	3	0	0	1	50	106
05:30 PM	33	3	1	1	3	51	92
05:45 PM	37	0	1	0	1	32	71
Total	155	7	3	1	6	179	351
Grand Total	395	12	13	7	8	359	794
Apprch %	97.1	2.9	65	35	2.2	97.8	
Total %	49.7	1.5	1.6	0.9	1	45.2	
Cars	343	10	12	7	7	317	696
% Cars	86.8	83.3	92.3	100	87.5	88.3	87.7
Heavy Vehicles	52	2	1	0	1	42	98
% Heavy Vehicles	13.2	16.7	7.7	0	12.5	11.7	12.3

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	57	**4**	61	**4**	2	**6**	0	47	47	114
04:15 PM	54	0	54	1	1	2	0	**49**	**49**	105
04:30 PM	**75**	0	**75**	2	0	2	**1**	38	39	**116**
04:45 PM	**54**	**1**	**55**	**3**	**3**	6	1	46	47	108
Total Volume	240	5	245	10	6	16	2	180	182	443
% App. Total	98	2		62.5	37.5		1.1	98.9		
PHF	.800	.313	.817	.625	.500	.667	.500	.918	.929	.955
Cars	218	4	222	9	6	15	2	158	160	397
% Cars	90.8	80.0	90.6	90.0	100	93.8	100	87.8	87.9	89.6
Heavy Vehicles	22	1	23	1	0	1	0	22	22	46
% Heavy Vehicles	9.2	20.0	9.4	10.0	0	6.3	0	12.2	12.1	10.4

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E: Copicut Road
City, State: Freetown, MA
Client: VHB/J. Quitter

File Name : 81676F-FFF
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	South Main Street From North		Copicut Road From East		South Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	48	3	4	2	0	36	93
04:15 PM	52	0	0	1	0	45	98
04:30 PM	70	0	2	0	1	35	108
04:45 PM	48	1	3	3	1	42	98
Total	218	4	9	6	2	158	397
05:00 PM	24	1	1	0	1	42	69
05:15 PM	43	3	0	0	1	42	89
05:30 PM	31	2	1	1	2	46	83
05:45 PM	27	0	1	0	1	29	58
Total	125	6	3	1	5	159	299
Grand Total	343	10	12	7	7	317	696
Apprch %	97.2	2.8	63.2	36.8	2.2	97.8	
Total %	49.3	1.4	1.7	1	1	45.5	

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	48	**3**	51	**4**	2	**6**	0	36	36	93
04:15 PM	52	0	52	0	1	1	0	**45**	**45**	98
04:30 PM	**70**	0	**70**	2	0	2	**1**	35	36	**108**
04:45 PM	**48**	**1**	**49**	**3**	**3**	6	1	42	43	98
Total Volume	218	4	222	9	6	15	2	158	160	397
% App. Total	98.2	1.8		60	40		1.2	98.8		
PHF	.779	.333	.793	.563	.500	.625	.500	.878	.889	.919

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Client: VHB/J. Quitter

File Name : 81676F-FFF
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	South Main Street From North		Copicut Road From East		South Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	9	1	0	0	0	11	21
04:15 PM	2	0	1	0	0	4	7
04:30 PM	5	0	0	0	0	3	8
04:45 PM	6	0	0	0	0	4	10
Total	22	1	1	0	0	22	46
05:00 PM	9	0	0	0	0	4	13
05:15 PM	9	0	0	0	0	8	17
05:30 PM	2	1	0	0	1	5	9
05:45 PM	10	0	0	0	0	3	13
Total	30	1	0	0	1	20	52
Grand Total	52	2	1	0	1	42	98
Apprch %	96.3	3.7	100	0	2.3	97.7	
Total %	53.1	2	1	0	1	42.9	

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	9	0	9	0	0	0	0	4	4	13
05:15 PM	9	0	9	0	0	0	0	**8**	**8**	**17**
05:30 PM	**2**	**1**	3	0	0	0	**1**	5	6	9
05:45 PM	**10**	0	**10**	0	0	0	0	3	3	13
Total Volume	30	1	31	0	0	0	1	20	21	52
% App. Total	96.8	3.2		0	0		4.8	95.2		
PHF	.750	.250	.775	.000	.000	.000	.250	.625	.656	.765

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File Name : 81676F-FFF
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	0	0	0	1	0	1
Apprch %	0	0	0	0	0	0	0	100	0	
Total %	0	0	0	0	0	0	0	100	0	

	South Main Street From North				Copicut Road From East				South Main Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	**1**
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

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E: Copicut Road
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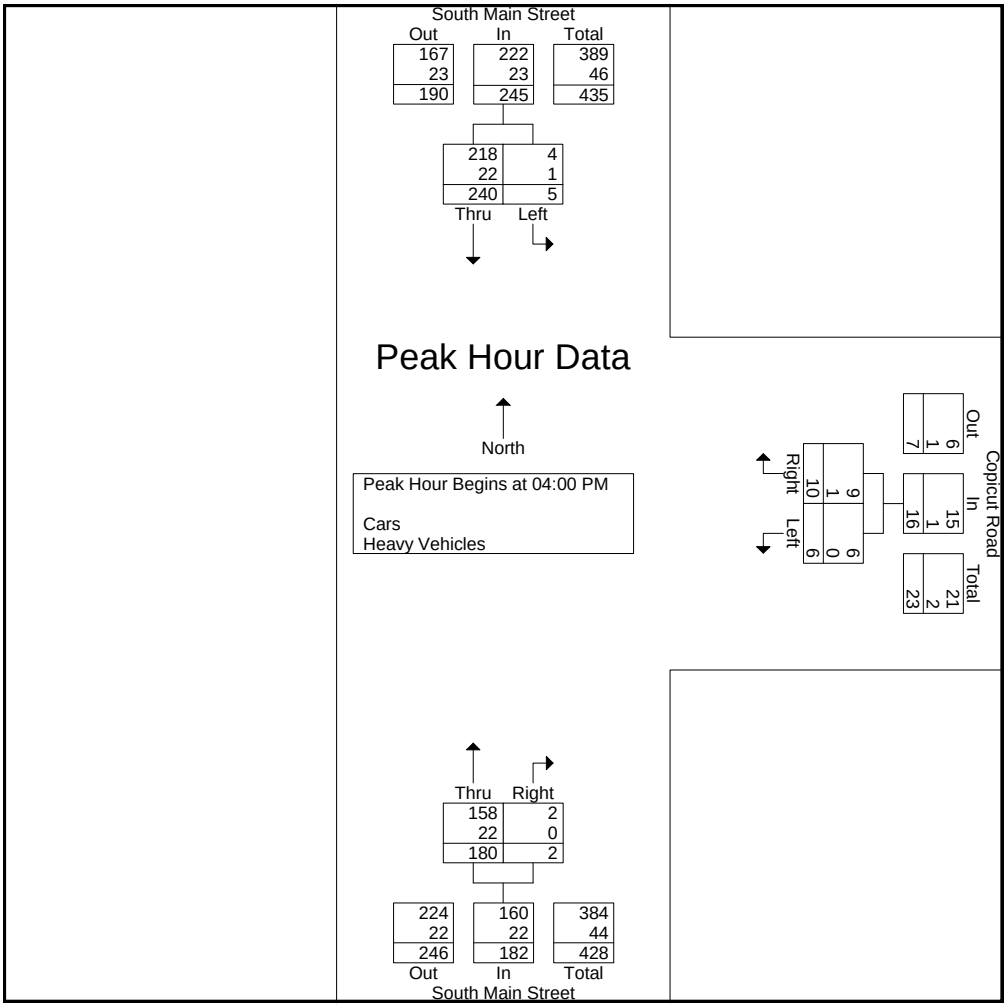
Client: VHB/J. Quitter

File Name : 81676F-FFF
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	South Main Street From North			Copicut Road From East			South Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	57	**4**	61	**4**	2	**6**	0	47	47	114
04:15 PM	54	0	54	1	1	2	0	**49**	**49**	105
04:30 PM	**75**	0	**75**	2	0	2	**1**	38	39	**116**
04:45 PM	**54**	**1**	**55**	**3**	**3**	6	1	46	47	108
Total Volume	240	5	245	10	6	16	2	180	182	443
% App. Total	98	2		62.5	37.5		1.1	98.9		
PHF	.800	.313	.817	.625	.500	.667	.500	.918	.929	.955
Cars	218	4	222	9	6	15	2	158	160	397
% Cars	90.8	80.0	90.6	90.0	100	93.8	100	87.8	87.9	89.6
Heavy Vehicles	22	1	23	1	0	1	0	22	22	46
% Heavy Vehicles	9.2	20.0	9.4	10.0	0	6.3	0	12.2	12.1	10.4



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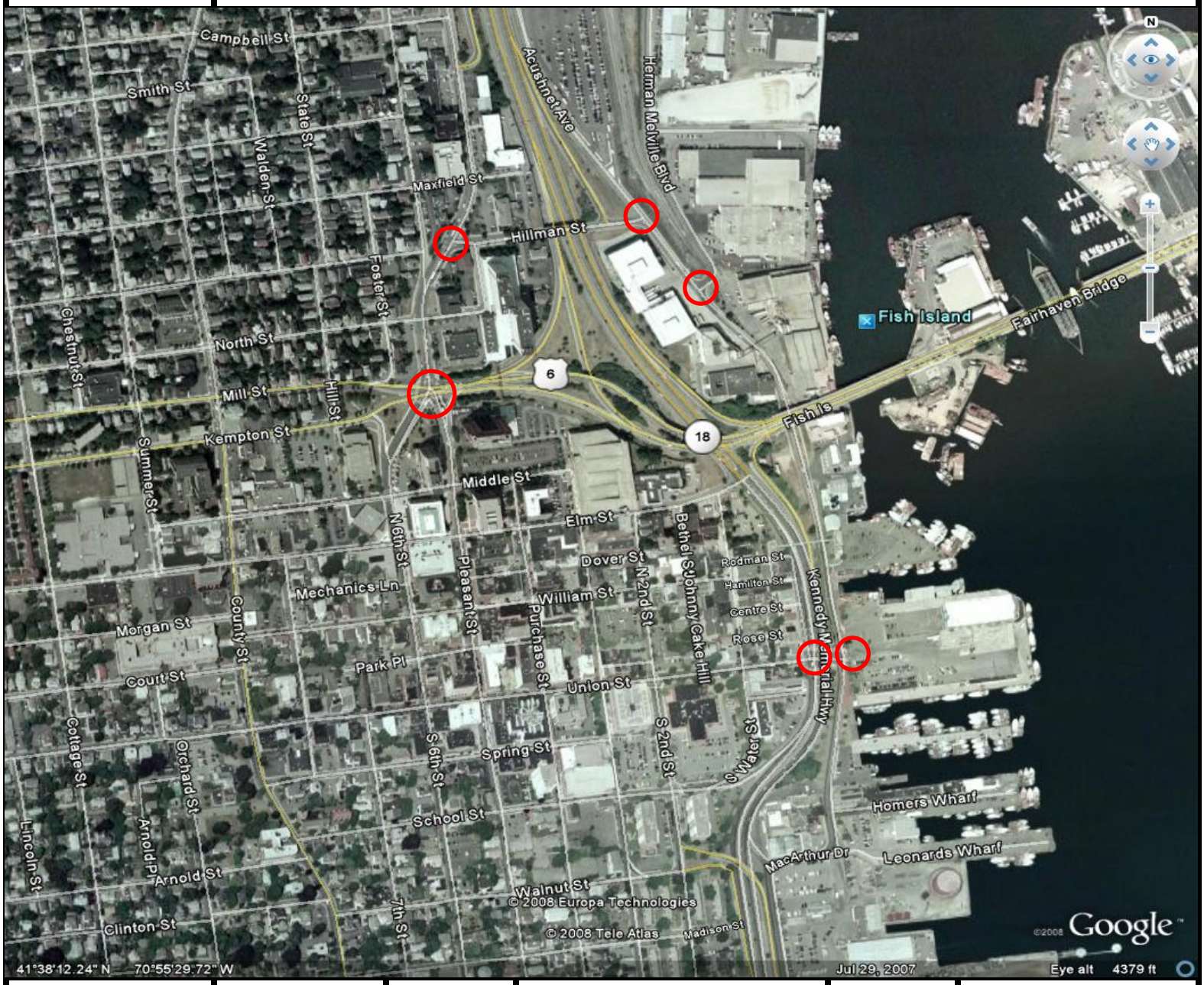
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Tues 9/30/08 and Sat 10/18/08	81676	New Bedford, MA

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N/S: Purchase Street
E: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-A
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North		Hillman Street From East		Purchase Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	46	24	15	4	64	27	180
07:15 AM	61	21	9	7	94	34	226
07:30 AM	69	24	12	9	91	35	240
07:45 AM	95	43	8	13	113	35	307
Total	271	112	44	33	362	131	953
08:00 AM	84	25	11	9	98	39	266
08:15 AM	98	31	13	13	104	63	322
08:30 AM	95	27	6	14	86	39	267
08:45 AM	94	39	2	10	81	67	293
Total	371	122	32	46	369	208	1148
Grand Total	642	234	76	79	731	339	2101
Apprch %	73.3	26.7	49	51	68.3	31.7	
Total %	30.6	11.1	3.6	3.8	34.8	16.1	
Cars	613	218	67	74	695	312	1979
% Cars	95.5	93.2	88.2	93.7	95.1	92	94.2
Heavy Vehicles	29	16	9	5	36	27	122
% Heavy Vehicles	4.5	6.8	11.8	6.3	4.9	8	5.8

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
07:45 AM	95	**43**	**138**	8	13	21	**113**	35	148	307
08:00 AM	84	25	109	11	9	20	98	39	137	266
08:15 AM	**98**	31	129	**13**	13	**26**	104	**63**	**167**	**322**
08:30 AM	**95**	**27**	**122**	**6**	**14**	20	86	39	125	267
Total Volume	372	126	498	38	49	87	401	176	577	1162
% App. Total	74.7	25.3		43.7	56.3		69.5	30.5		
PHF	.949	.733	.902	.731	.875	.837	.887	.698	.864	.902
Cars	354	116	470	31	45	76	381	164	545	1091
% Cars	95.2	92.1	94.4	81.6	91.8	87.4	95.0	93.2	94.5	93.9
Heavy Vehicles	18	10	28	7	4	11	20	12	32	71
% Heavy Vehicles	4.8	7.9	5.6	18.4	8.2	12.6	5.0	6.8	5.5	6.1

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E: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-A
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North		Hillman Street From East		Purchase Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	42	22	15	4	63	23	169
07:15 AM	56	20	9	7	91	31	214
07:30 AM	68	23	10	9	85	33	228
07:45 AM	92	41	7	13	109	34	296
Total	258	106	41	33	348	121	907
08:00 AM	78	25	8	8	93	34	246
08:15 AM	94	28	11	11	99	60	303
08:30 AM	90	22	5	13	80	36	246
08:45 AM	93	37	2	9	75	61	277
Total	355	112	26	41	347	191	1072
Grand Total	613	218	67	74	695	312	1979
Apprch %	73.8	26.2	47.5	52.5	69	31	
Total %	31	11	3.4	3.7	35.1	15.8	

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	92	**41**	**133**	7	**13**	20	**109**	34	143	296
08:00 AM	78	25	103	8	8	16	93	34	127	246
08:15 AM	**94**	28	122	**11**	11	**22**	99	**60**	**159**	**303**
08:30 AM	**90**	**22**	**112**	**5**	**13**	**18**	**80**	**36**	**116**	**246**
Total Volume	**354**	**116**	**470**	**31**	**45**	**76**	**381**	**164**	**545**	**1091**
% App. Total	**75.3**	**24.7**		**40.8**	**59.2**		**69.9**	**30.1**		
PHF	**.941**	**.707**	**.883**	**.705**	**.865**	**.864**	**.874**	**.683**	**.857**	**.900**

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File Name : 81676 C-A
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Purchase Street From North		Hillman Street From East		Purchase Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	4	2	0	0	1	4	11
07:15 AM	5	1	0	0	3	3	12
07:30 AM	1	1	2	0	6	2	12
07:45 AM	3	2	1	0	4	1	11
Total	13	6	3	0	14	10	46
08:00 AM	6	0	3	1	5	5	20
08:15 AM	4	3	2	2	5	3	19
08:30 AM	5	5	1	1	6	3	21
08:45 AM	1	2	0	1	6	6	16
Total	16	10	6	5	22	17	76
Grand Total	29	16	9	5	36	27	122
Apprch %	64.4	35.6	64.3	35.7	57.1	42.9	
Total %	23.8	13.1	7.4	4.1	29.5	22.1	

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**6**	0	6	**3**	1	**4**	5	5	10	20
08:15 AM	4	3	7	2	**2**	4	5	3	8	19
08:30 AM	5	**5**	**10**	1	1	2	**6**	3	9	**21**
08:45 AM	**1**	**2**	**3**	**0**	**1**	**1**	**6**	**6**	**12**	16
Total Volume	16	10	26	6	5	11	22	17	39	76
% App. Total	61.5	38.5		54.5	45.5		56.4	43.6		
PHF	.667	.500	.650	.500	.625	.688	.917	.708	.813	.905

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N/S: Purchase Street
E: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-A
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	0	1
07:15 AM	0	0	1	0	0	0	0	1	0	2
07:30 AM	1	0	0	0	0	0	1	0	0	2
07:45 AM	0	0	0	0	0	2	0	2	0	4
Total	1	0	1	0	0	3	1	3	0	9
08:00 AM	0	0	0	0	0	1	0	0	0	1
08:15 AM	0	0	0	0	0	3	0	0	4	7
08:30 AM	1	0	1	0	0	1	0	0	1	4
08:45 AM	2	0	1	0	0	9	0	0	0	12
Total	3	0	2	0	0	14	0	0	5	24
Grand Total	4	0	3	0	0	17	1	3	5	33
Apprch %	57.1	0	42.9	0	0	100	11.1	33.3	55.6	
Total %	12.1	0	9.1	0	0	51.5	3	9.1	15.2	

	Purchase Street From North				Hillman Street From East				Purchase Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	3	3	0	0	**4**	**4**	7
08:30 AM	1	0	**1**	**2**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**1**	**4**
08:45 AM	**2**	0	1	**3**	0	0	**9**	**9**	0	0	0	0	**12**
Total Volume	3	0	2	5	0	0	14	14	0	0	5	5	24
% App. Total	60	0	40		0	0	100		0	0	100		
PHF	.375	.000	.500	.417	.000	.000	.389	.389	.000	.000	.313	.313	.500

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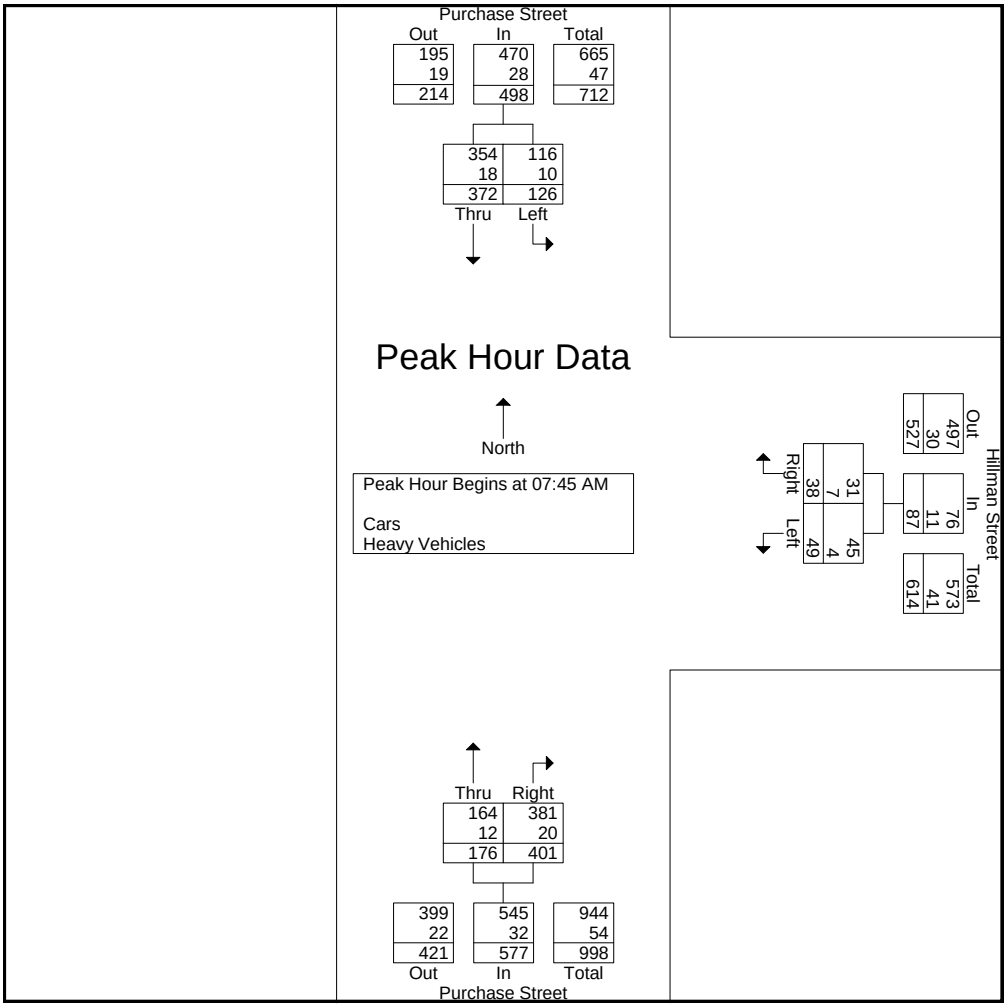
File Name : 81676 C-A
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	95	**43**	**138**	8	13	21	**113**	35	148	307
08:00 AM	84	25	109	11	9	20	98	39	137	266
08:15 AM	**98**	31	129	**13**	13	**26**	104	**63**	**167**	**322**
08:30 AM	**95**	**27**	**122**	**6**	**14**	20	86	39	125	267
Total Volume	372	126	498	38	49	87	401	176	577	1162
% App. Total	74.7	25.3		43.7	56.3		69.5	30.5		
PHF	.949	.733	.902	.731	.875	.837	.887	.698	.864	.902
Cars	354	116	470	31	45	76	381	164	545	1091
% Cars	95.2	92.1	94.4	81.6	91.8	87.4	95.0	93.2	94.5	93.9
Heavy Vehicles	18	10	28	7	4	11	20	12	32	71
% Heavy Vehicles	4.8	7.9	5.6	18.4	8.2	12.6	5.0	6.8	5.5	6.1



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File Name : 81676 C-AAA
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North		Hillman Street From East		Purchase Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	114	38	19	22	145	87	425
04:15 PM	69	29	23	15	128	94	358
04:30 PM	75	25	21	36	153	88	398
04:45 PM	78	13	18	21	125	84	339
Total	336	105	81	94	551	353	1520
05:00 PM	67	38	15	21	103	86	330
05:15 PM	62	22	9	17	100	74	284
05:30 PM	86	15	10	8	104	70	293
05:45 PM	70	20	13	14	97	73	287
Total	285	95	47	60	404	303	1194
Grand Total	621	200	128	154	955	656	2714
Apprch %	75.6	24.4	45.4	54.6	59.3	40.7	
Total %	22.9	7.4	4.7	5.7	35.2	24.2	
Cars	601	195	123	147	933	639	2638
% Cars	96.8	97.5	96.1	95.5	97.7	97.4	97.2
Heavy Vehicles	20	5	5	7	22	17	76
% Heavy Vehicles	3.2	2.5	3.9	4.5	2.3	2.6	2.8

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**114**	**38**	**152**	19	22	41	145	87	232	**425**
04:15 PM	**69**	**29**	**98**	**23**	15	38	128	**94**	222	358
04:30 PM	75	25	100	21	**36**	**57**	**153**	88	**241**	398
04:45 PM	78	13	91	18	21	39	125	84	209	339
Total Volume	336	105	441	81	94	175	551	353	904	1520
% App. Total	76.2	23.8		46.3	53.7		61	39		
PHF	.737	.691	.725	.880	.653	.768	.900	.939	.938	.894
Cars	327	102	429	76	91	167	535	344	879	1475
% Cars	97.3	97.1	97.3	93.8	96.8	95.4	97.1	97.5	97.2	97.0
Heavy Vehicles	9	3	12	5	3	8	16	9	25	45
% Heavy Vehicles	2.7	2.9	2.7	6.2	3.2	4.6	2.9	2.5	2.8	3.0

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Client: VHB/J. Quitter

File Name : 81676 C-AAA
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North		Hillman Street From East		Purchase Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	109	37	16	21	141	87	411
04:15 PM	68	29	23	14	124	92	350
04:30 PM	73	25	19	35	147	84	383
04:45 PM	77	11	18	21	123	81	331
Total	327	102	76	91	535	344	1475
05:00 PM	65	36	15	19	102	84	321
05:15 PM	61	22	9	17	100	73	282
05:30 PM	80	15	10	7	103	68	283
05:45 PM	68	20	13	13	93	70	277
Total	274	93	47	56	398	295	1163
Grand Total	601	195	123	147	933	639	2638
Apprch %	75.5	24.5	45.6	54.4	59.4	40.6	
Total %	22.8	7.4	4.7	5.6	35.4	24.2	

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**109**	**37**	**146**	16	21	37	141	87	228	**411**
04:15 PM	**68**	**29**	**97**	**23**	14	37	124	**92**	216	350
04:30 PM	73	25	98	19	**35**	**54**	**147**	84	**231**	383
04:45 PM	77	11	88	18	21	39	123	81	204	331
Total Volume	327	102	429	76	91	167	535	344	879	1475
% App. Total	76.2	23.8		45.5	54.5		60.9	39.1		
PHF	.750	.689	.735	.826	.650	.773	.910	.935	.951	.897

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File Name : 81676 C-AAA
Site Code : 10111.31
Start Date : 9/30/2008
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Groups Printed- Heavy Vehicles

	Purchase Street From North		Hillman Street From East		Purchase Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	5	1	3	1	4	0	14
04:15 PM	1	0	0	1	4	2	8
04:30 PM	2	0	2	1	6	4	15
04:45 PM	1	2	0	0	2	3	8
Total	9	3	5	3	16	9	45
05:00 PM	2	2	0	2	1	2	9
05:15 PM	1	0	0	0	0	1	2
05:30 PM	6	0	0	1	1	2	10
05:45 PM	2	0	0	1	4	3	10
Total	11	2	0	4	6	8	31
Grand Total	20	5	5	7	22	17	76
Apprch %	80	20	41.7	58.3	56.4	43.6	
Total %	26.3	6.6	6.6	9.2	28.9	22.4	

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**5**	1	**6**	**3**	**1**	**4**	4	0	4	14
04:15 PM	1	0	1	0	1	1	4	2	6	8
04:30 PM	2	0	2	2	1	3	**6**	**4**	**10**	**15**
04:45 PM	**1**	**2**	3	0	0	0	2	3	5	8
Total Volume	9	3	12	5	3	8	16	9	25	45
% App. Total	75	25		62.5	37.5		64	36		
PHF	.450	.375	.500	.417	.750	.500	.667	.563	.625	.750

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File Name : 81676 C-AAA
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	1	0	0	1	2
04:15 PM	0	0	0	0	0	4	0	0	0	4
04:30 PM	0	0	0	0	0	3	0	0	1	4
04:45 PM	0	0	0	0	0	2	0	2	0	4
Total	0	0	0	0	0	10	0	2	2	14
05:00 PM	0	0	0	0	0	4	0	0	1	5
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	1	0	0	4	0	0	0	5
05:45 PM	0	0	0	0	0	2	0	1	1	4
Total	0	0	1	0	0	10	0	1	2	14
Grand Total	0	0	1	0	0	20	0	3	4	28
Apprch %	0	0	100	0	0	100	0	42.9	57.1	
Total %	0	0	3.6	0	0	71.4	0	10.7	14.3	

	Purchase Street From North				Hillman Street From East				Purchase Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	0	0	0	0	0	0	**4**	**4**	0	0	0	0	4
04:30 PM	0	0	0	0	0	0	3	3	0	0	**1**	**1**	**4**
04:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**2**	**0**	**2**	4
05:00 PM	0	0	0	0	0	0	4	4	0	0	1	1	**5**
Total Volume	0	0	0	0	0	0	13	13	0	2	2	4	17
% App. Total	0	0	0		0	0	100		0	50	50		
PHF	.000	.000	.000	.000	.000	.000	.813	.813	.000	.250	.500	.500	.850

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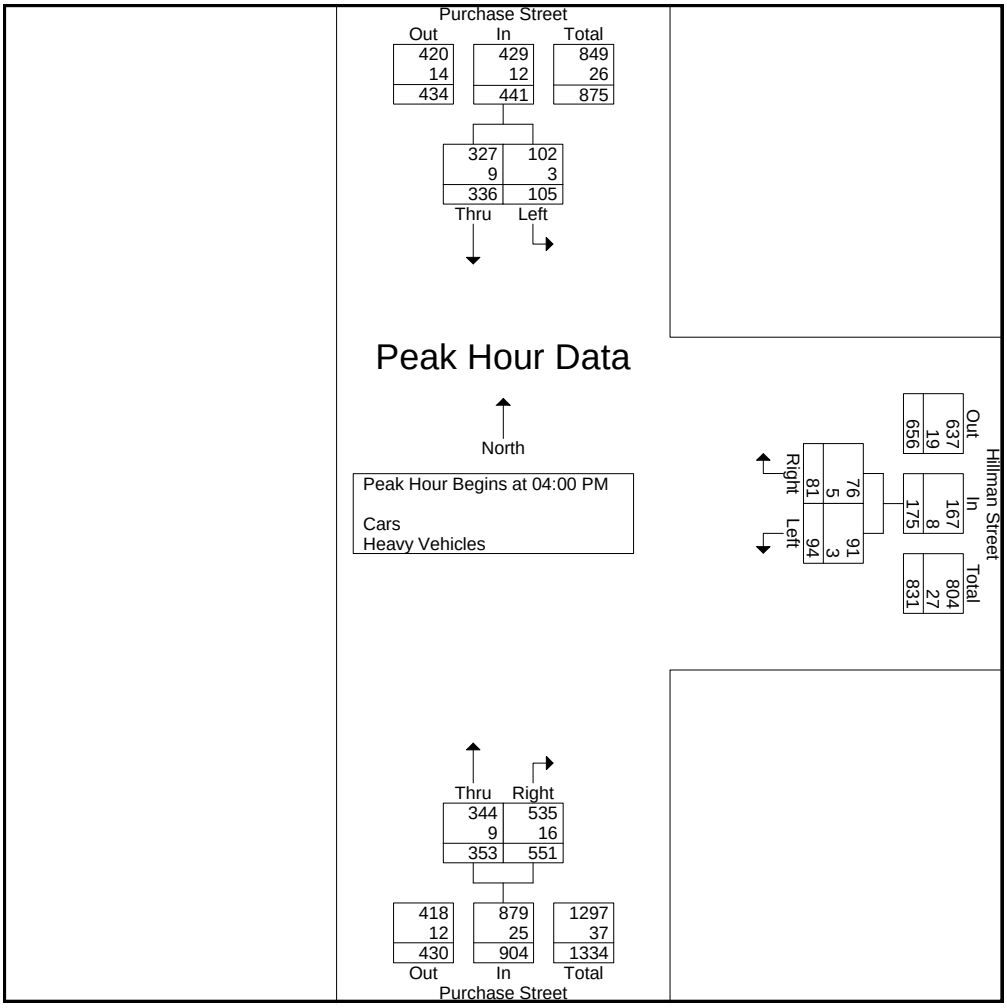
	Purchase Street From North			Hillman Street From East			Purchase Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**114**	**38**	**152**	19	22	41	145	87	232	**425**
04:15 PM	**69**	**29**	**98**	**23**	15	38	128	**94**	222	358
04:30 PM	75	25	100	21	**36**	**57**	**153**	88	**241**	398
04:45 PM	78	13	91	18	21	39	125	84	209	339
Total Volume	336	105	441	81	94	175	551	353	904	1520
% App. Total	76.2	23.8		46.3	53.7		61	39		
PHF	.737	.691	.725	.880	.653	.768	.900	.939	.938	.894
Cars	327	102	429	76	91	167	535	344	879	1475
% Cars	97.3	97.1	97.3	93.8	96.8	95.4	97.1	97.5	97.2	97.0
Heavy Vehicles	9	3	12	5	3	8	16	9	25	45
% Heavy Vehicles	2.7	2.9	2.7	6.2	3.2	4.6	2.9	2.5	2.8	3.0



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W: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-C
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue From North		McArthur Drive From South		Hillman Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	2	11	11	19	31	6	80
07:15 AM	7	3	10	22	40	6	88
07:30 AM	4	8	6	22	36	5	81
07:45 AM	6	3	11	30	53	7	110
Total	19	25	38	93	160	24	359
08:00 AM	9	6	12	27	32	8	94
08:15 AM	5	8	9	26	36	19	103
08:30 AM	6	6	12	23	36	13	96
08:45 AM	11	8	13	27	42	15	116
Total	31	28	46	103	146	55	409
Grand Total	50	53	84	196	306	79	768
Apprch %	48.5	51.5	30	70	79.5	20.5	
Total %	6.5	6.9	10.9	25.5	39.8	10.3	
Cars	48	48	74	163	283	78	694
% Cars	96	90.6	88.1	83.2	92.5	98.7	90.4
Heavy Vehicles	2	5	10	33	23	1	74
% Heavy Vehicles	4	9.4	11.9	16.8	7.5	1.3	9.6

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	9	6	15	12	**27**	39	32	8	40	94
08:15 AM	5	**8**	13	9	26	35	36	**19**	55	103
08:30 AM	6	6	12	12	23	35	36	13	49	96
08:45 AM	**11**	8	**19**	**13**	27	**40**	**42**	15	**57**	**116**
Total Volume	**31**	**28**	**59**	**46**	**103**	**149**	**146**	**55**	**201**	**409**
% App. Total	**52.5**	**47.5**		**30.9**	**69.1**		**72.6**	**27.4**		
PHF	**.705**	**.875**	**.776**	**.885**	**.954**	**.931**	**.869**	**.724**	**.882**	**.881**
Cars	**30**	**24**	**54**	**37**	**83**	**120**	**132**	**54**	**186**	**360**
% Cars	**96.8**	**85.7**	**91.5**	**80.4**	**80.6**	**80.5**	**90.4**	**98.2**	**92.5**	**88.0**
Heavy Vehicles	**1**	**4**	**5**	**9**	**20**	**29**	**14**	**1**	**15**	**49**
% Heavy Vehicles	**3.2**	**14.3**	**8.5**	**19.6**	**19.4**	**19.5**	**9.6**	**1.8**	**7.5**	**12.0**

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File Name : 81676 C-C
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Groups Printed- Cars

	Acushnet Avenue From North		McArthur Drive From South		Hillman Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	2	10	11	18	29	6	76
07:15 AM	7	3	10	20	38	6	84
07:30 AM	3	8	6	17	33	5	72
07:45 AM	6	3	10	25	51	7	102
Total	18	24	37	80	151	24	334
08:00 AM	9	4	12	19	30	8	82
08:15 AM	5	7	6	24	34	18	94
08:30 AM	5	6	10	18	32	13	84
08:45 AM	11	7	9	22	36	15	100
Total	30	24	37	83	132	54	360
Grand Total	48	48	74	163	283	78	694
Apprch %	50	50	31.2	68.8	78.4	21.6	
Total %	6.9	6.9	10.7	23.5	40.8	11.2	

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	6	3	9	10	**25**	**35**	**51**	7	**58**	**102**
08:00 AM	**9**	4	**13**	**12**	19	31	30	8	38	82
08:15 AM	5	**7**	12	6	24	30	34	**18**	52	94
08:30 AM	5	6	11	10	18	28	32	13	45	84
Total Volume	25	20	45	38	86	124	147	46	193	362
% App. Total	55.6	44.4		30.6	69.4		76.2	23.8		
PHF	.694	.714	.865	.792	.860	.886	.721	.639	.832	.887

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Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue From North		McArthur Drive From South		Hillman Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	0	1	0	1	2	0	4
07:15 AM	0	0	0	2	2	0	4
07:30 AM	1	0	0	5	3	0	9
07:45 AM	0	0	1	5	2	0	8
Total	1	1	1	13	9	0	25
08:00 AM	0	2	0	8	2	0	12
08:15 AM	0	1	3	2	2	1	9
08:30 AM	1	0	2	5	4	0	12
08:45 AM	0	1	4	5	6	0	16
Total	1	4	9	20	14	1	49
Grand Total	2	5	10	33	23	1	74
Apprch %	28.6	71.4	23.3	76.7	95.8	4.2	
Total %	2.7	6.8	13.5	44.6	31.1	1.4	

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	**2**	**2**	0	**8**	8	2	0	2	12
08:15 AM	0	1	1	3	2	5	2	**1**	3	9
08:30 AM	**1**	0	1	2	5	7	4	0	4	12
08:45 AM	0	1	1	**4**	5	**9**	**6**	0	**6**	**16**
Total Volume	**1**	**4**	**5**	**9**	**20**	**29**	**14**	**1**	**15**	**49**
% App. Total	**20**	**80**		**31**	**69**		**93.3**	**6.7**		
PHF	**.250**	**.500**	**.625**	**.563**	**.625**	**.806**	**.583**	**.250**	**.625**	**.766**

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N/S: Acushnet Avenue/McArthur Drive
W: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-C
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	2
07:15 AM	0	1	0	1	0	0	1	1	0	4
07:30 AM	1	0	0	0	1	0	0	1	0	3
07:45 AM	0	1	0	0	0	0	0	0	0	1
Total	1	3	1	1	1	0	1	2	0	10
08:00 AM	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1
Grand Total	1	3	1	1	1	0	1	2	1	11
Apprch %	20	60	20	50	50	0	25	50	25	
Total %	9.1	27.3	9.1	9.1	9.1	0	9.1	18.2	9.1	

	Acushnet Avenue From North				McArthur Drive From South				Hillman Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	**1**	**1**	**2**	0	0	0	0	0	0	0	0	2
07:15 AM	0	1	0	1	**1**	0	0	**1**	**1**	**1**	**0**	**2**	**4**
07:30 AM	**1**	0	0	1	0	**1**	0	1	0	1	0	1	3
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	3	1	5	1	1	0	2	1	2	0	3	10
% App. Total	20	60	20		50	50	0		33.3	66.7	0		
PHF	.250	.750	.250	.625	.250	.250	.000	.500	.250	.500	.000	.375	.625

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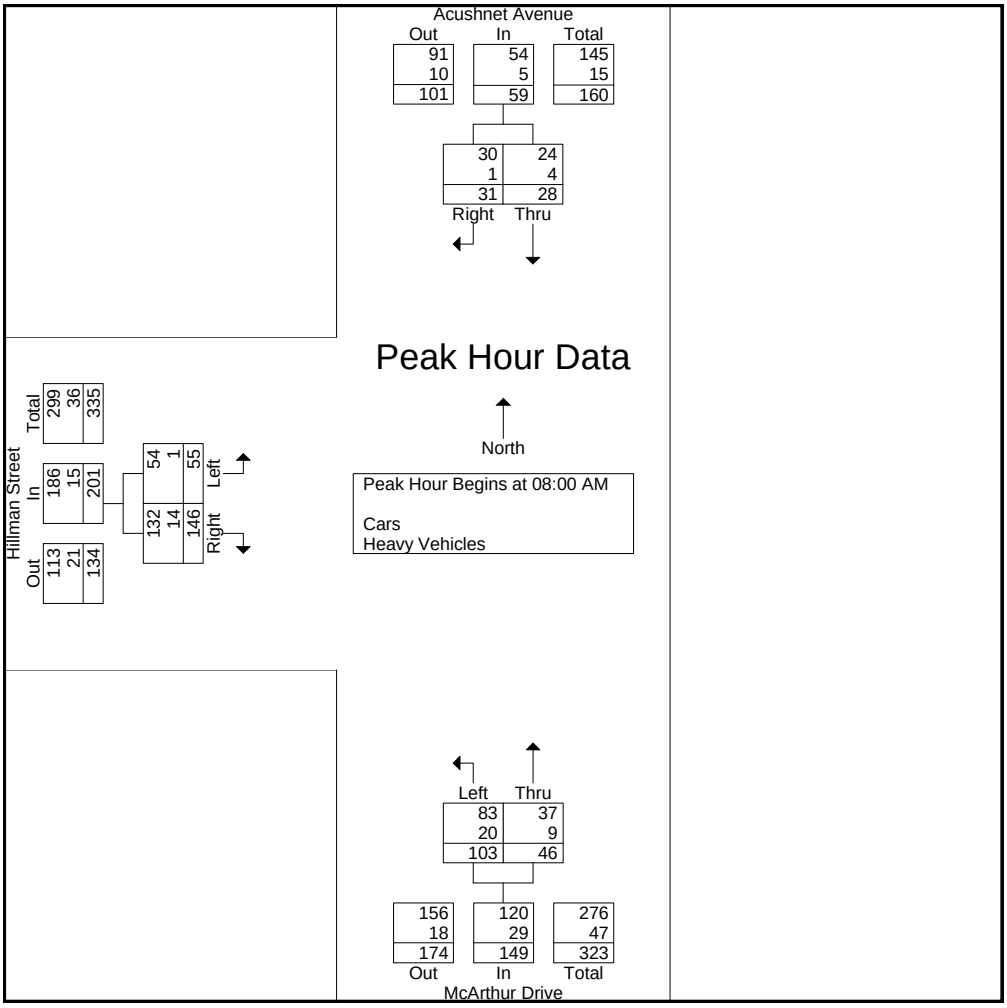
File Name : 81676 C-C
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	9	6	15	12	**27**	39	32	8	40	94
08:15 AM	5	**8**	13	9	26	35	36	**19**	55	103
08:30 AM	6	6	12	12	23	35	36	13	49	96
08:45 AM	**11**	8	**19**	**13**	27	**40**	**42**	15	**57**	**116**
Total Volume	**31**	**28**	**59**	**46**	**103**	**149**	**146**	**55**	**201**	**409**
% App. Total	**52.5**	**47.5**		**30.9**	**69.1**		**72.6**	**27.4**		
PHF	**.705**	**.875**	**.776**	**.885**	**.954**	**.931**	**.869**	**.724**	**.882**	**.881**
Cars	**30**	**24**	**54**	**37**	**83**	**120**	**132**	**54**	**186**	**360**
% Cars	**96.8**	**85.7**	**91.5**	**80.4**	**80.6**	**80.5**	**90.4**	**98.2**	**92.5**	**88.0**
Heavy Vehicles	**1**	**4**	**5**	**9**	**20**	**29**	**14**	**1**	**15**	**49**
% Heavy Vehicles	**3.2**	**14.3**	**8.5**	**19.6**	**19.4**	**19.5**	**9.6**	**1.8**	**7.5**	**12.0**



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N/S: Acushnet Avenue/McArthur Drive
W: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-CCC
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue From North		McArthur Drive From South		Hillman Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	16	17	7	51	44	12	147
04:15 PM	12	14	7	40	25	7	105
04:30 PM	20	16	9	50	42	14	151
04:45 PM	8	8	8	33	32	10	99
Total	56	55	31	174	143	43	502
05:00 PM	7	8	10	60	21	11	117
05:15 PM	10	1	7	26	19	2	65
05:30 PM	9	10	9	15	31	6	80
05:45 PM	9	8	6	26	18	2	69
Total	35	27	32	127	89	21	331
Grand Total	91	82	63	301	232	64	833
Apprch %	52.6	47.4	17.3	82.7	78.4	21.6	
Total %	10.9	9.8	7.6	36.1	27.9	7.7	
Cars	89	81	58	289	224	64	805
% Cars	97.8	98.8	92.1	96	96.6	100	96.6
Heavy Vehicles	2	1	5	12	8	0	28
% Heavy Vehicles	2.2	1.2	7.9	4	3.4	0	3.4

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	16	**17**	33	7	**51**	58	**44**	12	**56**	147
04:15 PM	12	14	26	7	40	47	25	7	32	105
04:30 PM	**20**	16	**36**	**9**	50	**59**	42	**14**	56	**151**
04:45 PM	**8**	**8**	**16**	**8**	**33**	**41**	**32**	**10**	**42**	**99**
Total Volume	**56**	**55**	**111**	**31**	**174**	**205**	**143**	**43**	**186**	**502**
% App. Total	**50.5**	**49.5**		**15.1**	**84.9**		**76.9**	**23.1**		
PHF	**.700**	**.809**	**.771**	**.861**	**.853**	**.869**	**.813**	**.768**	**.830**	**.831**
Cars	**54**	**54**	**108**	**27**	**166**	**193**	**135**	**43**	**178**	**479**
% Cars	**96.4**	**98.2**	**97.3**	**87.1**	**95.4**	**94.1**	**94.4**	**100**	**95.7**	**95.4**
Heavy Vehicles	**2**	**1**	**3**	**4**	**8**	**12**	**8**	**0**	**8**	**23**
% Heavy Vehicles	**3.6**	**1.8**	**2.7**	**12.9**	**4.6**	**5.9**	**5.6**	**0**	**4.3**	**4.6**

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Client: VHB/J. Quitter

File Name : 81676 C-CCC
Site Code : 10111.31
Start Date : 9/30/2008
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Groups Printed- Cars

	Acushnet Avenue From North		McArthur Drive From South		Hillman Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	14	17	7	46	41	12	137
04:15 PM	12	14	5	39	23	7	100
04:30 PM	20	15	7	50	40	14	146
04:45 PM	8	8	8	31	31	10	96
Total	54	54	27	166	135	43	479
05:00 PM	7	8	10	57	21	11	114
05:15 PM	10	1	6	26	19	2	64
05:30 PM	9	10	9	14	31	6	79
05:45 PM	9	8	6	26	18	2	69
Total	35	27	31	123	89	21	326
Grand Total	89	81	58	289	224	64	805
Apprch %	52.4	47.6	16.7	83.3	77.8	22.2	
Total %	11.1	10.1	7.2	35.9	27.8	8	

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	14	**17**	31	7	46	53	**41**	12	53	137
04:15 PM	12	14	26	5	39	44	23	7	30	100
04:30 PM	**20**	15	**35**	7	**50**	**57**	40	**14**	**54**	**146**
04:45 PM	**8**	**8**	**16**	**8**	31	39	31	10	41	96
Total Volume	54	54	108	27	166	193	135	43	178	479
% App. Total	50	50		14	86		75.8	24.2		
PHF	.675	.794	.771	.844	.830	.846	.823	.768	.824	.820

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Client: VHB/J. Quitter

File Name : 81676 C-CCC
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue From North		McArthur Drive From South		Hillman Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	2	0	0	5	3	0	10
04:15 PM	0	0	2	1	2	0	5
04:30 PM	0	1	2	0	2	0	5
04:45 PM	0	0	0	2	1	0	3
Total	2	1	4	8	8	0	23
05:00 PM	0	0	0	3	0	0	3
05:15 PM	0	0	1	0	0	0	1
05:30 PM	0	0	0	1	0	0	1
05:45 PM	0	0	0	0	0	0	0
Total	0	0	1	4	0	0	5
Grand Total	2	1	5	12	8	0	28
Apprch %	66.7	33.3	29.4	70.6	100	0	
Total %	7.1	3.6	17.9	42.9	28.6	0	

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**2**	0	**2**	0	**5**	**5**	**3**	0	**3**	**10**
04:15 PM	**0**	**0**	**0**	**2**	1	3	2	0	2	5
04:30 PM	0	**1**	1	2	0	2	2	0	2	5
04:45 PM	0	0	0	0	2	2	1	0	1	3
Total Volume	2	1	3	4	8	12	8	0	8	23
% App. Total	66.7	33.3		33.3	66.7		100	0		
PHF	.250	.250	.375	.500	.400	.600	.667	.000	.667	.575

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N/S: Acushnet Avenue/McArthur Drive
W: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-CCC
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	0	1	0	0	0	0	1
04:15 PM	1	0	0	4	0	0	0	0	0	5
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	4	1	0	0	0	0	6
05:00 PM	0	0	0	3	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	3	0	0	0	0	0	3
Grand Total	1	0	0	7	1	0	0	0	0	9
Apprch %	100	0	0	87.5	12.5	0	0	0	0	
Total %	11.1	0	0	77.8	11.1	0	0	0	0	

	Acushnet Avenue From North				McArthur Drive From South				Hillman Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	**1**	0	0	**1**	**4**	0	0	**4**	0	0	0	0	**5**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
Total Volume	1	0	0	1	7	0	0	7	0	0	0	0	8
% App. Total	100	0	0		100	0	0		0	0	0		
PHF	.250	.000	.000	.250	.438	.000	.000	.438	.000	.000	.000	.000	.400

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W: Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-CCC
Site Code : 10111.31
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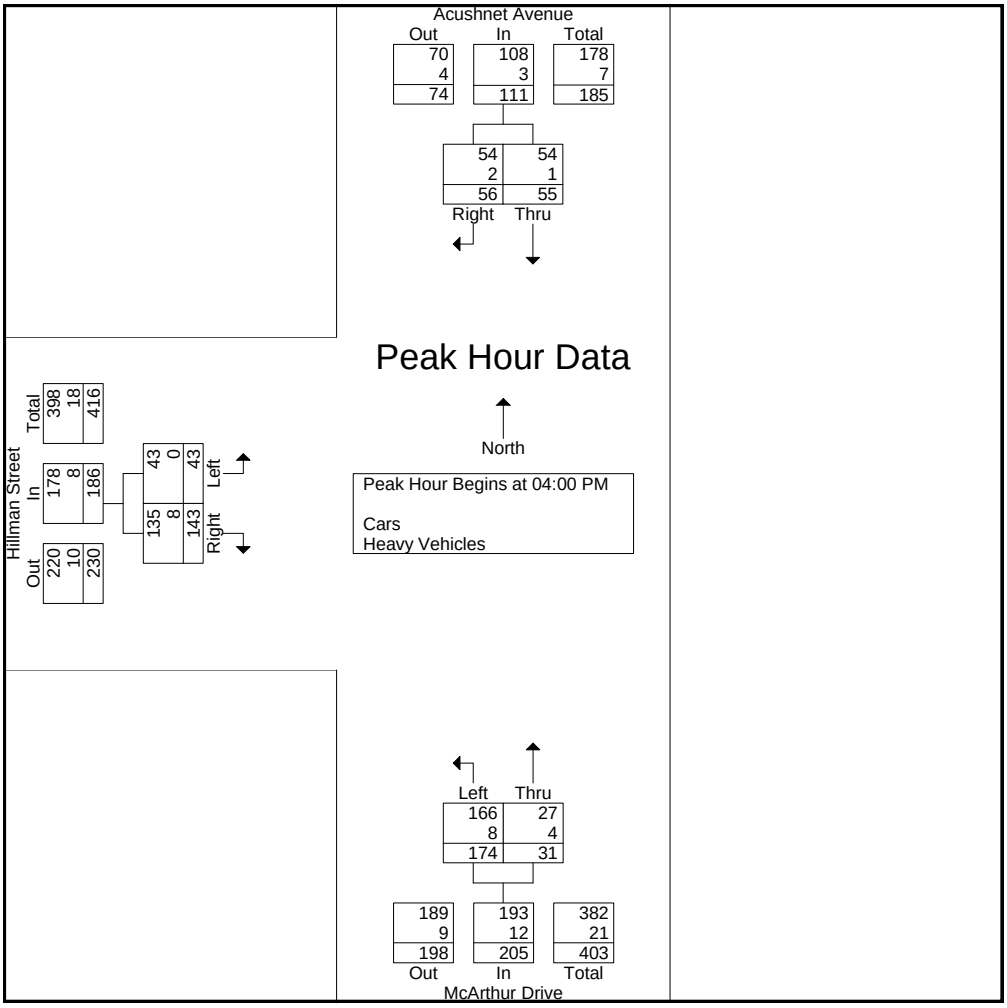
	Acushnet Avenue From North			McArthur Drive From South			Hillman Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	16	**17**	33	7	**51**	58	**44**	12	**56**	147
04:15 PM	12	14	26	7	40	47	25	7	32	105
04:30 PM	**20**	16	**36**	**9**	50	**59**	42	**14**	56	**151**
04:45 PM	**8**	**8**	**16**	**8**	**33**	**41**	**32**	**10**	**42**	**99**
Total Volume	**56**	**55**	**111**	**31**	**174**	**205**	**143**	**43**	**186**	**502**
% App. Total	**50.5**	**49.5**		**15.1**	**84.9**		**76.9**	**23.1**		
PHF	**.700**	**.809**	**.771**	**.861**	**.853**	**.869**	**.813**	**.768**	**.830**	**.831**
Cars	**54**	**54**	**108**	**27**	**166**	**193**	**135**	**43**	**178**	**479**
% Cars	**96.4**	**98.2**	**97.3**	**87.1**	**95.4**	**94.1**	**94.4**	**100**	**95.7**	**95.4**
Heavy Vehicles	**2**	**1**	**3**	**4**	**8**	**12**	**8**	**0**	**8**	**23**
% Heavy Vehicles	**3.6**	**1.8**	**2.7**	**12.9**	**4.6**	**5.9**	**5.6**	**0**	**4.3**	**4.6**



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N/S: McArthur Drive
E/W: Herman Melville Blvd/West Terminal
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-D
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	McArthur Drive From North			Herman Melville Boulevard From East			McArthur Drive From South			West Terminal Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	25	11	6	0	21	22	23	0	0	0	0	108
07:15 AM	0	33	14	4	0	43	16	27	1	0	0	0	138
07:30 AM	0	28	12	6	0	29	25	22	1	0	0	0	123
07:45 AM	2	31	26	12	0	27	21	31	2	1	0	1	154
Total	2	117	63	28	0	120	84	103	4	1	0	1	523
08:00 AM	0	27	11	10	0	26	24	31	0	0	0	0	129
08:15 AM	0	34	14	7	2	24	25	30	0	1	0	1	138
08:30 AM	0	38	7	4	0	35	25	29	0	0	0	0	138
08:45 AM	0	41	13	8	1	29	29	33	1	0	0	0	155
Total	0	140	45	29	3	114	103	123	1	1	0	1	560
Grand Total	2	257	108	57	3	234	187	226	5	2	0	2	1083
Apprch %	0.5	70	29.4	19.4	1	79.6	44.7	54.1	1.2	50	0	50	
Total %	0.2	23.7	10	5.3	0.3	21.6	17.3	20.9	0.5	0.2	0	0.2	
Cars	1	230	96	48	2	193	154	191	5	2	0	2	924
% Cars	50	89.5	88.9	84.2	66.7	82.5	82.4	84.5	100	100	0	100	85.3
Heavy Vehicles	1	27	12	9	1	41	33	35	0	0	0	0	159
% Heavy Vehicles	50	10.5	11.1	15.8	33.3	17.5	17.6	15.5	0	0	0	0	14.7

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	27	11	38	**10**	0	26	36	24	31	0	55	0	0	0	0	129
08:15 AM	0	34	**14**	48	7	**2**	24	33	25	30	0	55	**1**	0	**1**	**2**	138
08:30 AM	0	38	7	45	4	0	**35**	**39**	25	29	0	54	0	0	0	0	138
08:45 AM	0	**41**	13	**54**	8	1	29	38	**29**	**33**	**1**	**63**	0	0	0	0	**155**
Total Volume	0	140	45	185	29	3	114	146	103	123	1	227	1	0	1	2	560
% App. Total	0	75.7	24.3		19.9	2.1	78.1		45.4	54.2	0.4		50	0	50		
PHF	.000	.854	.804	.856	.725	.375	.814	.936	.888	.932	.250	.901	.250	.000	.250	.250	.903
Cars	0	120	39	159	25	2	93	120	87	97	1	185	1	0	1	2	466
% Cars	0	85.7	86.7	85.9	86.2	66.7	81.6	82.2	84.5	78.9	100	81.5	100	0	100	100	83.2
Heavy Vehicles	0	20	6	26	4	1	21	26	16	26	0	42	0	0	0	0	94
% Heavy Vehicles	0	14.3	13.3	14.1	13.8	33.3	18.4	17.8	15.5	21.1	0	18.5	0	0	0	0	16.8

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N/S: McArthur Drive
E/W: Herman Melville Blvd/West Terminal
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-D
Site Code : 10111.31
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Groups Printed- Cars

	McArthur Drive From North			Herman Melville Boulevard From East			McArthur Drive From South			West Terminal Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	22	10	5	0	20	20	23	0	0	0	0	100
07:15 AM	0	31	13	3	0	35	9	25	1	0	0	0	117
07:30 AM	0	26	10	6	0	22	21	17	1	0	0	0	103
07:45 AM	1	31	24	9	0	23	17	29	2	1	0	1	138
Total	1	110	57	23	0	100	67	94	4	1	0	1	458
08:00 AM	0	23	10	8	0	25	18	24	0	0	0	0	108
08:15 AM	0	28	14	6	2	22	21	25	0	1	0	1	120
08:30 AM	0	35	4	4	0	25	21	21	0	0	0	0	110
08:45 AM	0	34	11	7	0	21	27	27	1	0	0	0	128
Total	0	120	39	25	2	93	87	97	1	1	0	1	466
Grand Total	1	230	96	48	2	193	154	191	5	2	0	2	924
Apprch %	0.3	70.3	29.4	19.8	0.8	79.4	44	54.6	1.4	50	0	50	
Total %	0.1	24.9	10.4	5.2	0.2	20.9	16.7	20.7	0.5	0.2	0	0.2	

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**1**	31	**24**	**56**	**9**	0	23	32	17	**29**	**2**	**48**	**1**	0	**1**	**2**	**138**
08:00 AM	0	23	10	33	8	0	**25**	**33**	18	24	0	42	0	0	0	0	108
08:15 AM	0	28	14	42	6	**2**	22	30	**21**	25	0	46	1	0	1	2	120
08:30 AM	0	**35**	4	39	4	0	25	29	21	21	0	42	0	0	0	0	110
Total Volume	1	117	52	170	27	2	95	124	77	99	2	178	2	0	2	4	476
% App. Total	0.6	68.8	30.6		21.8	1.6	76.6		43.3	55.6	1.1		50	0	50		
PHF	.250	.836	.542	.759	.750	.250	.950	.939	.917	.853	.250	.927	.500	.000	.500	.500	.862

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Groups Printed- Heavy Vehicles

	McArthur Drive From North			Herman Melville Boulevard From East			McArthur Drive From South			West Terminal Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	3	1	1	0	1	2	0	0	0	0	0	8
07:15 AM	0	2	1	1	0	8	7	2	0	0	0	0	21
07:30 AM	0	2	2	0	0	7	4	5	0	0	0	0	20
07:45 AM	1	0	2	3	0	4	4	2	0	0	0	0	16
Total	1	7	6	5	0	20	17	9	0	0	0	0	65
08:00 AM	0	4	1	2	0	1	6	7	0	0	0	0	21
08:15 AM	0	6	0	1	0	2	4	5	0	0	0	0	18
08:30 AM	0	3	3	0	0	10	4	8	0	0	0	0	28
08:45 AM	0	7	2	1	1	8	2	6	0	0	0	0	27
Total	0	20	6	4	1	21	16	26	0	0	0	0	94
Grand Total	1	27	12	9	1	41	33	35	0	0	0	0	159
Apprch %	2.5	67.5	30	17.6	2	80.4	48.5	51.5	0	0	0	0	
Total %	0.6	17	7.5	5.7	0.6	25.8	20.8	22	0	0	0	0	

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	4	1	5	**2**	0	1	3	**6**	7	0	**13**	0	0	0	0	21
08:15 AM	0	6	0	6	1	0	2	3	4	5	0	9	0	0	0	0	18
08:30 AM	0	3	**3**	6	0	0	**10**	**10**	4	**8**	0	12	0	0	0	0	**28**
08:45 AM	0	**7**	2	**9**	1	**1**	8	10	2	6	0	8	0	0	0	0	27
Total Volume	0	20	6	26	4	1	21	26	16	26	0	42	0	0	0	0	94
% App. Total	0	76.9	23.1		15.4	3.8	80.8		38.1	61.9	0		0	0	0		
PHF	.000	.714	.500	.722	.500	.250	.525	.650	.667	.813	.000	.808	.000	.000	.000	.000	.839

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Groups Printed- Peds and Bicycles

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	2	0	0	0	0	0	9	0	0	0	0	0	0	0	0	11
07:45 AM	0	2	0	0	0	0	0	2	0	0	0	1	0	0	0	2	7
Total	0	5	0	0	0	0	0	11	0	0	0	1	0	0	0	2	19
08:00 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	5	0	0	0	0	0	0	0	5	11
Grand Total	0	6	0	0	0	0	0	16	0	0	0	1	0	0	0	7	30
Apprch %	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	100	
Total %	0	20	0	0	0	0	0	53.3	0	0	0	3.3	0	0	0	23.3	

	McArthur Drive From North					Herman Melville Boulevard From East					McArthur Drive From South					West Terminal Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	**2**	0	0	**2**	0	0	0	**9**	**9**	0	0	0	0	0	0	0	0	0	0	**11**
07:45 AM	0	2	0	0	2	0	0	0	2	2	0	0	0	**1**	**1**	0	0	0	**2**	**2**	7
08:00 AM	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	5
Total Volume	0	5	0	0	5	0	0	0	16	16	0	0	0	1	1	0	0	0	2	2	24
% App. Total	0	100	0	0		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.625	.000	.000	.625	.000	.000	.000	.444	.444	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.545

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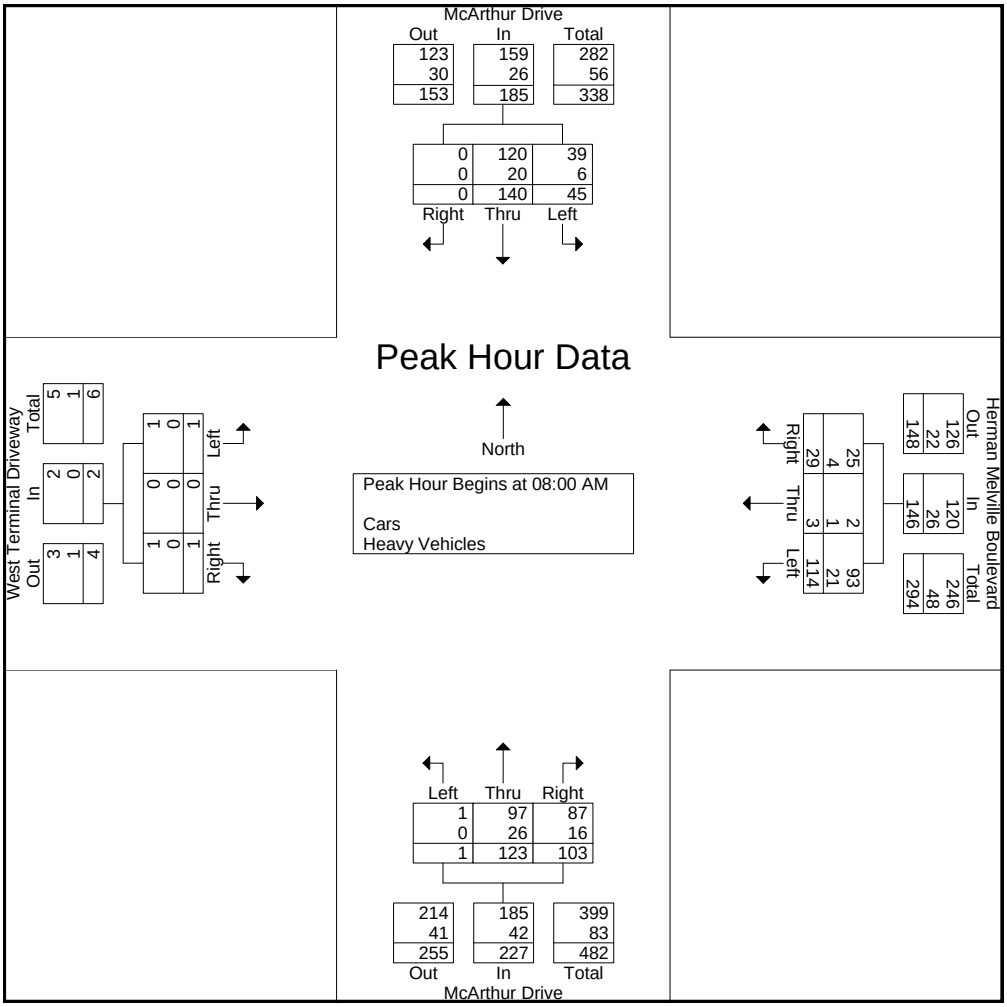
	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	27	11	38	**10**	0	26	36	24	31	0	55	0	0	0	0	129
08:15 AM	0	34	**14**	48	7	**2**	24	33	25	30	0	55	**1**	0	**1**	**2**	138
08:30 AM	0	38	7	45	4	0	**35**	**39**	25	29	0	54	0	0	0	0	138
08:45 AM	0	**41**	13	**54**	8	1	29	38	**29**	**33**	**1**	**63**	0	0	0	0	**155**
Total Volume	0	140	45	185	29	3	114	146	103	123	1	227	1	0	1	2	560
% App. Total	0	75.7	24.3		19.9	2.1	78.1		45.4	54.2	0.4		50	0	50		
PHF	.000	.854	.804	.856	.725	.375	.814	.936	.888	.932	.250	.901	.250	.000	.250	.250	.903
Cars	0	120	39	159	25	2	93	120	87	97	1	185	1	0	1	2	466
% Cars	0	85.7	86.7	85.9	86.2	66.7	81.6	82.2	84.5	78.9	100	81.5	100	0	100	100	83.2
Heavy Vehicles	0	20	6	26	4	1	21	26	16	26	0	42	0	0	0	0	94
% Heavy Vehicles	0	14.3	13.3	14.1	13.8	33.3	18.4	17.8	15.5	21.1	0	18.5	0	0	0	0	16.8



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Client: VHB/J. Quitter

File Name : 81676 C-DDD
Site Code : 10111.31
Start Date : 9/30/2008
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Groups Printed- Cars - Heavy Vehicles

	McArthur Drive From North			Herman Melville Boulevard From East			McArthur Drive From South			West Terminal Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	54	12	15	0	30	18	41	0	0	0	0	170
04:15 PM	0	33	10	17	0	33	26	34	0	2	0	1	156
04:30 PM	0	41	4	21	0	44	19	36	0	1	0	1	167
04:45 PM	0	37	3	10	0	28	28	34	0	0	0	0	140
Total	0	165	29	63	0	135	91	145	0	3	0	2	633
05:00 PM	0	27	3	20	0	39	25	46	0	0	0	0	160
05:15 PM	0	25	3	6	0	26	19	26	0	0	0	0	105
05:30 PM	0	35	8	9	0	22	17	27	0	0	0	0	118
05:45 PM	0	15	1	8	0	22	12	10	0	0	0	0	68
Total	0	102	15	43	0	109	73	109	0	0	0	0	451
Grand Total	0	267	44	106	0	244	164	254	0	3	0	2	1084
Apprch %	0	85.9	14.1	30.3	0	69.7	39.2	60.8	0	60	0	40	
Total %	0	24.6	4.1	9.8	0	22.5	15.1	23.4	0	0.3	0	0.2	
Cars	0	261	41	98	0	237	162	247	0	2	0	2	1050
% Cars	0	97.8	93.2	92.5	0	97.1	98.8	97.2	0	66.7	0	100	96.9
Heavy Vehicles	0	6	3	8	0	7	2	7	0	1	0	0	34
% Heavy Vehicles	0	2.2	6.8	7.5	0	2.9	1.2	2.8	0	33.3	0	0	3.1

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**54**	**12**	**66**	15	0	30	45	18	**41**	0	59	0	0	0	0	**170**
04:15 PM	0	33	10	43	17	0	33	50	26	34	0	60	**2**	0	**1**	**3**	156
04:30 PM	0	41	4	45	**21**	0	**44**	**65**	19	36	0	55	1	0	1	2	167
04:45 PM	0	37	3	40	10	0	28	38	**28**	34	0	**62**	0	0	0	0	140
Total Volume	0	165	29	194	63	0	135	198	91	145	0	236	3	0	2	5	633
% App. Total	0	85.1	14.9		31.8	0	68.2		38.6	61.4	0		60	0	40		
PHF	.000	.764	.604	.735	.750	.000	.767	.762	.813	.884	.000	.952	.375	.000	.500	.417	.931
Cars	0	159	26	185	57	0	130	187	90	139	0	229	2	0	2	4	605
% Cars	0	96.4	89.7	95.4	90.5	0	96.3	94.4	98.9	95.9	0	97.0	66.7	0	100	80.0	95.6
Heavy Vehicles	0	6	3	9	6	0	5	11	1	6	0	7	1	0	0	1	28
% Heavy Vehicles	0	3.6	10.3	4.6	9.5	0	3.7	5.6	1.1	4.1	0	3.0	33.3	0	0	20.0	4.4

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Groups Printed- Cars

	McArthur Drive From North			Herman Melville Boulevard From East			McArthur Drive From South			West Terminal Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	53	10	12	0	28	18	39	0	0	0	0	160
04:15 PM	0	31	10	16	0	32	26	33	0	1	0	1	150
04:30 PM	0	39	3	20	0	42	19	35	0	1	0	1	160
04:45 PM	0	36	3	9	0	28	27	32	0	0	0	0	135
Total	0	159	26	57	0	130	90	139	0	2	0	2	605
05:00 PM	0	27	3	19	0	38	24	46	0	0	0	0	157
05:15 PM	0	25	3	6	0	26	19	25	0	0	0	0	104
05:30 PM	0	35	8	8	0	22	17	27	0	0	0	0	117
05:45 PM	0	15	1	8	0	21	12	10	0	0	0	0	67
Total	0	102	15	41	0	107	72	108	0	0	0	0	445
Grand Total	0	261	41	98	0	237	162	247	0	2	0	2	1050
Apprch %	0	86.4	13.6	29.3	0	70.7	39.6	60.4	0	50	0	50	
Total %	0	24.9	3.9	9.3	0	22.6	15.4	23.5	0	0.2	0	0.2	

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**53**	**10**	**63**	12	0	28	40	18	**39**	0	57	0	0	0	0	**160**
04:15 PM	0	31	10	41	16	0	32	48	26	33	0	**59**	**1**	0	**1**	**2**	150
04:30 PM	0	39	3	42	**20**	0	**42**	**62**	19	35	0	54	1	0	1	2	160
04:45 PM	0	36	3	39	9	0	28	37	**27**	32	0	59	0	0	0	0	135
Total Volume	0	159	26	185	57	0	130	187	90	139	0	229	2	0	2	4	605
% App. Total	0	85.9	14.1		30.5	0	69.5		39.3	60.7	0		50	0	50		
PHF	.000	.750	.650	.734	.713	.000	.774	.754	.833	.891	.000	.970	.500	.000	.500	.500	.945

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File Name : 81676 C-DDD
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Start Date : 9/30/2008
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Groups Printed- Heavy Vehicles

	McArthur Drive From North			Herman Melville Boulevard From East			McArthur Drive From South			West Terminal Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	2	3	0	2	0	2	0	0	0	0	10
04:15 PM	0	2	0	1	0	1	0	1	0	1	0	0	6
04:30 PM	0	2	1	1	0	2	0	1	0	0	0	0	7
04:45 PM	0	1	0	1	0	0	1	2	0	0	0	0	5
Total	0	6	3	6	0	5	1	6	0	1	0	0	28
05:00 PM	0	0	0	1	0	1	1	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	2	0	2	1	1	0	0	0	0	6
Grand Total	0	6	3	8	0	7	2	7	0	1	0	0	34
Apprch %	0	66.7	33.3	53.3	0	46.7	22.2	77.8	0	100	0	0	
Total %	0	17.6	8.8	23.5	0	20.6	5.9	20.6	0	2.9	0	0	

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	**2**	**3**	**3**	0	**2**	**5**	0	**2**	0	2	0	0	0	0	**10**
04:15 PM	0	**2**	0	2	1	0	1	2	0	1	0	1	**1**	0	0	**1**	6
04:30 PM	0	2	1	3	1	0	2	3	0	1	0	1	0	0	0	0	7
04:45 PM	0	1	0	1	1	0	0	1	**1**	2	0	**3**	0	0	0	0	5
Total Volume	0	6	3	9	6	0	5	11	1	6	0	7	1	0	0	1	28
% App. Total	0	66.7	33.3		54.5	0	45.5		14.3	85.7	0		100	0	0		
PHF	.000	.750	.375	.750	.500	.000	.625	.550	.250	.750	.000	.583	.250	.000	.000	.250	.700

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N/S: McArthur Drive
E/W: Herman Melville Blvd/West Terminal
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-DDD
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	4	14
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4
Total	0	2	0	2	0	0	2	2	5	5	0	0	0	0	0	4	22
05:00 PM	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	2	7
05:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	0	1	0	0	0	3	2	3	0	0	0	0	0	2	11
Grand Total	0	2	0	3	0	0	2	5	7	8	0	0	0	0	0	6	33
Apprch %	0	40	0	60	0	0	28.6	71.4	46.7	53.3	0	0	0	0	0	100	
Total %	0	6.1	0	9.1	0	0	6.1	15.2	21.2	24.2	0	0	0	0	0	18.2	

	McArthur Drive From North					Herman Melville Boulevard From East					McArthur Drive From South					West Terminal Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	0	0	0	**5**	**5**	**0**	**0**	**10**	0	0	0	**4**	**4**	**14**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	**2**	**2**	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	0	2	2	7
Total Volume	0	0	0	2	2	0	0	0	2	2	7	8	0	0	15	0	0	0	6	6	25
% App. Total	0	0	0	100		0	0	0	100		46.7	53.3	0	0		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.350	.400	.000	.000	.375	.000	.000	.000	.375	.375	.446

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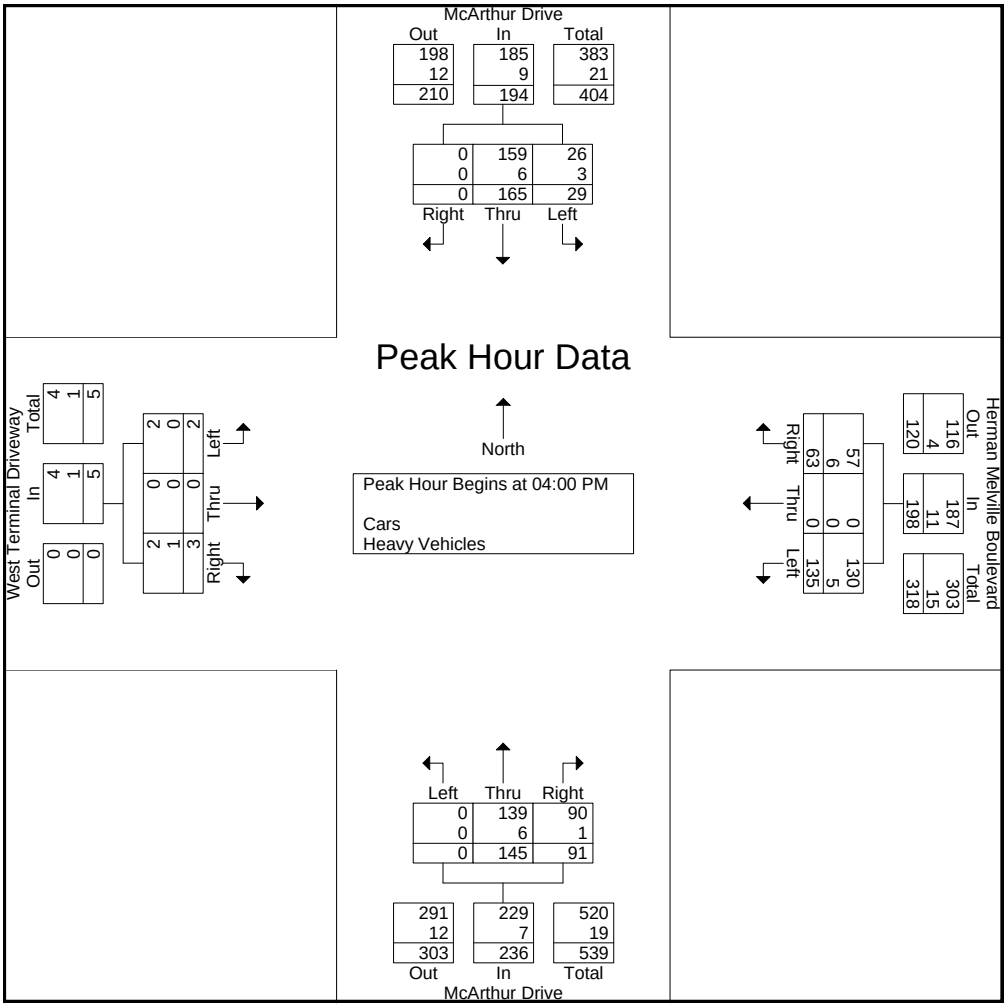
N/S: McArthur Drive
E/W: Herman Melville Blvd/West Terminal
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-DDD
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	McArthur Drive From North				Herman Melville Boulevard From East				McArthur Drive From South				West Terminal Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**54**	**12**	**66**	15	0	30	45	18	**41**	0	59	0	0	0	0	**170**
04:15 PM	0	33	10	43	17	0	33	50	26	34	0	60	**2**	0	**1**	**3**	156
04:30 PM	0	41	4	45	**21**	0	**44**	**65**	19	36	0	55	1	0	1	2	167
04:45 PM	0	37	3	40	10	0	28	38	**28**	34	0	**62**	0	0	0	0	140
Total Volume	0	165	29	194	63	0	135	198	91	145	0	236	3	0	2	5	633
% App. Total	0	85.1	14.9		31.8	0	68.2		38.6	61.4	0		60	0	40		
PHF	.000	.764	.604	.735	.750	.000	.767	.762	.813	.884	.000	.952	.375	.000	.500	.417	.931
Cars	0	159	26	185	57	0	130	187	90	139	0	229	2	0	2	4	605
% Cars	0	96.4	89.7	95.4	90.5	0	96.3	94.4	98.9	95.9	0	97.0	66.7	0	100	80.0	95.6
Heavy Vehicles	0	6	3	9	6	0	5	11	1	6	0	7	1	0	0	1	28
% Heavy Vehicles	0	3.6	10.3	4.6	9.5	0	3.7	5.6	1.1	4.1	0	3.0	33.3	0	0	20.0	4.4



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N/S/SW: Pleasant Street/North 6th Street
E/W: Kempton Street (Route 6)
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-E
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Pleasant Street From North				Kempton Street (Route 6) From East				Pleasant Street From South				North 6th Street From Southwest				Mill Street/Kempton Street (Route 6) From West				
Start	Right	Bear Right	Thru	Left	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Int. Total
07:00 AM	2	30	0	1	13	19	31	0	9	36	17	1	0	0	0	0	0	0	8	25	192
07:15 AM	13	29	0	10	31	50	77	0	13	35	17	3	0	0	0	0	1	0	19	42	340
07:30 AM	7	46	0	13	34	37	67	0	11	33	7	4	0	0	0	0	0	0	37	40	336
07:45 AM	14	55	0	14	50	53	112	0	15	45	9	7	0	0	0	0	0	0	48	51	473
Total	36	160	0	38	128	159	287	0	48	149	50	15	0	0	0	0	1	0	112	158	1341
08:00 AM	11	62	0	3	13	18	57	0	8	51	17	4	0	0	0	0	0	0	12	66	322
08:15 AM	6	79	0	23	43	44	125	0	5	64	13	6	0	0	0	0	1	0	43	53	505
08:30 AM	12	72	0	11	34	58	100	0	3	43	16	5	0	0	0	0	2	0	31	43	430
Grand Total	65	373	0	75	218	279	569	0	64	307	96	30	0	0	0	0	4	0	198	320	2598
Apprch %	12.7	72.7	0	14.6	20.5	26.2	53.4	0	12.9	61.8	19.3	6	0	0	0	0	0.8	0	37.9	61.3	
Total %	2.5	14.4	0	2.9	8.4	10.7	21.9	0	2.5	11.8	3.7	1.2	0	0	0	0	0.2	0	7.6	12.3	
Cars	57	355	0	73	210	272	548	0	61	288	87	30	0	0	0	0	4	0	195	305	2485
% Cars	87.7	95.2	0	97.3	96.3	97.5	96.3	0	95.3	93.8	90.6	100	0	0	0	0	100	0	98.5	95.3	95.7
Heavy Vehicles	8	18	0	2	8	7	21	0	3	19	9	0	0	0	0	0	0	0	3	15	113
% Heavy Vehicles	12.3	4.8	0	2.7	3.7	2.5	3.7	0	4.7	6.2	9.4	0	0	0	0	0	0	0	1.5	4.7	4.3

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Mill Street/Kempton Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:45 AM																										
07:45 AM	**14**	**55**	**0**	**14**	**83**	**50**	**53**	112	0	**215**	**15**	45	9	**7**	76	0	0	0	0	0	0	0	**48**	51	**99**	**473**
08:00 AM	11	62	0	3	76	13	18	57	0	88	8	51	**17**	**4**	**80**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**66**	**78**	**322**
08:15 AM	6	**79**	0	**23**	**108**	43	44	**125**	0	212	5	**64**	**13**	**6**	**88**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**43**	**53**	**97**	**505**
08:30 AM	12	72	0	11	95	34	**58**	100	0	192	3	43	16	5	67	0	0	0	0	0	**2**	**0**	**31**	**43**	**76**	**430**
Total Volume	43	268	0	51	362	140	173	394	0	707	31	203	55	22	311	0	0	0	0	0	3	0	134	213	350	1730
% App. Total	11.9	74	0	14.1		19.8	24.5	55.7				65.3	17.7	7.1		0	0	0	0		0.9	0	38.3	60.9		
PHF	.768	.848	.000	.554	.838	.700	.746	.788	.000	.822	.517	.793	.809	.786		.000	.000	.000	.000	.000	.375	.000	.698	.807	.884	.856
Cars	37	256				135	167	381				192	50	22	294	0	0	0	0	0	3	0	132	202	337	1656
% Cars	86.0	95.5		96.1	94.5	96.4	96.5	96.7			96.8	94.6	90.9	100							100	0	98.5	94.8	96.3	95.7
Heavy Vehicles																										
% Heavy Vehicles	14.0	4.5	0	3.9	5.5	3.6	3.5	3.3	0	3.4	3.2	5.4	9.1	0	5.5	0	0	0	0	0	0	0	1.5	5.2	3.7	4.3

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E/W: Kempton Street (Route 6)
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-E
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars

	Pleasant Street From North				Kempton Street (Route 6) From East				Pleasant Street From South				North 6th Street From Southwest				Mill Street/Kempton Street (Route 6) From West				
Start	Right	Bear Right	Thru	Left	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Int. Total
07:00 AM	1	28	0	1	13	18	27	0	8	34	15	1	0	0	0	0	0	0	8	24	178
07:15 AM	12	26	0	10	29	50	75	0	13	33	16	3	0	0	0	0	1	0	19	41	328
07:30 AM	7	45	0	13	33	37	65	0	10	29	6	4	0	0	0	0	0	0	36	38	323
07:45 AM	12	53	0	14	47	50	111	0	15	43	8	7	0	0	0	0	0	0	48	50	458
Total	32	152	0	38	122	155	278	0	46	139	45	15	0	0	0	0	1	0	111	153	1287
08:00 AM	9	58	0	3	11	18	55	0	7	48	15	4	0	0	0	0	0	0	12	61	301
08:15 AM	5	76	0	21	43	43	121	0	5	61	12	6	0	0	0	0	1	0	42	52	488
08:30 AM	11	69	0	11	34	56	94	0	3	40	15	5	0	0	0	0	2	0	30	39	409
Grand Total	57	355	0	73	210	272	548	0	61	288	87	30	0	0	0	0	4	0	195	305	2485
Apprch %	11.8	73.2	0	15.1	20.4	26.4	53.2	0	13.1	61.8	18.7	6.4	0	0	0	0	0.8	0	38.7	60.5	
Total %	2.3	14.3	0	2.9	8.5	10.9	22.1	0	2.5	11.6	3.5	1.2	0	0	0	0	0.2	0	7.8	12.3	

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Mill Street/Kempton Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:45 AM																										
07:45 AM	**12**	**53**	**0**	**14**	**79**	**47**	**50**	111	0	**208**	**15**	43	8	**7**	73	0	0	0	0	0	0	0	**48**	50	**98**	**458**
08:00 AM	9	58	0	3	70	11	18	55	0	84	7	48	**15**	**4**	**74**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**61**	**73**	**301**
08:15 AM	5	**76**	0	**21**	**102**	43	43	**121**	0	207	5	**61**	**12**	**6**	**84**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**42**	**52**	**95**	**488**
08:30 AM	11	69	0	11	91	34	**56**	**94**	**0**	**184**	**3**	**40**	**15**	**5**	**63**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**30**	**39**	**71**	**409**
Total Volume	37	256	0	49	342	135	167	381	0	683	30	192	50	22	294	0	0	0	0	0	3	0	132	202	337	1656
% App. Total	10.8	74.9		14.3		19.8	24.5	55.8			10.2	65.3	17	7.5		0	0	0	0		0.9	0	39.2	59.9		
PHF	.771	.842	.000	.583	.838	.718	.746	.787	.000	.821	.500	.787	.833	.786		.000	.000	.000	.000	.000	.375	.000	.688	.828	.860	.848

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File Name : 81676 C-E
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Pleasant Street From North				Kempton Street (Route 6) From East				Pleasant Street From South				North 6th Street From Southwest				Mill Street/Kempton Street (Route 6) From West				
Start	Right	Bear Right	Thru	Left	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Int. Total
07:00 AM	1	2	0	0	0	1	4	0	1	2	2	0	0	0	0	0	0	0	0	1	14
07:15 AM	1	3	0	0	2	0	2	0	0	2	1	0	0	0	0	0	0	0	0	1	12
07:30 AM	0	1	0	0	1	0	2	0	1	4	1	0	0	0	0	0	0	0	1	2	13
07:45 AM	2	2	0	0	3	3	1	0	0	2	1	0	0	0	0	0	0	0	0	1	15
Total	4	8	0	0	6	4	9	0	2	10	5	0	0	0	0	0	0	0	1	5	54
08:00 AM	2	4	0	0	2	0	2	0	1	3	2	0	0	0	0	0	0	0	0	5	21
08:15 AM	1	3	0	2	0	1	4	0	0	3	1	0	0	0	0	0	0	0	1	1	17
08:30 AM	1	3	0	0	0	2	6	0	0	3	1	0	0	0	0	0	0	0	1	4	21
Grand Total	8	18	0	2	8	7	21	0	3	19	9	0	0	0	0	0	0	0	3	15	113
Apprch %	28.6	64.3	0	7.1	22.2	19.4	58.3	0	9.7	61.3	29	0	0	0	0	0	0	0	16.7	83.3	
Total %	7.1	15.9	0	1.8	7.1	6.2	18.6	0	2.7	16.8	8	0	0	0	0	0	0	0	2.7	13.3	

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Mill Street/Kempton Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:45 AM																										
07:45 AM	**2**	**2**	**0**	**0**	**4**	**3**	**3**	**1**	**0**	**7**	**0**	**2**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**15**
08:00 AM	2	**4**	0	0	**6**	2	0	2	0	4	**1**	**3**	**2**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**21**
08:15 AM	1	3	0	**2**	**6**	**0**	**1**	**4**	**0**	**5**	**0**	**3**	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1	2	17
08:30 AM	1	3	0	0	4	0	2	**6**	0	**8**	**0**	**3**	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**5**	**21**
Total Volume	6	12	0	2	20	5	6	13	0	24	1	11	5	0	17	0	0	0	0	0	0	0	2	11	13	74
% App. Total	30	60	0	10		20.8	25	54.2	0		5.9	64.7	29.4	0		0	0	0	0		0	0	15.4	84.6		
PHF	.750	.750	.000	.250	.833	.417	.500	.542	.000	.750	.250	.917	.625	.000		.000	.000	.000	.000	.000	.000	.000	.500	.550	.650	.881

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Client: VHB/J. Quitter

File Name : 81676 C-E
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Mill Street/Kempton Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	5
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	6
07:30 AM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
Total	0	0	1	0	0	0	0	0	0	10	1	1	0	0	2	0	0	0	0	2	0	0	0	0	4	21
08:00 AM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7
08:30 AM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	13
Grand Total	0	0	1	0	1	0	0	0	0	29	1	1	0	0	3	0	0	0	0	5	0	0	0	0	4	45
Apprch %	0	0	50	0	50	0	0	0	0	100	20	20	0	0	60	0	0	0	0	100	0	0	0	0	100	
Total %	0	0	2.2	0	2.2	0	0	0	0	64.4	2.2	2.2	0	0	6.7	0	0	0	0	11.1	0	0	0	0	8.9	

	Pleasant Street From North						Kempton Street (Route 6) From East						Pleasant Street From South						North 6th Street From Southwest						Mill Street/Kempton Street (Route 6) From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	6
08:00 AM	0	0	0	0	**1**	**1**	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	7
08:30 AM	0	0	0	0	0	0	0	0	0	0	**11**	**11**	0	0	0	0	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**13**
Total Volume	0	0	0	0	1	1	0	0	0	0	24	24	0	0	0	0	1	1	0	0	0	0	3	3	0	0	0	0	1	1	30
% App. Total	0	0	0	0	100		0	0	0	0	100		0	0	0	0	100		0	0	0	0	100		0	0	0	0	100		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.545	.545	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.750	.750	.000	.000	.000	.000	.250	.250	.577

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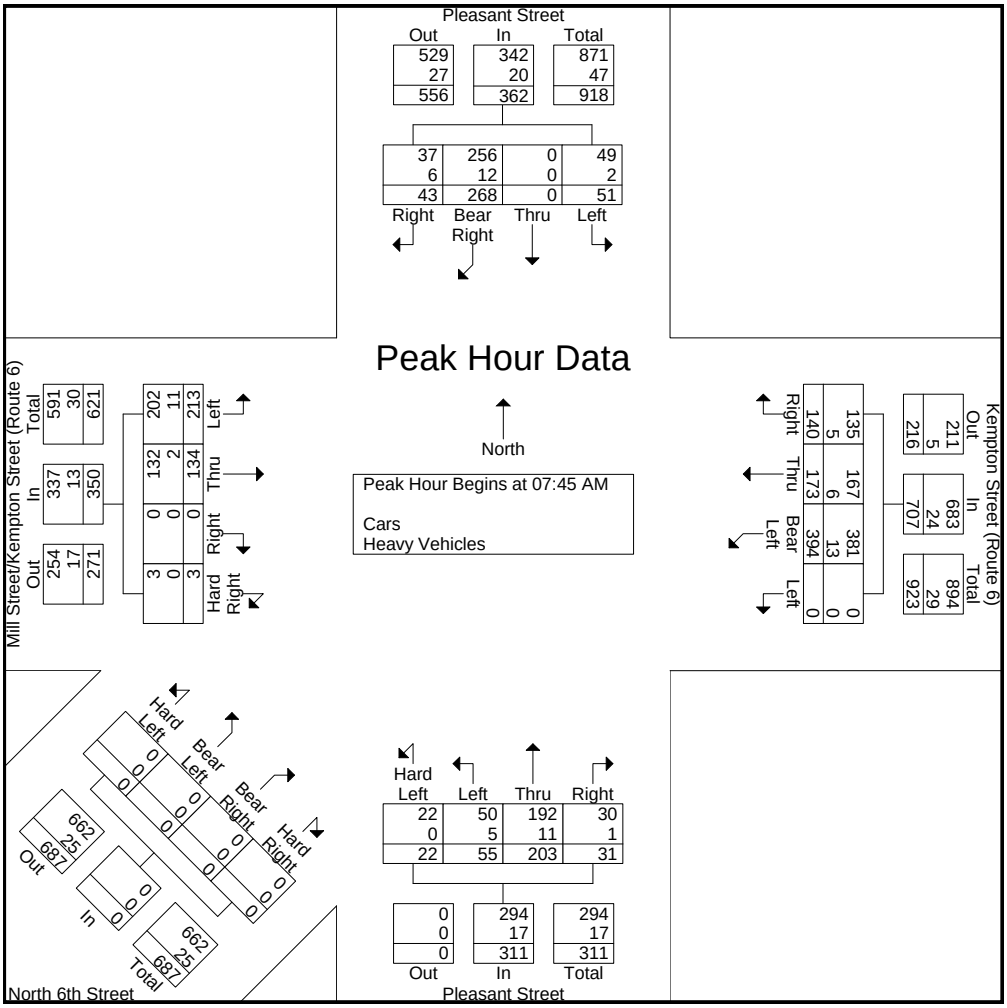
N/S/SW: Pleasant Street/North 6th Street
E/W: Kempton Street (Route 6)
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-E
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Mill Street/Kempton Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:45 AM																										
07:45 AM	**14**	**55**	**0**	**14**	**83**	**50**	**53**	112	0	**215**	**15**	45	9	**7**	76	0	0	0	0	0	0	0	**48**	51	**99**	**473**
08:00 AM	11	62	0	3	76	13	18	57	0	88	8	51	**17**	**4**	**80**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**66**	**78**	**322**
08:15 AM	6	**79**	0	**23**	**108**	43	44	**125**	0	212	5	**64**	**13**	**6**	**88**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**43**	**53**	**97**	**505**
08:30 AM	12	72	0	11	95	34	**58**	100	0	192	3	43	16	5	67	0	0	0	0	0	**2**	**0**	**31**	**43**	**76**	**430**
Total Volume	43	268	0	51	362	140	173	394	0	707	31	203	55	22	311	0	0	0	0	0	3	0	134	213	350	1730
% App. Total	11.9	74	0	14.1		19.8	24.5	55.7				65.3	17.7	7.1		0	0	0	0		0.9	0	38.3	60.9		
PHF	.768	.848	.000	.554	.838	.700	.746	.788	.000	.822	.517	.793	.809	.786		.000	.000	.000	.000	.000	.375	.000	.698	.807	.884	.856
Cars	37	256				135	167	381				192	50	22	294	0	0	0	0	0	3	0	132	202	337	1656
% Cars	86.0	95.5		96.1	94.5	96.4	96.5	96.7			96.8	94.6	90.9	100							100	0	98.5	94.8	96.3	95.7
Heavy Vehicles																										
% Heavy Vehicles	14.0	4.5	0	3.9	5.5	3.6	3.5	3.3	0	3.4	3.2	5.4	9.1	0	5.5	0	0	0	0	0	0	0	1.5	5.2	3.7	4.3



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N/S/SW: Pleasant Street/North 6th Street
E/W: Kempton Street (Route 6)
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-EEE
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Pleasant Street From North				Kempton Street (Route 6) From East				Pleasant Street From South				North 6th Street From Southwest				Kempton Street/Mill Street (Route 6) From West				
Start	Right	Bear Right	Thru	Left	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Int. Total
04:00 PM	21	91	0	20	66	43	94	0	24	104	33	9	0	0	0	0	0	0	50	62	617
04:15 PM	7	77	0	18	56	47	63	0	10	120	34	4	0	0	0	0	1	0	45	68	550
04:30 PM	12	76	0	22	59	51	98	0	38	118	35	5	0	0	0	0	0	0	46	68	628
04:45 PM	8	65	0	19	47	56	91	0	26	88	30	7	0	0	0	0	0	0	45	53	535
Total	48	309	0	79	228	197	346	0	98	430	132	25	0	0	0	0	1	0	186	251	2330
05:00 PM	13	69	0	27	32	46	67	0	36	138	40	6	0	0	0	0	0	0	51	47	572
05:15 PM	8	38	0	9	26	35	54	0	19	78	18	2	0	0	0	0	0	0	57	45	389
05:30 PM	8	66	0	14	32	48	78	0	23	76	26	4	0	0	0	0	0	0	40	52	467
05:45 PM	5	60	0	14	31	35	60	0	12	72	21	2	0	0	0	0	0	0	42	47	401
Total	34	233	0	64	121	164	259	0	90	364	105	14	0	0	0	0	0	0	190	191	1829
Grand Total	82	542	0	143	349	361	605	0	188	794	237	39	0	0	0	0	1	0	376	442	4159
Apprch %	10.7	70.7	0	18.6	26.5	27.5	46	0	14.9	63.1	18.8	3.1	0	0	0	0	0.1	0	45.9	54	
Total %	2	13	0	3.4	8.4	8.7	14.5	0	4.5	19.1	5.7	0.9	0	0	0	0	0	0	9	10.6	
Cars	81	522	0	143	342	354	588	0	183	772	226	39	0	0	0	0	1	0	373	436	4060
% Cars	98.8	96.3	0	100	98	98.1	97.2	0	97.3	97.2	95.4	100	0	0	0	0	100	0	99.2	98.6	97.6
Heavy Vehicles	1	20	0	0	7	7	17	0	5	22	11	0	0	0	0	0	0	0	3	6	99
% Heavy Vehicles	1.2	3.7	0	0	2	1.9	2.8	0	2.7	2.8	4.6	0	0	0	0	0	0	0	0.8	1.4	2.4

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Kempton Street/Mill Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:00 PM																										
04:00 PM	**21**	**91**	0	20	**132**	**66**	**43**	**94**	**0**	**203**	**24**	104	33	**9**	170	0	0	0	0	0	0	0	**50**	62	112	617
04:15 PM	7	77	0	18	102	56	47	63	0	166	10	**120**	**34**	**4**	**168**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**45**	**68**	**114**	**550**
04:30 PM	12	76	0	**22**	**110**	**59**	**51**	**98**	0	**208**	**38**	118	**35**	**5**	**196**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**46**	**68**	**114**	**628**
04:45 PM	8	65	0	19	92	47	**56**	**91**	**0**	**194**	**26**	**88**	**30**	**7**	**151**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	**53**	**98**	**535**
Total Volume	48	309	0	79	436	228	197	346	0	771	98	430	132	25	685	0	0	0	0	0	1	0	186	251	438	2330
% App. Total		70.9		18.1		29.6	25.6	44.9			14.3	62.8	19.3	3.6		0	0	0	0		0.2	0	42.5	57.3		
PHF	.571	.849	.000	.898	.826	.864	.879	.883	.000	.927	.645	.896	.943	.694		.000	.000	.000	.000	.000	.250	.000	.930	.923	.961	.928
Cars	47	299				222	195	333				417	125	25	662	0	0	0	0	0	1	0	184	248	433	2270
% Cars	97.9	96.8		100	97.5	97.4	99.0	96.2			96.9	97.0	94.7	100							100	0	98.9	98.8	98.9	97.4
Heavy Vehicles																										
% Heavy Vehicles	2.1	3.2	0	0	2.5	2.6	1.0	3.8	0	2.7	3.1	3.0	5.3	0	3.4	0	0	0	0	0	0	0	1.1	1.2	1.1	2.6

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E/W: Kempton Street (Route 6)
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-EEE
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars

	Pleasant Street From North				Kempton Street (Route 6) From East				Pleasant Street From South				North 6th Street From Southwest				Kempton Street/Mill Street (Route 6) From West				
Start	Right	Bear Right	Thru	Left	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Int. Total
04:00 PM	20	88	0	20	64	42	89	0	23	100	31	9	0	0	0	0	0	0	50	61	597
04:15 PM	7	75	0	18	55	47	60	0	9	118	34	4	0	0	0	0	1	0	45	67	540
04:30 PM	12	72	0	22	57	50	95	0	37	114	32	5	0	0	0	0	0	0	44	67	607
04:45 PM	8	64	0	19	46	56	89	0	26	85	28	7	0	0	0	0	0	0	45	53	526
Total	47	299	0	79	222	195	333	0	95	417	125	25	0	0	0	0	1	0	184	248	2270
05:00 PM	13	66	0	27	32	45	65	0	35	136	39	6	0	0	0	0	0	0	50	45	559
05:15 PM	8	37	0	9	26	32	54	0	19	77	16	2	0	0	0	0	0	0	57	45	382
05:30 PM	8	62	0	14	32	47	77	0	22	73	25	4	0	0	0	0	0	0	40	51	455
05:45 PM	5	58	0	14	30	35	59	0	12	69	21	2	0	0	0	0	0	0	42	47	394
Total	34	223	0	64	120	159	255	0	88	355	101	14	0	0	0	0	0	0	189	188	1790
Grand Total	81	522	0	143	342	354	588	0	183	772	226	39	0	0	0	0	1	0	373	436	4060
Apprch %	10.9	70	0	19.2	26.6	27.6	45.8	0	15	63.3	18.5	3.2	0	0	0	0	0.1	0	46	53.8	
Total %	2	12.9	0	3.5	8.4	8.7	14.5	0	4.5	19	5.6	1	0	0	0	0	0	0	9.2	10.7	

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Kempton Street/Mill Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:00 PM																										
04:00 PM	**20**	**88**	0	20	**128**	**64**	**42**	**89**	**0**	**195**	**23**	100	31	**9**	163	0	0	0	0	0	0	0	**50**	61	111	597
04:15 PM	7	75	0	18	100	55	47	60	0	162	9	**118**	**34**	**4**	**165**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**45**	**67**	**113**	**540**
04:30 PM	12	72	0	**22**	**106**	**57**	**50**	**95**	0	**202**	**37**	114	32	5	**188**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**44**	**67**	**111**	**607**
04:45 PM	8	64	0	19	91	46	**56**	**89**	**0**	**191**	**26**	**85**	**28**	**7**	**146**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	**53**	**98**	**526**
Total Volume	47	299	0	79	425	222	195	333	0	750	95	417	125	25	662	0	0	0	0	0	1	0	184	248	433	2270
% App. Total	11.1	70.4		18.6		29.6	26	44.4			14.4		18.9	3.8		0	0	0	0		0.2	0	42.5	57.3		
PHF	.588	.849	.000	.898	.830	.867	.871	.876	.000	.928	.642	.883	.919	.694		.000	.000	.000	.000	.000	.250	.000	.920	.925	.958	.935

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File Name : 81676 C-EEE
Site Code : 10111.31
Start Date : 9/30/2008
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Groups Printed- Heavy Vehicles

	Pleasant Street From North				Kempton Street (Route 6) From East				Pleasant Street From South				North 6th Street From Southwest				Kempton Street/Mill Street (Route 6) From West				
Start	Right	Bear Right	Thru	Left	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Int. Total
04:00 PM	1	3	0	0	2	1	5	0	1	4	2	0	0	0	0	0	0	0	0	1	20
04:15 PM	0	2	0	0	1	0	3	0	1	2	0	0	0	0	0	0	0	0	0	1	10
04:30 PM	0	4	0	0	2	1	3	0	1	4	3	0	0	0	0	0	0	0	2	1	21
04:45 PM	0	1	0	0	1	0	2	0	0	3	2	0	0	0	0	0	0	0	0	0	9
Total	1	10	0	0	6	2	13	0	3	13	7	0	0	0	0	0	0	0	2	3	60
05:00 PM	0	3	0	0	0	1	2	0	1	2	1	0	0	0	0	0	0	0	1	2	13
05:15 PM	0	1	0	0	0	3	0	0	0	1	2	0	0	0	0	0	0	0	0	0	7
05:30 PM	0	4	0	0	0	1	1	0	1	3	1	0	0	0	0	0	0	0	0	1	12
05:45 PM	0	2	0	0	1	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	7
Total	0	10	0	0	1	5	4	0	2	9	4	0	0	0	0	0	0	0	1	3	39
Grand Total	1	20	0	0	7	7	17	0	5	22	11	0	0	0	0	0	0	0	3	6	99
Apprch %	4.8	95.2	0	0	22.6	22.6	54.8	0	13.2	57.9	28.9	0	0	0	0	0	0	0	33.3	66.7	
Total %	1	20.2	0	0	7.1	7.1	17.2	0	5.1	22.2	11.1	0	0	0	0	0	0	0	3	6.1	

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Kempton Street/Mill Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:00 PM																										
04:00 PM	**1**	**3**	**0**	**0**	**4**	**2**	**1**	**5**	0	**8**	**1**	**4**	**2**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**20**
04:15 PM	0	2	0	0	2	1	0	3	0	4	1	2	0	0	3	0	0	0	0	0	0	0	0	1	1	10
04:30 PM	0	**4**	0	0	4	2	1	3	0	6	1	4	**3**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	1	**3**	**21**
04:45 PM	0	1	0	0	1	1	0	2	0	3	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0	9
Total Volume	1	10	0	0	11	6	2	13	0	21	3	13	7	0	23	0	0	0	0	0	0	0	2	3	5	60
% App. Total	9.1	90.9	0	0		28.6	9.5	61.9	0		13	56.5	30.4	0		0	0	0	0		0	0	40	60		
PHF	.250	.625	.000	.000	.688	.750	.500	.650	.000	.656	.750	.813	.583	.000		.000	.000	.000	.000	.000	.000	.000	.250	.750	.417	.714

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N/S/SW: Pleasant Street/North 6th Street
E/W: Kempton Street (Route 6)
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-EEE
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Kempton Street/Mill Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	2	0	0	0	0	15	0	0	0	0	2	0	0	0	0	1	0	0	0	0	2	22
04:15 PM	0	0	1	0	0	0	0	0	0	12	0	1	0	0	0	0	0	0	0	2	0	0	0	0	5	21
04:30 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	13
04:45 PM	0	0	0	0	0	0	0	0	0	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Total	0	0	1	0	2	0	0	0	0	45	0	3	0	0	4	0	0	0	0	3	0	0	0	0	7	65
05:00 PM	0	0	0	0	0	0	0	0	0	6	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	9
05:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	5	0	0	0	0	6	14
05:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
05:45 PM	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	6
Total	0	0	0	0	0	0	0	0	0	14	0	4	0	0	0	0	0	0	0	6	0	0	1	0	9	34
Grand Total	0	0	1	0	2	0	0	0	0	59	0	7	0	0	4	0	0	0	0	9	0	0	1	0	16	99
Apprch %	0	0	33.3	0	66.7	0	0	0	0	100	0	63.6	0	0	36.4	0	0	0	0	100	0	0	5.9	0	94.1	
Total %	0	0	1	0	2	0	0	0	0	59.6	0	7.1	0	0	4	0	0	0	0	9.1	0	0	1	0	16.2	

	Pleasant Street From North						Kempton Street (Route 6) From East						Pleasant Street From South						North 6th Street From Southwest						Kempton Street/Mill Street (Route 6) From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:00 PM																															
04:00 PM	0	0	0	0	**2**	**2**	0	0	0	0	**15**	**15**	0	0	0	0	**2**	**2**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**2**	**2**	**22**
04:15 PM	0	0	**1**	0	0	1	0	0	0	0	12	12	0	1	0	0	0	1	0	0	0	0	**2**	**2**	0	0	0	0	**5**	**5**	21
04:30 PM	0	0	0	0	0	0	0	0	0	0	11	11	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	13
04:45 PM	0	0	0	0	0	0	0	0	0	0	7	7	0	**2**	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	9
Total Volume	0	0	1	0	2	3	0	0	0	0	45	45	0	3	0	0	4	7	0	0	0	0	3	3	0	0	0	0	7	7	65
% App. Total	0	0	33.3	0	66.7		0	0	0	0	100		0	42.9	0	0	57.1		0	0	0	0	100		0	0	0	0	100		
PHF	.000	.000	.250	.000	.250	.375	.000	.000	.000	.000	.750	.750	.000	.375	.000	.000	.500	.875	.000	.000	.000	.000	.375	.375	.000	.000	.000	.000	.350	.350	.739

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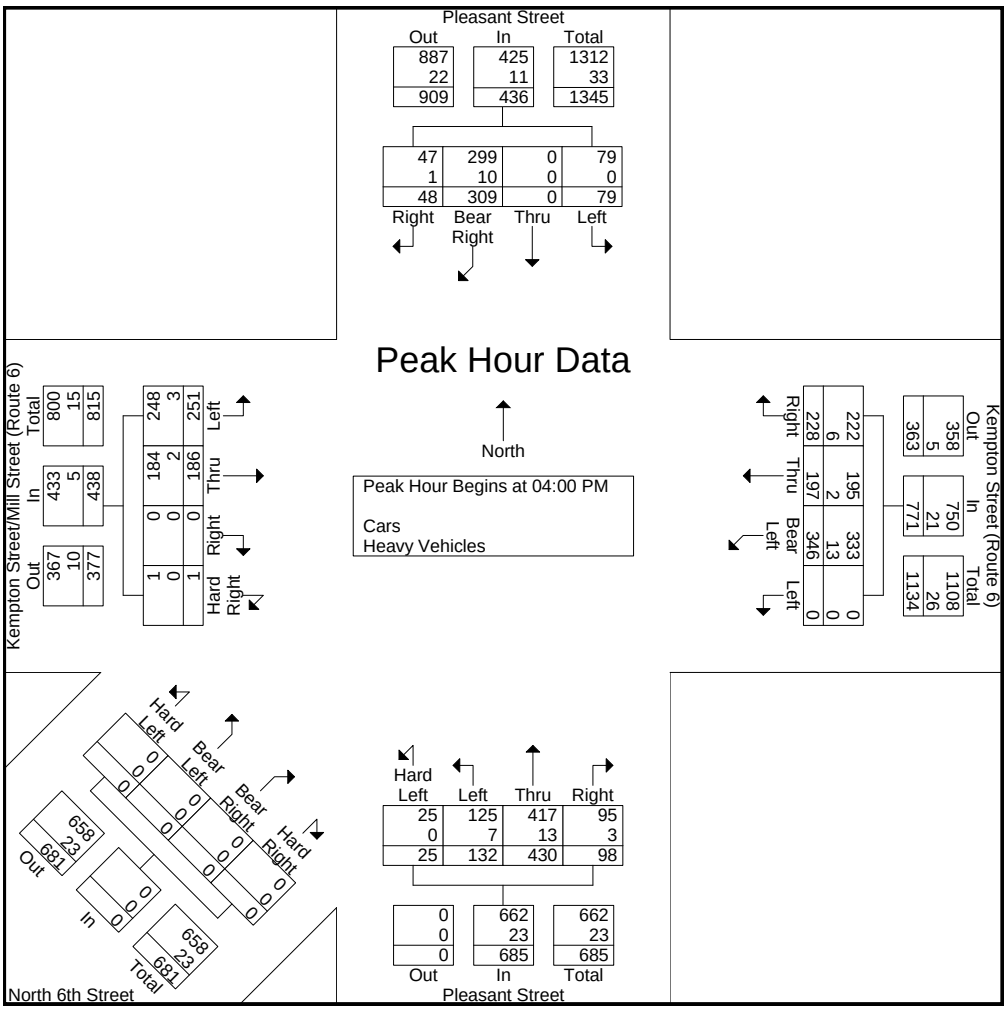
N/S/SW: Pleasant Street/North 6th Street
E/W: Kempton Street (Route 6)
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-EEE
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	Pleasant Street From North					Kempton Street (Route 6) From East					Pleasant Street From South					North 6th Street From Southwest					Kempton Street/Mill Street (Route 6) From West					
Start Time	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:00 PM																										
04:00 PM	21	91	0	20	132	66	43	94	0	203	24	104	33	9	170	0	0	0	0	0	0	0	50	62	112	617
04:15 PM	7	77	0	18	102	56	47	63	0	166	10	120	34	4	168	0	0	0	0	0	1	0	45	68	114	550
04:30 PM	12	76	0	22	110	59	51	98	0	208	38	118	35	5	196	0	0	0	0	0	0	0	46	68	114	628
04:45 PM	8	65	0	19	92	47	56	91	0	194	26	88	30	7	151	0	0	0	0	0	0	0	45	53	98	535
Total Volume	48	309	0	79	436	228	197	346	0	771	98	430	132	25	685	0	0	0	0	0	1	0	186	251	438	2330
% App. Total		70.9		18.1		29.6	25.6	44.9			14.3	62.8	19.3	3.6		0	0	0	0		0.2	0	42.5	57.3		
PHF	.571	.849	.000	.898	.826	.864	.879	.883	.000	.927	.645	.896	.943	.694		.000	.000	.000	.000	.000	.250	.000	.930	.923	.961	.928
Cars	47	299				222	195	333				417	125	25	662	0	0	0	0	0	1	0	184	248	433	2270
% Cars	97.9	96.8		100	97.5	97.4	99.0	96.2			96.9	97.0	94.7	100							100	0	98.9	98.8	98.9	97.4
Heavy Vehicles																										
% Heavy Vehicles	2.1	3.2	0	0	2.5	2.6	1.0	3.8	0	2.7	3.1	3.0	5.3	0	3.4	0	0	0	0	0	0	0	1.1	1.2	1.1	2.6



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N/S: JFK Memorial Highway (Route 18)
E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-F
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	JFK Memorial Highway (Route 18) From North				Union Street From East			JFK Memorial Highway (Route 18) From South				Union Street From West			
Start Time	Right	Thru	Left	UTurn	Right	Thru	Left	Right	Thru	Left	UTurn	Right	Thru	Left	Int. Total
07:00 AM	21	174	22	0	1	1	7	0	216	2	0	2	11	35	492
07:15 AM	27	208	25	0	0	5	5	9	216	6	0	7	12	46	566
07:30 AM	36	176	9	0	1	2	7	3	245	8	0	3	13	48	551
07:45 AM	53	235	20	0	1	2	7	6	251	4	0	11	12	55	657
Total	137	793	76	0	3	10	26	18	928	20	0	23	48	184	2266
08:00 AM	50	215	24	1	1	5	9	8	177	15	1	7	8	66	587
08:15 AM	63	196	24	1	3	4	9	7	230	9	0	9	18	64	637
08:30 AM	61	176	16	0	5	5	8	2	199	14	0	11	10	54	561
08:45 AM	63	174	22	0	4	6	7	3	195	17	0	11	16	59	577
Total	237	761	86	2	13	20	33	20	801	55	1	38	52	243	2362
Grand Total	374	1554	162	2	16	30	59	38	1729	75	1	61	100	427	4628
Apprch %	17.9	74.3	7.7	0.1	15.2	28.6	56.2	2.1	93.8	4.1	0.1	10.4	17	72.6	
Total %	8.1	33.6	3.5	0	0.3	0.6	1.3	0.8	37.4	1.6	0	1.3	2.2	9.2	
Cars	364	1469	148	1	14	27	52	36	1629	69	1	59	90	400	4359
% Cars	97.3	94.5	91.4	50	87.5	90	88.1	94.7	94.2	92	100	96.7	90	93.7	94.2
Heavy Vehicles	10	85	14	1	2	3	7	2	100	6	0	2	10	27	269
% Heavy Vehicles	2.7	5.5	8.6	50	12.5	10	11.9	5.3	5.8	8	0	3.3	10	6.3	5.8

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:45 AM																			
07:45 AM	53	**235**	20	0	**308**	1	2	7	10	6	**251**	4	0	**261**	**11**	12	55	78	**657**
08:00 AM	50	215	**24**	**1**	290	1	**5**	**9**	15	**8**	**177**	**15**	**1**	201	7	8	**66**	81	587
08:15 AM	**63**	196	24	1	284	3	4	9	16	7	230	9	0	246	9	**18**	64	**91**	637
08:30 AM	61	176	16	0	253	**5**	5	8	**18**	2	199	14	0	215	11	10	54	75	561
Total Volume	227	822	84	2	1135	10	16	33	59	23	857	42	1	923	38	48	239	325	2442
% App. Total	20	72.4	7.4	0.2		16.9	27.1	55.9		2.5	92.8	4.6	0.1		11.7	14.8	73.5		
PHF	.901	.874	.875	.500	.921	.500	.800	.917	.819	.719	.854	.700	.250	.884	.864	.667	.905	.893	.929
Cars	221	779	78	1	1079	9	15	31	55	22	796	39	1	858	37	45	221	303	2295
% Cars	97.4	94.8	92.9	50.0	95.1	90.0	93.8	93.9	93.2	95.7	92.9	92.9	100	93.0	97.4	93.8	92.5	93.2	94.0
Heavy Vehicles	6	43	6	1	56	1	1	2	4	1	61	3	0	65	1	3	18	22	147
% Heavy Vehicles	2.6	5.2	7.1	50.0	4.9	10.0	6.3	6.1	6.8	4.3	7.1	7.1	0	7.0	2.6	6.3	7.5	6.8	6.0

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E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-F
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars

	JFK Memorial Highway (Route 18) From North				Union Street From East			JFK Memorial Highway (Route 18) From South				Union Street From West			
Start Time	Right	Thru	Left	UTurn	Right	Thru	Left	Right	Thru	Left	UTurn	Right	Thru	Left	Int. Total
07:00 AM	19	160	20	0	0	1	5	0	207	2	0	2	11	35	462
07:15 AM	26	199	23	0	0	5	3	8	204	5	0	6	11	43	533
07:30 AM	36	169	7	0	1	2	7	3	233	7	0	3	11	46	525
07:45 AM	51	224	19	0	1	1	6	5	239	4	0	11	12	53	626
Total	132	752	69	0	2	9	21	16	883	18	0	22	45	177	2146
08:00 AM	50	208	21	0	1	5	9	8	169	13	1	7	6	60	558
08:15 AM	62	185	23	1	3	4	9	7	212	9	0	9	17	57	598
08:30 AM	58	162	15	0	4	5	7	2	176	13	0	10	10	51	513
08:45 AM	62	162	20	0	4	4	6	3	189	16	0	11	12	55	544
Total	232	717	79	1	12	18	31	20	746	51	1	37	45	223	2213
Grand Total	364	1469	148	1	14	27	52	36	1629	69	1	59	90	400	4359
Apprch %	18.4	74.1	7.5	0.1	15.1	29	55.9	2.1	93.9	4	0.1	10.7	16.4	72.9	
Total %	8.4	33.7	3.4	0	0.3	0.6	1.2	0.8	37.4	1.6	0	1.4	2.1	9.2	

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	36	169	7	0	212	1	2	7	10	3	233	7	0	243	3	11	46	60	525
07:45 AM	51	**224**	19	0	**294**	1	1	6	8	5	**239**	4	0	**248**	**11**	12	53	76	**626**
08:00 AM	50	208	21	0	279	1	**5**	**9**	15	**8**	**169**	**13**	**1**	191	7	6	**60**	73	558
08:15 AM	**62**	185	**23**	**1**	271	**3**	4	9	**16**	7	212	9	0	228	9	**17**	57	**83**	598
Total Volume	199	786	70	1	1056	6	12	31	49	23	853	33	1	910	30	46	216	292	2307
% App. Total	18.8	74.4	6.6	0.1		12.2	24.5	63.3		2.5	93.7	3.6	0.1		10.3	15.8	74		
PHF	.802	.877	.761	.250	.898	.500	.600	.861	.766	.719	.892	.635	.250	.917	.682	.676	.900	.880	.921

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E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-F
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Heavy Vehicles

	JFK Memorial Highway (Route 18) From North				Union Street From East			JFK Memorial Highway (Route 18) From South				Union Street From West			
Start Time	Right	Thru	Left	UTurn	Right	Thru	Left	Right	Thru	Left	UTurn	Right	Thru	Left	Int. Total
07:00 AM	2	14	2	0	1	0	2	0	9	0	0	0	0	0	30
07:15 AM	1	9	2	0	0	0	2	1	12	1	0	1	1	3	33
07:30 AM	0	7	2	0	0	0	0	0	12	1	0	0	2	2	26
07:45 AM	2	11	1	0	0	1	1	1	12	0	0	0	0	2	31
Total	5	41	7	0	1	1	5	2	45	2	0	1	3	7	120
08:00 AM	0	7	3	1	0	0	0	0	8	2	0	0	2	6	29
08:15 AM	1	11	1	0	0	0	0	0	18	0	0	0	1	7	39
08:30 AM	3	14	1	0	1	0	1	0	23	1	0	1	0	3	48
08:45 AM	1	12	2	0	0	2	1	0	6	1	0	0	4	4	33
Total	5	44	7	1	1	2	2	0	55	4	0	1	7	20	149
Grand Total	10	85	14	1	2	3	7	2	100	6	0	2	10	27	269
Apprch %	9.1	77.3	12.7	0.9	16.7	25	58.3	1.9	92.6	5.6	0	5.1	25.6	69.2	
Total %	3.7	31.6	5.2	0.4	0.7	1.1	2.6	0.7	37.2	2.2	0	0.7	3.7	10	

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:00 AM																			
08:00 AM	0	7	**3**	**1**	11	0	0	0	0	0	8	**2**	**0**	**10**	**0**	**2**	**6**	**8**	29
08:15 AM	1	11	1	0	13	0	0	0	0	0	18	0	0	18	0	1	**7**	8	39
08:30 AM	**3**	**14**	1	0	**18**	**1**	0	**1**	2	0	**23**	1	0	**24**	**1**	0	3	4	**48**
08:45 AM	1	12	2	0	15	0	**2**	1	**3**	0	6	1	0	7	0	**4**	4	8	33
Total Volume	5	44	7	1	57	1	2	2	5	0	55	4	0	59	1	7	20	28	149
% App. Total	8.8	77.2	12.3	1.8		20	40	40		0	93.2	6.8	0		3.6	25	71.4		
PHF	.417	.786	.583	.250	.792	.250	.250	.500	.417	.000	.598	.500	.000	.615	.250	.438	.714	.875	.776

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File Name : 81676 C-F
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	JFK Memorial Highway (Route 18) From North				Union Street From East				JFK Memorial Highway (Route 18) From South				Union Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
07:15 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
07:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	2	0	0	0	0	0	0	0	2	0	2	0	0	6
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	7	0	1	0	0	0	0	0	1	0	0	0	0	9
08:30 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	3
08:45 AM	0	0	0	19	0	0	0	0	0	0	0	5	0	0	0	3	27
Total	0	0	0	27	0	2	0	0	0	0	0	7	0	0	0	3	39
Grand Total	0	0	0	29	0	2	0	0	0	0	0	9	0	2	0	3	45
Apprch %	0	0	0	100	0	100	0	0	0	0	0	100	0	40	0	60	
Total %	0	0	0	64.4	0	4.4	0	0	0	0	0	20	0	4.4	0	6.7	

	JFK Memorial Highway (Route 18) From North					Union Street From East					JFK Memorial Highway (Route 18) From South					Union Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	7	7	0	**1**	**0**	**0**	**1**	0	0	0	1	1	0	0	0	0	0	9
08:30 AM	0	0	0	1	1	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	3
08:45 AM	0	0	0	**19**	**19**	0	0	0	0	0	0	0	0	**5**	**5**	0	0	0	**3**	**3**	**27**
Total Volume	0	0	0	27	27	0	2	0	0	2	0	0	0	7	7	0	0	0	3	3	39
% App. Total	0	0	0	100		0	100	0	0		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.355	.355	.000	.500	.000	.000	.500	.000	.000	.000	.350	.350	.000	.000	.000	.250	.250	.361

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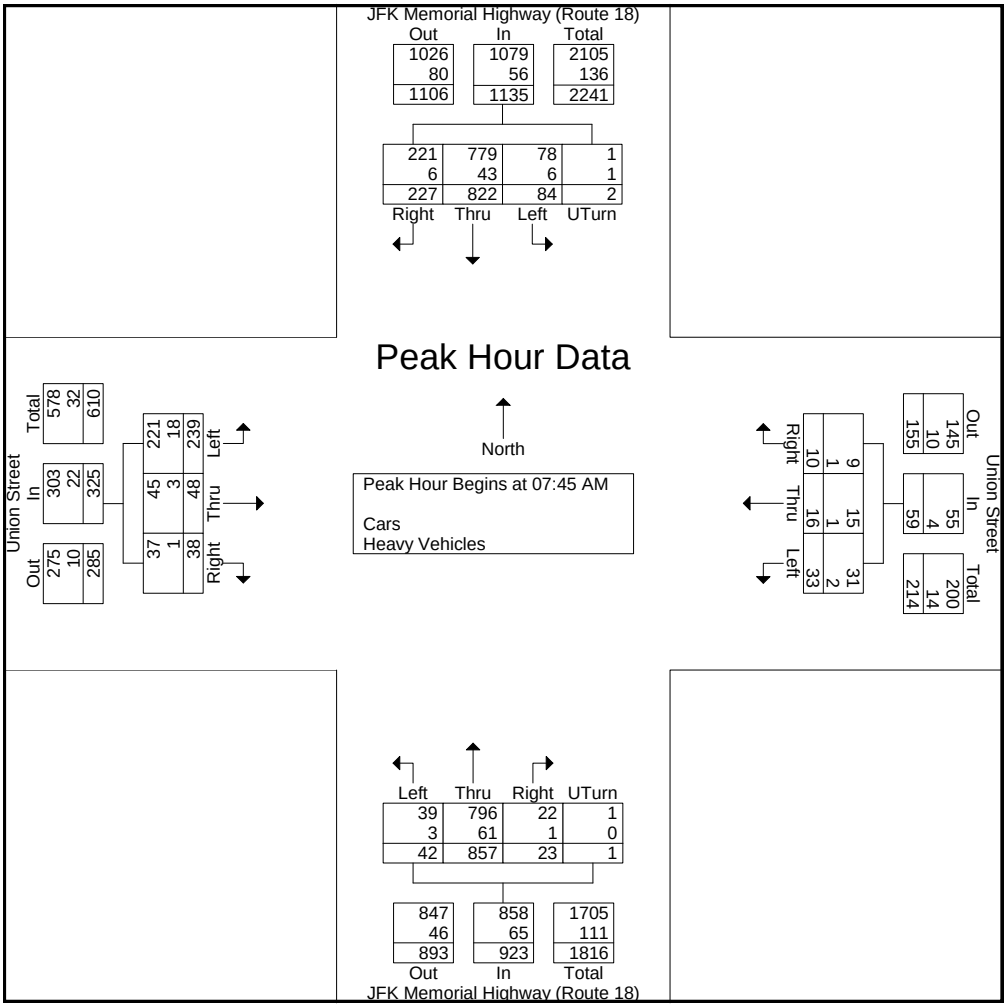
N/S: JFK Memorial Highway (Route 18)
E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-F
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:45 AM																			
07:45 AM	53	**235**	20	0	**308**	1	2	7	10	6	**251**	4	0	**261**	**11**	12	55	78	**657**
08:00 AM	50	215	**24**	**1**	290	1	**5**	**9**	15	**8**	**177**	**15**	**1**	201	7	8	**66**	81	587
08:15 AM	**63**	196	24	1	284	3	4	9	16	7	230	9	0	246	9	**18**	64	**91**	637
08:30 AM	61	176	16	0	253	**5**	5	8	**18**	2	199	14	0	215	11	10	54	75	561
Total Volume	227	822	84	2	1135	10	16	33	59	23	857	42	1	923	38	48	239	325	2442
% App. Total	20	72.4	7.4	0.2		16.9	27.1	55.9		2.5	92.8	4.6	0.1		11.7	14.8	73.5		
PHF	.901	.874	.875	.500	.921	.500	.800	.917	.819	.719	.854	.700	.250	.884	.864	.667	.905	.893	.929
Cars	221	779	78	1	1079	9	15	31	55	22	796	39	1	858	37	45	221	303	2295
% Cars	97.4	94.8	92.9	50.0	95.1	90.0	93.8	93.9	93.2	95.7	92.9	92.9	100	93.0	97.4	93.8	92.5	93.2	94.0
Heavy Vehicles	6	43	6	1	56	1	1	2	4	1	61	3	0	65	1	3	18	22	147
% Heavy Vehicles	2.6	5.2	7.1	50.0	4.9	10.0	6.3	6.1	6.8	4.3	7.1	7.1	0	7.0	2.6	6.3	7.5	6.8	6.0



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N/S: JFK Memorial Highway (Route 18)
E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-FFF
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	JFK Memorial Highway (Route 18) From North				Union Street From East			JFK Memorial Highway (Route 18) From South				Union Street From West			
Start Time	Right	Thru	Left	UTurn	Right	Thru	Left	Right	Thru	Left	UTurn	Right	Thru	Left	Int. Total
04:00 PM	33	267	10	1	6	9	18	5	268	12	2	15	8	75	729
04:15 PM	31	284	9	0	0	10	9	6	182	54	0	15	7	81	688
04:30 PM	38	279	5	1	5	9	18	3	256	9	0	13	9	80	725
04:45 PM	40	274	11	0	3	7	18	5	234	11	0	17	7	88	715
Total	142	1104	35	2	14	35	63	19	940	86	2	60	31	324	2857
05:00 PM	36	292	9	0	3	8	19	2	278	12	0	9	4	88	760
05:15 PM	48	323	6	0	1	5	6	0	258	10	1	11	9	81	759
05:30 PM	41	227	7	0	1	3	8	2	214	8	1	14	9	87	622
05:45 PM	40	237	6	1	1	5	14	1	183	4	0	11	8	59	570
Total	165	1079	28	1	6	21	47	5	933	34	2	45	30	315	2711
Grand Total	307	2183	63	3	20	56	110	24	1873	120	4	105	61	639	5568
Apprch %	12	85.4	2.5	0.1	10.8	30.1	59.1	1.2	92.7	5.9	0.2	13	7.6	79.4	
Total %	5.5	39.2	1.1	0.1	0.4	1	2	0.4	33.6	2.2	0.1	1.9	1.1	11.5	
Cars	303	2118	54	3	20	56	109	24	1799	119	4	103	59	630	5401
% Cars	98.7	97	85.7	100	100	100	99.1	100	96	99.2	100	98.1	96.7	98.6	97
Heavy Vehicles	4	65	9	0	0	0	1	0	74	1	0	2	2	9	167
% Heavy Vehicles	1.3	3	14.3	0	0	0	0.9	0	4	0.8	0	1.9	3.3	1.4	3

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:30 PM																			
04:30 PM	38	279	5	**1**	323	**5**	**9**	18	**32**	3	256	9	0	268	13	**9**	80	102	725
04:45 PM	40	274	**11**	0	325	3	7	18	28	**5**	**234**	**11**	**0**	**250**	**17**	7	**88**	**112**	715
05:00 PM	36	292	9	0	337	3	8	**19**	30	2	**278**	**12**	**0**	**292**	9	4	88	101	**760**
05:15 PM	**48**	**323**	6	0	**377**	1	5	6	12	0	258	10	**1**	269	11	9	81	101	759
Total Volume	162	1168	31	1	1362	12	29	61	102	10	1026	42	1	1079	50	29	337	416	2959
% App. Total	11.9	85.8	2.3	0.1		11.8	28.4	59.8		0.9	95.1	3.9	0.1		12	7	81		
PHF	.844	.904	.705	.250	.903	.600	.806	.803	.797	.500	.923	.875	.250	.924	.735	.806	.957	.929	.973
Cars	159	1131	26	1	1317	12	29	61	102	10	985	42	1	1038	50	29	332	411	2868
% Cars	98.1	96.8	83.9	100	96.7	100	100	100	100	100	96.0	100	100	96.2	100	100	98.5	98.8	96.9
Heavy Vehicles	3	37	5	0	45	0	0	0	0	0	41	0	0	41	0	0	5	5	91
% Heavy Vehicles	1.9	3.2	16.1	0	3.3	0	0	0	0	0	4.0	0	0	3.8	0	0	1.5	1.2	3.1

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E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-FFF
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars

	JFK Memorial Highway (Route 18) From North				Union Street From East			JFK Memorial Highway (Route 18) From South				Union Street From West			
Start Time	Right	Thru	Left	UTurn	Right	Thru	Left	Right	Thru	Left	UTurn	Right	Thru	Left	Int. Total
04:00 PM	33	259	9	1	6	9	17	5	255	12	2	15	8	75	706
04:15 PM	31	274	8	0	0	10	9	6	173	53	0	15	6	81	666
04:30 PM	37	266	4	1	5	9	18	3	244	9	0	13	9	77	695
04:45 PM	40	266	8	0	3	7	18	5	227	11	0	17	7	87	696
Total	141	1065	29	2	14	35	62	19	899	85	2	60	30	320	2763
05:00 PM	34	284	8	0	3	8	19	2	270	12	0	9	4	87	740
05:15 PM	48	315	6	0	1	5	6	0	244	10	1	11	9	81	737
05:30 PM	40	222	6	0	1	3	8	2	209	8	1	13	9	85	607
05:45 PM	40	232	5	1	1	5	14	1	177	4	0	10	7	57	554
Total	162	1053	25	1	6	21	47	5	900	34	2	43	29	310	2638
Grand Total	303	2118	54	3	20	56	109	24	1799	119	4	103	59	630	5401
Apprch %	12.2	85.5	2.2	0.1	10.8	30.3	58.9	1.2	92.4	6.1	0.2	13	7.4	79.5	
Total %	5.6	39.2	1	0.1	0.4	1	2	0.4	33.3	2.2	0.1	1.9	1.1	11.7	

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:30 PM																			
04:30 PM	37	266	4	**1**	308	**5**	**9**	18	**32**	3	244	9	0	256	13	**9**	77	99	695
04:45 PM	40	266	**8**	0	314	3	7	18	28	**5**	**227**	**11**	**0**	**243**	**17**	7	**87**	**111**	696
05:00 PM	34	284	8	0	326	3	8	**19**	30	2	**270**	**12**	**0**	**284**	9	4	87	100	**740**
05:15 PM	**48**	**315**	6	0	**369**	1	5	6	12	0	244	10	**1**	255	11	9	81	101	737
Total Volume	159	1131	26	1	1317	12	29	61	102	10	985	42	1	1038	50	29	332	411	2868
% App. Total	12.1	85.9	2	0.1		11.8	28.4	59.8		1	94.9	4	0.1		12.2	7.1	80.8		
PHF	.828	.898	.813	.250	.892	.600	.806	.803	.797	.500	.912	.875	.250	.914	.735	.806	.954	.926	.969

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N/S: JFK Memorial Highway (Route 18)
E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-FFF
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Heavy Vehicles

	JFK Memorial Highway (Route 18) From North				Union Street From East			JFK Memorial Highway (Route 18) From South				Union Street From West			
Start Time	Right	Thru	Left	UTurn	Right	Thru	Left	Right	Thru	Left	UTurn	Right	Thru	Left	Int. Total
04:00 PM	0	8	1	0	0	0	1	0	13	0	0	0	0	0	23
04:15 PM	0	10	1	0	0	0	0	0	9	1	0	0	1	0	22
04:30 PM	1	13	1	0	0	0	0	0	12	0	0	0	0	3	30
04:45 PM	0	8	3	0	0	0	0	0	7	0	0	0	0	1	19
Total	1	39	6	0	0	0	1	0	41	1	0	0	1	4	94
05:00 PM	2	8	1	0	0	0	0	0	8	0	0	0	0	1	20
05:15 PM	0	8	0	0	0	0	0	0	14	0	0	0	0	0	22
05:30 PM	1	5	1	0	0	0	0	0	5	0	0	1	0	2	15
05:45 PM	0	5	1	0	0	0	0	0	6	0	0	1	1	2	16
Total	3	26	3	0	0	0	0	0	33	0	0	2	1	5	73
Grand Total	4	65	9	0	0	0	1	0	74	1	0	2	2	9	167
Apprch %	5.1	83.3	11.5	0	0	0	100	0	98.7	1.3	0	15.4	15.4	69.2	
Total %	2.4	38.9	5.4	0	0	0	0.6	0	44.3	0.6	0	1.2	1.2	5.4	

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:00 PM																			
04:00 PM	0	8	1	0	9	0	0	**1**	**1**	0	**13**	0	0	**13**	0	0	0	0	23
04:15 PM	0	10	1	0	11	0	0	0	0	0	9	**1**	**0**	**10**	**0**	**1**	0	1	22
04:30 PM	**1**	**13**	1	0	**15**	0	0	0	0	0	12	0	0	12	0	0	**3**	**3**	**30**
04:45 PM	0	8	**3**	0	11	0	0	0	0	0	7	0	0	7	0	0	1	1	19
Total Volume	1	39	6	0	46	0	0	1	1	0	41	1	0	42	0	1	4	5	94
% App. Total	2.2	84.8	13	0		0	0	100		0	97.6	2.4	0		0	20	80		
PHF	.250	.750	.500	.000	.767	.000	.000	.250	.250	.000	.788	.250	.000	.808	.000	.250	.333	.417	.783

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E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-FFF
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	JFK Memorial Highway (Route 18) From North				Union Street From East				JFK Memorial Highway (Route 18) From South				Union Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	3	0	2	0	0	0	0	0	4	0	0	0	1	10
04:15 PM	0	0	0	6	0	0	0	0	0	0	0	3	0	1	0	2	12
04:30 PM	0	0	0	5	0	1	0	0	0	0	0	2	0	0	0	0	8
04:45 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	16	0	3	0	0	0	0	0	9	0	1	0	3	32
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
05:45 PM	0	0	0	1	0	0	0	0	0	0	0	4	0	0	0	2	7
Total	0	0	0	3	0	1	0	0	0	0	0	6	0	0	0	2	12
Grand Total	0	0	0	19	0	4	0	0	0	0	0	15	0	1	0	5	44
Apprch %	0	0	0	100	0	100	0	0	0	0	0	100	0	16.7	0	83.3	
Total %	0	0	0	43.2	0	9.1	0	0	0	0	0	34.1	0	2.3	0	11.4	

	JFK Memorial Highway (Route 18) From North					Union Street From East					JFK Memorial Highway (Route 18) From South					Union Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	3	3	0	**2**	**0**	**0**	**2**	0	0	0	**4**	**4**	0	0	0	1	1	10
04:15 PM	0	0	0	**6**	**6**	0	0	0	0	0	0	0	0	3	3	0	**1**	0	**2**	**3**	**12**
04:30 PM	0	0	0	5	5	0	1	0	0	1	0	0	0	2	2	0	0	0	0	0	8
04:45 PM	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	16	16	0	3	0	0	3	0	0	0	9	9	0	1	0	3	4	32
% App. Total	0	0	0	100		0	100	0	0		0	0	0	100		0	25	0	75		
PHF	.000	.000	.000	.667	.667	.000	.375	.000	.000	.375	.000	.000	.000	.563	.563	.000	.250	.000	.375	.333	.667

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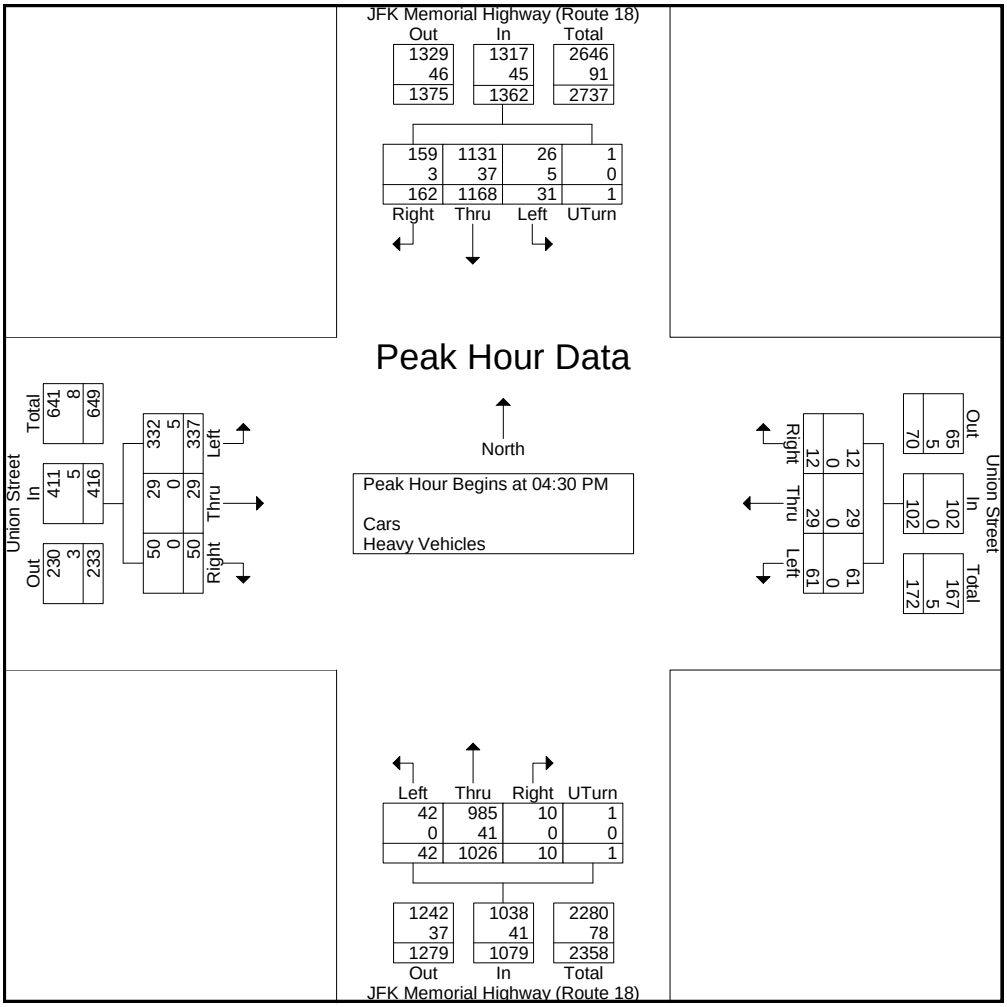
E/W: Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-FFF
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	JFK Memorial Highway (Route 18) From North					Union Street From East				JFK Memorial Highway (Route 18) From South					Union Street From West				
Start Time	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:30 PM																			
04:30 PM	38	279	5	**1**	323	**5**	**9**	18	**32**	3	256	9	0	268	13	**9**	80	102	725
04:45 PM	40	274	**11**	0	325	3	7	18	28	**5**	**234**	**11**	**0**	**250**	**17**	7	**88**	**112**	715
05:00 PM	36	292	9	0	337	3	8	**19**	30	2	**278**	**12**	**0**	**292**	9	4	88	101	**760**
05:15 PM	**48**	**323**	6	0	**377**	1	5	6	12	0	258	10	**1**	269	11	9	81	101	759
Total Volume	162	1168	31	1	1362	12	29	61	102	10	1026	42	1	1079	50	29	337	416	2959
% App. Total	11.9	85.8	2.3	0.1		11.8	28.4	59.8		0.9	95.1	3.9	0.1		12	7	81		
PHF	.844	.904	.705	.250	.903	.600	.806	.803	.797	.500	.923	.875	.250	.924	.735	.806	.957	.929	.973
Cars	159	1131	26	1	1317	12	29	61	102	10	985	42	1	1038	50	29	332	411	2868
% Cars	98.1	96.8	83.9	100	96.7	100	100	100	100	100	96.0	100	100	96.2	100	100	98.5	98.8	96.9
Heavy Vehicles	3	37	5	0	45	0	0	0	0	0	41	0	0	41	0	0	5	5	91
% Heavy Vehicles	1.9	3.2	16.1	0	3.3	0	0	0	0	0	4.0	0	0	3.8	0	0	1.5	1.2	3.1



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N/S: McArthur Drive
E/W: State Pier/Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-G
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	McArthur Drive From North			State Pier From East			McArthur Drive From South			Union Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	6	39	2	0	3	1	0	37	0	25	1	6	120
07:15 AM	10	58	0	0	0	1	2	30	0	32	1	12	146
07:30 AM	7	42	2	0	3	1	1	40	0	9	9	7	121
07:45 AM	9	48	0	1	1	2	5	42	0	17	5	16	146
Total	32	187	4	1	7	5	8	149	0	83	16	41	533
08:00 AM	11	33	3	0	4	1	5	34	0	24	8	9	132
08:15 AM	13	39	4	0	3	2	5	34	0	27	6	17	150
08:30 AM	13	51	7	5	4	2	4	45	0	15	2	9	157
08:45 AM	14	54	3	1	7	6	4	42	0	16	8	18	173
Total	51	177	17	6	18	11	18	155	0	82	24	53	612
Grand Total	83	364	21	7	25	16	26	304	0	165	40	94	1145
Apprch %	17.7	77.8	4.5	14.6	52.1	33.3	7.9	92.1	0	55.2	13.4	31.4	
Total %	7.2	31.8	1.8	0.6	2.2	1.4	2.3	26.6	0	14.4	3.5	8.2	
Cars	77	319	15	5	19	13	25	254	0	157	32	81	997
% Cars	92.8	87.6	71.4	71.4	76	81.2	96.2	83.6	0	95.2	80	86.2	87.1
Heavy Vehicles	6	45	6	2	6	3	1	50	0	8	8	13	148
% Heavy Vehicles	7.2	12.4	28.6	28.6	24	18.8	3.8	16.4	0	4.8	20	13.8	12.9

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	11	33	3	47	0	4	1	5	**5**	34	0	39	24	**8**	9	41	132
08:15 AM	13	39	4	56	0	3	2	5	5	34	0	39	**27**	6	17	**50**	150
08:30 AM	13	51	**7**	**71**	**5**	4	2	11	4	**45**	0	**49**	15	2	9	26	157
08:45 AM	**14**	**54**	3	71	1	**7**	**6**	**14**	4	42	0	46	16	8	**18**	42	**173**
Total Volume	51	177	17	245	6	18	11	35	18	155	0	173	82	24	53	159	612
% App. Total	20.8	72.2	6.9		17.1	51.4	31.4		10.4	89.6	0		51.6	15.1	33.3		
PHF	.911	.819	.607	.863	.300	.643	.458	.625	.900	.861	.000	.883	.759	.750	.736	.795	.884
Cars	49	147	13	209	5	15	8	28	17	121	0	138	77	20	46	143	518
% Cars	96.1	83.1	76.5	85.3	83.3	83.3	72.7	80.0	94.4	78.1	0	79.8	93.9	83.3	86.8	89.9	84.6
Heavy Vehicles	2	30	4	36	1	3	3	7	1	34	0	35	5	4	7	16	94
% Heavy Vehicles	3.9	16.9	23.5	14.7	16.7	16.7	27.3	20.0	5.6	21.9	0	20.2	6.1	16.7	13.2	10.1	15.4

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Groups Printed- Cars

	McArthur Drive From North			State Pier From East			McArthur Drive From South			Union Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	38	1	0	1	1	0	36	0	24	1	5	112
07:15 AM	8	53	0	0	0	1	2	23	0	31	1	9	128
07:30 AM	7	36	1	0	3	1	1	36	0	8	6	7	106
07:45 AM	8	45	0	0	0	2	5	38	0	17	4	14	133
Total	28	172	2	0	4	5	8	133	0	80	12	35	479
08:00 AM	11	30	2	0	4	1	5	23	0	20	8	8	112
08:15 AM	13	32	4	0	3	2	5	26	0	27	4	16	132
08:30 AM	12	42	6	4	3	2	4	34	0	15	2	7	131
08:45 AM	13	43	1	1	5	3	3	38	0	15	6	15	143
Total	49	147	13	5	15	8	17	121	0	77	20	46	518
Grand Total	77	319	15	5	19	13	25	254	0	157	32	81	997
Apprch %	18.7	77.6	3.6	13.5	51.4	35.1	9	91	0	58.1	11.9	30	
Total %	7.7	32	1.5	0.5	1.9	1.3	2.5	25.5	0	15.7	3.2	8.1	

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	11	30	2	43	0	4	1	5	**5**	23	0	28	20	**8**	8	36	112
08:15 AM	**13**	32	4	49	0	3	2	5	5	26	0	31	**27**	4	**16**	**47**	132
08:30 AM	12	42	**6**	**60**	**4**	3	2	**9**	4	34	0	38	15	2	7	24	131
08:45 AM	13	**43**	1	57	1	**5**	**3**	9	3	**38**	0	**41**	15	6	15	36	**143**
Total Volume	49	147	13	209	5	15	8	28	17	121	0	138	77	20	46	143	518
% App. Total	23.4	70.3	6.2		17.9	53.6	28.6		12.3	87.7	0		53.8	14	32.2		
PHF	.942	.855	.542	.871	.313	.750	.667	.778	.850	.796	.000	.841	.713	.625	.719	.761	.906

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Groups Printed- Heavy Vehicles

	McArthur Drive From North			State Pier From East			McArthur Drive From South			Union Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	1	1	0	2	0	0	1	0	1	0	1	8
07:15 AM	2	5	0	0	0	0	0	7	0	1	0	3	18
07:30 AM	0	6	1	0	0	0	0	4	0	1	3	0	15
07:45 AM	1	3	0	1	1	0	0	4	0	0	1	2	13
Total	4	15	2	1	3	0	0	16	0	3	4	6	54
08:00 AM	0	3	1	0	0	0	0	11	0	4	0	1	20
08:15 AM	0	7	0	0	0	0	0	8	0	0	2	1	18
08:30 AM	1	9	1	1	1	0	0	11	0	0	0	2	26
08:45 AM	1	11	2	0	2	3	1	4	0	1	2	3	30
Total	2	30	4	1	3	3	1	34	0	5	4	7	94
Grand Total	6	45	6	2	6	3	1	50	0	8	8	13	148
Apprch %	10.5	78.9	10.5	18.2	54.5	27.3	2	98	0	27.6	27.6	44.8	
Total %	4.1	30.4	4.1	1.4	4.1	2	0.7	33.8	0	5.4	5.4	8.8	

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	3	1	4	0	0	0	0	0	**11**	0	**11**	**4**	0	1	5	20
08:15 AM	0	7	0	7	0	0	0	0	0	8	0	8	0	**2**	1	3	18
08:30 AM	**1**	9	1	11	**1**	1	0	2	0	11	0	11	0	0	2	2	26
08:45 AM	1	**11**	**2**	**14**	0	**2**	**3**	**5**	**1**	4	0	5	1	2	**3**	**6**	**30**
Total Volume	2	30	4	36	1	3	3	7	1	34	0	35	5	4	7	16	94
% App. Total	5.6	83.3	11.1		14.3	42.9	42.9		2.9	97.1	0		31.2	25	43.8		
PHF	.500	.682	.500	.643	.250	.375	.250	.350	.250	.773	.000	.795	.313	.500	.583	.667	.783

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Groups Printed- Peds and Bicycles

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	1	0	0	0	0	0	2	0	0	0	0	0	0	1	0	4
07:15 AM	0	0	0	0	0	0	0	3	0	5	0	1	0	0	0	0	9
07:30 AM	0	2	0	1	0	0	0	2	0	0	0	1	0	0	0	0	6
07:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Total	0	5	0	1	0	0	0	7	0	5	0	2	0	0	2	0	22
08:00 AM	0	0	0	0	0	0	0	2	0	1	0	1	0	0	0	0	4
08:15 AM	1	1	0	4	0	0	1	2	0	0	0	1	0	0	0	0	10
08:30 AM	0	0	0	0	0	1	0	2	0	0	1	3	0	0	0	0	7
08:45 AM	0	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	1	2	0	14	0	1	1	6	0	1	1	5	0	0	0	0	32
Grand Total	1	7	0	15	0	1	1	13	0	6	1	7	0	0	2	0	54
Apprch %	4.3	30.4	0	65.2	0	6.7	6.7	86.7	0	42.9	7.1	50	0	0	100	0	
Total %	1.9	13	0	27.8	0	1.9	1.9	24.1	0	11.1	1.9	13	0	0	3.7	0	

	McArthur Drive From North					State Pier From East					McArthur Drive From South					Union Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	**2**	2	0	**1**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**4**
08:15 AM	**1**	**1**	0	4	6	0	0	**1**	**2**	**3**	0	0	0	1	1	0	0	0	0	0	10
08:30 AM	0	0	0	0	0	0	**1**	**0**	**2**	**3**	**0**	**0**	**1**	**3**	**4**	0	0	0	0	0	7
08:45 AM	0	1	0	**10**	**11**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**11**
Total Volume	1	2	0	14	17	0	1	1	6	8	0	1	1	5	7	0	0	0	0	0	32
% App. Total	5.9	11.8	0	82.4		0	12.5	12.5	75		0	14.3	14.3	71.4		0	0	0	0		
PHF	.250	.500	.000	.350	.386	.000	.250	.250	.750	.667	.000	.250	.250	.417	.438	.000	.000	.000	.000	.000	.727

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File Name : 81676 C-G
Site Code : 10111.31
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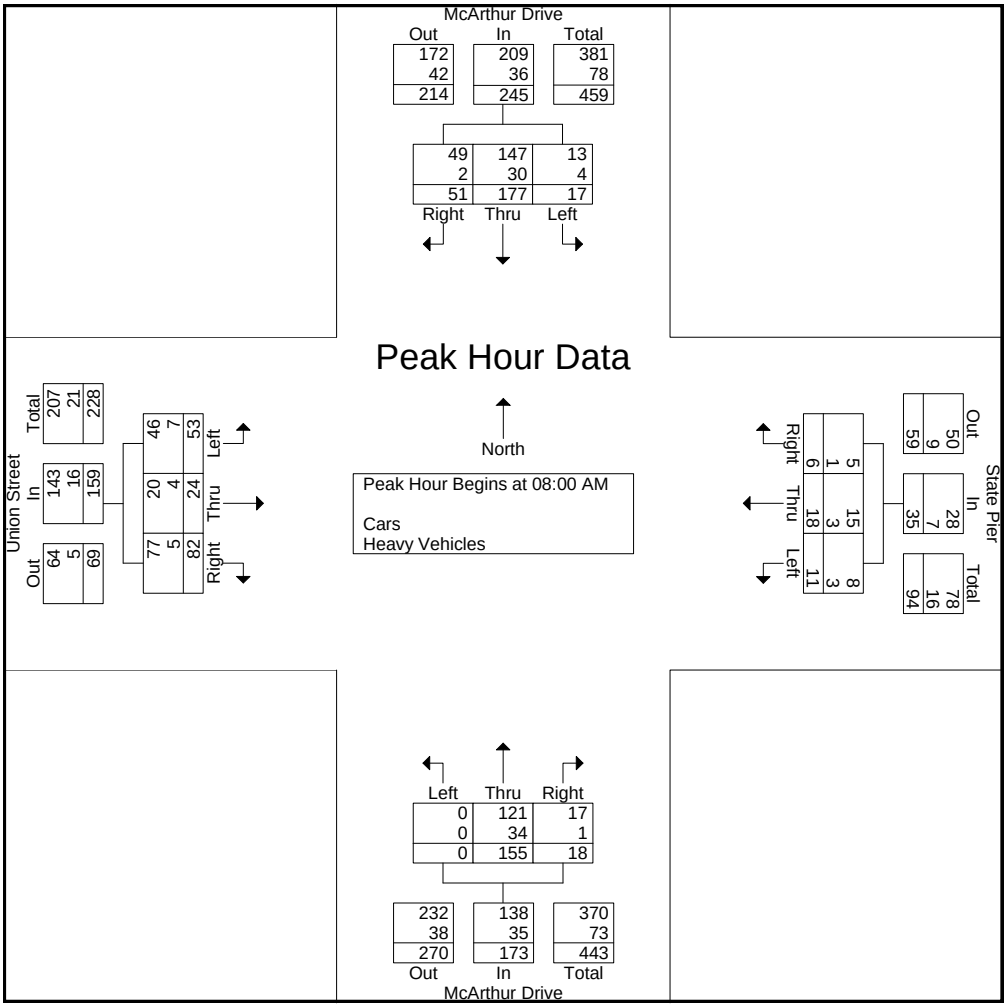
	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	11	33	3	47	0	4	1	5	**5**	34	0	39	24	**8**	9	41	132
08:15 AM	13	39	4	56	0	3	2	5	5	34	0	39	**27**	6	17	**50**	150
08:30 AM	13	51	**7**	**71**	**5**	4	2	11	4	**45**	0	**49**	15	2	9	26	157
08:45 AM	**14**	**54**	3	71	1	**7**	**6**	**14**	4	42	0	46	16	8	**18**	42	**173**
Total Volume	51	177	17	245	6	18	11	35	18	155	0	173	82	24	53	159	612
% App. Total	20.8	72.2	6.9		17.1	51.4	31.4		10.4	89.6	0		51.6	15.1	33.3		
PHF	.911	.819	.607	.863	.300	.643	.458	.625	.900	.861	.000	.883	.759	.750	.736	.795	.884
Cars	49	147	13	209	5	15	8	28	17	121	0	138	77	20	46	143	518
% Cars	96.1	83.1	76.5	85.3	83.3	83.3	72.7	80.0	94.4	78.1	0	79.8	93.9	83.3	86.8	89.9	84.6
Heavy Vehicles	2	30	4	36	1	3	3	7	1	34	0	35	5	4	7	16	94
% Heavy Vehicles	3.9	16.9	23.5	14.7	16.7	16.7	27.3	20.0	5.6	21.9	0	20.2	6.1	16.7	13.2	10.1	15.4



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Groups Printed- Cars - Heavy Vehicles

	McArthur Drive From North			State Pier From East			McArthur Drive From South			Union Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	30	72	1	1	5	0	3	71	0	12	0	11	206
04:15 PM	17	42	0	0	3	0	1	45	0	8	2	11	129
04:30 PM	28	65	3	1	4	0	1	45	0	8	0	8	163
04:45 PM	22	57	3	2	3	2	0	38	1	9	2	12	151
Total	97	236	7	4	15	2	5	199	1	37	4	42	649
05:00 PM	24	48	0	1	6	1	5	63	0	9	2	4	163
05:15 PM	10	35	0	1	1	0	2	34	0	9	1	5	98
05:30 PM	13	47	0	1	1	0	1	30	0	9	1	7	110
05:45 PM	14	39	0	2	2	0	0	25	1	6	3	5	97
Total	61	169	0	5	10	1	8	152	1	33	7	21	468
Grand Total	158	405	7	9	25	3	13	351	2	70	11	63	1117
Apprch %	27.7	71.1	1.2	24.3	67.6	8.1	3.6	95.9	0.5	48.6	7.6	43.8	
Total %	14.1	36.3	0.6	0.8	2.2	0.3	1.2	31.4	0.2	6.3	1	5.6	
Cars	157	389	7	8	25	3	12	337	2	61	10	62	1073
% Cars	99.4	96	100	88.9	100	100	92.3	96	100	87.1	90.9	98.4	96.1
Heavy Vehicles	1	16	0	1	0	0	1	14	0	9	1	1	44
% Heavy Vehicles	0.6	4	0	11.1	0	0	7.7	4	0	12.9	9.1	1.6	3.9

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**30**	**72**	1	**103**	1	**5**	0	6	**3**	**71**	0	**74**	**12**	0	11	**23**	**206**
04:15 PM	17	42	0	59	0	3	0	3	1	45	0	46	8	**2**	11	21	129
04:30 PM	28	65	**3**	96	1	4	0	5	1	45	0	46	8	0	8	16	163
04:45 PM	22	57	3	82	**2**	3	**2**	**7**	0	38	**1**	39	9	2	**12**	23	151
Total Volume	97	236	7	340	4	15	2	21	5	199	1	205	37	4	42	83	649
% App. Total	28.5	69.4	2.1		19	71.4	9.5		2.4	97.1	0.5		44.6	4.8	50.6		
PHF	.808	.819	.583	.825	.500	.750	.250	.750	.417	.701	.250	.693	.771	.500	.875	.902	.788
Cars	96	223	7	326	3	15	2	20	4	188	1	193	31	3	42	76	615
% Cars	99.0	94.5	100	95.9	75.0	100	100	95.2	80.0	94.5	100	94.1	83.8	75.0	100	91.6	94.8
Heavy Vehicles	1	13	0	14	1	0	0	1	1	11	0	12	6	1	0	7	34
% Heavy Vehicles	1.0	5.5	0	4.1	25.0	0	0	4.8	20.0	5.5	0	5.9	16.2	25.0	0	8.4	5.2

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Site Code : 10111.31
Start Date : 9/30/2008
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Groups Printed- Cars

	McArthur Drive From North			State Pier From East			McArthur Drive From South			Union Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	29	67	1	1	5	0	2	66	0	11	0	11	193
04:15 PM	17	40	0	0	3	0	1	42	0	6	2	11	122
04:30 PM	28	60	3	1	4	0	1	42	0	7	0	8	154
04:45 PM	22	56	3	1	3	2	0	38	1	7	1	12	146
Total	96	223	7	3	15	2	4	188	1	31	3	42	615
05:00 PM	24	47	0	1	6	1	5	62	0	8	2	4	160
05:15 PM	10	33	0	1	1	0	2	34	0	9	1	5	96
05:30 PM	13	47	0	1	1	0	1	29	0	8	1	7	108
05:45 PM	14	39	0	2	2	0	0	24	1	5	3	4	94
Total	61	166	0	5	10	1	8	149	1	30	7	20	458
Grand Total	157	389	7	8	25	3	12	337	2	61	10	62	1073
Apprch %	28.4	70.3	1.3	22.2	69.4	8.3	3.4	96	0.6	45.9	7.5	46.6	
Total %	14.6	36.3	0.7	0.7	2.3	0.3	1.1	31.4	0.2	5.7	0.9	5.8	

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**29**	**67**	1	**97**	**1**	**5**	0	**6**	**2**	**66**	0	**68**	**11**	0	11	**22**	**193**
04:15 PM	17	40	0	57	0	3	0	3	1	42	0	43	6	**2**	11	19	122
04:30 PM	28	60	**3**	91	1	4	0	5	1	42	0	43	7	0	8	15	154
04:45 PM	22	56	3	81	1	3	**2**	6	0	38	**1**	39	7	1	**12**	20	146
Total Volume	96	223	7	326	3	15	2	20	4	188	1	193	31	3	42	76	615
% App. Total	29.4	68.4	2.1		15	75	10		2.1	97.4	0.5		40.8	3.9	55.3		
PHF	.828	.832	.583	.840	.750	.750	.250	.833	.500	.712	.250	.710	.705	.375	.875	.864	.797

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N/S: McArthur Drive
E/W: State Pier/Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-GGG
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Heavy Vehicles

	McArthur Drive From North			State Pier From East			McArthur Drive From South			Union Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	5	0	0	0	0	1	5	0	1	0	0	13
04:15 PM	0	2	0	0	0	0	0	3	0	2	0	0	7
04:30 PM	0	5	0	0	0	0	0	3	0	1	0	0	9
04:45 PM	0	1	0	1	0	0	0	0	0	2	1	0	5
Total	1	13	0	1	0	0	1	11	0	6	1	0	34
05:00 PM	0	1	0	0	0	0	0	1	0	1	0	0	3
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	2
05:45 PM	0	0	0	0	0	0	0	1	0	1	0	1	3
Total	0	3	0	0	0	0	0	3	0	3	0	1	10
Grand Total	1	16	0	1	0	0	1	14	0	9	1	1	44
Apprch %	5.9	94.1	0	100	0	0	6.7	93.3	0	81.8	9.1	9.1	
Total %	2.3	36.4	0	2.3	0	0	2.3	31.8	0	20.5	2.3	2.3	

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**5**	0	**6**	0	0	0	0	**1**	**5**	0	**6**	1	0	0	1	**13**
04:15 PM	0	2	0	2	0	0	0	0	0	3	0	3	**2**	0	0	2	7
04:30 PM	0	5	0	5	0	0	0	0	0	3	0	3	1	0	0	1	9
04:45 PM	0	1	0	1	**1**	0	0	**1**	0	0	0	0	2	**1**	0	**3**	5
Total Volume	1	13	0	14	1	0	0	1	1	11	0	12	6	1	0	7	34
% App. Total	7.1	92.9	0		100	0	0		8.3	91.7	0		85.7	14.3	0		
PHF	.250	.650	.000	.583	.250	.000	.000	.250	.250	.550	.000	.500	.750	.250	.000	.583	.654

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Client: VHB/J. Quitter

File Name : 81676 C-GGG
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

Groups Printed- Peds and Bicycles

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	2	0	3	0	0	0	3	0	1	2	2	1	0	0	0	14
04:15 PM	0	3	0	3	1	0	1	4	0	10	0	3	1	0	0	1	27
04:30 PM	1	1	0	3	0	0	0	1	0	1	0	3	0	0	0	1	11
04:45 PM	0	1	0	5	0	0	0	0	0	1	0	0	0	0	0	0	7
Total	1	7	0	14	1	0	1	8	0	13	2	8	2	0	0	2	59
05:00 PM	0	1	0	2	0	0	0	0	0	5	0	0	0	0	0	0	8
05:15 PM	1	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	5
05:30 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4
05:45 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	6
Total	1	1	0	4	0	0	0	6	0	8	0	3	0	0	0	0	23
Grand Total	2	8	0	18	1	0	1	14	0	21	2	11	2	0	0	2	82
Apprch %	7.1	28.6	0	64.3	6.2	0	6.2	87.5	0	61.8	5.9	32.4	50	0	0	50	
Total %	2.4	9.8	0	22	1.2	0	1.2	17.1	0	25.6	2.4	13.4	2.4	0	0	2.4	

	McArthur Drive From North					State Pier From East					McArthur Drive From South					Union Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	2	0	3	5	0	0	0	3	3	0	1	**2**	2	5	**1**	**0**	**0**	**0**	**1**	**14**
04:15 PM	**0**	**3**	0	3	**6**	**1**	0	**1**	**4**	**6**	0	**10**	**0**	**3**	**13**	1	0	0	**1**	**2**	**27**
04:30 PM	**1**	**1**	**0**	**3**	**5**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**3**	**4**	**0**	**0**	**0**	**1**	**1**	**11**
04:45 PM	**0**	**1**	**0**	**5**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**7**
Total Volume	1	7	0	14	22	1	0	1	8	10	0	13	2	8	23	2	0	0	2	4	59
% App. Total	4.5	31.8	0	63.6		10	0	10	80		0	56.5	8.7	34.8		50	0	0	50		
PHF	.250	.583	.000	.700	.917	.250	.000	.250	.500	.417	.000	.325	.250	.667	.442	.500	.000	.000	.500	.500	.546

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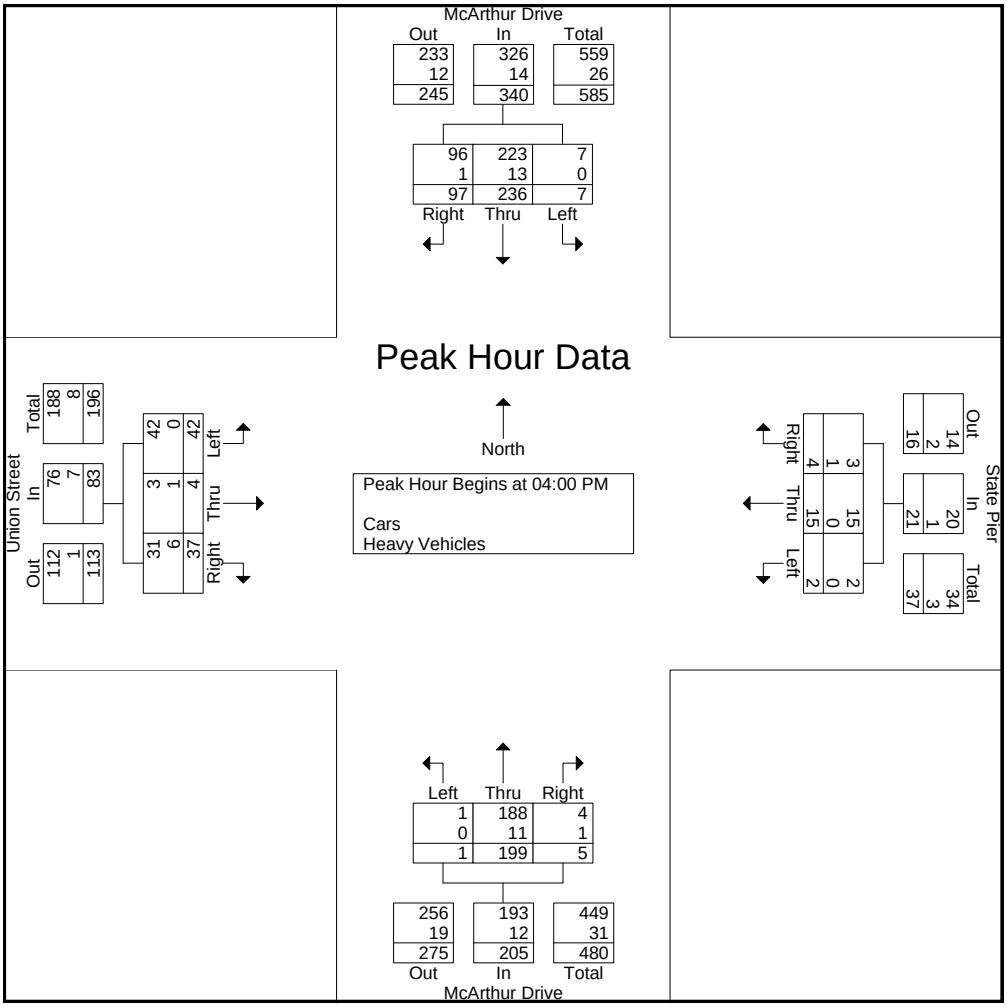
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 C-GGG
Site Code : 10111.31
Start Date : 9/30/2008
Page No : 1

	McArthur Drive From North				State Pier From East				McArthur Drive From South				Union Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**30**	**72**	1	**103**	1	**5**	0	6	**3**	**71**	0	**74**	**12**	0	11	**23**	**206**
04:15 PM	17	42	0	59	0	3	0	3	1	45	0	46	8	**2**	11	21	129
04:30 PM	28	65	**3**	96	1	4	0	5	1	45	0	46	8	0	8	16	163
04:45 PM	22	57	3	82	**2**	3	**2**	**7**	0	38	**1**	39	9	2	**12**	23	151
Total Volume	97	236	7	340	4	15	2	21	5	199	1	205	37	4	42	83	649
% App. Total	28.5	69.4	2.1		19	71.4	9.5		2.4	97.1	0.5		44.6	4.8	50.6		
PHF	.808	.819	.583	.825	.500	.750	.250	.750	.417	.701	.250	.693	.771	.500	.875	.902	.788
Cars	96	223	7	326	3	15	2	20	4	188	1	193	31	3	42	76	615
% Cars	99.0	94.5	100	95.9	75.0	100	100	95.2	80.0	94.5	100	94.1	83.8	75.0	100	91.6	94.8
Heavy Vehicles	1	13	0	14	1	0	0	1	1	11	0	12	6	1	0	7	34
% Heavy Vehicles	1.0	5.5	0	4.1	25.0	0	0	4.8	20.0	5.5	0	5.9	16.2	25.0	0	8.4	5.2



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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Wed 9/24/08 and Sat 9/27/08	81676	New Bedford, MA

PRECISION
D A T A
INDUSTRIES, LLC
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N/S: Purchase Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- A
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			Coggeshall Street From East			Purchase Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	23	8	9	23	5	4	29	2	1	29	3	137
07:15 AM	2	18	17	17	21	3	9	41	2	2	28	3	163
07:30 AM	2	28	17	22	28	4	9	45	2	0	41	4	202
07:45 AM	0	47	23	25	17	7	14	43	2	3	45	2	228
Total	5	116	65	73	89	19	36	158	8	6	143	12	730
08:00 AM	16	34	22	26	28	16	24	44	3	13	25	8	259
08:15 AM	0	29	31	21	26	4	9	38	5	6	50	7	226
08:30 AM	0	36	14	16	28	10	11	58	1	1	32	0	207
08:45 AM	3	35	19	23	29	6	11	61	5	6	17	0	215
Total	19	134	86	86	111	36	55	201	14	26	124	15	907
Grand Total	24	250	151	159	200	55	91	359	22	32	267	27	1637
Apprch %	5.6	58.8	35.5	38.4	48.3	13.3	19.3	76.1	4.7	9.8	81.9	8.3	
Total %	1.5	15.3	9.2	9.7	12.2	3.4	5.6	21.9	1.3	2	16.3	1.6	
Cars	19	223	141	149	193	51	89	338	18	30	257	26	1534
% Cars	79.2	89.2	93.4	93.7	96.5	92.7	97.8	94.2	81.8	93.8	96.3	96.3	93.7
Heavy Vehicles	5	27	10	10	7	4	2	21	4	2	10	1	103
% Heavy Vehicles	20.8	10.8	6.6	6.3	3.5	7.3	2.2	5.8	18.2	6.2	3.7	3.7	6.3

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**47**	23	70	25	17	7	49	14	43	2	59	3	45	2	50	228
08:00 AM	**16**	34	22	**72**	**26**	**28**	**16**	**70**	**24**	44	3	**71**	**13**	25	**8**	46	**259**
08:15 AM	0	29	**31**	60	21	26	4	51	9	38	**5**	52	6	**50**	7	**63**	226
08:30 AM	0	36	14	50	16	28	10	54	11	**58**	1	70	1	32	0	33	207
Total Volume	16	146	90	252	88	99	37	224	58	183	11	252	23	152	17	192	920
% App. Total	6.3	57.9	35.7		39.3	44.2	16.5		23	72.6	4.4		12	79.2	8.9		
PHF	.250	.777	.726	.875	.846	.884	.578	.800	.604	.789	.550	.887	.442	.760	.531	.762	.888
Cars	14	130	85	229	82	94	33	209	56	176	7	239	23	146	17	186	863
% Cars	87.5	89.0	94.4	90.9	93.2	94.9	89.2	93.3	96.6	96.2	63.6	94.8	100	96.1	100	96.9	93.8
Heavy Vehicles	2	16	5	23	6	5	4	15	2	7	4	13	0	6	0	6	57
% Heavy Vehicles	12.5	11.0	5.6	9.1	6.8	5.1	10.8	6.7	3.4	3.8	36.4	5.2	0	3.9	0	3.1	6.2

PRECISION
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N/S: Purchase Street
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Client: VHB/ J. Quitter

File Name : 81676D- A
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North			Coggeshall Street From East			Purchase Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	23	7	7	23	5	4	27	2	0	29	2	129
07:15 AM	2	15	16	17	21	3	9	36	2	2	28	3	154
07:30 AM	1	25	15	21	27	4	9	43	2	0	37	4	188
07:45 AM	0	44	21	24	17	4	13	41	0	3	43	2	212
Total	3	107	59	69	88	16	35	147	6	5	137	11	683
08:00 AM	14	26	21	25	26	15	24	42	3	13	24	8	241
08:15 AM	0	26	31	19	25	4	9	36	3	6	50	7	216
08:30 AM	0	34	12	14	26	10	10	57	1	1	29	0	194
08:45 AM	2	30	18	22	28	6	11	56	5	5	17	0	200
Total	16	116	82	80	105	35	54	191	12	25	120	15	851
Grand Total	19	223	141	149	193	51	89	338	18	30	257	26	1534
Apprch %	5	58.2	36.8	37.9	49.1	13	20	76	4	9.6	82.1	8.3	
Total %	1.2	14.5	9.2	9.7	12.6	3.3	5.8	22	1.2	2	16.8	1.7	

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**44**	21	**65**	24	17	4	45	13	41	0	54	3	43	2	48	212
08:00 AM	**14**	26	21	61	**25**	**26**	**15**	**66**	**24**	42	**3**	**69**	**13**	24	**8**	45	**241**
08:15 AM	0	26	**31**	57	19	25	4	48	9	36	3	48	6	**50**	7	**63**	216
08:30 AM	0	34	12	46	14	26	10	50	10	**57**	1	68	1	29	0	30	194
Total Volume	14	130	85	229	82	94	33	209	56	176	7	239	23	146	17	186	863
% App. Total	6.1	56.8	37.1		39.2	45	15.8		23.4	73.6	2.9		12.4	78.5	9.1		
PHF	.250	.739	.685	.881	.820	.904	.550	.792	.583	.772	.583	.866	.442	.730	.531	.738	.895

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Client: VHB/ J. Quitter

File Name : 81676D- A
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Purchase Street From North			Coggeshall Street From East			Purchase Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	0	1	2	0	0	0	2	0	1	0	1	8
07:15 AM	0	3	1	0	0	0	0	5	0	0	0	0	9
07:30 AM	1	3	2	1	1	0	0	2	0	0	4	0	14
07:45 AM	0	3	2	1	0	3	1	2	2	0	2	0	16
Total	2	9	6	4	1	3	1	11	2	1	6	1	47
08:00 AM	2	8	1	1	2	1	0	2	0	0	1	0	18
08:15 AM	0	3	0	2	1	0	0	2	2	0	0	0	10
08:30 AM	0	2	2	2	2	0	1	1	0	0	3	0	13
08:45 AM	1	5	1	1	1	0	0	5	0	1	0	0	15
Total	3	18	4	6	6	1	1	10	2	1	4	0	56
Grand Total	5	27	10	10	7	4	2	21	4	2	10	1	103
Apprch %	11.9	64.3	23.8	47.6	33.3	19	7.4	77.8	14.8	15.4	76.9	7.7	
Total %	4.9	26.2	9.7	9.7	6.8	3.9	1.9	20.4	3.9	1.9	9.7	1	

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	3	**2**	6	1	1	0	2	0	**2**	0	2	0	**4**	0	**4**	14
07:45 AM	0	3	2	5	1	0	**3**	**4**	**1**	2	**2**	**5**	0	2	0	2	16
08:00 AM	**2**	**8**	1	**11**	1	**2**	1	4	0	2	0	2	0	1	0	1	**18**
08:15 AM	0	3	0	3	**2**	1	0	3	0	2	2	4	0	0	0	0	10
Total Volume	3	17	5	25	5	4	4	13	1	8	4	13	0	7	0	7	58
% App. Total	12	68	20		38.5	30.8	30.8		7.7	61.5	30.8		0	100	0		
PHF	.375	.531	.625	.568	.625	.500	.333	.813	.250	1.000	.500	.650	.000	.438	.000	.438	.806

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File Name : 81676D- A
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	1	0	0	0	0	2	1	0	0	0	1	0	0	0	0	5
07:15 AM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	2	5
07:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	3
07:45 AM	0	0	0	5	0	0	0	0	0	0	0	13	0	0	0	13	31
Total	0	1	0	9	0	0	2	1	0	0	0	15	0	1	0	15	44
08:00 AM	0	0	0	9	0	0	0	8	0	0	0	69	0	0	0	24	110
08:15 AM	0	0	0	1	0	0	0	1	1	0	0	26	0	0	0	0	29
08:30 AM	0	0	0	2	0	0	0	1	0	0	0	3	0	0	0	7	13
08:45 AM	0	0	0	1	0	0	0	0	2	0	0	3	0	0	0	1	7
Total	0	0	0	13	0	0	0	10	3	0	0	101	0	0	0	32	159
Grand Total	0	1	0	22	0	0	2	11	3	0	0	116	0	1	0	47	203
Apprch %	0	4.3	0	95.7	0	0	15.4	84.6	2.5	0	0	97.5	0	2.1	0	97.9	
Total %	0	0.5	0	10.8	0	0	1	5.4	1.5	0	0	57.1	0	0.5	0	23.2	

	Purchase Street From North					Coggeshall Street From East					Purchase Street From South					Coggeshall Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	5	5	0	0	0	0	0	0	0	0	13	13	0	0	0	13	13	31
08:00 AM	0	0	0	**9**	**9**	0	0	0	**8**	**8**	0	0	0	**69**	**69**	0	0	0	**24**	**24**	**110**
08:15 AM	0	0	0	1	1	0	0	0	1	1	**1**	**0**	**0**	**26**	**27**	**0**	**0**	**0**	**0**	**0**	**29**
08:30 AM	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**3**	**3**	**0**	**0**	**0**	**7**	**7**	**13**
Total Volume	0	0	0	17	17	0	0	0	10	10	1	0	0	111	112	0	0	0	44	44	183
% App. Total	0	0	0	100		0	0	0	100		0.9	0	0	99.1		0	0	0	100		
PHF	.000	.000	.000	.472	.472	.000	.000	.000	.313	.313	.250	.000	.000	.402	.406	.000	.000	.000	.458	.458	.416

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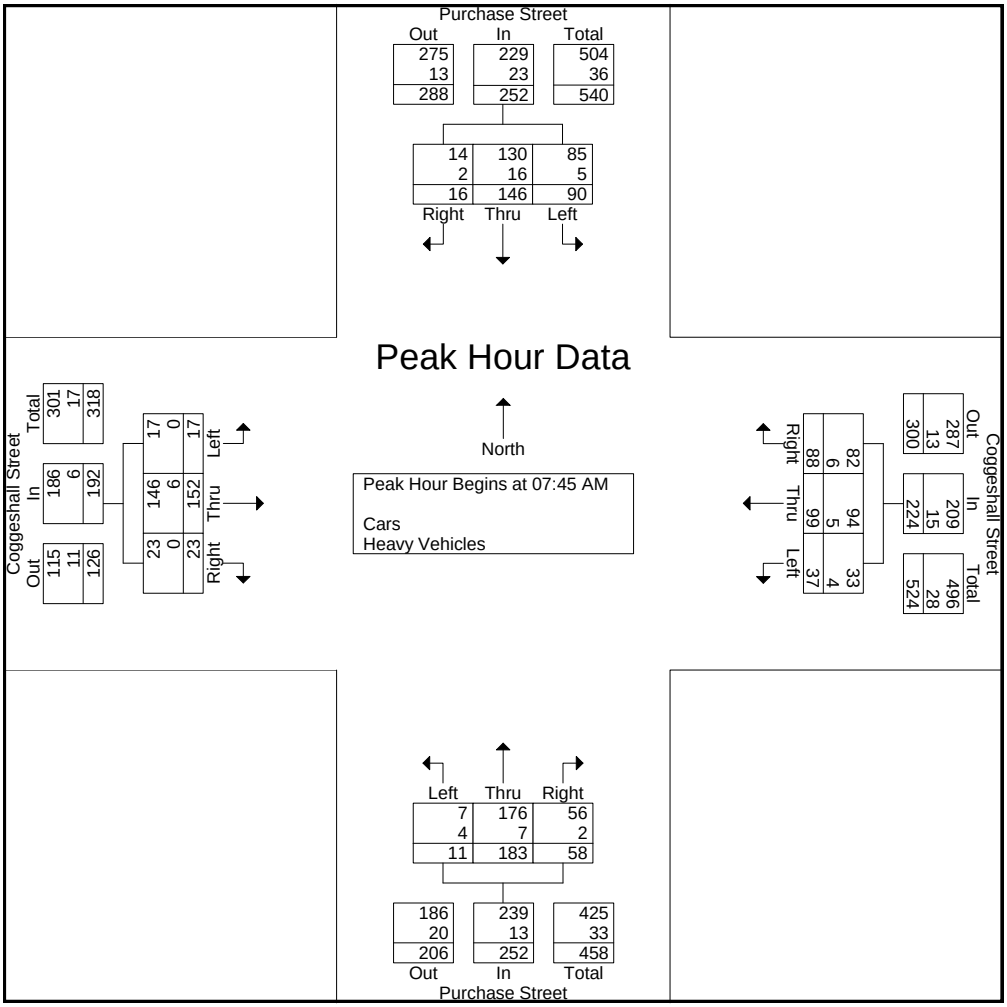
N/S: Purchase Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- A
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**47**	23	70	25	17	7	49	14	43	2	59	3	45	2	50	228
08:00 AM	**16**	34	22	**72**	**26**	**28**	**16**	**70**	**24**	44	3	**71**	**13**	25	**8**	46	**259**
08:15 AM	0	29	**31**	60	21	26	4	51	9	38	**5**	52	6	**50**	7	**63**	226
08:30 AM	0	36	14	50	16	28	10	54	11	**58**	1	70	1	32	0	33	207
Total Volume	16	146	90	252	88	99	37	224	58	183	11	252	23	152	17	192	920
% App. Total	6.3	57.9	35.7		39.3	44.2	16.5		23	72.6	4.4		12	79.2	8.9		
PHF	.250	.777	.726	.875	.846	.884	.578	.800	.604	.789	.550	.887	.442	.760	.531	.762	.888
Cars	14	130	85	229	82	94	33	209	56	176	7	239	23	146	17	186	863
% Cars	87.5	89.0	94.4	90.9	93.2	94.9	89.2	93.3	96.6	96.2	63.6	94.8	100	96.1	100	96.9	93.8
Heavy Vehicles	2	16	5	23	6	5	4	15	2	7	4	13	0	6	0	6	57
% Heavy Vehicles	12.5	11.0	5.6	9.1	6.8	5.1	10.8	6.7	3.4	3.8	36.4	5.2	0	3.9	0	3.1	6.2



PRECISION
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N/S: Purchase Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- AAA
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			Coggeshall Street From East			Purchase Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	51	27	29	32	7	23	96	10	3	35	2	316
04:15 PM	2	44	24	20	24	7	22	72	2	4	37	0	258
04:30 PM	2	53	26	27	35	3	23	63	7	2	22	1	264
04:45 PM	3	54	26	22	48	3	14	91	3	3	33	3	303
Total	8	202	103	98	139	20	82	322	22	12	127	6	1141
05:00 PM	5	47	27	19	32	4	17	69	14	1	30	0	265
05:15 PM	4	44	16	24	26	8	22	70	11	3	37	0	265
05:30 PM	0	46	19	22	38	8	18	61	3	0	21	2	238
05:45 PM	1	36	31	14	43	6	8	71	5	4	31	1	251
Total	10	173	93	79	139	26	65	271	33	8	119	3	1019
Grand Total	18	375	196	177	278	46	147	593	55	20	246	9	2160
Apprch %	3.1	63.7	33.3	35.3	55.5	9.2	18.5	74.6	6.9	7.3	89.5	3.3	
Total %	0.8	17.4	9.1	8.2	12.9	2.1	6.8	27.5	2.5	0.9	11.4	0.4	
Cars	18	360	191	173	278	46	144	565	54	19	244	9	2101
% Cars	100	96	97.4	97.7	100	100	98	95.3	98.2	95	99.2	100	97.3
Heavy Vehicles	0	15	5	4	0	0	3	28	1	1	2	0	59
% Heavy Vehicles	0	4	2.6	2.3	0	0	2	4.7	1.8	5	0.8	0	2.7

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	51	**27**	79	**29**	32	**7**	68	**23**	**96**	**10**	**129**	3	35	2	40	**316**
04:15 PM	2	44	24	70	20	24	7	51	22	72	2	96	**4**	**37**	0	**41**	258
04:30 PM	2	53	26	81	27	35	3	65	23	63	7	93	2	22	1	25	264
04:45 PM	**3**	**54**	26	**83**	22	**48**	3	**73**	14	91	3	108	3	33	**3**	39	303
Total Volume	8	202	103	313	98	139	20	257	82	322	22	426	12	127	6	145	1141
% App. Total	2.6	64.5	32.9		38.1	54.1	7.8		19.2	75.6	5.2		8.3	87.6	4.1		
PHF	.667	.935	.954	.943	.845	.724	.714	.880	.891	.839	.550	.826	.750	.858	.500	.884	.903
Cars	8	194	98	300	95	139	20	254	79	308	22	409	11	125	6	142	1105
% Cars	100	96.0	95.1	95.8	96.9	100	100	98.8	96.3	95.7	100	96.0	91.7	98.4	100	97.9	96.8
Heavy Vehicles	0	8	5	13	3	0	0	3	3	14	0	17	1	2	0	3	36
% Heavy Vehicles	0	4.0	4.9	4.2	3.1	0	0	1.2	3.7	4.3	0	4.0	8.3	1.6	0	2.1	3.2

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N/S: Purchase Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- AAA
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North			Coggeshall Street From East			Purchase Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	49	27	29	32	7	22	94	10	3	35	2	311
04:15 PM	2	42	23	18	24	7	21	68	2	3	36	0	246
04:30 PM	2	51	25	27	35	3	22	60	7	2	21	1	256
04:45 PM	3	52	23	21	48	3	14	86	3	3	33	3	292
Total	8	194	98	95	139	20	79	308	22	11	125	6	1105
05:00 PM	5	47	27	19	32	4	17	66	13	1	30	0	261
05:15 PM	4	42	16	24	26	8	22	67	11	3	37	0	260
05:30 PM	0	43	19	22	38	8	18	58	3	0	21	2	232
05:45 PM	1	34	31	13	43	6	8	66	5	4	31	1	243
Total	10	166	93	78	139	26	65	257	32	8	119	3	996
Grand Total	18	360	191	173	278	46	144	565	54	19	244	9	2101
Apprch %	3.2	63.3	33.6	34.8	55.9	9.3	18.9	74	7.1	7	89.7	3.3	
Total %	0.9	17.1	9.1	8.2	13.2	2.2	6.9	26.9	2.6	0.9	11.6	0.4	

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	49	**27**	77	**29**	32	**7**	68	**22**	**94**	**10**	**126**	**3**	35	2	**40**	**311**
04:15 PM	2	42	23	67	18	24	7	49	21	68	2	91	3	**36**	0	39	246
04:30 PM	2	51	25	**78**	27	35	3	65	22	60	7	89	2	21	1	24	256
04:45 PM	**3**	**52**	23	78	21	**48**	3	**72**	14	86	3	103	3	33	**3**	39	292
Total Volume	8	194	98	300	95	139	20	254	79	308	22	409	11	125	6	142	1105
% App. Total	2.7	64.7	32.7		37.4	54.7	7.9		19.3	75.3	5.4		7.7	88	4.2		
PHF	.667	.933	.907	.962	.819	.724	.714	.882	.898	.819	.550	.812	.917	.868	.500	.888	.888

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N/S: Purchase Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- AAA
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Purchase Street From North			Coggeshall Street From East			Purchase Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	0	0	0	1	2	0	0	0	0	5
04:15 PM	0	2	1	2	0	0	1	4	0	1	1	0	12
04:30 PM	0	2	1	0	0	0	1	3	0	0	1	0	8
04:45 PM	0	2	3	1	0	0	0	5	0	0	0	0	11
Total	0	8	5	3	0	0	3	14	0	1	2	0	36
05:00 PM	0	0	0	0	0	0	0	3	1	0	0	0	4
05:15 PM	0	2	0	0	0	0	0	3	0	0	0	0	5
05:30 PM	0	3	0	0	0	0	0	3	0	0	0	0	6
05:45 PM	0	2	0	1	0	0	0	5	0	0	0	0	8
Total	0	7	0	1	0	0	0	14	1	0	0	0	23
Grand Total	0	15	5	4	0	0	3	28	1	1	2	0	59
Apprch %	0	75	25	100	0	0	9.4	87.5	3.1	33.3	66.7	0	
Total %	0	25.4	8.5	6.8	0	0	5.1	47.5	1.7	1.7	3.4	0	

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**2**	0	2	0	0	0	0	**1**	2	0	3	0	0	0	0	5
04:15 PM	0	2	1	3	**2**	0	0	**2**	1	4	0	**5**	**1**	**1**	0	**2**	**12**
04:30 PM	0	2	1	3	0	0	0	0	1	3	0	4	0	1	0	1	8
04:45 PM	0	2	**3**	**5**	1	0	0	1	0	**5**	0	5	0	0	0	0	11
Total Volume	0	8	5	13	3	0	0	3	3	14	0	17	1	2	0	3	36
% App. Total	0	61.5	38.5		100	0	0		17.6	82.4	0		33.3	66.7	0		
PHF	.000	1.000	.417	.650	.375	.000	.000	.375	.750	.700	.000	.850	.250	.500	.000	.375	.750

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N/S: Purchase Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- AAA
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0	1	7
04:15 PM	0	0	0	1	0	0	0	4	1	1	0	5	0	0	0	0	12
04:30 PM	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	4
04:45 PM	0	2	0	2	0	1	0	1	0	2	0	1	0	0	0	2	11
Total	0	3	0	6	0	1	0	8	1	4	0	8	0	0	0	3	34
05:00 PM	0	0	0	2	0	1	0	5	0	0	0	0	0	1	0	1	10
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:30 PM	0	1	0	1	0	2	0	1	0	1	0	4	0	1	0	0	11
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	1	0	3	0	3	0	7	0	1	0	5	0	2	0	1	23
Grand Total	0	4	0	9	0	4	0	15	1	5	0	13	0	2	0	4	57
Apprch %	0	30.8	0	69.2	0	21.1	0	78.9	5.3	26.3	0	68.4	0	33.3	0	66.7	
Total %	0	7	0	15.8	0	7	0	26.3	1.8	8.8	0	22.8	0	3.5	0	7	

	Purchase Street From North					Coggeshall Street From East					Purchase Street From South					Coggeshall Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	1	1	0	0	0	4	4	**1**	**1**	**0**	**5**	**7**	0	0	0	0	0	**12**
04:30 PM	0	1	0	1	2	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	4
04:45 PM	0	**2**	0	**2**	**4**	0	**1**	**0**	**1**	**2**	**0**	**2**	**0**	**1**	**3**	**0**	**0**	**0**	**2**	**2**	11
05:00 PM	0	0	0	2	2	0	1	0	**5**	**6**	0	0	0	0	0	0	**1**	0	1	2	10
Total Volume	0	3	0	6	9	0	2	0	11	13	1	4	0	6	11	0	1	0	3	4	37
% App. Total	0	33.3	0	66.7		0	15.4	0	84.6		9.1	36.4	0	54.5		0	25	0	75		
PHF	.000	.375	.000	.750	.563	.000	.500	.000	.550	.542	.250	.500	.000	.300	.393	.000	.250	.000	.375	.500	.771

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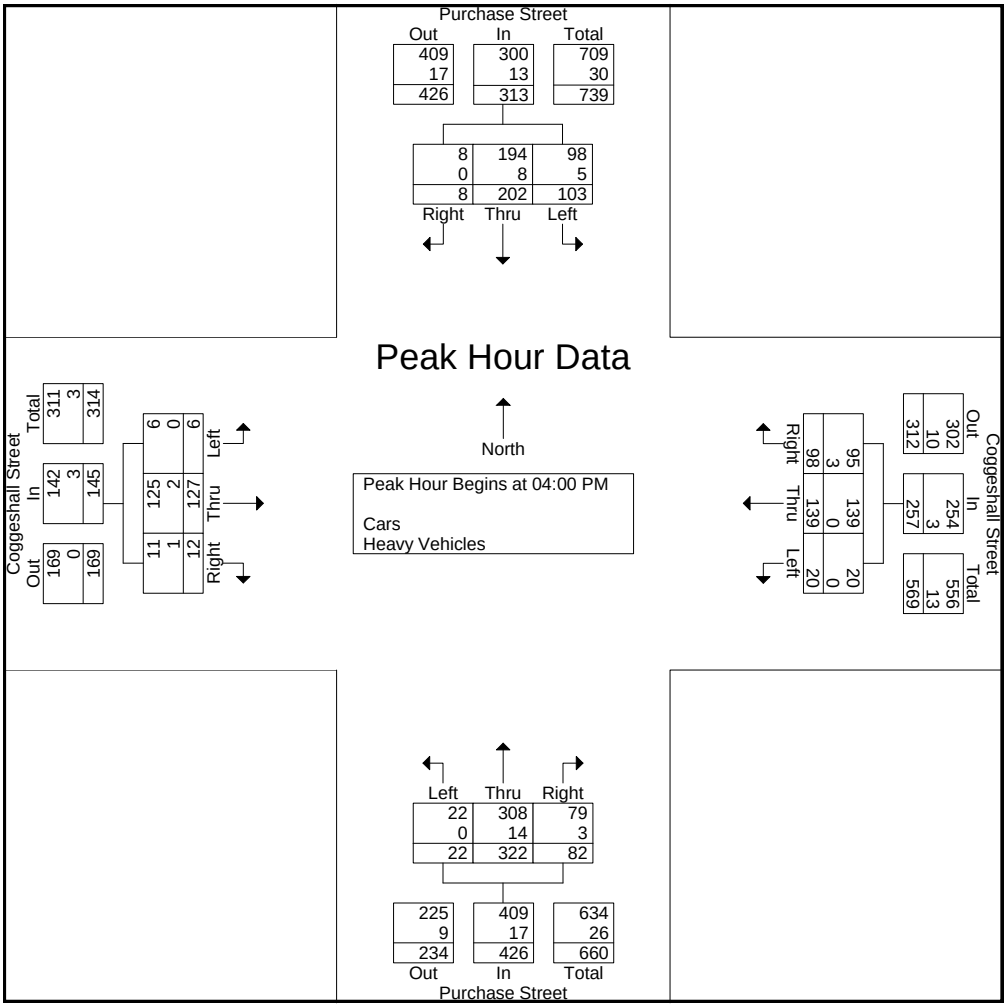
N/S: Purchase Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- AAA
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Purchase Street From North				Coggeshall Street From East				Purchase Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	51	**27**	79	**29**	32	**7**	68	**23**	**96**	**10**	**129**	3	35	2	40	**316**
04:15 PM	2	44	24	70	20	24	7	51	22	72	2	96	**4**	**37**	0	**41**	258
04:30 PM	2	53	26	81	27	35	3	65	23	63	7	93	2	22	1	25	264
04:45 PM	**3**	**54**	26	**83**	22	**48**	3	**73**	14	91	3	108	3	33	**3**	39	303
Total Volume	8	202	103	313	98	139	20	257	82	322	22	426	12	127	6	145	1141
% App. Total	2.6	64.5	32.9		38.1	54.1	7.8		19.2	75.6	5.2		8.3	87.6	4.1		
PHF	.667	.935	.954	.943	.845	.724	.714	.880	.891	.839	.550	.826	.750	.858	.500	.884	.903
Cars	8	194	98	300	95	139	20	254	79	308	22	409	11	125	6	142	1105
% Cars	100	96.0	95.1	95.8	96.9	100	100	98.8	96.3	95.7	100	96.0	91.7	98.4	100	97.9	96.8
Heavy Vehicles	0	8	5	13	3	0	0	3	3	14	0	17	1	2	0	3	36
% Heavy Vehicles	0	4.0	4.9	4.2	3.1	0	0	1.2	3.7	4.3	0	4.0	8.3	1.6	0	2.1	3.2



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N/S: Ashley Boulevard/Route 18 On Ramp
E/W: Coggshell Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-B
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	1	5	0	1	0	1	0	0	0	0	0	0	0	3	11
07:15 AM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	4
07:30 AM	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	8
07:45 AM	0	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	8
Total	0	1	1	17	0	1	0	6	0	0	0	1	0	0	0	4	31
08:00 AM	0	0	1	4	0	1	0	0	0	0	0	2	0	0	0	6	14
08:15 AM	0	0	0	7	0	0	0	0	0	0	1	2	0	0	0	3	13
08:30 AM	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	1	5
08:45 AM	0	0	0	4	0	0	0	3	0	0	0	3	0	0	0	3	13
Total	0	0	1	17	0	1	0	3	0	0	1	9	0	0	0	13	45
Grand Total	0	1	2	34	0	2	0	9	0	0	1	10	0	0	0	17	76
Apprch %	0	2.7	5.4	91.9	0	18.2	0	81.8	0	0	9.1	90.9	0	0	0	100	
Total %	0	1.3	2.6	44.7	0	2.6	0	11.8	0	0	1.3	13.2	0	0	0	22.4	

	Ashley Boulevard (Route 18) From North					Coggshell Street From East					Route 18 SB Onramp From South					Coggshell Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	**1**	**4**	**5**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**6**	**6**	**14**
08:15 AM	0	0	0	**7**	**7**	0	0	0	0	0	0	0	**1**	2	**3**	0	0	0	3	3	13
08:30 AM	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	5
08:45 AM	0	0	0	4	4	0	0	0	**3**	**3**	0	0	0	**3**	**3**	**0**	**0**	**0**	**3**	**3**	**13**
Total Volume	0	0	1	17	18	0	1	0	3	4	0	0	1	9	10	0	0	0	13	13	45
% App. Total	0	0	5.6	94.4		0	25	0	75		0	0	10	90		0	0	0	100		
PHF	.000	.000	.250	.607	.643	.000	.250	.000	.250	.333	.000	.000	.250	.750	.833	.000	.000	.000	.542	.542	.804

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N/S: Ashley Boulevard/Route 18 On Ramp
E/W: Coggshell Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-B
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Coggshell Street From East			Route 18 SB Onramp From South			Coggshell Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	13	1	0	0	0	0	0	0	3	1	0	19
07:15 AM	0	7	2	0	0	3	0	0	0	0	1	0	13
07:30 AM	0	8	0	0	2	2	0	0	0	0	5	0	17
07:45 AM	1	2	1	0	4	2	0	0	0	0	5	0	15
Total	2	30	4	0	6	7	0	0	0	3	12	0	64
08:00 AM	1	8	2	0	4	1	0	0	0	1	1	0	18
08:15 AM	0	6	2	0	2	1	0	0	0	0	0	0	11
08:30 AM	0	6	3	0	4	0	0	0	0	1	3	0	17
08:45 AM	0	4	0	0	3	1	0	0	0	1	3	0	12
Total	1	24	7	0	13	3	0	0	0	3	7	0	58
Grand Total	3	54	11	0	19	10	0	0	0	6	19	0	122
Apprch %	4.4	79.4	16.2	0	65.5	34.5	0	0	0	24	76	0	
Total %	2.5	44.3	9	0	15.6	8.2	0	0	0	4.9	15.6	0	

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	**13**	1	**15**	0	0	0	0	0	0	0	0	**3**	1	0	4	**19**
07:15 AM	0	7	**2**	9	0	0	**3**	3	0	0	0	0	0	1	0	1	13
07:30 AM	0	8	0	8	0	2	2	4	0	0	0	0	0	**5**	0	**5**	17
07:45 AM	1	2	1	4	0	**4**	2	**6**	0	0	0	0	0	5	0	5	15
Total Volume	2	30	4	36	0	6	7	13	0	0	0	0	3	12	0	15	64
% App. Total	5.6	83.3	11.1		0	46.2	53.8		0	0	0		20	80	0		
PHF	.500	.577	.500	.600	.000	.375	.583	.542	.000	.000	.000	.000	.250	.600	.000	.750	.842

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City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-B
Site Code : 10111.31
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Groups Printed- Cars

	Ashley Boulevard (Route 18) From North			Coggshell Street From East			Route 18 SB Onramp From South			Coggshell Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	4	125	26	0	31	25	0	0	0	11	32	0	254
07:15 AM	2	139	24	0	44	30	0	0	0	15	39	0	293
07:30 AM	9	140	29	0	41	35	0	0	0	16	37	0	307
07:45 AM	5	195	30	0	45	53	0	0	0	21	50	0	399
Total	20	599	109	0	161	143	0	0	0	63	158	0	1253
08:00 AM	11	142	27	0	41	45	0	0	0	15	47	0	328
08:15 AM	10	156	25	0	43	28	0	0	0	36	53	0	351
08:30 AM	13	150	24	0	43	43	0	0	0	15	30	0	318
08:45 AM	8	136	24	0	47	39	0	0	0	17	27	0	298
Total	42	584	100	0	174	155	0	0	0	83	157	0	1295
Grand Total	62	1183	209	0	335	298	0	0	0	146	315	0	2548
Apprch %	4.3	81.4	14.4	0	52.9	47.1	0	0	0	31.7	68.3	0	
Total %	2.4	46.4	8.2	0	13.1	11.7	0	0	0	5.7	12.4	0	

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	5	**195**	**30**	**230**	0	**45**	**53**	**98**	0	0	0	0	21	50	0	71	**399**
08:00 AM	11	142	27	180	0	41	45	86	0	0	0	0	15	47	0	62	328
08:15 AM	10	156	25	191	0	43	28	71	0	0	0	0	**36**	**53**	0	**89**	351
08:30 AM	**13**	150	24	187	0	43	43	86	0	0	0	0	15	30	0	45	318
Total Volume	39	643	106	788	0	172	169	341	0	0	0	0	87	180	0	267	1396
% App. Total	4.9	81.6	13.5		0	50.4	49.6		0	0	0		32.6	67.4	0		
PHF	.750	.824	.883	.857	.000	.956	.797	.870	.000	.000	.000	.000	.604	.849	.000	.750	.875

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Site Code : 10111.31
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Groups Printed- Cars - Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Coggshell Street From East			Route 18 SB Onramp From South			Coggshell Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	138	27	0	31	25	0	0	0	14	33	0	273
07:15 AM	2	146	26	0	44	33	0	0	0	15	40	0	306
07:30 AM	9	148	29	0	43	37	0	0	0	16	42	0	324
07:45 AM	6	197	31	0	49	55	0	0	0	21	55	0	414
Total	22	629	113	0	167	150	0	0	0	66	170	0	1317
08:00 AM	12	150	29	0	45	46	0	0	0	16	48	0	346
08:15 AM	10	162	27	0	45	29	0	0	0	36	53	0	362
08:30 AM	13	156	27	0	47	43	0	0	0	16	33	0	335
08:45 AM	8	140	24	0	50	40	0	0	0	18	30	0	310
Total	43	608	107	0	187	158	0	0	0	86	164	0	1353
Grand Total	65	1237	220	0	354	308	0	0	0	152	334	0	2670
Apprch %	4.3	81.3	14.5	0	53.5	46.5	0	0	0	31.3	68.7	0	
Total %	2.4	46.3	8.2	0	13.3	11.5	0	0	0	5.7	12.5	0	
Cars	62	1183	209	0	335	298	0	0	0	146	315	0	2548
% Cars	95.4	95.6	95	0	94.6	96.8	0	0	0	96.1	94.3	0	95.4
Heavy Vehicles	3	54	11	0	19	10	0	0	0	6	19	0	122
% Heavy Vehicles	4.6	4.4	5	0	5.4	3.2	0	0	0	3.9	5.7	0	4.6

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	6	**197**	**31**	**234**	0	**49**	**55**	**104**	0	0	0	0	21	**55**	0	76	**414**
08:00 AM	12	150	29	191	0	45	46	91	0	0	0	0	16	48	0	64	346
08:15 AM	10	162	27	199	0	45	29	74	0	0	0	0	**36**	53	0	**89**	362
08:30 AM	**13**	156	27	196	0	47	43	90	0	0	0	0	16	33	0	49	335
Total Volume	41	665	114	820	0	186	173	359	0	0	0	0	89	189	0	278	1457
% App. Total	5	81.1	13.9		0	51.8	48.2		0	0	0		32	68	0		
PHF	.788	.844	.919	.876	.000	.949	.786	.863	.000	.000	.000	.000	.618	.859	.000	.781	.880
Cars	39	643	106	788	0	172	169	341	0	0	0	0	87	180	0	267	1396
% Cars	95.1	96.7	93.0	96.1	0	92.5	97.7	95.0	0	0	0	0	97.8	95.2	0	96.0	95.8
Heavy Vehicles	2	22	8	32	0	14	4	18	0	0	0	0	2	9	0	11	61
% Heavy Vehicles	4.9	3.3	7.0	3.9	0	7.5	2.3	5.0	0	0	0	0	2.2	4.8	0	4.0	4.2

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E/W: Coggshell Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-B
Site Code : 10111.31
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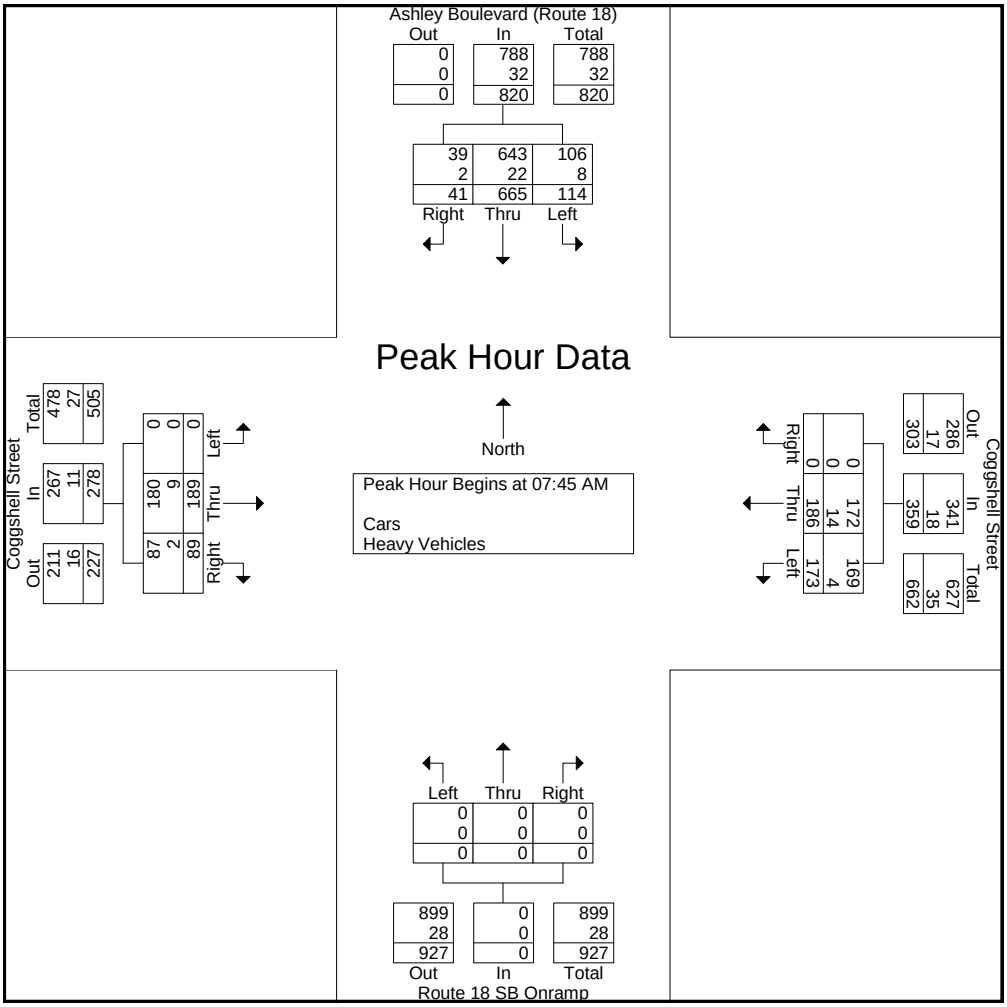
	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	6	**197**	**31**	**234**	0	**49**	**55**	**104**	0	0	0	0	21	**55**	0	76	**414**
08:00 AM	12	150	29	191	0	45	46	91	0	0	0	0	16	48	0	64	346
08:15 AM	10	162	27	199	0	45	29	74	0	0	0	0	**36**	53	0	**89**	362
08:30 AM	**13**	156	27	196	0	47	43	90	0	0	0	0	16	33	0	49	335
Total Volume	41	665	114	820	0	186	173	359	0	0	0	0	89	189	0	278	1457
% App. Total	5	81.1	13.9		0	51.8	48.2		0	0	0		32	68	0		
PHF	.788	.844	.919	.876	.000	.949	.786	.863	.000	.000	.000	.000	.618	.859	.000	.781	.880
Cars	39	643	106	788	0	172	169	341	0	0	0	0	87	180	0	267	1396
% Cars	95.1	96.7	93.0	96.1	0	92.5	97.7	95.0	0	0	0	0	97.8	95.2	0	96.0	95.8
Heavy Vehicles	2	22	8	32	0	14	4	18	0	0	0	0	2	9	0	11	61
% Heavy Vehicles	4.9	3.3	7.0	3.9	0	7.5	2.3	5.0	0	0	0	0	2.2	4.8	0	4.0	4.2



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Groups Printed- Peds and Bicycles

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	4	0	1	7
04:15 PM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
04:30 PM	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	2	7
04:45 PM	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	2	5
Total	0	0	1	11	0	1	0	0	0	0	0	1	0	4	0	5	23
05:00 PM	0	1	2	2	0	3	0	0	0	0	0	3	0	1	0	4	16
05:15 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	4
05:30 PM	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	4
05:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	2	7	0	4	0	1	0	0	0	3	0	1	0	6	25
Grand Total	0	1	3	18	0	5	0	1	0	0	0	4	0	5	0	11	48
Apprch %	0	4.5	13.6	81.8	0	83.3	0	16.7	0	0	0	100	0	31.2	0	68.8	
Total %	0	2.1	6.2	37.5	0	10.4	0	2.1	0	0	0	8.3	0	10.4	0	22.9	

	Ashley Boulevard (Route 18) From North					Coggshell Street From East					Route 18 SB Onramp From South					Coggshell Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
04:30 PM	**0**	**0**	**0**	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**2**	**2**	**7**
04:45 PM	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**5**
05:00 PM	**0**	**1**	**2**	**2**	**5**	0	**3**	**0**	**0**	**3**	0	0	0	**3**	**3**	0	**1**	0	**4**	**5**	**16**
Total Volume	0	1	2	12	15	0	4	0	0	4	0	0	0	4	4	0	1	0	8	9	32
% App. Total	0	6.7	13.3	80		0	100	0	0		0	0	0	100		0	11.1	0	88.9		
PHF	.000	.250	.250	.750	.750	.000	.333	.000	.000	.333	.000	.000	.000	.333	.333	.000	.250	.000	.500	.450	.500

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Groups Printed- Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Coggshell Street From East			Route 18 SB Onramp From South			Coggshell Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	5	1	0	0	0	0	0	0	0	1	0	7
04:15 PM	0	2	1	0	1	1	0	0	0	2	1	0	8
04:30 PM	0	3	2	0	0	0	0	0	0	1	1	0	7
04:45 PM	0	3	2	0	1	1	0	0	0	1	3	0	11
Total	0	13	6	0	2	2	0	0	0	4	6	0	33
05:00 PM	0	3	0	0	0	0	0	0	0	0	1	0	4
05:15 PM	0	2	2	0	2	1	0	0	0	0	0	0	7
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	1	0	0	1	1	0	0	0	0	0	0	3
Total	0	7	2	0	3	2	0	0	0	0	1	0	15
Grand Total	0	20	8	0	5	4	0	0	0	4	7	0	48
Apprch %	0	71.4	28.6	0	55.6	44.4	0	0	0	36.4	63.6	0	
Total %	0	41.7	16.7	0	10.4	8.3	0	0	0	8.3	14.6	0	

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**5**	1	**6**	0	0	0	0	0	0	0	0	0	1	0	1	7
04:15 PM	0	2	1	3	0	**1**	**1**	**2**	0	0	0	0	**2**	1	0	3	8
04:30 PM	0	3	**2**	5	0	0	0	0	0	0	0	0	1	1	0	2	7
04:45 PM	0	3	2	5	0	1	1	2	0	0	0	0	1	**3**	0	**4**	**11**
Total Volume	0	13	6	19	0	2	2	4	0	0	0	0	4	6	0	10	33
% App. Total	0	68.4	31.6		0	50	50		0	0	0		40	60	0		
PHF	.000	.650	.750	.792	.000	.500	.500	.500	.000	.000	.000	.000	.500	.500	.000	.625	.750

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N/S: Ashley Boulevard/Route 18 On Ramp
E/W: Coggshell Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-BBB
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Ashley Boulevard (Route 18) From North			Coggshell Street From East			Route 18 SB Onramp From South			Coggshell Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	6	155	28	0	57	34	0	0	0	29	50	0	359
04:15 PM	11	148	16	0	44	36	0	0	0	21	54	0	330
04:30 PM	22	146	23	0	55	40	0	0	0	13	47	0	346
04:45 PM	6	145	25	0	59	48	0	0	0	23	48	0	354
Total	45	594	92	0	215	158	0	0	0	86	199	0	1389
05:00 PM	5	180	26	0	41	47	0	0	0	20	44	0	363
05:15 PM	13	142	26	0	48	34	0	0	0	25	54	0	342
05:30 PM	13	154	17	0	49	35	0	0	0	16	34	0	318
05:45 PM	17	137	27	0	52	35	0	0	0	21	50	0	339
Total	48	613	96	0	190	151	0	0	0	82	182	0	1362
Grand Total	93	1207	188	0	405	309	0	0	0	168	381	0	2751
Apprch %	6.2	81.1	12.6	0	56.7	43.3	0	0	0	30.6	69.4	0	
Total %	3.4	43.9	6.8	0	14.7	11.2	0	0	0	6.1	13.8	0	

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**22**	146	23	191	0	55	40	95	0	0	0	0	13	47	0	60	346
04:45 PM	6	145	25	176	0	**59**	**48**	**107**	0	0	0	0	23	48	0	71	354
05:00 PM	5	**180**	**26**	**211**	0	41	47	88	0	0	0	0	20	44	0	64	**363**
05:15 PM	13	142	26	181	0	48	34	82	0	0	0	0	**25**	**54**	0	**79**	342
Total Volume	46	613	100	759	0	203	169	372	0	0	0	0	81	193	0	274	1405
% App. Total	6.1	80.8	13.2		0	54.6	45.4		0	0	0		29.6	70.4	0		
PHF	.523	.851	.962	.899	.000	.860	.880	.869	.000	.000	.000	.000	.810	.894	.000	.867	.968

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File Name : 81676 D-BBB
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Coggshell Street From East			Route 18 SB Onramp From South			Coggshell Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	6	160	29	0	57	34	0	0	0	29	51	0	366
04:15 PM	11	150	17	0	45	37	0	0	0	23	55	0	338
04:30 PM	22	149	25	0	55	40	0	0	0	14	48	0	353
04:45 PM	6	148	27	0	60	49	0	0	0	24	51	0	365
Total	45	607	98	0	217	160	0	0	0	90	205	0	1422
05:00 PM	5	183	26	0	41	47	0	0	0	20	45	0	367
05:15 PM	13	144	28	0	50	35	0	0	0	25	54	0	349
05:30 PM	13	155	17	0	49	35	0	0	0	16	34	0	319
05:45 PM	17	138	27	0	53	36	0	0	0	21	50	0	342
Total	48	620	98	0	193	153	0	0	0	82	183	0	1377
Grand Total	93	1227	196	0	410	313	0	0	0	172	388	0	2799
Apprch %	6.1	80.9	12.9	0	56.7	43.3	0	0	0	30.7	69.3	0	
Total %	3.3	43.8	7	0	14.6	11.2	0	0	0	6.1	13.9	0	
Cars	93	1207	188	0	405	309	0	0	0	168	381	0	2751
% Cars	100	98.4	95.9	0	98.8	98.7	0	0	0	97.7	98.2	0	98.3
Heavy Vehicles	0	20	8	0	5	4	0	0	0	4	7	0	48
% Heavy Vehicles	0	1.6	4.1	0	1.2	1.3	0	0	0	2.3	1.8	0	1.7

	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**22**	149	25	196	0	55	40	95	0	0	0	0	14	48	0	62	353
04:45 PM	6	148	27	181	0	**60**	**49**	**109**	0	0	0	0	24	51	0	75	365
05:00 PM	5	**183**	26	**214**	0	41	47	88	0	0	0	0	20	45	0	65	**367**
05:15 PM	13	144	**28**	185	0	50	35	85	0	0	0	0	**25**	**54**	0	**79**	349
Total Volume	46	624	106	776	0	206	171	377	0	0	0	0	83	198	0	281	1434
% App. Total	5.9	80.4	13.7		0	54.6	45.4		0	0	0		29.5	70.5	0		
PHF	.523	.852	.946	.907	.000	.858	.872	.865	.000	.000	.000	.000	.830	.917	.000	.889	.977
Cars	46	613	100	759	0	203	169	372	0	0	0	0	81	193	0	274	1405
% Cars	100	98.2	94.3	97.8	0	98.5	98.8	98.7	0	0	0	0	97.6	97.5	0	97.5	98.0
Heavy Vehicles	0	11	6	17	0	3	2	5	0	0	0	0	2	5	0	7	29
% Heavy Vehicles	0	1.8	5.7	2.2	0	1.5	1.2	1.3	0	0	0	0	2.4	2.5	0	2.5	2.0

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E/W: Coggshell Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-BBB
Site Code : 10111.31
Start Date : 9/24/2008
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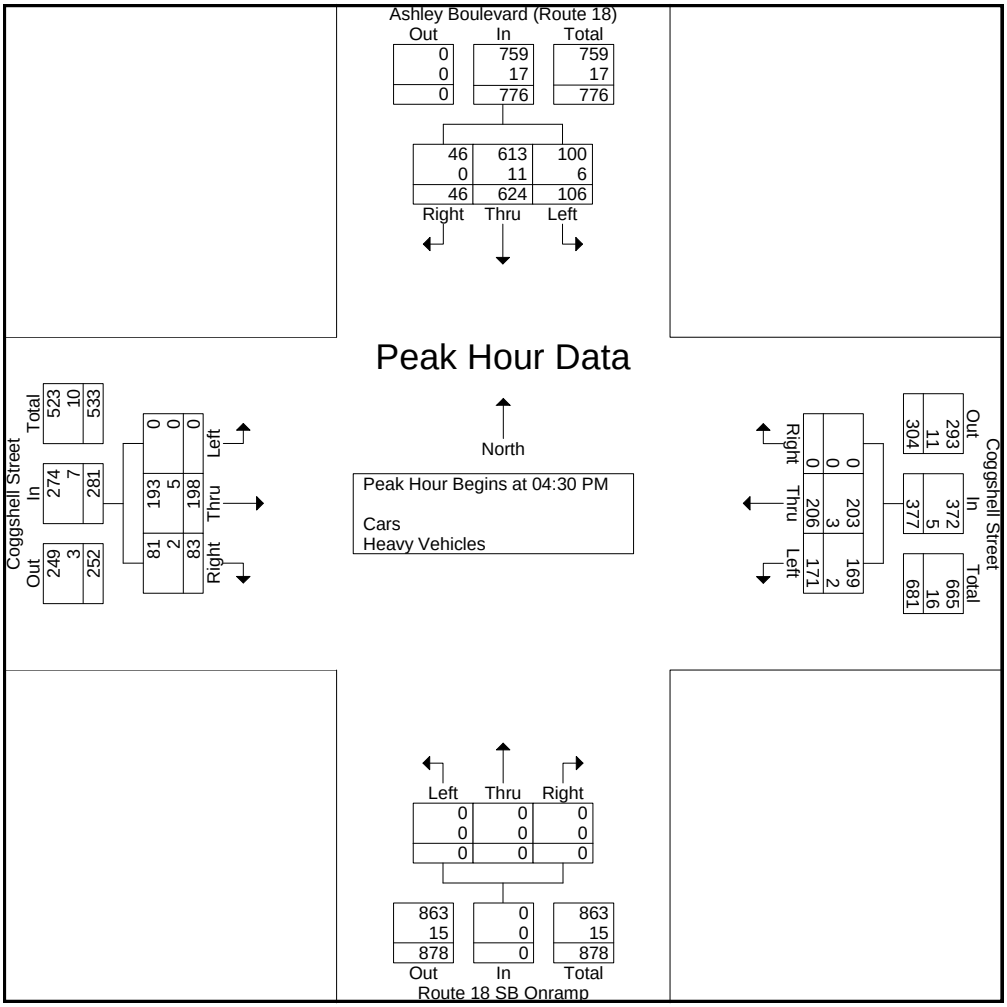
	Ashley Boulevard (Route 18) From North				Coggshell Street From East				Route 18 SB Onramp From South				Coggshell Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**22**	149	25	196	0	55	40	95	0	0	0	0	14	48	0	62	353
04:45 PM	6	148	27	181	0	**60**	**49**	**109**	0	0	0	0	24	51	0	75	365
05:00 PM	5	**183**	26	**214**	0	41	47	88	0	0	0	0	20	45	0	65	**367**
05:15 PM	13	144	**28**	185	0	50	35	85	0	0	0	0	**25**	**54**	0	**79**	349
Total Volume	46	624	106	776	0	206	171	377	0	0	0	0	83	198	0	281	1434
% App. Total	5.9	80.4	13.7		0	54.6	45.4		0	0	0		29.5	70.5	0		
PHF	.523	.852	.946	.907	.000	.858	.872	.865	.000	.000	.000	.000	.830	.917	.000	.889	.977
Cars	46	613	100	759	0	203	169	372	0	0	0	0	81	193	0	274	1405
% Cars	100	98.2	94.3	97.8	0	98.5	98.8	98.7	0	0	0	0	97.6	97.5	0	97.5	98.0
Heavy Vehicles	0	11	6	17	0	3	2	5	0	0	0	0	2	5	0	7	29
% Heavy Vehicles	0	1.8	5.7	2.2	0	1.5	1.2	1.3	0	0	0	0	2.4	2.5	0	2.5	2.0



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N/S: Acushnet Ave(Rt 18)/Rt18 NB Offramp
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- C
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue (Route 18) From North			Coggeshall Street From East			Route 18 NB Offramp From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	8	50	0	30	66	16	0	58	4	232
07:15 AM	0	0	0	13	56	0	31	79	26	0	53	5	263
07:30 AM	0	0	0	9	62	0	39	90	16	0	59	9	284
07:45 AM	0	0	0	14	87	0	64	83	27	0	67	11	353
Total	0	0	0	44	255	0	164	318	85	0	237	29	1132
08:00 AM	0	0	0	12	74	0	60	67	17	0	60	13	303
08:15 AM	0	0	0	6	60	0	46	71	22	0	68	9	282
08:30 AM	0	0	0	16	79	0	51	65	15	0	57	10	293
08:45 AM	0	0	0	13	66	0	45	79	24	0	51	8	286
Total	0	0	0	47	279	0	202	282	78	0	236	40	1164
Grand Total	0	0	0	91	534	0	366	600	163	0	473	69	2296
Apprch %	0	0	0	14.6	85.4	0	32.4	53.1	14.4	0	87.3	12.7	
Total %	0	0	0	4	23.3	0	15.9	26.1	7.1	0	20.6	3	
Cars	0	0	0	85	512	0	352	543	152	0	443	66	2153
% Cars	0	0	0	93.4	95.9	0	96.2	90.5	93.3	0	93.7	95.7	93.8
Heavy Vehicles	0	0	0	6	22	0	14	57	11	0	30	3	143
% Heavy Vehicles	0	0	0	6.6	4.1	0	3.8	9.5	6.7	0	6.3	4.3	6.2

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	14	**87**	0	**101**	**64**	**83**	**27**	**174**	0	67	11	**78**	**353**
08:00 AM	0	0	0	0	12	74	0	86	60	67	17	144	0	60	**13**	73	303
08:15 AM	0	0	0	0	6	60	0	66	46	71	22	139	0	**68**	9	77	282
08:30 AM	0	0	0	0	**16**	79	0	95	51	65	15	131	0	57	10	67	293
Total Volume	0	0	0	0	48	300	0	348	221	286	81	588	0	252	43	295	1231
% App. Total	0	0	0		13.8	86.2	0		37.6	48.6	13.8		0	85.4	14.6		
PHF	.000	.000	.000	.000	.750	.862	.000	.861	.863	.861	.750	.845	.000	.926	.827	.946	.872
Cars	0	0	0	0	46	289	0	335	213	256	71	540	0	235	40	275	1150
% Cars	0	0	0	0	95.8	96.3	0	96.3	96.4	89.5	87.7	91.8	0	93.3	93.0	93.2	93.4
Heavy Vehicles	0	0	0	0	2	11	0	13	8	30	10	48	0	17	3	20	81
% Heavy Vehicles	0	0	0	0	4.2	3.7	0	3.7	3.6	10.5	12.3	8.2	0	6.7	7.0	6.8	6.6

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Client: VHB/ J. Quitter

File Name : 81676D- C
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Acushnet Avenue (Route 18) From North			Coggeshall Street From East			Route 18 NB Offramp From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	7	50	0	28	60	16	0	56	4	221
07:15 AM	0	0	0	12	51	0	30	72	25	0	50	5	245
07:30 AM	0	0	0	9	59	0	38	77	16	0	53	9	261
07:45 AM	0	0	0	14	84	0	64	77	21	0	62	9	331
Total	0	0	0	42	244	0	160	286	78	0	221	27	1058
08:00 AM	0	0	0	12	72	0	57	57	14	0	56	12	280
08:15 AM	0	0	0	5	58	0	45	63	21	0	67	9	268
08:30 AM	0	0	0	15	75	0	47	59	15	0	50	10	271
08:45 AM	0	0	0	11	63	0	43	78	24	0	49	8	276
Total	0	0	0	43	268	0	192	257	74	0	222	39	1095
Grand Total	0	0	0	85	512	0	352	543	152	0	443	66	2153
Apprch %	0	0	0	14.2	85.8	0	33.6	51.9	14.5	0	87	13	
Total %	0	0	0	3.9	23.8	0	16.3	25.2	7.1	0	20.6	3.1	

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	14	**84**	0	**98**	**64**	**77**	**21**	**162**	0	62	9	71	**331**
08:00 AM	0	0	0	0	12	72	0	84	57	57	14	128	0	56	**12**	68	280
08:15 AM	0	0	0	0	5	58	0	63	45	63	21	129	0	**67**	9	**76**	268
08:30 AM	0	0	0	0	**15**	75	0	90	47	59	15	121	0	50	10	60	271
Total Volume	0	0	0	0	46	289	0	335	213	256	71	540	0	235	40	275	1150
% App. Total	0	0	0		13.7	86.3	0		39.4	47.4	13.1		0	85.5	14.5		
PHF	.000	.000	.000	.000	.767	.860	.000	.855	.832	.831	.845	.833	.000	.877	.833	.905	.869

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File Name : 81676D- C
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue (Route 18) From North			Coggeshall Street From East			Route 18 NB Offramp From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	1	0	0	2	6	0	0	2	0	11
07:15 AM	0	0	0	1	5	0	1	7	1	0	3	0	18
07:30 AM	0	0	0	0	3	0	1	13	0	0	6	0	23
07:45 AM	0	0	0	0	3	0	0	6	6	0	5	2	22
Total	0	0	0	2	11	0	4	32	7	0	16	2	74
08:00 AM	0	0	0	0	2	0	3	10	3	0	4	1	23
08:15 AM	0	0	0	1	2	0	1	8	1	0	1	0	14
08:30 AM	0	0	0	1	4	0	4	6	0	0	7	0	22
08:45 AM	0	0	0	2	3	0	2	1	0	0	2	0	10
Total	0	0	0	4	11	0	10	25	4	0	14	1	69
Grand Total	0	0	0	6	22	0	14	57	11	0	30	3	143
Apprch %	0	0	0	21.4	78.6	0	17.1	69.5	13.4	0	90.9	9.1	
Total %	0	0	0	4.2	15.4	0	9.8	39.9	7.7	0	21	2.1	

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	**1**	**5**	0	**6**	1	7	1	9	0	3	0	3	18
07:30 AM	0	0	0	0	0	3	0	3	1	**13**	0	14	0	**6**	0	6	**23**
07:45 AM	0	0	0	0	0	3	0	3	0	6	**6**	12	0	5	**2**	**7**	22
08:00 AM	0	0	0	0	0	2	0	2	**3**	10	3	**16**	0	4	1	5	23
Total Volume	0	0	0	0	1	13	0	14	5	36	10	51	0	18	3	21	86
% App. Total	0	0	0		7.1	92.9	0		9.8	70.6	19.6		0	85.7	14.3		
PHF	.000	.000	.000	.000	.250	.650	.000	.583	.417	.692	.417	.797	.000	.750	.375	.750	.935

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File Name : 81676D- C
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Peds and Bicycles

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	3	0	1	0	0	0	0	0	1	0	0	0	2	7
07:15 AM	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	10	16
07:30 AM	0	0	1	8	0	0	0	0	0	0	0	0	0	0	0	9	18
07:45 AM	0	0	1	2	0	0	0	0	0	0	0	2	0	0	0	14	19
Total	0	0	2	17	0	1	0	0	0	0	0	5	0	0	0	35	60
08:00 AM	0	0	0	6	0	1	0	1	0	0	0	0	0	0	0	10	18
08:15 AM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	17	23
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10	11
08:45 AM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	20	24
Total	0	0	0	16	0	1	0	1	0	0	0	0	0	1	0	57	76
Grand Total	0	0	2	33	0	2	0	1	0	0	0	5	0	1	0	92	136
Apprch %	0	0	5.7	94.3	0	66.7	0	33.3	0	0	0	100	0	1.1	0	98.9	
Total %	0	0	1.5	24.3	0	1.5	0	0.7	0	0	0	3.7	0	0.7	0	67.6	

	Acushnet Avenue (Route 18) From North					Coggeshall Street From East					Route 18 NB Offramp From South					Coggeshall Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	**1**	**8**	**9**	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	18
07:45 AM	0	0	1	2	3	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	14	14	19
08:00 AM	0	0	0	6	6	0	**1**	**0**	**1**	**2**	0	0	0	0	0	0	0	0	10	10	18
08:15 AM	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	**17**	**17**	**23**
Total Volume	0	0	2	22	24	0	1	0	1	2	0	0	0	2	2	0	0	0	50	50	78
% App. Total	0	0	8.3	91.7		0	50	0	50		0	0	0	100		0	0	0	100		
PHF	.000	.000	.500	.688	.667	.000	.250	.000	.250	.250	.000	.000	.000	.250	.250	.000	.000	.000	.735	.735	.848

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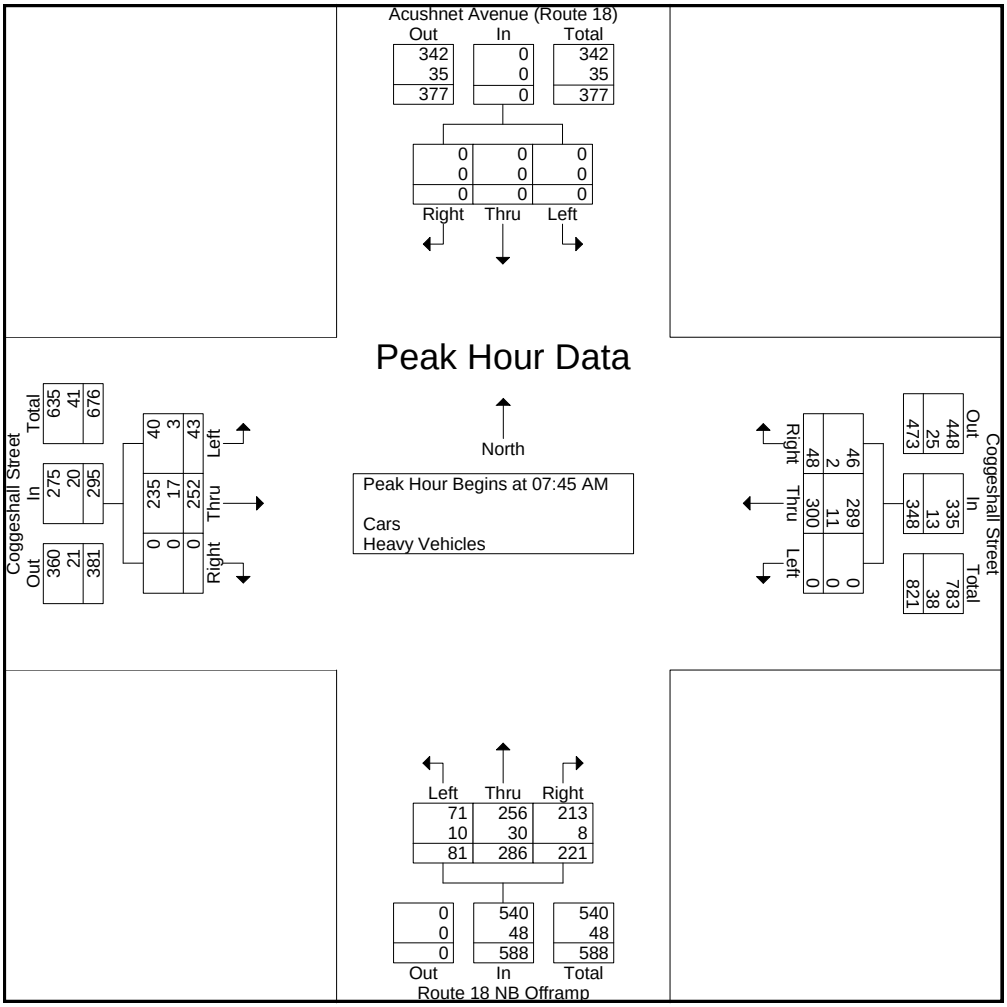
N/S: Acushnet Ave(Rt 18)/Rt18 NB Offramp
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- C
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	14	**87**	0	**101**	**64**	**83**	**27**	**174**	0	67	11	**78**	**353**
08:00 AM	0	0	0	0	12	74	0	86	60	67	17	144	0	60	**13**	73	303
08:15 AM	0	0	0	0	6	60	0	66	46	71	22	139	0	**68**	9	77	282
08:30 AM	0	0	0	0	**16**	79	0	95	51	65	15	131	0	57	10	67	293
Total Volume	0	0	0	0	48	300	0	348	221	286	81	588	0	252	43	295	1231
% App. Total	0	0	0		13.8	86.2	0		37.6	48.6	13.8		0	85.4	14.6		
PHF	.000	.000	.000	.000	.750	.862	.000	.861	.863	.861	.750	.845	.000	.926	.827	.946	.872
Cars	0	0	0	0	46	289	0	335	213	256	71	540	0	235	40	275	1150
% Cars	0	0	0	0	95.8	96.3	0	96.3	96.4	89.5	87.7	91.8	0	93.3	93.0	93.2	93.4
Heavy Vehicles	0	0	0	0	2	11	0	13	8	30	10	48	0	17	3	20	81
% Heavy Vehicles	0	0	0	0	4.2	3.7	0	3.7	3.6	10.5	12.3	8.2	0	6.7	7.0	6.8	6.6



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N/S: Acushnet Ave(Rt 18)/Rt18 NB Offramp
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- CCC
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue (Route 18) From North			Coggeshall Street From East			Route 18 NB Offramp From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	18	62	0	66	119	33	0	71	7	376
04:15 PM	0	0	0	25	65	0	84	105	17	0	62	11	369
04:30 PM	0	0	0	20	74	0	68	129	30	0	56	17	394
04:45 PM	0	0	0	18	71	0	63	94	33	0	56	11	346
Total	0	0	0	81	272	0	281	447	113	0	245	46	1485
05:00 PM	0	0	0	17	72	0	90	135	18	0	72	8	412
05:15 PM	0	0	0	19	49	0	82	119	24	0	74	11	378
05:30 PM	0	0	0	23	68	0	53	105	19	0	51	13	332
05:45 PM	0	0	0	18	74	0	55	118	22	0	69	15	371
Total	0	0	0	77	263	0	280	477	83	0	266	47	1493
Grand Total	0	0	0	158	535	0	561	924	196	0	511	93	2978
Apprch %	0	0	0	22.8	77.2	0	33.4	55	11.7	0	84.6	15.4	
Total %	0	0	0	5.3	18	0	18.8	31	6.6	0	17.2	3.1	
Cars	0	0	0	157	528	0	552	910	194	0	500	91	2932
% Cars	0	0	0	99.4	98.7	0	98.4	98.5	99	0	97.8	97.8	98.5
Heavy Vehicles	0	0	0	1	7	0	9	14	2	0	11	2	46
% Heavy Vehicles	0	0	0	0.6	1.3	0	1.6	1.5	1	0	2.2	2.2	1.5

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	**20**	**74**	0	**94**	68	129	30	227	0	56	**17**	73	394
04:45 PM	0	0	0	0	18	71	0	89	63	94	**33**	190	0	56	11	67	346
05:00 PM	0	0	0	0	17	72	0	89	**90**	**135**	18	**243**	0	72	8	80	**412**
05:15 PM	0	0	0	0	19	49	0	68	82	119	24	225	0	**74**	11	**85**	378
Total Volume	0	0	0	0	74	266	0	340	303	477	105	885	0	258	47	305	1530
% App. Total	0	0	0		21.8	78.2	0		34.2	53.9	11.9		0	84.6	15.4		
PHF	.000	.000	.000	.000	.925	.899	.000	.904	.842	.883	.795	.910	.000	.872	.691	.897	.928
Cars	0	0	0	0	74	264	0	338	299	469	104	872	0	250	46	296	1506
% Cars	0	0	0	0	100	99.2	0	99.4	98.7	98.3	99.0	98.5	0	96.9	97.9	97.0	98.4
Heavy Vehicles	0	0	0	0	0	2	0	2	4	8	1	13	0	8	1	9	24
% Heavy Vehicles	0	0	0	0	0	0.8	0	0.6	1.3	1.7	1.0	1.5	0	3.1	2.1	3.0	1.6

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E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- CCC
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Acushnet Avenue (Route 18) From North			Coggeshall Street From East			Route 18 NB Offramp From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	17	62	0	65	117	33	0	70	7	371
04:15 PM	0	0	0	25	63	0	80	103	17	0	60	10	358
04:30 PM	0	0	0	20	74	0	68	127	30	0	54	16	389
04:45 PM	0	0	0	18	71	0	63	91	33	0	53	11	340
Total	0	0	0	80	270	0	276	438	113	0	237	44	1458
05:00 PM	0	0	0	17	72	0	88	132	18	0	71	8	406
05:15 PM	0	0	0	19	47	0	80	119	23	0	72	11	371
05:30 PM	0	0	0	23	68	0	53	105	19	0	51	13	332
05:45 PM	0	0	0	18	71	0	55	116	21	0	69	15	365
Total	0	0	0	77	258	0	276	472	81	0	263	47	1474
Grand Total	0	0	0	157	528	0	552	910	194	0	500	91	2932
Apprch %	0	0	0	22.9	77.1	0	33.3	55	11.7	0	84.6	15.4	
Total %	0	0	0	5.4	18	0	18.8	31	6.6	0	17.1	3.1	

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	**20**	**74**	0	**94**	68	127	30	225	0	54	**16**	70	389
04:45 PM	0	0	0	0	18	71	0	89	63	91	**33**	187	0	53	11	64	340
05:00 PM	0	0	0	0	17	72	0	89	**88**	**132**	18	**238**	0	71	8	79	**406**
05:15 PM	0	0	0	0	19	47	0	66	80	119	23	222	0	**72**	11	**83**	371
Total Volume	0	0	0	0	74	264	0	338	299	469	104	872	0	250	46	296	1506
% App. Total	0	0	0		21.9	78.1	0		34.3	53.8	11.9		0	84.5	15.5		
PHF	.000	.000	.000	.000	.925	.892	.000	.899	.849	.888	.788	.916	.000	.868	.719	.892	.927

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E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- CCC
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue (Route 18) From North			Coggeshall Street From East			Route 18 NB Offramp From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	1	0	0	1	2	0	0	1	0	5
04:15 PM	0	0	0	0	2	0	4	2	0	0	2	1	11
04:30 PM	0	0	0	0	0	0	0	2	0	0	2	1	5
04:45 PM	0	0	0	0	0	0	0	3	0	0	3	0	6
Total	0	0	0	1	2	0	5	9	0	0	8	2	27
05:00 PM	0	0	0	0	0	0	2	3	0	0	1	0	6
05:15 PM	0	0	0	0	2	0	2	0	1	0	2	0	7
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	3	0	0	2	1	0	0	0	6
Total	0	0	0	0	5	0	4	5	2	0	3	0	19
Grand Total	0	0	0	1	7	0	9	14	2	0	11	2	46
Apprch %	0	0	0	12.5	87.5	0	36	56	8	0	84.6	15.4	
Total %	0	0	0	2.2	15.2	0	19.6	30.4	4.3	0	23.9	4.3	

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**2**	0	**2**	**4**	2	0	**6**	0	2	**1**	**3**	**11**
04:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	1	3	5
04:45 PM	0	0	0	0	0	0	0	0	0	**3**	0	3	0	**3**	0	3	6
05:00 PM	0	0	0	0	0	0	0	0	2	3	0	5	0	1	0	1	6
Total Volume	0	0	0	0	0	2	0	2	6	10	0	16	0	8	2	10	28
% App. Total	0	0	0		0	100	0		37.5	62.5	0		0	80	20		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.375	.833	.000	.667	.000	.667	.500	.833	.636

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E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- CCC
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	4	1	4	11
04:15 PM	0	0	0	4	0	0	0	0	0	0	0	3	0	0	0	8	15
04:30 PM	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	6	11
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6
Total	0	0	0	9	0	0	0	0	0	0	0	4	1	4	3	22	43
05:00 PM	0	0	0	1	0	3	0	0	0	0	0	1	0	2	1	6	14
05:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	6
05:30 PM	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	2	5
05:45 PM	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	10	15
Total	1	0	0	9	0	4	0	0	0	0	0	1	0	2	1	22	40
Grand Total	1	0	0	18	0	4	0	0	0	0	0	5	1	6	4	44	83
Apprch %	5.3	0	0	94.7	0	100	0	0	0	0	0	100	1.8	10.9	7.3	80	
Total %	1.2	0	0	21.7	0	4.8	0	0	0	0	0	6	1.2	7.2	4.8	53	

	Acushnet Avenue (Route 18) From North					Coggeshall Street From East					Route 18 NB Offramp From South					Coggeshall Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	**4**	**4**	0	0	0	0	0	0	0	0	**3**	**3**	0	0	0	**8**	**8**	**15**
04:30 PM	0	0	0	4	4	0	0	0	0	0	0	0	0	1	1	0	0	0	6	6	11
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**4**	**6**	**6**
05:00 PM	**0**	**0**	**0**	**1**	**1**	**0**	**3**	**0**	**0**	**3**	0	0	0	1	1	0	**2**	1	6	**9**	14
Total Volume	0	0	0	9	9	0	3	0	0	3	0	0	0	5	5	0	2	3	24	29	46
% App. Total	0	0	0	100		0	100	0	0		0	0	0	100		0	6.9	10.3	82.8		
PHF	.000	.000	.000	.563	.563	.000	.250	.000	.000	.250	.000	.000	.000	.417	.417	.000	.250	.375	.750	.806	.767

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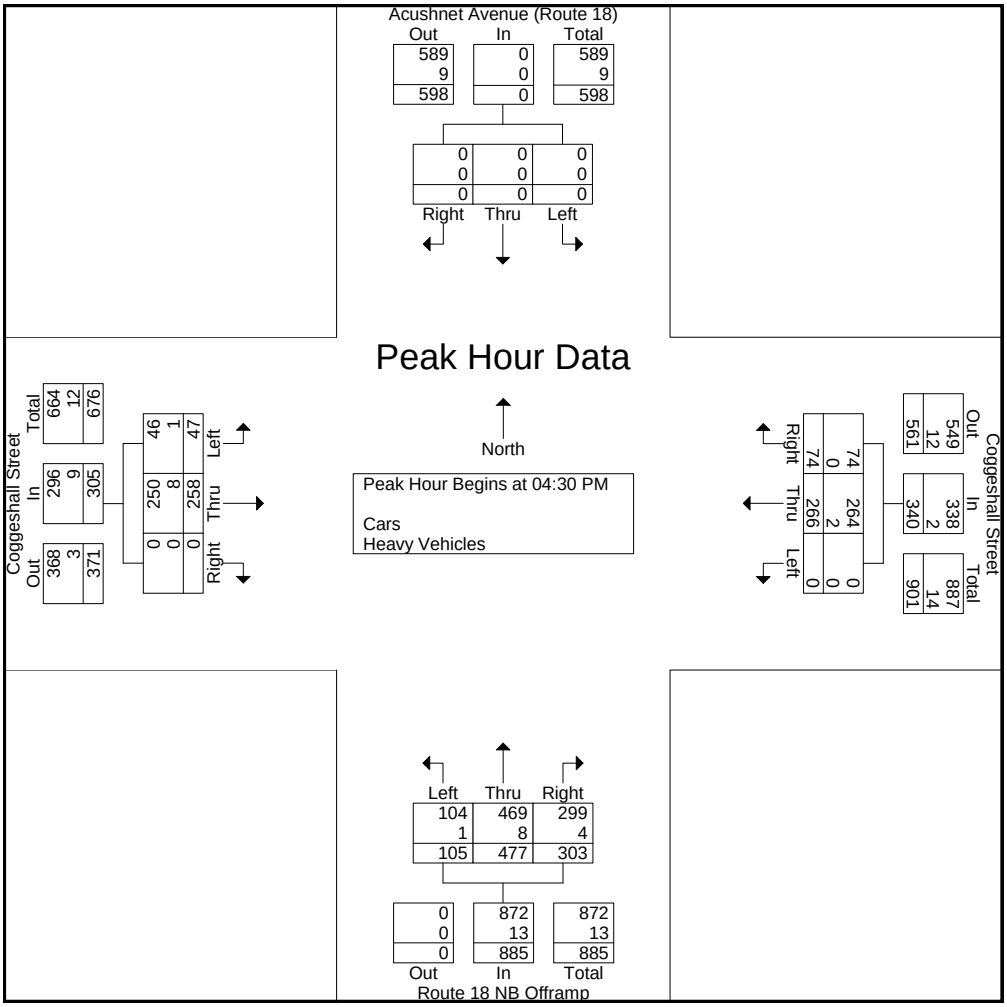
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- CCC
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Acushnet Avenue (Route 18) From North				Coggeshall Street From East				Route 18 NB Offramp From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	**20**	**74**	0	**94**	68	129	30	227	0	56	**17**	73	394
04:45 PM	0	0	0	0	18	71	0	89	63	94	**33**	190	0	56	11	67	346
05:00 PM	0	0	0	0	17	72	0	89	**90**	**135**	18	**243**	0	72	8	80	**412**
05:15 PM	0	0	0	0	19	49	0	68	82	119	24	225	0	**74**	11	**85**	378
Total Volume	0	0	0	0	74	266	0	340	303	477	105	885	0	258	47	305	1530
% App. Total	0	0	0		21.8	78.2	0		34.2	53.9	11.9		0	84.6	15.4		
PHF	.000	.000	.000	.000	.925	.899	.000	.904	.842	.883	.795	.910	.000	.872	.691	.897	.928
Cars	0	0	0	0	74	264	0	338	299	469	104	872	0	250	46	296	1506
% Cars	0	0	0	0	100	99.2	0	99.4	98.7	98.3	99.0	98.5	0	96.9	97.9	97.0	98.4
Heavy Vehicles	0	0	0	0	0	2	0	2	4	8	1	13	0	8	1	9	24
% Heavy Vehicles	0	0	0	0	0	0.8	0	0.6	1.3	1.7	1.0	1.5	0	3.1	2.1	3.0	1.6



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N/S: North Front Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- DDD
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	2	0	4	2	0	1	2	2	4	0	0	0	0	0	4	21
04:15 PM	0	2	0	11	0	2	0	3	0	8	1	2	0	2	0	9	40
04:30 PM	0	0	1	1	1	0	0	8	0	7	0	1	0	0	0	11	30
04:45 PM	0	0	0	2	0	1	0	1	0	2	0	1	0	0	0	3	10
Total	0	4	1	18	3	3	1	14	2	21	1	4	0	2	0	27	101
05:00 PM	0	0	0	5	0	1	0	2	0	4	0	0	0	0	0	10	22
05:15 PM	0	2	0	5	1	1	0	1	0	2	0	0	0	0	1	11	24
05:30 PM	0	3	0	7	0	0	0	0	0	1	0	0	1	0	0	13	25
05:45 PM	0	2	0	1	3	0	0	1	1	3	0	0	0	0	0	16	27
Total	0	7	0	18	4	2	0	4	1	10	0	0	1	0	1	50	98
Grand Total	0	11	1	36	7	5	1	18	3	31	1	4	1	2	1	77	199
Apprch %	0	22.9	2.1	75	22.6	16.1	3.2	58.1	7.7	79.5	2.6	10.3	1.2	2.5	1.2	95.1	
Total %	0	5.5	0.5	18.1	3.5	2.5	0.5	9	1.5	15.6	0.5	2	0.5	1	0.5	38.7	

	North Front Street From North					Coggeshall Street From East					North Front Street From South					Coggeshall Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	**2**	0	**11**	**13**	0	**2**	**0**	**3**	**5**	**0**	**8**	**1**	**2**	**11**	0	**2**	0	9	**11**	**40**
04:30 PM	0	0	**1**	**1**	**2**	**1**	0	0	**8**	**9**	0	7	0	1	8	0	0	0	**11**	**11**	**30**
04:45 PM	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**0**	**1**	**2**	**0**	**2**	**0**	**1**	**3**	**0**	**0**	**0**	**3**	**3**	**10**
05:00 PM	**0**	**0**	**0**	**5**	**5**	**0**	**1**	**0**	**2**	**3**	**0**	**4**	**0**	**0**	**4**	**0**	**0**	**0**	**10**	**10**	**22**
Total Volume	0	2	1	19	22	1	4	0	14	19	0	21	1	4	26	0	2	0	33	35	102
% App. Total	0	9.1	4.5	86.4		5.3	21.1	0	73.7		0	80.8	3.8	15.4		0	5.7	0	94.3		
PHF	.000	.250	.250	.432	.423	.250	.500	.000	.438	.528	.000	.656	.250	.500	.591	.000	.250	.000	.750	.795	.638

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N/S: North Front Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- DDD
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Front Street From North			Coggeshall Street From East			North Front Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	1	1	0	0	0	0	1	1	4
04:15 PM	0	0	0	0	2	0	0	1	0	1	4	0	8
04:30 PM	0	0	0	0	0	0	2	1	0	0	1	0	4
04:45 PM	0	0	0	0	0	1	2	1	0	0	4	1	9
Total	0	0	0	0	3	2	4	3	0	1	10	2	25
05:00 PM	0	0	0	1	0	0	0	3	0	0	3	0	7
05:15 PM	0	0	0	0	1	0	1	1	0	1	2	0	6
05:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	2
05:45 PM	0	0	0	0	2	1	0	0	0	0	1	0	4
Total	0	0	0	1	4	1	2	4	0	1	6	0	19
Grand Total	0	0	0	1	7	3	6	7	0	2	16	2	44
Apprch %	0	0	0	9.1	63.6	27.3	46.2	53.8	0	10	80	10	
Total %	0	0	0	2.3	15.9	6.8	13.6	15.9	0	4.5	36.4	4.5	

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**2**	0	**2**	0	1	0	1	**1**	**4**	0	**5**	8
04:30 PM	0	0	0	0	0	0	0	0	**2**	1	0	**3**	0	1	0	1	4
04:45 PM	0	0	0	0	0	0	**1**	1	2	1	0	3	0	4	**1**	5	**9**
05:00 PM	0	0	0	0	**1**	0	0	1	0	**3**	0	3	0	3	0	3	7
Total Volume	0	0	0	0	1	2	1	4	4	6	0	10	1	12	1	14	28
% App. Total	0	0	0		25	50	25		40	60	0		7.1	85.7	7.1		
PHF	.000	.000	.000	.000	.250	.250	.250	.500	.500	.500	.000	.833	.250	.750	.250	.700	.778

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City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- DDD
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	North Front Street From North			Coggeshall Street From East			North Front Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	11	77	11	11	34	4	12	98	26	284
04:15 PM	0	0	0	10	70	19	10	29	4	13	94	25	274
04:30 PM	0	0	0	11	74	11	11	38	14	8	90	22	279
04:45 PM	0	0	0	11	89	9	17	25	4	5	86	21	267
Total	0	0	0	43	310	50	49	126	26	38	368	94	1104
05:00 PM	0	0	0	7	72	10	15	13	9	9	106	31	272
05:15 PM	0	0	0	11	67	10	16	22	2	12	112	28	280
05:30 PM	0	0	0	11	83	13	11	26	2	7	80	16	249
05:45 PM	0	0	0	15	85	8	10	21	4	11	98	16	268
Total	0	0	0	44	307	41	52	82	17	39	396	91	1069
Grand Total	0	0	0	87	617	91	101	208	43	77	764	185	2173
Apprch %	0	0	0	10.9	77.6	11.4	28.7	59.1	12.2	7.5	74.5	18	
Total %	0	0	0	4	28.4	4.2	4.6	9.6	2	3.5	35.2	8.5	

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	**11**	77	11	99	11	34	4	49	12	**98**	**26**	**136**	**284**
04:15 PM	0	0	0	0	10	70	**19**	99	10	29	4	43	**13**	94	25	132	274
04:30 PM	0	0	0	0	11	74	11	96	11	**38**	**14**	**63**	8	90	22	120	279
04:45 PM	0	0	0	0	11	**89**	9	**109**	**17**	25	4	46	5	86	21	112	267
Total Volume	0	0	0	0	43	310	50	403	49	126	26	201	38	368	94	500	1104
% App. Total	0	0	0		10.7	76.9	12.4		24.4	62.7	12.9		7.6	73.6	18.8		
PHF	.000	.000	.000	.000	.977	.871	.658	.924	.721	.829	.464	.798	.731	.939	.904	.919	.972

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Client: VHB/ J. Quitter

File Name : 81676D- DDD
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Front Street From North			Coggeshall Street From East			North Front Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	11	78	12	11	34	4	12	99	27	288
04:15 PM	0	0	0	10	72	19	10	30	4	14	98	25	282
04:30 PM	0	0	0	11	74	11	13	39	14	8	91	22	283
04:45 PM	0	0	0	11	89	10	19	26	4	5	90	22	276
Total	0	0	0	43	313	52	53	129	26	39	378	96	1129
05:00 PM	0	0	0	8	72	10	15	16	9	9	109	31	279
05:15 PM	0	0	0	11	68	10	17	23	2	13	114	28	286
05:30 PM	0	0	0	11	84	13	12	26	2	7	80	16	251
05:45 PM	0	0	0	15	87	9	10	21	4	11	99	16	272
Total	0	0	0	45	311	42	54	86	17	40	402	91	1088
Grand Total	0	0	0	88	624	94	107	215	43	79	780	187	2217
Apprch %	0	0	0	10.9	77.4	11.7	29.3	58.9	11.8	7.6	74.6	17.9	
Total %	0	0	0	4	28.1	4.2	4.8	9.7	1.9	3.6	35.2	8.4	
Cars	0	0	0	87	617	91	101	208	43	77	764	185	2173
% Cars	0	0	0	98.9	98.9	96.8	94.4	96.7	100	97.5	97.9	98.9	98
Heavy Vehicles	0	0	0	1	7	3	6	7	0	2	16	2	44
% Heavy Vehicles	0	0	0	1.1	1.1	3.2	5.6	3.3	0	2.5	2.1	1.1	2

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	**11**	78	12	101	11	34	4	49	12	**99**	**27**	**138**	**288**
04:15 PM	0	0	0	0	10	72	**19**	101	10	30	4	44	**14**	98	25	137	282
04:30 PM	0	0	0	0	11	74	11	96	13	**39**	**14**	**66**	8	91	22	121	283
04:45 PM	0	0	0	0	11	**89**	10	**110**	**19**	26	4	49	5	90	22	117	276
Total Volume	0	0	0	0	43	313	52	408	53	129	26	208	39	378	96	513	1129
% App. Total	0	0	0		10.5	76.7	12.7		25.5	62	12.5		7.6	73.7	18.7		
PHF	.000	.000	.000	.000	.977	.879	.684	.927	.697	.827	.464	.788	.696	.955	.889	.929	.980
Cars	0	0	0	0	43	310	50	403	49	126	26	201	38	368	94	500	1104
% Cars	0	0	0	0	100	99.0	96.2	98.8	92.5	97.7	100	96.6	97.4	97.4	97.9	97.5	97.8
Heavy Vehicles	0	0	0	0	0	3	2	5	4	3	0	7	1	10	2	13	25
% Heavy Vehicles	0	0	0	0	0	1.0	3.8	1.2	7.5	2.3	0	3.4	2.6	2.6	2.1	2.5	2.2

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City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- D
Site Code : 10111.31
Start Date : 9/24/2008
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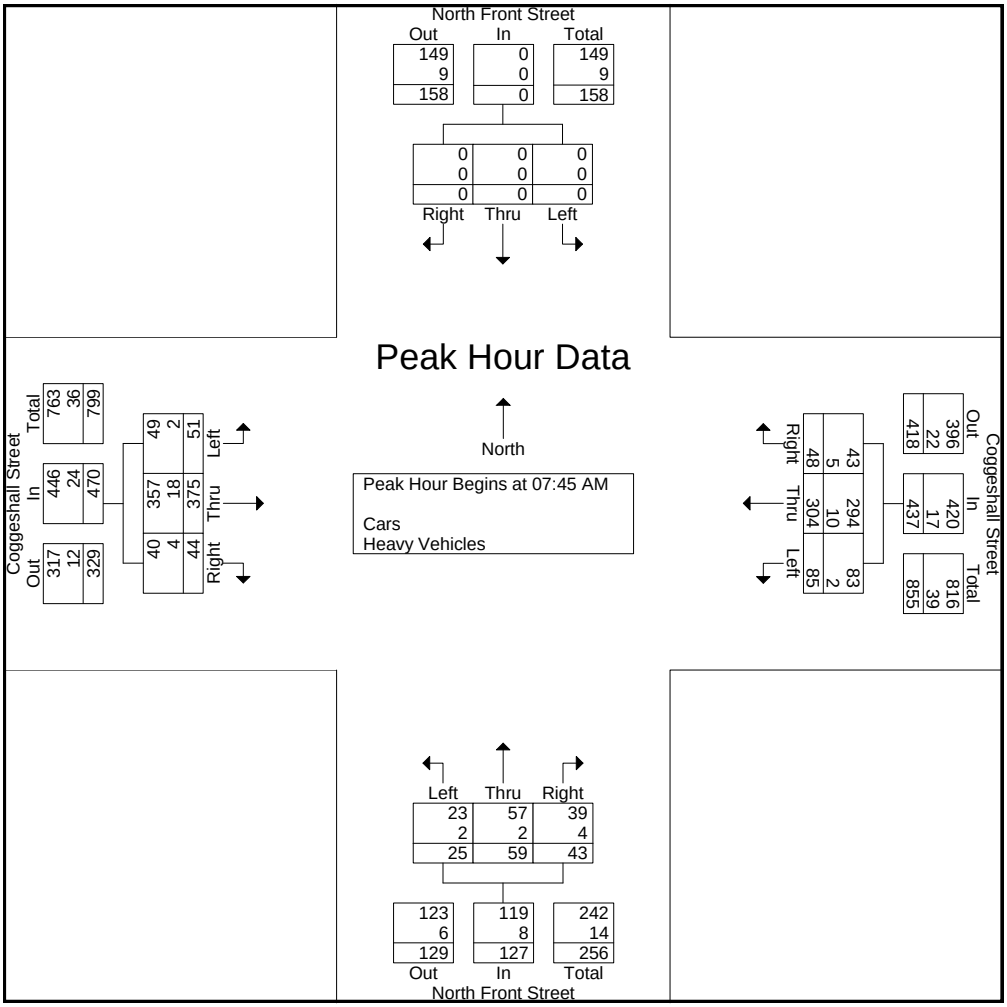
	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	12	**89**	**29**	**130**	11	12	4	27	**15**	96	9	120	**277**
08:00 AM	0	0	0	0	**16**	68	21	105	8	14	**8**	30	10	**109**	13	**132**	267
08:15 AM	0	0	0	0	8	60	23	91	**12**	**17**	8	**37**	13	86	**17**	116	244
08:30 AM	0	0	0	0	12	87	12	111	12	16	5	33	6	84	12	102	246
Total Volume	0	0	0	0	48	304	85	437	43	59	25	127	44	375	51	470	1034
% App. Total	0	0	0		11	69.6	19.5		33.9	46.5	19.7		9.4	79.8	10.9		
PHF	.000	.000	.000	.000	.750	.854	.733	.840	.896	.868	.781	.858	.733	.860	.750	.890	.933
Cars	0	0	0	0	43	294	83	420	39	57	23	119	40	357	49	446	985
% Cars	0	0	0	0	89.6	96.7	97.6	96.1	90.7	96.6	92.0	93.7	90.9	95.2	96.1	94.9	95.3
Heavy Vehicles	0	0	0	0	5	10	2	17	4	2	2	8	4	18	2	24	49
% Heavy Vehicles	0	0	0	0	10.4	3.3	2.4	3.9	9.3	3.4	8.0	6.3	9.1	4.8	3.9	5.1	4.7



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N/S: North Front Street
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Client: VHB/ J. Quitter

File Name : 81676D- D
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	3
07:15 AM	0	4	1	5	0	1	0	0	0	0	0	0	0	0	0	0	11
07:30 AM	0	8	0	5	0	0	1	2	0	0	0	0	0	0	0	0	16
07:45 AM	0	0	0	6	0	0	0	6	0	0	0	1	0	0	0	0	13
Total	0	12	1	17	0	2	1	9	0	0	0	1	0	0	0	0	43
08:00 AM	0	0	0	2	0	0	0	3	0	0	0	1	1	0	0	2	9
08:15 AM	0	0	0	6	0	0	0	7	0	0	0	0	0	0	0	1	14
08:30 AM	0	0	0	3	1	0	0	10	0	0	0	1	0	1	0	2	18
08:45 AM	0	0	0	2	0	0	0	0	0	1	0	2	0	0	0	1	6
Total	0	0	0	13	1	0	0	20	0	1	0	4	1	1	0	6	47
Grand Total	0	12	1	30	1	2	1	29	0	1	0	5	1	1	0	6	90
Apprch %	0	27.9	2.3	69.8	3	6.1	3	87.9	0	16.7	0	83.3	12.5	12.5	0	75	
Total %	0	13.3	1.1	33.3	1.1	2.2	1.1	32.2	0	1.1	0	5.6	1.1	1.1	0	6.7	

	North Front Street From North					Coggeshall Street From East					North Front Street From South					Coggeshall Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	**6**	**6**	0	0	0	6	6	0	0	0	**1**	**1**	0	0	0	0	0	13
08:00 AM	0	0	0	2	2	0	0	0	3	3	0	0	0	1	1	**1**	**0**	**0**	**2**	**3**	9
08:15 AM	0	0	0	6	6	0	0	0	7	7	0	0	0	0	0	0	0	0	1	1	14
08:30 AM	0	0	0	3	3	**1**	0	0	**10**	**11**	0	0	0	1	1	0	**1**	0	2	3	**18**
Total Volume	0	0	0	17	17	1	0	0	26	27	0	0	0	3	3	1	1	0	5	7	54
% App. Total	0	0	0	100		3.7	0	0	96.3		0	0	0	100		14.3	14.3	0	71.4		
PHF	.000	.000	.000	.708	.708	.250	.000	.000	.650	.614	.000	.000	.000	.750	.750	.250	.250	.000	.625	.583	.750

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File Name : 81676D- D
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Heavy Vehicles

	North Front Street From North			Coggeshall Street From East			North Front Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	2	2	1	0	0	1	4	0	10
07:15 AM	0	0	0	0	5	2	0	0	0	1	1	0	9
07:30 AM	0	0	0	0	3	3	2	1	0	1	7	0	17
07:45 AM	0	0	0	0	2	2	1	0	0	2	3	1	11
Total	0	0	0	0	12	9	4	1	0	5	15	1	47
08:00 AM	0	0	0	2	1	0	2	1	1	1	7	0	15
08:15 AM	0	0	0	0	3	0	1	0	0	0	1	1	6
08:30 AM	0	0	0	3	4	0	0	1	1	1	7	0	17
08:45 AM	0	0	0	0	4	2	1	1	1	1	4	0	14
Total	0	0	0	5	12	2	4	3	3	3	19	1	52
Grand Total	0	0	0	5	24	11	8	4	3	8	34	2	99
Apprch %	0	0	0	12.5	60	27.5	53.3	26.7	20	18.2	77.3	4.5	
Total %	0	0	0	5.1	24.2	11.1	8.1	4	3	8.1	34.3	2	

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	**5**	2	**7**	0	0	0	0	1	1	0	2	9
07:30 AM	0	0	0	0	0	3	**3**	6	**2**	**1**	0	3	1	**7**	0	**8**	**17**
07:45 AM	0	0	0	0	0	2	2	4	1	0	0	1	**2**	3	**1**	6	11
08:00 AM	0	0	0	0	**2**	1	0	3	2	1	**1**	**4**	1	7	0	8	15
Total Volume	0	0	0	0	2	11	7	20	5	2	1	8	5	18	1	24	52
% App. Total	0	0	0		10	55	35		62.5	25	12.5		20.8	75	4.2		
PHF	.000	.000	.000	.000	.250	.550	.583	.714	.625	.500	.250	.500	.625	.643	.250	.750	.765

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N/S: North Front Street
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- D
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	North Front Street From North			Coggeshall Street From East			North Front Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	10	49	15	2	11	2	9	72	3	173
07:15 AM	0	0	0	13	60	16	13	8	0	12	68	7	197
07:30 AM	0	0	0	4	67	27	12	7	4	13	82	9	225
07:45 AM	0	0	0	12	87	27	10	12	4	13	93	8	266
Total	0	0	0	39	263	85	37	38	10	47	315	27	861
08:00 AM	0	0	0	14	67	21	6	13	7	9	102	13	252
08:15 AM	0	0	0	8	57	23	11	17	8	13	85	16	238
08:30 AM	0	0	0	9	83	12	12	15	4	5	77	12	229
08:45 AM	0	0	0	10	66	32	11	9	3	10	74	12	227
Total	0	0	0	41	273	88	40	54	22	37	338	53	946
Grand Total	0	0	0	80	536	173	77	92	32	84	653	80	1807
Apprch %	0	0	0	10.1	67.9	21.9	38.3	45.8	15.9	10.3	79.9	9.8	
Total %	0	0	0	4.4	29.7	9.6	4.3	5.1	1.8	4.6	36.1	4.4	

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	12	**87**	**27**	**126**	10	12	4	26	**13**	93	8	114	**266**
08:00 AM	0	0	0	0	**14**	67	21	102	6	13	7	26	9	**102**	13	**124**	252
08:15 AM	0	0	0	0	8	57	23	88	11	**17**	**8**	**36**	13	85	**16**	114	238
08:30 AM	0	0	0	0	9	83	12	104	**12**	15	4	31	5	77	12	94	229
Total Volume	0	0	0	0	43	294	83	420	39	57	23	119	40	357	49	446	985
% App. Total	0	0	0		10.2	70	19.8		32.8	47.9	19.3		9	80	11		
PHF	.000	.000	.000	.000	.768	.845	.769	.833	.813	.838	.719	.826	.769	.875	.766	.899	.926

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City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- D
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Front Street From North			Coggeshall Street From East			North Front Street From South			Coggeshall Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	10	51	17	3	11	2	10	76	3	183
07:15 AM	0	0	0	13	65	18	13	8	0	13	69	7	206
07:30 AM	0	0	0	4	70	30	14	8	4	14	89	9	242
07:45 AM	0	0	0	12	89	29	11	12	4	15	96	9	277
Total	0	0	0	39	275	94	41	39	10	52	330	28	908
08:00 AM	0	0	0	16	68	21	8	14	8	10	109	13	267
08:15 AM	0	0	0	8	60	23	12	17	8	13	86	17	244
08:30 AM	0	0	0	12	87	12	12	16	5	6	84	12	246
08:45 AM	0	0	0	10	70	34	12	10	4	11	78	12	241
Total	0	0	0	46	285	90	44	57	25	40	357	54	998
Grand Total	0	0	0	85	560	184	85	96	35	92	687	82	1906
Apprch %	0	0	0	10.3	67.6	22.2	39.4	44.4	16.2	10.7	79.8	9.5	
Total %	0	0	0	4.5	29.4	9.7	4.5	5	1.8	4.8	36	4.3	
Cars	0	0	0	80	536	173	77	92	32	84	653	80	1807
% Cars	0	0	0	94.1	95.7	94	90.6	95.8	91.4	91.3	95.1	97.6	94.8
Heavy Vehicles	0	0	0	5	24	11	8	4	3	8	34	2	99
% Heavy Vehicles	0	0	0	5.9	4.3	6	9.4	4.2	8.6	8.7	4.9	2.4	5.2

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	12	**89**	**29**	**130**	11	12	4	27	**15**	96	9	120	**277**
08:00 AM	0	0	0	0	**16**	68	21	105	8	14	**8**	30	10	**109**	13	**132**	267
08:15 AM	0	0	0	0	8	60	23	91	**12**	**17**	8	**37**	13	86	**17**	116	244
08:30 AM	0	0	0	0	12	87	12	111	12	16	5	33	6	84	12	102	246
Total Volume	0	0	0	0	48	304	85	437	43	59	25	127	44	375	51	470	1034
% App. Total	0	0	0		11	69.6	19.5		33.9	46.5	19.7		9.4	79.8	10.9		
PHF	.000	.000	.000	.000	.750	.854	.733	.840	.896	.868	.781	.858	.733	.860	.750	.890	.933
Cars	0	0	0	0	43	294	83	420	39	57	23	119	40	357	49	446	985
% Cars	0	0	0	0	89.6	96.7	97.6	96.1	90.7	96.6	92.0	93.7	90.9	95.2	96.1	94.9	95.3
Heavy Vehicles	0	0	0	0	5	10	2	17	4	2	2	8	4	18	2	24	49
% Heavy Vehicles	0	0	0	0	10.4	3.3	2.4	3.9	9.3	3.4	8.0	6.3	9.1	4.8	3.9	5.1	4.7

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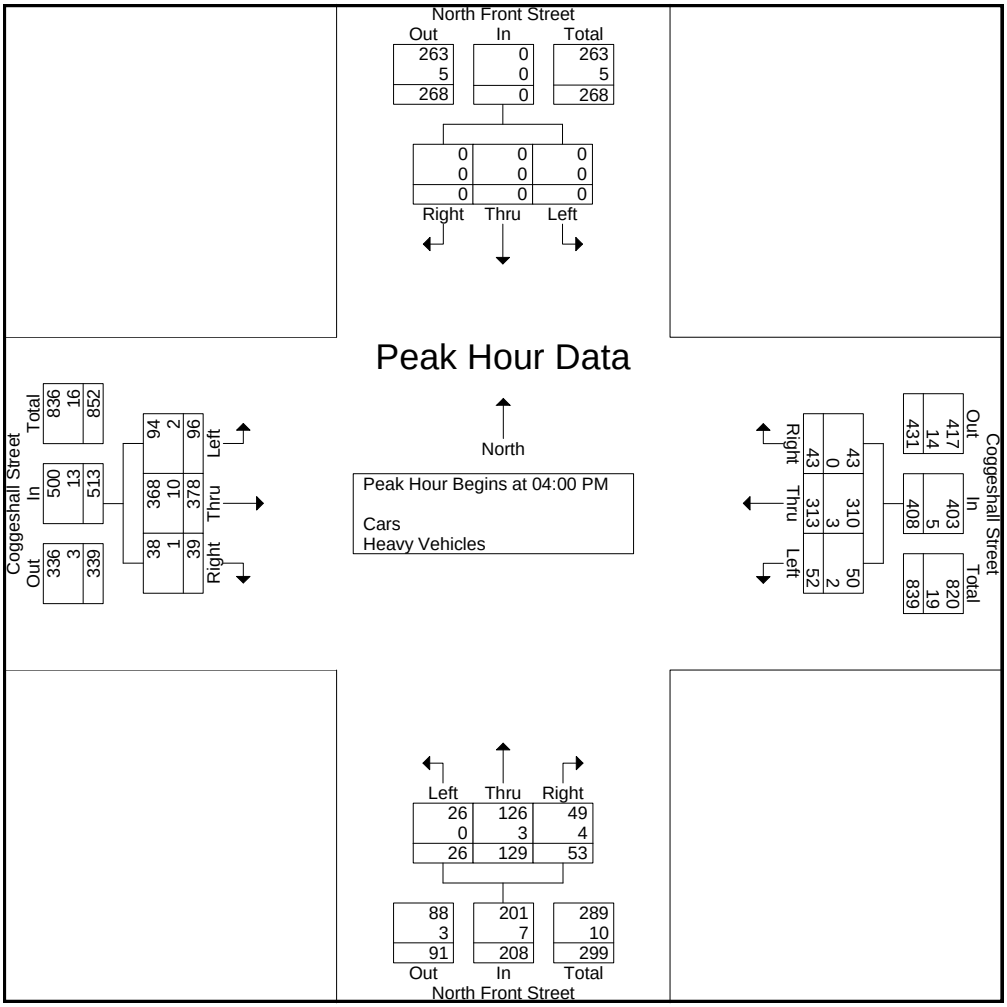
E/W: Coggeshall Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- DDD
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	North Front Street From North				Coggeshall Street From East				North Front Street From South				Coggeshall Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	**11**	78	12	101	11	34	4	49	12	**99**	**27**	**138**	**288**
04:15 PM	0	0	0	0	10	72	**19**	101	10	30	4	44	**14**	98	25	137	282
04:30 PM	0	0	0	0	11	74	11	96	13	**39**	**14**	**66**	8	91	22	121	283
04:45 PM	0	0	0	0	11	**89**	10	**110**	**19**	26	4	49	5	90	22	117	276
Total Volume	0	0	0	0	43	313	52	408	53	129	26	208	39	378	96	513	1129
% App. Total	0	0	0		10.5	76.7	12.7		25.5	62	12.5		7.6	73.7	18.7		
PHF	.000	.000	.000	.000	.977	.879	.684	.927	.697	.827	.464	.788	.696	.955	.889	.929	.980
Cars	0	0	0	0	43	310	50	403	49	126	26	201	38	368	94	500	1104
% Cars	0	0	0	0	100	99.0	96.2	98.8	92.5	97.7	100	96.6	97.4	97.4	97.9	97.5	97.8
Heavy Vehicles	0	0	0	0	0	3	2	5	4	3	0	7	1	10	2	13	25
% Heavy Vehicles	0	0	0	0	0	1.0	3.8	1.2	7.5	2.3	0	3.4	2.6	2.6	2.1	2.5	2.2



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N/S: Purchase Street
E/W: Route 18 SB Offramp/Weld Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-G
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			Route 18 SB Offramp From East			Purchase Street From South			Weld Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	8	32	0	2	15	12	0	37	11	4	0	1	122
07:15 AM	3	32	0	4	14	22	0	43	10	9	0	2	139
07:30 AM	3	36	0	5	17	17	0	48	12	9	0	2	149
07:45 AM	8	59	0	7	20	23	0	50	10	13	0	1	191
Total	22	159	0	18	66	74	0	178	43	35	0	6	601
08:00 AM	7	40	0	5	14	29	0	55	15	10	0	3	178
08:15 AM	6	47	0	4	11	26	0	45	7	13	0	0	159
08:30 AM	7	48	0	7	8	23	0	50	18	5	0	3	169
08:45 AM	3	51	0	11	16	20	0	61	12	8	0	3	185
Total	23	186	0	27	49	98	0	211	52	36	0	9	691
Grand Total	45	345	0	45	115	172	0	389	95	71	0	15	1292
Apprch %	11.5	88.5	0	13.6	34.6	51.8	0	80.4	19.6	82.6	0	17.4	
Total %	3.5	26.7	0	3.5	8.9	13.3	0	30.1	7.4	5.5	0	1.2	
Cars	42	315	0	42	109	159	0	361	88	68	0	15	1199
% Cars	93.3	91.3	0	93.3	94.8	92.4	0	92.8	92.6	95.8	0	100	92.8
Heavy Vehicles	3	30	0	3	6	13	0	28	7	3	0	0	93
% Heavy Vehicles	6.7	8.7	0	6.7	5.2	7.6	0	7.2	7.4	4.2	0	0	7.2

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**8**	**59**	0	**67**	**7**	**20**	23	**50**	0	50	10	60	**13**	0	1	**14**	**191**
08:00 AM	7	40	0	47	5	14	**29**	48	0	**55**	15	**70**	10	0	**3**	13	178
08:15 AM	6	47	0	53	4	11	26	41	0	45	7	52	13	0	0	13	159
08:30 AM	7	48	0	55	7	8	23	38	0	50	**18**	68	5	0	3	8	169
Total Volume	28	194	0	222	23	53	101	177	0	200	50	250	41	0	7	48	697
% App. Total	12.6	87.4	0		13	29.9	57.1		0	80	20		85.4	0	14.6		
PHF	.875	.822	.000	.828	.821	.663	.871	.885	.000	.909	.694	.893	.788	.000	.583	.857	.912
Cars	26	180	0	206	21	52	97	170	0	186	45	231	39	0	7	46	653
% Cars	92.9	92.8	0	92.8	91.3	98.1	96.0	96.0	0	93.0	90.0	92.4	95.1	0	100	95.8	93.7
Heavy Vehicles	2	14	0	16	2	1	4	7	0	14	5	19	2	0	0	2	44
% Heavy Vehicles	7.1	7.2	0	7.2	8.7	1.9	4.0	4.0	0	7.0	10.0	7.6	4.9	0	0	4.2	6.3

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E/W: Route 18 SB Offramp/Weld Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-G
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North			Route 18 SB Offramp From East			Purchase Street From South			Weld Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	8	30	0	1	14	10	0	34	10	4	0	1	112
07:15 AM	3	28	0	4	13	18	0	39	9	8	0	2	124
07:30 AM	3	32	0	5	14	15	0	46	12	9	0	2	138
07:45 AM	8	55	0	7	20	22	0	45	9	13	0	1	180
Total	22	145	0	17	61	65	0	164	40	34	0	6	554
08:00 AM	6	35	0	4	13	28	0	53	13	9	0	3	164
08:15 AM	5	45	0	4	11	26	0	41	7	13	0	0	152
08:30 AM	7	45	0	6	8	21	0	47	16	4	0	3	157
08:45 AM	2	45	0	11	16	19	0	56	12	8	0	3	172
Total	20	170	0	25	48	94	0	197	48	34	0	9	645
Grand Total	42	315	0	42	109	159	0	361	88	68	0	15	1199
Apprch %	11.8	88.2	0	13.5	35.2	51.3	0	80.4	19.6	81.9	0	18.1	
Total %	3.5	26.3	0	3.5	9.1	13.3	0	30.1	7.3	5.7	0	1.3	

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**8**	**55**	0	**63**	**7**	**20**	22	**49**	0	45	9	54	**13**	0	1	**14**	**180**
08:00 AM	6	35	0	41	4	13	**28**	45	0	**53**	13	**66**	9	0	**3**	12	164
08:15 AM	5	45	0	50	4	11	26	41	0	41	7	48	13	0	0	13	152
08:30 AM	7	45	0	52	6	8	21	35	0	47	**16**	63	4	0	3	7	157
Total Volume	26	180	0	206	21	52	97	170	0	186	45	231	39	0	7	46	653
% App. Total	12.6	87.4	0		12.4	30.6	57.1		0	80.5	19.5		84.8	0	15.2		
PHF	.813	.818	.000	.817	.750	.650	.866	.867	.000	.877	.703	.875	.750	.000	.583	.821	.907

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File Name : 81676 D-G
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Purchase Street From North			Route 18 SB Offramp From East			Purchase Street From South			Weld Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	2	0	1	1	2	0	3	1	0	0	0	10
07:15 AM	0	4	0	0	1	4	0	4	1	1	0	0	15
07:30 AM	0	4	0	0	3	2	0	2	0	0	0	0	11
07:45 AM	0	4	0	0	0	1	0	5	1	0	0	0	11
Total	0	14	0	1	5	9	0	14	3	1	0	0	47
08:00 AM	1	5	0	1	1	1	0	2	2	1	0	0	14
08:15 AM	1	2	0	0	0	0	0	4	0	0	0	0	7
08:30 AM	0	3	0	1	0	2	0	3	2	1	0	0	12
08:45 AM	1	6	0	0	0	1	0	5	0	0	0	0	13
Total	3	16	0	2	1	4	0	14	4	2	0	0	46
Grand Total	3	30	0	3	6	13	0	28	7	3	0	0	93
Apprch %	9.1	90.9	0	13.6	27.3	59.1	0	80	20	100	0	0	
Total %	3.2	32.3	0	3.2	6.5	14	0	30.1	7.5	3.2	0	0	

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	4	0	4	0	1	**4**	**5**	0	4	1	5	**1**	0	0	**1**	**15**
07:30 AM	0	4	0	4	0	**3**	2	5	0	2	0	2	0	0	0	0	11
07:45 AM	0	4	0	4	0	0	1	1	0	**5**	1	**6**	0	0	0	0	11
08:00 AM	**1**	**5**	0	**6**	**1**	1	1	3	0	2	**2**	4	1	0	0	1	14
Total Volume	1	17	0	18	1	5	8	14	0	13	4	17	2	0	0	2	51
% App. Total	5.6	94.4	0		7.1	35.7	57.1		0	76.5	23.5		100	0	0		
PHF	.250	.850	.000	.750	.250	.417	.500	.700	.000	.650	.500	.708	.500	.000	.000	.500	.850

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Client: VHB/J. Quitter

File Name : 81676 D-G
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	1	5
07:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	4	7
07:30 AM	0	1	0	0	0	0	0	4	0	1	0	0	3	0	0	0	9
07:45 AM	0	0	0	0	0	0	0	3	0	0	0	1	1	0	0	6	11
Total	0	3	0	1	0	0	0	9	0	1	0	2	5	0	0	11	32
08:00 AM	0	2	0	0	0	0	0	2	0	0	0	6	1	0	0	3	14
08:15 AM	0	0	0	1	0	0	0	3	0	1	0	0	0	0	0	5	10
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	5	8
08:45 AM	0	0	0	0	0	0	0	4	0	1	0	3	0	0	2	2	12
Total	0	2	0	1	0	0	0	9	0	2	0	10	2	1	2	15	44
Grand Total	0	5	0	2	0	0	0	18	0	3	0	12	7	1	2	26	76
Apprch %	0	71.4	0	28.6	0	0	0	100	0	20	0	80	19.4	2.8	5.6	72.2	
Total %	0	6.6	0	2.6	0	0	0	23.7	0	3.9	0	15.8	9.2	1.3	2.6	34.2	

	Purchase Street From North					Route 18 SB Offramp From East					Purchase Street From South					Weld Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	0	0	1	0	0	0	**4**	**4**	0	**1**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**3**	**9**
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**6**	**7**	11
08:00 AM	0	**2**	0	0	**2**	0	0	0	2	2	0	0	0	**6**	**6**	1	0	0	3	4	**14**
08:15 AM	0	0	0	**1**	**1**	**0**	**0**	**0**	**3**	**3**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**5**	**5**	**10**
Total Volume	0	3	0	1	4	0	0	0	12	12	0	2	0	7	9	5	0	0	14	19	44
% App. Total	0	75	0	25		0	0	0	100		0	22.2	0	77.8		26.3	0	0	73.7		
PHF	.000	.375	.000	.250	.500	.000	.000	.000	.750	.750	.000	.500	.000	.292	.375	.417	.000	.000	.583	.679	.786

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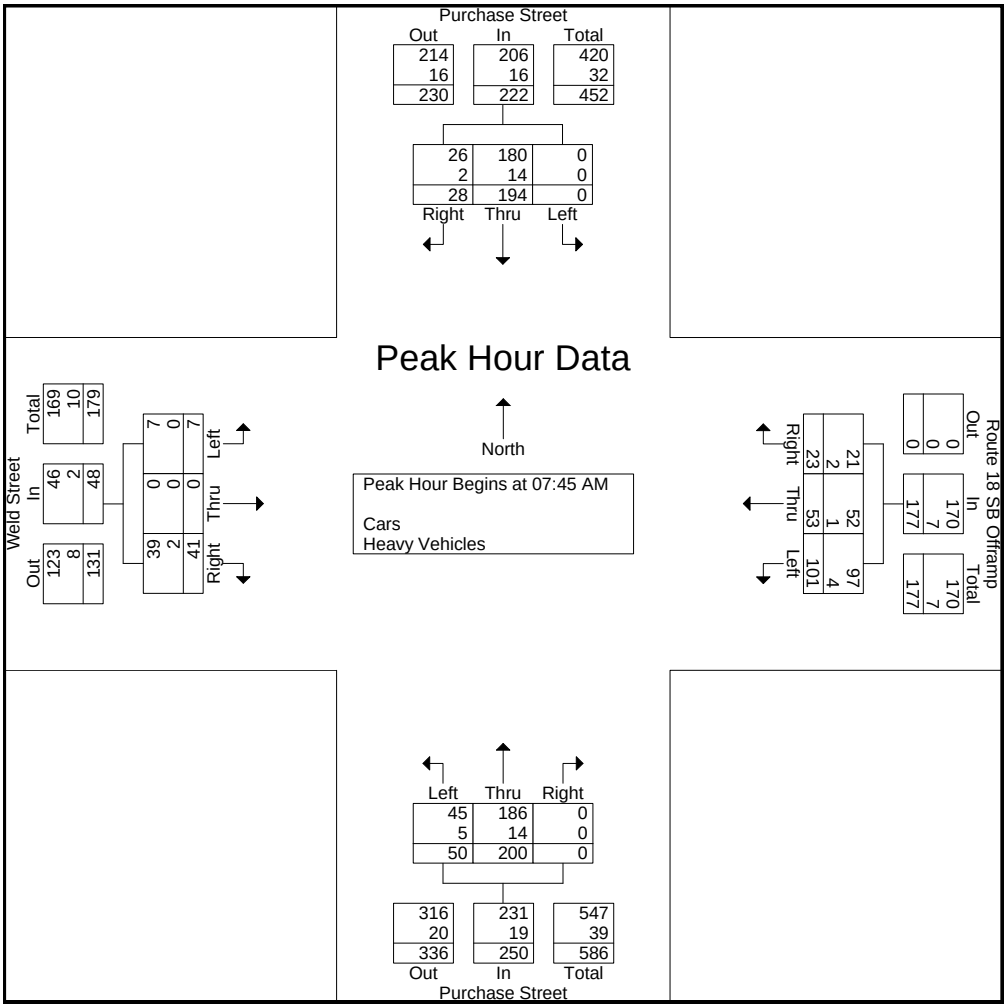
N/S: Purchase Street
E/W: Route 18 SB Offramp/Weld Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-G
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**8**	**59**	0	**67**	**7**	**20**	23	**50**	0	50	10	60	**13**	0	1	**14**	**191**
08:00 AM	7	40	0	47	5	14	**29**	48	0	**55**	15	**70**	10	0	**3**	13	178
08:15 AM	6	47	0	53	4	11	26	41	0	45	7	52	13	0	0	13	159
08:30 AM	7	48	0	55	7	8	23	38	0	50	**18**	68	5	0	3	8	169
Total Volume	28	194	0	222	23	53	101	177	0	200	50	250	41	0	7	48	697
% App. Total	12.6	87.4	0		13	29.9	57.1		0	80	20		85.4	0	14.6		
PHF	.875	.822	.000	.828	.821	.663	.871	.885	.000	.909	.694	.893	.788	.000	.583	.857	.912
Cars	26	180	0	206	21	52	97	170	0	186	45	231	39	0	7	46	653
% Cars	92.9	92.8	0	92.8	91.3	98.1	96.0	96.0	0	93.0	90.0	92.4	95.1	0	100	95.8	93.7
Heavy Vehicles	2	14	0	16	2	1	4	7	0	14	5	19	2	0	0	2	44
% Heavy Vehicles	7.1	7.2	0	7.2	8.7	1.9	4.0	4.0	0	7.0	10.0	7.6	4.9	0	0	4.2	6.3



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City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-GGG
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			Route 18 SB Offramp From East			Purchase Street From South			Weld Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	11	56	0	3	25	18	0	91	25	12	0	6	247
04:15 PM	13	50	0	7	21	25	0	79	21	11	0	6	233
04:30 PM	5	61	0	5	36	25	0	81	23	7	1	7	251
04:45 PM	11	64	0	13	34	16	0	89	25	13	0	7	272
Total	40	231	0	28	116	84	0	340	94	43	1	26	1003
05:00 PM	9	56	0	7	33	27	0	82	28	10	0	5	257
05:15 PM	4	53	0	8	23	24	0	82	20	10	0	4	228
05:30 PM	8	58	0	8	19	18	0	70	19	10	0	6	216
05:45 PM	4	45	0	10	21	18	0	62	14	5	0	5	184
Total	25	212	0	33	96	87	0	296	81	35	0	20	885
Grand Total	65	443	0	61	212	171	0	636	175	78	1	46	1888
Apprch %	12.8	87.2	0	13.7	47.7	38.5	0	78.4	21.6	62.4	0.8	36.8	
Total %	3.4	23.5	0	3.2	11.2	9.1	0	33.7	9.3	4.1	0.1	2.4	
Cars	65	421	0	56	208	166	0	611	174	75	1	45	1822
% Cars	100	95	0	91.8	98.1	97.1	0	96.1	99.4	96.2	100	97.8	96.5
Heavy Vehicles	0	22	0	5	4	5	0	25	1	3	0	1	66
% Heavy Vehicles	0	5	0	8.2	1.9	2.9	0	3.9	0.6	3.8	0	2.2	3.5

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**13**	50	0	63	7	21	25	53	0	79	21	100	11	0	6	17	233
04:30 PM	5	61	0	66	5	**36**	25	66	0	81	23	104	7	**1**	**7**	15	251
04:45 PM	11	**64**	0	**75**	**13**	34	16	63	0	**89**	25	**114**	**13**	0	7	**20**	**272**
05:00 PM	9	56	0	65	7	33	**27**	**67**	0	82	**28**	110	10	0	5	15	257
Total Volume	38	231	0	269	32	124	93	249	0	331	97	428	41	1	25	67	1013
% App. Total	14.1	85.9	0		12.9	49.8	37.3		0	77.3	22.7		61.2	1.5	37.3		
PHF	.731	.902	.000	.897	.615	.861	.861	.929	.000	.930	.866	.939	.788	.250	.893	.838	.931
Cars	38	220	0	258	28	122	91	241	0	317	96	413	40	1	25	66	978
% Cars	100	95.2	0	95.9	87.5	98.4	97.8	96.8	0	95.8	99.0	96.5	97.6	100	100	98.5	96.5
Heavy Vehicles	0	11	0	11	4	2	2	8	0	14	1	15	1	0	0	1	35
% Heavy Vehicles	0	4.8	0	4.1	12.5	1.6	2.2	3.2	0	4.2	1.0	3.5	2.4	0	0	1.5	3.5

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File Name : 81676 D-GGG
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North			Route 18 SB Offramp From East			Purchase Street From South			Weld Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	11	54	0	3	25	17	0	89	25	10	0	5	239
04:15 PM	13	46	0	6	20	24	0	75	21	10	0	6	221
04:30 PM	5	58	0	5	36	25	0	78	23	7	1	7	245
04:45 PM	11	62	0	11	34	16	0	84	24	13	0	7	262
Total	40	220	0	25	115	82	0	326	93	40	1	25	967
05:00 PM	9	54	0	6	32	26	0	80	28	10	0	5	250
05:15 PM	4	50	0	8	22	23	0	79	20	10	0	4	220
05:30 PM	8	54	0	8	19	18	0	68	19	10	0	6	210
05:45 PM	4	43	0	9	20	17	0	58	14	5	0	5	175
Total	25	201	0	31	93	84	0	285	81	35	0	20	855
Grand Total	65	421	0	56	208	166	0	611	174	75	1	45	1822
Apprch %	13.4	86.6	0	13	48.4	38.6	0	77.8	22.2	62	0.8	37.2	
Total %	3.6	23.1	0	3.1	11.4	9.1	0	33.5	9.5	4.1	0.1	2.5	

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**13**	46	0	59	6	20	24	50	0	75	21	96	10	0	6	16	221
04:30 PM	5	58	0	63	5	**36**	25	**66**	0	78	23	101	7	**1**	**7**	15	245
04:45 PM	11	**62**	0	**73**	**11**	34	16	61	0	**84**	24	**108**	**13**	0	7	**20**	**262**
05:00 PM	9	54	0	63	6	32	**26**	64	0	80	**28**	108	10	0	5	15	250
Total Volume	38	220	0	258	28	122	91	241	0	317	96	413	40	1	25	66	978
% App. Total	14.7	85.3	0		11.6	50.6	37.8		0	76.8	23.2		60.6	1.5	37.9		
PHF	.731	.887	.000	.884	.636	.847	.875	.913	.000	.943	.857	.956	.769	.250	.893	.825	.933

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File Name : 81676 D-GGG
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Heavy Vehicles

	Purchase Street From North			Route 18 SB Offramp From East			Purchase Street From South			Weld Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	0	0	1	0	2	0	2	0	1	8
04:15 PM	0	4	0	1	1	1	0	4	0	1	0	0	12
04:30 PM	0	3	0	0	0	0	0	3	0	0	0	0	6
04:45 PM	0	2	0	2	0	0	0	5	1	0	0	0	10
Total	0	11	0	3	1	2	0	14	1	3	0	1	36
05:00 PM	0	2	0	1	1	1	0	2	0	0	0	0	7
05:15 PM	0	3	0	0	1	1	0	3	0	0	0	0	8
05:30 PM	0	4	0	0	0	0	0	2	0	0	0	0	6
05:45 PM	0	2	0	1	1	1	0	4	0	0	0	0	9
Total	0	11	0	2	3	3	0	11	0	0	0	0	30
Grand Total	0	22	0	5	4	5	0	25	1	3	0	1	66
Apprch %	0	100	0	35.7	28.6	35.7	0	96.2	3.8	75	0	25	
Total %	0	33.3	0	7.6	6.1	7.6	0	37.9	1.5	4.5	0	1.5	

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	0	0	**1**	1	0	2	0	2	**2**	0	**1**	**3**	8
04:15 PM	0	**4**	0	**4**	1	**1**	1	**3**	0	4	0	4	1	0	0	1	**12**
04:30 PM	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
04:45 PM	0	2	0	2	**2**	0	0	2	0	**5**	**1**	**6**	0	0	0	0	10
Total Volume	0	11	0	11	3	1	2	6	0	14	1	15	3	0	1	4	36
% App. Total	0	100	0		50	16.7	33.3		0	93.3	6.7		75	0	25		
PHF	.000	.688	.000	.688	.375	.250	.500	.500	.000	.700	.250	.625	.375	.000	.250	.333	.750

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Client: VHB/J. Quitter

File Name : 81676 D-GGG
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Peds and Bicycles

	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	1	4	0	0	4	3	13
04:15 PM	0	0	0	1	0	0	0	3	0	1	1	12	0	0	0	1	19
04:30 PM	0	0	0	1	0	0	0	3	0	1	2	0	0	0	0	1	8
04:45 PM	0	2	0	1	0	0	0	2	0	1	0	2	0	0	2	2	12
Total	0	2	0	3	0	0	0	8	0	4	4	18	0	0	6	7	52
05:00 PM	0	0	0	4	0	0	1	4	2	0	0	0	0	0	0	6	17
05:15 PM	0	0	0	4	0	0	0	2	0	3	0	4	0	0	0	6	19
05:30 PM	0	0	0	2	0	0	1	1	0	0	0	4	0	0	0	3	11
05:45 PM	0	1	0	1	0	0	1	3	0	0	1	6	0	0	0	6	19
Total	0	1	0	11	0	0	3	10	2	3	1	14	0	0	0	21	66
Grand Total	0	3	0	14	0	0	3	18	2	7	5	32	0	0	6	28	118
Apprch %	0	17.6	0	82.4	0	0	14.3	85.7	4.3	15.2	10.9	69.6	0	0	17.6	82.4	
Total %	0	2.5	0	11.9	0	0	2.5	15.3	1.7	5.9	4.2	27.1	0	0	5.1	23.7	

	Purchase Street From North					Route 18 SB Offramp From East					Purchase Street From South					Weld Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	**4**	**4**	0	0	**1**	**4**	**5**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**6**	**6**	17
05:15 PM	0	0	0	4	4	0	0	0	2	2	0	**3**	**0**	**4**	**7**	0	0	0	6	6	**19**
05:30 PM	0	0	0	2	2	0	0	1	1	2	0	0	0	4	4	0	0	0	3	3	11
05:45 PM	0	**1**	0	1	2	0	0	1	3	4	0	0	**1**	**6**	**7**	**0**	**0**	**0**	**6**	**6**	**19**
Total Volume	0	1	0	11	12	0	0	3	10	13	2	3	1	14	20	0	0	0	21	21	66
% App. Total	0	8.3	0	91.7		0	0	23.1	76.9		10	15	5	70		0	0	0	100		
PHF	.000	.250	.000	.688	.750	.000	.000	.750	.625	.650	.250	.250	.250	.583	.714	.000	.000	.000	.875	.875	.868

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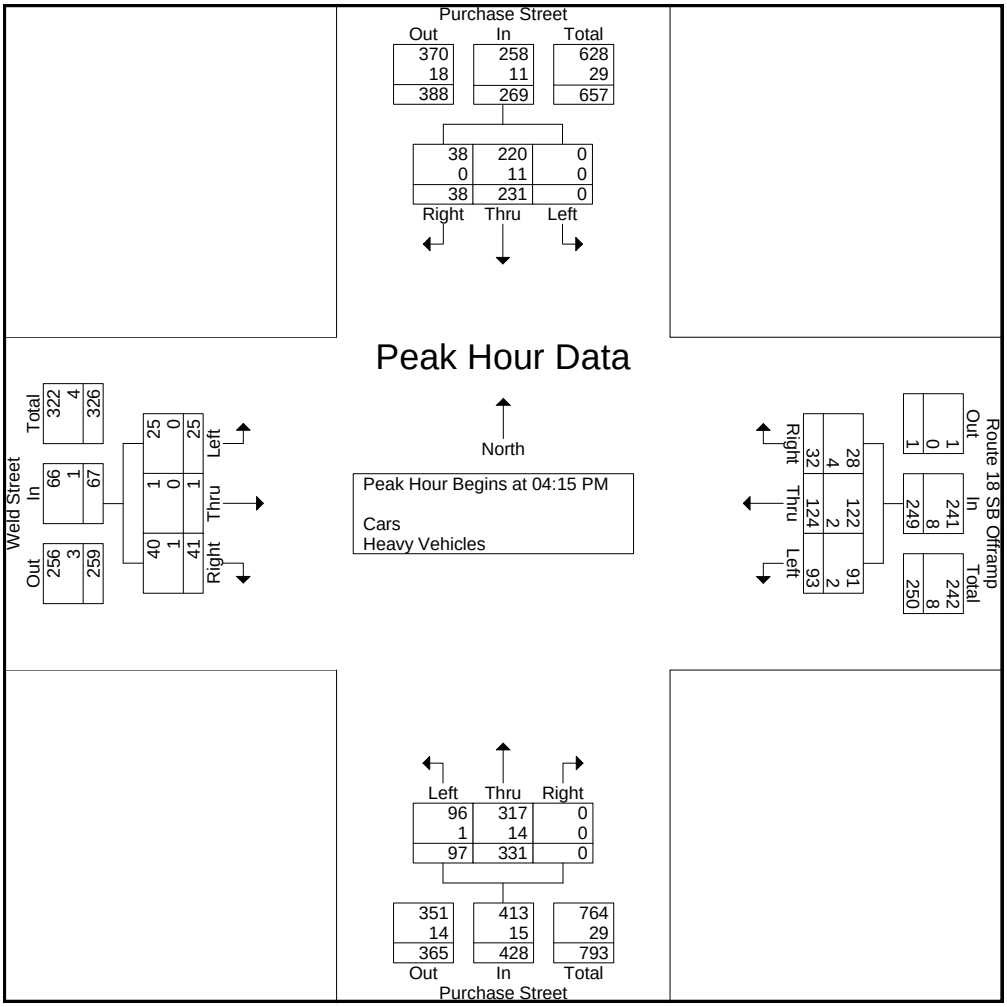
	Purchase Street From North				Route 18 SB Offramp From East				Purchase Street From South				Weld Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**13**	50	0	63	7	21	25	53	0	79	21	100	11	0	6	17	233
04:30 PM	5	61	0	66	5	**36**	25	66	0	81	23	104	7	**1**	**7**	15	251
04:45 PM	11	**64**	0	**75**	**13**	34	16	63	0	**89**	25	**114**	**13**	0	7	**20**	**272**
05:00 PM	9	56	0	65	7	33	**27**	**67**	0	82	**28**	110	10	0	5	15	257
Total Volume	38	231	0	269	32	124	93	249	0	331	97	428	41	1	25	67	1013
% App. Total	14.1	85.9	0		12.9	49.8	37.3		0	77.3	22.7		61.2	1.5	37.3		
PHF	.731	.902	.000	.897	.615	.861	.861	.929	.000	.930	.866	.939	.788	.250	.893	.838	.931
Cars	38	220	0	258	28	122	91	241	0	317	96	413	40	1	25	66	978
% Cars	100	95.2	0	95.9	87.5	98.4	97.8	96.8	0	95.8	99.0	96.5	97.6	100	100	98.5	96.5
Heavy Vehicles	0	11	0	11	4	2	2	8	0	14	1	15	1	0	0	1	35
% Heavy Vehicles	0	4.8	0	4.1	12.5	1.6	2.2	3.2	0	4.2	1.0	3.5	2.4	0	0	1.5	3.5



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City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-H
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			Logan Street From East			Purchase Street From South			Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	34	18	4	0	8	25	45	0	0	0	0	134
07:15 AM	1	36	26	5	0	9	28	48	0	0	0	0	153
07:30 AM	1	37	23	9	0	9	24	51	0	0	1	0	155
07:45 AM	0	68	27	10	1	7	30	55	0	0	0	0	198
Total	2	175	94	28	1	33	107	199	0	0	1	0	640
08:00 AM	1	59	19	15	0	8	35	60	0	0	0	0	197
08:15 AM	0	65	27	8	0	9	35	46	0	1	2	0	193
08:30 AM	0	61	15	8	0	11	17	63	0	0	0	0	175
08:45 AM	0	64	18	8	0	8	16	59	0	0	0	0	173
Total	1	249	79	39	0	36	103	228	0	1	2	0	738
Grand Total	3	424	173	67	1	69	210	427	0	1	3	0	1378
Apprch %	0.5	70.7	28.8	48.9	0.7	50.4	33	67	0	25	75	0	
Total %	0.2	30.8	12.6	4.9	0.1	5	15.2	31	0	0.1	0.2	0	
Cars	3	396	157	62	1	64	204	397	0	1	3	0	1288
% Cars	100	93.4	90.8	92.5	100	92.8	97.1	93	0	100	100	0	93.5
Heavy Vehicles	0	28	16	5	0	5	6	30	0	0	0	0	90
% Heavy Vehicles	0	6.6	9.2	7.5	0	7.2	2.9	7	0	0	0	0	6.5

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**68**	**27**	**95**	10	**1**	7	18	30	55	0	85	0	0	0	0	**198**
08:00 AM	**1**	59	19	79	**15**	0	8	**23**	**35**	60	0	**95**	0	0	0	0	197
08:15 AM	0	65	27	92	8	0	9	17	35	46	0	81	**1**	**2**	0	**3**	193
08:30 AM	0	61	15	76	8	0	**11**	19	17	**63**	0	80	0	0	0	0	175
Total Volume	1	253	88	342	41	1	35	77	117	224	0	341	1	2	0	3	763
% App. Total	0.3	74	25.7		53.2	1.3	45.5		34.3	65.7	0		33.3	66.7	0		
PHF	.250	.930	.815	.900	.683	.250	.795	.837	.836	.889	.000	.897	.250	.250	.000	.250	.963
Cars	1	240	82	323	38	1	33	72	112	208	0	320	1	2	0	3	718
% Cars	100	94.9	93.2	94.4	92.7	100	94.3	93.5	95.7	92.9	0	93.8	100	100	0	100	94.1
Heavy Vehicles	0	13	6	19	3	0	2	5	5	16	0	21	0	0	0	0	45
% Heavy Vehicles	0	5.1	6.8	5.6	7.3	0	5.7	6.5	4.3	7.1	0	6.2	0	0	0	0	5.9

PRECISION
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N/S: Purchase Street
E/W: Logan Street/Driveway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-H
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	5
07:30 AM	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	1	6
07:45 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	4	9
Total	0	0	0	1	0	0	0	12	0	0	0	0	0	0	0	8	21
08:00 AM	0	0	1	4	0	0	0	4	0	0	0	0	0	0	0	1	10
08:15 AM	0	0	0	2	0	0	0	4	0	1	0	0	0	0	0	2	9
08:30 AM	0	0	1	4	0	0	0	4	1	0	0	0	0	0	0	2	12
08:45 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	8
Total	0	0	2	10	0	0	0	16	1	1	0	0	0	0	0	9	39
Grand Total	0	0	2	11	0	0	0	28	1	1	0	0	0	0	0	17	60
Apprch %	0	0	15.4	84.6	0	0	0	100	50	50	0	0	0	0	0	100	
Total %	0	0	3.3	18.3	0	0	0	46.7	1.7	1.7	0	0	0	0	0	28.3	

	Purchase Street From North					Logan Street From East					Purchase Street From South					Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	0	0	0	**5**	**5**	0	0	0	0	0	0	0	0	**4**	**4**	9
08:00 AM	0	0	**1**	**4**	**5**	0	0	0	4	4	0	0	0	0	0	0	0	0	1	1	10
08:15 AM	0	0	0	2	2	0	0	0	4	4	0	**1**	**0**	**0**	**1**	0	0	0	2	2	9
08:30 AM	0	0	1	4	5	0	0	0	4	4	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**2**	**12**
Total Volume	0	0	2	10	12	0	0	0	17	17	1	1	0	0	2	0	0	0	9	9	40
% App. Total	0	0	16.7	83.3		0	0	0	100		50	50	0	0		0	0	0	100		
PHF	.000	.000	.500	.625	.600	.000	.000	.000	.850	.850	.250	.250	.000	.000	.500	.000	.000	.000	.563	.563	.833

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File Name : 81676 D-H
Site Code : 10111.31
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Groups Printed- Cars

	Purchase Street From North			Logan Street From East			Purchase Street From South			Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	31	17	4	0	7	24	42	0	0	0	0	125
07:15 AM	1	30	24	5	0	8	28	42	0	0	0	0	138
07:30 AM	1	34	20	8	0	8	24	49	0	0	1	0	145
07:45 AM	0	63	27	9	1	6	29	51	0	0	0	0	186
Total	2	158	88	26	1	29	105	184	0	0	1	0	594
08:00 AM	1	55	16	15	0	7	32	55	0	0	0	0	181
08:15 AM	0	63	27	8	0	9	34	42	0	1	2	0	186
08:30 AM	0	59	12	6	0	11	17	60	0	0	0	0	165
08:45 AM	0	61	14	7	0	8	16	56	0	0	0	0	162
Total	1	238	69	36	0	35	99	213	0	1	2	0	694
Grand Total	3	396	157	62	1	64	204	397	0	1	3	0	1288
Apprch %	0.5	71.2	28.2	48.8	0.8	50.4	33.9	66.1	0	25	75	0	
Total %	0.2	30.7	12.2	4.8	0.1	5	15.8	30.8	0	0.1	0.2	0	

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**63**	**27**	**90**	9	**1**	6	16	29	51	0	80	0	0	0	0	**186**
08:00 AM	**1**	55	16	72	**15**	0	7	**22**	32	55	0	**87**	0	0	0	0	181
08:15 AM	0	63	27	90	8	0	9	17	**34**	42	0	76	**1**	**2**	0	**3**	186
08:30 AM	0	59	12	71	6	0	**11**	17	17	**60**	0	77	0	0	0	0	165
Total Volume	1	240	82	323	38	1	33	72	112	208	0	320	1	2	0	3	718
% App. Total	0.3	74.3	25.4		52.8	1.4	45.8		35	65	0		33.3	66.7	0		
PHF	.250	.952	.759	.897	.633	.250	.750	.818	.824	.867	.000	.920	.250	.250	.000	.250	.965

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Client: VHB/J. Quitter

File Name : 81676 D-H
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Heavy Vehicles

	Purchase Street From North			Logan Street From East			Purchase Street From South			Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	3	1	0	0	1	1	3	0	0	0	0	9
07:15 AM	0	6	2	0	0	1	0	6	0	0	0	0	15
07:30 AM	0	3	3	1	0	1	0	2	0	0	0	0	10
07:45 AM	0	5	0	1	0	1	1	4	0	0	0	0	12
Total	0	17	6	2	0	4	2	15	0	0	0	0	46
08:00 AM	0	4	3	0	0	1	3	5	0	0	0	0	16
08:15 AM	0	2	0	0	0	0	1	4	0	0	0	0	7
08:30 AM	0	2	3	2	0	0	0	3	0	0	0	0	10
08:45 AM	0	3	4	1	0	0	0	3	0	0	0	0	11
Total	0	11	10	3	0	1	4	15	0	0	0	0	44
Grand Total	0	28	16	5	0	5	6	30	0	0	0	0	90
Apprch %	0	63.6	36.4	50	0	50	16.7	83.3	0	0	0	0	
Total %	0	31.1	17.8	5.6	0	5.6	6.7	33.3	0	0	0	0	

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**6**	2	**8**	0	0	**1**	1	0	**6**	0	6	0	0	0	0	15
07:30 AM	0	3	**3**	6	**1**	0	1	**2**	0	2	0	2	0	0	0	0	10
07:45 AM	0	5	0	5	1	0	1	2	1	4	0	5	0	0	0	0	12
08:00 AM	0	4	3	7	0	0	1	1	**3**	5	0	**8**	0	0	0	0	**16**
Total Volume	0	18	8	26	2	0	4	6	4	17	0	21	0	0	0	0	53
% App. Total	0	69.2	30.8		33.3	0	66.7		19	81	0		0	0	0		
PHF	.000	.750	.667	.813	.500	.000	1.000	.750	.333	.708	.000	.656	.000	.000	.000	.000	.828

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Start Date : 9/24/2008
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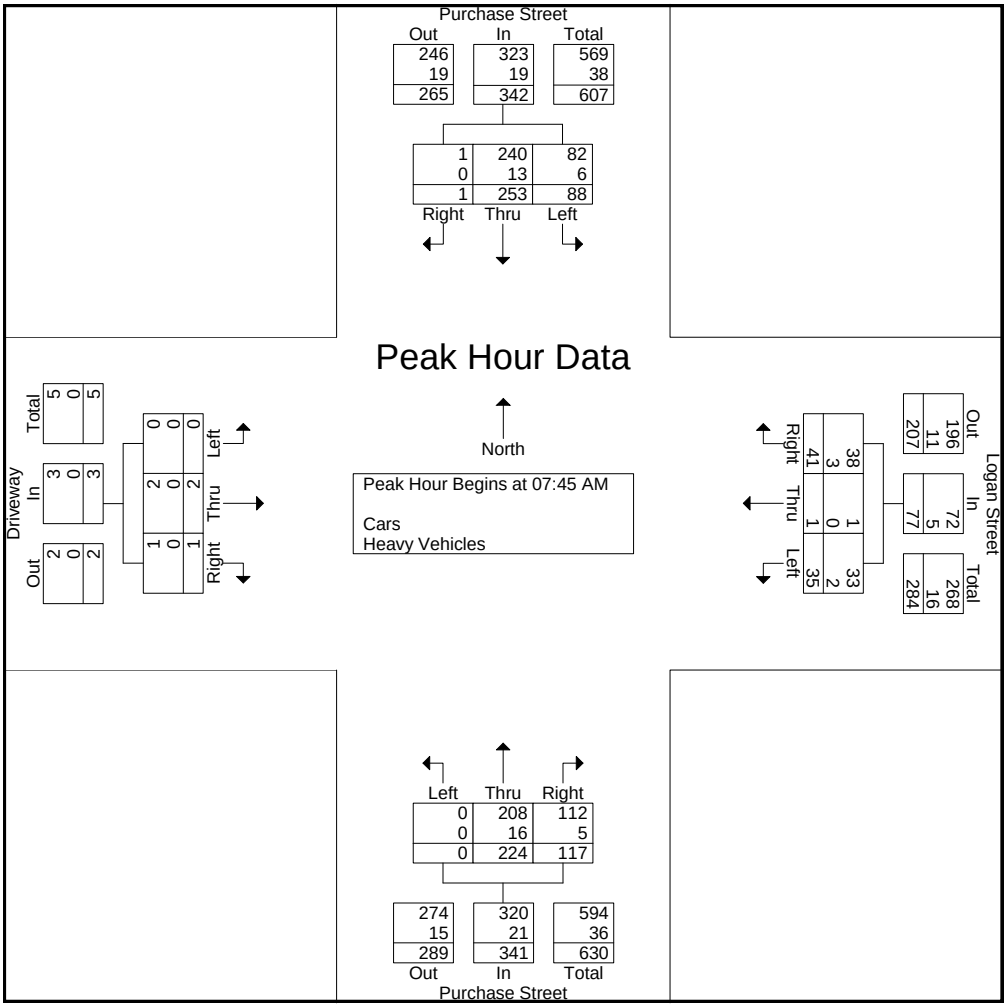
	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**68**	**27**	**95**	10	**1**	7	18	30	55	0	85	0	0	0	0	**198**
08:00 AM	**1**	59	19	79	**15**	0	8	**23**	**35**	60	0	**95**	0	0	0	0	197
08:15 AM	0	65	27	92	8	0	9	17	35	46	0	81	**1**	**2**	0	**3**	193
08:30 AM	0	61	15	76	8	0	**11**	19	17	**63**	0	80	0	0	0	0	175
Total Volume	1	253	88	342	41	1	35	77	117	224	0	341	1	2	0	3	763
% App. Total	0.3	74	25.7		53.2	1.3	45.5		34.3	65.7	0		33.3	66.7	0		
PHF	.250	.930	.815	.900	.683	.250	.795	.837	.836	.889	.000	.897	.250	.250	.000	.250	.963
Cars	1	240	82	323	38	1	33	72	112	208	0	320	1	2	0	3	718
% Cars	100	94.9	93.2	94.4	92.7	100	94.3	93.5	95.7	92.9	0	93.8	100	100	0	100	94.1
Heavy Vehicles	0	13	6	19	3	0	2	5	5	16	0	21	0	0	0	0	45
% Heavy Vehicles	0	5.1	6.8	5.6	7.3	0	5.7	6.5	4.3	7.1	0	6.2	0	0	0	0	5.9



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Client: VHB/J. Quitter

File Name : 81676 D-HHH
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	6	0	0	0	10	0	1	0	5	0	0	0	2	24
04:15 PM	0	0	0	3	1	0	0	21	0	1	0	4	0	0	0	5	35
04:30 PM	0	0	0	3	0	0	0	21	0	0	0	1	0	0	0	3	28
04:45 PM	0	0	0	0	0	0	0	4	0	0	0	1	0	0	0	2	7
Total	0	0	0	12	1	0	0	56	0	2	0	11	0	0	0	12	94
05:00 PM	0	0	0	2	0	0	0	14	0	0	0	4	0	0	0	6	26
05:15 PM	0	0	0	3	0	0	0	9	0	0	0	5	0	0	0	4	21
05:30 PM	0	0	0	2	0	0	0	6	0	0	0	2	0	0	0	8	18
05:45 PM	0	2	0	1	0	0	0	7	0	0	0	0	0	0	0	2	12
Total	0	2	0	8	0	0	0	36	0	0	0	11	0	0	0	20	77
Grand Total	0	2	0	20	1	0	0	92	0	2	0	22	0	0	0	32	171
Apprch %	0	9.1	0	90.9	1.1	0	0	98.9	0	8.3	0	91.7	0	0	0	100	
Total %	0	1.2	0	11.7	0.6	0	0	53.8	0	1.2	0	12.9	0	0	0	18.7	

	Purchase Street From North					Logan Street From East					Purchase Street From South					Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	**3**	**3**	**1**	0	0	**21**	**22**	0	**1**	**0**	**4**	**5**	0	0	0	5	5	**35**
04:30 PM	0	0	0	3	3	0	0	0	21	21	0	0	0	1	1	0	0	0	3	3	28
04:45 PM	0	0	0	0	0	0	0	0	4	4	0	0	0	1	1	0	0	0	2	2	7
05:00 PM	0	0	0	2	2	0	0	0	14	14	0	0	0	4	4	0	0	0	**6**	**6**	26
Total Volume	0	0	0	8	8	1	0	0	60	61	0	1	0	10	11	0	0	0	16	16	96
% App. Total	0	0	0	100		1.6	0	0	98.4		0	9.1	0	90.9		0	0	0	100		
PHF	.000	.000	.000	.667	.667	.250	.000	.000	.714	.693	.000	.250	.000	.625	.550	.000	.000	.000	.667	.667	.686

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Groups Printed- Heavy Vehicles

	Purchase Street From North			Logan Street From East			Purchase Street From South			Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	5	0	0	0	0	0	2	0	0	0	0	7
04:15 PM	0	3	2	1	0	1	1	3	0	0	0	0	11
04:30 PM	0	3	1	0	0	0	1	4	0	0	0	0	9
04:45 PM	0	2	1	0	0	0	0	5	0	0	0	0	8
Total	0	13	4	1	0	1	2	14	0	0	0	0	35
05:00 PM	0	3	0	1	0	0	1	1	0	0	0	0	6
05:15 PM	0	1	2	0	0	1	0	3	0	0	0	0	7
05:30 PM	0	3	2	1	0	0	1	1	0	0	0	0	8
05:45 PM	0	0	2	0	0	0	0	4	0	0	0	0	6
Total	0	7	6	2	0	1	2	9	0	0	0	0	27
Grand Total	0	20	10	3	0	2	4	23	0	0	0	0	62
Apprch %	0	66.7	33.3	60	0	40	14.8	85.2	0	0	0	0	
Total %	0	32.3	16.1	4.8	0	3.2	6.5	37.1	0	0	0	0	

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**5**	0	**5**	0	0	0	0	0	2	0	2	0	0	0	0	7
04:15 PM	0	3	**2**	5	**1**	0	**1**	**2**	**1**	3	0	4	0	0	0	0	**11**
04:30 PM	0	3	1	4	0	0	0	0	1	4	0	**5**	0	0	0	0	9
04:45 PM	0	2	1	3	0	0	0	0	0	**5**	0	5	0	0	0	0	8
Total Volume	0	13	4	17	1	0	1	2	2	14	0	16	0	0	0	0	35
% App. Total	0	76.5	23.5		50	0	50		12.5	87.5	0		0	0	0		
PHF	.000	.650	.500	.850	.250	.000	.250	.250	.500	.700	.000	.800	.000	.000	.000	.000	.795

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File Name : 81676 D-HHH
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North			Logan Street From East			Purchase Street From South			Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	80	10	22	1	14	24	95	0	0	1	1	249
04:15 PM	1	54	22	12	0	14	28	81	0	1	0	0	213
04:30 PM	0	80	10	14	0	12	28	85	1	0	1	0	231
04:45 PM	0	74	13	16	0	19	28	92	0	1	0	1	244
Total	2	288	55	64	1	59	108	353	1	2	2	2	937
05:00 PM	0	79	10	20	0	13	25	87	0	0	0	0	234
05:15 PM	0	64	18	16	0	9	23	81	1	0	0	1	213
05:30 PM	0	64	15	11	0	11	22	73	0	0	0	0	196
05:45 PM	1	51	10	6	0	11	19	67	0	0	0	0	165
Total	1	258	53	53	0	44	89	308	1	0	0	1	808
Grand Total	3	546	108	117	1	103	197	661	2	2	2	3	1745
Apprch %	0.5	83.1	16.4	52.9	0.5	46.6	22.9	76.9	0.2	28.6	28.6	42.9	
Total %	0.2	31.3	6.2	6.7	0.1	5.9	11.3	37.9	0.1	0.1	0.1	0.2	

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**80**	10	**91**	**22**	**1**	14	**37**	24	**95**	0	119	0	**1**	**1**	**2**	**249**
04:15 PM	1	54	**22**	77	12	0	14	26	**28**	81	0	109	**1**	0	0	1	213
04:30 PM	0	80	10	90	14	0	12	26	28	85	**1**	114	0	1	0	1	231
04:45 PM	0	74	13	87	16	0	**19**	35	28	92	0	**120**	1	0	1	2	244
Total Volume	2	288	55	345	64	1	59	124	108	353	1	462	2	2	2	6	937
% App. Total	0.6	83.5	15.9		51.6	0.8	47.6		23.4	76.4	0.2		33.3	33.3	33.3		
PHF	.500	.900	.625	.948	.727	.250	.776	.838	.964	.929	.250	.963	.500	.500	.500	.750	.941

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N/S: Purchase Street
E/W: Logan Street/Driveway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-HHH
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			Logan Street From East			Purchase Street From South			Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	85	10	22	1	14	24	97	0	0	1	1	256
04:15 PM	1	57	24	13	0	15	29	84	0	1	0	0	224
04:30 PM	0	83	11	14	0	12	29	89	1	0	1	0	240
04:45 PM	0	76	14	16	0	19	28	97	0	1	0	1	252
Total	2	301	59	65	1	60	110	367	1	2	2	2	972
05:00 PM	0	82	10	21	0	13	26	88	0	0	0	0	240
05:15 PM	0	65	20	16	0	10	23	84	1	0	0	1	220
05:30 PM	0	67	17	12	0	11	23	74	0	0	0	0	204
05:45 PM	1	51	12	6	0	11	19	71	0	0	0	0	171
Total	1	265	59	55	0	45	91	317	1	0	0	1	835
Grand Total	3	566	118	120	1	105	201	684	2	2	2	3	1807
Apprch %	0.4	82.4	17.2	53.1	0.4	46.5	22.7	77.1	0.2	28.6	28.6	42.9	
Total %	0.2	31.3	6.5	6.6	0.1	5.8	11.1	37.9	0.1	0.1	0.1	0.2	
Cars	3	546	108	117	1	103	197	661	2	2	2	3	1745
% Cars	100	96.5	91.5	97.5	100	98.1	98	96.6	100	100	100	100	96.6
Heavy Vehicles	0	20	10	3	0	2	4	23	0	0	0	0	62
% Heavy Vehicles	0	3.5	8.5	2.5	0	1.9	2	3.4	0	0	0	0	3.4

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**85**	10	**96**	**22**	**1**	14	**37**	24	**97**	0	121	0	**1**	**1**	**2**	**256**
04:15 PM	1	57	**24**	82	13	0	15	28	**29**	84	0	113	**1**	0	0	1	224
04:30 PM	0	83	11	94	14	0	12	26	29	89	**1**	119	0	1	0	1	240
04:45 PM	0	76	14	90	16	0	**19**	35	28	97	0	**125**	1	0	1	2	252
Total Volume	2	301	59	362	65	1	60	126	110	367	1	478	2	2	2	6	972
% App. Total	0.6	83.1	16.3		51.6	0.8	47.6		23	76.8	0.2		33.3	33.3	33.3		
PHF	.500	.885	.615	.943	.739	.250	.789	.851	.948	.946	.250	.956	.500	.500	.500	.750	.949
Cars	2	288	55	345	64	1	59	124	108	353	1	462	2	2	2	6	937
% Cars	100	95.7	93.2	95.3	98.5	100	98.3	98.4	98.2	96.2	100	96.7	100	100	100	100	96.4
Heavy Vehicles	0	13	4	17	1	0	1	2	2	14	0	16	0	0	0	0	35
% Heavy Vehicles	0	4.3	6.8	4.7	1.5	0	1.7	1.6	1.8	3.8	0	3.3	0	0	0	0	3.6

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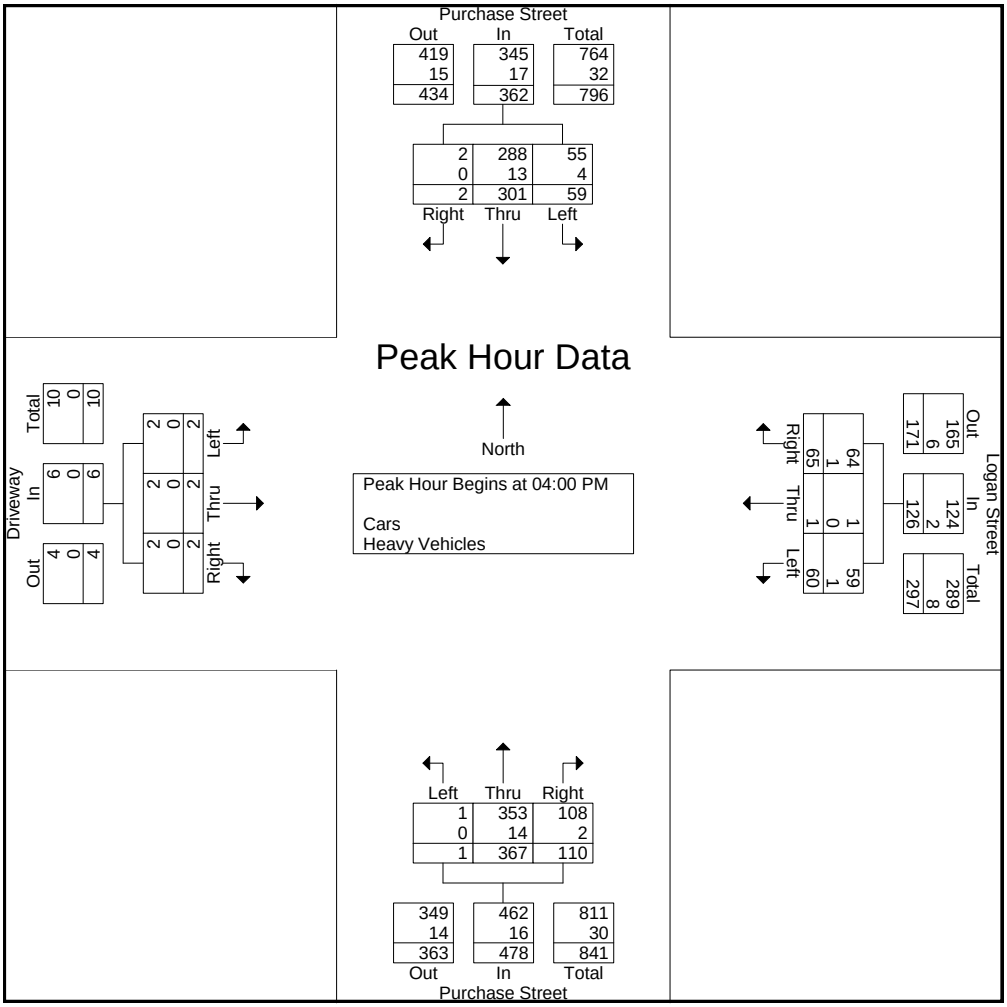
N/S: Purchase Street
E/W: Logan Street/Driveway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-HHH
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Purchase Street From North				Logan Street From East				Purchase Street From South				Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**85**	10	**96**	**22**	**1**	14	**37**	24	**97**	0	121	0	**1**	**1**	**2**	**256**
04:15 PM	1	57	**24**	82	13	0	15	28	**29**	84	0	113	**1**	0	0	1	224
04:30 PM	0	83	11	94	14	0	12	26	29	89	**1**	119	0	1	0	1	240
04:45 PM	0	76	14	90	16	0	**19**	35	28	97	0	**125**	1	0	1	2	252
Total Volume	2	301	59	362	65	1	60	126	110	367	1	478	2	2	2	6	972
% App. Total	0.6	83.1	16.3		51.6	0.8	47.6		23	76.8	0.2		33.3	33.3	33.3		
PHF	.500	.885	.615	.943	.739	.250	.789	.851	.948	.946	.250	.956	.500	.500	.500	.750	.949
Cars	2	288	55	345	64	1	59	124	108	353	1	462	2	2	2	6	937
% Cars	100	95.7	93.2	95.3	98.5	100	98.3	98.4	98.2	96.2	100	96.7	100	100	100	100	96.4
Heavy Vehicles	0	13	4	17	1	0	1	2	2	14	0	16	0	0	0	0	35
% Heavy Vehicles	0	4.3	6.8	4.7	1.5	0	1.7	1.6	1.8	3.8	0	3.3	0	0	0	0	3.6



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E/W: Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-J
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue From North			Logan Street From East			Acushnet Avenue From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	2	0	3	8	3	5	5	2	8	33	1	70
07:15 AM	3	2	0	0	8	3	11	5	5	14	40	1	92
07:30 AM	1	2	0	0	13	5	2	6	4	10	28	5	76
07:45 AM	0	2	1	1	11	4	7	1	7	11	40	5	90
Total	4	8	1	4	40	15	25	17	18	43	141	12	328
08:00 AM	1	0	0	1	14	5	12	1	4	10	36	5	89
08:15 AM	0	1	0	0	14	4	12	0	1	17	40	6	95
08:30 AM	1	2	0	0	12	6	6	2	7	10	21	1	68
08:45 AM	1	1	0	0	6	1	3	5	5	8	23	2	55
Total	3	4	0	1	46	16	33	8	17	45	120	14	307
Grand Total	7	12	1	5	86	31	58	25	35	88	261	26	635
Apprch %	35	60	5	4.1	70.5	25.4	49.2	21.2	29.7	23.5	69.6	6.9	
Total %	1.1	1.9	0.2	0.8	13.5	4.9	9.1	3.9	5.5	13.9	41.1	4.1	
Cars	5	11	1	4	81	26	53	22	31	80	251	23	588
% Cars	71.4	91.7	100	80	94.2	83.9	91.4	88	88.6	90.9	96.2	88.5	92.6
Heavy Vehicles	2	1	0	1	5	5	5	3	4	8	10	3	47
% Heavy Vehicles	28.6	8.3	0	20	5.8	16.1	8.6	12	11.4	9.1	3.8	11.5	7.4

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	**2**	0	**3**	0	13	**5**	18	2	**6**	4	12	10	28	5	43	76
07:45 AM	0	2	**1**	3	**1**	11	4	16	7	1	**7**	15	11	**40**	5	56	90
08:00 AM	1	0	0	1	1	**14**	5	**20**	**12**	1	4	**17**	10	36	5	51	89
08:15 AM	0	1	0	1	0	14	4	18	12	0	1	13	**17**	40	**6**	**63**	**95**
Total Volume	2	5	1	8	2	52	18	72	33	8	16	57	48	144	21	213	350
% App. Total	25	62.5	12.5		2.8	72.2	25		57.9	14	28.1		22.5	67.6	9.9		
PHF	.500	.625	.250	.667	.500	.929	.900	.900	.688	.333	.571	.838	.706	.900	.875	.845	.921
Cars	1	4	1	6	2	49	15	66	31	7	15	53	44	139	19	202	327
% Cars	50.0	80.0	100	75.0	100	94.2	83.3	91.7	93.9	87.5	93.8	93.0	91.7	96.5	90.5	94.8	93.4
Heavy Vehicles	1	1	0	2	0	3	3	6	2	1	1	4	4	5	2	11	23
% Heavy Vehicles	50.0	20.0	0	25.0	0	5.8	16.7	8.3	6.1	12.5	6.3	7.0	8.3	3.5	9.5	5.2	6.6

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N/S: Acushnet Avenue
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City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-J
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Acushnet Avenue From North			Logan Street From East			Acushnet Avenue From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	2	0	2	7	3	5	4	2	7	33	1	66
07:15 AM	2	2	0	0	8	3	11	5	5	12	40	0	88
07:30 AM	0	2	0	0	12	3	2	6	4	8	27	5	69
07:45 AM	0	1	1	1	10	4	7	1	6	11	39	5	86
Total	2	7	1	3	37	13	25	16	17	38	139	11	309
08:00 AM	1	0	0	1	13	5	10	0	4	8	34	3	79
08:15 AM	0	1	0	0	14	3	12	0	1	17	39	6	93
08:30 AM	1	2	0	0	11	5	4	1	5	9	19	1	58
08:45 AM	1	1	0	0	6	0	2	5	4	8	20	2	49
Total	3	4	0	1	44	13	28	6	14	42	112	12	279
Grand Total	5	11	1	4	81	26	53	22	31	80	251	23	588
Apprch %	29.4	64.7	5.9	3.6	73	23.4	50	20.8	29.2	22.6	70.9	6.5	
Total %	0.9	1.9	0.2	0.7	13.8	4.4	9	3.7	5.3	13.6	42.7	3.9	

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	**2**	0	**2**	0	12	3	15	2	**6**	4	12	8	27	5	40	69
07:45 AM	0	1	**1**	2	**1**	10	4	15	7	1	**6**	**14**	11	**39**	5	55	86
08:00 AM	**1**	0	0	1	1	13	**5**	**19**	10	0	4	14	8	34	3	45	79
08:15 AM	0	1	0	1	0	**14**	3	17	**12**	0	1	13	**17**	39	**6**	**62**	**93**
Total Volume	1	4	1	6	2	49	15	66	31	7	15	53	44	139	19	202	327
% App. Total	16.7	66.7	16.7		3	74.2	22.7		58.5	13.2	28.3		21.8	68.8	9.4		
PHF	.250	.500	.250	.750	.500	.875	.750	.868	.646	.292	.625	.946	.647	.891	.792	.815	.879

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File Name : 81676 D-J
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue From North			Logan Street From East			Acushnet Avenue From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	1	1	0	0	1	0	1	0	0	4
07:15 AM	1	0	0	0	0	0	0	0	0	2	0	1	4
07:30 AM	1	0	0	0	1	2	0	0	0	2	1	0	7
07:45 AM	0	1	0	0	1	0	0	0	1	0	1	0	4
Total	2	1	0	1	3	2	0	1	1	5	2	1	19
08:00 AM	0	0	0	0	1	0	2	1	0	2	2	2	10
08:15 AM	0	0	0	0	0	1	0	0	0	0	1	0	2
08:30 AM	0	0	0	0	1	1	2	1	2	1	2	0	10
08:45 AM	0	0	0	0	0	1	1	0	1	0	3	0	6
Total	0	0	0	0	2	3	5	2	3	3	8	2	28
Grand Total	2	1	0	1	5	5	5	3	4	8	10	3	47
Apprch %	66.7	33.3	0	9.1	45.5	45.5	41.7	25	33.3	38.1	47.6	14.3	
Total %	4.3	2.1	0	2.1	10.6	10.6	10.6	6.4	8.5	17	21.3	6.4	

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	**1**	0	1	**2**	**1**	0	3	**2**	2	**2**	**6**	**10**
08:15 AM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	1	0	1	2
08:30 AM	0	0	0	0	0	1	1	**2**	2	1	**2**	**5**	1	2	0	3	10
08:45 AM	0	0	0	0	0	0	1	1	1	0	1	2	0	**3**	0	3	6
Total Volume	0	0	0	0	0	2	3	5	5	2	3	10	3	8	2	13	28
% App. Total	0	0	0		0	40	60		50	20	30		23.1	61.5	15.4		
PHF	.000	.000	.000	.000	.000	.500	.750	.625	.625	.500	.375	.500	.375	.667	.250	.542	.700

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Client: VHB/J. Quitter

File Name : 81676 D-J
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	3
Total	0	0	0	2	0	0	0	0	0	0	0	6	4	1	1	1	15
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	1	1	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	4
08:45 AM	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	5
Total	0	0	0	5	0	0	0	0	0	0	0	5	0	3	1	0	14
Grand Total	0	0	0	7	0	0	0	0	0	0	0	11	4	4	2	1	29
Apprch %	0	0	0	100	0	0	0	0	0	0	0	100	36.4	36.4	18.2	9.1	
Total %	0	0	0	24.1	0	0	0	0	0	0	0	37.9	13.8	13.8	6.9	3.4	

	Acushnet Avenue From North					Logan Street From East					Acushnet Avenue From South					Logan Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	**1**	0	0	1	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	**0**	**0**	**0**	**4**	4
07:45 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1	1	0	0	**1**	**0**	**1**	**3**
08:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**0**	**1**	**1**	**0**	**2**	**5**
Total Volume	0	0	0	1	1	0	0	0	0	0	0	0	0	7	7	4	2	2	0	8	16
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		50	25	25	0		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.583	.583	.250	.500	.500	.000	.500	.800

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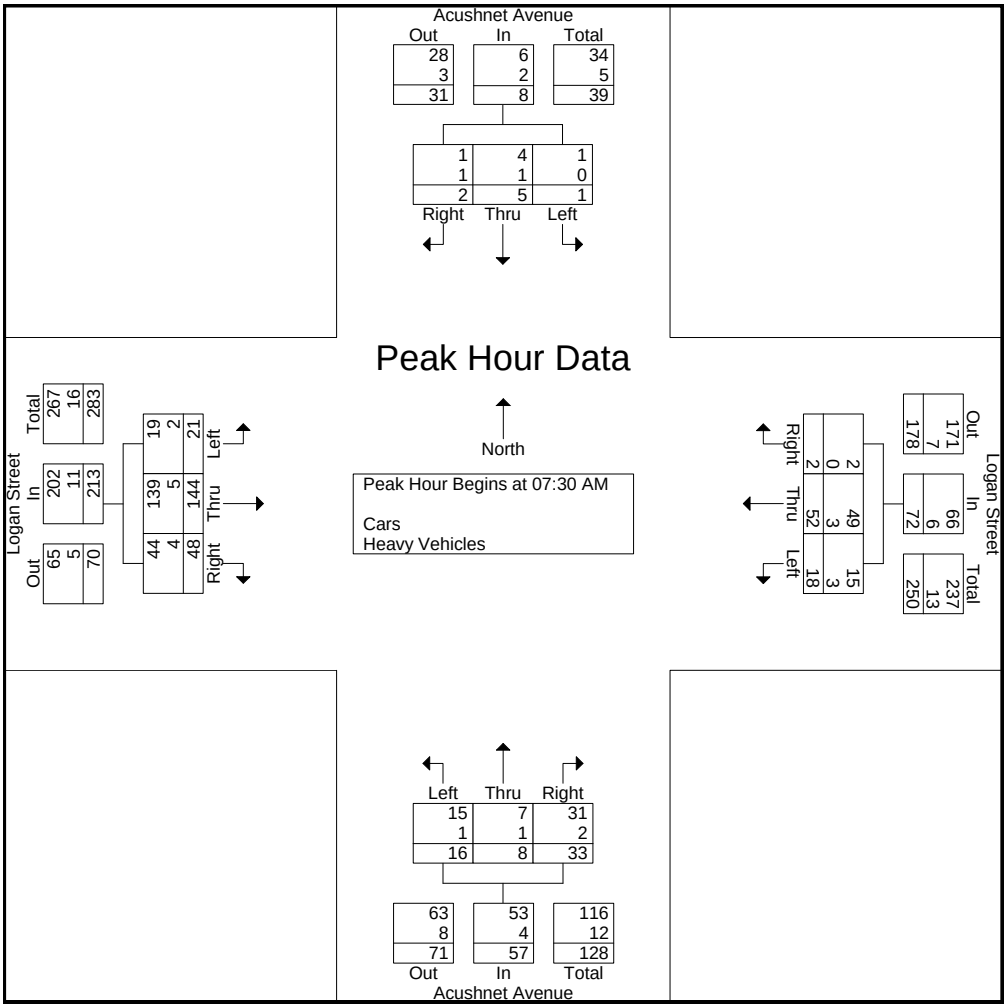
Email: datarequests@pdillc.com

N/S: Acushnet Avenue
E/W: Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-J
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	**2**	0	**3**	0	13	**5**	18	2	**6**	4	12	10	28	5	43	76
07:45 AM	0	2	**1**	3	**1**	11	4	16	7	1	**7**	15	11	**40**	5	56	90
08:00 AM	1	0	0	1	1	**14**	5	**20**	**12**	1	4	**17**	10	36	5	51	89
08:15 AM	0	1	0	1	0	14	4	18	12	0	1	13	**17**	40	**6**	**63**	**95**
Total Volume	2	5	1	8	2	52	18	72	33	8	16	57	48	144	21	213	350
% App. Total	25	62.5	12.5		2.8	72.2	25		57.9	14	28.1		22.5	67.6	9.9		
PHF	.500	.625	.250	.667	.500	.929	.900	.900	.688	.333	.571	.838	.706	.900	.875	.845	.921
Cars	1	4	1	6	2	49	15	66	31	7	15	53	44	139	19	202	327
% Cars	50.0	80.0	100	75.0	100	94.2	83.3	91.7	93.9	87.5	93.8	93.0	91.7	96.5	90.5	94.8	93.4
Heavy Vehicles	1	1	0	2	0	3	3	6	2	1	1	4	4	5	2	11	23
% Heavy Vehicles	50.0	20.0	0	25.0	0	5.8	16.7	8.3	6.1	12.5	6.3	7.0	8.3	3.5	9.5	5.2	6.6



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N/S: Acushnet Avenue
E/W: Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-JJJ
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue From North			Logan Street From East			Acushnet Avenue From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	0	0	0	28	15	6	6	7	7	29	1	100
04:15 PM	1	2	0	1	16	5	5	1	9	5	37	1	83
04:30 PM	1	1	0	0	14	3	9	4	7	7	32	6	84
04:45 PM	3	0	0	0	19	4	3	3	14	5	31	6	88
Total	6	3	0	1	77	27	23	14	37	24	129	14	355
05:00 PM	2	1	0	1	22	5	4	4	9	4	32	2	86
05:15 PM	0	0	0	0	23	7	2	3	4	9	32	2	82
05:30 PM	2	0	0	1	13	6	7	3	5	5	31	1	74
05:45 PM	1	0	0	0	13	2	7	4	2	5	24	1	59
Total	5	1	0	2	71	20	20	14	20	23	119	6	301
Grand Total	11	4	0	3	148	47	43	28	57	47	248	20	656
Apprch %	73.3	26.7	0	1.5	74.7	23.7	33.6	21.9	44.5	14.9	78.7	6.3	
Total %	1.7	0.6	0	0.5	22.6	7.2	6.6	4.3	8.7	7.2	37.8	3	
Cars	11	4	0	3	144	46	43	25	55	43	240	19	633
% Cars	100	100	0	100	97.3	97.9	100	89.3	96.5	91.5	96.8	95	96.5
Heavy Vehicles	0	0	0	0	4	1	0	3	2	4	8	1	23
% Heavy Vehicles	0	0	0	0	2.7	2.1	0	10.7	3.5	8.5	3.2	5	3.5

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	0	0	1	0	**28**	**15**	**43**	6	**6**	7	19	**7**	29	1	37	**100**
04:15 PM	1	**2**	0	**3**	**1**	16	5	22	5	1	9	15	5	**37**	1	43	83
04:30 PM	1	1	0	2	0	14	3	17	**9**	4	7	**20**	7	32	**6**	**45**	84
04:45 PM	**3**	0	0	3	0	19	4	23	3	3	**14**	20	5	31	6	42	88
Total Volume	6	3	0	9	1	77	27	105	23	14	37	74	24	129	14	167	355
% App. Total	66.7	33.3	0		1	73.3	25.7		31.1	18.9	50		14.4	77.2	8.4		
PHF	.500	.375	.000	.750	.250	.688	.450	.610	.639	.583	.661	.925	.857	.872	.583	.928	.888
Cars	6	3	0	9	1	75	26	102	23	12	36	71	22	126	14	162	344
% Cars	100	100	0	100	100	97.4	96.3	97.1	100	85.7	97.3	95.9	91.7	97.7	100	97.0	96.9
Heavy Vehicles	0	0	0	0	0	2	1	3	0	2	1	3	2	3	0	5	11
% Heavy Vehicles	0	0	0	0	0	2.6	3.7	2.9	0	14.3	2.7	4.1	8.3	2.3	0	3.0	3.1

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E/W: Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 D-JJJ
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Acushnet Avenue From North			Logan Street From East			Acushnet Avenue From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	0	0	0	28	15	6	6	7	7	29	1	100
04:15 PM	1	2	0	1	14	4	5	1	8	4	35	1	76
04:30 PM	1	1	0	0	14	3	9	2	7	7	31	6	81
04:45 PM	3	0	0	0	19	4	3	3	14	4	31	6	87
Total	6	3	0	1	75	26	23	12	36	22	126	14	344
05:00 PM	2	1	0	1	22	5	4	3	8	4	31	1	82
05:15 PM	0	0	0	0	22	7	2	3	4	9	30	2	79
05:30 PM	2	0	0	1	12	6	7	3	5	4	29	1	70
05:45 PM	1	0	0	0	13	2	7	4	2	4	24	1	58
Total	5	1	0	2	69	20	20	13	19	21	114	5	289
Grand Total	11	4	0	3	144	46	43	25	55	43	240	19	633
Apprch %	73.3	26.7	0	1.6	74.6	23.8	35	20.3	44.7	14.2	79.5	6.3	
Total %	1.7	0.6	0	0.5	22.7	7.3	6.8	3.9	8.7	6.8	37.9	3	

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	0	0	1	0	**28**	**15**	**43**	6	**6**	7	19	**7**	29	1	37	**100**
04:15 PM	1	**2**	0	**3**	**1**	14	4	19	5	1	8	14	4	**35**	1	40	76
04:30 PM	1	1	0	2	0	14	3	17	**9**	2	7	18	7	31	**6**	**44**	81
04:45 PM	**3**	0	0	3	0	19	4	23	3	3	**14**	**20**	4	31	6	41	87
Total Volume	6	3	0	9	1	75	26	102	23	12	36	71	22	126	14	162	344
% App. Total	66.7	33.3	0		1	73.5	25.5		32.4	16.9	50.7		13.6	77.8	8.6		
PHF	.500	.375	.000	.750	.250	.670	.433	.593	.639	.500	.643	.888	.786	.900	.583	.920	.860

PRECISION
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Client: VHB/J. Quitter

File Name : 81676 D-JJJ
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue From North			Logan Street From East			Acushnet Avenue From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	2	1	0	0	1	1	2	0	7
04:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	2	1	0	2	1	2	3	0	11
05:00 PM	0	0	0	0	0	0	0	1	1	0	1	1	4
05:15 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
05:30 PM	0	0	0	0	1	0	0	0	0	1	2	0	4
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	2	0	0	1	1	2	5	1	12
Grand Total	0	0	0	0	4	1	0	3	2	4	8	1	23
Apprch %	0	0	0	0	80	20	0	60	40	30.8	61.5	7.7	
Total %	0	0	0	0	17.4	4.3	0	13	8.7	17.4	34.8	4.3	

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**2**	**1**	**3**	0	0	**1**	1	**1**	**2**	0	**3**	**7**
04:30 PM	0	0	0	0	0	0	0	0	0	**2**	0	**2**	0	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	1	**1**	2	4
Total Volume	0	0	0	0	0	2	1	3	0	3	2	5	2	4	1	7	15
% App. Total	0	0	0		0	66.7	33.3		0	60	40		28.6	57.1	14.3		
PHF	.000	.000	.000	.000	.000	.250	.250	.250	.000	.375	.500	.625	.500	.500	.250	.583	.536

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Client: VHB/J. Quitter

File Name : 81676 D-JJJ
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	2	1	0	2	0	0	0	0	0	0	0	2	0	0	0	0	7
04:15 PM	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	4
04:30 PM	0	0	0	5	0	0	0	0	0	0	3	1	1	1	0	0	11
04:45 PM	0	0	0	6	0	0	0	2	0	0	0	3	0	0	0	0	11
Total	2	1	0	14	0	0	0	2	0	0	4	8	1	1	0	0	33
05:00 PM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:30 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	3	0	2	1	0	0	0	0	2	0	0	0	0	8
Grand Total	2	1	0	17	0	2	1	2	0	0	4	10	1	1	0	0	41
Apprch %	10	5	0	85	0	40	20	40	0	0	28.6	71.4	50	50	0	0	
Total %	4.9	2.4	0	41.5	0	4.9	2.4	4.9	0	0	9.8	24.4	2.4	2.4	0	0	

	Acushnet Avenue From North					Logan Street From East					Acushnet Avenue From South					Logan Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	**2**	**1**	0	2	5	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	7
04:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	4
04:30 PM	0	0	0	5	5	0	0	0	0	0	0	0	**3**	1	**4**	**1**	**1**	0	0	**2**	**11**
04:45 PM	0	0	0	**6**	**6**	0	0	0	**2**	**2**	0	0	0	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**11**
Total Volume	2	1	0	14	17	0	0	0	2	2	0	0	4	8	12	1	1	0	0	2	33
% App. Total	11.8	5.9	0	82.4		0	0	0	100		0	0	33.3	66.7		50	50	0	0		
PHF	.250	.250	.000	.583	.708	.000	.000	.000	.250	.250	.000	.000	.333	.667	.750	.250	.250	.000	.000	.250	.750

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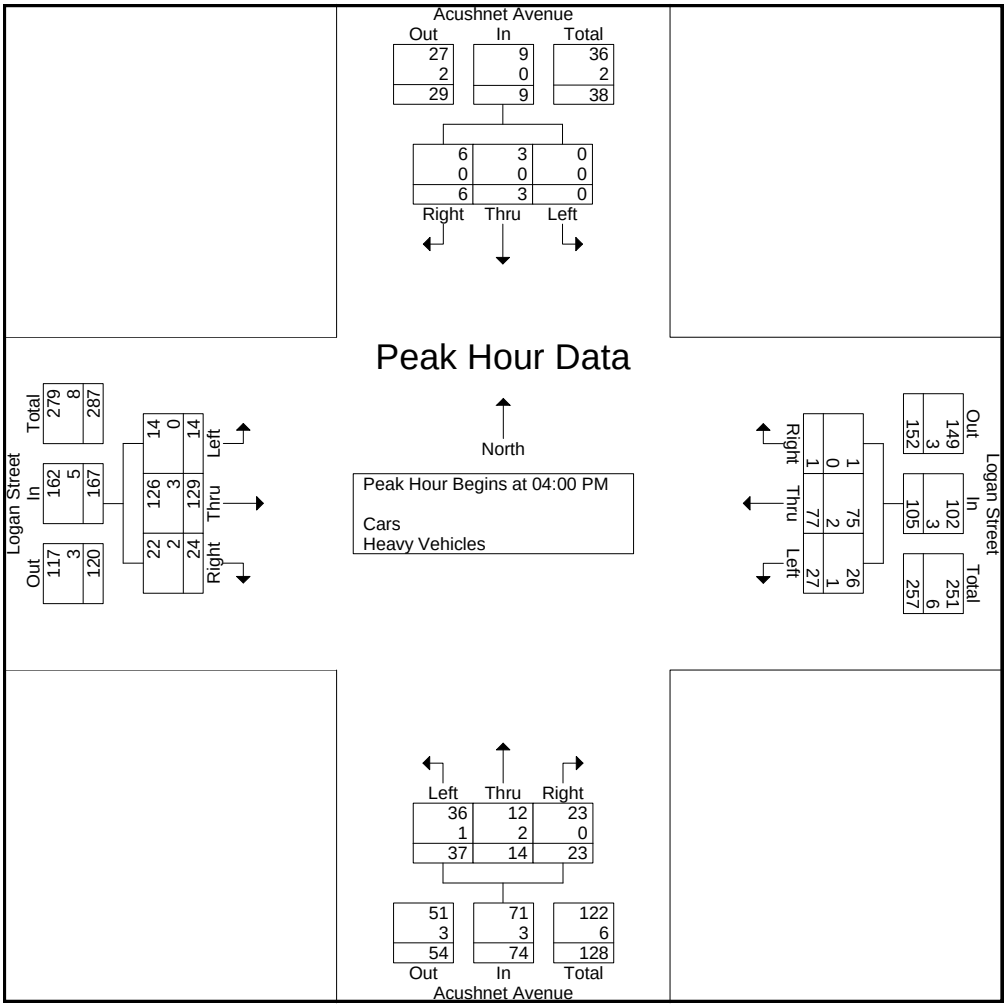
	Acushnet Avenue From North				Logan Street From East				Acushnet Avenue From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	0	0	1	0	**28**	**15**	**43**	6	**6**	7	19	**7**	29	1	37	**100**
04:15 PM	1	**2**	0	**3**	**1**	16	5	22	5	1	9	15	5	**37**	1	43	83
04:30 PM	1	1	0	2	0	14	3	17	**9**	4	7	**20**	7	32	**6**	**45**	84
04:45 PM	**3**	0	0	3	0	19	4	23	3	3	**14**	20	5	31	6	42	88
Total Volume	6	3	0	9	1	77	27	105	23	14	37	74	24	129	14	167	355
% App. Total	66.7	33.3	0		1	73.3	25.7		31.1	18.9	50		14.4	77.2	8.4		
PHF	.500	.375	.000	.750	.250	.688	.450	.610	.639	.583	.661	.925	.857	.872	.583	.928	.888
Cars	6	3	0	9	1	75	26	102	23	12	36	71	22	126	14	162	344
% Cars	100	100	0	100	100	97.4	96.3	97.1	100	85.7	97.3	95.9	91.7	97.7	100	97.0	96.9
Heavy Vehicles	0	0	0	0	0	2	1	3	0	2	1	3	2	3	0	5	11
% Heavy Vehicles	0	0	0	0	0	2.6	3.7	2.9	0	14.3	2.7	4.1	8.3	2.3	0	3.0	3.1



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N/S: North Front Street
E/W: Driveway/ Logan Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- K
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	6	0	0	0	0	0	2	0	0	0	0	0	0	0	1	9
07:30 AM	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	2	16
07:45 AM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	2	5
Total	0	22	0	0	0	0	0	4	0	0	0	0	0	0	0	5	31
08:00 AM	0	2	0	0	0	0	0	5	0	0	0	1	0	0	0	5	13
08:15 AM	0	1	0	0	0	0	0	9	0	0	0	1	0	0	0	1	12
08:30 AM	0	0	0	3	0	0	0	2	0	0	0	0	1	1	0	0	7
08:45 AM	0	1	0	2	0	1	0	1	0	2	0	0	0	0	0	2	9
Total	0	4	0	5	0	1	0	17	0	2	0	2	1	1	0	8	41
Grand Total	0	26	0	5	0	1	0	21	0	2	0	2	1	1	0	13	72
Apprch %	0	83.9	0	16.1	0	4.5	0	95.5	0	50	0	50	6.7	6.7	0	86.7	
Total %	0	36.1	0	6.9	0	1.4	0	29.2	0	2.8	0	2.8	1.4	1.4	0	18.1	

	North Front Street From North					Driveway From East					North Front Street From South					Logan Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	**13**	0	0	**13**	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2	**16**
07:45 AM	0	2	0	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2	5
08:00 AM	0	2	0	0	2	0	0	0	5	5	0	0	0	**1**	**1**	0	0	0	**5**	**5**	13
08:15 AM	0	1	0	0	1	0	0	0	**9**	**9**	0	0	0	1	1	0	0	0	1	1	12
Total Volume	0	18	0	0	18	0	0	0	16	16	0	0	0	2	2	0	0	0	10	10	46
% App. Total	0	100	0	0		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.346	.000	.000	.346	.000	.000	.000	.444	.444	.000	.000	.000	.500	.500	.000	.000	.000	.500	.500	.719

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N/S: North Front Street
E/W: Driveway/ Logan Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- K
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	4	0	0	0	0	0	1	1	0	0	0	6
07:15 AM	1	6	0	0	0	0	0	2	0	0	0	0	9
07:30 AM	2	7	1	0	0	0	0	3	0	1	0	1	15
07:45 AM	2	4	0	2	0	0	1	3	1	0	0	2	15
Total	5	21	1	2	0	0	1	9	2	1	0	3	45
08:00 AM	1	4	0	0	0	0	1	5	0	2	0	5	18
08:15 AM	2	3	0	1	0	0	0	2	0	0	0	1	9
08:30 AM	1	8	1	0	0	0	0	5	0	1	0	6	22
08:45 AM	1	6	0	0	0	0	0	7	1	3	0	0	18
Total	5	21	1	1	0	0	1	19	1	6	0	12	67
Grand Total	10	42	2	3	0	0	2	28	3	7	0	15	112
Apprch %	18.5	77.8	3.7	100	0	0	6.1	84.8	9.1	31.8	0	68.2	
Total %	8.9	37.5	1.8	2.7	0	0	1.8	25	2.7	6.2	0	13.4	

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	1	4	0	5	0	0	0	0	**1**	5	0	6	2	0	5	**7**	18
08:15 AM	**2**	3	0	5	**1**	0	0	**1**	0	2	0	2	0	0	1	1	9
08:30 AM	1	**8**	**1**	**10**	0	0	0	0	0	5	0	5	1	0	**6**	7	**22**
08:45 AM	1	6	0	7	0	0	0	0	0	**7**	**1**	**8**	**3**	0	0	3	18
Total Volume	5	21	1	27	1	0	0	1	1	19	1	21	6	0	12	18	67
% App. Total	18.5	77.8	3.7		100	0	0		4.8	90.5	4.8		33.3	0	66.7		
PHF	.625	.656	.250	.675	.250	.000	.000	.250	.250	.679	.250	.656	.500	.000	.500	.643	.761

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File Name : 81676D- K
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	North Front Street From North			Driveway From East			North Front Street From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	10	15	2	1	1	0	0	6	1	3	2	14	55
07:15 AM	8	41	4	2	2	0	1	15	1	4	1	34	113
07:30 AM	13	43	10	2	0	0	1	20	1	1	1	21	113
07:45 AM	15	48	13	3	0	1	1	20	1	3	5	33	143
Total	46	147	29	8	3	1	3	61	4	11	9	102	424
08:00 AM	13	42	15	2	2	0	2	24	2	2	5	35	144
08:15 AM	16	50	9	2	0	1	0	30	2	8	2	32	152
08:30 AM	9	30	18	4	3	1	1	39	0	1	4	19	129
08:45 AM	10	36	40	1	0	0	6	26	0	0	2	14	135
Total	48	158	82	9	5	2	9	119	4	11	13	100	560
Grand Total	94	305	111	17	8	3	12	180	8	22	22	202	984
Apprch %	18.4	59.8	21.8	60.7	28.6	10.7	6	90	4	8.9	8.9	82.1	
Total %	9.6	31	11.3	1.7	0.8	0.3	1.2	18.3	0.8	2.2	2.2	20.5	

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	15	48	13	**76**	3	0	**1**	4	1	20	1	22	3	**5**	33	41	143
08:00 AM	13	42	15	70	2	2	0	4	**2**	24	**2**	28	2	5	**35**	**42**	144
08:15 AM	**16**	**50**	9	75	2	0	1	3	0	30	2	32	**8**	2	32	42	**152**
08:30 AM	9	30	**18**	57	**4**	**3**	1	**8**	1	**39**	0	**40**	1	4	19	24	129
Total Volume	53	170	55	278	11	5	3	19	4	113	5	122	14	16	119	149	568
% App. Total	19.1	61.2	19.8		57.9	26.3	15.8		3.3	92.6	4.1		9.4	10.7	79.9		
PHF	.828	.850	.764	.914	.688	.417	.750	.594	.500	.724	.625	.763	.438	.800	.850	.887	.934

PRECISION
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File Name : 81676D- K
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	10	19	2	1	1	0	0	7	2	3	2	14	61
07:15 AM	9	47	4	2	2	0	1	17	1	4	1	34	122
07:30 AM	15	50	11	2	0	0	1	23	1	2	1	22	128
07:45 AM	17	52	13	5	0	1	2	23	2	3	5	35	158
Total	51	168	30	10	3	1	4	70	6	12	9	105	469
08:00 AM	14	46	15	2	2	0	3	29	2	4	5	40	162
08:15 AM	18	53	9	3	0	1	0	32	2	8	2	33	161
08:30 AM	10	38	19	4	3	1	1	44	0	2	4	25	151
08:45 AM	11	42	40	1	0	0	6	33	1	3	2	14	153
Total	53	179	83	10	5	2	10	138	5	17	13	112	627
Grand Total	104	347	113	20	8	3	14	208	11	29	22	217	1096
Apprch %	18.4	61.5	20	64.5	25.8	9.7	6	89.3	4.7	10.8	8.2	81	
Total %	9.5	31.7	10.3	1.8	0.7	0.3	1.3	19	1	2.6	2	19.8	
Cars	94	305	111	17	8	3	12	180	8	22	22	202	984
% Cars	90.4	87.9	98.2	85	100	100	85.7	86.5	72.7	75.9	100	93.1	89.8
Heavy Vehicles	10	42	2	3	0	0	2	28	3	7	0	15	112
% Heavy Vehicles	9.6	12.1	1.8	15	0	0	14.3	13.5	27.3	24.1	0	6.9	10.2

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	17	52	13	**82**	**5**	0	**1**	6	2	23	**2**	27	3	**5**	35	43	158
08:00 AM	14	46	15	75	2	2	0	4	**3**	29	2	34	4	5	**40**	**49**	**162**
08:15 AM	**18**	**53**	9	80	3	0	1	4	0	32	2	34	**8**	2	33	43	161
08:30 AM	10	38	**19**	67	4	**3**	1	**8**	1	**44**	0	**45**	2	4	25	31	151
Total Volume	59	189	56	304	14	5	3	22	6	128	6	140	17	16	133	166	632
% App. Total	19.4	62.2	18.4		63.6	22.7	13.6		4.3	91.4	4.3		10.2	9.6	80.1		
PHF	.819	.892	.737	.927	.700	.417	.750	.688	.500	.727	.750	.778	.531	.800	.831	.847	.975
Cars	53	170	55	278	11	5	3	19	4	113	5	122	14	16	119	149	568
% Cars	89.8	89.9	98.2	91.4	78.6	100	100	86.4	66.7	88.3	83.3	87.1	82.4	100	89.5	89.8	89.9
Heavy Vehicles	6	19	1	26	3	0	0	3	2	15	1	18	3	0	14	17	64
% Heavy Vehicles	10.2	10.1	1.8	8.6	21.4	0	0	13.6	33.3	11.7	16.7	12.9	17.6	0	10.5	10.2	10.1

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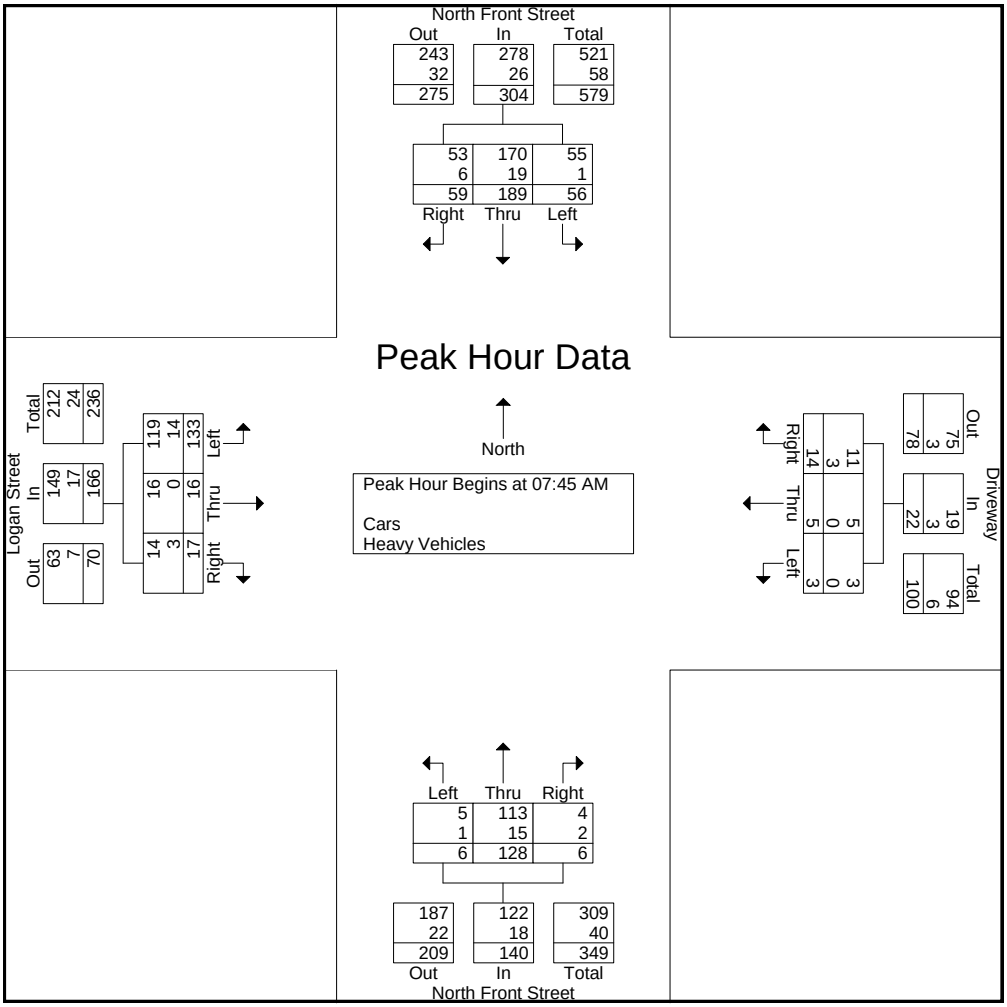
	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	17	52	13	**82**	**5**	0	**1**	6	2	23	**2**	27	3	**5**	35	43	158
08:00 AM	14	46	15	75	2	2	0	4	**3**	29	2	34	4	5	**40**	**49**	**162**
08:15 AM	**18**	**53**	9	80	3	0	1	4	0	32	2	34	**8**	2	33	43	161
08:30 AM	10	38	**19**	67	4	**3**	1	**8**	1	**44**	0	**45**	2	4	25	31	151
Total Volume	59	189	56	304	14	5	3	22	6	128	6	140	17	16	133	166	632
% App. Total	19.4	62.2	18.4		63.6	22.7	13.6		4.3	91.4	4.3		10.2	9.6	80.1		
PHF	.819	.892	.737	.927	.700	.417	.750	.688	.500	.727	.750	.778	.531	.800	.831	.847	.975
Cars	53	170	55	278	11	5	3	19	4	113	5	122	14	16	119	149	568
% Cars	89.8	89.9	98.2	91.4	78.6	100	100	86.4	66.7	88.3	83.3	87.1	82.4	100	89.5	89.8	89.9
Heavy Vehicles	6	19	1	26	3	0	0	3	2	15	1	18	3	0	14	17	64
% Heavy Vehicles	10.2	10.1	1.8	8.6	21.4	0	0	13.6	33.3	11.7	16.7	12.9	17.6	0	10.5	10.2	10.1



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Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	1	0	0	0	4	0	10	0	2	0	0	0	1	19
04:15 PM	0	2	0	1	0	0	0	6	0	7	0	0	0	0	1	4	21
04:30 PM	0	0	0	5	0	0	0	5	0	7	0	1	0	0	0	1	19
04:45 PM	0	0	0	3	0	0	0	0	0	1	0	2	0	0	0	4	10
Total	0	3	0	10	0	0	0	15	0	25	0	5	0	0	1	10	69
05:00 PM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	1	6
05:15 PM	0	2	0	0	0	1	0	0	0	2	0	0	0	0	0	0	5
05:30 PM	1	1	0	1	0	0	0	1	0	2	0	0	0	0	0	1	7
05:45 PM	0	2	0	0	0	0	0	1	0	8	0	0	0	0	0	0	11
Total	1	6	0	1	0	1	0	2	0	16	0	0	0	0	0	2	29
Grand Total	1	9	0	11	0	1	0	17	0	41	0	5	0	0	1	12	98
Apprch %	4.8	42.9	0	52.4	0	5.6	0	94.4	0	89.1	0	10.9	0	0	7.7	92.3	
Total %	1	9.2	0	11.2	0	1	0	17.3	0	41.8	0	5.1	0	0	1	12.2	

	North Front Street From North					Driveway From East					North Front Street From South					Logan Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	1	0	1	2	0	0	0	4	4	0	**10**	**0**	**2**	**12**	0	0	0	1	1	19
04:15 PM	0	**2**	0	1	3	0	0	0	**6**	**6**	0	7	0	0	7	0	0	**1**	**4**	**5**	**21**
04:30 PM	0	0	0	**5**	**5**	0	0	0	5	5	0	7	0	1	8	0	0	0	1	1	19
04:45 PM	0	0	0	3	3	0	0	0	0	0	0	1	0	2	3	0	0	0	4	4	10
Total Volume	0	3	0	10	13	0	0	0	15	15	0	25	0	5	30	0	0	1	10	11	69
% App. Total	0	23.1	0	76.9		0	0	0	100		0	83.3	0	16.7		0	0	9.1	90.9		
PHF	.000	.375	.000	.500	.650	.000	.000	.000	.625	.625	.000	.625	.000	.625	.625	.000	.000	.250	.625	.550	.821

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Groups Printed- Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	0	0	0	0	3	0	0	0	1	6
04:15 PM	0	1	0	0	0	0	0	1	0	0	0	1	3
04:30 PM	0	2	0	0	0	0	0	3	0	0	0	1	6
04:45 PM	0	4	0	0	0	0	0	4	0	0	0	1	9
Total	0	9	0	0	0	0	0	11	0	0	0	4	24
05:00 PM	0	4	0	0	0	0	0	0	0	0	0	1	5
05:15 PM	0	1	0	0	0	0	0	0	1	1	0	0	3
05:30 PM	0	1	0	1	0	0	0	0	1	0	1	1	5
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	6	0	1	0	0	0	1	2	1	1	2	14
Grand Total	0	15	0	1	0	0	0	12	2	1	1	6	38
Apprch %	0	100	0	100	0	0	0	85.7	14.3	12.5	12.5	75	
Total %	0	39.5	0	2.6	0	0	0	31.6	5.3	2.6	2.6	15.8	

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	**1**	**1**	6
04:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
04:30 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	1	1	6
04:45 PM	0	**4**	0	**4**	0	0	0	0	0	**4**	0	**4**	0	0	1	1	**9**
Total Volume	0	9	0	9	0	0	0	0	0	11	0	11	0	0	4	4	24
% App. Total	0	100	0		0	0	0		0	100	0		0	0	100		
PHF	.000	.563	.000	.563	.000	.000	.000	.000	.000	.688	.000	.688	.000	.000	1.000	1.000	.667

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Groups Printed- Cars

	North Front Street From North			Driveway From East			North Front Street From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	15	33	1	6	7	1	1	49	2	5	3	33	156
04:15 PM	7	32	1	9	4	0	0	43	2	2	5	29	134
04:30 PM	8	37	5	11	1	6	1	50	2	4	2	39	166
04:45 PM	13	21	2	19	10	2	1	43	1	1	3	30	146
Total	43	123	9	45	22	9	3	185	7	12	13	131	602
05:00 PM	12	29	2	22	8	9	1	39	3	1	3	26	155
05:15 PM	17	23	4	8	6	2	0	34	4	2	0	29	129
05:30 PM	10	27	2	7	4	2	1	28	2	4	1	28	116
05:45 PM	12	25	1	5	1	4	0	30	1	2	3	22	106
Total	51	104	9	42	19	17	2	131	10	9	7	105	506
Grand Total	94	227	18	87	41	26	5	316	17	21	20	236	1108
Apprch %	27.7	67	5.3	56.5	26.6	16.9	1.5	93.5	5	7.6	7.2	85.2	
Total %	8.5	20.5	1.6	7.9	3.7	2.3	0.5	28.5	1.5	1.9	1.8	21.3	

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**15**	33	1	49	6	7	1	14	**1**	49	**2**	52	**5**	3	33	41	156
04:15 PM	7	32	1	40	9	4	0	13	0	43	2	45	2	**5**	29	36	134
04:30 PM	8	**37**	**5**	**50**	11	1	**6**	18	1	**50**	2	**53**	4	2	**39**	**45**	**166**
04:45 PM	13	21	2	36	**19**	**10**	2	**31**	1	43	1	45	1	3	30	34	146
Total Volume	43	123	9	175	45	22	9	76	3	185	7	195	12	13	131	156	602
% App. Total	24.6	70.3	5.1		59.2	28.9	11.8		1.5	94.9	3.6		7.7	8.3	84		
PHF	.717	.831	.450	.875	.592	.550	.375	.613	.750	.925	.875	.920	.600	.650	.840	.867	.907

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N/S: North Front Street
E/W: Driveway/ Logan Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- KKK
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Logan Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	15	35	1	6	7	1	1	52	2	5	3	34	162
04:15 PM	7	33	1	9	4	0	0	44	2	2	5	30	137
04:30 PM	8	39	5	11	1	6	1	53	2	4	2	40	172
04:45 PM	13	25	2	19	10	2	1	47	1	1	3	31	155
Total	43	132	9	45	22	9	3	196	7	12	13	135	626
05:00 PM	12	33	2	22	8	9	1	39	3	1	3	27	160
05:15 PM	17	24	4	8	6	2	0	34	5	3	0	29	132
05:30 PM	10	28	2	8	4	2	1	28	3	4	2	29	121
05:45 PM	12	25	1	5	1	4	0	31	1	2	3	22	107
Total	51	110	9	43	19	17	2	132	12	10	8	107	520
Grand Total	94	242	18	88	41	26	5	328	19	22	21	242	1146
Apprch %	26.6	68.4	5.1	56.8	26.5	16.8	1.4	93.2	5.4	7.7	7.4	84.9	
Total %	8.2	21.1	1.6	7.7	3.6	2.3	0.4	28.6	1.7	1.9	1.8	21.1	
Cars	94	227	18	87	41	26	5	316	17	21	20	236	1108
% Cars	100	93.8	100	98.9	100	100	100	96.3	89.5	95.5	95.2	97.5	96.7
Heavy Vehicles	0	15	0	1	0	0	0	12	2	1	1	6	38
% Heavy Vehicles	0	6.2	0	1.1	0	0	0	3.7	10.5	4.5	4.8	2.5	3.3

	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**15**	35	1	51	6	7	1	14	**1**	52	**2**	55	**5**	3	34	42	162
04:15 PM	7	33	1	41	9	4	0	13	0	44	2	46	2	**5**	30	37	137
04:30 PM	8	**39**	**5**	**52**	11	1	**6**	18	1	**53**	2	**56**	4	2	**40**	**46**	**172**
04:45 PM	13	25	2	40	**19**	**10**	2	**31**	1	47	1	49	1	3	31	35	155
Total Volume	43	132	9	184	45	22	9	76	3	196	7	206	12	13	135	160	626
% App. Total	23.4	71.7	4.9		59.2	28.9	11.8		1.5	95.1	3.4		7.5	8.1	84.4		
PHF	.717	.846	.450	.885	.592	.550	.375	.613	.750	.925	.875	.920	.600	.650	.844	.870	.910
Cars	43	123	9	175	45	22	9	76	3	185	7	195	12	13	131	156	602
% Cars	100	93.2	100	95.1	100	100	100	100	100	94.4	100	94.7	100	100	97.0	97.5	96.2
Heavy Vehicles	0	9	0	9	0	0	0	0	0	11	0	11	0	0	4	4	24
% Heavy Vehicles	0	6.8	0	4.9	0	0	0	0	0	5.6	0	5.3	0	0	3.0	2.5	3.8

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Client: VHB/ J. Quitter

File Name : 81676D- KKK
Site Code : 10111.31
Start Date : 9/24/2008
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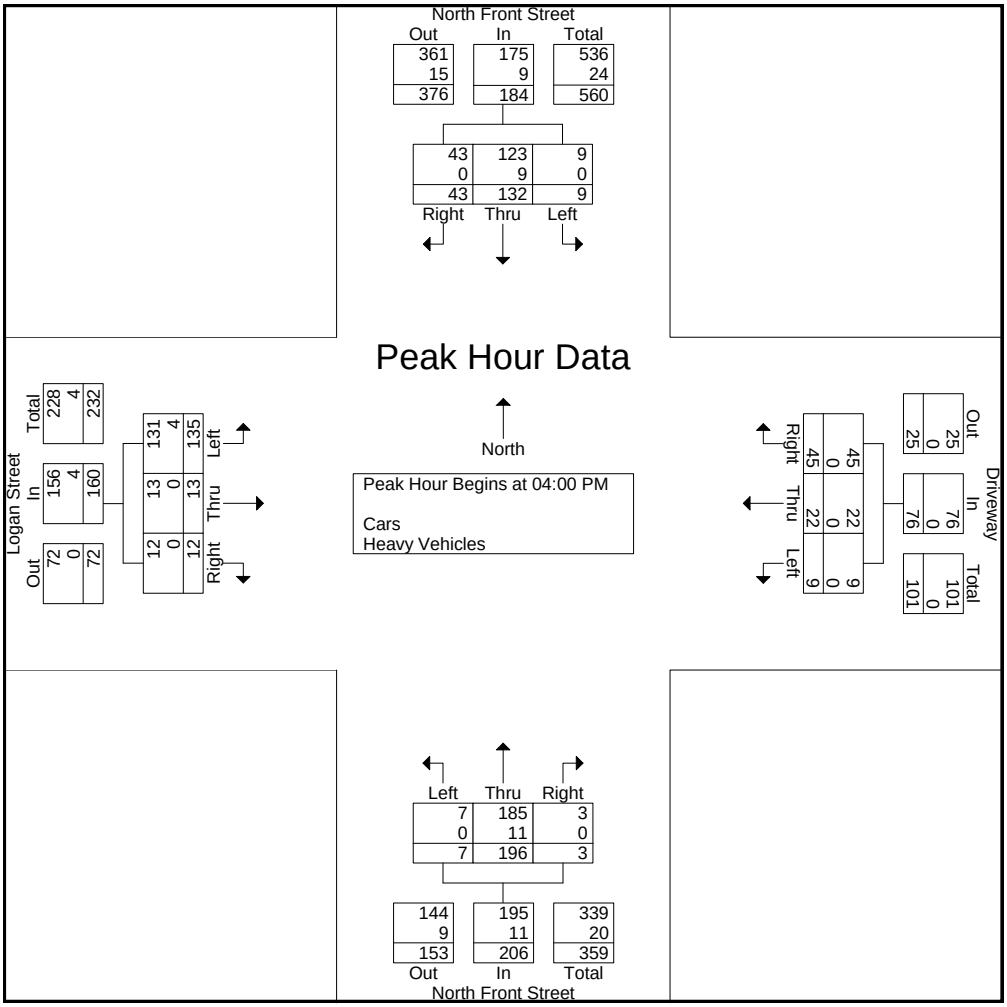
	North Front Street From North				Driveway From East				North Front Street From South				Logan Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**15**	35	1	51	6	7	1	14	**1**	52	**2**	55	**5**	3	34	42	162
04:15 PM	7	33	1	41	9	4	0	13	0	44	2	46	2	**5**	30	37	137
04:30 PM	8	**39**	**5**	**52**	11	1	**6**	18	1	**53**	2	**56**	4	2	**40**	**46**	**172**
04:45 PM	13	25	2	40	**19**	**10**	2	**31**	1	47	1	49	1	3	31	35	155
Total Volume	43	132	9	184	45	22	9	76	3	196	7	206	12	13	135	160	626
% App. Total	23.4	71.7	4.9		59.2	28.9	11.8		1.5	95.1	3.4		7.5	8.1	84.4		
PHF	.717	.846	.450	.885	.592	.550	.375	.613	.750	.925	.875	.920	.600	.650	.844	.870	.910
Cars	43	123	9	175	45	22	9	76	3	185	7	195	12	13	131	156	602
% Cars	100	93.2	100	95.1	100	100	100	100	100	94.4	100	94.7	100	100	97.0	97.5	96.2
Heavy Vehicles	0	9	0	9	0	0	0	0	0	11	0	11	0	0	4	4	24
% Heavy Vehicles	0	6.8	0	4.9	0	0	0	0	0	5.6	0	5.3	0	0	3.0	2.5	3.8



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City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- L
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Wamsutta Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	33	6	1	1	1	4	18	2	0	1	0	68
07:15 AM	0	55	3	0	0	1	1	17	0	0	0	1	78
07:30 AM	5	48	2	2	0	1	0	20	1	2	0	1	82
07:45 AM	3	43	6	2	0	2	8	22	1	1	0	1	89
Total	9	179	17	5	1	5	13	77	4	3	1	3	317
08:00 AM	6	42	1	1	0	0	3	27	1	2	0	5	88
08:15 AM	4	47	2	3	0	0	3	29	1	3	1	2	95
08:30 AM	7	25	2	3	0	3	3	32	0	1	0	2	78
08:45 AM	4	32	2	0	0	0	0	31	0	0	0	7	76
Total	21	146	7	7	0	3	9	119	2	6	1	16	337
Grand Total	30	325	24	12	1	8	22	196	6	9	2	19	654
Apprch %	7.9	85.8	6.3	57.1	4.8	38.1	9.8	87.5	2.7	30	6.7	63.3	
Total %	4.6	49.7	3.7	1.8	0.2	1.2	3.4	30	0.9	1.4	0.3	2.9	
Cars	27	296	17	9	1	7	20	172	5	8	2	18	582
% Cars	90	91.1	70.8	75	100	87.5	90.9	87.8	83.3	88.9	100	94.7	89
Heavy Vehicles	3	29	7	3	0	1	2	24	1	1	0	1	72
% Heavy Vehicles	10	8.9	29.2	25	0	12.5	9.1	12.2	16.7	11.1	0	5.3	11

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	**48**	2	**55**	2	0	1	3	0	20	**1**	21	2	0	1	3	82
07:45 AM	3	43	**6**	52	2	0	**2**	**4**	**8**	22	1	31	1	0	1	2	89
08:00 AM	**6**	42	1	49	1	0	0	1	3	27	1	31	2	0	**5**	**7**	88
08:15 AM	4	47	2	53	**3**	0	0	3	3	**29**	1	**33**	**3**	**1**	2	6	**95**
Total Volume	18	180	11	209	8	0	3	11	14	98	4	116	8	1	9	18	354
% App. Total	8.6	86.1	5.3		72.7	0	27.3		12.1	84.5	3.4		44.4	5.6	50		
PHF	.750	.938	.458	.950	.667	.000	.375	.688	.438	.845	1.000	.879	.667	.250	.450	.643	.932
Cars	18	171	5	194	7	0	3	10	13	88	3	104	7	1	9	17	325
% Cars	100	95.0	45.5	92.8	87.5	0	100	90.9	92.9	89.8	75.0	89.7	87.5	100	100	94.4	91.8
Heavy Vehicles	0	9	6	15	1	0	0	1	1	10	1	12	1	0	0	1	29
% Heavy Vehicles	0	5.0	54.5	7.2	12.5	0	0	9.1	7.1	10.2	25.0	10.3	12.5	0	0	5.6	8.2

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E/W: Driveway/ Wamsutta Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- L
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	North Front Street From North			Driveway From East			North Front Street From South			Wamsutta Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	25	5	0	1	1	3	14	2	0	1	0	53
07:15 AM	0	48	3	0	0	1	1	14	0	0	0	1	68
07:30 AM	5	44	0	1	0	1	0	17	0	1	0	1	70
07:45 AM	3	43	4	2	0	2	8	20	1	1	0	1	85
Total	9	160	12	3	1	5	12	65	3	2	1	3	276
08:00 AM	6	38	1	1	0	0	3	25	1	2	0	5	82
08:15 AM	4	46	0	3	0	0	2	26	1	3	1	2	88
08:30 AM	5	24	2	2	0	2	3	29	0	1	0	2	70
08:45 AM	3	28	2	0	0	0	0	27	0	0	0	6	66
Total	18	136	5	6	0	2	8	107	2	6	1	15	306
Grand Total	27	296	17	9	1	7	20	172	5	8	2	18	582
Apprch %	7.9	87.1	5	52.9	5.9	41.2	10.2	87.3	2.5	28.6	7.1	64.3	
Total %	4.6	50.9	2.9	1.5	0.2	1.2	3.4	29.6	0.9	1.4	0.3	3.1	

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	44	0	49	1	0	1	2	0	17	0	17	1	0	1	2	70
07:45 AM	3	43	**4**	**50**	2	0	**2**	**4**	**8**	20	**1**	**29**	1	0	1	2	85
08:00 AM	**6**	38	1	45	1	0	0	1	3	25	1	29	2	0	**5**	**7**	82
08:15 AM	4	**46**	0	50	**3**	0	0	3	2	**26**	1	29	**3**	**1**	2	6	**88**
Total Volume	18	171	5	194	7	0	3	10	13	88	3	104	7	1	9	17	325
% App. Total	9.3	88.1	2.6		70	0	30		12.5	84.6	2.9		41.2	5.9	52.9		
PHF	.750	.929	.313	.970	.583	.000	.375	.625	.406	.846	.750	.897	.583	.250	.450	.607	.923

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File Name : 81676D- L
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Wamsutta Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	8	1	1	0	0	1	4	0	0	0	0	15
07:15 AM	0	7	0	0	0	0	0	3	0	0	0	0	10
07:30 AM	0	4	2	1	0	0	0	3	1	1	0	0	12
07:45 AM	0	0	2	0	0	0	0	2	0	0	0	0	4
Total	0	19	5	2	0	0	1	12	1	1	0	0	41
08:00 AM	0	4	0	0	0	0	0	2	0	0	0	0	6
08:15 AM	0	1	2	0	0	0	1	3	0	0	0	0	7
08:30 AM	2	1	0	1	0	1	0	3	0	0	0	0	8
08:45 AM	1	4	0	0	0	0	0	4	0	0	0	1	10
Total	3	10	2	1	0	1	1	12	0	0	0	1	31
Grand Total	3	29	7	3	0	1	2	24	1	1	0	1	72
Apprch %	7.7	74.4	17.9	75	0	25	7.4	88.9	3.7	50	0	50	
Total %	4.2	40.3	9.7	4.2	0	1.4	2.8	33.3	1.4	1.4	0	1.4	

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**8**	1	**9**	**1**	0	0	**1**	**1**	**4**	0	**5**	0	0	0	0	**15**
07:15 AM	0	7	0	7	0	0	0	0	0	3	0	3	0	0	0	0	10
07:30 AM	0	4	**2**	6	1	0	0	1	0	3	**1**	4	**1**	0	0	**1**	12
07:45 AM	0	0	2	2	0	0	0	0	0	2	0	2	0	0	0	0	4
Total Volume	0	19	5	24	2	0	0	2	1	12	1	14	1	0	0	1	41
% App. Total	0	79.2	20.8		100	0	0		7.1	85.7	7.1		100	0	0		
PHF	.000	.594	.625	.667	.500	.000	.000	.500	.250	.750	.250	.700	.250	.000	.000	.250	.683

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Groups Printed- Peds and Bicycles

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	3	1	0	0	0	0	1	3	0	0	0	0	0	0	1	9
07:15 AM	0	1	3	1	0	0	0	0	1	0	0	0	0	0	0	1	7
07:30 AM	0	6	2	1	0	0	0	1	2	0	0	0	0	0	0	0	12
07:45 AM	0	5	1	1	0	0	0	1	0	0	0	0	0	0	0	0	8
Total	0	15	7	3	0	0	0	3	6	0	0	0	0	0	0	2	36
08:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3
08:15 AM	0	1	1	1	0	0	1	3	0	0	0	0	0	0	0	1	8
08:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2
08:45 AM	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	4
Total	0	4	3	1	0	0	1	6	0	1	0	0	0	0	0	1	17
Grand Total	0	19	10	4	0	0	1	9	6	1	0	0	0	0	0	3	53
Apprch %	0	57.6	30.3	12.1	0	0	10	90	85.7	14.3	0	0	0	0	0	100	
Total %	0	35.8	18.9	7.5	0	0	1.9	17	11.3	1.9	0	0	0	0	0	5.7	

	North Front Street From North					Driveway From East					North Front Street From South					Wamsutta Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	3	1	0	4	0	0	0	**1**	**1**	**3**	**0**	**0**	**0**	**3**	0	0	0	**1**	**1**	9
07:15 AM	0	1	**3**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**7**
07:30 AM	**0**	**6**	2	1	**9**	0	0	0	1	1	2	0	0	0	2	0	0	0	0	0	**12**
07:45 AM	0	5	1	1	7	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	8
Total Volume	0	15	7	3	25	0	0	0	3	3	6	0	0	0	6	0	0	0	2	2	36
% App. Total	0	60	28	12		0	0	0	100		100	0	0	0		0	0	0	100		
PHF	.000	.625	.583	.750	.694	.000	.000	.000	.750	.750	.500	.000	.000	.000	.500	.000	.000	.000	.500	.500	.750

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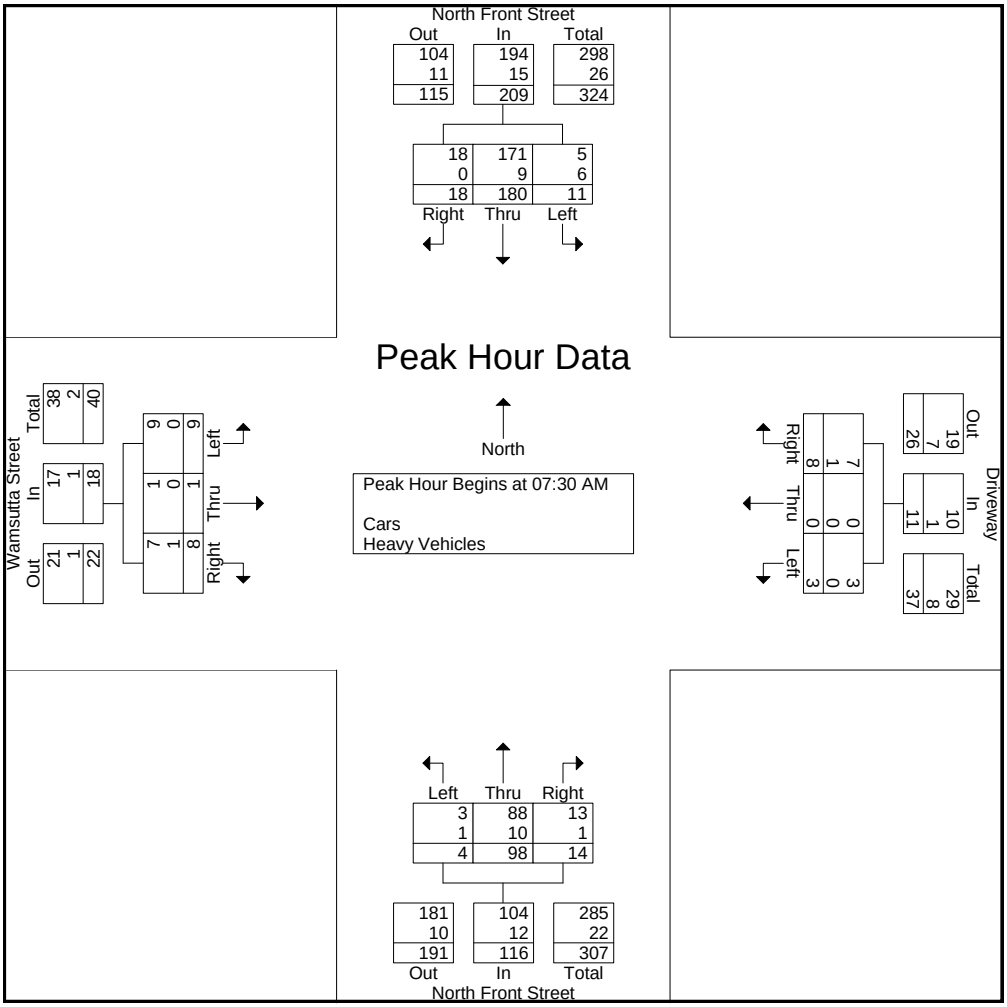
	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	**48**	2	**55**	2	0	1	3	0	20	**1**	21	2	0	1	3	82
07:45 AM	3	43	**6**	52	2	0	**2**	**4**	**8**	22	1	31	1	0	1	2	89
08:00 AM	**6**	42	1	49	1	0	0	1	3	27	1	31	2	0	**5**	**7**	88
08:15 AM	4	47	2	53	**3**	0	0	3	3	**29**	1	**33**	**3**	**1**	2	6	**95**
Total Volume	18	180	11	209	8	0	3	11	14	98	4	116	8	1	9	18	354
% App. Total	8.6	86.1	5.3		72.7	0	27.3		12.1	84.5	3.4		44.4	5.6	50		
PHF	.750	.938	.458	.950	.667	.000	.375	.688	.438	.845	1.000	.879	.667	.250	.450	.643	.932
Cars	18	171	5	194	7	0	3	10	13	88	3	104	7	1	9	17	325
% Cars	100	95.0	45.5	92.8	87.5	0	100	90.9	92.9	89.8	75.0	89.7	87.5	100	100	94.4	91.8
Heavy Vehicles	0	9	6	15	1	0	0	1	1	10	1	12	1	0	0	1	29
% Heavy Vehicles	0	5.0	54.5	7.2	12.5	0	0	9.1	7.1	10.2	25.0	10.3	12.5	0	0	5.6	8.2



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N/S: North Front Street
E/W: Driveway/ Wamsutta Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- LLL
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Wamsutta Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	4	37	2	5	0	2	2	44	1	1	0	3	101
04:15 PM	3	40	2	7	1	4	4	35	0	1	0	3	100
04:30 PM	0	49	2	5	0	3	1	49	0	3	0	4	116
04:45 PM	2	26	1	2	1	0	1	40	2	1	0	3	79
Total	9	152	7	19	2	9	8	168	3	6	0	13	396
05:00 PM	2	40	0	1	0	1	0	41	1	3	0	2	91
05:15 PM	1	29	1	2	0	0	1	31	0	1	0	2	68
05:30 PM	3	31	0	1	0	2	0	27	0	0	0	2	66
05:45 PM	2	28	0	3	0	0	0	20	1	0	0	2	56
Total	8	128	1	7	0	3	1	119	2	4	0	8	281
Grand Total	17	280	8	26	2	12	9	287	5	10	0	21	677
Apprch %	5.6	91.8	2.6	65	5	30	3	95.3	1.7	32.3	0	67.7	
Total %	2.5	41.4	1.2	3.8	0.3	1.8	1.3	42.4	0.7	1.5	0	3.1	
Cars	17	269	8	22	2	12	9	281	5	10	0	21	656
% Cars	100	96.1	100	84.6	100	100	100	97.9	100	100	0	100	96.9
Heavy Vehicles	0	11	0	4	0	0	0	6	0	0	0	0	21
% Heavy Vehicles	0	3.9	0	15.4	0	0	0	2.1	0	0	0	0	3.1

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**4**	37	**2**	43	5	0	2	7	2	44	1	47	1	0	3	4	101
04:15 PM	3	40	2	45	**7**	**1**	**4**	**12**	**4**	35	0	39	1	0	3	4	100
04:30 PM	0	**49**	2	**51**	5	0	3	8	1	**49**	0	**50**	**3**	0	**4**	**7**	**116**
04:45 PM	2	26	1	29	2	1	0	3	1	40	**2**	43	1	0	3	4	79
Total Volume	9	152	7	168	19	2	9	30	8	168	3	179	6	0	13	19	396
% App. Total	5.4	90.5	4.2		63.3	6.7	30		4.5	93.9	1.7		31.6	0	68.4		
PHF	.563	.776	.875	.824	.679	.500	.563	.625	.500	.857	.375	.895	.500	.000	.813	.679	.853
Cars	9	145	7	161	16	2	9	27	8	163	3	174	6	0	13	19	381
% Cars	100	95.4	100	95.8	84.2	100	100	90.0	100	97.0	100	97.2	100	0	100	100	96.2
Heavy Vehicles	0	7	0	7	3	0	0	3	0	5	0	5	0	0	0	0	15
% Heavy Vehicles	0	4.6	0	4.2	15.8	0	0	10.0	0	3.0	0	2.8	0	0	0	0	3.8

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File Name : 81676D- LLL
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Cars

	North Front Street From North			Driveway From East			North Front Street From South			Wamsutta Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	4	36	2	5	0	2	2	42	1	1	0	3	98
04:15 PM	3	36	2	6	1	4	4	34	0	1	0	3	94
04:30 PM	0	47	2	4	0	3	1	49	0	3	0	4	113
04:45 PM	2	26	1	1	1	0	1	38	2	1	0	3	76
Total	9	145	7	16	2	9	8	163	3	6	0	13	381
05:00 PM	2	37	0	1	0	1	0	41	1	3	0	2	88
05:15 PM	1	29	1	1	0	0	1	31	0	1	0	2	67
05:30 PM	3	30	0	1	0	2	0	26	0	0	0	2	64
05:45 PM	2	28	0	3	0	0	0	20	1	0	0	2	56
Total	8	124	1	6	0	3	1	118	2	4	0	8	275
Grand Total	17	269	8	22	2	12	9	281	5	10	0	21	656
Apprch %	5.8	91.5	2.7	61.1	5.6	33.3	3.1	95.3	1.7	32.3	0	67.7	
Total %	2.6	41	1.2	3.4	0.3	1.8	1.4	42.8	0.8	1.5	0	3.2	

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**4**	36	**2**	42	5	0	2	7	2	42	1	45	1	0	3	4	98
04:15 PM	3	36	2	41	**6**	**1**	**4**	**11**	**4**	34	0	38	1	0	3	4	94
04:30 PM	0	**47**	2	**49**	4	0	3	7	1	**49**	0	**50**	**3**	0	**4**	**7**	**113**
04:45 PM	2	26	1	29	1	1	0	2	1	38	**2**	41	1	0	3	4	76
Total Volume	9	145	7	161	16	2	9	27	8	163	3	174	6	0	13	19	381
% App. Total	5.6	90.1	4.3		59.3	7.4	33.3		4.6	93.7	1.7		31.6	0	68.4		
PHF	.563	.771	.875	.821	.667	.500	.563	.614	.500	.832	.375	.870	.500	.000	.813	.679	.843

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File Name : 81676D- LLL
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Front Street From North			Driveway From East			North Front Street From South			Wamsutta Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
04:15 PM	0	4	0	1	0	0	0	1	0	0	0	0	6
04:30 PM	0	2	0	1	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	1	0	0	0	2	0	0	0	0	3
Total	0	7	0	3	0	0	0	5	0	0	0	0	15
05:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	0	1	0	0	0	1	0	0	0	0	6
Grand Total	0	11	0	4	0	0	0	6	0	0	0	0	21
Apprch %	0	100	0	100	0	0	0	100	0	0	0	0	
Total %	0	52.4	0	19	0	0	0	28.6	0	0	0	0	

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	0	1	0	0	0	0	0	**2**	0	**2**	0	0	0	0	3
04:15 PM	0	**4**	0	**4**	**1**	0	0	**1**	0	1	0	1	0	0	0	0	**6**
04:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	0	1	0	0	1	0	2	0	2	0	0	0	0	3
Total Volume	0	7	0	7	3	0	0	3	0	5	0	5	0	0	0	0	15
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0		
PHF	.000	.438	.000	.438	.750	.000	.000	.750	.000	.625	.000	.625	.000	.000	.000	.000	.625

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Client: VHB/ J. Quitter

File Name : 81676D- LLL
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	1	4	0	1	0	0	5	0	0	0	0	0	0	12
04:15 PM	0	0	0	1	0	0	0	1	0	6	0	0	0	0	0	3	11
04:30 PM	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	1	7
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	0	1	0	2	4	0	1	2	0	18	0	0	0	0	0	4	32
05:00 PM	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	1	5
05:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	3
05:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
05:45 PM	0	1	0	0	3	0	2	0	0	4	0	0	0	0	0	0	10
Total	0	2	1	0	3	1	2	0	0	9	0	0	0	1	0	2	21
Grand Total	0	3	1	2	7	1	3	2	0	27	0	0	0	1	0	6	53
Apprch %	0	50	16.7	33.3	53.8	7.7	23.1	15.4	0	100	0	0	0	14.3	0	85.7	
Total %	0	5.7	1.9	3.8	13.2	1.9	5.7	3.8	0	50.9	0	0	0	1.9	0	11.3	

	North Front Street From North					Driveway From East					North Front Street From South					Wamsutta Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**1**	0	**1**	**2**	**4**	0	**1**	**0**	**5**	0	5	0	0	5	0	0	0	0	0	**12**
04:15 PM	0	0	0	1	1	0	0	0	**1**	1	0	**6**	**0**	**0**	**6**	0	0	0	**3**	**3**	11
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	5	0	0	5	0	0	0	1	1	7
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total Volume	0	1	0	2	3	4	0	1	2	7	0	18	0	0	18	0	0	0	4	4	32
% App. Total	0	33.3	0	66.7		57.1	0	14.3	28.6		0	100	0	0		0	0	0	100		
PHF	.000	.250	.000	.500	.375	.250	.000	.250	.500	.350	.000	.750	.000	.000	.750	.000	.000	.000	.333	.333	.667

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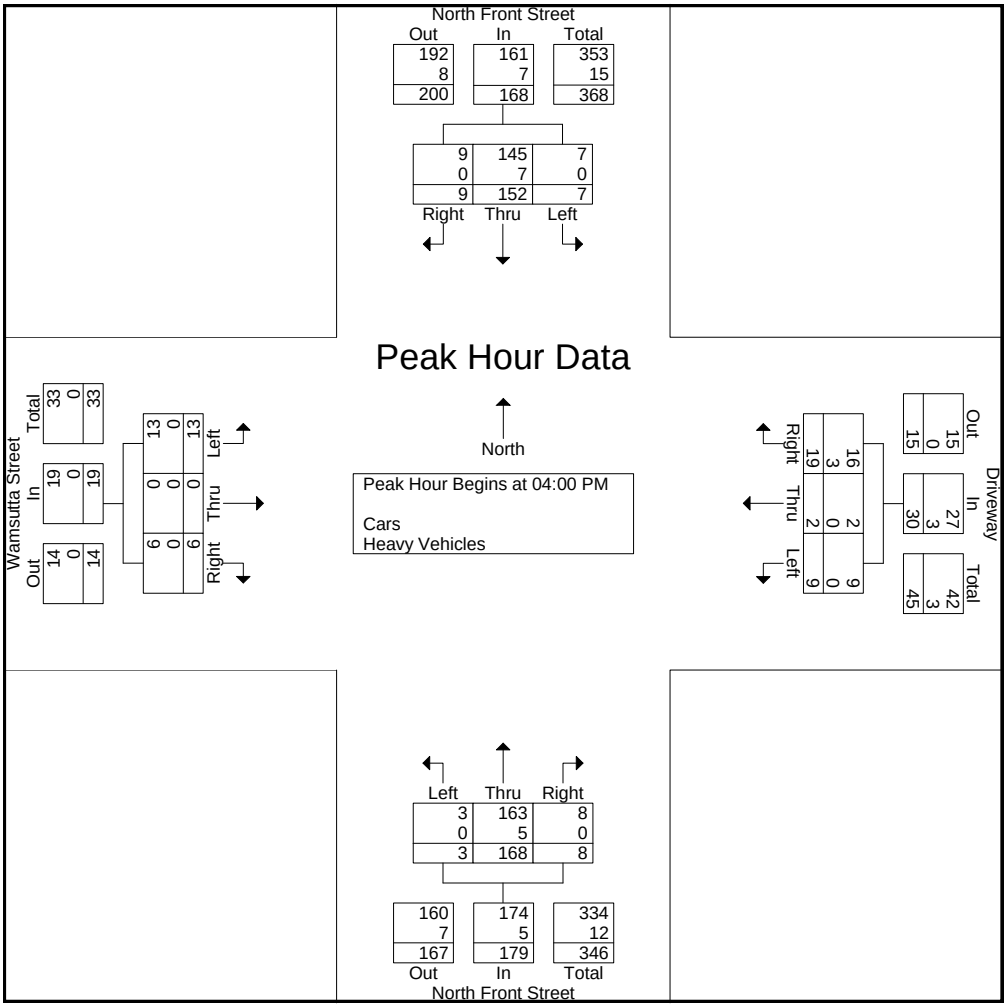
	North Front Street From North				Driveway From East				North Front Street From South				Wamsutta Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**4**	37	**2**	43	5	0	2	7	2	44	1	47	1	0	3	4	101
04:15 PM	3	40	2	45	**7**	**1**	**4**	**12**	**4**	35	0	39	1	0	3	4	100
04:30 PM	0	**49**	2	**51**	5	0	3	8	1	**49**	0	**50**	**3**	0	**4**	**7**	**116**
04:45 PM	2	26	1	29	2	1	0	3	1	40	**2**	43	1	0	3	4	79
Total Volume	9	152	7	168	19	2	9	30	8	168	3	179	6	0	13	19	396
% App. Total	5.4	90.5	4.2		63.3	6.7	30		4.5	93.9	1.7		31.6	0	68.4		
PHF	.563	.776	.875	.824	.679	.500	.563	.625	.500	.857	.375	.895	.500	.000	.813	.679	.853
Cars	9	145	7	161	16	2	9	27	8	163	3	174	6	0	13	19	381
% Cars	100	95.4	100	95.8	84.2	100	100	90.0	100	97.0	100	97.2	100	0	100	100	96.2
Heavy Vehicles	0	7	0	7	3	0	0	3	0	5	0	5	0	0	0	0	15
% Heavy Vehicles	0	4.6	0	4.2	15.8	0	0	10.0	0	3.0	0	2.8	0	0	0	0	3.8



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E: Wamsutta Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- M
Site Code : 10111.31
Start Date : 9/24/2008
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Groups Printed- Peds and Bicycles

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:15 AM	0	0	0	0	0	2	0	0	0	2
07:30 AM	4	0	0	0	0	1	0	0	0	5
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	4	0	0	0	0	3	0	0	0	7
08:00 AM	0	0	0	0	0	1	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1
Grand Total	4	0	0	0	0	4	0	0	0	8
Apprch %	100	0	0	0	0	100	0	0	0	
Total %	50	0	0	0	0	50	0	0	0	

	Acushnet Avenue From North				Wamsutta Street From East				Acushnet Avenue From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:30 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	2
07:30 AM	**4**	0	0	**4**	0	0	1	1	0	0	0	0	**5**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	1
Total Volume	4	0	0	4	0	0	4	4	0	0	0	0	8
% App. Total	100	0	0		0	0	100		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.500	.500	.000	.000	.000	.000	.400

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File Name : 81676D- M
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue From North		Wamsutta Street From East		Acushnet Avenue From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:15 AM	0	0	0	0	0	0	0
07:30 AM	2	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0
Total	2	0	0	0	0	0	2
08:00 AM	1	0	0	0	0	1	2
08:15 AM	0	0	0	0	1	0	1
08:30 AM	0	1	2	0	0	3	6
08:45 AM	0	0	0	0	0	0	0
Total	1	1	2	0	1	4	9
Grand Total	3	1	2	0	1	4	11
Apprch %	75	25	100	0	20	80	
Total %	27.3	9.1	18.2	0	9.1	36.4	

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	**1**	0	**1**	0	0	0	0	1	1	2
08:15 AM	0	0	0	0	0	0	**1**	0	1	1
08:30 AM	0	**1**	1	**2**	0	**2**	0	**3**	**3**	**6**
Total Volume	**1**	**1**	**2**	**2**	**0**	**2**	**1**	**4**	**5**	**9**
% App. Total	**50**	**50**		**100**	**0**		**20**	**80**		
PHF	**.250**	**.250**	**.500**	**.250**	**.000**	**.250**	**.250**	**.333**	**.417**	**.375**

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File Name : 81676D- M
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Acushnet Avenue From North		Wamsutta Street From East		Acushnet Avenue From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:15 AM	19	1	1	1	0	20	42
07:30 AM	12	3	0	4	1	11	31
07:45 AM	8	2	2	2	0	15	29
Total	39	6	3	7	1	46	102
08:00 AM	14	2	0	6	5	13	40
08:15 AM	16	6	1	5	3	12	43
08:30 AM	17	0	3	5	4	8	37
08:45 AM	15	1	2	4	4	9	35
Total	62	9	6	20	16	42	155
Grand Total	101	15	9	27	17	88	257
Apprch %	87.1	12.9	25	75	16.2	83.8	
Total %	39.3	5.8	3.5	10.5	6.6	34.2	

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	8	2	10	2	2	4	0	**15**	15	29
08:00 AM	14	2	16	0	**6**	6	**5**	13	**18**	40
08:15 AM	16	**6**	**22**	1	5	6	3	12	15	**43**
08:30 AM	**17**	0	17	**3**	5	**8**	4	8	12	37
Total Volume	55	10	65	6	18	24	12	48	60	149
% App. Total	84.6	15.4		25	75		20	80		
PHF	.809	.417	.739	.500	.750	.750	.600	.800	.833	.866

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N/S: Acushnet Avenue
E: Wamsutta Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- M
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue From North		Wamsutta Street From East		Acushnet Avenue From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:15 AM	19	1	1	1	0	20	42
07:30 AM	14	3	0	4	1	11	33
07:45 AM	8	2	2	2	0	15	29
Total	41	6	3	7	1	46	104
08:00 AM	15	2	0	6	5	14	42
08:15 AM	16	6	1	5	4	12	44
08:30 AM	17	1	5	5	4	11	43
08:45 AM	15	1	2	4	4	9	35
Total	63	10	8	20	17	46	164
Grand Total	104	16	11	27	18	92	268
Apprch %	86.7	13.3	28.9	71.1	16.4	83.6	
Total %	38.8	6	4.1	10.1	6.7	34.3	
Cars	101	15	9	27	17	88	257
% Cars	97.1	93.8	81.8	100	94.4	95.7	95.9
Heavy Vehicles	3	1	2	0	1	4	11
% Heavy Vehicles	2.9	6.2	18.2	0	5.6	4.3	4.1

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	8	2	10	2	2	4	0	**15**	15	29
08:00 AM	15	2	17	0	**6**	6	**5**	14	**19**	42
08:15 AM	16	**6**	**22**	1	5	6	4	12	16	**44**
08:30 AM	**17**	1	18	**5**	5	**10**	4	11	15	43
Total Volume	56	11	67	8	18	26	13	52	65	158
% App. Total	83.6	16.4		30.8	69.2		20	80		
PHF	.824	.458	.761	.400	.750	.650	.650	.867	.855	.898
Cars	55	10	65	6	18	24	12	48	60	149
% Cars	98.2	90.9	97.0	75.0	100	92.3	92.3	92.3	92.3	94.3
Heavy Vehicles	1	1	2	2	0	2	1	4	5	9
% Heavy Vehicles	1.8	9.1	3.0	25.0	0	7.7	7.7	7.7	7.7	5.7

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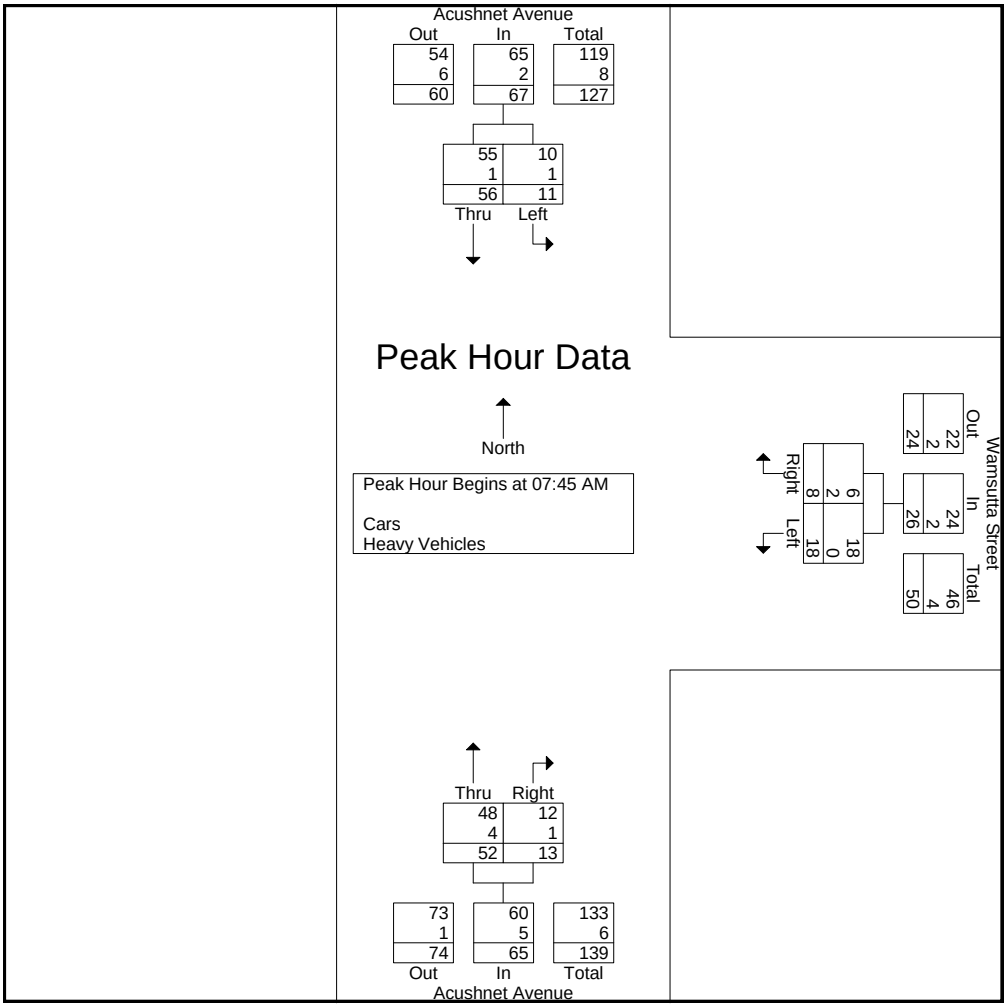
N/S: Acushnet Avenue
E: Wamsutta Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- M
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	8	2	10	2	2	4	0	**15**	15	29
08:00 AM	15	2	17	0	**6**	6	**5**	14	**19**	42
08:15 AM	16	**6**	**22**	1	5	6	4	12	16	**44**
08:30 AM	**17**	1	18	**5**	5	**10**	4	11	15	43
Total Volume	56	11	67	8	18	26	13	52	65	158
% App. Total	83.6	16.4		30.8	69.2		20	80		
PHF	.824	.458	.761	.400	.750	.650	.650	.867	.855	.898
Cars	55	10	65	6	18	24	12	48	60	149
% Cars	98.2	90.9	97.0	75.0	100	92.3	92.3	92.3	92.3	94.3
Heavy Vehicles	1	1	2	2	0	2	1	4	5	9
% Heavy Vehicles	1.8	9.1	3.0	25.0	0	7.7	7.7	7.7	7.7	5.7



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E: Wamsutta Street
City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- MMM
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Acushnet Avenue From North		Wamsutta Street From East		Acushnet Avenue From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	18	3	4	5	1	16	47
04:15 PM	10	1	5	3	4	10	33
04:30 PM	11	1	0	3	4	21	40
04:45 PM	8	1	6	3	2	14	34
Total	47	6	15	14	11	61	154
05:00 PM	8	2	0	2	1	16	29
05:15 PM	13	2	0	1	1	10	27
05:30 PM	11	0	0	2	3	17	33
05:45 PM	7	1	2	2	3	9	24
Total	39	5	2	7	8	52	113
Grand Total	86	11	17	21	19	113	267
Apprch %	88.7	11.3	44.7	55.3	14.4	85.6	
Total %	32.2	4.1	6.4	7.9	7.1	42.3	
Cars	81	11	17	21	19	110	259
% Cars	94.2	100	100	100	100	97.3	97
Heavy Vehicles	5	0	0	0	0	3	8
% Heavy Vehicles	5.8	0	0	0	0	2.7	3

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**18**	**3**	**21**	4	**5**	**9**	1	16	17	**47**
04:15 PM	**10**	**1**	**11**	**5**	**3**	**8**	**4**	10	14	33
04:30 PM	11	1	12	0	3	3	4	**21**	**25**	40
04:45 PM	8	1	9	**6**	3	9	2	14	16	34
Total Volume	47	6	53	15	14	29	11	61	72	154
% App. Total	88.7	11.3		51.7	48.3		15.3	84.7		
PHF	.653	.500	.631	.625	.700	.806	.688	.726	.720	.819
Cars	44	6	50	15	14	29	11	60	71	150
% Cars	93.6	100	94.3	100	100	100	100	98.4	98.6	97.4
Heavy Vehicles	3	0	3	0	0	0	0	1	1	4
% Heavy Vehicles	6.4	0	5.7	0	0	0	0	1.6	1.4	2.6

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E: Wamsutta Street
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Client: VHB/ J. Quitter

File Name : 81676D- MMM
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Cars

	Acushnet Avenue From North		Wamsutta Street From East		Acushnet Avenue From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	18	3	4	5	1	16	47
04:15 PM	8	1	5	3	4	10	31
04:30 PM	11	1	0	3	4	20	39
04:45 PM	7	1	6	3	2	14	33
Total	44	6	15	14	11	60	150
05:00 PM	8	2	0	2	1	14	27
05:15 PM	13	2	0	1	1	10	27
05:30 PM	10	0	0	2	3	17	32
05:45 PM	6	1	2	2	3	9	23
Total	37	5	2	7	8	50	109
Grand Total	81	11	17	21	19	110	259
Apprch %	88	12	44.7	55.3	14.7	85.3	
Total %	31.3	4.2	6.6	8.1	7.3	42.5	

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**18**	**3**	**21**	4	**5**	**9**	1	16	17	**47**
04:15 PM	**8**	**1**	**9**	**5**	**3**	**8**	**4**	10	14	31
04:30 PM	11	1	12	0	3	3	4	**20**	**24**	39
04:45 PM	7	1	8	**6**	3	9	2	14	16	33
Total Volume	44	6	50	15	14	29	11	60	71	150
% App. Total	88	12		51.7	48.3		15.5	84.5		
PHF	.611	.500	.595	.625	.700	.806	.688	.750	.740	.798

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City, State: New Bedford, MA
Client: VHB/ J. Quitter

File Name : 81676D- MMM
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Acushnet Avenue From North		Wamsutta Street From East		Acushnet Avenue From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	0	0	0	0	0
04:15 PM	2	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	1	1
04:45 PM	1	0	0	0	0	0	1
Total	3	0	0	0	0	1	4
05:00 PM	0	0	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	1
05:45 PM	1	0	0	0	0	0	1
Total	2	0	0	0	0	2	4
Grand Total	5	0	0	0	0	3	8
Apprch %	100	0	0	0	0	100	
Total %	62.5	0	0	0	0	37.5	

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**2**	0	**2**	0	0	0	0	0	0	**2**
04:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**
04:45 PM	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
05:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	2
Total Volume	3	0	3	0	0	0	0	3	3	6
% App. Total	100	0		0	0		0	100		
PHF	.375	.000	.375	.000	.000	.000	.000	.375	.375	.750

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File Name : 81676D- MMM
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	2	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	1	0	1
04:30 PM	1	0	0	0	0	0	0	3	0	4
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	0	0	0	4	0	7
05:00 PM	0	0	0	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	0	0	0	2
Grand Total	4	0	0	0	1	0	0	4	0	9
Apprch %	100	0	0	0	100	0	0	100	0	
Total %	44.4	0	0	0	11.1	0	0	44.4	0	

	Acushnet Avenue From North				Wamsutta Street From East				Acushnet Avenue From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	**2**	0	0	**2**	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
04:30 PM	1	0	0	1	0	0	0	0	0	**3**	**0**	**3**	**4**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	3	0	0	3	0	0	0	0	0	4	0	4	7
% App. Total	100	0	0		0	0	0		0	100	0		
PHF	.375	.000	.000	.375	.000	.000	.000	.000	.000	.333	.000	.333	.438

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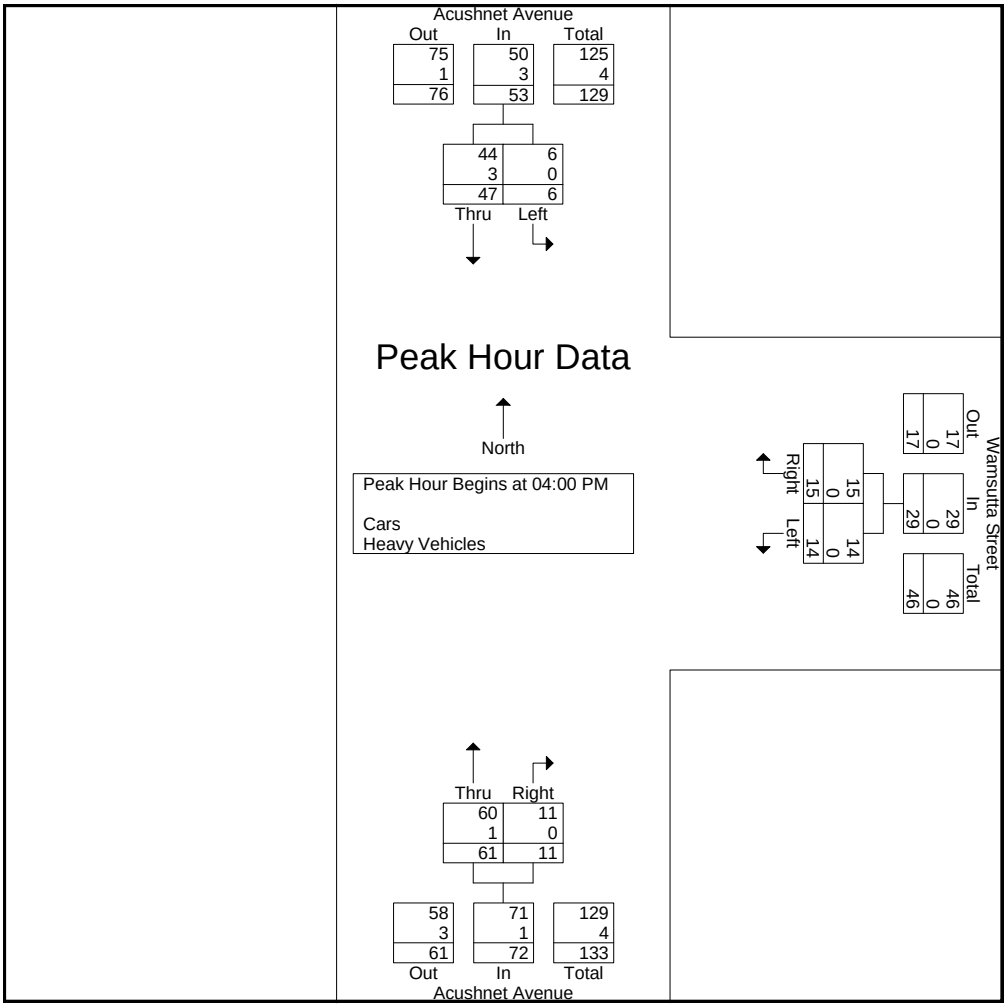
File Name : 81676D- MMM
Site Code : 10111.31
Start Date : 9/24/2008
Page No : 1

	Acushnet Avenue From North			Wamsutta Street From East			Acushnet Avenue From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**18**	**3**	**21**	4	**5**	**9**	1	16	17	**47**
04:15 PM	**10**	**1**	**11**	**5**	**3**	**8**	**4**	10	14	33
04:30 PM	11	1	12	0	3	3	4	**21**	**25**	40
04:45 PM	8	1	9	**6**	3	9	2	14	16	34
Total Volume	47	6	53	15	14	29	11	61	72	154
% App. Total	88.7	11.3		51.7	48.3		15.3	84.7		
PHF	.653	.500	.631	.625	.700	.806	.688	.726	.720	.819
Cars	44	6	50	15	14	29	11	60	71	150
% Cars	93.6	100	94.3	100	100	100	100	98.4	98.6	97.4
Heavy Vehicles	3	0	3	0	0	0	0	1	1	4
% Heavy Vehicles	6.4	0	5.7	0	0	0	0	1.6	1.4	2.6



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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Thurs 9/18/08 and Sat 10/18/08	81676	New Bedford, MA

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Mt. Pleasant Street
E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Mt. Pleasant Street From North		Route 140 SB Ramps From East		Mt. Pleasant Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	63	8	7	36	94	48	256
07:15 AM	50	6	15	40	101	48	260
07:30 AM	51	21	17	40	105	62	296
07:45 AM	65	18	15	55	108	46	307
Total	229	53	54	171	408	204	1119
08:00 AM	53	12	7	27	71	44	214
08:15 AM	36	15	13	28	90	56	238
08:30 AM	42	9	12	37	64	42	206
08:45 AM	37	9	13	32	66	50	207
Total	168	45	45	124	291	192	865
Grand Total	397	98	99	295	699	396	1984
Apprch %	80.2	19.8	25.1	74.9	63.8	36.2	
Total %	20	4.9	5	14.9	35.2	20	
Cars	378	95	95	261	658	378	1865
% Cars	95.2	96.9	96	88.5	94.1	95.5	94
Heavy Vehicles	19	3	4	34	41	18	119
% Heavy Vehicles	4.8	3.1	4	11.5	5.9	4.5	6

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	63	8	71	7	36	43	94	48	142	256
07:15 AM	50	6	56	15	40	55	101	48	149	260
07:30 AM	51	**21**	72	**17**	40	57	105	**62**	**167**	296
07:45 AM	**65**	18	**83**	15	**55**	**70**	**108**	46	154	**307**
Total Volume	**229**	**53**	**282**	**54**	**171**	**225**	**408**	**204**	**612**	**1119**
% App. Total	**81.2**	**18.8**		**24**	**76**		**66.7**	**33.3**		
PHF	**.881**	**.631**	**.849**	**.794**	**.777**	**.804**	**.944**	**.823**	**.916**	**.911**
Cars	**216**	**51**	**267**	**52**	**160**	**212**	**383**	**192**	**575**	**1054**
% Cars	**94.3**	**96.2**	**94.7**	**96.3**	**93.6**	**94.2**	**93.9**	**94.1**	**94.0**	**94.2**
Heavy Vehicles	**13**	**2**	**15**	**2**	**11**	**13**	**25**	**12**	**37**	**65**
% Heavy Vehicles	**5.7**	**3.8**	**5.3**	**3.7**	**6.4**	**5.8**	**6.1**	**5.9**	**6.0**	**5.8**

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N/S: Mt. Pleasant Street
E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-A
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars

	Mt. Pleasant Street From North		Route 140 SB Ramps From East		Mt. Pleasant Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	58	8	7	35	88	42	238
07:15 AM	47	6	14	38	94	46	245
07:30 AM	48	19	16	37	102	58	280
07:45 AM	63	18	15	50	99	46	291
Total	216	51	52	160	383	192	1054
08:00 AM	51	11	6	25	63	42	198
08:15 AM	34	15	12	26	89	53	229
08:30 AM	42	9	12	25	60	42	190
08:45 AM	35	9	13	25	63	49	194
Total	162	44	43	101	275	186	811
Grand Total	378	95	95	261	658	378	1865
Apprch %	79.9	20.1	26.7	73.3	63.5	36.5	
Total %	20.3	5.1	5.1	14	35.3	20.3	

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	58	8	66	7	35	42	88	42	130	238
07:15 AM	47	6	53	14	38	52	94	46	140	245
07:30 AM	48	**19**	67	**16**	37	53	**102**	**58**	**160**	280
07:45 AM	**63**	18	**81**	15	**50**	**65**	99	46	145	**291**
Total Volume	**216**	**51**	**267**	**52**	**160**	**212**	**383**	**192**	**575**	**1054**
% App. Total	**80.9**	**19.1**		**24.5**	**75.5**		**66.6**	**33.4**		
PHF	**.857**	**.671**	**.824**	**.813**	**.800**	**.815**	**.939**	**.828**	**.898**	**.905**

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N/S: Mt. Pleasant Street
E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Mt. Pleasant Street From North		Route 140 SB Ramps From East		Mt. Pleasant Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	5	0	0	1	6	6	18
07:15 AM	3	0	1	2	7	2	15
07:30 AM	3	2	1	3	3	4	16
07:45 AM	2	0	0	5	9	0	16
Total	13	2	2	11	25	12	65
08:00 AM	2	1	1	2	8	2	16
08:15 AM	2	0	1	2	1	3	9
08:30 AM	0	0	0	12	4	0	16
08:45 AM	2	0	0	7	3	1	13
Total	6	1	2	23	16	6	54
Grand Total	19	3	4	34	41	18	119
Apprch %	86.4	13.6	10.5	89.5	69.5	30.5	
Total %	16	2.5	3.4	28.6	34.5	15.1	

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**5**	0	**5**	0	1	1	6	**6**	**12**	**18**
07:15 AM	**3**	**0**	**3**	**1**	2	3	7	2	9	15
07:30 AM	3	**2**	5	1	3	4	3	4	7	16
07:45 AM	2	0	2	0	**5**	**5**	**9**	0	9	16
Total Volume	13	2	15	2	11	13	25	12	37	65
% App. Total	86.7	13.3		15.4	84.6		67.6	32.4		
PHF	.650	.250	.750	.500	.550	.650	.694	.500	.771	.903

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E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	2	0	0	0	0	0	0	0	0	2
07:30 AM	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	2	0	0	0	2
Total	3	0	0	0	0	2	0	0	0	5
08:00 AM	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	1	0	1
Total	1	0	0	0	0	0	0	1	0	2
Grand Total	4	0	0	0	0	2	0	1	0	7
Apprch %	100	0	0	0	0	100	0	100	0	
Total %	57.1	0	0	0	0	28.6	0	14.3	0	

	Mt. Pleasant Street From North				Route 140 SB Ramps From East				Mt. Pleasant Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	**2**	0	0	**2**	0	0	0	0	0	0	0	0	**2**
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	2
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	4	0	0	4	0	0	2	2	0	0	0	0	6
% App. Total	100	0	0		0	0	100		0	0	0		
PHF	.500	.000	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000	.750

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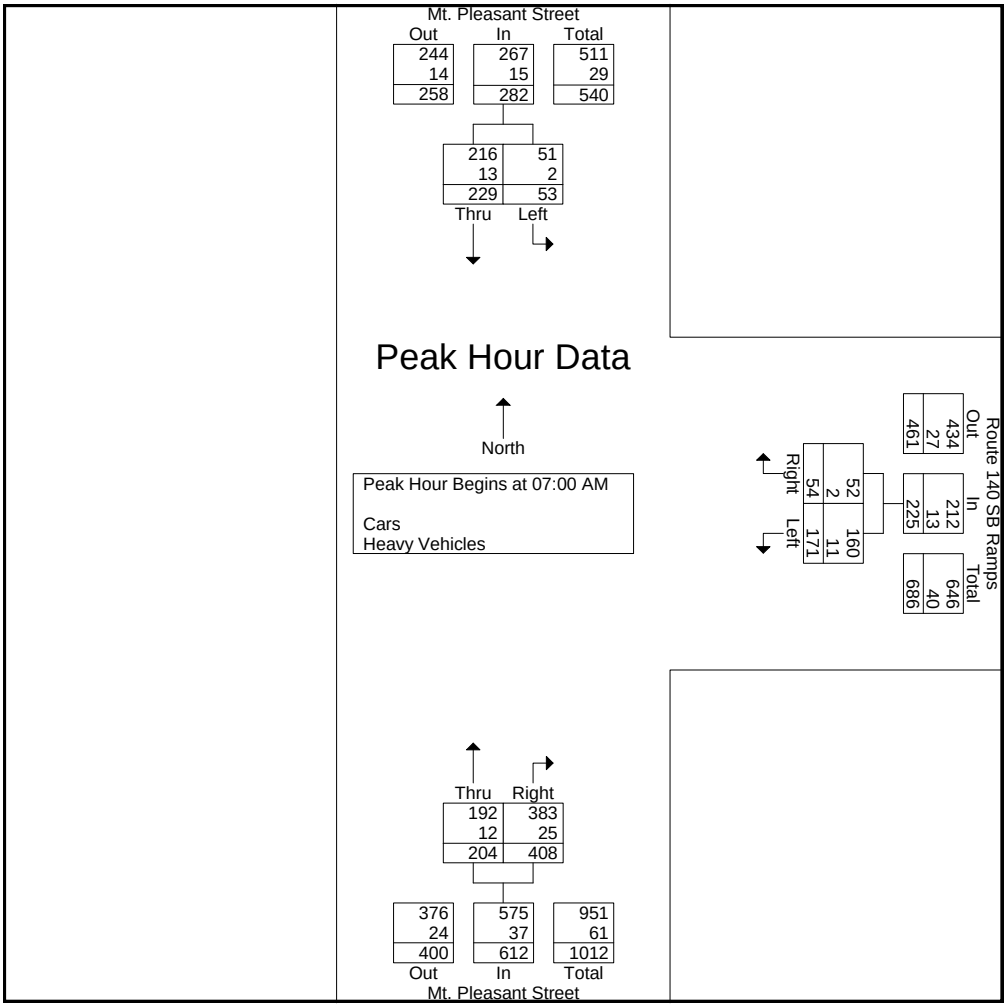
E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	63	8	71	7	36	43	94	48	142	256
07:15 AM	50	6	56	15	40	55	101	48	149	260
07:30 AM	51	**21**	72	**17**	40	57	105	**62**	**167**	296
07:45 AM	**65**	18	**83**	15	**55**	**70**	**108**	46	154	**307**
Total Volume	**229**	**53**	**282**	**54**	**171**	**225**	**408**	**204**	**612**	**1119**
% App. Total	**81.2**	**18.8**		**24**	**76**		**66.7**	**33.3**		
PHF	**.881**	**.631**	**.849**	**.794**	**.777**	**.804**	**.944**	**.823**	**.916**	**.911**
Cars	**216**	**51**	**267**	**52**	**160**	**212**	**383**	**192**	**575**	**1054**
% Cars	**94.3**	**96.2**	**94.7**	**96.3**	**93.6**	**94.2**	**93.9**	**94.1**	**94.0**	**94.2**
Heavy Vehicles	**13**	**2**	**15**	**2**	**11**	**13**	**25**	**12**	**37**	**65**
% Heavy Vehicles	**5.7**	**3.8**	**5.3**	**3.7**	**6.4**	**5.8**	**6.1**	**5.9**	**6.0**	**5.8**



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N/S: Mt. Pleasant Street
E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-AAA
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars - Heavy Vehicles

	Mt. Pleasant Street From North		Route 140 SB Ramps From East		Mt. Pleasant Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	180	22	30	69	95	56	452
04:15 PM	120	8	28	61	100	55	372
04:30 PM	119	24	20	71	102	67	403
04:45 PM	68	12	18	52	100	70	320
Total	487	66	96	253	397	248	1547
05:00 PM	121	18	21	53	111	77	401
05:15 PM	84	14	18	62	123	73	374
05:30 PM	68	8	25	59	110	62	332
05:45 PM	76	27	16	50	89	68	326
Total	349	67	80	224	433	280	1433
Grand Total	836	133	176	477	830	528	2980
Apprch %	86.3	13.7	27	73	61.1	38.9	
Total %	28.1	4.5	5.9	16	27.9	17.7	
Cars	821	127	171	459	814	521	2913
% Cars	98.2	95.5	97.2	96.2	98.1	98.7	97.8
Heavy Vehicles	15	6	5	18	16	7	67
% Heavy Vehicles	1.8	4.5	2.8	3.8	1.9	1.3	2.2

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**180**	22	**202**	**30**	69	**99**	95	56	151	**452**
04:15 PM	**120**	**8**	**128**	**28**	**61**	**89**	**100**	**55**	**155**	**372**
04:30 PM	**119**	**24**	143	20	**71**	91	**102**	67	169	403
04:45 PM	68	12	80	18	52	70	100	**70**	**170**	320
Total Volume	487	66	553	96	253	349	397	248	645	1547
% App. Total	88.1	11.9		27.5	72.5		61.6	38.4		
PHF	.676	.688	.684	.800	.891	.881	.973	.886	.949	.856
Cars	478	62	540	93	246	339	388	243	631	1510
% Cars	98.2	93.9	97.6	96.9	97.2	97.1	97.7	98.0	97.8	97.6
Heavy Vehicles	9	4	13	3	7	10	9	5	14	37
% Heavy Vehicles	1.8	6.1	2.4	3.1	2.8	2.9	2.3	2.0	2.2	2.4

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N/S: Mt. Pleasant Street
E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-AAA
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Mt. Pleasant Street From North		Route 140 SB Ramps From East		Mt. Pleasant Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	177	20	29	67	92	55	440
04:15 PM	116	8	26	60	98	54	362
04:30 PM	117	23	20	70	101	67	398
04:45 PM	68	11	18	49	97	67	310
Total	478	62	93	246	388	243	1510
05:00 PM	118	17	20	49	109	75	388
05:15 PM	82	14	18	60	122	73	369
05:30 PM	68	8	25	57	109	62	329
05:45 PM	75	26	15	47	86	68	317
Total	343	65	78	213	426	278	1403
Grand Total	821	127	171	459	814	521	2913
Apprch %	86.6	13.4	27.1	72.9	61	39	
Total %	28.2	4.4	5.9	15.8	27.9	17.9	

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**177**	20	**197**	**29**	67	**96**	92	55	147	**440**
04:15 PM	**116**	**8**	**124**	**26**	**60**	**86**	**98**	**54**	**152**	**362**
04:30 PM	**117**	**23**	140	20	**70**	90	**101**	**67**	**168**	398
04:45 PM	68	11	79	18	49	67	97	67	164	310
Total Volume	478	62	540	93	246	339	388	243	631	1510
% App. Total	88.5	11.5		27.4	72.6		61.5	38.5		
PHF	.675	.674	.685	.802	.879	.883	.960	.907	.939	.858

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E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-AAA
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Mt. Pleasant Street From North		Route 140 SB Ramps From East		Mt. Pleasant Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	3	2	1	2	3	1	12
04:15 PM	4	0	2	1	2	1	10
04:30 PM	2	1	0	1	1	0	5
04:45 PM	0	1	0	3	3	3	10
Total	9	4	3	7	9	5	37
05:00 PM	3	1	1	4	2	2	13
05:15 PM	2	0	0	2	1	0	5
05:30 PM	0	0	0	2	1	0	3
05:45 PM	1	1	1	3	3	0	9
Total	6	2	2	11	7	2	30
Grand Total	15	6	5	18	16	7	67
Apprch %	71.4	28.6	21.7	78.3	69.6	30.4	
Total %	22.4	9	7.5	26.9	23.9	10.4	

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**4**	0	**4**	**2**	1	3	2	1	3	10
04:30 PM	2	**1**	3	0	1	1	1	0	1	5
04:45 PM	0	1	1	0	3	3	**3**	**3**	**6**	10
05:00 PM	3	1	4	1	**4**	**5**	2	2	4	**13**
Total Volume	**9**	**3**	**12**	**3**	**9**	**12**	**8**	**6**	**14**	**38**
% App. Total	**75**	**25**		**25**	**75**		**57.1**	**42.9**		
PHF	**.563**	**.750**	**.750**	**.375**	**.563**	**.600**	**.667**	**.500**	**.583**	**.731**

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E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-AAA
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	1	0	1
04:30 PM	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	1	0	1	0	3
05:00 PM	0	0	0	0	0	0	0	1	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	2	0	0	0	2
Total	0	0	0	0	0	2	0	1	0	3
Grand Total	1	0	0	0	0	3	0	2	0	6
Apprch %	100	0	0	0	0	100	0	100	0	
Total %	16.7	0	0	0	0	50	0	33.3	0	

	Mt. Pleasant Street From North				Route 140 SB Ramps From East				Mt. Pleasant Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	1
04:30 PM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	1	1	0	1	0	1	3
% App. Total	100	0	0		0	0	100		0	100	0		
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250	.750

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E: Route 140 SB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-AAA
Site Code : 10111.31
Start Date : 9/18/2008
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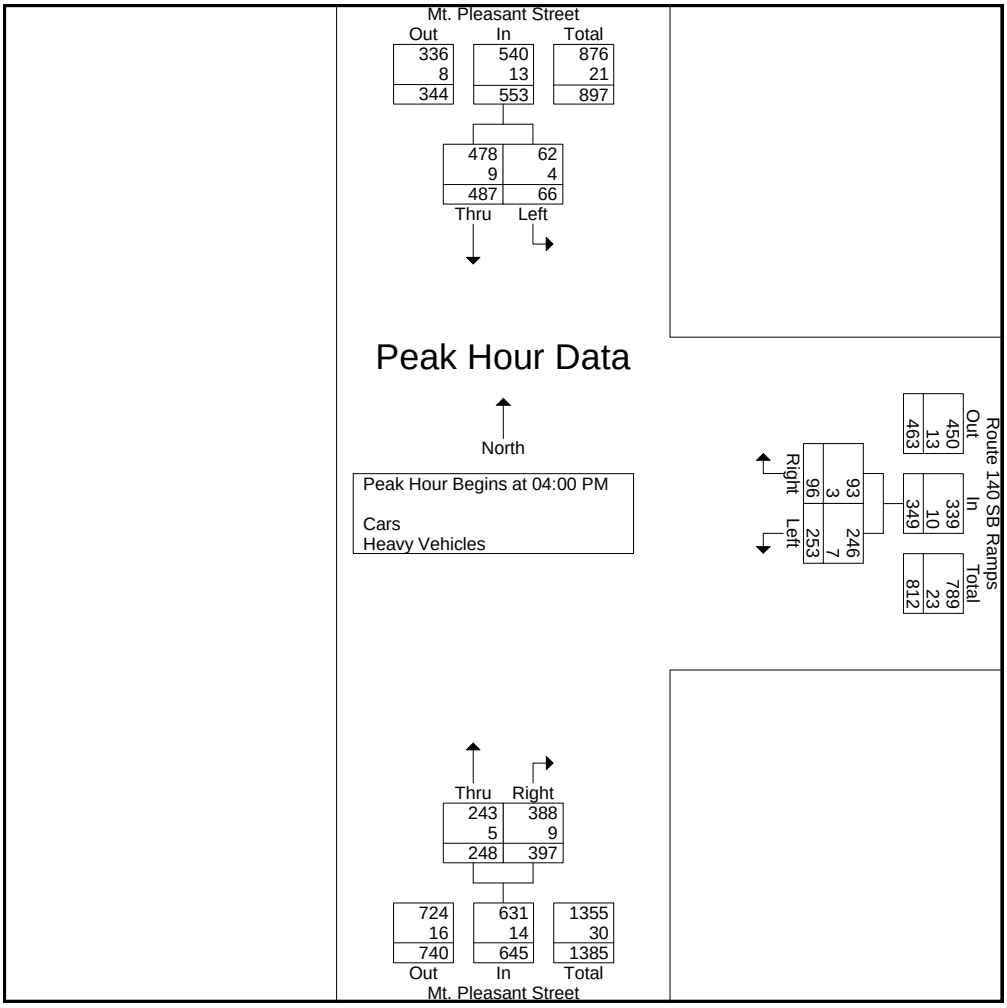
	Mt. Pleasant Street From North			Route 140 SB Ramps From East			Mt. Pleasant Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**180**	22	**202**	**30**	69	**99**	95	56	151	**452**
04:15 PM	**120**	**8**	**128**	**28**	**61**	**89**	**100**	**55**	**155**	**372**
04:30 PM	**119**	**24**	143	20	**71**	91	**102**	67	169	403
04:45 PM	68	12	80	18	52	70	100	**70**	**170**	320
Total Volume	487	66	553	96	253	349	397	248	645	1547
% App. Total	88.1	11.9		27.5	72.5		61.6	38.4		
PHF	.676	.688	.684	.800	.891	.881	.973	.886	.949	.856
Cars	478	62	540	93	246	339	388	243	631	1510
% Cars	98.2	93.9	97.6	96.9	97.2	97.1	97.7	98.0	97.8	97.6
Heavy Vehicles	9	4	13	3	7	10	9	5	14	37
% Heavy Vehicles	1.8	6.1	2.4	3.1	2.8	2.9	2.3	2.0	2.2	2.4



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N: Route 140 NB Ramps
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-B
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	1	0	0	1
Apprch %	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	0	100	0	0	

	Route 140 NB Ramps From North				Kings Highway From East				Kings Highway From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

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N: Route 140 NB Ramps
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-B
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Route 140 NB Ramps From North		Kings Highway From East		Kings Highway From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	3	4	1	12	8	6	34
07:15 AM	4	7	1	11	5	2	30
07:30 AM	1	1	1	4	3	1	11
07:45 AM	1	1	0	10	4	1	17
Total	9	13	3	37	20	10	92
08:00 AM	3	6	0	6	2	2	19
08:15 AM	0	2	0	5	5	2	14
08:30 AM	0	1	0	8	2	1	12
08:45 AM	1	3	1	6	1	2	14
Total	4	12	1	25	10	7	59
Grand Total	13	25	4	62	30	17	151
Apprch %	34.2	65.8	6.1	93.9	63.8	36.2	
Total %	8.6	16.6	2.6	41.1	19.9	11.3	

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	3	4	7	**1**	**12**	**13**	**8**	**6**	**14**	**34**
07:15 AM	**4**	**7**	**11**	1	11	12	5	2	7	30
07:30 AM	1	1	2	1	4	5	3	1	4	11
07:45 AM	1	1	2	0	10	10	4	1	5	17
Total Volume	9	13	22	3	37	40	20	10	30	92
% App. Total	40.9	59.1		7.5	92.5		66.7	33.3		
PHF	.563	.464	.500	.750	.771	.769	.625	.417	.536	.676

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Client: VHB/J. Quitter

File Name : 81676 E-B
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Route 140 NB Ramps From North		Kings Highway From East		Kings Highway From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	25	90	12	132	54	22	335
07:15 AM	25	134	13	137	68	19	396
07:30 AM	12	98	13	165	64	25	377
07:45 AM	29	89	16	167	69	17	387
Total	91	411	54	601	255	83	1495
08:00 AM	15	58	14	131	66	28	312
08:15 AM	18	68	11	146	54	15	312
08:30 AM	29	80	6	138	47	18	318
08:45 AM	24	65	16	138	76	25	344
Total	86	271	47	553	243	86	1286
Grand Total	177	682	101	1154	498	169	2781
Apprch %	20.6	79.4	8	92	74.7	25.3	
Total %	6.4	24.5	3.6	41.5	17.9	6.1	

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	25	90	115	12	132	144	54	22	76	335
07:15 AM	25	**134**	**159**	13	137	150	68	19	87	**396**
07:30 AM	**12**	**98**	**110**	**13**	**165**	**178**	**64**	**25**	**89**	377
07:45 AM	**29**	89	118	**16**	**167**	**183**	**69**	17	86	387
Total Volume	91	411	502	54	601	655	255	83	338	1495
% App. Total	18.1	81.9		8.2	91.8		75.4	24.6		
PHF	.784	.767	.789	.844	.900	.895	.924	.830	.949	.944

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Client: VHB/J. Quitter

File Name : 81676 E-B
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Route 140 NB Ramps From North		Kings Highway From East		Kings Highway From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	28	94	13	144	62	28	369
07:15 AM	29	141	14	148	73	21	426
07:30 AM	13	99	14	169	67	26	388
07:45 AM	30	90	16	177	73	18	404
Total	100	424	57	638	275	93	1587
08:00 AM	18	64	14	137	68	30	331
08:15 AM	18	70	11	151	59	17	326
08:30 AM	29	81	6	146	49	19	330
08:45 AM	25	68	17	144	77	27	358
Total	90	283	48	578	253	93	1345
Grand Total	190	707	105	1216	528	186	2932
Apprch %	21.2	78.8	7.9	92.1	73.9	26.1	
Total %	6.5	24.1	3.6	41.5	18	6.3	
Cars	177	682	101	1154	498	169	2781
% Cars	93.2	96.5	96.2	94.9	94.3	90.9	94.8
Heavy Vehicles	13	25	4	62	30	17	151
% Heavy Vehicles	6.8	3.5	3.8	5.1	5.7	9.1	5.2

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	28	94	122	13	144	157	62	**28**	90	369
07:15 AM	29	**141**	**170**	14	148	162	**73**	21	**94**	**426**
07:30 AM	**13**	**99**	**112**	**14**	**169**	**183**	**67**	**26**	**93**	**388**
07:45 AM	**30**	90	120	**16**	**177**	**193**	73	18	91	404
Total Volume	100	424	524	57	638	695	275	93	368	1587
% App. Total	19.1	80.9		8.2	91.8		74.7	25.3		
PHF	.833	.752	.771	.891	.901	.900	.942	.830	.979	.931
Cars	91	411	502	54	601	655	255	83	338	1495
% Cars	91.0	96.9	95.8	94.7	94.2	94.2	92.7	89.2	91.8	94.2
Heavy Vehicles	9	13	22	3	37	40	20	10	30	92
% Heavy Vehicles	9.0	3.1	4.2	5.3	5.8	5.8	7.3	10.8	8.2	5.8

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E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-B
Site Code : 10111.31
Start Date : 9/18/2008
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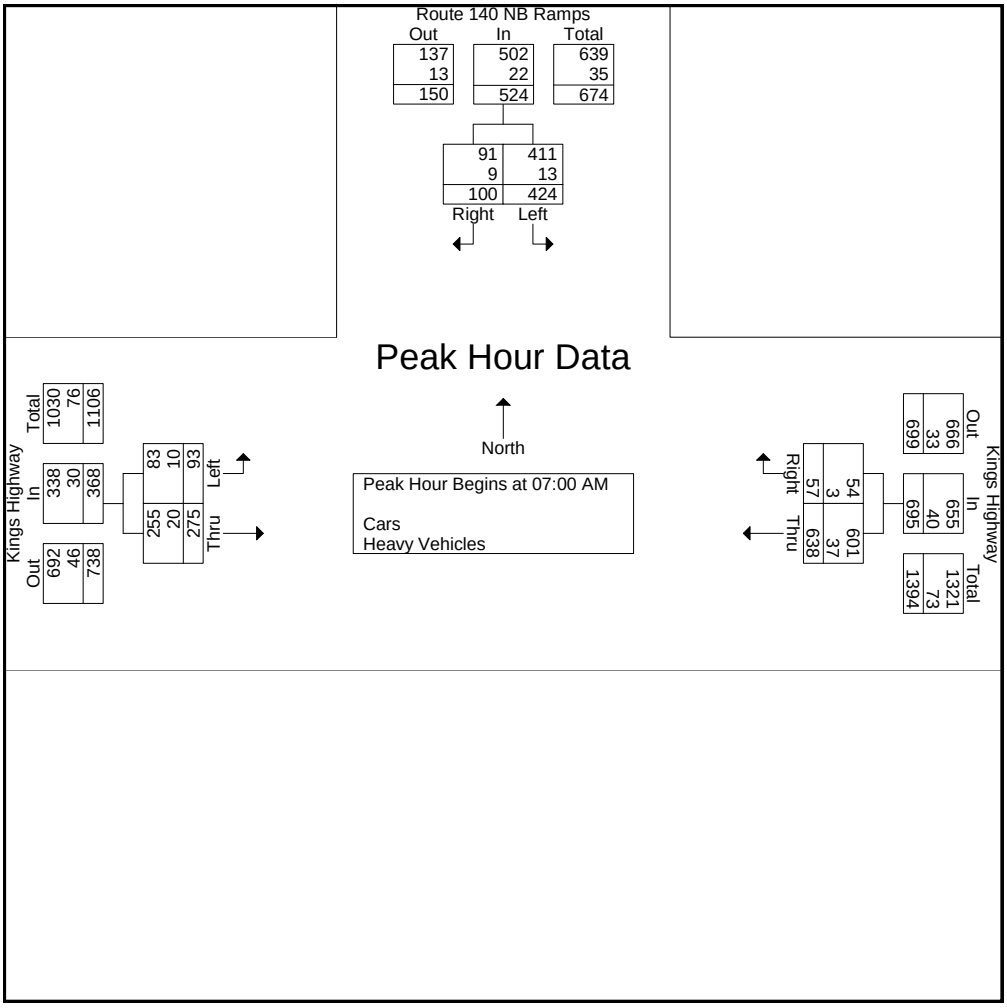
	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	28	94	122	13	144	157	62	**28**	90	369
07:15 AM	29	**141**	**170**	14	148	162	**73**	21	**94**	**426**
07:30 AM	**13**	**99**	**112**	**14**	**169**	**183**	**67**	**26**	**93**	**388**
07:45 AM	**30**	90	120	**16**	**177**	**193**	73	18	91	404
Total Volume	100	424	524	57	638	695	275	93	368	1587
% App. Total	19.1	80.9		8.2	91.8		74.7	25.3		
PHF	.833	.752	.771	.891	.901	.900	.942	.830	.979	.931
Cars	91	411	502	54	601	655	255	83	338	1495
% Cars	91.0	96.9	95.8	94.7	94.2	94.2	92.7	89.2	91.8	94.2
Heavy Vehicles	9	13	22	3	37	40	20	10	30	92
% Heavy Vehicles	9.0	3.1	4.2	5.3	5.8	5.8	7.3	10.8	8.2	5.8



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Client: VHB/J. Quitter

File Name : 81676 E-BBB
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars - Heavy Vehicles

	Route 140 NB Ramps From North		Kings Highway From East		Kings Highway From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	40	111	18	99	107	42	417
04:15 PM	50	119	23	187	154	39	572
04:30 PM	26	120	16	157	138	39	496
04:45 PM	41	116	31	135	97	27	447
Total	157	466	88	578	496	147	1932
05:00 PM	32	129	27	176	143	52	559
05:15 PM	34	127	31	187	111	40	530
05:30 PM	36	126	26	175	107	37	507
05:45 PM	19	113	34	177	133	24	500
Total	121	495	118	715	494	153	2096
Grand Total	278	961	206	1293	990	300	4028
Apprch %	22.4	77.6	13.7	86.3	76.7	23.3	
Total %	6.9	23.9	5.1	32.1	24.6	7.4	
Cars	275	943	199	1269	980	288	3954
% Cars	98.9	98.1	96.6	98.1	99	96	98.2
Heavy Vehicles	3	18	7	24	10	12	74
% Heavy Vehicles	1.1	1.9	3.4	1.9	1	4	1.8

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	32	**129**	161	27	176	203	**143**	**52**	**195**	**559**
05:15 PM	**34**	**127**	**161**	**31**	**187**	**218**	111	40	151	530
05:30 PM	**36**	126	**162**	26	175	201	107	37	144	507
05:45 PM	19	113	132	**34**	177	211	133	24	157	500
Total Volume	121	495	616	118	715	833	494	153	647	2096
% App. Total	19.6	80.4		14.2	85.8		76.4	23.6		
PHF	.840	.959	.951	.868	.956	.955	.864	.736	.829	.937
Cars	118	488	606	115	703	818	489	145	634	2058
% Cars	97.5	98.6	98.4	97.5	98.3	98.2	99.0	94.8	98.0	98.2
Heavy Vehicles	3	7	10	3	12	15	5	8	13	38
% Heavy Vehicles	2.5	1.4	1.6	2.5	1.7	1.8	1.0	5.2	2.0	1.8

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N: Route 140 NB Ramps
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-BBB
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars

	Route 140 NB Ramps From North		Kings Highway From East		Kings Highway From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	40	106	17	96	106	41	406
04:15 PM	50	118	20	184	153	37	562
04:30 PM	26	117	16	154	136	38	487
04:45 PM	41	114	31	132	96	27	441
Total	157	455	84	566	491	143	1896
05:00 PM	30	128	26	170	140	48	542
05:15 PM	34	126	31	187	109	37	524
05:30 PM	36	123	24	172	107	36	498
05:45 PM	18	111	34	174	133	24	494
Total	118	488	115	703	489	145	2058
Grand Total	275	943	199	1269	980	288	3954
Apprch %	22.6	77.4	13.6	86.4	77.3	22.7	
Total %	7	23.8	5	32.1	24.8	7.3	

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	30	**128**	158	26	170	196	**140**	**48**	**188**	**542**
05:15 PM	**34**	**126**	**160**	31	**187**	**218**	109	37	146	524
05:30 PM	**36**	123	159	24	172	196	107	36	143	498
05:45 PM	18	111	129	**34**	174	208	133	24	157	494
Total Volume	118	488	606	115	703	818	489	145	634	2058
% App. Total	19.5	80.5		14.1	85.9		77.1	22.9		
PHF	.819	.953	.947	.846	.940	.938	.873	.755	.843	.949

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E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-BBB
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Route 140 NB Ramps From North		Kings Highway From East		Kings Highway From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	0	5	1	3	1	1	11
04:15 PM	0	1	3	3	1	2	10
04:30 PM	0	3	0	3	2	1	9
04:45 PM	0	2	0	3	1	0	6
Total	0	11	4	12	5	4	36
05:00 PM	2	1	1	6	3	4	17
05:15 PM	0	1	0	0	2	3	6
05:30 PM	0	3	2	3	0	1	9
05:45 PM	1	2	0	3	0	0	6
Total	3	7	3	12	5	8	38
Grand Total	3	18	7	24	10	12	74
Apprch %	14.3	85.7	22.6	77.4	45.5	54.5	
Total %	4.1	24.3	9.5	32.4	13.5	16.2	

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	1	1	**3**	3	6	1	2	3	10
04:30 PM	0	**3**	**3**	0	3	3	2	1	3	9
04:45 PM	0	2	2	0	3	3	1	0	1	6
05:00 PM	**2**	1	3	1	**6**	**7**	**3**	**4**	**7**	**17**
Total Volume	**2**	**7**	**9**	**4**	**15**	**19**	**7**	**7**	**14**	**42**
% App. Total	**22.2**	**77.8**		**21.1**	**78.9**		**50**	**50**		
PHF	**.250**	**.583**	**.750**	**.333**	**.625**	**.679**	**.583**	**.438**	**.500**	**.618**

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E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-BBB
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	1	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	0	1	0	0	2
Apprch %	0	0	0	0	100	0	100	0	0	
Total %	0	0	0	0	50	0	50	0	0	

	Route 140 NB Ramps From North				Kings Highway From East				Kings Highway From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
04:30 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	1	0	0	1	2
% App. Total	0	0	0		0	100	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250	.500

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File Name : 81676 E-BBB
Site Code : 10111.31
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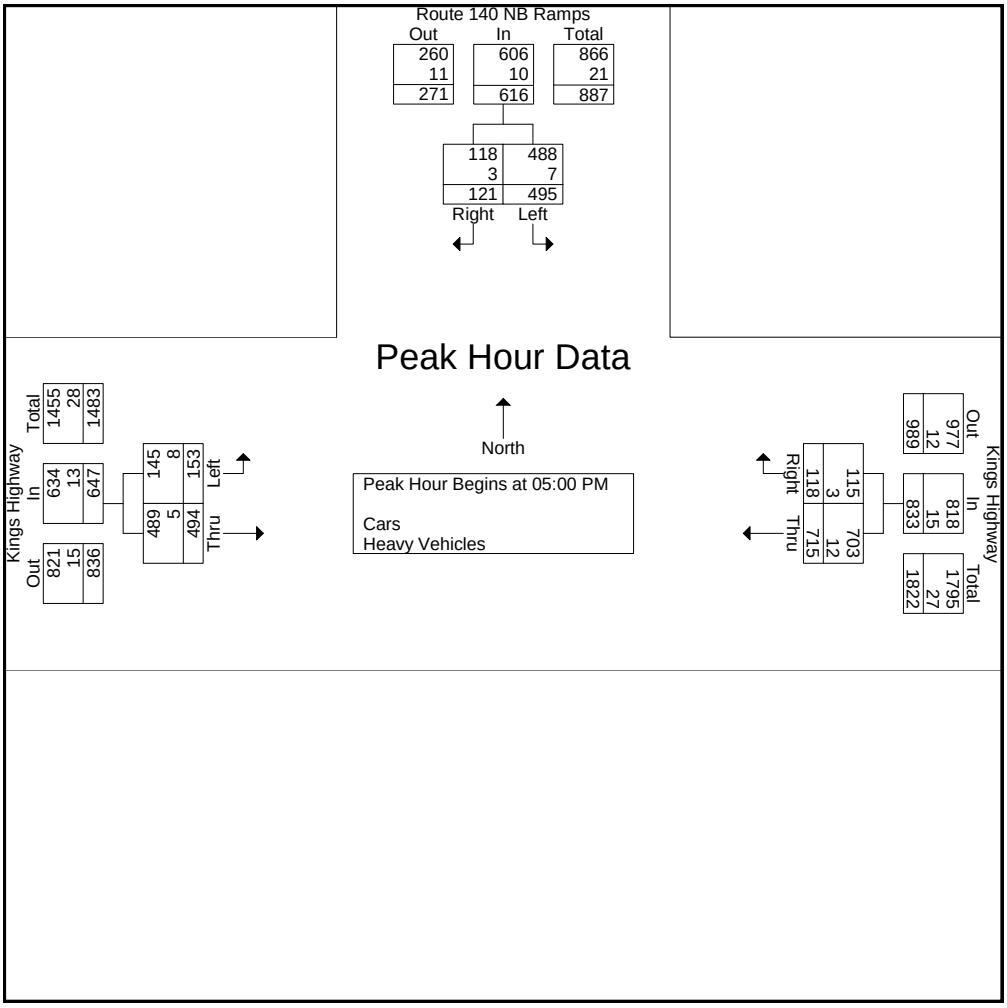
	Route 140 NB Ramps From North			Kings Highway From East			Kings Highway From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	32	**129**	161	27	176	203	**143**	**52**	**195**	**559**
05:15 PM	**34**	**127**	**161**	**31**	**187**	**218**	111	40	151	530
05:30 PM	**36**	126	**162**	26	175	201	107	37	144	507
05:45 PM	19	113	132	**34**	177	211	133	24	157	500
Total Volume	121	495	616	118	715	833	494	153	647	2096
% App. Total	19.6	80.4		14.2	85.8		76.4	23.6		
PHF	.840	.959	.951	.868	.956	.955	.864	.736	.829	.937
Cars	118	488	606	115	703	818	489	145	634	2058
% Cars	97.5	98.6	98.4	97.5	98.3	98.2	99.0	94.8	98.0	98.2
Heavy Vehicles	3	7	10	3	12	15	5	8	13	38
% Heavy Vehicles	2.5	1.4	1.6	2.5	1.7	1.8	1.0	5.2	2.0	1.8



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N/S: Mt Pleasant Street
E/W: Kings Highway/Jones Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-C
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars - Heavy Vehicles

	Mt Pleasant Street From North			Kings Highway From East			Mt Pleasant Street From South			Jones Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	46	53	117	1	44	38	19	0	2	1	0	322
07:15 AM	6	51	40	122	0	50	49	22	2	1	0	2	345
07:30 AM	0	46	48	137	1	34	52	18	1	1	2	2	342
07:45 AM	3	48	46	146	0	42	51	13	0	0	2	0	351
Total	10	191	187	522	2	170	190	72	3	4	5	4	1360
08:00 AM	0	52	51	100	1	28	38	17	0	1	1	0	289
08:15 AM	1	36	26	134	1	51	52	14	2	0	1	0	318
08:30 AM	1	50	28	78	2	30	42	26	0	0	1	1	259
08:45 AM	0	39	36	97	1	47	67	14	1	2	1	0	305
Total	2	177	141	409	5	156	199	71	3	3	4	1	1171
Grand Total	12	368	328	931	7	326	389	143	6	7	9	5	2531
Apprch %	1.7	52	46.3	73.7	0.6	25.8	72.3	26.6	1.1	33.3	42.9	23.8	
Total %	0.5	14.5	13	36.8	0.3	12.9	15.4	5.6	0.2	0.3	0.4	0.2	
Cars	9	333	304	886	6	295	358	123	6	7	8	5	2340
% Cars	75	90.5	92.7	95.2	85.7	90.5	92	86	100	100	88.9	100	92.5
Heavy Vehicles	3	35	24	45	1	31	31	20	0	0	1	0	191
% Heavy Vehicles	25	9.5	7.3	4.8	14.3	9.5	8	14	0	0	11.1	0	7.5

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	46	**53**	**100**	117	**1**	44	162	38	19	0	57	**2**	1	0	3	322
07:15 AM	**6**	**51**	40	97	122	0	**50**	172	49	**22**	**2**	**73**	1	0	**2**	3	345
07:30 AM	0	46	48	94	137	1	34	172	**52**	18	1	71	1	**2**	2	**5**	342
07:45 AM	3	48	46	97	**146**	0	42	**188**	51	13	0	64	0	2	0	2	**351**
Total Volume	10	191	187	388	522	2	170	694	190	72	3	265	4	5	4	13	1360
% App. Total	2.6	49.2	48.2		75.2	0.3	24.5		71.7	27.2	1.1		30.8	38.5	30.8		
PHF	.417	.936	.882	.970	.894	.500	.850	.923	.913	.818	.375	.908	.500	.625	.500	.650	.969
Cars	8	182	171	361	499	2	149	650	171	56	3	230	4	5	4	13	1254
% Cars	80.0	95.3	91.4	93.0	95.6	100	87.6	93.7	90.0	77.8	100	86.8	100	100	100	100	92.2
Heavy Vehicles	2	9	16	27	23	0	21	44	19	16	0	35	0	0	0	0	106
% Heavy Vehicles	20.0	4.7	8.6	7.0	4.4	0	12.4	6.3	10.0	22.2	0	13.2	0	0	0	0	7.8

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N/S: Mt Pleasant Street
E/W: Kings Highway/Jones Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-C
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Mt Pleasant Street From North			Kings Highway From East			Mt Pleasant Street From South			Jones Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	46	47	111	1	36	31	13	0	2	1	0	289
07:15 AM	6	47	36	117	0	43	44	16	2	1	0	2	314
07:30 AM	0	44	44	133	1	32	50	16	1	1	2	2	326
07:45 AM	1	45	44	138	0	38	46	11	0	0	2	0	325
Total	8	182	171	499	2	149	171	56	3	4	5	4	1254
08:00 AM	0	47	47	92	1	27	34	14	0	1	1	0	264
08:15 AM	0	35	24	129	1	48	48	14	2	0	1	0	302
08:30 AM	1	38	28	75	1	28	40	25	0	0	0	1	237
08:45 AM	0	31	34	91	1	43	65	14	1	2	1	0	283
Total	1	151	133	387	4	146	187	67	3	3	3	1	1086
Grand Total	9	333	304	886	6	295	358	123	6	7	8	5	2340
Apprch %	1.4	51.5	47.1	74.6	0.5	24.9	73.5	25.3	1.2	35	40	25	
Total %	0.4	14.2	13	37.9	0.3	12.6	15.3	5.3	0.3	0.3	0.3	0.2	

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	46	**47**	**94**	111	**1**	36	148	31	13	0	44	**2**	1	0	3	289
07:15 AM	**6**	**47**	36	89	117	0	**43**	160	44	**16**	**2**	62	1	0	**2**	3	314
07:30 AM	0	44	44	88	133	1	32	166	**50**	16	1	**67**	1	**2**	2	**5**	**326**
07:45 AM	1	45	44	90	**138**	0	38	**176**	46	11	0	57	0	2	0	2	325
Total Volume	8	182	171	361	499	2	149	650	171	56	3	230	4	5	4	13	1254
% App. Total	2.2	50.4	47.4		76.8	0.3	22.9		74.3	24.3	1.3		30.8	38.5	30.8		
PHF	.333	.968	.910	.960	.904	.500	.866	.923	.855	.875	.375	.858	.500	.625	.500	.650	.962

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Client: VHB/J. Quitter

File Name : 81676 E-C
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Mt Pleasant Street From North			Kings Highway From East			Mt Pleasant Street From South			Jones Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	6	6	0	8	7	6	0	0	0	0	33
07:15 AM	0	4	4	5	0	7	5	6	0	0	0	0	31
07:30 AM	0	2	4	4	0	2	2	2	0	0	0	0	16
07:45 AM	2	3	2	8	0	4	5	2	0	0	0	0	26
Total	2	9	16	23	0	21	19	16	0	0	0	0	106
08:00 AM	0	5	4	8	0	1	4	3	0	0	0	0	25
08:15 AM	1	1	2	5	0	3	4	0	0	0	0	0	16
08:30 AM	0	12	0	3	1	2	2	1	0	0	1	0	22
08:45 AM	0	8	2	6	0	4	2	0	0	0	0	0	22
Total	1	26	8	22	1	10	12	4	0	0	1	0	85
Grand Total	3	35	24	45	1	31	31	20	0	0	1	0	191
Apprch %	4.8	56.5	38.7	58.4	1.3	40.3	60.8	39.2	0	0	100	0	
Total %	1.6	18.3	12.6	23.6	0.5	16.2	16.2	10.5	0	0	0.5	0	

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**6**	6	6	0	**8**	**14**	**7**	**6**	0	**13**	0	0	0	0	**33**
07:15 AM	0	**4**	4	**8**	5	0	7	12	5	6	0	11	0	0	0	0	31
07:30 AM	0	2	4	6	4	0	2	6	2	2	0	4	0	0	0	0	16
07:45 AM	**2**	3	2	7	**8**	0	4	12	5	2	0	7	0	0	0	0	26
Total Volume	2	9	16	27	23	0	21	44	19	16	0	35	0	0	0	0	106
% App. Total	7.4	33.3	59.3		52.3	0	47.7		54.3	45.7	0		0	0	0		
PHF	.250	.563	.667	.844	.719	.000	.656	.786	.679	.667	.000	.673	.000	.000	.000	.000	.803

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Client: VHB/J. Quitter

File Name : 81676 E-C
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4
07:15 AM	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	6
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3
Total	0	2	1	5	0	0	0	0	0	0	0	2	0	0	0	4	14
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
Total	0	1	0	1	1	0	0	0	0	0	0	1	0	0	0	1	5
Grand Total	0	3	1	6	1	0	0	0	0	0	0	3	0	0	0	5	19
Apprch %	0	30	10	60	100	0	0	0	0	0	0	100	0	0	0	100	
Total %	0	15.8	5.3	31.6	5.3	0	0	0	0	0	0	15.8	0	0	0	26.3	

	Mt Pleasant Street From North					Kings Highway From East					Mt Pleasant Street From South					Jones Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	**2**	**2**	4
07:15 AM	0	**2**	0	**3**	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	**6**
07:30 AM	0	0	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
07:45 AM	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**3**
Total Volume	0	2	1	5	8	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4	14
% App. Total	0	25	12.5	62.5		0	0	0	0		0	0	0	100		0	0	0	100		
PHF	.000	.250	.250	.417	.400	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.500	.500	.583

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E/W: Kings Highway/Jones Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-C
Site Code : 10111.31
Start Date : 9/18/2008
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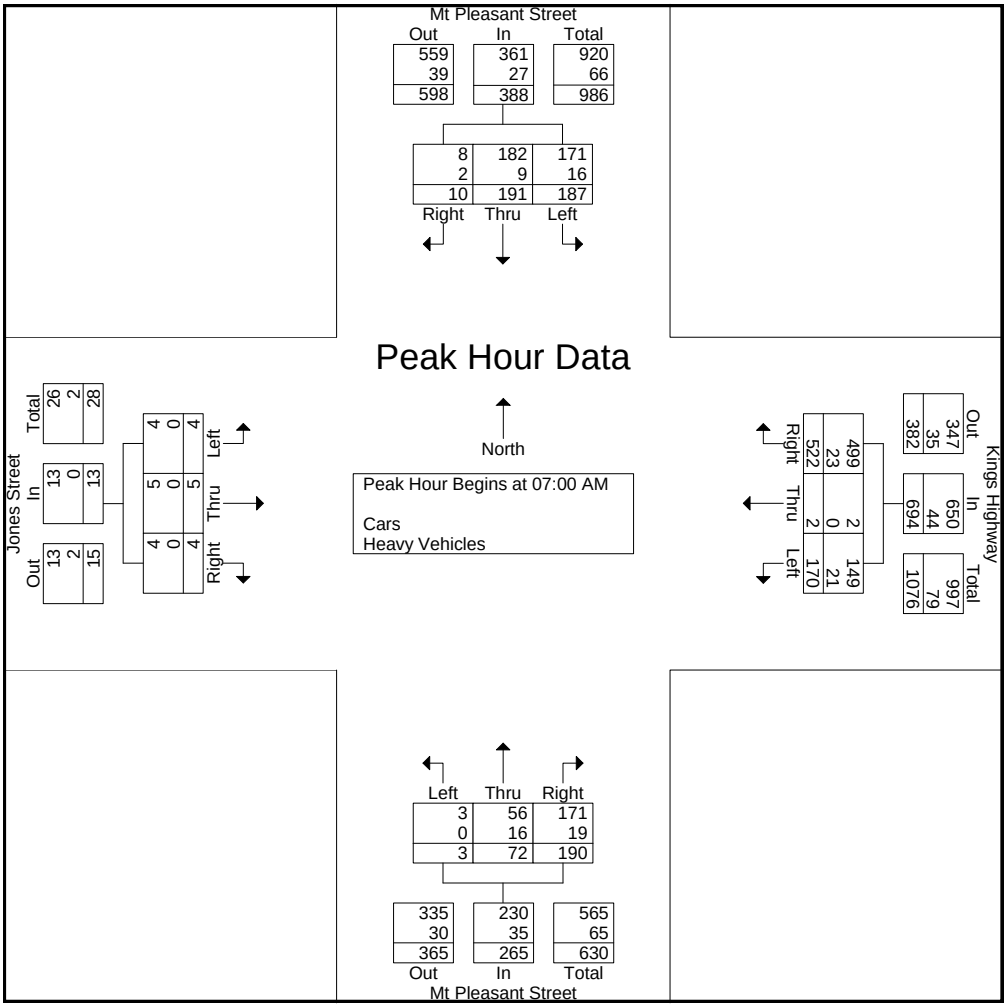
	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	46	**53**	**100**	117	**1**	44	162	38	19	0	57	**2**	1	0	3	322
07:15 AM	**6**	**51**	40	97	122	0	**50**	172	49	**22**	**2**	**73**	1	0	**2**	3	345
07:30 AM	0	46	48	94	137	1	34	172	**52**	18	1	71	1	**2**	2	**5**	342
07:45 AM	3	48	46	97	**146**	0	42	**188**	51	13	0	64	0	2	0	2	**351**
Total Volume	10	191	187	388	522	2	170	694	190	72	3	265	4	5	4	13	1360
% App. Total	2.6	49.2	48.2		75.2	0.3	24.5		71.7	27.2	1.1		30.8	38.5	30.8		
PHF	.417	.936	.882	.970	.894	.500	.850	.923	.913	.818	.375	.908	.500	.625	.500	.650	.969
Cars	8	182	171	361	499	2	149	650	171	56	3	230	4	5	4	13	1254
% Cars	80.0	95.3	91.4	93.0	95.6	100	87.6	93.7	90.0	77.8	100	86.8	100	100	100	100	92.2
Heavy Vehicles	2	9	16	27	23	0	21	44	19	16	0	35	0	0	0	0	106
% Heavy Vehicles	20.0	4.7	8.6	7.0	4.4	0	12.4	6.3	10.0	22.2	0	13.2	0	0	0	0	7.8



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City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-CCC
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	2	0	1	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	1	0	0	1	0	0	2	0	1	0	0	0	0	5
Apprch %	0	0	0	100	0	0	100	0	0	66.7	0	33.3	0	0	0	0	
Total %	0	0	0	20	0	0	20	0	0	40	0	20	0	0	0	0	

	Mt Pleasant Street From North					Kings Highway From East					Mt Pleasant Street From South					Jones Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	**1**	**0**	**1**	0	**1**	**0**	**1**	**2**	0	0	0	0	0	**3**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	1	0	1	0	2	0	1	3	0	0	0	0	0	4
% App. Total	0	0	0	0		0	0	100	0		0	66.7	0	33.3		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.500	.000	.250	.375	.000	.000	.000	.000	.000	.333

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File Name : 81676 E-CCC
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Groups Printed- Heavy Vehicles

	Mt Pleasant Street From North			Kings Highway From East			Mt Pleasant Street From South			Jones Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	6	0	4	0	1	3	1	0	0	0	0	15
04:15 PM	0	5	1	3	0	2	3	1	0	0	0	0	15
04:30 PM	0	2	2	1	0	3	1	0	0	0	0	0	9
04:45 PM	0	3	1	4	0	0	2	1	0	0	0	0	11
Total	0	16	4	12	0	6	9	3	0	0	0	0	50
05:00 PM	0	5	3	3	0	3	3	1	0	0	0	0	18
05:15 PM	0	3	2	1	0	0	1	1	0	0	0	0	8
05:30 PM	0	2	0	1	0	1	2	0	0	0	0	0	6
05:45 PM	0	3	0	3	0	3	1	2	0	0	0	0	12
Total	0	13	5	8	0	7	7	4	0	0	0	0	44
Grand Total	0	29	9	20	0	13	16	7	0	0	0	0	94
Apprch %	0	76.3	23.7	60.6	0	39.4	69.6	30.4	0	0	0	0	
Total %	0	30.9	9.6	21.3	0	13.8	17	7.4	0	0	0	0	

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**5**	1	6	3	0	2	5	**3**	**1**	0	**4**	0	0	0	0	15
04:30 PM	0	2	2	4	1	0	**3**	4	1	0	0	1	0	0	0	0	9
04:45 PM	0	3	1	4	**4**	0	0	4	2	1	0	3	0	0	0	0	11
05:00 PM	0	5	**3**	**8**	3	0	3	**6**	3	1	0	4	0	0	0	0	**18**
Total Volume	0	15	7	22	11	0	8	19	9	3	0	12	0	0	0	0	53
% App. Total	0	68.2	31.8		57.9	0	42.1		75	25	0		0	0	0		
PHF	.000	.750	.583	.688	.688	.000	.667	.792	.750	.750	.000	.750	.000	.000	.000	.000	.736

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File Name : 81676 E-CCC
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Groups Printed- Cars

	Mt Pleasant Street From North			Kings Highway From East			Mt Pleasant Street From South			Jones Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	98	150	96	1	68	91	39	1	3	0	1	549
04:15 PM	0	76	101	114	1	72	101	35	1	0	0	0	501
04:30 PM	0	70	108	124	1	63	98	38	1	1	0	2	506
04:45 PM	0	54	55	122	4	59	97	38	2	2	1	3	437
Total	1	298	414	456	7	262	387	150	5	6	1	6	1993
05:00 PM	0	54	118	135	2	59	99	39	2	1	3	1	513
05:15 PM	2	65	80	149	0	79	100	35	2	2	0	2	516
05:30 PM	2	53	68	138	3	62	72	25	0	3	0	2	428
05:45 PM	1	50	66	131	0	73	97	26	0	0	4	0	448
Total	5	222	332	553	5	273	368	125	4	6	7	5	1905
Grand Total	6	520	746	1009	12	535	755	275	9	12	8	11	3898
Apprch %	0.5	40.9	58.6	64.8	0.8	34.4	72.7	26.5	0.9	38.7	25.8	35.5	
Total %	0.2	13.3	19.1	25.9	0.3	13.7	19.4	7.1	0.2	0.3	0.2	0.3	

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**98**	**150**	**249**	96	1	68	165	91	**39**	1	131	**3**	0	1	4	**549**
04:15 PM	0	76	101	177	114	1	**72**	187	**101**	35	1	**137**	0	0	0	0	501
04:30 PM	0	70	108	178	**124**	1	63	**188**	98	38	1	137	1	0	2	3	506
04:45 PM	0	54	55	109	122	**4**	59	185	97	38	**2**	137	2	**1**	**3**	**6**	437
Total Volume	1	298	414	713	456	7	262	725	387	150	5	542	6	1	6	13	1993
% App. Total	0.1	41.8	58.1		62.9	1	36.1		71.4	27.7	0.9		46.2	7.7	46.2		
PHF	.250	.760	.690	.716	.919	.438	.910	.964	.958	.962	.625	.989	.500	.250	.500	.542	.908

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N/S: Mt Pleasant Street
E/W: Kings Highway/Jones Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-CCC
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Mt Pleasant Street From North			Kings Highway From East			Mt Pleasant Street From South			Jones Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	104	150	100	1	69	94	40	1	3	0	1	564
04:15 PM	0	81	102	117	1	74	104	36	1	0	0	0	516
04:30 PM	0	72	110	125	1	66	99	38	1	1	0	2	515
04:45 PM	0	57	56	126	4	59	99	39	2	2	1	3	448
Total	1	314	418	468	7	268	396	153	5	6	1	6	2043
05:00 PM	0	59	121	138	2	62	102	40	2	1	3	1	531
05:15 PM	2	68	82	150	0	79	101	36	2	2	0	2	524
05:30 PM	2	55	68	139	3	63	74	25	0	3	0	2	434
05:45 PM	1	53	66	134	0	76	98	28	0	0	4	0	460
Total	5	235	337	561	5	280	375	129	4	6	7	5	1949
Grand Total	6	549	755	1029	12	548	771	282	9	12	8	11	3992
Apprch %	0.5	41.9	57.6	64.8	0.8	34.5	72.6	26.6	0.8	38.7	25.8	35.5	
Total %	0.2	13.8	18.9	25.8	0.3	13.7	19.3	7.1	0.2	0.3	0.2	0.3	
Cars	6	520	746	1009	12	535	755	275	9	12	8	11	3898
% Cars	100	94.7	98.8	98.1	100	97.6	97.9	97.5	100	100	100	100	97.6
Heavy Vehicles	0	29	9	20	0	13	16	7	0	0	0	0	94
% Heavy Vehicles	0	5.3	1.2	1.9	0	2.4	2.1	2.5	0	0	0	0	2.4

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**104**	**150**	**255**	100	1	69	170	94	**40**	1	135	**3**	0	1	4	**564**
04:15 PM	0	81	102	183	117	1	**74**	**192**	**104**	36	1	**141**	0	0	0	0	516
04:30 PM	0	72	110	182	125	1	66	192	99	38	1	138	1	0	2	3	515
04:45 PM	0	57	56	113	**126**	**4**	59	189	99	39	**2**	140	2	**1**	**3**	**6**	448
Total Volume	1	314	418	733	468	7	268	743	396	153	5	554	6	1	6	13	2043
% App. Total	0.1	42.8	57		63	0.9	36.1		71.5	27.6	0.9		46.2	7.7	46.2		
PHF	.250	.755	.697	.719	.929	.438	.905	.967	.952	.956	.625	.982	.500	.250	.500	.542	.906
Cars	1	298	414	713	456	7	262	725	387	150	5	542	6	1	6	13	1993
% Cars	100	94.9	99.0	97.3	97.4	100	97.8	97.6	97.7	98.0	100	97.8	100	100	100	100	97.6
Heavy Vehicles	0	16	4	20	12	0	6	18	9	3	0	12	0	0	0	0	50
% Heavy Vehicles	0	5.1	1.0	2.7	2.6	0	2.2	2.4	2.3	2.0	0	2.2	0	0	0	0	2.4

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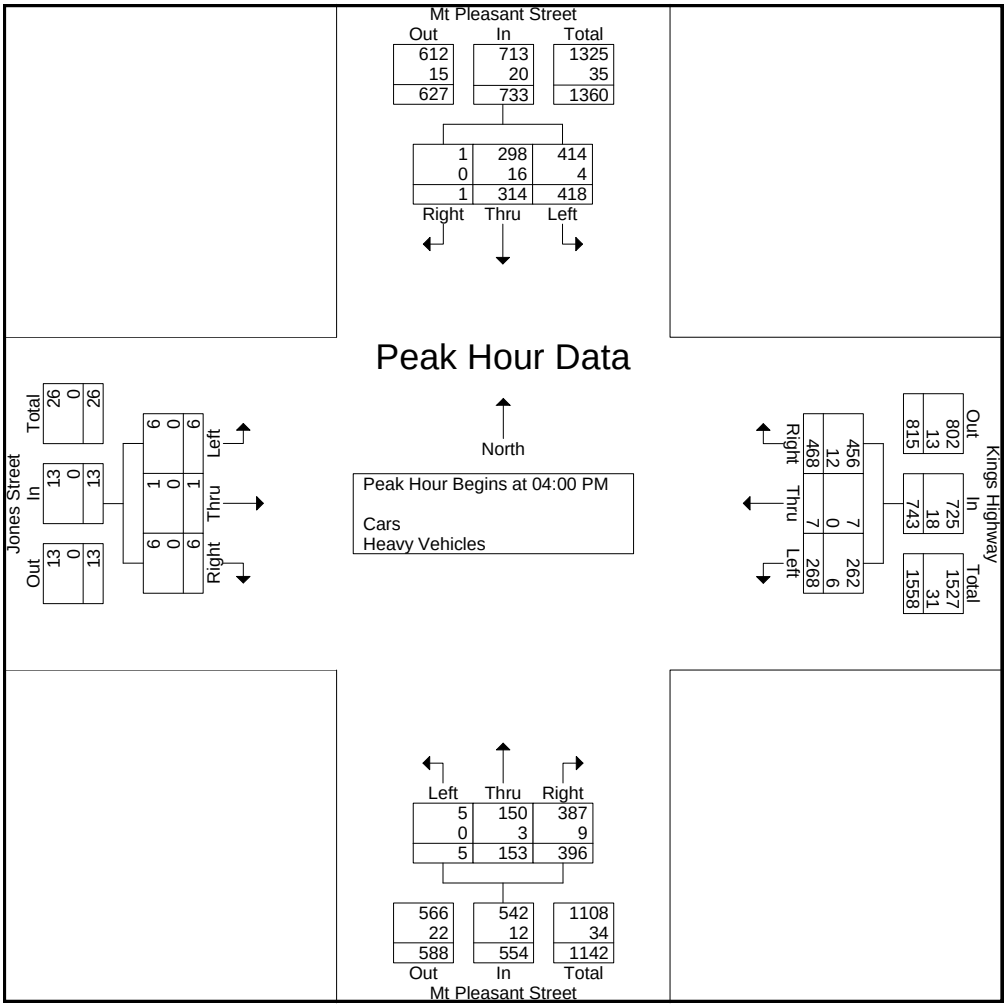
N/S: Mt Pleasant Street
E/W: Kings Highway/Jones Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-CCC
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Mt Pleasant Street From North				Kings Highway From East				Mt Pleasant Street From South				Jones Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**104**	**150**	**255**	100	1	69	170	94	**40**	1	135	**3**	0	1	4	**564**
04:15 PM	0	81	102	183	117	1	**74**	**192**	**104**	36	1	**141**	0	0	0	0	516
04:30 PM	0	72	110	182	125	1	66	192	99	38	1	138	1	0	2	3	515
04:45 PM	0	57	56	113	**126**	**4**	59	189	99	39	**2**	140	2	**1**	**3**	**6**	448
Total Volume	1	314	418	733	468	7	268	743	396	153	5	554	6	1	6	13	2043
% App. Total	0.1	42.8	57		63	0.9	36.1		71.5	27.6	0.9		46.2	7.7	46.2		
PHF	.250	.755	.697	.719	.929	.438	.905	.967	.952	.956	.625	.982	.500	.250	.500	.542	.906
Cars	1	298	414	713	456	7	262	725	387	150	5	542	6	1	6	13	1993
% Cars	100	94.9	99.0	97.3	97.4	100	97.8	97.6	97.7	98.0	100	97.8	100	100	100	100	97.6
Heavy Vehicles	0	16	4	20	12	0	6	18	9	3	0	12	0	0	0	0	50
% Heavy Vehicles	0	5.1	1.0	2.7	2.6	0	2.2	2.4	2.3	2.0	0	2.2	0	0	0	0	2.4



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N/S: Ashley Boulevard (Route 18)
E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-E
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Wood Street From East			Ashley Boulevard (Route 18) From South			Wood Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	74	7	17	21	10	3	112	2	1	12	3	267
07:15 AM	0	106	21	14	28	12	2	113	2	0	14	10	322
07:30 AM	3	123	7	13	28	29	10	126	4	1	22	7	373
07:45 AM	4	87	17	11	36	28	12	85	2	3	16	7	308
Total	12	390	52	55	113	79	27	436	10	5	64	27	1270
08:00 AM	5	103	10	14	28	8	13	67	2	3	26	7	286
08:15 AM	5	80	18	6	23	13	23	72	5	1	19	8	273
08:30 AM	3	83	13	9	26	6	10	58	1	2	15	4	230
08:45 AM	7	74	8	14	23	10	5	50	0	2	14	3	210
Total	20	340	49	43	100	37	51	247	8	8	74	22	999
Grand Total	32	730	101	98	213	116	78	683	18	13	138	49	2269
Apprch %	3.7	84.6	11.7	23	49.9	27.2	10	87.7	2.3	6.5	69	24.5	
Total %	1.4	32.2	4.5	4.3	9.4	5.1	3.4	30.1	0.8	0.6	6.1	2.2	
Cars	32	693	98	95	201	113	72	659	18	11	129	49	2170
% Cars	100	94.9	97	96.9	94.4	97.4	92.3	96.5	100	84.6	93.5	100	95.6
Heavy Vehicles	0	37	3	3	12	3	6	24	0	2	9	0	99
% Heavy Vehicles	0	5.1	3	3.1	5.6	2.6	7.7	3.5	0	15.4	6.5	0	4.4

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	106	**21**	127	**14**	28	12	54	2	113	2	117	0	14	**10**	24	322
07:30 AM	3	**123**	7	**133**	13	28	**29**	70	10	**126**	**4**	**140**	1	22	7	30	**373**
07:45 AM	4	87	17	108	11	**36**	28	**75**	12	85	2	99	**3**	16	7	26	308
08:00 AM	**5**	103	10	118	14	28	8	50	**13**	67	2	82	3	**26**	7	**36**	286
Total Volume	12	419	55	486	52	120	77	249	37	391	10	438	7	78	31	116	1289
% App. Total	2.5	86.2	11.3		20.9	48.2	30.9		8.4	89.3	2.3		6	67.2	26.7		
PHF	.600	.852	.655	.914	.929	.833	.664	.830	.712	.776	.625	.782	.583	.750	.775	.806	.864
Cars	12	396	53	461	51	112	75	238	32	381	10	423	5	71	31	107	1229
% Cars	100	94.5	96.4	94.9	98.1	93.3	97.4	95.6	86.5	97.4	100	96.6	71.4	91.0	100	92.2	95.3
Heavy Vehicles	0	23	2	25	1	8	2	11	5	10	0	15	2	7	0	9	60
% Heavy Vehicles	0	5.5	3.6	5.1	1.9	6.7	2.6	4.4	13.5	2.6	0	3.4	28.6	9.0	0	7.8	4.7

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N/S: Ashley Boulevard (Route 18)
E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-E
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Ashley Boulevard (Route 18) From North			Wood Street From East			Ashley Boulevard (Route 18) From South			Wood Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	69	7	16	18	10	3	105	2	1	12	3	251
07:15 AM	0	99	19	13	24	11	1	111	2	0	13	10	303
07:30 AM	3	118	7	13	28	29	8	124	4	0	20	7	361
07:45 AM	4	83	17	11	33	27	11	81	2	3	15	7	294
Total	12	369	50	53	103	77	23	421	10	4	60	27	1209
08:00 AM	5	96	10	14	27	8	12	65	2	2	23	7	271
08:15 AM	5	77	18	6	22	12	22	70	5	1	17	8	263
08:30 AM	3	82	13	8	26	6	10	54	1	2	15	4	224
08:45 AM	7	69	7	14	23	10	5	49	0	2	14	3	203
Total	20	324	48	42	98	36	49	238	8	7	69	22	961
Grand Total	32	693	98	95	201	113	72	659	18	11	129	49	2170
Apprch %	3.9	84.2	11.9	23.2	49.1	27.6	9.6	88	2.4	5.8	68.3	25.9	
Total %	1.5	31.9	4.5	4.4	9.3	5.2	3.3	30.4	0.8	0.5	5.9	2.3	

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	99	**19**	118	13	24	11	48	1	111	2	114	0	13	**10**	23	303
07:30 AM	3	**118**	7	**128**	13	28	**29**	70	8	**124**	**4**	**136**	0	20	7	27	**361**
07:45 AM	4	83	17	104	11	**33**	27	**71**	11	81	2	94	**3**	15	7	25	294
08:00 AM	**5**	96	10	111	**14**	27	8	49	**12**	65	2	79	2	**23**	7	**32**	271
Total Volume	12	396	53	461	51	112	75	238	32	381	10	423	5	71	31	107	1229
% App. Total	2.6	85.9	11.5		21.4	47.1	31.5		7.6	90.1	2.4		4.7	66.4	29		
PHF	.600	.839	.697	.900	.911	.848	.647	.838	.667	.768	.625	.778	.417	.772	.775	.836	.851

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File Name : 81676 E-E
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Wood Street From East			Ashley Boulevard (Route 18) From South			Wood Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	5	0	1	3	0	0	7	0	0	0	0	16
07:15 AM	0	7	2	1	4	1	1	2	0	0	1	0	19
07:30 AM	0	5	0	0	0	0	2	2	0	1	2	0	12
07:45 AM	0	4	0	0	3	1	1	4	0	0	1	0	14
Total	0	21	2	2	10	2	4	15	0	1	4	0	61
08:00 AM	0	7	0	0	1	0	1	2	0	1	3	0	15
08:15 AM	0	3	0	0	1	1	1	2	0	0	2	0	10
08:30 AM	0	1	0	1	0	0	0	4	0	0	0	0	6
08:45 AM	0	5	1	0	0	0	0	1	0	0	0	0	7
Total	0	16	1	1	2	1	2	9	0	1	5	0	38
Grand Total	0	37	3	3	12	3	6	24	0	2	9	0	99
Apprch %	0	92.5	7.5	16.7	66.7	16.7	20	80	0	18.2	81.8	0	
Total %	0	37.4	3	3	12.1	3	6.1	24.2	0	2	9.1	0	

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	5	0	5	**1**	3	0	4	0	**7**	0	**7**	0	0	0	0	16
07:15 AM	0	**7**	**2**	**9**	1	**4**	**1**	**6**	1	2	0	3	0	1	0	1	**19**
07:30 AM	0	5	0	5	0	0	0	0	**2**	2	0	4	**1**	**2**	0	**3**	12
07:45 AM	0	4	0	4	0	3	1	4	1	4	0	5	0	1	0	1	14
Total Volume	0	21	2	23	2	10	2	14	4	15	0	19	1	4	0	5	61
% App. Total	0	91.3	8.7		14.3	71.4	14.3		21.1	78.9	0		20	80	0		
PHF	.000	.750	.250	.639	.500	.625	.500	.583	.500	.536	.000	.679	.250	.500	.000	.417	.803

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Client: VHB/J. Quitter

File Name : 81676 E-E
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	6	0	1	0	1	0	0	0	0	8
07:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	8
07:30 AM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8
07:45 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3	5
Total	0	0	0	1	0	0	0	19	0	1	0	1	0	0	0	7	29
08:00 AM	0	2	0	0	0	0	0	4	0	0	0	0	0	0	0	4	10
08:15 AM	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5	10
08:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	5
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
Total	0	2	0	0	0	0	0	11	1	0	0	0	0	0	0	14	28
Grand Total	0	2	0	1	0	0	0	30	1	1	0	1	0	0	0	21	57
Apprch %	0	66.7	0	33.3	0	0	0	100	33.3	33.3	0	33.3	0	0	0	100	
Total %	0	3.5	0	1.8	0	0	0	52.6	1.8	1.8	0	1.8	0	0	0	36.8	

	Ashley Boulevard (Route 18) From North					Wood Street From East					Ashley Boulevard (Route 18) From South					Wood Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	0	0	**8**	**8**	0	0	0	0	0	0	0	0	0	0	8
07:45 AM	0	0	0	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**5**
08:00 AM	**0**	**2**	0	0	**2**	0	0	0	4	4	0	0	0	0	0	0	0	0	4	4	**10**
08:15 AM	0	0	0	0	0	0	0	0	4	4	**1**	**0**	**0**	**0**	**1**	0	0	0	**5**	**5**	10
Total Volume	0	2	0	1	3	0	0	0	17	17	1	0	0	0	1	0	0	0	12	12	33
% App. Total	0	66.7	0	33.3		0	0	0	100		100	0	0	0		0	0	0	100		
PHF	.000	.250	.000	.250	.375	.000	.000	.000	.531	.531	.250	.000	.000	.000	.250	.000	.000	.000	.600	.600	.825

PRECISION DATA INDUSTRIES, LLC
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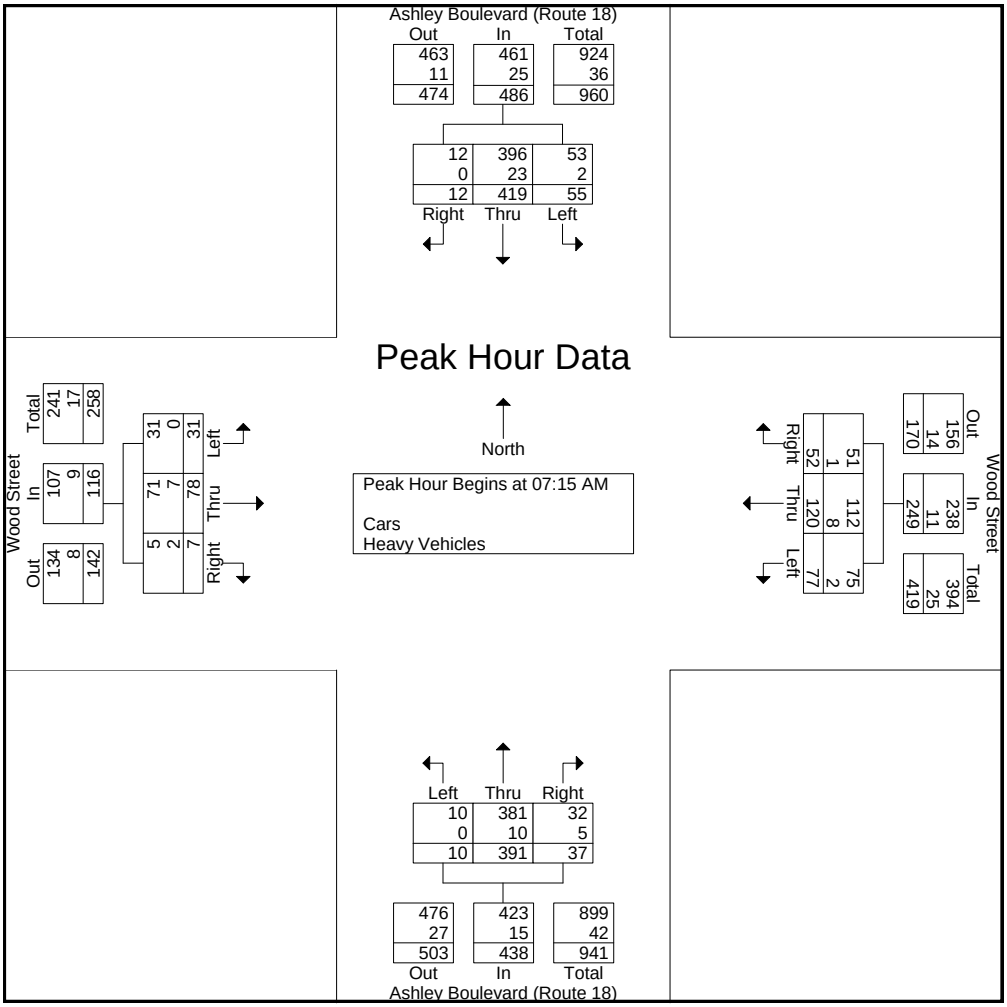
N/S: Ashley Boulevard (Route 18)
E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-E
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	106	**21**	127	**14**	28	12	54	2	113	2	117	0	14	**10**	24	322
07:30 AM	3	**123**	7	**133**	13	28	**29**	70	10	**126**	**4**	**140**	1	22	7	30	**373**
07:45 AM	4	87	17	108	11	**36**	28	**75**	12	85	2	99	**3**	16	7	26	308
08:00 AM	**5**	103	10	118	14	28	8	50	**13**	67	2	82	3	**26**	7	**36**	286
Total Volume	12	419	55	486	52	120	77	249	37	391	10	438	7	78	31	116	1289
% App. Total	2.5	86.2	11.3		20.9	48.2	30.9		8.4	89.3	2.3		6	67.2	26.7		
PHF	.600	.852	.655	.914	.929	.833	.664	.830	.712	.776	.625	.782	.583	.750	.775	.806	.864
Cars	12	396	53	461	51	112	75	238	32	381	10	423	5	71	31	107	1229
% Cars	100	94.5	96.4	94.9	98.1	93.3	97.4	95.6	86.5	97.4	100	96.6	71.4	91.0	100	92.2	95.3
Heavy Vehicles	0	23	2	25	1	8	2	11	5	10	0	15	2	7	0	9	60
% Heavy Vehicles	0	5.5	3.6	5.1	1.9	6.7	2.6	4.4	13.5	2.6	0	3.4	28.6	9.0	0	7.8	4.7



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N/S: Ashley Boulevard (Route 18)
E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-EEE
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Wood Street From East			Ashley Boulevard (Route 18) From South			Wood Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	4	121	31	9	30	13	18	110	4	4	39	6	389
04:15 PM	3	143	38	10	24	16	10	87	4	3	38	3	379
04:30 PM	5	120	16	9	28	6	14	80	3	0	40	3	324
04:45 PM	4	124	23	7	18	12	9	92	5	5	35	4	338
Total	16	508	108	35	100	47	51	369	16	12	152	16	1430
05:00 PM	0	119	18	15	22	14	17	80	6	3	36	6	336
05:15 PM	0	126	24	10	33	16	15	104	6	4	39	3	380
05:30 PM	2	144	25	9	17	23	27	91	7	4	28	5	382
05:45 PM	2	132	25	10	21	16	23	68	4	3	26	3	333
Total	4	521	92	44	93	69	82	343	23	14	129	17	1431
Grand Total	20	1029	200	79	193	116	133	712	39	26	281	33	2861
Apprch %	1.6	82.4	16	20.4	49.7	29.9	15	80.5	4.4	7.6	82.6	9.7	
Total %	0.7	36	7	2.8	6.7	4.1	4.6	24.9	1.4	0.9	9.8	1.2	
Cars	20	1008	197	78	188	115	130	693	39	26	276	32	2802
% Cars	100	98	98.5	98.7	97.4	99.1	97.7	97.3	100	100	98.2	97	97.9
Heavy Vehicles	0	21	3	1	5	1	3	19	0	0	5	1	59
% Heavy Vehicles	0	2	1.5	1.3	2.6	0.9	2.3	2.7	0	0	1.8	3	2.1

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	124	23	151	7	18	12	37	9	92	5	106	**5**	35	4	44	338
05:00 PM	0	119	18	137	**15**	22	14	51	17	80	6	103	3	36	**6**	45	336
05:15 PM	0	126	24	150	10	**33**	16	**59**	15	**104**	6	**125**	4	**39**	3	**46**	380
05:30 PM	2	**144**	**25**	**171**	9	17	**23**	49	**27**	91	**7**	125	4	28	5	37	**382**
Total Volume	6	513	90	609	41	90	65	196	68	367	24	459	16	138	18	172	1436
% App. Total	1	84.2	14.8		20.9	45.9	33.2		14.8	80	5.2		9.3	80.2	10.5		
PHF	.375	.891	.900	.890	.683	.682	.707	.831	.630	.882	.857	.918	.800	.885	.750	.935	.940
Cars	6	503	87	596	40	88	64	192	65	359	24	448	16	135	17	168	1404
% Cars	100	98.1	96.7	97.9	97.6	97.8	98.5	98.0	95.6	97.8	100	97.6	100	97.8	94.4	97.7	97.8
Heavy Vehicles	0	10	3	13	1	2	1	4	3	8	0	11	0	3	1	4	32
% Heavy Vehicles	0	1.9	3.3	2.1	2.4	2.2	1.5	2.0	4.4	2.2	0	2.4	0	2.2	5.6	2.3	2.2

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N/S: Ashley Boulevard (Route 18)
E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-EEE
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Ashley Boulevard (Route 18) From North			Wood Street From East			Ashley Boulevard (Route 18) From South			Wood Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	4	115	31	9	30	13	18	106	4	4	38	6	378
04:15 PM	3	140	38	10	23	16	10	84	4	3	38	3	372
04:30 PM	5	119	16	9	27	6	14	78	3	0	39	3	319
04:45 PM	4	123	22	7	17	12	8	91	5	5	35	4	333
Total	16	497	107	35	97	47	50	359	16	12	150	16	1402
05:00 PM	0	117	18	15	22	13	17	77	6	3	36	5	329
05:15 PM	0	122	22	10	32	16	15	103	6	4	37	3	370
05:30 PM	2	141	25	8	17	23	25	88	7	4	27	5	372
05:45 PM	2	131	25	10	20	16	23	66	4	3	26	3	329
Total	4	511	90	43	91	68	80	334	23	14	126	16	1400
Grand Total	20	1008	197	78	188	115	130	693	39	26	276	32	2802
Apprch %	1.6	82.3	16.1	20.5	49.3	30.2	15.1	80.4	4.5	7.8	82.6	9.6	
Total %	0.7	36	7	2.8	6.7	4.1	4.6	24.7	1.4	0.9	9.9	1.1	

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	123	22	149	7	17	12	36	8	91	5	104	**5**	35	4	**44**	333
05:00 PM	0	117	18	135	**15**	22	13	50	17	77	6	100	3	36	**5**	44	329
05:15 PM	0	122	22	144	10	**32**	16	**58**	15	**103**	6	**124**	4	**37**	3	44	370
05:30 PM	2	**141**	**25**	**168**	8	17	**23**	48	**25**	88	**7**	120	4	27	5	36	**372**
Total Volume	6	503	87	596	40	88	64	192	65	359	24	448	16	135	17	168	1404
% App. Total	1	84.4	14.6		20.8	45.8	33.3		14.5	80.1	5.4		9.5	80.4	10.1		
PHF	.375	.892	.870	.887	.667	.688	.696	.828	.650	.871	.857	.903	.800	.912	.850	.955	.944

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E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-EEE
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Ashley Boulevard (Route 18) From North			Wood Street From East			Ashley Boulevard (Route 18) From South			Wood Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	6	0	0	0	0	0	4	0	0	1	0	11
04:15 PM	0	3	0	0	1	0	0	3	0	0	0	0	7
04:30 PM	0	1	0	0	1	0	0	2	0	0	1	0	5
04:45 PM	0	1	1	0	1	0	1	1	0	0	0	0	5
Total	0	11	1	0	3	0	1	10	0	0	2	0	28
05:00 PM	0	2	0	0	0	1	0	3	0	0	0	1	7
05:15 PM	0	4	2	0	1	0	0	1	0	0	2	0	10
05:30 PM	0	3	0	1	0	0	2	3	0	0	1	0	10
05:45 PM	0	1	0	0	1	0	0	2	0	0	0	0	4
Total	0	10	2	1	2	1	2	9	0	0	3	1	31
Grand Total	0	21	3	1	5	1	3	19	0	0	5	1	59
Apprch %	0	87.5	12.5	14.3	71.4	14.3	13.6	86.4	0	0	83.3	16.7	
Total %	0	35.6	5.1	1.7	8.5	1.7	5.1	32.2	0	0	8.5	1.7	

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	1	1	2	0	**1**	0	**1**	1	1	0	2	0	0	0	0	5
05:00 PM	0	2	0	2	0	0	**1**	1	0	**3**	0	3	0	0	**1**	1	7
05:15 PM	0	**4**	**2**	**6**	0	1	0	1	0	1	0	1	0	**2**	0	**2**	**10**
05:30 PM	0	3	0	3	**1**	0	0	1	**2**	3	0	**5**	0	1	0	1	10
Total Volume	0	10	3	13	1	2	1	4	3	8	0	11	0	3	1	4	32
% App. Total	0	76.9	23.1		25	50	25		27.3	72.7	0		0	75	25		
PHF	.000	.625	.375	.542	.250	.500	.250	1.000	.375	.667	.000	.550	.000	.375	.250	.500	.800

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N/S: Ashley Boulevard (Route 18)
E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-EEE
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
04:15 PM	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	2	6
Total	0	1	0	3	0	0	0	3	0	0	0	4	0	0	0	3	14
05:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
05:15 PM	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	1	4
05:30 PM	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	0	4
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	0	0	0	4	0	3	0	1	0	0	0	1	11
Grand Total	0	3	0	3	0	0	0	7	0	3	0	5	0	0	0	4	25
Apprch %	0	50	0	50	0	0	0	100	0	37.5	0	62.5	0	0	0	100	
Total %	0	12	0	12	0	0	0	28	0	12	0	20	0	0	0	16	

	Ashley Boulevard (Route 18) From North					Wood Street From East					Ashley Boulevard (Route 18) From South					Wood Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	**2**	**2**	0	0	0	**2**	**2**	**6**
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**
05:15 PM	**0**	**1**	0	0	**1**	0	0	0	0	0	0	1	0	1	2	0	0	0	1	1	4
05:30 PM	0	1	0	0	1	0	0	0	2	2	0	1	0	0	1	0	0	0	0	0	4
Total Volume	0	2	0	0	2	0	0	0	5	5	0	3	0	3	6	0	0	0	3	3	16
% App. Total	0	100	0	0		0	0	0	100		0	50	0	50		0	0	0	100		
PHF	.000	.500	.000	.000	.500	.000	.000	.000	.625	.625	.000	.750	.000	.375	.750	.000	.000	.000	.375	.375	.667

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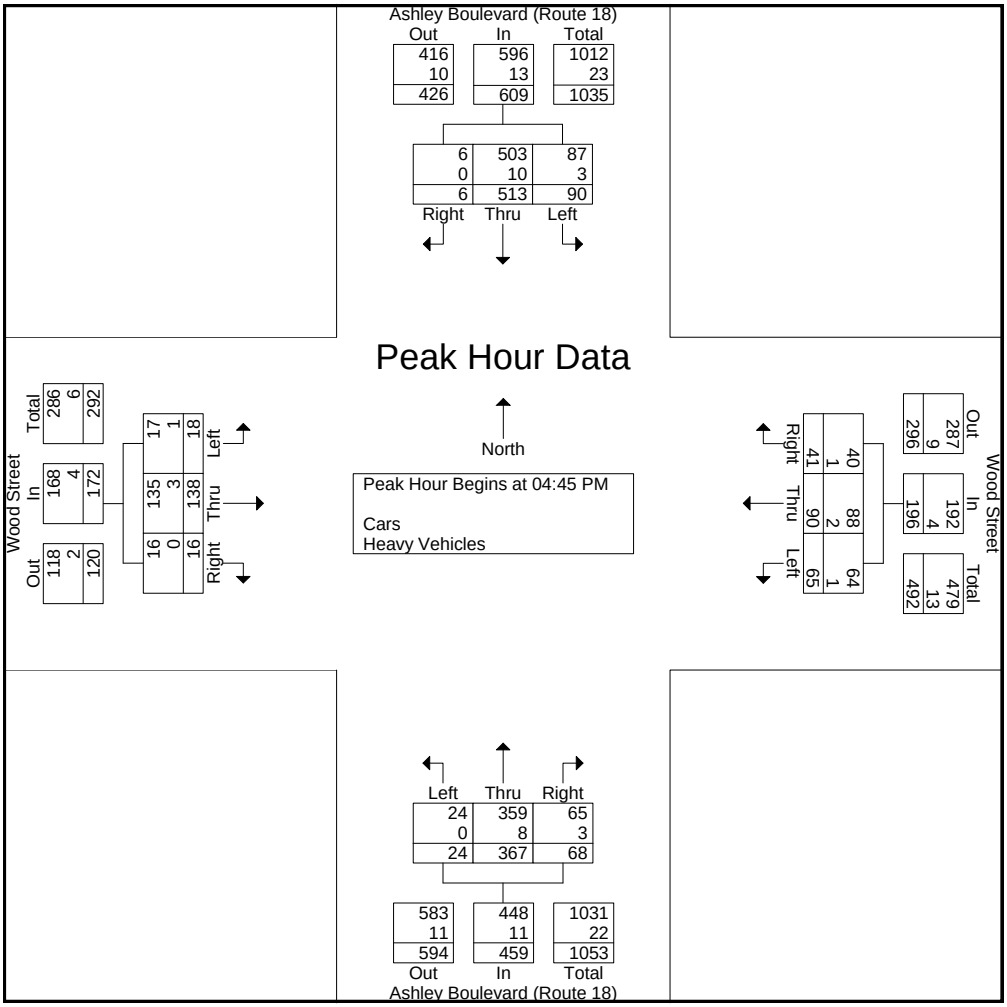
N/S: Ashley Boulevard (Route 18)
E/W: Wood Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-EEE
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Ashley Boulevard (Route 18) From North				Wood Street From East				Ashley Boulevard (Route 18) From South				Wood Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	124	23	151	7	18	12	37	9	92	5	106	**5**	35	4	44	338
05:00 PM	0	119	18	137	**15**	22	14	51	17	80	6	103	3	36	**6**	45	336
05:15 PM	0	126	24	150	10	**33**	16	**59**	15	**104**	6	**125**	4	**39**	3	**46**	380
05:30 PM	2	**144**	**25**	**171**	9	17	**23**	49	**27**	91	**7**	125	4	28	5	37	**382**
Total Volume	6	513	90	609	41	90	65	196	68	367	24	459	16	138	18	172	1436
% App. Total	1	84.2	14.8		20.9	45.9	33.2		14.8	80	5.2		9.3	80.2	10.5		
PHF	.375	.891	.900	.890	.683	.682	.707	.831	.630	.882	.857	.918	.800	.885	.750	.935	.940
Cars	6	503	87	596	40	88	64	192	65	359	24	448	16	135	17	168	1404
% Cars	100	98.1	96.7	97.9	97.6	97.8	98.5	98.0	95.6	97.8	100	97.6	100	97.8	94.4	97.7	97.8
Heavy Vehicles	0	10	3	13	1	2	1	4	3	8	0	11	0	3	1	4	32
% Heavy Vehicles	0	1.9	3.3	2.1	2.4	2.2	1.5	2.0	4.4	2.2	0	2.4	0	2.2	5.6	2.3	2.2



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N/S: Church Street
E/W: Irvington Street/Western Tool Drwy
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-F
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Irvington Street From East			Church Street From South			Western Tool Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	77	0	9	0	4	0	62	0	0	0	0	152
07:15 AM	1	85	0	5	1	6	0	81	0	0	0	0	179
07:30 AM	2	56	0	2	0	5	0	67	0	1	0	1	134
07:45 AM	5	94	0	8	0	6	0	86	0	1	0	1	201
Total	8	312	0	24	1	21	0	296	0	2	0	2	666
08:00 AM	3	83	0	5	0	0	0	61	0	1	0	2	155
08:15 AM	0	79	0	5	1	7	0	56	2	1	0	0	151
08:30 AM	2	69	0	1	0	11	1	58	2	0	0	3	147
08:45 AM	0	58	0	4	1	4	0	44	2	1	0	3	117
Total	5	289	0	15	2	22	1	219	6	3	0	8	570
Grand Total	13	601	0	39	3	43	1	515	6	5	0	10	1236
Apprch %	2.1	97.9	0	45.9	3.5	50.6	0.2	98.7	1.1	33.3	0	66.7	
Total %	1.1	48.6	0	3.2	0.2	3.5	0.1	41.7	0.5	0.4	0	0.8	
Cars	13	561	0	39	3	41	1	484	6	5	0	10	1163
% Cars	100	93.3	0	100	100	95.3	100	94	100	100	0	100	94.1
Heavy Vehicles	0	40	0	0	0	2	0	31	0	0	0	0	73
% Heavy Vehicles	0	6.7	0	0	0	4.7	0	6	0	0	0	0	5.9

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	85	0	86	5	**1**	**6**	12	0	81	0	81	0	0	0	0	179
07:30 AM	2	56	0	58	2	0	5	7	0	67	0	67	**1**	0	1	2	134
07:45 AM	**5**	**94**	0	**99**	**8**	0	6	**14**	0	**86**	0	**86**	1	0	1	2	**201**
08:00 AM	3	83	0	86	5	0	0	5	0	61	0	61	1	0	**2**	**3**	155
Total Volume	11	318	0	329	20	1	17	38	0	295	0	295	3	0	4	7	669
% App. Total	3.3	96.7	0		52.6	2.6	44.7		0	100	0		42.9	0	57.1		
PHF	.550	.846	.000	.831	.625	.250	.708	.679	.000	.858	.000	.858	.750	.000	.500	.583	.832
Cars	11	288	0	299	20	1	16	37	0	277	0	277	3	0	4	7	620
% Cars	100	90.6	0	90.9	100	100	94.1	97.4	0	93.9	0	93.9	100	0	100	100	92.7
Heavy Vehicles	0	30	0	30	0	0	1	1	0	18	0	18	0	0	0	0	49
% Heavy Vehicles	0	9.4	0	9.1	0	0	5.9	2.6	0	6.1	0	6.1	0	0	0	0	7.3

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N/S: Church Street
E/W: Irvington Street/Western Tool Drwy
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-F
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars

	Church Street From North			Irvington Street From East			Church Street From South			Western Tool Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	70	0	9	0	4	0	55	0	0	0	0	138
07:15 AM	1	78	0	5	1	6	0	78	0	0	0	0	169
07:30 AM	2	49	0	2	0	5	0	60	0	1	0	1	120
07:45 AM	5	84	0	8	0	5	0	82	0	1	0	1	186
Total	8	281	0	24	1	20	0	275	0	2	0	2	613
08:00 AM	3	77	0	5	0	0	0	57	0	1	0	2	145
08:15 AM	0	79	0	5	1	6	0	52	2	1	0	0	146
08:30 AM	2	68	0	1	0	11	1	56	2	0	0	3	144
08:45 AM	0	56	0	4	1	4	0	44	2	1	0	3	115
Total	5	280	0	15	2	21	1	209	6	3	0	8	550
Grand Total	13	561	0	39	3	41	1	484	6	5	0	10	1163
Apprch %	2.3	97.7	0	47	3.6	49.4	0.2	98.6	1.2	33.3	0	66.7	
Total %	1.1	48.2	0	3.4	0.3	3.5	0.1	41.6	0.5	0.4	0	0.9	

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**5**	**84**	0	**89**	**8**	0	5	**13**	0	**82**	0	**82**	**1**	0	1	2	**186**
08:00 AM	3	77	0	80	5	0	0	5	0	57	0	57	1	0	2	**3**	145
08:15 AM	0	79	0	79	5	**1**	6	12	0	52	**2**	54	1	0	0	1	146
08:30 AM	2	68	0	70	1	0	**11**	12	**1**	56	2	59	0	0	**3**	3	144
Total Volume	10	308	0	318	19	1	22	42	1	247	4	252	3	0	6	9	621
% App. Total	3.1	96.9	0		45.2	2.4	52.4		0.4	98	1.6		33.3	0	66.7		
PHF	.500	.917	.000	.893	.594	.250	.500	.808	.250	.753	.500	.768	.750	.000	.500	.750	.835

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File Name : 81676 E-F
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Church Street From North			Irvington Street From East			Church Street From South			Western Tool Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	7	0	0	0	0	0	7	0	0	0	0	14
07:15 AM	0	7	0	0	0	0	0	3	0	0	0	0	10
07:30 AM	0	7	0	0	0	0	0	7	0	0	0	0	14
07:45 AM	0	10	0	0	0	1	0	4	0	0	0	0	15
Total	0	31	0	0	0	1	0	21	0	0	0	0	53
08:00 AM	0	6	0	0	0	0	0	4	0	0	0	0	10
08:15 AM	0	0	0	0	0	1	0	4	0	0	0	0	5
08:30 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
08:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	9	0	0	0	1	0	10	0	0	0	0	20
Grand Total	0	40	0	0	0	2	0	31	0	0	0	0	73
Apprch %	0	100	0	0	0	100	0	100	0	0	0	0	
Total %	0	54.8	0	0	0	2.7	0	42.5	0	0	0	0	

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	7	0	7	0	0	0	0	0	**7**	0	**7**	0	0	0	0	14
07:15 AM	0	7	0	7	0	0	0	0	0	3	0	3	0	0	0	0	10
07:30 AM	0	7	0	7	0	0	0	0	0	7	0	7	0	0	0	0	14
07:45 AM	0	**10**	0	**10**	0	0	**1**	**1**	0	4	0	4	0	0	0	0	**15**
Total Volume	0	31	0	31	0	0	1	1	0	21	0	21	0	0	0	0	53
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0		
PHF	.000	.775	.000	.775	.000	.000	.250	.250	.000	.750	.000	.750	.000	.000	.000	.000	.883

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File Name : 81676 E-F
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	3
Grand Total	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	1	6
Apprch %	0	0	0	0	0	0	0	100	0	100	0	0	0	0	0	100	
Total %	0	0	0	0	0	0	0	33.3	0	50	0	0	0	0	0	16.7	

	Church Street From North					Irvington Street From East					Church Street From South					Western Tool Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	**1**	**1**	0	**2**	**0**	**0**	**2**	0	0	0	0	0	**3**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	1	0	2	0	0	2	0	0	0	0	0	3
% App. Total	0	0	0	0		0	0	0	100		0	100	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250

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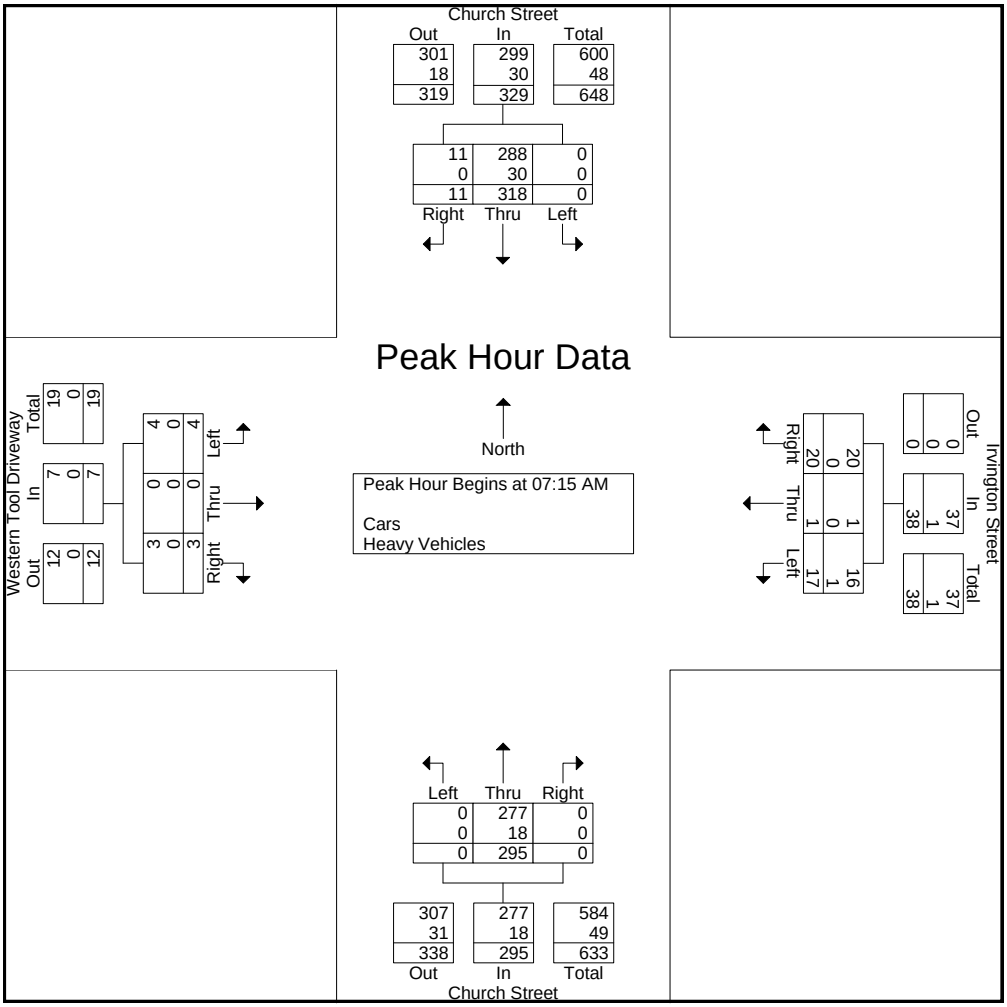
	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	85	0	86	5	**1**	**6**	12	0	81	0	81	0	0	0	0	179
07:30 AM	2	56	0	58	2	0	5	7	0	67	0	67	**1**	0	1	2	134
07:45 AM	**5**	**94**	0	**99**	**8**	0	6	**14**	0	**86**	0	**86**	1	0	1	2	**201**
08:00 AM	3	83	0	86	5	0	0	5	0	61	0	61	1	0	**2**	**3**	155
Total Volume	11	318	0	329	20	1	17	38	0	295	0	295	3	0	4	7	669
% App. Total	3.3	96.7	0		52.6	2.6	44.7		0	100	0		42.9	0	57.1		
PHF	.550	.846	.000	.831	.625	.250	.708	.679	.000	.858	.000	.858	.750	.000	.500	.583	.832
Cars	11	288	0	299	20	1	16	37	0	277	0	277	3	0	4	7	620
% Cars	100	90.6	0	90.9	100	100	94.1	97.4	0	93.9	0	93.9	100	0	100	100	92.7
Heavy Vehicles	0	30	0	30	0	0	1	1	0	18	0	18	0	0	0	0	49
% Heavy Vehicles	0	9.4	0	9.1	0	0	5.9	2.6	0	6.1	0	6.1	0	0	0	0	7.3



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Client: VHB/J. Quitter

File Name : 81676 E-FFF
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Irvington Street From East			Church Street From South			Western Tool Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	120	0	7	3	6	0	99	1	0	2	1	240
04:15 PM	2	125	0	3	0	7	0	101	1	1	0	0	240
04:30 PM	2	105	0	2	0	5	0	72	2	1	0	3	192
04:45 PM	1	107	0	3	0	6	0	94	5	2	0	1	219
Total	6	457	0	15	3	24	0	366	9	4	2	5	891
05:00 PM	1	117	0	6	0	2	0	100	0	1	0	1	228
05:15 PM	1	120	0	7	0	9	0	102	0	1	0	0	240
05:30 PM	0	106	0	7	0	7	0	69	1	1	0	2	193
05:45 PM	0	79	0	3	2	5	0	72	0	1	0	0	162
Total	2	422	0	23	2	23	0	343	1	4	0	3	823
Grand Total	8	879	0	38	5	47	0	709	10	8	2	8	1714
Apprch %	0.9	99.1	0	42.2	5.6	52.2	0	98.6	1.4	44.4	11.1	44.4	
Total %	0.5	51.3	0	2.2	0.3	2.7	0	41.4	0.6	0.5	0.1	0.5	
Cars	8	864	0	37	5	46	0	693	9	8	2	8	1680
% Cars	100	98.3	0	97.4	100	97.9	0	97.7	90	100	100	100	98
Heavy Vehicles	0	15	0	1	0	1	0	16	1	0	0	0	34
% Heavy Vehicles	0	1.7	0	2.6	0	2.1	0	2.3	10	0	0	0	2

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	120	0	121	**7**	**3**	6	**16**	0	99	1	100	0	**2**	1	3	**240**
04:15 PM	**2**	**125**	0	**127**	3	0	**7**	10	0	**101**	1	**102**	1	0	0	1	240
04:30 PM	2	105	0	107	2	0	5	7	0	72	2	74	1	0	**3**	**4**	192
04:45 PM	1	107	0	108	3	0	6	9	0	94	**5**	99	**2**	0	1	3	219
Total Volume	6	457	0	463	15	3	24	42	0	366	9	375	4	2	5	11	891
% App. Total	1.3	98.7	0		35.7	7.1	57.1		0	97.6	2.4		36.4	18.2	45.5		
PHF	.750	.914	.000	.911	.536	.250	.857	.656	.000	.906	.450	.919	.500	.250	.417	.688	.928
Cars	6	447	0	453	14	3	23	40	0	358	8	366	4	2	5	11	870
% Cars	100	97.8	0	97.8	93.3	100	95.8	95.2	0	97.8	88.9	97.6	100	100	100	100	97.6
Heavy Vehicles	0	10	0	10	1	0	1	2	0	8	1	9	0	0	0	0	21
% Heavy Vehicles	0	2.2	0	2.2	6.7	0	4.2	4.8	0	2.2	11.1	2.4	0	0	0	0	2.4

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Groups Printed- Cars

	Church Street From North			Irvington Street From East			Church Street From South			Western Tool Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	119	0	7	3	5	0	95	1	0	2	1	234
04:15 PM	2	122	0	3	0	7	0	99	1	1	0	0	235
04:30 PM	2	103	0	2	0	5	0	70	1	1	0	3	187
04:45 PM	1	103	0	2	0	6	0	94	5	2	0	1	214
Total	6	447	0	14	3	23	0	358	8	4	2	5	870
05:00 PM	1	117	0	6	0	2	0	99	0	1	0	1	227
05:15 PM	1	116	0	7	0	9	0	102	0	1	0	0	236
05:30 PM	0	106	0	7	0	7	0	65	1	1	0	2	189
05:45 PM	0	78	0	3	2	5	0	69	0	1	0	0	158
Total	2	417	0	23	2	23	0	335	1	4	0	3	810
Grand Total	8	864	0	37	5	46	0	693	9	8	2	8	1680
Apprch %	0.9	99.1	0	42	5.7	52.3	0	98.7	1.3	44.4	11.1	44.4	
Total %	0.5	51.4	0	2.2	0.3	2.7	0	41.2	0.5	0.5	0.1	0.5	

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	119	0	120	**7**	**3**	5	**15**	0	95	1	96	0	**2**	1	3	234
04:15 PM	**2**	**122**	0	**124**	3	0	**7**	10	0	**99**	1	**100**	1	0	0	1	**235**
04:30 PM	2	103	0	105	2	0	5	7	0	70	1	71	1	0	**3**	**4**	187
04:45 PM	1	103	0	104	2	0	6	8	0	94	**5**	99	**2**	0	1	3	214
Total Volume	6	447	0	453	14	3	23	40	0	358	8	366	4	2	5	11	870
% App. Total	1.3	98.7	0		35	7.5	57.5		0	97.8	2.2		36.4	18.2	45.5		
PHF	.750	.916	.000	.913	.500	.250	.821	.667	.000	.904	.400	.915	.500	.250	.417	.688	.926

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Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Church Street From North			Irvington Street From East			Church Street From South			Western Tool Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	0	0	0	1	0	4	0	0	0	0	6
04:15 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
04:30 PM	0	2	0	0	0	0	0	2	1	0	0	0	5
04:45 PM	0	4	0	1	0	0	0	0	0	0	0	0	5
Total	0	10	0	1	0	1	0	8	1	0	0	0	21
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
05:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
05:45 PM	0	1	0	0	0	0	0	3	0	0	0	0	4
Total	0	5	0	0	0	0	0	8	0	0	0	0	13
Grand Total	0	15	0	1	0	1	0	16	1	0	0	0	34
Apprch %	0	100	0	50	0	50	0	94.1	5.9	0	0	0	
Total %	0	44.1	0	2.9	0	2.9	0	47.1	2.9	0	0	0	

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	0	1	0	0	**1**	**1**	0	**4**	0	**4**	0	0	0	0	**6**
04:15 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
04:30 PM	0	2	0	2	0	0	0	0	0	2	**1**	3	0	0	0	0	5
04:45 PM	0	**4**	0	**4**	**1**	0	0	1	0	0	0	0	0	0	0	0	5
Total Volume	0	10	0	10	1	0	1	2	0	8	1	9	0	0	0	0	21
% App. Total	0	100	0		50	0	50		0	88.9	11.1		0	0	0		
PHF	.000	.625	.000	.625	.250	.000	.250	.500	.000	.500	.250	.563	.000	.000	.000	.000	.875

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N/S: Church Street
E/W: Irvington Street/Western Tool Drwy
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-FFF
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Apprch %	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
Total %	0	66.7	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	

	Church Street From North					Irvington Street From East					Church Street From South					Western Tool Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**2**	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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File Name : 81676 E-FFF
Site Code : 10111.31
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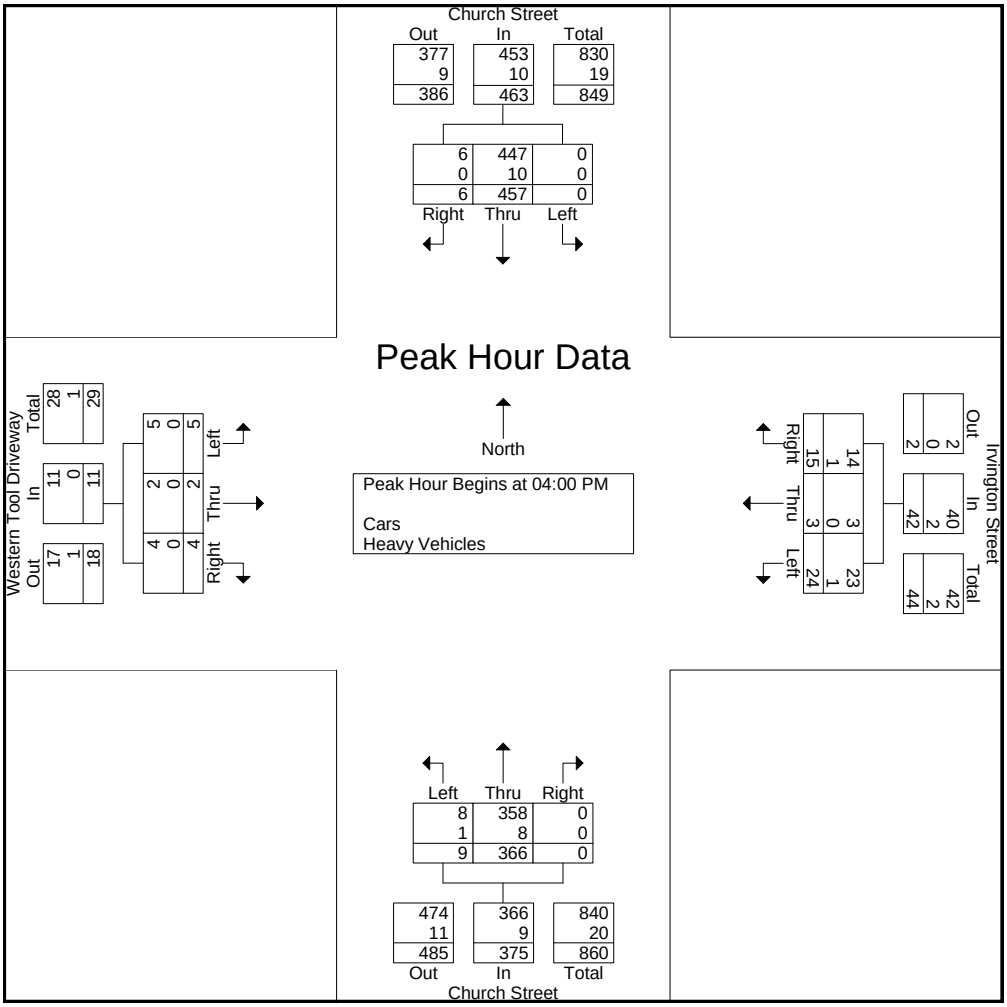
	Church Street From North				Irvington Street From East				Church Street From South				Western Tool Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	120	0	121	**7**	**3**	6	**16**	0	99	1	100	0	**2**	1	3	**240**
04:15 PM	**2**	**125**	0	**127**	3	0	**7**	10	0	**101**	1	**102**	1	0	0	1	240
04:30 PM	2	105	0	107	2	0	5	7	0	72	2	74	1	0	**3**	**4**	192
04:45 PM	1	107	0	108	3	0	6	9	0	94	**5**	99	**2**	0	1	3	219
Total Volume	6	457	0	463	15	3	24	42	0	366	9	375	4	2	5	11	891
% App. Total	1.3	98.7	0		35.7	7.1	57.1		0	97.6	2.4		36.4	18.2	45.5		
PHF	.750	.914	.000	.911	.536	.250	.857	.656	.000	.906	.450	.919	.500	.250	.417	.688	.928
Cars	6	447	0	453	14	3	23	40	0	358	8	366	4	2	5	11	870
% Cars	100	97.8	0	97.8	93.3	100	95.8	95.2	0	97.8	88.9	97.6	100	100	100	100	97.6
Heavy Vehicles	0	10	0	10	1	0	1	2	0	8	1	9	0	0	0	0	21
% Heavy Vehicles	0	2.2	0	2.2	6.7	0	4.2	4.8	0	2.2	11.1	2.4	0	0	0	0	2.4



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City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-G
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Nash Road From East			Church Street From South			Nash Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	40	41	4	7	63	4	3	24	7	8	42	22	265
07:15 AM	39	29	5	12	69	4	4	37	15	8	46	27	295
07:30 AM	38	40	4	7	60	10	7	29	17	7	53	26	298
07:45 AM	37	49	6	14	53	11	9	29	17	9	59	27	320
Total	154	159	19	40	245	29	23	119	56	32	200	102	1178
08:00 AM	34	40	15	11	64	10	9	21	20	7	65	25	321
08:15 AM	42	35	6	7	69	7	7	21	18	3	52	22	289
08:30 AM	28	33	9	6	60	13	1	23	7	6	56	14	256
08:45 AM	29	38	13	4	63	8	4	22	8	5	62	26	282
Total	133	146	43	28	256	38	21	87	53	21	235	87	1148
Grand Total	287	305	62	68	501	67	44	206	109	53	435	189	2326
Apprch %	43.9	46.6	9.5	10.7	78.8	10.5	12.3	57.4	30.4	7.8	64.3	27.9	
Total %	12.3	13.1	2.7	2.9	21.5	2.9	1.9	8.9	4.7	2.3	18.7	8.1	
Cars	267	281	58	68	482	63	42	200	104	49	405	157	2176
% Cars	93	92.1	93.5	100	96.2	94	95.5	97.1	95.4	92.5	93.1	83.1	93.6
Heavy Vehicles	20	24	4	0	19	4	2	6	5	4	30	32	150
% Heavy Vehicles	7	7.9	6.5	0	3.8	6	4.5	2.9	4.6	7.5	6.9	16.9	6.4

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**39**	29	5	73	12	**69**	4	**85**	4	**37**	15	**56**	8	46	**27**	81	295
07:30 AM	38	40	4	82	7	60	10	77	7	29	17	53	7	53	26	86	298
07:45 AM	37	**49**	6	**92**	**14**	53	**11**	78	**9**	29	17	55	**9**	59	27	95	320
08:00 AM	34	40	**15**	89	11	64	10	85	9	21	**20**	50	7	**65**	25	**97**	**321**
Total Volume	148	158	30	336	44	246	35	325	29	116	69	214	31	223	105	359	1234
% App. Total	44	47	8.9		13.5	75.7	10.8		13.6	54.2	32.2		8.6	62.1	29.2		
PHF	.949	.806	.500	.913	.786	.891	.795	.956	.806	.784	.863	.955	.861	.858	.972	.925	.961
Cars	135	145	28	308	44	237	33	314	27	113	68	208	28	207	86	321	1151
% Cars	91.2	91.8	93.3	91.7	100	96.3	94.3	96.6	93.1	97.4	98.6	97.2	90.3	92.8	81.9	89.4	93.3
Heavy Vehicles	13	13	2	28	0	9	2	11	2	3	1	6	3	16	19	38	83
% Heavy Vehicles	8.8	8.2	6.7	8.3	0	3.7	5.7	3.4	6.9	2.6	1.4	2.8	9.7	7.2	18.1	10.6	6.7

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N/S: Church Street
E/W: Nash Road
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-G
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Church Street From North			Nash Road From East			Church Street From South			Nash Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	35	39	4	7	58	4	3	21	5	7	38	18	239
07:15 AM	35	28	5	12	64	4	4	37	15	8	42	22	276
07:30 AM	34	38	3	7	58	10	7	28	16	7	49	20	277
07:45 AM	34	43	5	14	51	10	8	28	17	8	56	23	297
Total	138	148	17	40	231	28	22	114	53	30	185	83	1089
08:00 AM	32	36	15	11	64	9	8	20	20	5	60	21	301
08:15 AM	40	30	6	7	66	6	7	21	18	3	49	20	273
08:30 AM	28	32	7	6	59	13	1	23	6	6	52	11	244
08:45 AM	29	35	13	4	62	7	4	22	7	5	59	22	269
Total	129	133	41	28	251	35	20	86	51	19	220	74	1087
Grand Total	267	281	58	68	482	63	42	200	104	49	405	157	2176
Apprch %	44.1	46.4	9.6	11.1	78.6	10.3	12.1	57.8	30.1	8	66.3	25.7	
Total %	12.3	12.9	2.7	3.1	22.2	2.9	1.9	9.2	4.8	2.3	18.6	7.2	

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**35**	28	5	68	12	**64**	4	80	4	**37**	15	**56**	**8**	42	22	72	276
07:30 AM	34	38	3	75	7	58	**10**	75	7	28	16	51	7	49	20	76	277
07:45 AM	34	**43**	5	82	**14**	51	10	75	**8**	28	17	53	8	56	**23**	**87**	297
08:00 AM	32	36	**15**	**83**	11	64	9	**84**	8	20	**20**	48	5	**60**	21	86	**301**
Total Volume	135	145	28	308	44	237	33	314	27	113	68	208	28	207	86	321	1151
% App. Total	43.8	47.1	9.1		14	75.5	10.5		13	54.3	32.7		8.7	64.5	26.8		
PHF	.964	.843	.467	.928	.786	.926	.825	.935	.844	.764	.850	.929	.875	.863	.935	.922	.956

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File Name : 81676 E-G
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Church Street From North			Nash Road From East			Church Street From South			Nash Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	2	0	0	5	0	0	3	2	1	4	4	26
07:15 AM	4	1	0	0	5	0	0	0	0	0	4	5	19
07:30 AM	4	2	1	0	2	0	0	1	1	0	4	6	21
07:45 AM	3	6	1	0	2	1	1	1	0	1	3	4	23
Total	16	11	2	0	14	1	1	5	3	2	15	19	89
08:00 AM	2	4	0	0	0	1	1	1	0	2	5	4	20
08:15 AM	2	5	0	0	3	1	0	0	0	0	3	2	16
08:30 AM	0	1	2	0	1	0	0	0	1	0	4	3	12
08:45 AM	0	3	0	0	1	1	0	0	1	0	3	4	13
Total	4	13	2	0	5	3	1	1	2	2	15	13	61
Grand Total	20	24	4	0	19	4	2	6	5	4	30	32	150
Apprch %	41.7	50	8.3	0	82.6	17.4	15.4	46.2	38.5	6.1	45.5	48.5	
Total %	13.3	16	2.7	0	12.7	2.7	1.3	4	3.3	2.7	20	21.3	

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**5**	2	0	7	0	**5**	0	**5**	0	**3**	**2**	**5**	**1**	**4**	4	9	**26**
07:15 AM	4	1	0	5	0	5	0	5	0	0	0	0	0	4	5	9	19
07:30 AM	4	2	**1**	7	0	2	0	2	0	1	1	2	0	4	**6**	**10**	21
07:45 AM	3	**6**	1	**10**	0	2	**1**	3	**1**	1	0	2	1	3	4	8	23
Total Volume	16	11	2	29	0	14	1	15	1	5	3	9	2	15	19	36	89
% App. Total	55.2	37.9	6.9		0	93.3	6.7		11.1	55.6	33.3		5.6	41.7	52.8		
PHF	.800	.458	.500	.725	.000	.700	.250	.750	.250	.417	.375	.450	.500	.938	.792	.900	.856

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File Name : 81676 E-G
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Page No : 1

Groups Printed- Peds and Bicycles

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0	0	5
07:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
Total	0	0	0	4	0	1	0	0	0	2	0	0	2	0	0	2	11
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
08:15 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	6
Grand Total	0	0	0	5	0	1	0	0	0	3	0	0	2	1	0	5	17
Apprch %	0	0	0	100	0	100	0	0	0	100	0	0	25	12.5	0	62.5	
Total %	0	0	0	29.4	0	5.9	0	0	0	17.6	0	0	11.8	5.9	0	29.4	

	Church Street From North					Nash Road From East					Church Street From South					Nash Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	**3**	**3**	0	0	0	0	0	0	**2**	**0**	**0**	**2**	0	0	0	0	0	**5**
07:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**	**0**	**0**	**0**	**2**	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	0	0	0	0	0	0	0	0	1	1	2
Total Volume	0	0	0	4	4	0	1	0	0	1	0	2	0	0	2	2	0	0	2	4	11
% App. Total	0	0	0	100		0	100	0	0		0	100	0	0		50	0	0	50		
PHF	.000	.000	.000	.333	.333	.000	.250	.000	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.500	.500	.550

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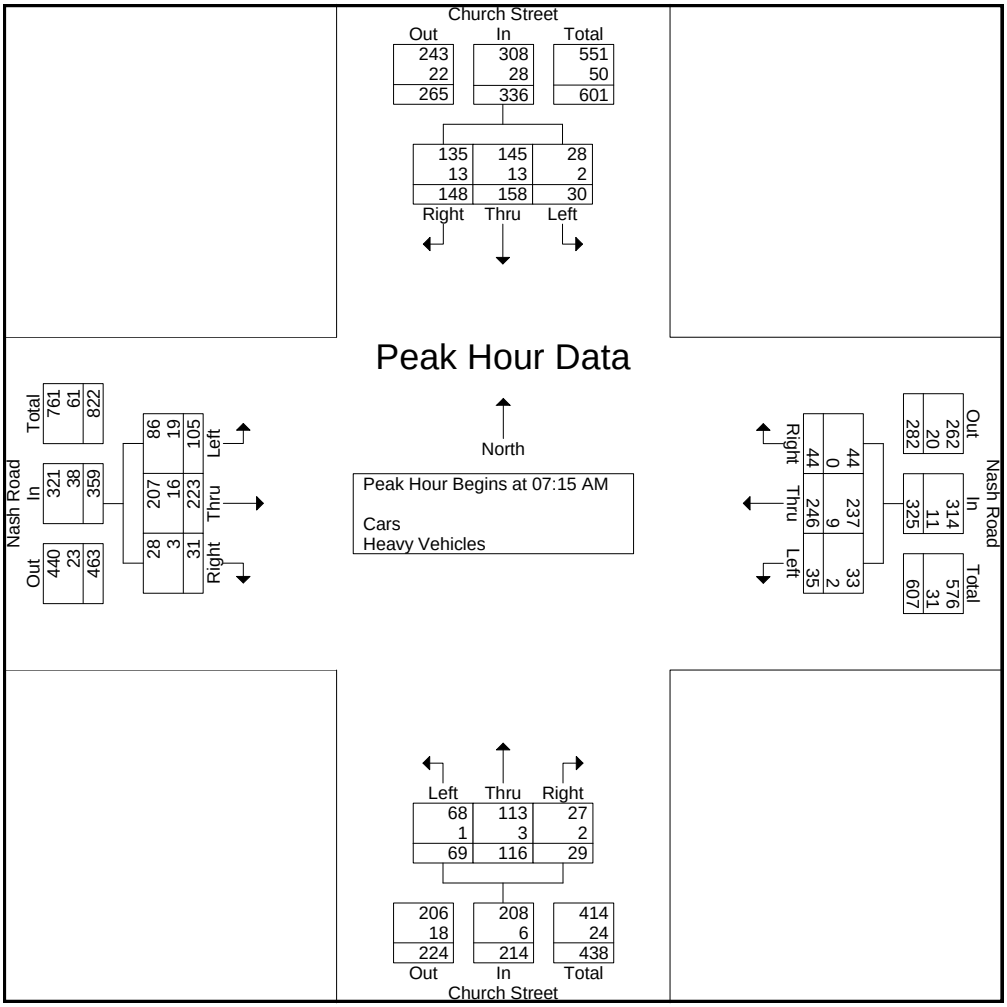
	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**39**	29	5	73	12	**69**	4	**85**	4	**37**	15	**56**	8	46	**27**	81	295
07:30 AM	38	40	4	82	7	60	10	77	7	29	17	53	7	53	26	86	298
07:45 AM	37	**49**	6	**92**	**14**	53	**11**	78	**9**	29	17	55	**9**	59	27	95	320
08:00 AM	34	40	**15**	89	11	64	10	85	9	21	**20**	50	7	**65**	25	**97**	**321**
Total Volume	148	158	30	336	44	246	35	325	29	116	69	214	31	223	105	359	1234
% App. Total	44	47	8.9		13.5	75.7	10.8		13.6	54.2	32.2		8.6	62.1	29.2		
PHF	.949	.806	.500	.913	.786	.891	.795	.956	.806	.784	.863	.955	.861	.858	.972	.925	.961
Cars	135	145	28	308	44	237	33	314	27	113	68	208	28	207	86	321	1151
% Cars	91.2	91.8	93.3	91.7	100	96.3	94.3	96.6	93.1	97.4	98.6	97.2	90.3	92.8	81.9	89.4	93.3
Heavy Vehicles	13	13	2	28	0	9	2	11	2	3	1	6	3	16	19	38	83
% Heavy Vehicles	8.8	8.2	6.7	8.3	0	3.7	5.7	3.4	6.9	2.6	1.4	2.8	9.7	7.2	18.1	10.6	6.7



PRECISION DATA INDUSTRIES, LLC
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N/S: Church Street
E/W: Nash Road
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-GGG
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Nash Road From East			Church Street From South			Nash Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	26	64	15	12	69	12	7	37	15	23	121	31	432
04:15 PM	37	59	20	9	53	10	10	45	14	16	88	31	392
04:30 PM	50	61	19	18	76	6	7	27	16	17	90	25	412
04:45 PM	32	50	16	18	68	11	6	51	13	19	103	25	412
Total	145	234	70	57	266	39	30	160	58	75	402	112	1648
05:00 PM	34	56	14	9	88	10	10	46	13	19	81	31	411
05:15 PM	37	59	18	4	69	10	5	38	15	22	98	26	401
05:30 PM	38	47	13	13	71	14	9	29	10	20	93	27	384
05:45 PM	38	44	8	22	67	5	7	31	16	18	78	27	361
Total	147	206	53	48	295	39	31	144	54	79	350	111	1557
Grand Total	292	440	123	105	561	78	61	304	112	154	752	223	3205
Apprch %	34.2	51.5	14.4	14.1	75.4	10.5	12.8	63.7	23.5	13.6	66.6	19.8	
Total %	9.1	13.7	3.8	3.3	17.5	2.4	1.9	9.5	3.5	4.8	23.5	7	
Cars	285	426	122	105	552	77	60	297	112	152	736	221	3145
% Cars	97.6	96.8	99.2	100	98.4	98.7	98.4	97.7	100	98.7	97.9	99.1	98.1
Heavy Vehicles	7	14	1	0	9	1	1	7	0	2	16	2	60
% Heavy Vehicles	2.4	3.2	0.8	0	1.6	1.3	1.6	2.3	0	1.3	2.1	0.9	1.9

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	26	**64**	15	105	12	69	**12**	93	7	37	15	59	**23**	**121**	**31**	**175**	**432**
04:15 PM	37	59	**20**	116	9	53	10	72	**10**	45	14	69	16	88	31	135	392
04:30 PM	**50**	61	19	**130**	**18**	**76**	6	**100**	7	27	**16**	50	17	90	25	132	412
04:45 PM	32	50	16	98	18	68	11	97	6	**51**	13	**70**	19	103	25	147	412
Total Volume	145	234	70	449	57	266	39	362	30	160	58	248	75	402	112	589	1648
% App. Total	32.3	52.1	15.6		15.7	73.5	10.8		12.1	64.5	23.4		12.7	68.3	19		
PHF	.725	.914	.875	.863	.792	.875	.813	.905	.750	.784	.906	.886	.815	.831	.903	.841	.954
Cars	141	224	70	435	57	259	38	354	29	155	58	242	74	391	111	576	1607
% Cars	97.2	95.7	100	96.9	100	97.4	97.4	97.8	96.7	96.9	100	97.6	98.7	97.3	99.1	97.8	97.5
Heavy Vehicles	4	10	0	14	0	7	1	8	1	5	0	6	1	11	1	13	41
% Heavy Vehicles	2.8	4.3	0	3.1	0	2.6	2.6	2.2	3.3	3.1	0	2.4	1.3	2.7	0.9	2.2	2.5

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Client: VHB/J. Quitter

File Name : 81676 E-GGG
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Church Street From North			Nash Road From East			Church Street From South			Nash Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	26	62	15	12	68	12	6	34	15	23	117	30	420
04:15 PM	34	54	20	9	53	10	10	44	14	15	85	31	379
04:30 PM	50	59	19	18	73	6	7	26	16	17	88	25	404
04:45 PM	31	49	16	18	65	10	6	51	13	19	101	25	404
Total	141	224	70	57	259	38	29	155	58	74	391	111	1607
05:00 PM	34	54	14	9	88	10	10	46	13	19	78	31	406
05:15 PM	36	57	18	4	68	10	5	38	15	21	98	26	396
05:30 PM	37	47	12	13	70	14	9	28	10	20	91	27	378
05:45 PM	37	44	8	22	67	5	7	30	16	18	78	26	358
Total	144	202	52	48	293	39	31	142	54	78	345	110	1538
Grand Total	285	426	122	105	552	77	60	297	112	152	736	221	3145
Apprch %	34.2	51.1	14.6	14.3	75.2	10.5	12.8	63.3	23.9	13.7	66.4	19.9	
Total %	9.1	13.5	3.9	3.3	17.6	2.4	1.9	9.4	3.6	4.8	23.4	7	

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**50**	**59**	**19**	**128**	**18**	73	6	97	7	26	**16**	49	17	88	25	130	404
04:45 PM	31	49	16	96	18	65	**10**	93	6	**51**	13	**70**	19	**101**	25	**145**	404
05:00 PM	34	54	14	102	9	**88**	10	**107**	**10**	46	13	69	19	78	**31**	128	**406**
05:15 PM	36	57	18	111	4	68	10	82	5	38	15	58	**21**	98	26	145	396
Total Volume	151	219	67	437	49	294	36	379	28	161	57	246	76	365	107	548	1610
% App. Total	34.6	50.1	15.3		12.9	77.6	9.5		11.4	65.4	23.2		13.9	66.6	19.5		
PHF	.755	.928	.882	.854	.681	.835	.900	.886	.700	.789	.891	.879	.905	.903	.863	.945	.991

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Client: VHB/J. Quitter

File Name : 81676 E-GGG
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Church Street From North			Nash Road From East			Church Street From South			Nash Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	0	1	0	1	3	0	0	4	1	12
04:15 PM	3	5	0	0	0	0	0	1	0	1	3	0	13
04:30 PM	0	2	0	0	3	0	0	1	0	0	2	0	8
04:45 PM	1	1	0	0	3	1	0	0	0	0	2	0	8
Total	4	10	0	0	7	1	1	5	0	1	11	1	41
05:00 PM	0	2	0	0	0	0	0	0	0	0	3	0	5
05:15 PM	1	2	0	0	1	0	0	0	0	1	0	0	5
05:30 PM	1	0	1	0	1	0	0	1	0	0	2	0	6
05:45 PM	1	0	0	0	0	0	0	1	0	0	0	1	3
Total	3	4	1	0	2	0	0	2	0	1	5	1	19
Grand Total	7	14	1	0	9	1	1	7	0	2	16	2	60
Apprch %	31.8	63.6	4.5	0	90	10	12.5	87.5	0	10	80	10	
Total %	11.7	23.3	1.7	0	15	1.7	1.7	11.7	0	3.3	26.7	3.3	

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	0	1	0	1	**1**	**3**	0	**4**	0	**4**	**1**	**5**	12
04:15 PM	**3**	**5**	0	**8**	0	0	0	0	0	1	0	1	**1**	3	0	4	**13**
04:30 PM	0	2	0	2	0	**3**	0	3	0	1	0	1	0	2	0	2	8
04:45 PM	1	1	0	2	0	3	**1**	**4**	0	0	0	0	0	2	0	2	8
Total Volume	4	10	0	14	0	7	1	8	1	5	0	6	1	11	1	13	41
% App. Total	28.6	71.4	0		0	87.5	12.5		16.7	83.3	0		7.7	84.6	7.7		
PHF	.333	.500	.000	.438	.000	.583	.250	.500	.250	.417	.000	.375	.250	.688	.250	.650	.788

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File Name : 81676 E-GGG
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	1	1	0	0	0	0	0	0	3	0	1	0	0	1	7
05:00 PM	0	0	0	0	0	2	0	0	1	0	0	1	0	0	0	1	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Total	0	0	0	0	0	2	0	0	1	0	0	1	2	0	0	1	7
Grand Total	0	0	1	1	0	2	0	0	1	0	3	1	3	0	0	2	14
Apprch %	0	0	50	50	0	100	0	0	20	0	60	20	60	0	0	40	
Total %	0	0	7.1	7.1	0	14.3	0	0	7.1	0	21.4	7.1	21.4	0	0	14.3	

	Church Street From North					Nash Road From East					Church Street From South					Nash Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	**1**	**0**	**1**	0	0	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**0**	**1**	**2**	2
05:00 PM	0	0	0	0	0	0	**2**	**0**	**0**	**2**	**1**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**1**	**5**
Total Volume	0	0	1	0	1	0	2	0	0	2	1	0	3	1	5	1	0	0	2	3	11
% App. Total	0	0	100	0		0	100	0	0		20	0	60	20		33.3	0	0	66.7		
PHF	.000	.000	.250	.000	.250	.000	.250	.000	.000	.250	.250	.000	.250	.250	.417	.250	.000	.000	.500	.375	.550

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Site Code : 10111.31
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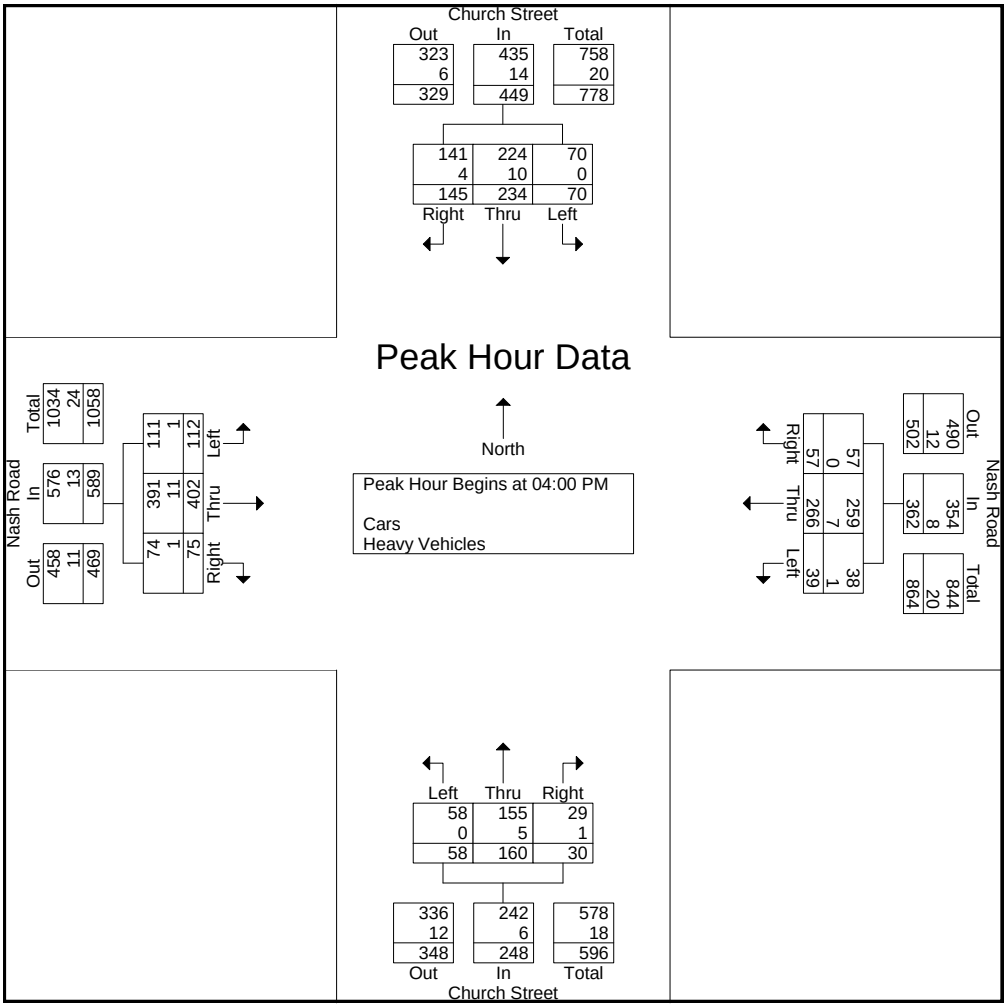
Page No : 1

	Church Street From North				Nash Road From East				Church Street From South				Nash Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	26	**64**	15	105	12	69	**12**	93	7	37	15	59	**23**	**121**	**31**	**175**	**432**
04:15 PM	37	59	**20**	116	9	53	10	72	**10**	45	14	69	16	88	31	135	392
04:30 PM	**50**	61	19	**130**	**18**	**76**	6	**100**	7	27	**16**	50	17	90	25	132	412
04:45 PM	32	50	16	98	18	68	11	97	6	**51**	13	**70**	19	103	25	147	412
Total Volume	145	234	70	449	57	266	39	362	30	160	58	248	75	402	112	589	1648
% App. Total	32.3	52.1	15.6		15.7	73.5	10.8		12.1	64.5	23.4		12.7	68.3	19		
PHF	.725	.914	.875	.863	.792	.875	.813	.905	.750	.784	.906	.886	.815	.831	.903	.841	.954
Cars	141	224	70	435	57	259	38	354	29	155	58	242	74	391	111	576	1607
% Cars	97.2	95.7	100	96.9	100	97.4	97.4	97.8	96.7	96.9	100	97.6	98.7	97.3	99.1	97.8	97.5
Heavy Vehicles	4	10	0	14	0	7	1	8	1	5	0	6	1	11	1	13	41
% Heavy Vehicles	2.8	4.3	0	3.1	0	2.6	2.6	2.2	3.3	3.1	0	2.4	1.3	2.7	0.9	2.2	2.5



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N/S: Church Street
E/W: Tarkin Hill Road
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-H
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Tarkin Hill Road From East			Church Street From South			Tarkin Hill Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	32	8	5	101	7	7	57	40	3	100	24	399
07:15 AM	16	39	22	14	95	15	16	44	51	0	104	24	440
07:30 AM	23	41	15	22	129	12	7	57	50	1	92	21	470
07:45 AM	16	46	11	17	120	9	9	61	51	1	92	12	445
Total	70	158	56	58	445	43	39	219	192	5	388	81	1754
08:00 AM	20	33	10	18	94	6	8	45	58	0	60	16	368
08:15 AM	16	42	10	16	98	4	7	43	50	1	69	20	376
08:30 AM	30	33	15	10	107	7	10	26	37	0	63	8	346
08:45 AM	28	30	5	21	104	7	5	34	40	1	82	9	366
Total	94	138	40	65	403	24	30	148	185	2	274	53	1456
Grand Total	164	296	96	123	848	67	69	367	377	7	662	134	3210
Apprch %	29.5	53.2	17.3	11.8	81.7	6.5	8.5	45.1	46.4	0.9	82.4	16.7	
Total %	5.1	9.2	3	3.8	26.4	2.1	2.1	11.4	11.7	0.2	20.6	4.2	
Cars	163	280	85	120	824	55	69	354	374	6	640	125	3095
% Cars	99.4	94.6	88.5	97.6	97.2	82.1	100	96.5	99.2	85.7	96.7	93.3	96.4
Heavy Vehicles	1	16	11	3	24	12	0	13	3	1	22	9	115
% Heavy Vehicles	0.6	5.4	11.5	2.4	2.8	17.9	0	3.5	0.8	14.3	3.3	6.7	3.6

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	15	32	8	55	5	101	7	113	7	57	40	104	**3**	100	**24**	127	399
07:15 AM	16	39	**22**	77	14	95	**15**	124	**16**	44	**51**	111	0	**104**	24	**128**	440
07:30 AM	**23**	41	15	**79**	**22**	**129**	12	**163**	7	57	50	114	1	92	21	114	**470**
07:45 AM	16	**46**	11	73	17	120	9	146	9	**61**	51	**121**	1	92	12	105	445
Total Volume	70	158	56	284	58	445	43	546	39	219	192	450	5	388	81	474	1754
% App. Total	24.6	55.6	19.7		10.6	81.5	7.9		8.7	48.7	42.7		1.1	81.9	17.1		
PHF	.761	.859	.636	.899	.659	.862	.717	.837	.609	.898	.941	.930	.417	.933	.844	.926	.933
Cars	69	150	49	268	57	428	32	517	39	209	190	438	4	375	74	453	1676
% Cars	98.6	94.9	87.5	94.4	98.3	96.2	74.4	94.7	100	95.4	99.0	97.3	80.0	96.6	91.4	95.6	95.6
Heavy Vehicles	1	8	7	16	1	17	11	29	0	10	2	12	1	13	7	21	78
% Heavy Vehicles	1.4	5.1	12.5	5.6	1.7	3.8	25.6	5.3	0	4.6	1.0	2.7	20.0	3.4	8.6	4.4	4.4

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N/S: Church Street
E/W: Tarkin Hill Road
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-H
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Church Street From North			Tarkin Hill Road From East			Church Street From South			Tarkin Hill Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	32	7	5	92	4	7	51	40	2	96	19	370
07:15 AM	16	35	18	14	90	8	16	43	50	0	98	24	412
07:30 AM	22	37	14	21	128	12	7	55	49	1	90	20	456
07:45 AM	16	46	10	17	118	8	9	60	51	1	91	11	438
Total	69	150	49	57	428	32	39	209	190	4	375	74	1676
08:00 AM	20	30	8	18	93	6	8	42	58	0	57	14	354
08:15 AM	16	40	9	15	96	4	7	43	50	1	67	20	368
08:30 AM	30	32	14	10	105	6	10	26	36	0	63	8	340
08:45 AM	28	28	5	20	102	7	5	34	40	1	78	9	357
Total	94	130	36	63	396	23	30	145	184	2	265	51	1419
Grand Total	163	280	85	120	824	55	69	354	374	6	640	125	3095
Apprch %	30.9	53	16.1	12	82.5	5.5	8.7	44.4	46.9	0.8	83	16.2	
Total %	5.3	9	2.7	3.9	26.6	1.8	2.2	11.4	12.1	0.2	20.7	4	

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	15	32	7	54	5	92	4	101	7	51	40	98	**2**	96	19	117	370
07:15 AM	16	35	**18**	69	14	90	8	112	**16**	43	50	109	0	**98**	**24**	**122**	412
07:30 AM	**22**	37	14	**73**	**21**	**128**	**12**	**161**	7	55	49	111	1	90	20	111	**456**
07:45 AM	16	**46**	10	72	17	118	8	143	9	**60**	**51**	**120**	1	91	11	103	438
Total Volume	69	150	49	268	57	428	32	517	39	209	190	438	4	375	74	453	1676
% App. Total	25.7	56	18.3		11	82.8	6.2		8.9	47.7	43.4		0.9	82.8	16.3		
PHF	.784	.815	.681	.918	.679	.836	.667	.803	.609	.871	.931	.913	.500	.957	.771	.928	.919

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File Name : 81676 E-H
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Heavy Vehicles

	Church Street From North			Tarkin Hill Road From East			Church Street From South			Tarkin Hill Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	1	0	9	3	0	6	0	1	4	5	29
07:15 AM	0	4	4	0	5	7	0	1	1	0	6	0	28
07:30 AM	1	4	1	1	1	0	0	2	1	0	2	1	14
07:45 AM	0	0	1	0	2	1	0	1	0	0	1	1	7
Total	1	8	7	1	17	11	0	10	2	1	13	7	78
08:00 AM	0	3	2	0	1	0	0	3	0	0	3	2	14
08:15 AM	0	2	1	1	2	0	0	0	0	0	2	0	8
08:30 AM	0	1	1	0	2	1	0	0	1	0	0	0	6
08:45 AM	0	2	0	1	2	0	0	0	0	0	4	0	9
Total	0	8	4	2	7	1	0	3	1	0	9	2	37
Grand Total	1	16	11	3	24	12	0	13	3	1	22	9	115
Apprch %	3.6	57.1	39.3	7.7	61.5	30.8	0	81.2	18.8	3.1	68.8	28.1	
Total %	0.9	13.9	9.6	2.6	20.9	10.4	0	11.3	2.6	0.9	19.1	7.8	

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	**9**	3	**12**	0	**6**	0	**6**	**1**	4	**5**	**10**	**29**
07:15 AM	0	**4**	**4**	**8**	0	5	**7**	12	0	1	**1**	2	0	**6**	0	6	28
07:30 AM	**1**	4	1	6	**1**	1	0	2	0	2	1	3	0	2	1	3	14
07:45 AM	0	0	1	1	0	2	1	3	0	1	0	1	0	1	1	2	7
Total Volume	1	8	7	16	1	17	11	29	0	10	2	12	1	13	7	21	78
% App. Total	6.2	50	43.8		3.4	58.6	37.9		0	83.3	16.7		4.8	61.9	33.3		
PHF	.250	.500	.438	.500	.250	.472	.393	.604	.000	.417	.500	.500	.250	.542	.350	.525	.672

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Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	3
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	1	0	0	0	2	0	1	0	1	0	0	0	0	5
Apprch %	0	0	0	100	0	0	0	100	0	50	0	50	0	0	0	0	
Total %	0	0	0	20	0	0	0	40	0	20	0	20	0	0	0	0	

	Church Street From North					Tarkin Hill Road From East					Church Street From South					Tarkin Hill Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	**1**	**1**	0	**1**	**0**	**0**	**1**	0	0	0	0	0	**2**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Volume	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	0	0	0	3
% App. Total	0	0	0	0		0	0	0	100		0	50	0	50		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.000	.250	.500	.000	.000	.000	.000	.000	.375

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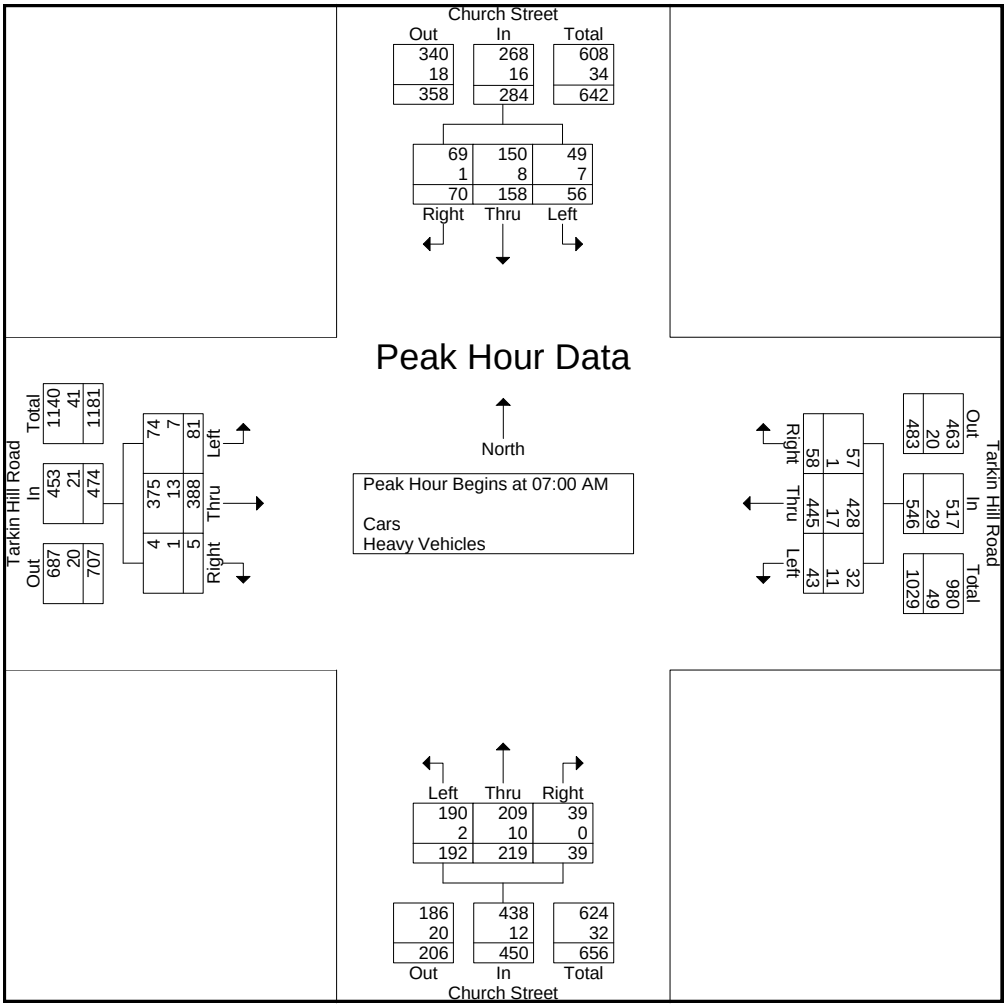
	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	15	32	8	55	5	101	7	113	7	57	40	104	**3**	100	**24**	127	399
07:15 AM	16	39	**22**	77	14	95	**15**	124	**16**	44	**51**	111	0	**104**	24	**128**	440
07:30 AM	**23**	41	15	**79**	**22**	**129**	12	**163**	7	57	50	114	1	92	21	114	**470**
07:45 AM	16	**46**	11	73	17	120	9	146	9	**61**	51	**121**	1	92	12	105	445
Total Volume	70	158	56	284	58	445	43	546	39	219	192	450	5	388	81	474	1754
% App. Total	24.6	55.6	19.7		10.6	81.5	7.9		8.7	48.7	42.7		1.1	81.9	17.1		
PHF	.761	.859	.636	.899	.659	.862	.717	.837	.609	.898	.941	.930	.417	.933	.844	.926	.933
Cars	69	150	49	268	57	428	32	517	39	209	190	438	4	375	74	453	1676
% Cars	98.6	94.9	87.5	94.4	98.3	96.2	74.4	94.7	100	95.4	99.0	97.3	80.0	96.6	91.4	95.6	95.6
Heavy Vehicles	1	8	7	16	1	17	11	29	0	10	2	12	1	13	7	21	78
% Heavy Vehicles	1.4	5.1	12.5	5.6	1.7	3.8	25.6	5.3	0	4.6	1.0	2.7	20.0	3.4	8.6	4.4	4.4



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File Name : 81676 E-HHH
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Tarkin Hill Road From East			Church Street From South			Tarkin Hill Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	31	72	19	8	100	10	26	53	61	3	133	31	547
04:15 PM	23	59	10	14	112	12	16	61	59	0	141	33	540
04:30 PM	22	62	20	29	99	6	12	44	41	0	132	24	491
04:45 PM	37	61	18	15	94	2	15	36	55	0	114	27	474
Total	113	254	67	66	405	30	69	194	216	3	520	115	2052
05:00 PM	36	72	26	8	139	7	13	51	64	0	123	33	572
05:15 PM	37	39	17	8	117	7	19	45	75	2	140	26	532
05:30 PM	31	48	18	4	121	9	21	28	70	0	121	27	498
05:45 PM	23	26	13	6	126	7	7	40	63	1	134	19	465
Total	127	185	74	26	503	30	60	164	272	3	518	105	2067
Grand Total	240	439	141	92	908	60	129	358	488	6	1038	220	4119
Apprch %	29.3	53.5	17.2	8.7	85.7	5.7	13.2	36.7	50.1	0.5	82.1	17.4	
Total %	5.8	10.7	3.4	2.2	22	1.5	3.1	8.7	11.8	0.1	25.2	5.3	
Cars	238	428	140	92	891	58	125	354	486	6	1028	217	4063
% Cars	99.2	97.5	99.3	100	98.1	96.7	96.9	98.9	99.6	100	99	98.6	98.6
Heavy Vehicles	2	11	1	0	17	2	4	4	2	0	10	3	56
% Heavy Vehicles	0.8	2.5	0.7	0	1.9	3.3	3.1	1.1	0.4	0	1	1.4	1.4

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	23	59	10	92	14	112	**12**	138	**16**	**61**	59	**136**	0	**141**	**33**	**174**	540
04:30 PM	22	62	20	104	**29**	99	6	134	12	44	41	97	0	132	24	156	491
04:45 PM	**37**	61	18	116	15	94	2	111	15	36	55	106	0	114	27	141	474
05:00 PM	36	**72**	**26**	**134**	8	**139**	7	**154**	13	51	**64**	128	0	123	33	156	**572**
Total Volume	118	254	74	446	66	444	27	537	56	192	219	467	0	510	117	627	2077
% App. Total	26.5	57	16.6		12.3	82.7	5		12	41.1	46.9		0	81.3	18.7		
PHF	.797	.882	.712	.832	.569	.799	.563	.872	.875	.787	.855	.858	.000	.904	.886	.901	.908
Cars	116	248	73	437	66	436	26	528	54	191	217	462	0	505	116	621	2048
% Cars	98.3	97.6	98.6	98.0	100	98.2	96.3	98.3	96.4	99.5	99.1	98.9	0	99.0	99.1	99.0	98.6
Heavy Vehicles	2	6	1	9	0	8	1	9	2	1	2	5	0	5	1	6	29
% Heavy Vehicles	1.7	2.4	1.4	2.0	0	1.8	3.7	1.7	3.6	0.5	0.9	1.1	0	1.0	0.9	1.0	1.4

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Groups Printed- Cars

	Church Street From North			Tarkin Hill Road From East			Church Street From South			Tarkin Hill Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	31	69	19	8	98	9	25	51	61	3	132	29	535
04:15 PM	23	57	10	14	110	11	16	60	59	0	139	33	532
04:30 PM	22	62	20	29	98	6	10	44	39	0	130	24	484
04:45 PM	36	60	17	15	90	2	15	36	55	0	114	26	466
Total	112	248	66	66	396	28	66	191	214	3	515	112	2017
05:00 PM	35	69	26	8	138	7	13	51	64	0	122	33	566
05:15 PM	37	38	17	8	115	7	19	44	75	2	138	26	526
05:30 PM	31	47	18	4	117	9	20	28	70	0	119	27	490
05:45 PM	23	26	13	6	125	7	7	40	63	1	134	19	464
Total	126	180	74	26	495	30	59	163	272	3	513	105	2046
Grand Total	238	428	140	92	891	58	125	354	486	6	1028	217	4063
Apprch %	29.5	53.1	17.4	8.8	85.6	5.6	13	36.7	50.4	0.5	82.2	17.3	
Total %	5.9	10.5	3.4	2.3	21.9	1.4	3.1	8.7	12	0.1	25.3	5.3	

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	23	57	10	90	14	110	**11**	135	**16**	**60**	59	**135**	0	**139**	**33**	**172**	532
04:30 PM	22	62	20	104	**29**	98	6	133	10	44	39	93	0	130	24	154	484
04:45 PM	**36**	60	17	113	15	90	2	107	15	36	55	106	0	114	26	140	466
05:00 PM	35	**69**	**26**	**130**	8	**138**	7	**153**	13	51	**64**	128	0	122	33	155	**566**
Total Volume	116	248	73	437	66	436	26	528	54	191	217	462	0	505	116	621	2048
% App. Total	26.5	56.8	16.7		12.5	82.6	4.9		11.7	41.3	47		0	81.3	18.7		
PHF	.806	.899	.702	.840	.569	.790	.591	.863	.844	.796	.848	.856	.000	.908	.879	.903	.905

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File Name : 81676 E-HHH
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Groups Printed- Heavy Vehicles

	Church Street From North			Tarkin Hill Road From East			Church Street From South			Tarkin Hill Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	3	0	0	2	1	1	2	0	0	1	2	12
04:15 PM	0	2	0	0	2	1	0	1	0	0	2	0	8
04:30 PM	0	0	0	0	1	0	2	0	2	0	2	0	7
04:45 PM	1	1	1	0	4	0	0	0	0	0	0	1	8
Total	1	6	1	0	9	2	3	3	2	0	5	3	35
05:00 PM	1	3	0	0	1	0	0	0	0	0	1	0	6
05:15 PM	0	1	0	0	2	0	0	1	0	0	2	0	6
05:30 PM	0	1	0	0	4	0	1	0	0	0	2	0	8
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	1	5	0	0	8	0	1	1	0	0	5	0	21
Grand Total	2	11	1	0	17	2	4	4	2	0	10	3	56
Apprch %	14.3	78.6	7.1	0	89.5	10.5	40	40	20	0	76.9	23.1	
Total %	3.6	19.6	1.8	0	30.4	3.6	7.1	7.1	3.6	0	17.9	5.4	

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**3**	0	**3**	0	2	**1**	3	1	**2**	0	3	0	1	**2**	**3**	**12**
04:15 PM	0	2	0	2	0	2	1	3	0	1	0	1	0	**2**	0	2	8
04:30 PM	0	0	0	0	0	1	0	1	**2**	0	**2**	**4**	0	2	0	2	7
04:45 PM	**1**	1	**1**	3	0	**4**	0	**4**	0	0	0	0	0	0	1	1	8
Total Volume	1	6	1	8	0	9	2	11	3	3	2	8	0	5	3	8	35
% App. Total	12.5	75	12.5		0	81.8	18.2		37.5	37.5	25		0	62.5	37.5		
PHF	.250	.500	.250	.667	.000	.563	.500	.688	.375	.375	.250	.500	.000	.625	.375	.667	.729

PRECISION DATA INDUSTRIES, LLC
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N/S: Church Street
E/W: Tarkin Hill Road
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676 E-HHH
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
Total	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	2	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
Grand Total	0	0	0	3	0	0	0	1	0	0	0	1	0	0	0	4	9
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	
Total %	0	0	0	33.3	0	0	0	11.1	0	0	0	11.1	0	0	0	44.4	

	Church Street From North					Tarkin Hill Road From East					Church Street From South					Tarkin Hill Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**3**
04:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	2
Total Volume	0	0	0	3	3	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	6
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.750	.750	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.500

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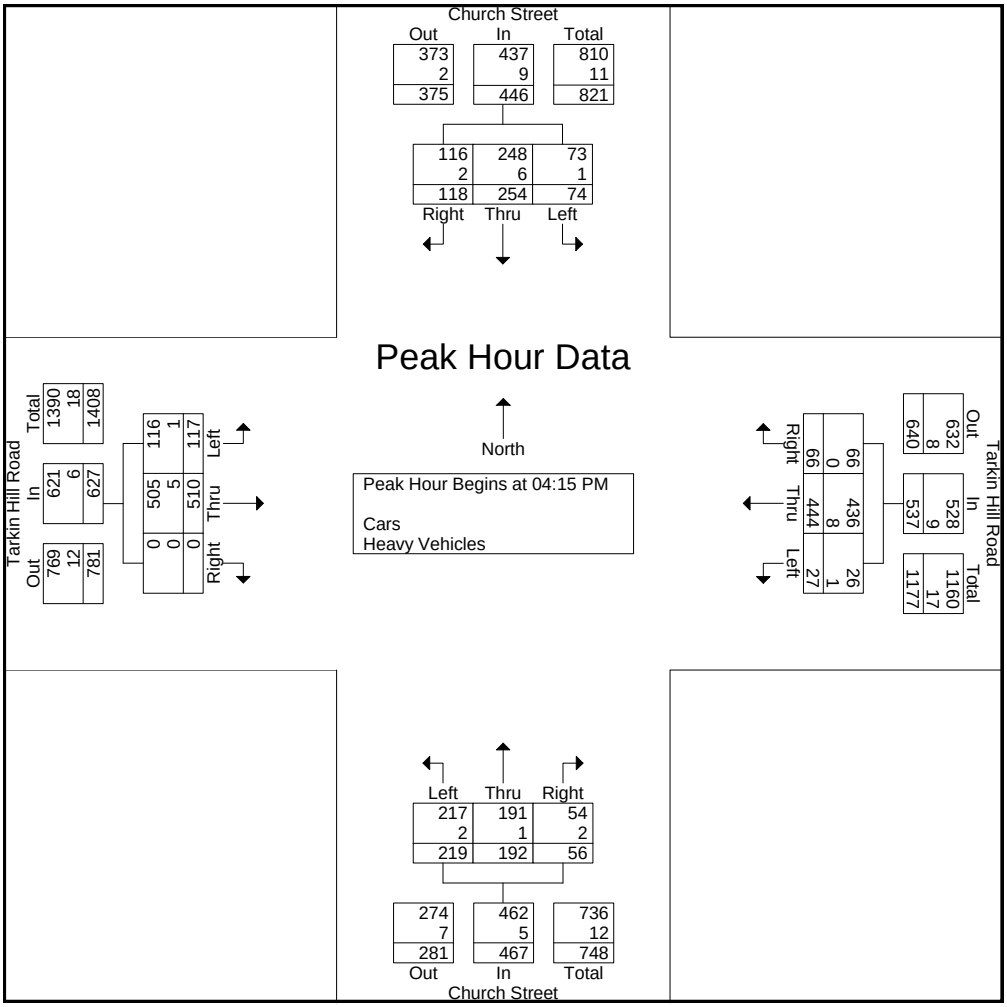
File Name : 81676 E-HHH
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Church Street From North				Tarkin Hill Road From East				Church Street From South				Tarkin Hill Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	23	59	10	92	14	112	**12**	138	**16**	**61**	59	**136**	0	**141**	**33**	**174**	540
04:30 PM	22	62	20	104	**29**	99	6	134	12	44	41	97	0	132	24	156	491
04:45 PM	**37**	61	18	116	15	94	2	111	15	36	55	106	0	114	27	141	474
05:00 PM	36	**72**	**26**	**134**	8	**139**	7	**154**	13	51	**64**	128	0	123	33	156	**572**
Total Volume	118	254	74	446	66	444	27	537	56	192	219	467	0	510	117	627	2077
% App. Total	26.5	57	16.6		12.3	82.7	5		12	41.1	46.9		0	81.3	18.7		
PHF	.797	.882	.712	.832	.569	.799	.563	.872	.875	.787	.855	.858	.000	.904	.886	.901	.908
Cars	116	248	73	437	66	436	26	528	54	191	217	462	0	505	116	621	2048
% Cars	98.3	97.6	98.6	98.0	100	98.2	96.3	98.3	96.4	99.5	99.1	98.9	0	99.0	99.1	99.0	98.6
Heavy Vehicles	2	6	1	9	0	8	1	9	2	1	2	5	0	5	1	6	29
% Heavy Vehicles	1.7	2.4	1.4	2.0	0	1.8	3.7	1.7	3.6	0.5	0.9	1.1	0	1.0	0.9	1.0	1.4



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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	N. Raveendran	10111.31	Wed 10/29 & Sat 11/1/08	81676	New Bedford, MA

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N/S: Church Street
E/W: Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676E-J
Site Code : 10111.31
Start Date : 10/29/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Park Avenue From East			Church Street From South			Park Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	42	0	8	0	3	1	85	0	25	7	0	171
07:15 AM	0	41	1	8	0	3	7	95	0	38	20	0	213
07:30 AM	0	45	4	21	0	9	8	92	0	21	19	0	219
07:45 AM	0	63	2	12	0	8	8	108	0	38	23	0	262
Total	0	191	7	49	0	23	24	380	0	122	69	0	865
08:00 AM	0	55	4	9	0	0	4	100	0	40	13	0	225
08:15 AM	0	32	0	11	0	7	5	124	0	22	17	0	218
08:30 AM	0	39	2	14	0	6	4	84	0	27	10	0	186
08:45 AM	0	46	3	8	0	2	2	60	0	34	18	0	173
Total	0	172	9	42	0	15	15	368	0	123	58	0	802
Grand Total	0	363	16	91	0	38	39	748	0	245	127	0	1667
Apprch %	0	95.8	4.2	70.5	0	29.5	5	95	0	65.9	34.1	0	
Total %	0	21.8	1	5.5	0	2.3	2.3	44.9	0	14.7	7.6	0	
Cars	0	323	16	90	0	38	38	696	0	224	124	0	1549
% Cars	0	89	100	98.9	0	100	97.4	93	0	91.4	97.6	0	92.9
Heavy Vehicles	0	40	0	1	0	0	1	52	0	21	3	0	118
% Heavy Vehicles	0	11	0	1.1	0	0	2.6	7	0	8.6	2.4	0	7.1

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	45	**4**	49	**21**	0	**9**	**30**	**8**	92	0	100	21	19	0	40	219
07:45 AM	0	**63**	2	**65**	12	0	8	20	8	108	0	116	38	**23**	0	**61**	**262**
08:00 AM	0	55	4	59	9	0	0	9	4	100	0	104	**40**	13	0	53	225
08:15 AM	0	32	0	32	11	0	7	18	5	**124**	0	**129**	22	17	0	39	218
Total Volume	0	195	10	205	53	0	24	77	25	424	0	449	121	72	0	193	924
% App. Total	0	95.1	4.9		68.8	0	31.2		5.6	94.4	0		62.7	37.3	0		
PHF	.000	.774	.625	.788	.631	.000	.667	.642	.781	.855	.000	.870	.756	.783	.000	.791	.882
Cars	0	175	10	185	52	0	24	76	25	395	0	420	111	71	0	182	863
% Cars	0	89.7	100	90.2	98.1	0	100	98.7	100	93.2	0	93.5	91.7	98.6	0	94.3	93.4
Heavy Vehicles	0	20	0	20	1	0	0	1	0	29	0	29	10	1	0	11	61
% Heavy Vehicles	0	10.3	0	9.8	1.9	0	0	1.3	0	6.8	0	6.5	8.3	1.4	0	5.7	6.6

PRECISION
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N/S: Church Street
E/W: Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676E-J
Site Code : 10111.31
Start Date : 10/29/2008
Page No : 1

Groups Printed- Cars

	Church Street From North			Park Avenue From East			Church Street From South			Park Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	38	0	8	0	3	1	72	0	24	7	0	153
07:15 AM	0	31	1	8	0	3	7	92	0	34	18	0	194
07:30 AM	0	38	4	20	0	9	8	88	0	20	19	0	206
07:45 AM	0	58	2	12	0	8	8	104	0	36	23	0	251
Total	0	165	7	48	0	23	24	356	0	114	67	0	804
08:00 AM	0	49	4	9	0	0	4	89	0	38	13	0	206
08:15 AM	0	30	0	11	0	7	5	114	0	17	16	0	200
08:30 AM	0	36	2	14	0	6	3	79	0	23	10	0	173
08:45 AM	0	43	3	8	0	2	2	58	0	32	18	0	166
Total	0	158	9	42	0	15	14	340	0	110	57	0	745
Grand Total	0	323	16	90	0	38	38	696	0	224	124	0	1549
Apprch %	0	95.3	4.7	70.3	0	29.7	5.2	94.8	0	64.4	35.6	0	
Total %	0	20.9	1	5.8	0	2.5	2.5	44.9	0	14.5	8	0	

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	38	**4**	42	**20**	0	**9**	**29**	**8**	88	0	96	20	19	0	39	206
07:45 AM	0	**58**	2	**60**	12	0	8	20	8	104	0	112	36	**23**	0	**59**	**251**
08:00 AM	0	49	4	53	9	0	0	9	4	89	0	93	**38**	13	0	51	206
08:15 AM	0	30	0	30	11	0	7	18	5	**114**	0	**119**	17	16	0	33	200
Total Volume	0	175	10	185	52	0	24	76	25	395	0	420	111	71	0	182	863
% App. Total	0	94.6	5.4		68.4	0	31.6		6	94	0		61	39	0		
PHF	.000	.754	.625	.771	.650	.000	.667	.655	.781	.866	.000	.882	.730	.772	.000	.771	.860

PRECISION
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File Name : 81676E-J
Site Code : 10111.31
Start Date : 10/29/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Church Street From North			Park Avenue From East			Church Street From South			Park Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	4	0	0	0	0	0	13	0	1	0	0	18
07:15 AM	0	10	0	0	0	0	0	3	0	4	2	0	19
07:30 AM	0	7	0	1	0	0	0	4	0	1	0	0	13
07:45 AM	0	5	0	0	0	0	0	4	0	2	0	0	11
Total	0	26	0	1	0	0	0	24	0	8	2	0	61
08:00 AM	0	6	0	0	0	0	0	11	0	2	0	0	19
08:15 AM	0	2	0	0	0	0	0	10	0	5	1	0	18
08:30 AM	0	3	0	0	0	0	1	5	0	4	0	0	13
08:45 AM	0	3	0	0	0	0	0	2	0	2	0	0	7
Total	0	14	0	0	0	0	1	28	0	13	1	0	57
Grand Total	0	40	0	1	0	0	1	52	0	21	3	0	118
Apprch %	0	100	0	100	0	0	1.9	98.1	0	87.5	12.5	0	
Total %	0	33.9	0	0.8	0	0	0.8	44.1	0	17.8	2.5	0	

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**10**	0	**10**	0	0	0	0	0	3	0	3	**4**	**2**	0	**6**	**19**
07:30 AM	0	7	0	7	**1**	0	0	**1**	0	4	0	4	1	0	0	1	13
07:45 AM	0	5	0	5	0	0	0	0	0	4	0	4	2	0	0	2	11
08:00 AM	0	6	0	6	0	0	0	0	0	**11**	0	**11**	2	0	0	2	19
Total Volume	0	28	0	28	1	0	0	1	0	22	0	22	9	2	0	11	62
% App. Total	0	100	0		100	0	0		0	100	0		81.8	18.2	0		
PHF	.000	.700	.000	.700	.250	.000	.000	.250	.000	.500	.000	.500	.563	.250	.000	.458	.816

PRECISION
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Groups Printed- Peds and Bicycles

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	3
Total	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	4
Grand Total	0	0	0	2	0	0	0	0	0	3	0	2	0	0	0	0	7
Apprch %	0	0	0	100	0	0	0	0	0	60	0	40	0	0	0	0	
Total %	0	0	0	28.6	0	0	0	0	0	42.9	0	28.6	0	0	0	0	

	Church Street From North					Park Avenue From East					Church Street From South					Park Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	**3**
Total Volume	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	4
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.333

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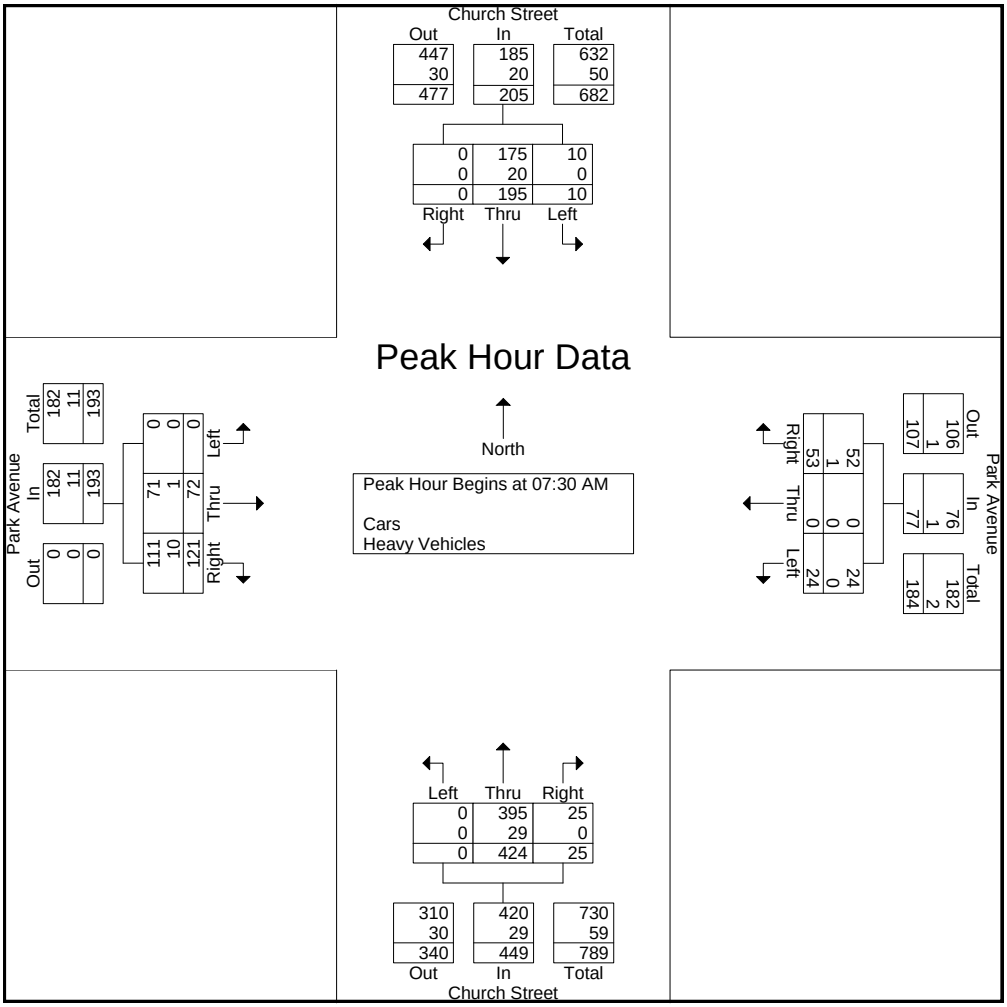
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	45	**4**	49	**21**	0	**9**	**30**	**8**	92	0	100	21	19	0	40	219
07:45 AM	0	**63**	2	**65**	12	0	8	20	8	108	0	116	38	**23**	0	**61**	**262**
08:00 AM	0	55	4	59	9	0	0	9	4	100	0	104	**40**	13	0	53	225
08:15 AM	0	32	0	32	11	0	7	18	5	**124**	0	**129**	22	17	0	39	218
Total Volume	0	195	10	205	53	0	24	77	25	424	0	449	121	72	0	193	924
% App. Total	0	95.1	4.9		68.8	0	31.2		5.6	94.4	0		62.7	37.3	0		
PHF	.000	.774	.625	.788	.631	.000	.667	.642	.781	.855	.000	.870	.756	.783	.000	.791	.882
Cars	0	175	10	185	52	0	24	76	25	395	0	420	111	71	0	182	863
% Cars	0	89.7	100	90.2	98.1	0	100	98.7	100	93.2	0	93.5	91.7	98.6	0	94.3	93.4
Heavy Vehicles	0	20	0	20	1	0	0	1	0	29	0	29	10	1	0	11	61
% Heavy Vehicles	0	10.3	0	9.8	1.9	0	0	1.3	0	6.8	0	6.5	8.3	1.4	0	5.7	6.6



PRECISION DATA INDUSTRIES, LLC
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N/S: Church Street
E/W: Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676E-JJJ
Site Code : 10111.31
Start Date : 10/29/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Church Street From North			Park Avenue From East			Church Street From South			Park Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	102	2	11	0	5	6	138	0	78	34	0	376
04:15 PM	0	70	3	9	0	2	3	96	0	82	42	3	310
04:30 PM	0	80	2	7	0	5	4	121	0	83	40	0	342
04:45 PM	0	69	0	9	0	3	6	113	0	83	47	1	331
Total	0	321	7	36	0	15	19	468	0	326	163	4	1359
05:00 PM	0	86	3	10	0	2	4	115	0	87	28	1	336
05:15 PM	0	58	2	6	0	1	4	100	0	97	29	0	297
05:30 PM	0	56	3	10	0	1	1	107	0	81	36	0	295
05:45 PM	0	39	1	13	0	2	4	89	0	55	35	1	239
Total	0	239	9	39	0	6	13	411	0	320	128	2	1167
Grand Total	0	560	16	75	0	21	32	879	0	646	291	6	2526
Apprch %	0	97.2	2.8	78.1	0	21.9	3.5	96.5	0	68.5	30.9	0.6	
Total %	0	22.2	0.6	3	0	0.8	1.3	34.8	0	25.6	11.5	0.2	
Cars	0	543	16	74	0	21	31	857	0	638	291	6	2477
% Cars	0	97	100	98.7	0	100	96.9	97.5	0	98.8	100	100	98.1
Heavy Vehicles	0	17	0	1	0	0	1	22	0	8	0	0	49
% Heavy Vehicles	0	3	0	1.3	0	0	3.1	2.5	0	1.2	0	0	1.9

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**102**	2	**104**	**11**	0	**5**	**16**	**6**	**138**	0	**144**	78	34	0	112	**376**
04:15 PM	0	70	**3**	73	9	0	2	11	3	96	0	99	82	42	**3**	127	310
04:30 PM	0	80	2	82	7	0	5	12	4	121	0	125	**83**	40	0	123	342
04:45 PM	0	69	0	69	9	0	3	12	6	113	0	119	83	**47**	1	**131**	331
Total Volume	0	321	7	328	36	0	15	51	19	468	0	487	326	163	4	493	1359
% App. Total	0	97.9	2.1		70.6	0	29.4		3.9	96.1	0		66.1	33.1	0.8		
PHF	.000	.787	.583	.788	.818	.000	.750	.797	.792	.848	.000	.845	.982	.867	.333	.941	.904
Cars	0	310	7	317	35	0	15	50	18	456	0	474	321	163	4	488	1329
% Cars	0	96.6	100	96.6	97.2	0	100	98.0	94.7	97.4	0	97.3	98.5	100	100	99.0	97.8
Heavy Vehicles	0	11	0	11	1	0	0	1	1	12	0	13	5	0	0	5	30
% Heavy Vehicles	0	3.4	0	3.4	2.8	0	0	2.0	5.3	2.6	0	2.7	1.5	0	0	1.0	2.2

PRECISION
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N/S: Church Street
E/W: Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676E-JJJ
Site Code : 10111.31
Start Date : 10/29/2008
Page No : 1

Groups Printed- Cars

	Church Street From North			Park Avenue From East			Church Street From South			Park Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	98	2	11	0	5	6	137	0	76	34	0	369
04:15 PM	0	68	3	9	0	2	3	93	0	80	42	3	303
04:30 PM	0	78	2	7	0	5	4	115	0	82	40	0	333
04:45 PM	0	66	0	8	0	3	5	111	0	83	47	1	324
Total	0	310	7	35	0	15	18	456	0	321	163	4	1329
05:00 PM	0	84	3	10	0	2	4	111	0	85	28	1	328
05:15 PM	0	56	2	6	0	1	4	96	0	97	29	0	291
05:30 PM	0	55	3	10	0	1	1	105	0	80	36	0	291
05:45 PM	0	38	1	13	0	2	4	89	0	55	35	1	238
Total	0	233	9	39	0	6	13	401	0	317	128	2	1148
Grand Total	0	543	16	74	0	21	31	857	0	638	291	6	2477
Apprch %	0	97.1	2.9	77.9	0	22.1	3.5	96.5	0	68.2	31.1	0.6	
Total %	0	21.9	0.6	3	0	0.8	1.3	34.6	0	25.8	11.7	0.2	

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**98**	2	**100**	**11**	0	**5**	**16**	**6**	**137**	0	**143**	76	34	0	110	**369**
04:15 PM	0	68	**3**	71	9	0	2	11	3	93	0	96	80	42	**3**	125	303
04:30 PM	0	78	2	80	7	0	5	12	4	115	0	119	82	40	0	122	333
04:45 PM	0	66	0	66	8	0	3	11	5	111	0	116	**83**	**47**	1	**131**	324
Total Volume	0	310	7	317	35	0	15	50	18	456	0	474	321	163	4	488	1329
% App. Total	0	97.8	2.2		70	0	30		3.8	96.2	0		65.8	33.4	0.8		
PHF	.000	.791	.583	.793	.795	.000	.750	.781	.750	.832	.000	.829	.967	.867	.333	.931	.900

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Client: VHB/J. Quitter

File Name : 81676E-JJJ
Site Code : 10111.31
Start Date : 10/29/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Church Street From North			Park Avenue From East			Church Street From South			Park Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	4	0	0	0	0	0	1	0	2	0	0	7
04:15 PM	0	2	0	0	0	0	0	3	0	2	0	0	7
04:30 PM	0	2	0	0	0	0	0	6	0	1	0	0	9
04:45 PM	0	3	0	1	0	0	1	2	0	0	0	0	7
Total	0	11	0	1	0	0	1	12	0	5	0	0	30
05:00 PM	0	2	0	0	0	0	0	4	0	2	0	0	8
05:15 PM	0	2	0	0	0	0	0	4	0	0	0	0	6
05:30 PM	0	1	0	0	0	0	0	2	0	1	0	0	4
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	6	0	0	0	0	0	10	0	3	0	0	19
Grand Total	0	17	0	1	0	0	1	22	0	8	0	0	49
Apprch %	0	100	0	100	0	0	4.3	95.7	0	100	0	0	
Total %	0	34.7	0	2	0	0	2	44.9	0	16.3	0	0	

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	2	0	2	0	0	0	0	0	3	0	3	**2**	0	0	**2**	7
04:30 PM	0	2	0	2	0	0	0	0	0	**6**	0	**6**	1	0	0	1	**9**
04:45 PM	0	**3**	0	**3**	**1**	0	0	**1**	**1**	2	0	3	0	0	0	0	7
05:00 PM	0	2	0	2	0	0	0	0	0	4	0	4	2	0	0	2	8
Total Volume	0	9	0	9	1	0	0	1	1	15	0	16	5	0	0	5	31
% App. Total	0	100	0		100	0	0		6.2	93.8	0		100	0	0		
PHF	.000	.750	.000	.750	.250	.000	.000	.250	.250	.625	.000	.667	.625	.000	.000	.625	.861

PRECISION
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N/S: Church Street
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City, State: New Bedford, MA
Client: VHB/J. Quitter

File Name : 81676E-JJJ
Site Code : 10111.31
Start Date : 10/29/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3
Total	0	4	0	0	0	0	0	0	0	0	0	2	0	1	0	1	8
05:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	4
Grand Total	0	4	0	3	0	0	0	0	0	0	0	2	0	2	0	1	12
Apprch %	0	57.1	0	42.9	0	0	0	0	0	0	0	100	0	66.7	0	33.3	
Total %	0	33.3	0	25	0	0	0	0	0	0	0	16.7	0	16.7	0	8.3	

	Church Street From North					Park Avenue From East					Church Street From South					Park Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**4**	0	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	**1**	0	0	1	3
Total Volume	0	4	0	0	4	0	0	0	0	0	0	0	0	2	2	0	1	0	1	2	8
% App. Total	0	100	0	0		0	0	0	0		0	0	0	100		0	50	0	50		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.000	.250	.500	.500

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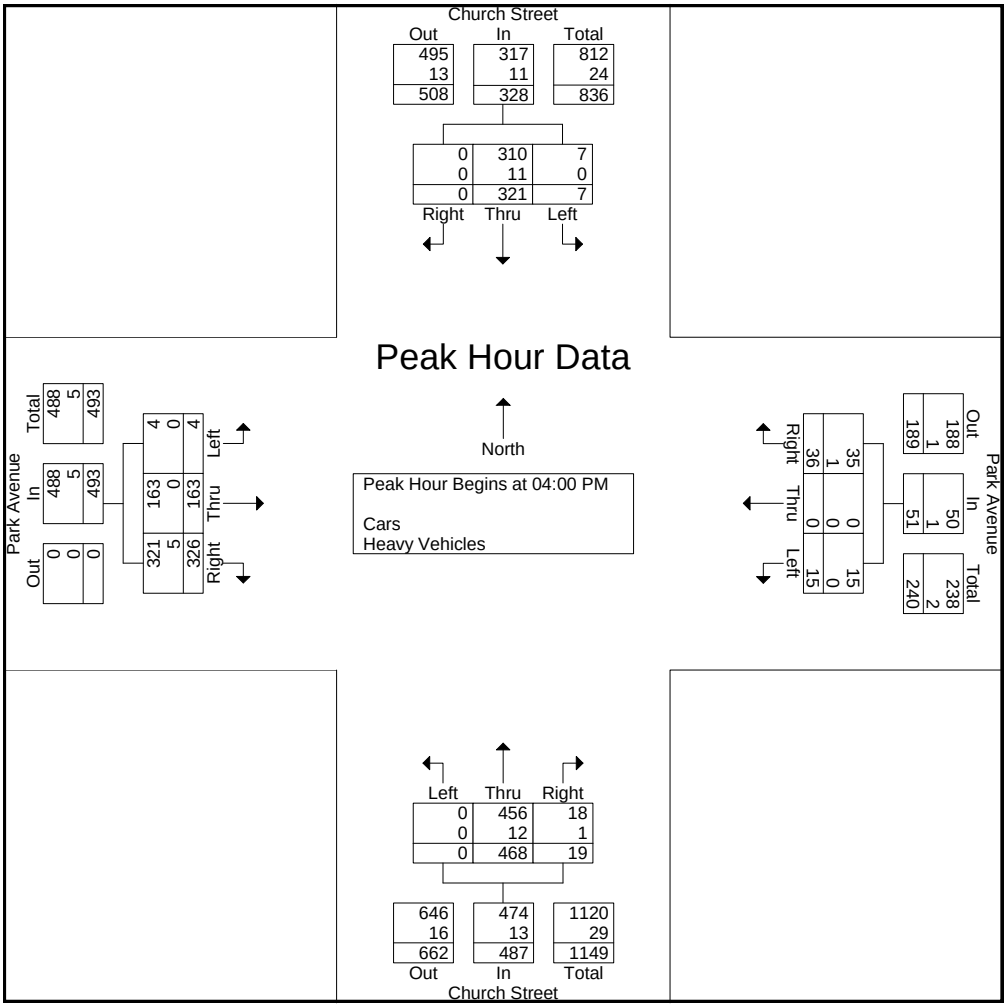
	Church Street From North				Park Avenue From East				Church Street From South				Park Avenue From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**102**	2	**104**	**11**	0	**5**	**16**	**6**	**138**	0	**144**	78	34	0	112	**376**
04:15 PM	0	70	**3**	73	9	0	2	11	3	96	0	99	82	42	**3**	127	310
04:30 PM	0	80	2	82	7	0	5	12	4	121	0	125	**83**	40	0	123	342
04:45 PM	0	69	0	69	9	0	3	12	6	113	0	119	83	**47**	1	**131**	331
Total Volume	0	321	7	328	36	0	15	51	19	468	0	487	326	163	4	493	1359
% App. Total	0	97.9	2.1		70.6	0	29.4		3.9	96.1	0		66.1	33.1	0.8		
PHF	.000	.787	.583	.788	.818	.000	.750	.797	.792	.848	.000	.845	.982	.867	.333	.941	.904
Cars	0	310	7	317	35	0	15	50	18	456	0	474	321	163	4	488	1329
% Cars	0	96.6	100	96.6	97.2	0	100	98.0	94.7	97.4	0	97.3	98.5	100	100	99.0	97.8
Heavy Vehicles	0	11	0	11	1	0	0	1	1	12	0	13	5	0	0	5	30
% Heavy Vehicles	0	3.4	0	3.4	2.8	0	0	2.0	5.3	2.6	0	2.7	1.5	0	0	1.0	2.2



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Traffic Counts with Precision

Client:	Engineer:	Site Code:	Date:	PDI Job Number:	City, State:
VHB	M. Reagan	10111.31	Tuesday 6/9/09	91912	New Bedford, MA

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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N/S: Stop & Shop Drwy/Plaza Drwy
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 A
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Stop & Shop Driveway From North			Kings Highway From East			Plaza Driveway From South				Kings Highway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
07:00 AM	7	1	9	3	139	9	13	1	6	0	3	96	17	304
07:15 AM	17	1	6	9	135	5	11	0	9	0	9	151	14	367
07:30 AM	17	0	10	11	162	12	15	2	11	0	6	133	21	400
07:45 AM	12	3	9	9	155	22	13	3	4	0	9	129	22	390
Total	53	5	34	32	591	48	52	6	30	0	27	509	74	1461
08:00 AM	22	4	13	11	137	21	10	3	7	1	9	102	13	353
08:15 AM	10	1	11	7	160	31	17	0	7	0	9	94	19	366
08:30 AM	15	0	12	8	123	25	14	1	7	0	13	86	15	319
08:45 AM	21	3	16	13	117	32	17	1	5	0	19	112	20	376
Total	68	8	52	39	537	109	58	5	26	1	50	394	67	1414
Grand Total	121	13	86	71	1128	157	110	11	56	1	77	903	141	2875
Apprch %	55	5.9	39.1	5.2	83.2	11.6	61.8	6.2	31.5	0.6	6.9	80.6	12.6	
Total %	4.2	0.5	3	2.5	39.2	5.5	3.8	0.4	1.9	0	2.7	31.4	4.9	
Cars	120	12	86	71	1071	152	109	8	51	1	73	840	135	2729
% Cars	99.2	92.3	100	100	94.9	96.8	99.1	72.7	91.1	100	94.8	93	95.7	94.9
Heavy Vehicles	1	1	0	0	57	5	1	3	5	0	4	63	6	146
% Heavy Vehicles	0.8	7.7	0	0	5.1	3.2	0.9	27.3	8.9	0	5.2	7	4.3	5.1

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	17	1	6	24	9	135	5	149	11	0	9	0	20	**9**	**151**	14	**174**	367
07:30 AM	17	0	10	27	**11**	**162**	12	185	**15**	2	**11**	0	**28**	6	133	21	160	**400**
07:45 AM	12	3	9	24	9	155	**22**	**186**	13	**3**						**22**	160	390
08:00 AM	**22**	**4**	**13**	**39**	11	137	21	169	10	3	7	**1**						
Total Volume	68	8	38	114	40	589	60	689	49	8	31	1	89	33	515	70	618	1510
% App. Total	59.6	7	33.3		5.8	85.5	8.7		55.1	9	34.8	1.1		5.3	83.3	11.3		
PHF	.773	.500	.731	.731	.909	.909	.682	.926	.817	.667	.705	.250	.795	.917	.853	.795	.888	.944
Cars	68	7	38	113	40	563	58	661	48	5	28	1	82	30	485	67	582	1438
% Cars	100	87.5	100	99.1	100	95.6	96.7	95.9	98.0	62.5	90.3	100	92.1	90.9	94.2	95.7	94.2	95.2
Heavy Vehicles	0	1	0	1	0	26	2	28	1	3	3	0	7	3	30	3	36	72
% Heavy Vehicles	0	12.5	0	0.9	0	4.4	3.3	4.1	2.0	37.5	9.7	0	7.9	9.1	5.8	4.3	5.8	4.8

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City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 A
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Cars

	Stop & Shop Driveway From North			Kings Highway From East			Plaza Driveway From South				Kings Highway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
07:00 AM	6	1	9	3	127	8	13	1	5	0	2	87	17	279
07:15 AM	17	1	6	9	126	5	11	0	9	0	9	142	14	349
07:30 AM	17	0	10	11	155	10	15	1	10	0	4	122	21	376
07:45 AM	12	3	9	9	151	22	12	2	3	0	9	123	19	374
Total	52	5	34	32	559	45	51	4	27	0	24	474	71	1378
08:00 AM	22	3	13	11	131	21	10	2	6	1	8	98	13	339
08:15 AM	10	1	11	7	153	30	17	0	6	0	9	87	19	350
08:30 AM	15	0	12	8	117	25	14	1	7	0	13	79	14	305
08:45 AM	21	3	16	13	111	31	17	1	5	0	19	102	18	357
Total	68	7	52	39	512	107	58	4	24	1	49	366	64	1351
Grand Total	120	12	86	71	1071	152	109	8	51	1	73	840	135	2729
Apprch %	55	5.5	39.4	5.5	82.8	11.7	64.5	4.7	30.2	0.6	7	80.2	12.9	
Total %	4.4	0.4	3.2	2.6	39.2	5.6	4	0.3	1.9	0	2.7	30.8	4.9	

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

07:30 AM	17	0	10	27	**11**	**155**	10	176	15	1	**10**	0	**26**	4	122	**21**	147	**376**
07:45 AM	12	**3**	9	24	9	151	22	182	12	**2**				**9**	**123**	19	**151**	374
08:00 AM	**22**	3	**13**	**38**	11	131	21	163	10	2	6	**1**						
08:15 AM	**10**	**1**	**11**	**22**	**7**	**153**	**30**	**190**	**17**	0	6	0	23	9	87	19	115	350
Total Volume	61	7	43	111	38	590	83	711	54	5	25	1	85	30	430	72	532	1439
% App. Total	55	6.3	38.7		5.3	83	11.7		63.5	5.9	29.4	1.2		5.6	80.8	13.5		
PHF	.693	.583	.827	.730	.864	.952	.692	.936	.794	.625	.625	.250	.817	.833	.874	.857	.881	.957

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N/S: Stop & Shop Drwy/Plaza Drwy
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 A
Site Code : 10111.31
Start Date : 6/9/2009
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Groups Printed- Heavy Vehicles

	Stop & Shop Driveway From North			Kings Highway From East			Plaza Driveway From South				Kings Highway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
07:00 AM	1	0	0	0	12	1	0	0	1	0	1	9	0	25
07:15 AM	0	0	0	0	9	0	0	0	0	0	0	9	0	18
07:30 AM	0	0	0	0	7	2	0	1	1	0	2	11	0	24
07:45 AM	0	0	0	0	4	0	1	1	1	0	0	6	3	16
Total	1	0	0	0	32	3	1	2	3	0	3	35	3	83
08:00 AM	0	1	0	0	6	0	0	1	1	0	1	4	0	14
08:15 AM	0	0	0	0	7	1	0	0	1	0	0	7	0	16
08:30 AM	0	0	0	0	6	0	0	0	0	0	0	7	1	14
08:45 AM	0	0	0	0	6	1	0	0	0	0	0	10	2	19
Total	0	1	0	0	25	2	0	1	2	0	1	28	3	63
Grand Total	1	1	0	0	57	5	1	3	5	0	4	63	6	146
Apprch %	50	50	0	0	91.9	8.1	11.1	33.3	55.6	0	5.5	86.3	8.2	
Total %	0.7	0.7	0	0	39	3.4	0.7	2.1	3.4	0	2.7	43.2	4.1	

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	**1**	0	0	**1**	0	**12**	1	**13**	0	0	**1**	0	1	1	9	0	10	**25**
07:15 AM	0	0	0	0	0	9	0	9	0	0	0	0	0	0	9	0	9	18
07:30 AM	0	0	0	0	0	7	**2**	9	0	**1**				**2**	**11**	0	**13**	24
07:45 AM	0	0	0	0	0	4	0	4	**1**	1	1	0	**3**	0	6	**3**	9	16
Total Volume	1	0	0	1	0	32	3	35	1	2	3	0	6	3	35	3	41	83
% App. Total	100	0	0		0	91.4	8.6		16.7	33.3	50	0		7.3	85.4	7.3		
PHF	.250	.000	.000	.250	.000	.667	.375	.673	.250	.500	.750	.000	.500	.375	.795	.250	.788	.830

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City, State: New Bedford, MA
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File Name : 91912 A
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Groups Printed- Peds and Bicycles

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South				Kings Highway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Apprch %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	

	Stop & Shop Driveway From North					Kings Highway From East					Plaza Driveway From South					Kings Highway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3
% App. Total	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.000	.000	.000	.000	.000	.375

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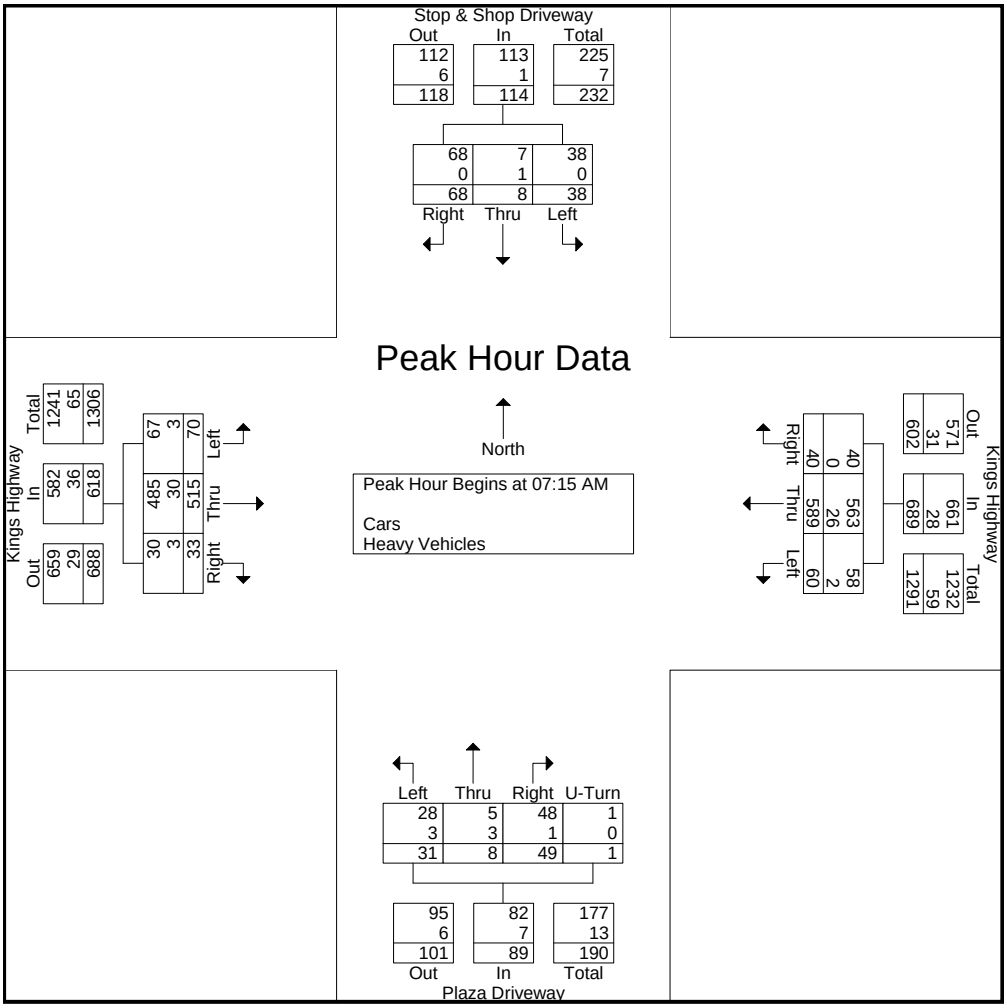
	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	17	1	6	24	9	135	5	149	11	0	9	0	20	**9**	**151**	14	**174**	367
07:30 AM	17	0	10	27	**11**	**162**	12	185	**15**	2	**11**	0	**28**	6	133	21	160	**400**
07:45 AM	12	3	9	24	9	155	**22**	**186**	13	**3**						**22**	160	390
08:00 AM	**22**	**4**	**13**	**39**	11	137	21	169	10	3	7	**1**						
Total Volume	68	8	38	114	40	589	60	689	49	8	31	1	89	33	515	70	618	1510
% App. Total	59.6	7	33.3		5.8	85.5	8.7		55.1	9	34.8	1.1		5.3	83.3	11.3		
PHF	.773	.500	.731	.731	.909	.909	.682	.926	.817	.667	.705	.250	.795	.917	.853	.795	.888	.944
Cars	68	7	38	113	40	563	58	661	48	5	28	1	82	30	485	67	582	1438
% Cars	100	87.5	100	99.1	100	95.6	96.7	95.9	98.0	62.5	90.3	100	92.1	90.9	94.2	95.7	94.2	95.2
Heavy Vehicles	0	1	0	1	0	26	2	28	1	3	3	0	7	3	30	3	36	72
% Heavy Vehicles	0	12.5	0	0.9	0	4.4	3.3	4.1	2.0	37.5	9.7	0	7.9	9.1	5.8	4.3	5.8	4.8



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E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 AA
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Stop & Shop Driveway From North			Kings Highway From East			Plaza Driveway From South				Kings Highway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
04:00 PM	45	5	34	15	133	38	45	8	23	0	27	180	39	592
04:15 PM	47	6	40	8	134	35	51	14	22	0	30	169	30	586
04:30 PM	38	3	35	12	137	48	65	10	25	0	28	160	35	596
04:45 PM	35	9	35	14	136	37	48	11	17	0	26	171	59	598
Total	165	23	144	49	540	158	209	43	87	0	111	680	163	2372
05:00 PM	44	10	43	17	123	35	51	7	19	0	25	164	39	577
05:15 PM	48	2	31	7	112	44	56	7	23	0	30	194	52	606
05:30 PM	52	8	27	17	123	32	53	3	36	0	32	145	52	580
05:45 PM	46	6	40	15	102	46	43	6	28	0	25	144	36	537
Total	190	26	141	56	460	157	203	23	106	0	112	647	179	2300
Grand Total	355	49	285	105	1000	315	412	66	193	0	223	1327	342	4672
Apprch %	51.5	7.1	41.4	7.4	70.4	22.2	61.4	9.8	28.8	0	11.8	70.1	18.1	
Total %	7.6	1	6.1	2.2	21.4	6.7	8.8	1.4	4.1	0	4.8	28.4	7.3	
Cars	353	49	284	105	985	313	411	66	189	0	223	1313	337	4628
% Cars	99.4	100	99.6	100	98.5	99.4	99.8	100	97.9	0	100	98.9	98.5	99.1
Heavy Vehicles	2	0	1	0	15	2	1	0	4	0	0	14	5	44
% Heavy Vehicles	0.6	0	0.4	0	1.5	0.6	0.2	0	2.1	0	0	1.1	1.5	0.9

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	38	3	35	76	12	**137**	**48**	**197**	**65**	10	**25**	0	**100**	28	160	35	223	596
04:45 PM	35	9	35	79	14	136	37	187	48	**11**						**59**	256	598
05:00 PM	44	**10**	**43**	**97**	**17**	123	35	175	51	7	19	0	77	25	164	39	228	577
05:15 PM	**48**	2	31	81	7	112	44	163	56	7	23	0	86	**30**	**194**	52	**276**	**606**
Total Volume	165	24	144	333	50	508	164	722	220	35	84	0	339	109	689	185	983	2377
% App. Total	49.5	7.2	43.2		6.9	70.4	22.7		64.9	10.3	24.8	0		11.1	70.1	18.8		
PHF	.859	.600	.837	.858	.735	.927	.854	.916	.846	.795	.840	.000	.848	.908	.888	.784	.890	.981
Cars	165	24	144	333	50	502	163	715	220	35	82	0	337	109	683	184	976	2361
% Cars	100	100	100	100	100	98.8	99.4	99.0	100	100	97.6	0	99.4	100	99.1	99.5	99.3	99.3
Heavy Vehicles	0	0	0	0	0	6	1	7	0	0	2	0	2	0	6	1	7	16
% Heavy Vehicles	0	0	0	0	0	1.2	0.6	1.0	0	0	2.4	0	0.6	0	0.9	0.5	0.7	0.7

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File Name : 91912 AA
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Groups Printed- Cars

	Stop & Shop Driveway From North			Kings Highway From East			Plaza Driveway From South				Kings Highway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
04:00 PM	44	5	34	15	131	38	45	8	22	0	27	177	38	584
04:15 PM	46	6	39	8	132	34	51	14	22	0	30	167	30	579
04:30 PM	38	3	35	12	135	47	65	10	24	0	28	158	35	590
04:45 PM	35	9	35	14	134	37	48	11	17	0	26	171	58	595
Total	163	23	143	49	532	156	209	43	85	0	111	673	161	2348
05:00 PM	44	10	43	17	123	35	51	7	18	0	25	161	39	573
05:15 PM	48	2	31	7	110	44	56	7	23	0	30	193	52	603
05:30 PM	52	8	27	17	121	32	52	3	35	0	32	143	50	572
05:45 PM	46	6	40	15	99	46	43	6	28	0	25	143	35	532
Total	190	26	141	56	453	157	202	23	104	0	112	640	176	2280
Grand Total	353	49	284	105	985	313	411	66	189	0	223	1313	337	4628
Apprch %	51.5	7.1	41.4	7.5	70.2	22.3	61.7	9.9	28.4	0	11.9	70.1	18	
Total %	7.6	1.1	6.1	2.3	21.3	6.8	8.9	1.4	4.1	0	4.8	28.4	7.3	

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	38	3	35	76	12	**135**	**47**	**194**	**65**	10	**24**	0	**99**	28	158	35	221	590
04:45 PM	35	9	35	79	14	134	37	185	48	**11**						**58**	255	595
05:00 PM	44	**10**	**43**	**97**	**17**	123	35	175	51	7	18	0	76	25	161	39	225	573
05:15 PM	**48**	2	31	81	7	110	44	161	56	7	23	0	86	**30**	**193**	52	**275**	**603**
Total Volume	165	24	144	333	50	502	163	715	220	35	82	0	337	109	683	184	976	2361
% App. Total	49.5	7.2	43.2		7	70.2	22.8		65.3	10.4	24.3	0		11.2	70	18.9		
PHF	.859	.600	.837	.858	.735	.930	.867	.921	.846	.795	.854	.000	.851	.908	.885	.793	.887	.979

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Page No : 1

Groups Printed- Heavy Vehicles

	Stop & Shop Driveway From North			Kings Highway From East			Plaza Driveway From South				Kings Highway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
04:00 PM	1	0	0	0	2	0	0	0	1	0	0	3	1	8
04:15 PM	1	0	1	0	2	1	0	0	0	0	0	2	0	7
04:30 PM	0	0	0	0	2	1	0	0	1	0	0	2	0	6
04:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	1	3
Total	2	0	1	0	8	2	0	0	2	0	0	7	2	24
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	3	0	4
05:15 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	3
05:30 PM	0	0	0	0	2	0	1	0	1	0	0	2	2	8
05:45 PM	0	0	0	0	3	0	0	0	0	0	0	1	1	5
Total	0	0	0	0	7	0	1	0	2	0	0	7	3	20
Grand Total	2	0	1	0	15	2	1	0	4	0	0	14	5	44
Apprch %	66.7	0	33.3	0	88.2	11.8	20	0	80	0	0	73.7	26.3	
Total %	4.5	0	2.3	0	34.1	4.5	2.3	0	9.1	0	0	31.8	11.4	

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:00 PM																		
04:00 PM	**1**	0	0	1	0	**2**	0	2	0	0	**1**	0	**1**	0	**3**	**1**	**4**	**8**
04:15 PM	1	0	**1**	**2**	0	2	**1**	**3**	0	0	0	0	0	0	2	0	2	7
04:30 PM	0	0	0	0	0	2	1	3	0	0	1	0	1	0	2	0	2	6
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	1	3
Total Volume	2	0	1	3	0	8	2	10	0	0	2	0	2	0	7	2	9	24
% App. Total	66.7	0	33.3		0	80	20		0	0	100	0		0	77.8	22.2		
PHF	.500	.000	.250	.375	.000	1.000	.500	.833	.000	.000	.500	.000	.500	.000	.583	.500	.563	.750

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N/S: Stop & Shop Drwy/Plaza Drwy
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 AA
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Peds and Bicycles

	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South				Kings Highway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	4
Apprch %	0	100	0	0	0	0	0	0	0	33.3	0	66.7	0	0	0	0	
Total %	0	25	0	0	0	0	0	0	0	25	0	50	0	0	0	0	

	Stop & Shop Driveway From North					Kings Highway From East					Plaza Driveway From South					Kings Highway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	**2**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	**1**									
04:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	0	0	0	0	0	3
% App. Total	0	0	0	0		0	0	0	0		0	33.3	0	66.7		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.375	.000	.000	.000	.000	.000	.375

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File Name : 91912 AA
Site Code : 10111.31
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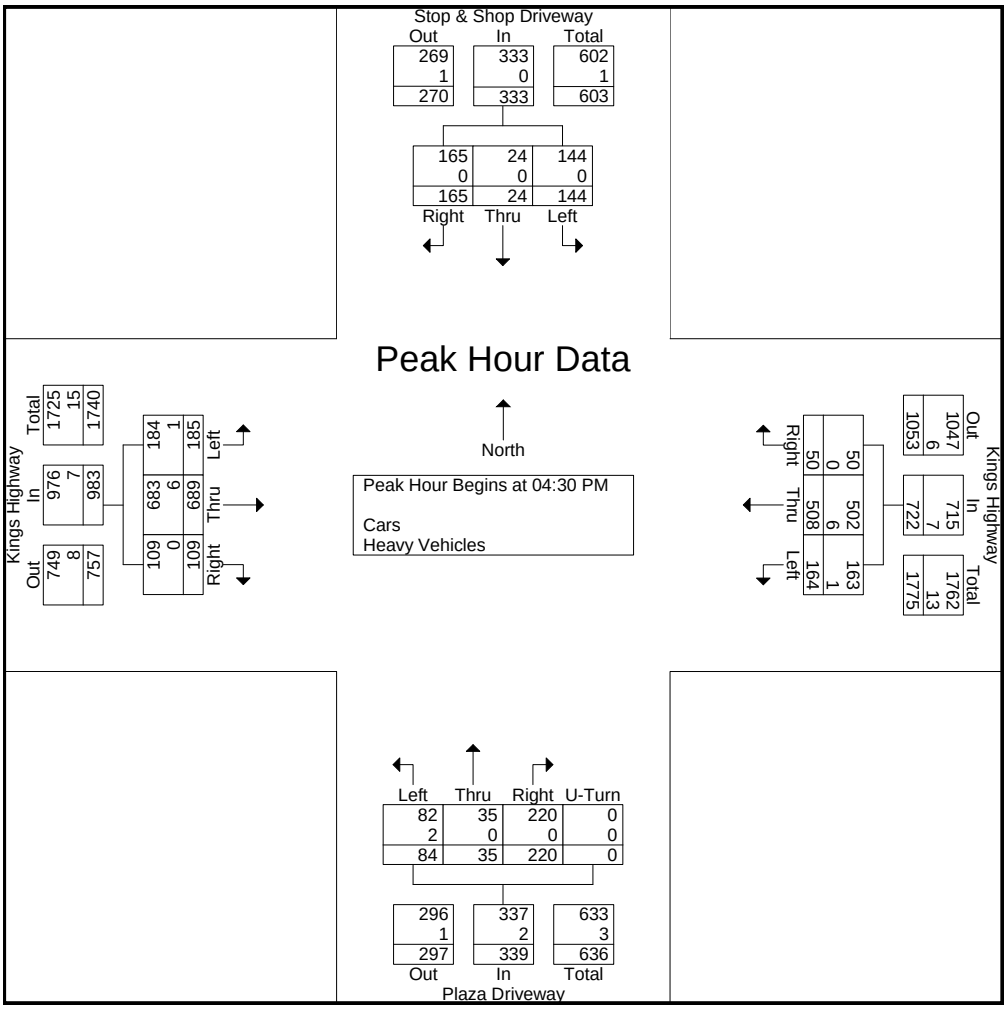
	Stop & Shop Driveway From North				Kings Highway From East				Plaza Driveway From South					Kings Highway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	38	3	35	76	12	**137**	**48**	**197**	**65**	10	**25**	0	**100**	28	160	35	223	596
04:45 PM	35	9	35	79	14	136	37	187	48	**11**						**59**	256	598
05:00 PM	44	**10**	**43**	**97**	**17**	123	35	175	51	7	19	0	77	25	164	39	228	577
05:15 PM	**48**	2	31	81	7	112	44	163	56	7	23	0	86	**30**	**194**	52	**276**	**606**
Total Volume	165	24	144	333	50	508	164	722	220	35	84	0	339	109	689	185	983	2377
% App. Total	49.5	7.2	43.2		6.9	70.4	22.7		64.9	10.3	24.8	0		11.1	70.1	18.8		
PHF	.859	.600	.837	.858	.735	.927	.854	.916	.846	.795	.840	.000	.848	.908	.888	.784	.890	.981
Cars	165	24	144	333	50	502	163	715	220	35	82	0	337	109	683	184	976	2361
% Cars	100	100	100	100	100	98.8	99.4	99.0	100	100	97.6	0	99.4	100	99.1	99.5	99.3	99.3
Heavy Vehicles	0	0	0	0	0	6	1	7	0	0	2	0	2	0	6	1	7	16
% Heavy Vehicles	0	0	0	0	0	1.2	0.6	1.0	0	0	2.4	0	0.6	0	0.9	0.5	0.7	0.7



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S: Shaws Plaza Driveway
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 B
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Kings Highway From East		Shaws Plaza Driveway From South			Kings Highway From West		
Start Time	Thru	Left	Right	Left	U-Turn	Right	Thru	Int. Total
07:00 AM	134	18	8	13	0	26	69	268
07:15 AM	155	12	10	14	2	13	82	288
07:30 AM	162	16	7	15	0	16	81	297
07:45 AM	182	20	13	20	0	20	99	354
Total	633	66	38	62	2	75	331	1207
08:00 AM	160	15	12	16	0	27	79	309
08:15 AM	170	32	7	32	0	36	75	352
08:30 AM	141	19	11	31	0	36	87	325
08:45 AM	148	28	9	31	0	42	92	350
Total	619	94	39	110	0	141	333	1336
Grand Total	1252	160	77	172	2	216	664	2543
Apprch %	88.7	11.3	30.7	68.5	0.8	24.5	75.5	
Total %	49.2	6.3	3	6.8	0.1	8.5	26.1	
Cars	1191	150	74	160	2	209	616	2402
% Cars	95.1	93.8	96.1	93	100	96.8	92.8	94.5
Heavy Vehicles	61	10	3	12	0	7	48	141
% Heavy Vehicles	4.9	6.2	3.9	7	0	3.2	7.2	5.5

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
07:45 AM	**182**	**20**	**202**	**13**	**20**	**0**	**33**	**20**	**99**	**119**	**354**
08:00 AM	160	15	175	12	16	0	28	27	79	106	309
08:15 AM	170	**32**	202	7	**32**	0	39	**36**	75	111	352
08:30 AM	141	19	160	11	31	0	**42**			**123**	
Total Volume	**653**	**86**	**739**	**43**	**99**	**0**	**142**	**119**	**340**	**459**	**1340**
% App. Total	**88.4**	**11.6**		**30.3**	**69.7**	**0**		**25.9**	**74.1**		
PHF	**.897**	**.672**	**.915**	**.827**	**.773**	**.000**	**.845**	**.826**	**.859**	**.933**	**.946**
Cars	**626**	**82**	**708**	**41**	**92**	**0**	**133**	**117**	**321**	**438**	**1279**
% Cars	**95.9**	**95.3**	**95.8**	**95.3**	**92.9**	**0**	**93.7**	**98.3**	**94.4**	**95.4**	**95.4**
Heavy Vehicles	**27**	**4**	**31**	**2**	**7**	**0**	**9**	**2**	**19**	**21**	**61**
% Heavy Vehicles	**4.1**	**4.7**	**4.2**	**4.7**	**7.1**	**0**	**6.3**	**1.7**	**5.6**	**4.6**	**4.6**

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S: Shaws Plaza Driveway
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 B
Site Code : 10111.31
Start Date : 6/9/2009
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Groups Printed- Cars

	Kings Highway From East		Shaws Plaza Driveway From South			Kings Highway From West		
Start Time	Thru	Left	Right	Left	U-Turn	Right	Thru	Int. Total
07:00 AM	117	18	8	12	0	26	60	241
07:15 AM	147	10	10	13	2	12	73	267
07:30 AM	158	14	6	14	0	13	73	278
07:45 AM	178	18	12	17	0	20	92	337
Total	600	60	36	56	2	71	298	1123
08:00 AM	150	14	11	16	0	26	76	293
08:15 AM	166	31	7	29	0	35	71	339
08:30 AM	132	19	11	30	0	36	82	310
08:45 AM	143	26	9	29	0	41	89	337
Total	591	90	38	104	0	138	318	1279
Grand Total	1191	150	74	160	2	209	616	2402
Apprch %	88.8	11.2	31.4	67.8	0.8	25.3	74.7	
Total %	49.6	6.2	3.1	6.7	0.1	8.7	25.6	

	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:45 AM											
07:45 AM	**178**	**18**	**196**	**12**	**17**	**0**	**29**	**20**	**92**	**112**	**337**
08:00 AM	**150**	**14**	**164**	**11**	**16**	**0**	**27**	**26**	**76**	**102**	**293**
08:15 AM	**166**	**31**	**197**	**7**	**29**	**0**	**36**	**35**	**71**	**106**	**339**
08:30 AM	132	19	151	11	**30**	0	**41**	**36**	82	**118**	
Total Volume	**626**	**82**	**708**	**41**	**92**	**0**	**133**	**117**	**321**	**438**	**1279**
% App. Total	**88.4**	**11.6**		**30.8**	**69.2**	**0**		**26.7**	**73.3**		
PHF	**.879**	**.661**	**.898**	**.854**	**.767**	**.000**	**.811**	**.813**	**.872**	**.928**	**.943**

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E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 B
Site Code : 10111.31
Start Date : 6/9/2009
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Groups Printed- Heavy Vehicles

	Kings Highway From East		Shaws Plaza Driveway From South			Kings Highway From West		
Start Time	Thru	Left	Right	Left	U-Turn	Right	Thru	Int. Total
07:00 AM	17	0	0	1	0	0	9	27
07:15 AM	8	2	0	1	0	1	9	21
07:30 AM	4	2	1	1	0	3	8	19
07:45 AM	4	2	1	3	0	0	7	17
Total	33	6	2	6	0	4	33	84
08:00 AM	10	1	1	0	0	1	3	16
08:15 AM	4	1	0	3	0	1	4	13
08:30 AM	9	0	0	1	0	0	5	15
08:45 AM	5	2	0	2	0	1	3	13
Total	28	4	1	6	0	3	15	57
Grand Total	61	10	3	12	0	7	48	141
Apprch %	85.9	14.1	20	80	0	12.7	87.3	
Total %	43.3	7.1	2.1	8.5	0	5	34	

	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:00 AM											
07:00 AM	**17**	**0**	**17**	**0**	**1**	**0**	**1**	**0**	**9**	**9**	**27**
07:15 AM	8	**2**	10	0	1	0	1	1	9	10	21
07:30 AM	4	2	6	**1**				**3**	8	**11**	
07:45 AM	**4**	**2**	**6**	**1**	**3**	0	**4**	**0**	**7**	**7**	**17**
Total Volume	**33**	**6**	**39**	**2**	**6**	**0**	**8**	**4**	**33**	**37**	**84**
% App. Total	**84.6**	**15.4**		**25**	**75**	**0**		**10.8**	**89.2**		
PHF	**.485**	**.750**	**.574**	**.500**	**.500**	**.000**	**.500**	**.333**	**.917**	**.841**	**.778**

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Groups Printed- Peds and Bicycles

	Kings Highway From East			Shaws Plaza Driveway From South			Kings Highway From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	2	0	0	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	0	0	2
Grand Total	0	0	0	0	0	4	0	0	1	5
Apprch %	0	0	0	0	0	100	0	0	100	
Total %	0	0	0	0	0	80	0	0	20	

	Kings Highway From East				Shaws Plaza Driveway From South				Kings Highway From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	**2**
Total Volume	0	0	0	0	0	0	3	3	0	0	1	1	4
% App. Total	0	0	0		0	0	100		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.375	.375	.000	.000	.250	.250	.500

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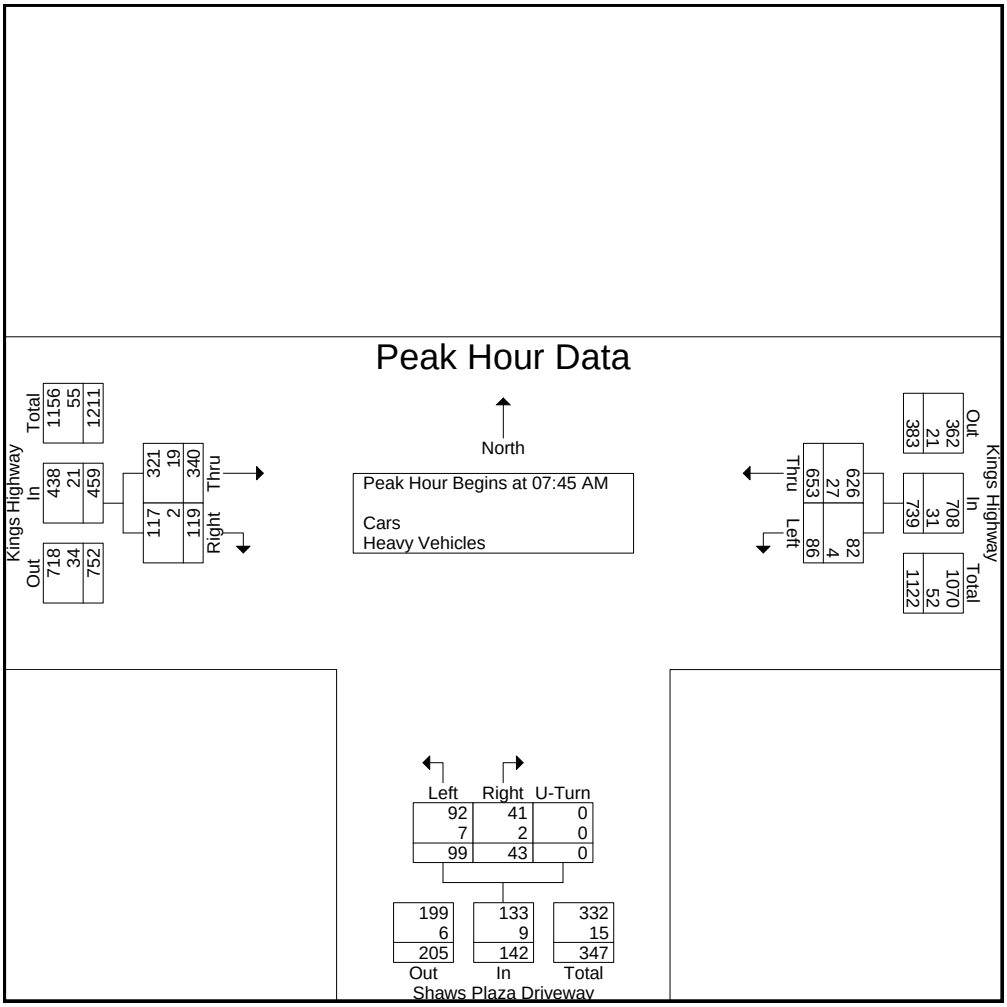
	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:45 AM											
07:45 AM	**182**	**20**	**202**	**13**	**20**	**0**	**33**	**20**	**99**	**119**	**354**
08:00 AM	160	15	175	12	16	0	28	27	79	106	309
08:15 AM	170	**32**	202	7	**32**	0	39	**36**	75	111	352
08:30 AM	141	19	160	11	31	0	**42**			**123**	
Total Volume	**653**	**86**	**739**	**43**	**99**	**0**	**142**	**119**	**340**	**459**	**1340**
% App. Total	**88.4**	**11.6**		**30.3**	**69.7**	**0**		**25.9**	**74.1**		
PHF	**.897**	**.672**	**.915**	**.827**	**.773**	**.000**	**.845**	**.826**	**.859**	**.933**	**.946**
Cars	**626**	**82**	**708**	**41**	**92**	**0**	**133**	**117**	**321**	**438**	**1279**
% Cars	**95.9**	**95.3**	**95.8**	**95.3**	**92.9**	**0**	**93.7**	**98.3**	**94.4**	**95.4**	**95.4**
Heavy Vehicles	**27**	**4**	**31**	**2**	**7**	**0**	**9**	**2**	**19**	**21**	**61**
% Heavy Vehicles	**4.1**	**4.7**	**4.2**	**4.7**	**7.1**	**0**	**6.3**	**1.7**	**5.6**	**4.6**	**4.6**



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Client: VHB/M. Regan

File Name : 91912 BB
Site Code : 10111.31
Start Date : 6/9/2009
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Groups Printed- Cars - Heavy Vehicles

	Kings Highway From East		Shaws Plaza Driveway From South			Kings Highway From West		
Start Time	Thru	Left	Right	Left	U-Turn	Right	Thru	Int. Total
04:00 PM	173	28	22	46	0	54	138	461
04:15 PM	181	38	24	33	2	58	132	468
04:30 PM	163	40	22	38	0	45	140	448
04:45 PM	178	36	21	35	0	65	151	486
Total	695	142	89	152	2	222	561	1863
05:00 PM	171	36	29	58	0	52	156	502
05:15 PM	141	39	30	48	0	53	143	454
05:30 PM	185	27	39	51	3	38	124	467
05:45 PM	148	30	30	55	0	54	114	431
Total	645	132	128	212	3	197	537	1854
Grand Total	1340	274	217	364	5	419	1098	3717
Apprch %	83	17	37	62.1	0.9	27.6	72.4	
Total %	36.1	7.4	5.8	9.8	0.1	11.3	29.5	
Cars	1324	272	216	360	5	416	1080	3673
% Cars	98.8	99.3	99.5	98.9	100	99.3	98.4	98.8
Heavy Vehicles	16	2	1	4	0	3	18	44
% Heavy Vehicles	1.2	0.7	0.5	1.1	0	0.7	1.6	1.2

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
04:45 PM	178	36	**214**	**21**	**35**	**0**	**56**	**65**	151	**216**	**486**
05:00 PM	**171**	**36**	**207**	**29**	**58**	0	87	52	**156**	**208**	**502**
05:15 PM	141	**39**	180	30	48	0	78	53	143	196	454
05:30 PM	**185**			**39**		**3**	**93**				
Total Volume	**675**	**138**	**813**	**119**	**192**	**3**	**314**	**208**	**574**	**782**	**1909**
% App. Total	**83**	**17**		**37.9**	**61.1**	**1**		**26.6**	**73.4**		
PHF	**.912**	**.885**	**.950**	**.763**	**.828**	**.250**	**.844**	**.800**	**.920**	**.905**	**.951**
Cars	**669**	**138**	**807**	**119**	**191**	**3**	**313**	**206**	**566**	**772**	**1892**
% Cars	**99.1**	**100**	**99.3**	**100**	**99.5**	**100**	**99.7**	**99.0**	**98.6**	**98.7**	**99.1**
Heavy Vehicles	**6**	**0**	**6**	**0**	**1**	**0**	**1**	**2**	**8**	**10**	**17**
% Heavy Vehicles	**0.9**	**0**	**0.7**	**0**	**0.5**	**0**	**0.3**	**1.0**	**1.4**	**1.3**	**0.9**

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

S: Shaws Plaza Driveway
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 BB
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Cars

	Kings Highway From East		Shaws Plaza Driveway From South			Kings Highway From West		
Start Time	Thru	Left	Right	Left	U-Turn	Right	Thru	Int. Total
04:00 PM	172	27	22	46	0	54	134	455
04:15 PM	178	37	23	32	2	57	128	457
04:30 PM	160	40	22	37	0	45	138	442
04:45 PM	177	36	21	35	0	65	150	484
Total	687	140	88	150	2	221	550	1838
05:00 PM	170	36	29	57	0	51	153	496
05:15 PM	139	39	30	48	0	53	142	451
05:30 PM	183	27	39	51	3	37	121	461
05:45 PM	145	30	30	54	0	54	114	427
Total	637	132	128	210	3	195	530	1835
Grand Total	1324	272	216	360	5	416	1080	3673
Apprch %	83	17	37.2	62	0.9	27.8	72.2	
Total %	36	7.4	5.9	9.8	0.1	11.3	29.4	

	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	177	36	**213**	**21**	**35**	**0**	**56**	**65**	150	**215**	**484**
05:00 PM	**170**	**36**	**206**	**29**	**57**	0	86	51	**153**	**204**	**496**
05:15 PM	139	**39**	178	30	48	0	78	53	142	195	451
05:30 PM	**183**			**39**		**3**	**93**				
Total Volume	**669**	**138**	**807**	**119**	**191**	**3**	**313**	**206**	**566**	**772**	**1892**
% App. Total	**82.9**	**17.1**		**38**	**61**	**1**		**26.7**	**73.3**		
PHF	**.914**	**.885**	**.947**	**.763**	**.838**	**.250**	**.841**	**.792**	**.925**	**.898**	**.954**

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S: Shaws Plaza Driveway
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 BB
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Heavy Vehicles

	Kings Highway From East		Shaws Plaza Driveway From South			Kings Highway From West		
Start Time	Thru	Left	Right	Left	U-Turn	Right	Thru	Int. Total
04:00 PM	1	1	0	0	0	0	4	6
04:15 PM	3	1	1	1	0	1	4	11
04:30 PM	3	0	0	1	0	0	2	6
04:45 PM	1	0	0	0	0	0	1	2
Total	8	2	1	2	0	1	11	25
05:00 PM	1	0	0	1	0	1	3	6
05:15 PM	2	0	0	0	0	0	1	3
05:30 PM	2	0	0	0	0	1	3	6
05:45 PM	3	0	0	1	0	0	0	4
Total	8	0	0	2	0	2	7	19
Grand Total	16	2	1	4	0	3	18	44
Apprch %	88.9	11.1	20	80	0	14.3	85.7	
Total %	36.4	4.5	2.3	9.1	0	6.8	40.9	

	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:00 PM											
04:00 PM	1	**1**	2	0	0	0	0	0	**4**	**4**	**6**
04:15 PM	**3**	**1**	**4**	**1**	**1**	0	**2**	**1**	4	**5**	**11**
04:30 PM	3	0	3	0	1	0	1	0	2	2	6
04:45 PM	1	0	1	0	0	0	0	0	1	1	2
Total Volume	8	2	10	1	2	0	3	1	11	12	25
% App. Total	80	20		33.3	66.7	0		8.3	91.7		
PHF	.667	.500	.625	.250	.500	.000	.375	.250	.688	.600	.568

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S: Shaws Plaza Driveway
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 BB
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

Groups Printed- Peds and Bicycles

	Kings Highway From East			Shaws Plaza Driveway From South			Kings Highway From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	Kings Highway From East				Shaws Plaza Driveway From South				Kings Highway From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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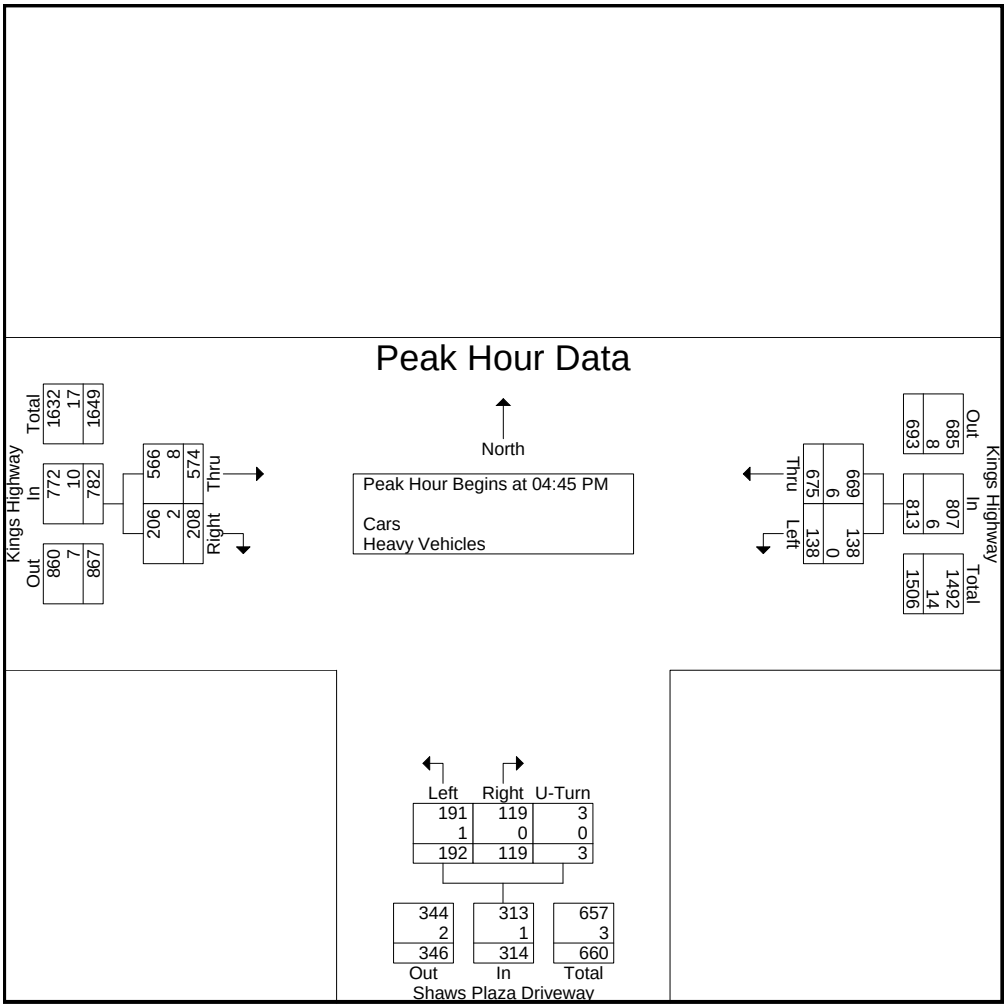
S: Shaws Plaza Driveway
E/W: Kings Highway
City, State: New Bedford, MA
Client: VHB/M. Regan

File Name : 91912 BB
Site Code : 10111.31
Start Date : 6/9/2009
Page No : 1

	Kings Highway From East			Shaws Plaza Driveway From South				Kings Highway From West			
Start Time	Thru	Left	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	178	36	**214**	**21**	**35**	**0**	**56**	**65**	151	**216**	**486**
05:00 PM	**171**	**36**	**207**	**29**	**58**	0	87	52	**156**	**208**	**502**
05:15 PM	141	**39**	180	30	48	0	78	53	143	196	454
05:30 PM	**185**			**39**		**3**	**93**				
Total Volume	**675**	**138**	**813**	**119**	**192**	**3**	**314**	**208**	**574**	**782**	**1909**
% App. Total	**83**	**17**		**37.9**	**61.1**	**1**		**26.6**	**73.4**		
PHF	**.912**	**.885**	**.950**	**.763**	**.828**	**.250**	**.844**	**.800**	**.920**	**.905**	**.951**
Cars	**669**	**138**	**807**	**119**	**191**	**3**	**313**	**206**	**566**	**772**	**1892**
% Cars	**99.1**	**100**	**99.3**	**100**	**99.5**	**100**	**99.7**	**99.0**	**98.6**	**98.7**	**99.1**
Heavy Vehicles	**6**	**0**	**6**	**0**	**1**	**0**	**1**	**2**	**8**	**10**	**17**
% Heavy Vehicles	**0.9**	**0**	**0.7**	**0**	**0.5**	**0**	**0.3**	**1.0**	**1.4**	**1.3**	**0.9**



VHB, Inc.

Counter:
Counted By: N. Landrón
Weather: cloudy / 75 deg
Other:

File Name : TARKIL~2
Site Code : 09200911
Start Date : 6/10/2009
Page No : 1

Groups Printed- CARS

	Tarkiln Hill Rd From North					King's Highway From East					driveway From South					King's Highway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:45 AM	4	1	2	0	7	17	188	0	0	205	0	0	1	0	1	0	159	1	0	160	373
Total	4	1	2	0	7	17	188	0	0	205	0	0	1	0	1	0	159	1	0	160	373
08:00 AM	3	0	5	0	8	15	167	0	1	183	0	0	1	0	1	0	116	3	1	120	312
08:15 AM	4	0	1	0	5	16	163	0	0	179	1	0	0	0	1	1	130	2	1	134	319
08:30 AM	5	0	2	1	8	12	163	0	1	176	0	0	1	1	2	1	124	4	0	129	315
Grand Total	16	1	10	1	28	60	681	0	2	743	1	0	3	1	5	2	529	10	2	543	1319
Apprch %	57.1	3.6	35.7	3.6		8.1	91.7	0.0	0.3		20.0	0.0	60.0	20.0		0.4	97.4	1.8	0.4		
Total %	1.2	0.1	0.8	0.1	2.1	4.5	51.6	0.0	0.2	56.3	0.1	0.0	0.2	0.1	0.4	0.2	40.1	0.8	0.2	41.2	

VHB, Inc.

Counter:
Counted By: N. Landrón
Weather: cloudy / 75 deg
Other:

File Name : TARKIL~2
Site Code : 09200911
Start Date : 6/10/2009
Page No : 1

Groups Printed- HV - EB + SB

	Tarkiln Hill Rd From North					King's Highway From East					driveway From South					King's Highway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:45 AM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	12
Total	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	12
08:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
08:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Grand Total	5	0	2	0	7	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	22
Apprch %	71.4	0.0	28.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	22.7	0.0	9.1	0.0	31.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.2	0.0	0.0	68.2	

VHB, Inc.

Counter:
Counted By: N. Landrón
Weather: cloudy / 75 deg
Other:

File Name : TARKIL~2
Site Code : 09200911
Start Date : 6/10/2009
Page No : 1

Groups Printed- HV - WB + NB

	Tarkiln Hill Rd From North					King's Highway From East					driveway From South					King's Highway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:45 AM	0	0	0	0	0	0	8	0	0	8	0	0	2	0	2	0	0	0	0	0	10
Total	0	0	0	0	0	0	8	0	0	8	0	0	2	0	2	0	0	0	0	0	10
08:00 AM	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	7
08:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
08:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Grand Total	0	0	1	0	1	0	23	0	0	23	0	0	2	0	2	0	0	0	0	0	26
Apprch %	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	3.8	0.0	3.8	0.0	88.5	0.0	0.0	88.5	0.0	0.0	7.7	0.0	7.7	0.0	0.0	0.0	0.0	0.0	

VHB, Inc.

File Name : TARKIL~1
Site Code : 00060409
Start Date : 6/4/2009
Page No : 1

Groups Printed- Unshifted

	From Tarkiln Hill Road From North					From South					From Kings Highway From East					From Kings Highway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	2	0	13	1	16	0	0	0	0	0	55	214	0	3	272	0	319	9	0	328	616
04:15 PM	5	0	9	0	14	0	0	0	0	0	35	178	0	0	213	0	291	11	0	302	529
04:30 PM	3	0	18	0	21	2	0	3	0	5	32	211	0	1	244	0	265	3	0	268	538
04:45 PM	5	0	11	0	16	0	0	0	0	0	32	210	0	0	242	0	286	8	2	296	554
Total	15	0	51	1	67	2	0	3	0	5	154	813	0	4	971	0	1161	31	2	1194	2237
05:00 PM	7	0	15	0	22	0	0	1	0	1	33	185	0	1	219	0	310	7	0	317	559
Grand Total	22	0	66	1	89	2	0	4	0	6	187	998	0	5	1190	0	1471	38	2	1511	2796
Apprch %	24.7	0.0	74.2	1.1		33.3	0.0	66.7	0.0		15.7	83.9	0.0	0.4		0.0	97.4	2.5	0.1		
Total %	0.8	0.0	2.4	0.0	3.2	0.1	0.0	0.1	0.0	0.2	6.7	35.7	0.0	0.2	42.6	0.0	52.6	1.4	0.1	54.0	

VHB, Inc.

Pleasant St at Rt 18 SB Exit Ramp
AM Peak Hour
7:45 - 8:45 AM

File Name : PURCHA~1
Site Code : 07092009
Start Date : 7/9/2009
Page No : 1

Groups Printed- Cars

	Purchase St From North					Rt 18 SB Exit Ramp From East					Purchase St From South					driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:45 AM	0	51	0	4	55	9	0	68	0	77	0	45	1	2	48	2	0	0	0	2	182
Total	0	51	0	4	55	9	0	68	0	77	0	45	1	2	48	2	0	0	0	2	182
08:00 AM	0	49	0	2	51	10	0	44	0	54	0	45	0	3	48	0	0	0	2	2	155
08:15 AM	0	66	0	5	71	10	4	51	0	65	0	51	0	2	53	1	0	0	3	4	193
08:30 AM	0	63	0	6	69	5	0	56	0	61	0	51	0	1	52	1	0	0	4	5	187
Grand Total	0	229	0	17	246	34	4	219	0	257	0	192	1	8	201	4	0	0	9	13	717
Apprch %	0.0	93.1	0.0	6.9		13.2	1.6	85.2	0.0		0.0	95.5	0.5	4.0		30.8	0.0	0.0	69.2		
Total %	0.0	31.9	0.0	2.4	34.3	4.7	0.6	30.5	0.0	35.8	0.0	26.8	0.1	1.1	28.0	0.6	0.0	0.0	1.3	1.8	

VHB, Inc.

Purchase St at Rt 18 SB Exit Ramp
PM Peak Hour
4:00 - 5:00 PM

File Name : PM_PUR~1
Site Code : 00070909
Start Date : 7/9/2009
Page No : 1

Groups Printed- Cars

	Purchase St From North					Rt 18 SB Exit Ramp From East					Purchase St From South					driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	1	73	0	6	80	14	2	50	0	66	0	99	4	5	108	0	0	1	0	1	255
04:15 PM	0	77	0	0	77	17	2	62	0	81	0	74	0	1	75	0	0	1	0	1	234
04:30 PM	0	71	0	2	73	11	2	52	0	65	0	98	1	3	102	0	0	0	0	0	240
04:45 PM	0	70	0	4	74	10	1	47	0	58	0	89	0	4	93	3	0	0	3	6	231
Total	1	291	0	12	304	52	7	211	0	270	0	360	5	13	378	3	0	2	3	8	960
Grand Total	1	291	0	12	304	52	7	211	0	270	0	360	5	13	378	3	0	2	3	8	960
Apprch %	0.3	95.7	0.0	3.9		19.3	2.6	78.1	0.0		0.0	95.2	1.3	3.4		37.5	0.0	25.0	37.5		
Total %	0.1	30.3	0.0	1.3	31.7	5.4	0.7	22.0	0.0	28.1	0.0	37.5	0.5	1.4	39.4	0.3	0.0	0.2	0.3	0.8	

VHB, Inc.

Purchase St at Rt 18 SB Exit Ramp
PM Peak Hour
4:00 - 5:00 PM

File Name : PM_PUR~1
Site Code : 00070909
Start Date : 7/9/2009
Page No : 1

Groups Printed- Heavy Vehicles

	Purchase St From North					Rt 18 SB Exit Ramp From East					Purchase St From South					driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	5
04:15 PM	0	1	0	0	1	0	0	3	0	3	0	5	0	0	5	0	0	0	0	0	9
04:30 PM	0	1	0	0	1	0	0	2	0	2	0	3	0	0	3	0	0	0	0	0	6
04:45 PM	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
Total	0	6	0	0	6	0	0	6	0	6	0	15	0	0	15	0	0	0	0	0	27
Grand Total	0	6	0	0	6	0	0	6	0	6	0	15	0	0	15	0	0	0	0	0	27
Apprch %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	22.2	0.0	0.0	22.2	0.0	0.0	22.2	0.0	22.2	0.0	55.6	0.0	0.0	55.6	0.0	0.0	0.0	0.0	0.0	

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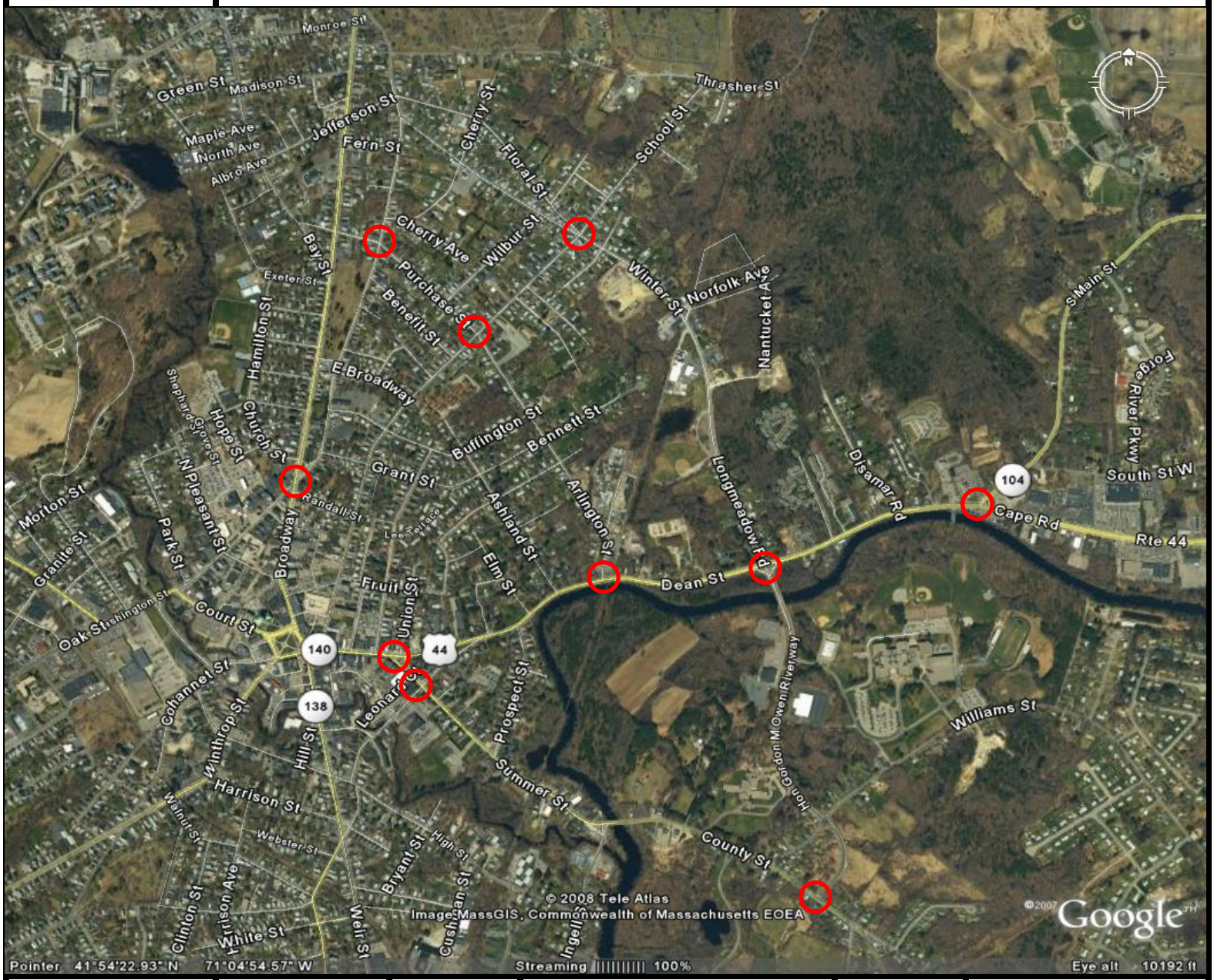
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Wed 9/17/08 and Sat 9/20/08	81676	Taunton, MA

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E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-A
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			School Street From East			Arlington Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	27	4	3	6	3	0	16	1	9	16	6	92
07:15 AM	2	56	5	15	15	2	1	37	1	5	21	0	160
07:30 AM	1	63	6	20	13	4	2	44	4	5	14	5	181
07:45 AM	4	59	11	10	19	0	1	19	7	8	18	7	163
Total	8	205	26	48	53	9	4	116	13	27	69	18	596
08:00 AM	4	43	11	10	18	4	1	18	3	3	12	14	141
08:15 AM	5	45	9	8	23	0	2	18	4	5	14	6	139
08:30 AM	2	33	9	12	18	1	2	28	3	7	17	9	141
08:45 AM	6	50	13	6	20	2	3	15	2	8	14	5	144
Total	17	171	42	36	79	7	8	79	12	23	57	34	565
Grand Total	25	376	68	84	132	16	12	195	25	50	126	52	1161
Apprch %	5.3	80.2	14.5	36.2	56.9	6.9	5.2	84.1	10.8	21.9	55.3	22.8	
Total %	2.2	32.4	5.9	7.2	11.4	1.4	1	16.8	2.2	4.3	10.9	4.5	
Cars	25	362	60	81	122	16	11	192	25	49	119	52	1114
% Cars	100	96.3	88.2	96.4	92.4	100	91.7	98.5	100	98	94.4	100	96
Heavy Vehicles	0	14	8	3	10	0	1	3	0	1	7	0	47
% Heavy Vehicles	0	3.7	11.8	3.6	7.6	0	8.3	1.5	0	2	5.6	0	4

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	56	5	63	15	15	2	32	1	37	1	39	5	**21**	0	26	160
07:30 AM	1	**63**	6	70	**20**	13	**4**	**37**	**2**	**44**	4	**50**	5	14	5	24	**181**
07:45 AM	**4**	59	**11**	**74**	10	**19**	0	29	1	19	**7**	27	**8**	18	7	**33**	163
08:00 AM	4	43	11	58	10	18	4	32	1	18	3	22	3	12	**14**	29	141
Total Volume	11	221	33	265	55	65	10	130	5	118	15	138	21	65	26	112	645
% App. Total	4.2	83.4	12.5		42.3	50	7.7		3.6	85.5	10.9		18.8	58	23.2		
PHF	.688	.877	.750	.895	.688	.855	.625	.878	.625	.670	.536	.690	.656	.774	.464	.848	.891
Cars	11	216	31	258	55	63	10	128	5	115	15	135	20	63	26	109	630
% Cars	100	97.7	93.9	97.4	100	96.9	100	98.5	100	97.5	100	97.8	95.2	96.9	100	97.3	97.7
Heavy Vehicles	0	5	2	7	0	2	0	2	0	3	0	3	1	2	0	3	15
% Heavy Vehicles	0	2.3	6.1	2.6	0	3.1	0	1.5	0	2.5	0	2.2	4.8	3.1	0	2.7	2.3

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E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-A
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North			School Street From East			Arlington Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	27	4	3	5	3	0	16	1	9	13	6	88
07:15 AM	2	56	5	15	13	2	1	35	1	5	21	0	156
07:30 AM	1	61	5	20	13	4	2	44	4	5	14	5	178
07:45 AM	4	57	10	10	19	0	1	19	7	7	17	7	158
Total	8	201	24	48	50	9	4	114	13	26	65	18	580
08:00 AM	4	42	11	10	18	4	1	17	3	3	11	14	138
08:15 AM	5	44	6	7	19	0	2	18	4	5	14	6	130
08:30 AM	2	27	7	11	16	1	1	28	3	7	16	9	128
08:45 AM	6	48	12	5	19	2	3	15	2	8	13	5	138
Total	17	161	36	33	72	7	7	78	12	23	54	34	534
Grand Total	25	362	60	81	122	16	11	192	25	49	119	52	1114
Apprch %	5.6	81	13.4	37	55.7	7.3	4.8	84.2	11	22.3	54.1	23.6	
Total %	2.2	32.5	5.4	7.3	11	1.4	1	17.2	2.2	4.4	10.7	4.7	

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	56	5	63	15	13	2	30	1	35	1	37	5	**21**	0	26	156
07:30 AM	1	**61**	5	67	**20**	13	**4**	**37**	**2**	**44**	4	**50**	5	14	5	24	**178**
07:45 AM	**4**	57	10	**71**	10	**19**	0	29	1	19	**7**	27	**7**	17	7	**31**	158
08:00 AM	4	42	**11**	57	10	18	4	32	1	17	3	21	3	11	**14**	28	138
Total Volume	11	216	31	258	55	63	10	128	5	115	15	135	20	63	26	109	630
% App. Total	4.3	83.7	12		43	49.2	7.8		3.7	85.2	11.1		18.3	57.8	23.9		
PHF	.688	.885	.705	.908	.688	.829	.625	.865	.625	.653	.536	.675	.714	.750	.464	.879	.885

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-A
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Purchase Street From North			School Street From East			Arlington Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	1	0	0	0	0	0	3	0	4
07:15 AM	0	0	0	0	2	0	0	2	0	0	0	0	4
07:30 AM	0	2	1	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	2	1	0	0	0	0	0	0	1	1	0	5
Total	0	4	2	0	3	0	0	2	0	1	4	0	16
08:00 AM	0	1	0	0	0	0	0	1	0	0	1	0	3
08:15 AM	0	1	3	1	4	0	0	0	0	0	0	0	9
08:30 AM	0	6	2	1	2	0	1	0	0	0	1	0	13
08:45 AM	0	2	1	1	1	0	0	0	0	0	1	0	6
Total	0	10	6	3	7	0	1	1	0	0	3	0	31
Grand Total	0	14	8	3	10	0	1	3	0	1	7	0	47
Apprch %	0	63.6	36.4	23.1	76.9	0	25	75	0	12.5	87.5	0	
Total %	0	29.8	17	6.4	21.3	0	2.1	6.4	0	2.1	14.9	0	

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	1	0	1	0	0	0	0	0	**1**	0	**1**	0	**1**	0	**1**	3
08:15 AM	0	1	**3**	4	**1**	**4**	0	**5**	0	0	0	0	0	0	0	0	9
08:30 AM	0	**6**	2	**8**	1	2	0	3	**1**	0	0	1	0	1	0	1	**13**
08:45 AM	0	2	1	3	1	1	0	2	0	0	0	0	0	1	0	1	6
Total Volume	0	10	6	16	3	7	0	10	1	1	0	2	0	3	0	3	31
% App. Total	0	62.5	37.5		30	70	0		50	50	0		0	100	0		
PHF	.000	.417	.500	.500	.750	.438	.000	.500	.250	.250	.000	.500	.000	.750	.000	.750	.596

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File Name : 81676 K-A
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	1	5
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	1	0	0	2	0	0	0	1	0	1	0	3	9
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
08:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Total	0	0	1	2	0	1	0	0	0	0	0	1	0	0	0	2	7
Grand Total	0	0	1	3	1	1	0	2	0	0	0	2	0	1	0	5	16
Apprch %	0	0	25	75	25	25	0	50	0	0	0	100	0	16.7	0	83.3	
Total %	0	0	6.2	18.8	6.2	6.2	0	12.5	0	0	0	12.5	0	6.2	0	31.2	

	Purchase Street From North					School Street From East					Arlington Street From South					School Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	**2**	**2**	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	**1**	0	0	1	**2**	0	0	0	**1**	**1**	0	**1**	0	1	2	**5**
07:45 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	1	1	1	0	0	2	3	0	0	0	1	1	0	1	0	3	4	9
% App. Total	0	0	0	100		33.3	0	0	66.7		0	0	0	100		0	25	0	75		
PHF	.000	.000	.000	.250	.250	.250	.000	.000	.500	.375	.000	.000	.000	.250	.250	.000	.250	.000	.375	.500	.450

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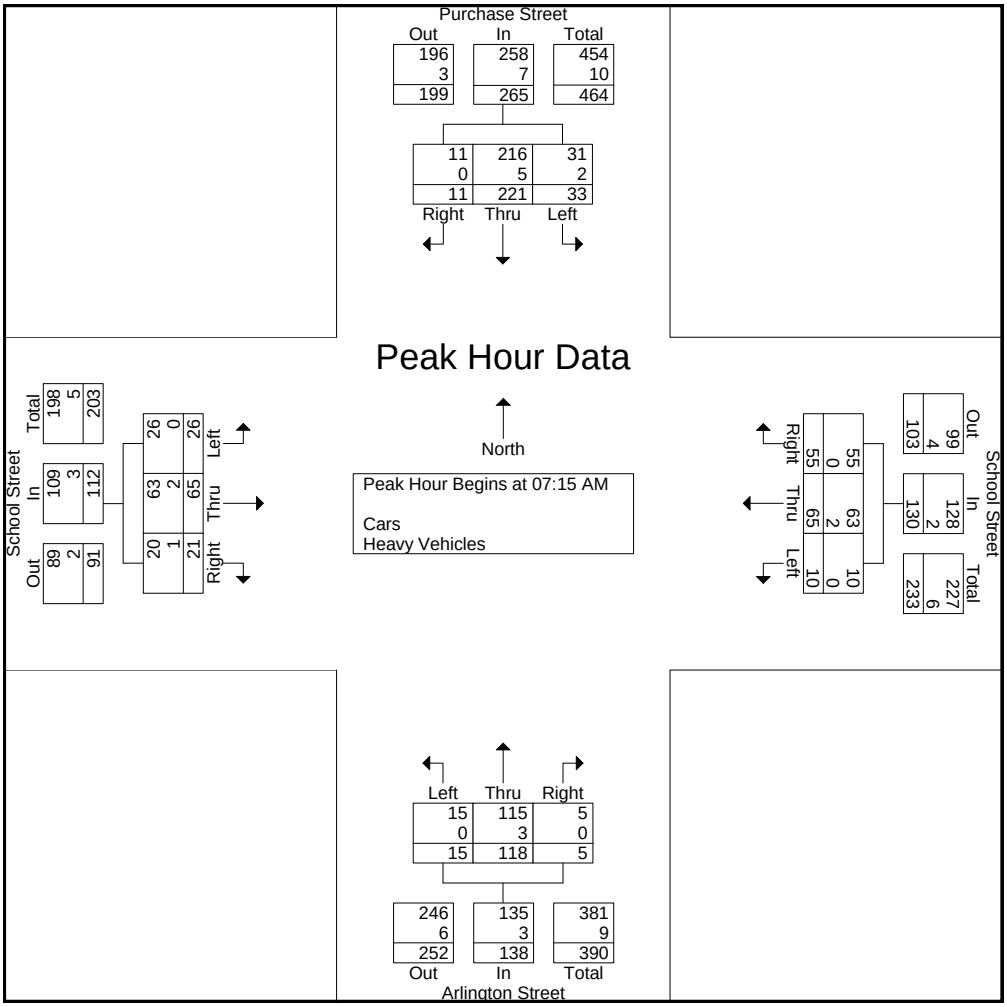
File Name : 81676 K-A
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	56	5	63	15	15	2	32	1	37	1	39	5	**21**	0	26	160
07:30 AM	1	**63**	6	70	**20**	13	**4**	**37**	**2**	**44**	4	**50**	5	14	5	24	**181**
07:45 AM	**4**	59	**11**	**74**	10	**19**	0	29	1	19	**7**	27	**8**	18	7	**33**	163
08:00 AM	4	43	11	58	10	18	4	32	1	18	3	22	3	12	**14**	29	141
Total Volume	11	221	33	265	55	65	10	130	5	118	15	138	21	65	26	112	645
% App. Total	4.2	83.4	12.5		42.3	50	7.7		3.6	85.5	10.9		18.8	58	23.2		
PHF	.688	.877	.750	.895	.688	.855	.625	.878	.625	.670	.536	.690	.656	.774	.464	.848	.891
Cars	11	216	31	258	55	63	10	128	5	115	15	135	20	63	26	109	630
% Cars	100	97.7	93.9	97.4	100	96.9	100	98.5	100	97.5	100	97.8	95.2	96.9	100	97.3	97.7
Heavy Vehicles	0	5	2	7	0	2	0	2	0	3	0	3	1	2	0	3	15
% Heavy Vehicles	0	2.3	6.1	2.6	0	3.1	0	1.5	0	2.5	0	2.2	4.8	3.1	0	2.7	2.3



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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-AAA
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Purchase Street From North			School Street From East			Arlington Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	77	15	19	37	7	5	39	1	3	25	4	233
04:15 PM	4	78	14	25	30	9	2	23	2	8	15	6	216
04:30 PM	3	77	12	9	36	3	2	15	3	10	13	9	192
04:45 PM	6	79	17	9	27	2	0	33	1	7	32	7	220
Total	14	311	58	62	130	21	9	110	7	28	85	26	861
05:00 PM	5	74	16	18	37	4	2	15	0	13	25	9	218
05:15 PM	3	43	7	15	24	3	3	15	5	8	18	3	147
05:30 PM	3	28	5	9	32	6	2	24	5	9	20	3	146
05:45 PM	0	33	3	5	31	5	3	12	3	6	18	12	131
Total	11	178	31	47	124	18	10	66	13	36	81	27	642
Grand Total	25	489	89	109	254	39	19	176	20	64	166	53	1503
Apprch %	4.1	81.1	14.8	27.1	63.2	9.7	8.8	81.9	9.3	22.6	58.7	18.7	
Total %	1.7	32.5	5.9	7.3	16.9	2.6	1.3	11.7	1.3	4.3	11	3.5	
Cars	25	478	88	108	248	39	19	176	20	62	163	52	1478
% Cars	100	97.8	98.9	99.1	97.6	100	100	100	100	96.9	98.2	98.1	98.3
Heavy Vehicles	0	11	1	1	6	0	0	0	0	2	3	1	25
% Heavy Vehicles	0	2.2	1.1	0.9	2.4	0	0	0	0	3.1	1.8	1.9	1.7

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	77	15	93	19	**37**	7	63	**5**	**39**	1	**45**	3	25	4	32	**233**
04:15 PM	4	78	14	96	**25**	30	**9**	**64**	2	23	2	27	8	15	6	29	216
04:30 PM	3	77	12	92	9	36	3	48	2	15	**3**	20	**10**	13	**9**	32	192
04:45 PM	**6**	**79**	**17**	**102**	9	27	2	38	0	33	1	34	7	**32**	7	**46**	220
Total Volume	14	311	58	383	62	130	21	213	9	110	7	126	28	85	26	139	861
% App. Total	3.7	81.2	15.1		29.1	61	9.9		7.1	87.3	5.6		20.1	61.2	18.7		
PHF	.583	.984	.853	.939	.620	.878	.583	.832	.450	.705	.583	.700	.700	.664	.722	.755	.924
Cars	14	304	58	376	62	128	21	211	9	110	7	126	28	83	25	136	849
% Cars	100	97.7	100	98.2	100	98.5	100	99.1	100	100	100	100	100	97.6	96.2	97.8	98.6
Heavy Vehicles	0	7	0	7	0	2	0	2	0	0	0	0	0	2	1	3	12
% Heavy Vehicles	0	2.3	0	1.8	0	1.5	0	0.9	0	0	0	0	0	2.4	3.8	2.2	1.4

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N/S: Purchase Street/Arlington Street
E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-AAA
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Purchase Street From North			School Street From East			Arlington Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	74	15	19	37	7	5	39	1	3	25	4	230
04:15 PM	4	75	14	25	29	9	2	23	2	8	14	6	211
04:30 PM	3	77	12	9	35	3	2	15	3	10	13	8	190
04:45 PM	6	78	17	9	27	2	0	33	1	7	31	7	218
Total	14	304	58	62	128	21	9	110	7	28	83	25	849
05:00 PM	5	72	15	17	36	4	2	15	0	13	25	9	213
05:15 PM	3	43	7	15	22	3	3	15	5	8	18	3	145
05:30 PM	3	27	5	9	32	6	2	24	5	8	20	3	144
05:45 PM	0	32	3	5	30	5	3	12	3	5	17	12	127
Total	11	174	30	46	120	18	10	66	13	34	80	27	629
Grand Total	25	478	88	108	248	39	19	176	20	62	163	52	1478
Apprch %	4.2	80.9	14.9	27.3	62.8	9.9	8.8	81.9	9.3	22.4	58.8	18.8	
Total %	1.7	32.3	6	7.3	16.8	2.6	1.3	11.9	1.4	4.2	11	3.5	

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	74	15	90	19	**37**	7	**63**	**5**	**39**	1	**45**	3	25	4	32	**230**
04:15 PM	4	75	14	93	**25**	29	**9**	63	2	23	2	27	8	14	6	28	211
04:30 PM	3	77	12	92	9	35	3	47	2	15	**3**	20	**10**	13	**8**	31	190
04:45 PM	**6**	**78**	**17**	**101**	9	27	2	38	0	33	1	34	7	**31**	7	**45**	218
Total Volume	14	304	58	376	62	128	21	211	9	110	7	126	28	83	25	136	849
% App. Total	3.7	80.9	15.4		29.4	60.7	10		7.1	87.3	5.6		20.6	61	18.4		
PHF	.583	.974	.853	.931	.620	.865	.583	.837	.450	.705	.583	.700	.700	.669	.781	.756	.923

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Client: VHB/J. Quitter

File Name : 81676 K-AAA
Site Code : 10111.31
Start Date : 9/17/2008
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Groups Printed- Heavy Vehicles

	Purchase Street From North			School Street From East			Arlington Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
04:15 PM	0	3	0	0	1	0	0	0	0	0	1	0	5
04:30 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
04:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
Total	0	7	0	0	2	0	0	0	0	0	2	1	12
05:00 PM	0	2	1	1	1	0	0	0	0	0	0	0	5
05:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
05:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	2
05:45 PM	0	1	0	0	1	0	0	0	0	1	1	0	4
Total	0	4	1	1	4	0	0	0	0	2	1	0	13
Grand Total	0	11	1	1	6	0	0	0	0	2	3	1	25
Apprch %	0	91.7	8.3	14.3	85.7	0	0	0	0	33.3	50	16.7	
Total %	0	44	4	4	24	0	0	0	0	8	12	4	

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**3**	0	**3**	0	**1**	0	1	0	0	0	0	0	**1**	0	**1**	**5**
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**1**	1	2
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
05:00 PM	0	2	**1**	3	**1**	1	0	**2**	0	0	0	0	0	0	0	0	5
Total Volume	0	6	1	7	1	3	0	4	0	0	0	0	0	2	1	3	14
% App. Total	0	85.7	14.3		25	75	0		0	0	0		0	66.7	33.3		
PHF	.000	.500	.250	.583	.250	.750	.000	.500	.000	.000	.000	.000	.000	.500	.250	.750	.700

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-AAA
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	3	0	2	0	0	6
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	1	0	0	0	0	0	0	0	1	0	3	0	2	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	5
05:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	6
Total	0	0	0	0	0	6	0	0	0	0	0	2	0	3	3	0	14
Grand Total	0	1	0	0	0	6	0	0	0	1	0	5	0	5	3	0	21
Apprch %	0	100	0	0	0	100	0	0	0	16.7	0	83.3	0	62.5	37.5	0	
Total %	0	4.8	0	0	0	28.6	0	0	0	4.8	0	23.8	0	23.8	14.3	0	

	Purchase Street From North					School Street From East					Arlington Street From South					School Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	1	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	**3**	**0**	**0**	**3**	0	0	0	0	0	0	0	**2**	**0**	**2**	**5**
05:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0	0	**3**	**6**
Total Volume	0	0	0	0	0	0	6	0	0	6	0	0	0	2	2	0	3	3	0	6	14
% App. Total	0	0	0	0		0	100	0	0		0	0	0	100		0	50	50	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.500	.500	.000	.250	.375	.000	.500	.583

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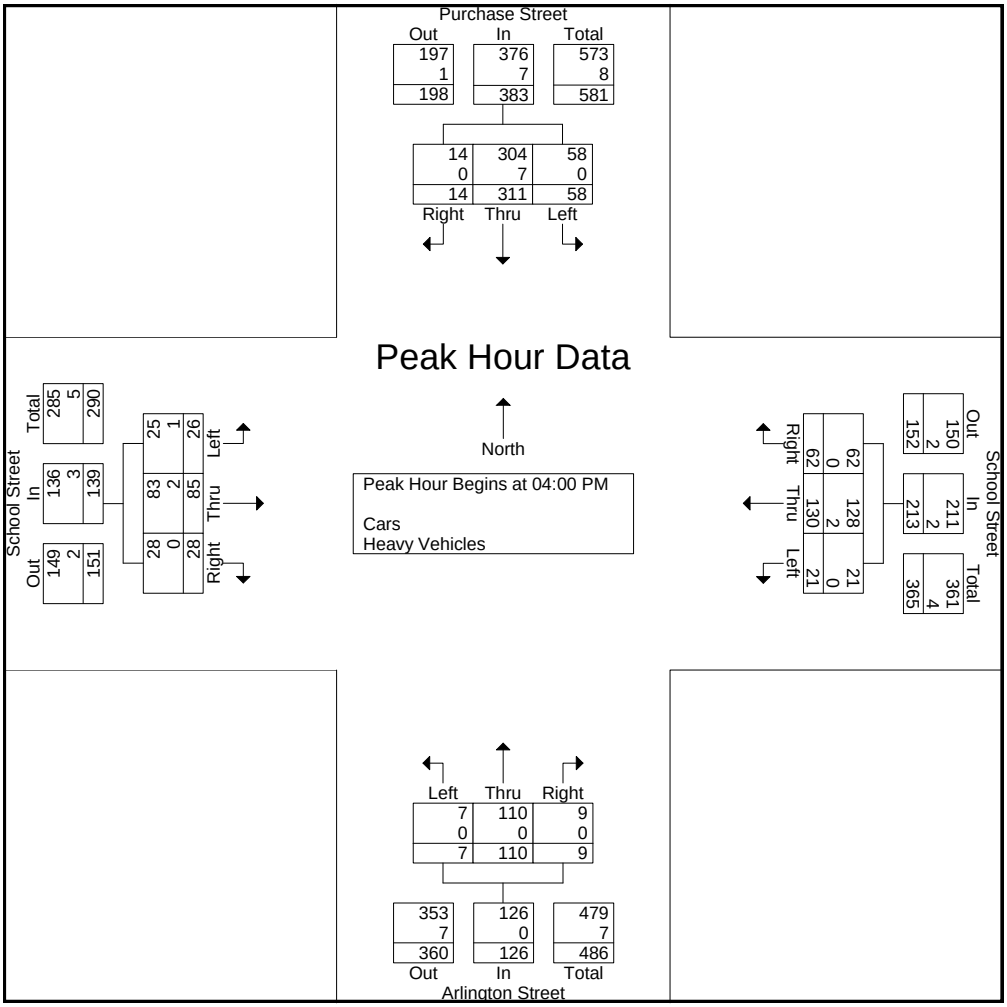
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-AAA
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Purchase Street From North				School Street From East				Arlington Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	77	15	93	19	**37**	7	63	**5**	**39**	1	**45**	3	25	4	32	**233**
04:15 PM	4	78	14	96	**25**	30	**9**	**64**	2	23	2	27	8	15	6	29	216
04:30 PM	3	77	12	92	9	36	3	48	2	15	**3**	20	**10**	13	**9**	32	192
04:45 PM	**6**	**79**	**17**	**102**	9	27	2	38	0	33	1	34	7	**32**	7	**46**	220
Total Volume	14	311	58	383	62	130	21	213	9	110	7	126	28	85	26	139	861
% App. Total	3.7	81.2	15.1		29.1	61	9.9		7.1	87.3	5.6		20.1	61.2	18.7		
PHF	.583	.984	.853	.939	.620	.878	.583	.832	.450	.705	.583	.700	.700	.664	.722	.755	.924
Cars	14	304	58	376	62	128	21	211	9	110	7	126	28	83	25	136	849
% Cars	100	97.7	100	98.2	100	98.5	100	99.1	100	100	100	100	100	97.6	96.2	97.8	98.6
Heavy Vehicles	0	7	0	7	0	2	0	2	0	0	0	0	0	2	1	3	12
% Heavy Vehicles	0	2.3	0	1.8	0	1.5	0	0.9	0	0	0	0	0	2.4	3.8	2.2	1.4



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N/S: Broadway (Route 138)
E/W/SE: Washington Street/Randall Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-B
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North				Washington Street From East				Randall Street From Southeast				Broadway (Route 138) From South				Washington Street From West				
Start	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Right	Bear Right	Thru	Left	Int. Total
07:00 AM	33	49	1	1	0	15	1	0	0	0	1	0	3	7	105	0	1	0	10	62	289
07:15 AM	46	83	3	2	1	14	2	0	0	2	1	1	3	4	124	2	1	1	32	64	386
07:30 AM	51	108	3	1	0	30	5	0	1	3	0	0	6	3	145	0	1	0	15	63	435
07:45 AM	63	81	0	0	0	32	7	0	1	2	4	2	8	4	116	0	0	0	17	61	398
Total	193	321	7	4	1	91	15	0	2	7	6	3	20	18	490	2	3	1	74	250	1508
08:00 AM	57	81	2	0	1	17	4	0	0	3	1	2	5	3	110	1	2	0	21	78	388
08:15 AM	53	69	1	0	1	18	3	1	0	0	0	5	7	8	97	1	0	0	14	59	337
08:30 AM	68	76	1	0	4	19	4	0	1	2	1	3	4	3	112	4	1	0	12	47	362
08:45 AM	63	98	1	2	0	19	3	0	0	4	1	3	5	8	108	1	0	0	23	60	399
Total	241	324	5	2	6	73	14	1	1	9	3	13	21	22	427	7	3	0	70	244	1486
Grand Total	434	645	12	6	7	164	29	1	3	16	9	16	41	40	917	9	6	1	144	494	2994
Apprch %	39.6	58.8	1.1	0.5	3.5	81.6	14.4	0.5	6.8	36.4	20.5	36.4	4.1	4	91.1	0.9	0.9	0.2	22.3	76.6	
Total %	14.5	21.5	0.4	0.2	0.2	5.5	1	0	0.1	0.5	0.3	0.5	1.4	1.3	30.6	0.3	0.2	0	4.8	16.5	
Cars	407	592	11	5	7	155	27	1	3	16	9	15	41	39	863	8	5	1	141	470	2816
% Cars	93.8	91.8	91.7	83.3	100	94.5	93.1	100	100	100	100	93.8	100	97.5	94.1	88.9	83.3	100	97.9	95.1	94.1
Heavy Vehicles	27	53	1	1	0	9	2	0	0	0	0	1	0	1	54	1	1	0	3	24	178
% Heavy Vehicles	6.2	8.2	8.3	16.7	0	5.5	6.9	0	0	0	0	6.2	0	2.5	5.9	11.1	16.7	0	2.1	4.9	5.9

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:15 AM																										
07:15 AM	46	83	**3**	**2**	**134**	**1**	**14**	**2**	**0**	**17**	**0**	**2**	**1**	**1**	**4**	**3**	**4**	124	**2**	**133**	**1**	**1**	**32**	64	98	386
07:30 AM	51	**108**	3	1	**163**	0	30	5	0	35	**1**	**3**	**0**	**0**	**4**	**6**	**3**	**145**	**0**	**154**	1	0	15	63	79	**435**
07:45 AM	**63**	**81**	**0**	**0**	**144**	**0**	**32**	**7**	0	**39**	**1**	**2**	**4**	**2**	**9**	**8**	**4**	116	0	128	0	0	17	61	78	398
08:00 AM	57	81	2	0	140	1	17	4	0	22	0	3	1	2	6	5	3	110	1	119	**2**	**0**	**21**	**78**	**101**	**388**
Total Volume	217	353	8	3	581	2	93	18	0	113	2	10	6	5	23	22	14	495	3	534	4	1	85	266	356	1607
% App. Total	37.3	60.8					82.3	15.9				43.5	26.1	21.7				92.7	0.6		1.1	0.3	23.9	74.7		
PHF	.861	.817	.667	.375	.891	.500	.727	.643	.000	.724	.500	.833	.375	.625		.688	.875	.853	.375	.867	.500	.250	.664	.853	.881	.924
Cars	208	330																467	3	506	3	1	83	254	341	1527
% Cars	95.9	93.5	87.5	66.7	94.1	100	98.9	94.4			100	100	100	80.0		100	100	94.3	100	94.8	75.0	100	97.6	95.5	95.8	95.0
Heavy Vehicles																										
% Heavy Vehicles	4.1	6.5	12.5	33.3	5.9	0	1.1	5.6	0	1.8	0	0	0	20.0	4.3	0	0	5.7	0	5.2	25.0	0	2.4	4.5	4.2	5.0

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Client: VHB/J. Quitter

File Name : 81676 K-B
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North				Washington Street From East				Randall Street From Southeast				Broadway (Route 138) From South				Washington Street From West				
Start	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Right	Bear Right	Thru	Left	Int. Total
07:00 AM	31	44	1	1	0	15	1	0	0	0	1	0	3	7	103	0	1	0	10	59	277
07:15 AM	45	79	3	1	1	14	2	0	0	2	1	1	3	4	117	2	1	1	31	60	368
07:30 AM	51	104	2	1	0	29	4	0	1	3	0	0	6	3	137	0	0	0	14	59	414
07:45 AM	62	73	0	0	0	32	7	0	1	2	4	1	8	4	109	0	0	0	17	59	379
Total	189	300	6	3	1	90	14	0	2	7	6	2	20	18	466	2	2	1	72	237	1438
08:00 AM	50	74	2	0	1	17	4	0	0	3	1	2	5	3	104	1	2	0	21	76	366
08:15 AM	50	64	1	0	1	17	3	1	0	0	0	5	7	8	87	1	0	0	13	55	313
08:30 AM	62	66	1	0	4	18	3	0	1	2	1	3	4	2	108	3	1	0	12	45	336
08:45 AM	56	88	1	2	0	13	3	0	0	4	1	3	5	8	98	1	0	0	23	57	363
Total	218	292	5	2	6	65	13	1	1	9	3	13	21	21	397	6	3	0	69	233	1378
Grand Total	407	592	11	5	7	155	27	1	3	16	9	15	41	39	863	8	5	1	141	470	2816
Apprch %	40.1	58.3	1.1	0.5	3.7	81.6	14.2	0.5	7	37.2	20.9	34.9	4.3	4.1	90.7	0.8	0.8	0.2	22.9	76.2	
Total %	14.5	21	0.4	0.2	0.2	5.5	1	0	0.1	0.6	0.3	0.5	1.5	1.4	30.6	0.3	0.2	0	5	16.7	

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:15 AM																										
07:15 AM	45	79	**3**	**1**	**128**	**1**	**14**	**2**	**0**	**17**	**0**	**2**	**1**	**1**	**4**	**3**	**4**	117	**2**	**126**	**1**	**1**	**31**	60	93	368
07:30 AM	51	**104**	2	1	**158**	0	29	4	0	33	**1**	**3**	**0**	**0**	**4**	**6**	**3**	**137**	**0**	**146**	0	0	14	59	73	**414**
07:45 AM	**62**	**73**	**0**	**0**	**135**	**0**	**32**	**7**	0	**39**	**1**	**2**	**4**	**1**	**8**	**8**	**4**	109	0	121	0	0	17	59	76	379
08:00 AM	50	74	2	0	126	1	17	4	0	22	0	3	1	**2**	6	5	3	104	1	113	**2**	**0**	**21**	**76**	**99**	**366**
Total Volume	208	330	7	2	547	2	92	17	0	111	2	10	6	4	22	22	14	467	3	506	3	1	83	254	341	1527
% App. Total		60.3					82.9	15.3				45.5	27.3	18.2				92.3	0.6		0.9	0.3	24.3	74.5		
PHF	.839	.793	.583	.500	.866	.500	.719	.607	.000	.712	.500	.833	.375	.500		.688	.875	.852	.375	.866	.375	.250	.669	.836	.861	.922

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N/S: Broadway (Route 138)
E/W/SE: Washington Street/Randall Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-B
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North				Washington Street From East				Randall Street From Southeast				Broadway (Route 138) From South				Washington Street From West				
Start	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Right	Bear Right	Thru	Left	Int. Total
07:00 AM	2	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	12
07:15 AM	1	4	0	1	0	0	0	0	0	0	0	0	0	0	7	0	0	0	1	4	18
07:30 AM	0	4	1	0	0	1	1	0	0	0	0	0	0	0	8	0	1	0	1	4	21
07:45 AM	1	8	0	0	0	0	0	0	0	0	0	1	0	0	7	0	0	0	0	2	19
Total	4	21	1	1	0	1	1	0	0	0	0	1	0	0	24	0	1	0	2	13	70
08:00 AM	7	7	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	2	22
08:15 AM	3	5	0	0	0	1	0	0	0	0	0	0	0	0	10	0	0	0	1	4	24
08:30 AM	6	10	0	0	0	1	1	0	0	0	0	0	0	1	4	1	0	0	0	2	26
08:45 AM	7	10	0	0	0	6	0	0	0	0	0	0	0	0	10	0	0	0	0	3	36
Total	23	32	0	0	0	8	1	0	0	0	0	0	0	1	30	1	0	0	1	11	108
Grand Total	27	53	1	1	0	9	2	0	0	0	0	1	0	1	54	1	1	0	3	24	178
Apprch %	32.9	64.6	1.2	1.2	0	81.8	18.2	0	0	0	0	100	0	1.8	96.4	1.8	3.6	0	10.7	85.7	
Total %	15.2	29.8	0.6	0.6	0	5.1	1.1	0	0	0	0	0.6	0	0.6	30.3	0.6	0.6	0	1.7	13.5	

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:00 AM																										
08:00 AM	**7**	**7**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**6**	**0**	**0**	**0**	**2**	**2**	**22**
08:15 AM	3	5	0	0	8	0	1	0	0	1	0	0	0	0	0	0	0	**10**	**0**	**10**	0	0	**1**	**4**	**5**	**24**
08:30 AM	6	**10**	0	0	16	0	1	**1**	0	2	0	0	0	0	0	0	**1**	4	**1**	**6**	**0**	**0**	**0**	**2**	**2**	**26**
08:45 AM	7	10	0	0	**17**	0	**6**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**10**	**0**	**0**	**0**	**3**	**3**	**36**
Total Volume	23	32	0	0	55	0	8	1	0	9	0	0	0	0	0	0	1	30	1	32	0	0	1	11	12	108
% App. Total	41.8	58.2	0	0		0	88.9	11.1	0		0	0	0	0		0	3.1	93.8	3.1		0	0	8.3	91.7		
PHF	.821	.800	.000	.000	.809	.000	.333	.250	.000	.375	.000	.000	.000	.000		.000	.250	.750	.250	.800	.000	.000	.250	.688	.600	.750

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-B
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	10
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
07:45 AM	0	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	5	0	0	0	0	2	11
Total	0	0	0	0	4	0	0	0	0	3	0	0	0	0	4	0	0	0	0	9	0	0	0	0	3	23
08:00 AM	0	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	9
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
08:30 AM	1	0	0	0	3	0	0	0	0	0	0	0	0	0	7	0	0	0	0	4	0	0	0	0	0	15
08:45 AM	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	1	10
Total	1	1	0	0	8	0	1	0	0	1	0	0	0	0	7	0	0	0	0	13	0	0	0	0	5	37
Grand Total	1	1	0	0	12	0	1	0	0	4	0	0	0	0	11	0	0	0	0	22	0	0	0	0	8	60
Apprch %	7.1	7.1	0	0	85.7	0	20	0	0	80	0	0	0	0	100	0	0	0	0	100	0	0	0	0	100	
Total %	1.7	1.7	0	0	20	0	1.7	0	0	6.7	0	0	0	0	18.3	0	0	0	0	36.7	0	0	0	0	13.3	

	Broadway (Route 138) From North						Washington Street From East						Randall Street From Southeast						Broadway (Route 138) From South						Washington Street From West						
Start Time	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	0	0	0	0	2	2	0	0	0	**1**	1		0	0	0	0	1	1	0	0	0	0	**5**	**5**	0	0	0	0	2	2	11
08:00 AM	0	0	0	0	2	2	0	**1**	0	0	1	**2**	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	**4**	**4**	9
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3
08:30 AM	**1**	0	0	0	**3**	**4**	0	0	0	0	0	0	0	0	0	0	**7**	**7**	**0**	**0**	**0**	**0**	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**15**
Total Volume	1	0	0	0	7	8	0	1	0	0	2	3	0	0	0	0	8	8	0	0	0	0	13	13	0	0	0	0	6	6	38
% App. Total	12.5	0	0	0	87.5		0	33.3	0	0	66.7		0	0	0	0	100		0	0	0	0	100		0	0	0	0	100		
PHF	.250	.000	.000	.000	.583	.500	.000	.250	.000	.000	.500	.375	.000	.000	.000	.000	.286	.286	.000	.000	.000	.000	.650	.650	.000	.000	.000	.000	.375	.375	.633

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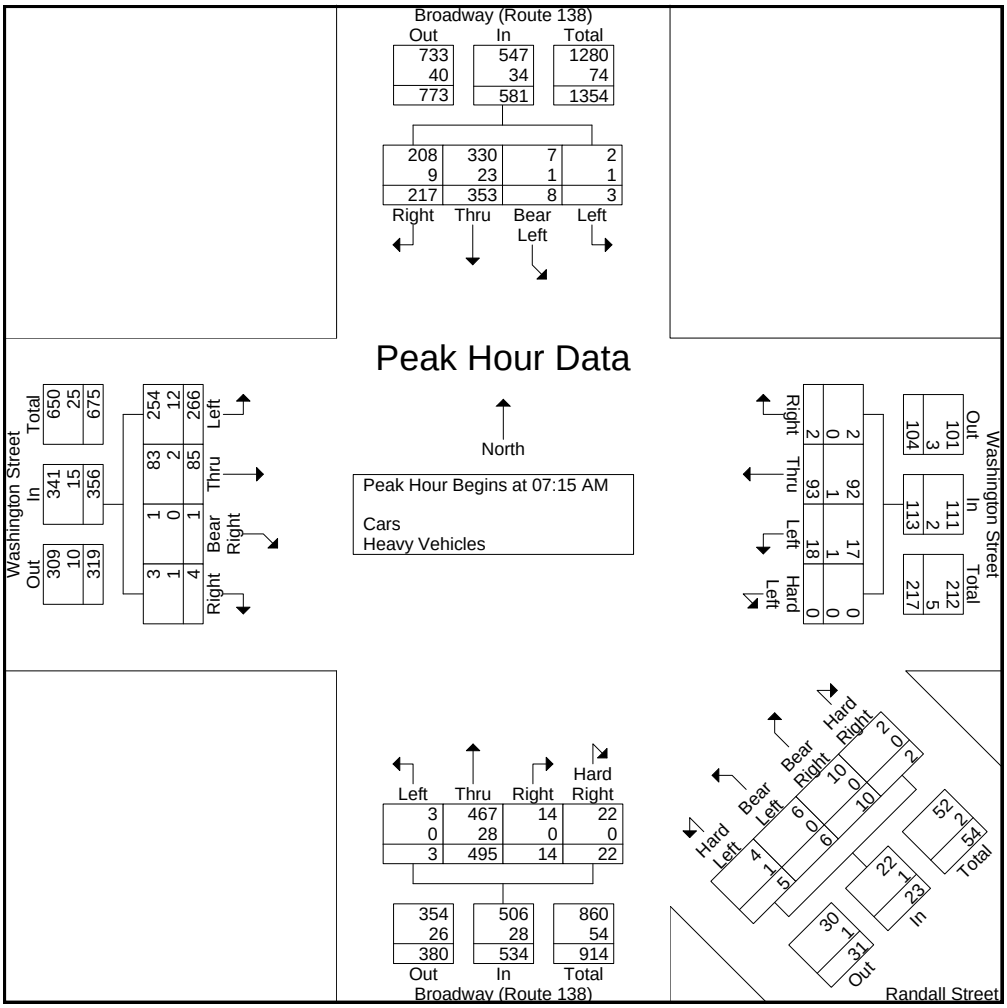
Client: VHB/J. Quitter

File Name : 81676 K-B
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:15 AM																										
07:15 AM	46	83	**3**	**2**	**134**	**1**	**14**	**2**	**0**	**17**	**0**	**2**	**1**	**1**	**4**	**3**	**4**	124	**2**	**133**	**1**	**1**	**32**	64	98	386
07:30 AM	51	**108**	3	1	**163**	0	30	5	0	35	**1**	**3**	**0**	**0**	**4**	**6**	**3**	**145**	**0**	**154**	1	0	15	63	79	**435**
07:45 AM	**63**	**81**	**0**	**0**	**144**	**0**	**32**	**7**	0	**39**	**1**	**2**	**4**	**2**	**9**	**8**	**4**	116	0	128	0	0	17	61	78	398
08:00 AM	57	81	2	0	140	1	17	4	0	22	0	3	1	2	6	5	3	110	1	119	**2**	**0**	**21**	**78**	**101**	**388**
Total Volume	217	353	8	3	581	2	93	18	0	113	2	10	6	5	23	22	14	495	3	534	4	1	85	266	356	1607
% App. Total	37.3	60.8					82.3	15.9				43.5	26.1	21.7				92.7	0.6		1.1	0.3	23.9	74.7		
PHF	.861	.817	.667	.375	.891	.500	.727	.643	.000	.724	.500	.833	.375	.625		.688	.875	.853	.375	.867	.500	.250	.664	.853	.881	.924
Cars	208	330																467	3	506	3	1	83	254	341	1527
% Cars	95.9	93.5	87.5	66.7	94.1	100	98.9	94.4			100	100	100	80.0		100	100	94.3	100	94.8	75.0	100	97.6	95.5	95.8	95.0
Heavy Vehicles																										
% Heavy Vehicles	4.1	6.5	12.5	33.3	5.9	0	1.1	5.6	0	1.8	0	0	0	20.0	4.3	0	0	5.7	0	5.2	25.0	0	2.4	4.5	4.2	5.0



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City, State: Tuanton, MA
Client: VHB/J. Quitter

File Name : 81676 K-BBB
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North				Washington Street From East				Randall Street From Southeast				Broadway (Route 138) From South				Washington Street From West				
Start	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Right	Bear Right	Thru	Left	Int. Total
04:00 PM	86	112	3	0	0	40	10	0	0	2	0	1	3	7	125	2	2	0	42	73	508
04:15 PM	87	120	0	0	1	33	4	0	0	0	1	0	4	16	121	1	2	0	31	57	478
04:30 PM	95	112	2	1	0	34	11	0	0	3	1	2	3	12	126	2	2	1	40	70	517
04:45 PM	94	134	1	2	1	32	6	0	0	2	1	3	4	10	121	3	1	0	33	66	514
Total	362	478	6	3	2	139	31	0	0	7	3	6	14	45	493	8	7	1	146	266	2017
05:00 PM	99	115	0	19	0	40	12	0	1	4	0	1	5	15	114	1	0	0	36	77	539
05:15 PM	109	139	0	1	0	36	6	0	0	3	0	1	3	14	110	1	5	1	41	60	530
05:30 PM	103	120	0	0	0	28	5	0	0	0	1	0	3	8	102	0	1	1	27	46	445
05:45 PM	102	115	0	0	2	38	6	0	0	0	0	1	1	7	98	1	0	0	24	73	468
Total	413	489	0	20	2	142	29	0	1	7	1	3	12	44	424	3	6	2	128	256	1982
Grand Total	775	967	6	23	4	281	60	0	1	14	4	9	26	89	917	11	13	3	274	522	3999
Apprch %	43.8	54.6	0.3	1.3	1.2	81.4	17.4	0	3.6	50	14.3	32.1	2.5	8.5	87.9	1.1	1.6	0.4	33.7	64.3	
Total %	19.4	24.2	0.2	0.6	0.1	7	1.5	0	0	0.4	0.1	0.2	0.7	2.2	22.9	0.3	0.3	0.1	6.9	13.1	
Cars	751	931	6	21	3	275	59	0	1	14	4	9	24	88	889	9	13	3	268	510	3878
% Cars	96.9	96.3	100	91.3	75	97.9	98.3	0	100	100	100	100	92.3	98.9	96.9	81.8	100	100	97.8	97.7	97
Heavy Vehicles	24	36	0	2	1	6	1	0	0	0	0	0	2	1	28	2	0	0	6	12	121
% Heavy Vehicles	3.1	3.7	0	8.7	25	2.1	1.7	0	0	0	0	0	7.7	1.1	3.1	18.2	0	0	2.2	2.3	3

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:30 PM																										
04:30 PM	95	112	**2**	**1**	**210**	**0**	**34**	**11**	**0**	**45**	**0**	**3**	**1**	**2**	**6**	**3**	**12**	**126**	**2**	**143**	2	**1**	**40**	**70**	**113**	**517**
04:45 PM	94	134	1	2	231	**1**	**32**	**6**	**0**	**39**	**0**	**2**	**1**	**3**	6	4	10	121	**3**	**138**	**1**	**0**	**33**	**66**	**100**	**514**
05:00 PM	99	115	0	**19**	**233**	**0**	**40**	**12**	0	**52**	**1**	**4**	**0**	**1**	**6**	**5**	**15**	114	1	135	0	0	36	**77**	**113**	**539**
05:15 PM	**109**	**139**	0	1	**249**	0	36	6	0	42	0	3	0	1	4	3	14	110	1	128	**5**	**1**	**41**	60	107	530
Total Volume	397	500	3	23	923	1	142	35	0	178	1	12	2	7	22	15	51	471	7	544	8	2	150	273	433	2100
% App. Total		54.2					79.8	19.7				54.5	9.1	31.8				86.6	1.3		1.8	0.5	34.6			
PHF	.911	.899	.375	.303	.927	.250	.888	.729	.000	.856	.250	.750	.500	.583	.917	.750	.850	.935	.583	.951	.400	.500	.915	.886	.958	.974
Cars	384	482					139	35	0	174	1	12	2	7	22	13	50	458	5	526	8	2	148	267	425	2037
% Cars	96.7	96.4	100	91.3	96.4	0	97.9	100			100	100	100	100		86.7	98.0	97.2	71.4	96.7	100	100	98.7	97.8	98.2	97.0
Heavy Vehicles																										
% Heavy Vehicles	3.3	3.6	0	8.7	3.6	100	2.1	0	0	2.2	0	0	0	0	0	13.3	2.0	2.8	28.6	3.3	0	0	1.3	2.2	1.8	3.0

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File Name : 81676 K-BBB
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Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North				Washington Street From East				Randall Street From Southeast				Broadway (Route 138) From South				Washington Street From West				
Start	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Right	Bear Right	Thru	Left	Int. Total
04:00 PM	84	107	3	0	0	40	10	0	0	2	0	1	3	7	119	2	2	0	42	72	494
04:15 PM	85	115	0	0	1	32	3	0	0	0	1	0	4	16	113	1	2	0	29	54	456
04:30 PM	92	107	2	1	0	33	11	0	0	3	1	2	3	12	123	2	2	1	39	69	503
04:45 PM	89	129	1	2	0	32	6	0	0	2	1	3	3	10	118	1	1	0	33	66	497
Total	350	458	6	3	1	137	30	0	0	7	3	6	13	45	473	6	7	1	143	261	1950
05:00 PM	98	113	0	17	0	38	12	0	1	4	0	1	4	15	110	1	0	0	36	73	523
05:15 PM	105	133	0	1	0	36	6	0	0	3	0	1	3	13	107	1	5	1	40	59	514
05:30 PM	100	116	0	0	0	27	5	0	0	0	1	0	3	8	101	0	1	1	25	46	434
05:45 PM	98	111	0	0	2	37	6	0	0	0	0	1	1	7	98	1	0	0	24	71	457
Total	401	473	0	18	2	138	29	0	1	7	1	3	11	43	416	3	6	2	125	249	1928
Grand Total	751	931	6	21	3	275	59	0	1	14	4	9	24	88	889	9	13	3	268	510	3878
Apprch %	43.9	54.5	0.4	1.2	0.9	81.6	17.5	0	3.6	50	14.3	32.1	2.4	8.7	88	0.9	1.6	0.4	33.8	64.2	
Total %	19.4	24	0.2	0.5	0.1	7.1	1.5	0	0	0.4	0.1	0.2	0.6	2.3	22.9	0.2	0.3	0.1	6.9	13.2	

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:30 PM																										
04:30 PM	92	107	**2**	**1**	**202**	**0**	**33**	**11**	**0**	**44**	**0**	**3**	**1**	**2**	**6**	**3**	**12**	**123**	**2**	**140**	2	**1**	**39**	**69**	**111**	**503**
04:45 PM	89	129	1	2	221	0	32	6	0	38	0	2	1	**3**	6	3	10	118	1	132	1	0	33	66	100	497
05:00 PM	98	113	0	**17**	**228**	**0**	**38**	**12**	0	**50**	**1**	**4**	**0**	**1**	**6**	**4**	**15**	110	1	130	0	0	36	**73**	**109**	**523**
05:15 PM	**105**	**133**	0	1	**239**	0	36	6	0	42	0	3	0	1	4	3	13	107	1	124	**5**	**1**	**40**	59	105	514
Total Volume	384	482	3	21	890	0	139	35	0	174	1	12	2	7	22	13	50	458	5	526	8	2	148	267	425	2037
% App. Total	43.1	54.2					79.9	20.1				54.5	9.1	31.8				87.1	1		1.9	0.5	34.8	62.8		
PHF	.914	.906	.375	.309	.931	.000	.914	.729	.000	.870	.250	.750	.500	.583		.813	.833	.931	.625	.939	.400	.500	.925	.914	.957	.974

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N/S: Broadway (Route 138)
E/W/SE: Washington Street/Randall Street
City, State: Tuanton, MA
Client: VHB/J. Quitter

File Name : 81676 K-BBB
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North				Washington Street From East				Randall Street From Southeast				Broadway (Route 138) From South				Washington Street From West				
Start	Right	Thru	Bear Left	Left	Right	Thru	Left	Hard Left	Hard Right	Bear Right	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Right	Bear Right	Thru	Left	Int. Total
04:00 PM	2	5	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	1	14
04:15 PM	2	5	0	0	0	1	1	0	0	0	0	0	0	0	8	0	0	0	2	3	22
04:30 PM	3	5	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	1	1	14
04:45 PM	5	5	0	0	1	0	0	0	0	0	0	0	1	0	3	2	0	0	0	0	17
Total	12	20	0	0	1	2	1	0	0	0	0	0	1	0	20	2	0	0	3	5	67
05:00 PM	1	2	0	2	0	2	0	0	0	0	0	0	1	0	4	0	0	0	0	4	16
05:15 PM	4	6	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	1	1	16
05:30 PM	3	4	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	0	11
05:45 PM	4	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11
Total	12	16	0	2	0	4	0	0	0	0	0	0	1	1	8	0	0	0	3	7	54
Grand Total	24	36	0	2	1	6	1	0	0	0	0	0	2	1	28	2	0	0	6	12	121
Apprch %	38.7	58.1	0	3.2	12.5	75	12.5	0	0	0	0	0	6.1	3	84.8	6.1	0	0	33.3	66.7	
Total %	19.8	29.8	0	1.7	0.8	5	0.8	0	0	0	0	0	1.7	0.8	23.1	1.7	0	0	5	9.9	

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:15 PM																										
04:15 PM	2	**5**	0	0	7	0	1	**1**	0	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**8**	0	0	**2**	3	**5**	**22**
04:30 PM	3	5	0	0	8	0	1	0	0	1	0	0	0	0	0	0	0	3	0	3	0	0	1	1	2	14
04:45 PM	**5**	**5**	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**2**	**6**	**0**	**0**	**0**	**0**	**0**	**17**
05:00 PM	1	2	0	**2**	**5**	**0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**0**	**5**	**0**	**0**	**0**	**4**	**4**	**16**
Total Volume	11	17	0	2	30	1	4	1	0	6	0	0	0	0	0	2	0	18	2	22	0	0	3	8	11	69
% App. Total	36.7	56.7	0	6.7		16.7	66.7	16.7	0		0	0	0	0		9.1	0	81.8	9.1		0	0	27.3	72.7		
PHF	.550	.850	.000	.250	.750	.250	.500	.250	.000	.750	.000	.000	.000	.000		.500	.000	.563	.250	.688	.000	.000	.375	.500	.550	.784

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N/S: Broadway (Route 138)
E/W/SE: Washington Street/Randall Street
City, State: Tuanton, MA
Client: VHB/J. Quitter

File Name : 81676 K-BBB
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15 PM	1	1	0	0	1	0	1	0	0	1	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0	11
04:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	7	0	0	0	0	1	0	0	1	0	2	14
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	0	1	0	1	0	0	0	0	0	7
Total	1	1	0	0	1	0	1	2	0	6	0	0	0	0	12	0	0	1	0	6	0	0	1	0	2	34
05:00 PM	1	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	7
05:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1	0	0	4	0	0	0	0	1	10
05:45 PM	0	1	0	0	1	0	2	1	0	0	0	0	0	0	6	0	0	0	0	1	0	0	0	0	3	15
Total	2	2	0	0	4	0	2	1	0	1	0	0	0	0	9	0	2	0	0	6	0	0	0	0	4	33
Grand Total	3	3	0	0	5	0	3	3	0	7	0	0	0	0	21	0	2	1	0	12	0	0	1	0	6	67
Apprch %	27.3	27.3	0	0	45.5	0	23.1	23.1	0	53.8	0	0	0	0	100	0	13.3	6.7	0	80	0	0	14.3	0	85.7	
Total %	4.5	4.5	0	0	7.5	0	4.5	4.5	0	10.4	0	0	0	0	31.3	0	3	1.5	0	17.9	0	0	1.5	0	9	

	Broadway (Route 138) From North						Washington Street From East						Randall Street From Southeast						Broadway (Route 138) From South						Washington Street From West						
Start Time	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:15 PM																															
04:15 PM	**1**	**1**	0	0	1	**3**	0	**1**	0	0	1	2	0	0	0	0	2	2	0	0	0	0	**4**	**4**	0	0	0	0	0	0	11
04:30 PM	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	0	0	0	**7**	**7**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	0	**2**	**3**	**14**
04:45 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	3	3	0	0	**1**	0	1	2	0	0	0	0	0	0	7
05:00 PM	1	0	0	0	**2**	3	0	0	0	0	1	1	0	0	0	0	1	1	0	**1**	0	0	1	2	0	0	0	0	0	0	7
Total Volume	2	1	0	0	3	6	0	1	0	0	7	8	0	0	0	0	13	13	0	1	1	0	7	9	0	0	1	0	2	3	39
% App. Total	33.3	16.7	0	0	50		0	12.5	0	0	87.5		0	0	0	0	100		0	11.1	11.1	0	77.8		0	0	33.3	0	66.7		
PHF	.500	.250	.000	.000	.375	.500	.000	.250	.000	.000	.583	.667	.000	.000	.000	.000	.464	.464	.000	.250	.250	.000	.438	.563	.000	.000	.250	.000	.250	.250	.696

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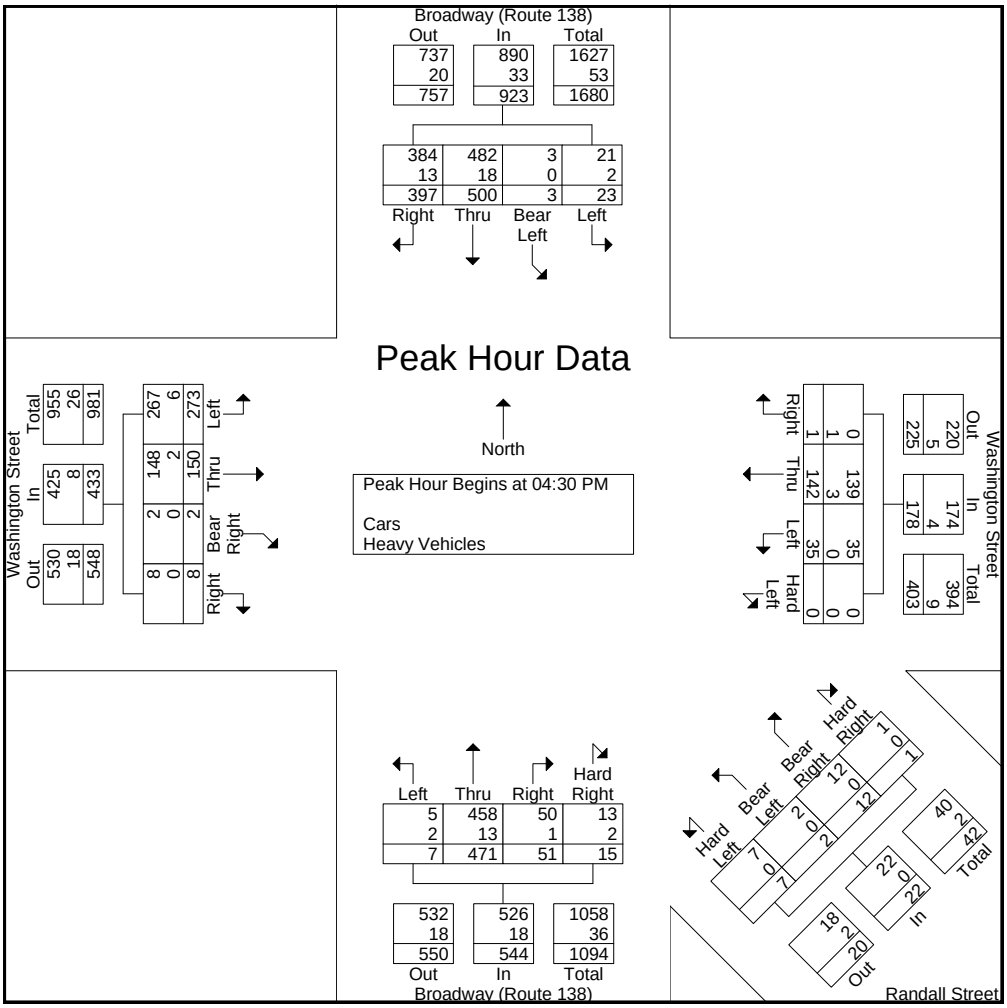
E/W/SE: Washington Street/Randall Street
City, State: Tuanton, MA
Client: VHB/J. Quitter

File Name : 81676 K-BBB
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Broadway (Route 138) From North					Washington Street From East					Randall Street From Southeast					Broadway (Route 138) From South					Washington Street From West					
Start Time	Right	Thru	Bear Left	Left	App. Total	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:30 PM																										
04:30 PM	95	112	**2**	**1**	**210**	**0**	**34**	**11**	**0**	**45**	**0**	**3**	**1**	**2**	**6**	**3**	**12**	**126**	**2**	**143**	2	**1**	**40**	**70**	**113**	**517**
04:45 PM	94	134	1	2	231	**1**	**32**	**6**	**0**	**39**	**0**	**2**	**1**	**3**	6	4	10	121	**3**	**138**	**1**	**0**	**33**	**66**	**100**	**514**
05:00 PM	99	115	0	**19**	**233**	**0**	**40**	**12**	0	**52**	**1**	**4**	**0**	**1**	**6**	**5**	**15**	114	1	135	0	0	36	**77**	**113**	**539**
05:15 PM	**109**	**139**	0	1	**249**	0	36	6	0	42	0	3	0	1	4	3	14	110	1	128	**5**	**1**	**41**	60	107	530
Total Volume	397	500	3	23	923	1	142	35	0	178	1	12	2	7	22	15	51	471	7	544	8	2	150	273	433	2100
% App. Total		54.2					79.8	19.7				54.5	9.1	31.8				86.6	1.3		1.8	0.5	34.6			
PHF	.911	.899	.375	.303	.927	.250	.888	.729	.000	.856	.250	.750	.500	.583	.917	.750	.850	.935	.583	.951	.400	.500	.915	.886	.958	.974
Cars	384	482					139	35	0	174	1	12	2	7	22	13	50	458	5	526	8	2	148	267	425	2037
% Cars	96.7	96.4	100	91.3	96.4	0	97.9	100			100	100	100	100		86.7	98.0	97.2	71.4	96.7	100	100	98.7	97.8	98.2	97.0
Heavy Vehicles																										
% Heavy Vehicles	3.3	3.6	0	8.7	3.6	100	2.1	0	0	2.2	0	0	0	0	0	13.3	2.0	2.8	28.6	3.3	0	0	1.3	2.2	1.8	3.0



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N/S: Washington Street
E/W: Purchase Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-C
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street From North			Purchase Street From East			Washington Street From South			Purchase Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	15	4	12	12	3	6	13	1	2	28	1	99
07:15 AM	7	16	8	8	39	10	17	19	1	0	38	0	163
07:30 AM	2	13	27	11	49	6	11	16	0	0	22	0	157
07:45 AM	2	8	46	8	21	4	6	15	2	2	19	1	134
Total	13	52	85	39	121	23	40	63	4	4	107	2	553
08:00 AM	0	7	17	9	17	1	8	9	0	1	20	0	89
08:15 AM	3	16	27	6	20	3	7	14	0	0	22	1	119
08:30 AM	1	11	25	12	30	4	7	14	1	0	13	1	119
08:45 AM	2	16	28	3	14	5	10	11	2	3	17	0	111
Total	6	50	97	30	81	13	32	48	3	4	72	2	438
Grand Total	19	102	182	69	202	36	72	111	7	8	179	4	991
Apprch %	6.3	33.7	60.1	22.5	65.8	11.7	37.9	58.4	3.7	4.2	93.7	2.1	
Total %	1.9	10.3	18.4	7	20.4	3.6	7.3	11.2	0.7	0.8	18.1	0.4	
Cars	19	101	174	69	199	36	71	109	7	6	177	4	972
% Cars	100	99	95.6	100	98.5	100	98.6	98.2	100	75	98.9	100	98.1
Heavy Vehicles	0	1	8	0	3	0	1	2	0	2	2	0	19
% Heavy Vehicles	0	1	4.4	0	1.5	0	1.4	1.8	0	25	1.1	0	1.9

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	15	4	21	**12**	12	3	27	6	13	1	20	**2**	28	**1**	31	99
07:15 AM	**7**	**16**	8	31	8	39	**10**	57	**17**	**19**	1	**37**	0	**38**	0	**38**	**163**
07:30 AM	2	13	27	42	11	**49**	6	**66**	11	16	0	27	0	22	0	22	157
07:45 AM	2	8	**46**	**56**	8	21	4	33	6	15	**2**	23	2	19	1	22	134
Total Volume	13	52	85	150	39	121	23	183	40	63	4	107	4	107	2	113	553
% App. Total	8.7	34.7	56.7		21.3	66.1	12.6		37.4	58.9	3.7		3.5	94.7	1.8		
PHF	.464	.813	.462	.670	.813	.617	.575	.693	.588	.829	.500	.723	.500	.704	.500	.743	.848
Cars	13	51	83	147	39	120	23	182	40	63	4	107	3	107	2	112	548
% Cars	100	98.1	97.6	98.0	100	99.2	100	99.5	100	100	100	100	75.0	100	100	99.1	99.1
Heavy Vehicles	0	1	2	3	0	1	0	1	0	0	0	0	1	0	0	1	5
% Heavy Vehicles	0	1.9	2.4	2.0	0	0.8	0	0.5	0	0	0	0	25.0	0	0	0.9	0.9

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-C
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Washington Street From North			Purchase Street From East			Washington Street From South			Purchase Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	15	4	12	12	3	6	13	1	1	28	1	98
07:15 AM	7	15	8	8	38	10	17	19	1	0	38	0	161
07:30 AM	2	13	26	11	49	6	11	16	0	0	22	0	156
07:45 AM	2	8	45	8	21	4	6	15	2	2	19	1	133
Total	13	51	83	39	120	23	40	63	4	3	107	2	548
08:00 AM	0	7	17	9	17	1	8	9	0	1	20	0	89
08:15 AM	3	16	26	6	19	3	6	14	0	0	22	1	116
08:30 AM	1	11	21	12	29	4	7	14	1	0	12	1	113
08:45 AM	2	16	27	3	14	5	10	9	2	2	16	0	106
Total	6	50	91	30	79	13	31	46	3	3	70	2	424
Grand Total	19	101	174	69	199	36	71	109	7	6	177	4	972
Apprch %	6.5	34.4	59.2	22.7	65.5	11.8	38	58.3	3.7	3.2	94.7	2.1	
Total %	2	10.4	17.9	7.1	20.5	3.7	7.3	11.2	0.7	0.6	18.2	0.4	

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	**15**	4	21	**12**	12	3	27	6	13	1	20	1	28	**1**	30	98
07:15 AM	**7**	15	8	30	8	38	**10**	56	**17**	**19**	1	**37**	0	**38**	0	**38**	**161**
07:30 AM	2	13	26	41	11	**49**	6	**66**	11	16	0	27	0	22	0	22	156
07:45 AM	2	8	**45**	**55**	8	21	4	33	6	15	**2**	23	**2**	19	1	22	133
Total Volume	13	51	83	147	39	120	23	182	40	63	4	107	3	107	2	112	548
% App. Total	8.8	34.7	56.5		21.4	65.9	12.6		37.4	58.9	3.7		2.7	95.5	1.8		
PHF	.464	.850	.461	.668	.813	.612	.575	.689	.588	.829	.500	.723	.375	.704	.500	.737	.851

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Email: datarequests@pdillc.com

N/S: Washington Street
E/W: Purchase Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-C
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street From North			Purchase Street From East			Washington Street From South			Purchase Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	1	2	0	1	0	0	0	0	1	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	1	0	1	0	1	0	0	0	0	0	3
08:30 AM	0	0	4	0	1	0	0	0	0	0	1	0	6
08:45 AM	0	0	1	0	0	0	0	2	0	1	1	0	5
Total	0	0	6	0	2	0	1	2	0	1	2	0	14
Grand Total	0	1	8	0	3	0	1	2	0	2	2	0	19
Apprch %	0	11.1	88.9	0	100	0	33.3	66.7	0	50	50	0	
Total %	0	5.3	42.1	0	15.8	0	5.3	10.5	0	10.5	10.5	0	

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	1	1	0	**1**	0	**1**	**1**	0	0	1	0	0	0	0	3
08:30 AM	0	0	**4**	**4**	0	1	0	1	0	0	0	0	0	**1**	0	1	**6**
08:45 AM	0	0	1	1	0	0	0	0	0	**2**	0	**2**	**1**	1	0	**2**	5
Total Volume	0	0	6	6	0	2	0	2	1	2	0	3	1	2	0	3	14
% App. Total	0	0	100		0	100	0		33.3	66.7	0		33.3	66.7	0		
PHF	.000	.000	.375	.375	.000	.500	.000	.500	.250	.250	.000	.375	.250	.500	.000	.375	.583

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Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
07:15 AM	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	5
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	3
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3
Total	0	0	2	2	0	0	0	5	0	0	0	0	0	2	0	3	14
08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
08:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	9	0	0	0	0	0	0	0	0	10
Grand Total	0	0	3	2	0	0	0	14	0	0	0	0	0	2	0	3	24
Apprch %	0	0	60	40	0	0	0	100	0	0	0	0	0	40	0	60	
Total %	0	0	12.5	8.3	0	0	0	58.3	0	0	0	0	0	8.3	0	12.5	

	Washington Street From North					Purchase Street From East					Washington Street From South					Purchase Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	**2**	**2**	3
07:15 AM	0	0	0	**1**	**1**	**0**	**0**	**0**	**4**	**4**	0	0	0	0	0	0	0	0	0	0	**5**
07:30 AM	0	0	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	0	0	2	3
07:45 AM	0	0	1	1	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total Volume	0	0	2	2	4	0	0	0	5	5	0	0	0	0	0	0	2	0	3	5	14
% App. Total	0	0	50	50		0	0	0	100		0	0	0	0		0	40	0	60		
PHF	.000	.000	.500	.500	.500	.000	.000	.000	.313	.313	.000	.000	.000	.000	.000	.000	.250	.000	.375	.625	.700

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File Name : 81676 K-C
Site Code : 10111.31
Start Date : 9/17/2008
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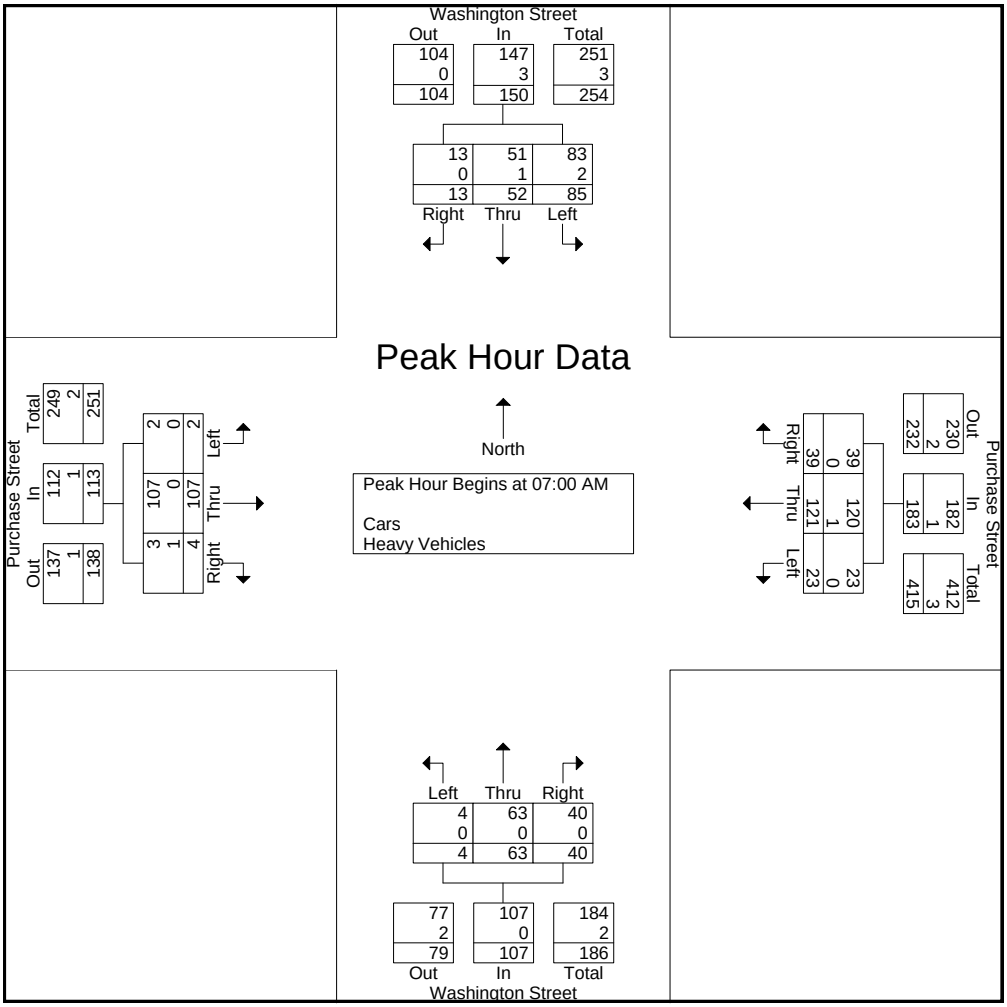
	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	15	4	21	**12**	12	3	27	6	13	1	20	**2**	28	**1**	31	99
07:15 AM	**7**	**16**	8	31	8	39	**10**	57	**17**	**19**	1	**37**	0	**38**	0	**38**	**163**
07:30 AM	2	13	27	42	11	**49**	6	**66**	11	16	0	27	0	22	0	22	157
07:45 AM	2	8	**46**	**56**	8	21	4	33	6	15	**2**	23	2	19	1	22	134
Total Volume	13	52	85	150	39	121	23	183	40	63	4	107	4	107	2	113	553
% App. Total	8.7	34.7	56.7		21.3	66.1	12.6		37.4	58.9	3.7		3.5	94.7	1.8		
PHF	.464	.813	.462	.670	.813	.617	.575	.693	.588	.829	.500	.723	.500	.704	.500	.743	.848
Cars	13	51	83	147	39	120	23	182	40	63	4	107	3	107	2	112	548
% Cars	100	98.1	97.6	98.0	100	99.2	100	99.5	100	100	100	100	75.0	100	100	99.1	99.1
Heavy Vehicles	0	1	2	3	0	1	0	1	0	0	0	0	1	0	0	1	5
% Heavy Vehicles	0	1.9	2.4	2.0	0	0.8	0	0.5	0	0	0	0	25.0	0	0	0.9	0.9



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Client: VHB/J. Quitter

File Name : 81676 K-CCC
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street From North			Purchase Street From East			Washington Street From South			Purchase Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	2	29	63	17	31	12	10	20	1	2	31	1	219
04:15 PM	2	22	61	9	24	11	15	16	2	2	21	1	186
04:30 PM	1	30	61	8	23	5	14	16	3	3	25	3	192
04:45 PM	1	28	75	10	20	12	8	17	1	0	16	0	188
Total	6	109	260	44	98	40	47	69	7	7	93	5	785
05:00 PM	2	22	33	5	17	11	12	18	2	1	21	2	146
05:15 PM	2	25	10	5	9	12	18	9	0	1	17	4	112
05:30 PM	0	32	7	9	19	4	6	10	1	3	16	0	107
05:45 PM	1	25	9	9	20	5	9	15	3	2	19	0	117
Total	5	104	59	28	65	32	45	52	6	7	73	6	482
Grand Total	11	213	319	72	163	72	92	121	13	14	166	11	1267
Apprch %	2	39.2	58.7	23.5	53.1	23.5	40.7	53.5	5.8	7.3	86.9	5.8	
Total %	0.9	16.8	25.2	5.7	12.9	5.7	7.3	9.6	1	1.1	13.1	0.9	
Cars	11	212	311	71	162	72	92	119	13	14	165	11	1253
% Cars	100	99.5	97.5	98.6	99.4	100	100	98.3	100	100	99.4	100	98.9
Heavy Vehicles	0	1	8	1	1	0	0	2	0	0	1	0	14
% Heavy Vehicles	0	0.5	2.5	1.4	0.6	0	0	1.7	0	0	0.6	0	1.1

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**2**	29	63	94	**17**	**31**	**12**	**60**	10	**20**	1	31	2	**31**	1	**34**	**219**
04:15 PM	2	22	61	85	9	24	11	44	**15**	16	2	**33**	2	21	1	24	186
04:30 PM	1	**30**	61	92	8	23	5	36	14	16	**3**	33	**3**	25	**3**	31	192
04:45 PM	1	28	**75**	**104**	10	20	12	42	8	17	1	26	0	16	0	16	188
Total Volume	6	109	260	375	44	98	40	182	47	69	7	123	7	93	5	105	785
% App. Total	1.6	29.1	69.3		24.2	53.8	22		38.2	56.1	5.7		6.7	88.6	4.8		
PHF	.750	.908	.867	.901	.647	.790	.833	.758	.783	.863	.583	.932	.583	.750	.417	.772	.896
Cars	6	109	254	369	44	97	40	181	47	67	7	121	7	92	5	104	775
% Cars	100	100	97.7	98.4	100	99.0	100	99.5	100	97.1	100	98.4	100	98.9	100	99.0	98.7
Heavy Vehicles	0	0	6	6	0	1	0	1	0	2	0	2	0	1	0	1	10
% Heavy Vehicles	0	0	2.3	1.6	0	1.0	0	0.5	0	2.9	0	1.6	0	1.1	0	1.0	1.3

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File Name : 81676 K-CCC
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Washington Street From North			Purchase Street From East			Washington Street From South			Purchase Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	2	29	61	17	31	12	10	20	1	2	30	1	216
04:15 PM	2	22	59	9	24	11	15	15	2	2	21	1	183
04:30 PM	1	30	61	8	22	5	14	15	3	3	25	3	190
04:45 PM	1	28	73	10	20	12	8	17	1	0	16	0	186
Total	6	109	254	44	97	40	47	67	7	7	92	5	775
05:00 PM	2	22	31	4	17	11	12	18	2	1	21	2	143
05:15 PM	2	25	10	5	9	12	18	9	0	1	17	4	112
05:30 PM	0	31	7	9	19	4	6	10	1	3	16	0	106
05:45 PM	1	25	9	9	20	5	9	15	3	2	19	0	117
Total	5	103	57	27	65	32	45	52	6	7	73	6	478
Grand Total	11	212	311	71	162	72	92	119	13	14	165	11	1253
Apprch %	2.1	39.7	58.2	23.3	53.1	23.6	41.1	53.1	5.8	7.4	86.8	5.8	
Total %	0.9	16.9	24.8	5.7	12.9	5.7	7.3	9.5	1	1.1	13.2	0.9	

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**2**	29	61	92	**17**	**31**	**12**	**60**	10	**20**	1	31	2	**30**	1	**33**	**216**
04:15 PM	2	22	59	83	9	24	11	44	**15**	15	2	**32**	2	21	1	24	183
04:30 PM	1	**30**	61	92	8	22	5	35	14	15	**3**	32	**3**	25	**3**	31	190
04:45 PM	1	28	**73**	**102**	10	20	12	42	8	17	1	26	0	16	0	16	186
Total Volume	6	109	254	369	44	97	40	181	47	67	7	121	7	92	5	104	775
% App. Total	1.6	29.5	68.8		24.3	53.6	22.1		38.8	55.4	5.8		6.7	88.5	4.8		
PHF	.750	.908	.870	.904	.647	.782	.833	.754	.783	.838	.583	.945	.583	.767	.417	.788	.897

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Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street From North			Purchase Street From East			Washington Street From South			Purchase Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	2	0	0	0	0	0	0	0	1	0	3
04:15 PM	0	0	2	0	0	0	0	1	0	0	0	0	3
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
04:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	2
Total	0	0	6	0	1	0	0	2	0	0	1	0	10
05:00 PM	0	0	2	1	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	2	1	0	0	0	0	0	0	0	0	4
Grand Total	0	1	8	1	1	0	0	2	0	0	1	0	14
Apprch %	0	11.1	88.9	50	50	0	0	100	0	0	100	0	
Total %	0	7.1	57.1	7.1	7.1	0	0	14.3	0	0	7.1	0	

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**3**
04:15 PM	0	0	2	2	0	0	0	0	0	**1**	0	**1**	0	0	0	0	3
04:30 PM	0	0	0	0	0	**1**	0	**1**	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	6	6	0	1	0	1	0	2	0	2	0	1	0	1	10
% App. Total	0	0	100		0	100	0		0	100	0		0	100	0		
PHF	.000	.000	.750	.750	.000	.250	.000	.250	.000	.500	.000	.500	.000	.250	.000	.250	.833

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Groups Printed- Peds and Bicycles

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
04:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	3
05:00 PM	0	2	0	0	1	0	0	3	0	1	0	0	0	0	0	0	7
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	1	1	0	0	3	0	1	0	0	0	0	0	1	9
Grand Total	0	2	0	2	1	0	0	3	0	2	0	0	0	0	1	1	12
Apprch %	0	50	0	50	25	0	0	75	0	100	0	0	0	0	50	50	
Total %	0	16.7	0	16.7	8.3	0	0	25	0	16.7	0	0	0	0	8.3	8.3	

	Washington Street From North					Purchase Street From East					Washington Street From South					Purchase Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**0**	**1**	0	0	**1**	**0**	**1**	2
04:30 PM	0	0	0	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
04:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
05:00 PM	**0**	**2**	0	0	**2**	**1**	0	0	**3**	**4**	0	1	0	0	1	0	0	0	0	0	**7**
Total Volume	0	2	0	1	3	1	0	0	3	4	0	2	0	0	2	0	0	1	0	1	10
% App. Total	0	66.7	0	33.3		25	0	0	75		0	100	0	0		0	0	100	0		
PHF	.000	.250	.000	.250	.375	.250	.000	.000	.250	.250	.000	.500	.000	.000	.500	.000	.000	.250	.000	.250	.357

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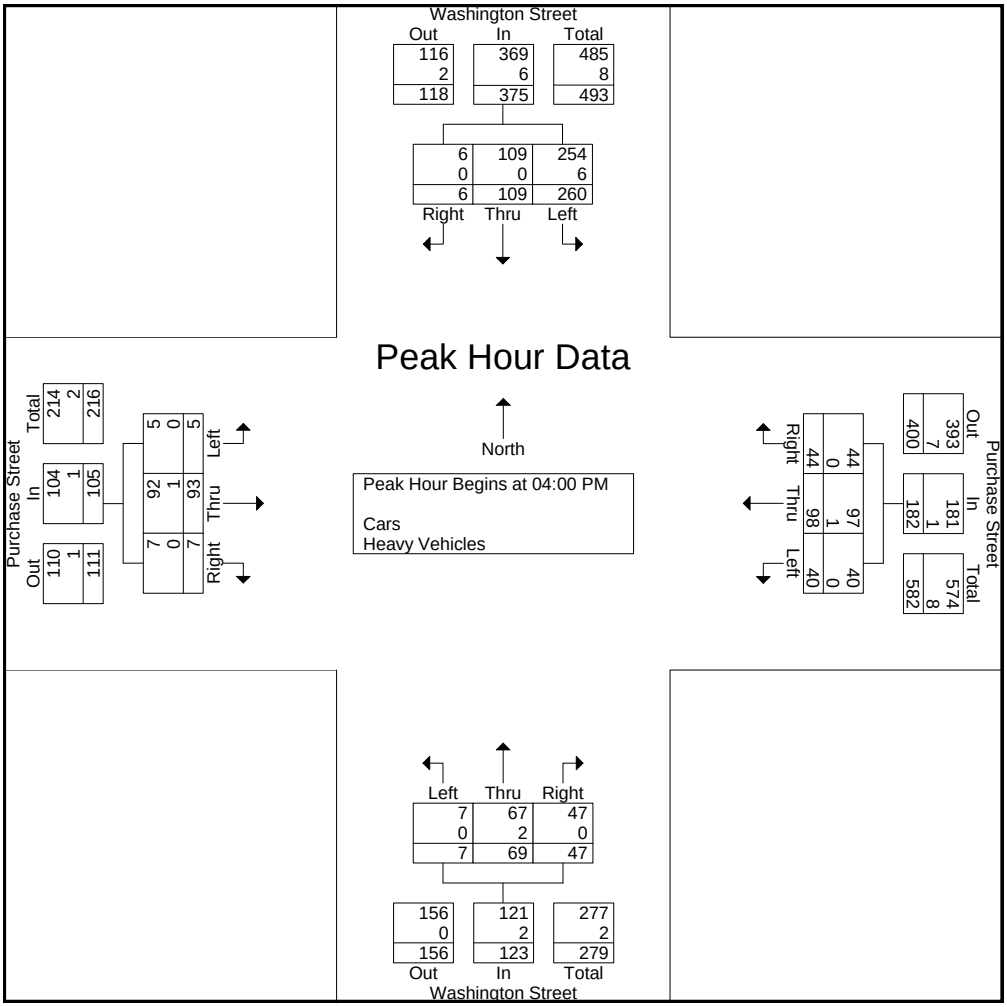
N/S: Washington Street
E/W: Purchase Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-CCC
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Washington Street From North				Purchase Street From East				Washington Street From South				Purchase Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**2**	29	63	94	**17**	**31**	**12**	**60**	10	**20**	1	31	2	**31**	1	**34**	**219**
04:15 PM	2	22	61	85	9	24	11	44	**15**	16	2	**33**	2	21	1	24	186
04:30 PM	1	**30**	61	92	8	23	5	36	14	16	**3**	33	**3**	25	**3**	31	192
04:45 PM	1	28	**75**	**104**	10	20	12	42	8	17	1	26	0	16	0	16	188
Total Volume	6	109	260	375	44	98	40	182	47	69	7	123	7	93	5	105	785
% App. Total	1.6	29.1	69.3		24.2	53.8	22		38.2	56.1	5.7		6.7	88.6	4.8		
PHF	.750	.908	.867	.901	.647	.790	.833	.758	.783	.863	.583	.932	.583	.750	.417	.772	.896
Cars	6	109	254	369	44	97	40	181	47	67	7	121	7	92	5	104	775
% Cars	100	100	97.7	98.4	100	99.0	100	99.5	100	97.1	100	98.4	100	98.9	100	99.0	98.7
Heavy Vehicles	0	0	6	6	0	1	0	1	0	2	0	2	0	1	0	1	10
% Heavy Vehicles	0	0	2.3	1.6	0	1.0	0	0.5	0	2.9	0	1.6	0	1.1	0	1.0	1.3



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N/S: Dean Street (Rte 104)/Driveway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-D
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dean Street (Route 104) From North			Cape Road (Route 44) From East			Greenhouse Driveway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	35	0	4	2	145	0	0	0	0	0	206	37	429
07:15 AM	45	0	8	4	172	0	0	0	0	0	211	36	476
07:30 AM	41	1	8	5	189	0	0	0	0	1	282	46	573
07:45 AM	35	0	7	4	180	0	0	0	2	0	241	52	521
Total	156	1	27	15	686	0	0	0	2	1	940	171	1999
08:00 AM	49	1	7	7	154	0	0	0	0	0	219	36	473
08:15 AM	41	0	8	6	177	0	0	0	1	1	208	48	490
08:30 AM	36	1	8	8	172	0	1	0	0	1	234	28	489
08:45 AM	45	1	8	6	185	0	0	0	2	4	222	36	509
Total	171	3	31	27	688	0	1	0	3	6	883	148	1961
Grand Total	327	4	58	42	1374	0	1	0	5	7	1823	319	3960
Apprch %	84.1	1	14.9	3	97	0	16.7	0	83.3	0.3	84.8	14.8	
Total %	8.3	0.1	1.5	1.1	34.7	0	0	0	0.1	0.2	46	8.1	
Cars	314	4	55	39	1323	0	1	0	5	7	1762	309	3819
% Cars	96	100	94.8	92.9	96.3	0	100	0	100	100	96.7	96.9	96.4
Heavy Vehicles	13	0	3	3	51	0	0	0	0	0	61	10	141
% Heavy Vehicles	4	0	5.2	7.1	3.7	0	0	0	0	0	3.3	3.1	3.6

	Dean Street (Route 104) From North				Cape Road (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	41	**1**	**8**	50	5	**189**	0	**194**	0	0	0	0	**1**	**282**	46	**329**	**573**
07:45 AM	35	0	7	42	4	180	0	184	0	0	**2**	**2**	0	241	**52**	293	521
08:00 AM	**49**	1	7	**57**	**7**	154	0	161	0	0	0	0	0	219	36	255	473
08:15 AM	41	0	8	49	6	177	0	183	0	0	1	1	1	208	48	257	490
Total Volume	166	2	30	198	22	700	0	722	0	0	3	3	2	950	182	1134	2057
% App. Total	83.8	1	15.2		3	97	0		0	0	100		0.2	83.8	16		
PHF	.847	.500	.938	.868	.786	.926	.000	.930	.000	.000	.375	.375	.500	.842	.875	.862	.897
Cars	159	2	27	188	22	674	0	696	0	0	3	3	2	922	175	1099	1986
% Cars	95.8	100	90.0	94.9	100	96.3	0	96.4	0	0	100	100	100	97.1	96.2	96.9	96.5
Heavy Vehicles	7	0	3	10	0	26	0	26	0	0	0	0	0	28	7	35	71
% Heavy Vehicles	4.2	0	10.0	5.1	0	3.7	0	3.6	0	0	0	0	0	2.9	3.8	3.1	3.5

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N/S: Dean Street (Rte 104)/Driveway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-D
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Dean Street (Route 104) From North			Cape Road (Route 44) From East			Greenhouse Driveway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	35	0	4	2	141	0	0	0	0	0	196	37	415
07:15 AM	44	0	8	4	163	0	0	0	0	0	204	36	459
07:30 AM	41	1	8	5	186	0	0	0	0	1	271	46	559
07:45 AM	33	0	6	4	173	0	0	0	2	0	234	48	500
Total	153	1	26	15	663	0	0	0	2	1	905	167	1933
08:00 AM	46	1	6	7	147	0	0	0	0	0	212	35	454
08:15 AM	39	0	7	6	168	0	0	0	1	1	205	46	473
08:30 AM	33	1	8	6	168	0	1	0	0	1	227	27	472
08:45 AM	43	1	8	5	177	0	0	0	2	4	213	34	487
Total	161	3	29	24	660	0	1	0	3	6	857	142	1886
Grand Total	314	4	55	39	1323	0	1	0	5	7	1762	309	3819
Apprch %	84.2	1.1	14.7	2.9	97.1	0	16.7	0	83.3	0.3	84.8	14.9	
Total %	8.2	0.1	1.4	1	34.6	0	0	0	0.1	0.2	46.1	8.1	

	Dean Street (Route 104) From North				Cape Road (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	41	**1**	**8**	50	5	**186**	0	**191**	0	0	0	0	**1**	**271**	46	**318**	**559**
07:45 AM	33	0	6	39	4	173	0	177	0	0	**2**	**2**	0	234	**48**	282	500
08:00 AM	**46**	1	6	**53**	**7**	147	0	154	0	0	0	0	0	212	35	247	454
08:15 AM	39	0	7	46	6	168	0	174	0	0	1	1	1	205	46	252	473
Total Volume	159	2	27	188	22	674	0	696	0	0	3	3	2	922	175	1099	1986
% App. Total	84.6	1.1	14.4		3.2	96.8	0		0	0	100		0.2	83.9	15.9		
PHF	.864	.500	.844	.887	.786	.906	.000	.911	.000	.000	.375	.375	.500	.851	.911	.864	.888

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E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-D
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Dean Street (Route 104) From North			Cape Road (Route 44) From East			Greenhouse Driveway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	4	0	0	0	0	0	10	0	14
07:15 AM	1	0	0	0	9	0	0	0	0	0	7	0	17
07:30 AM	0	0	0	0	3	0	0	0	0	0	11	0	14
07:45 AM	2	0	1	0	7	0	0	0	0	0	7	4	21
Total	3	0	1	0	23	0	0	0	0	0	35	4	66
08:00 AM	3	0	1	0	7	0	0	0	0	0	7	1	19
08:15 AM	2	0	1	0	9	0	0	0	0	0	3	2	17
08:30 AM	3	0	0	2	4	0	0	0	0	0	7	1	17
08:45 AM	2	0	0	1	8	0	0	0	0	0	9	2	22
Total	10	0	2	3	28	0	0	0	0	0	26	6	75
Grand Total	13	0	3	3	51	0	0	0	0	0	61	10	141
Apprch %	81.2	0	18.8	5.6	94.4	0	0	0	0	0	85.9	14.1	
Total %	9.2	0	2.1	2.1	36.2	0	0	0	0	0	43.3	7.1	

	Dean Street (Route 104) From North				Cape Road (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**3**	0	**1**	**4**	0	7	0	7	0	0	0	0	0	7	1	8	19
08:15 AM	2	0	1	3	0	**9**	0	**9**	0	0	0	0	0	3	**2**	5	17
08:30 AM	3	0	0	3	**2**	4	0	6	0	0	0	0	0	7	1	8	17
08:45 AM	2	0	0	2	1	8	0	9	0	0	0	0	0	**9**	2	**11**	**22**
Total Volume	10	0	2	12	3	28	0	31	0	0	0	0	0	26	6	32	75
% App. Total	83.3	0	16.7		9.7	90.3	0		0	0	0		0	81.2	18.8		
PHF	.833	.000	.500	.750	.375	.778	.000	.861	.000	.000	.000	.000	.000	.722	.750	.727	.852

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E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-D
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Dean Street (Route 104) From North				Cape Road (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	2	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	7
Grand Total	3	0	0	2	0	1	0	0	0	0	0	2	0	1	0	2	11
Apprch %	60	0	0	40	0	100	0	0	0	0	0	100	0	33.3	0	66.7	
Total %	27.3	0	0	18.2	0	9.1	0	0	0	0	0	18.2	0	9.1	0	18.2	

	Dean Street (Route 104) From North					Cape Road (Route 44) From East					Greenhouse Driveway From South					Dean Street (Route 44/104) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	**1**	**1**	**2**
08:15 AM	**1**	**0**	**0**	**1**	**2**	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	**4**
Total Volume	1	0	0	1	2	0	0	0	0	0	0	0	0	2	2	0	1	0	2	3	7
% App. Total	50	0	0	50		0	0	0	0		0	0	0	100		0	33.3	0	66.7		
PHF	.250	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.250	.000	.500	.750	.438

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City, State: Taunton, MA
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Site Code : 10111.31
Start Date : 9/17/2008
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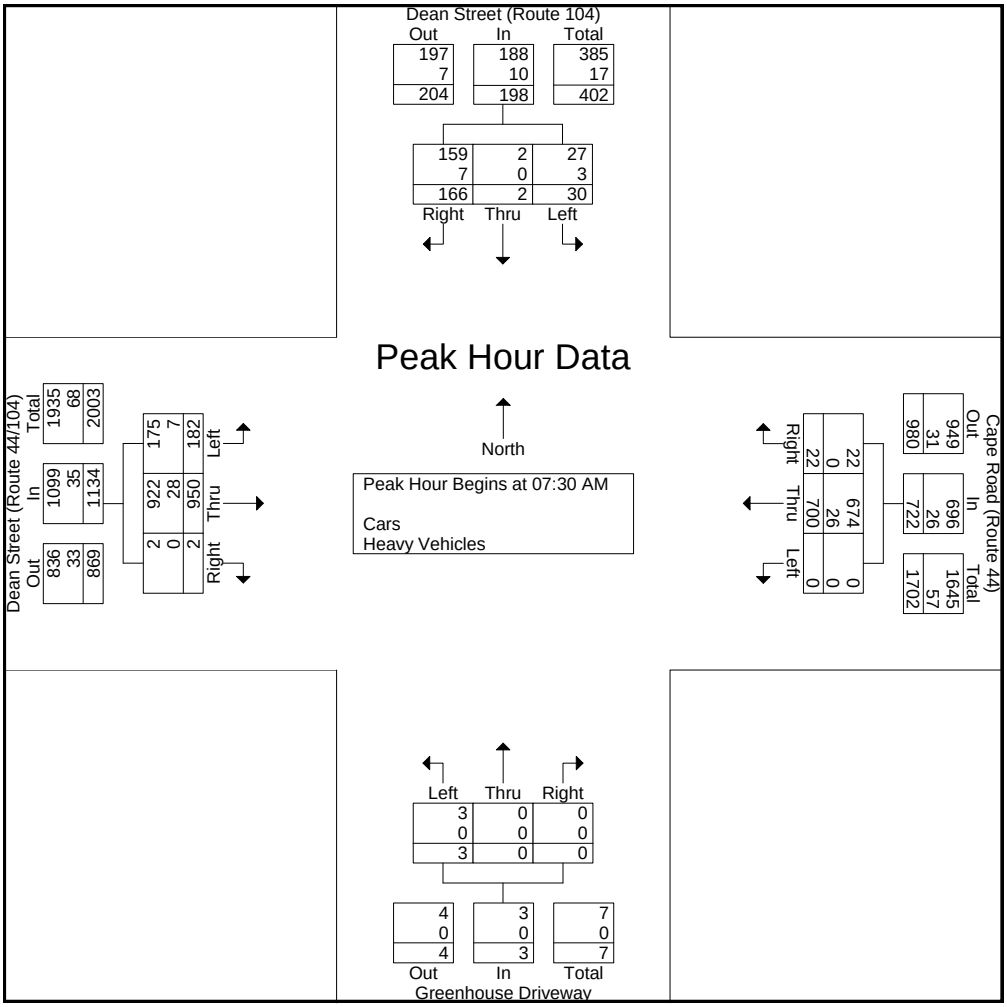
	Dean Street (Route 104) From North				Cape Road (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	41	**1**	**8**	50	5	**189**	0	**194**	0	0	0	0	**1**	**282**	46	**329**	**573**
07:45 AM	35	0	7	42	4	180	0	184	0	0	**2**	**2**	0	241	**52**	293	521
08:00 AM	**49**	1	7	**57**	**7**	154	0	161	0	0	0	0	0	219	36	255	473
08:15 AM	41	0	8	49	6	177	0	183	0	0	1	1	1	208	48	257	490
Total Volume	166	2	30	198	22	700	0	722	0	0	3	3	2	950	182	1134	2057
% App. Total	83.8	1	15.2		3	97	0		0	0	100		0.2	83.8	16		
PHF	.847	.500	.938	.868	.786	.926	.000	.930	.000	.000	.375	.375	.500	.842	.875	.862	.897
Cars	159	2	27	188	22	674	0	696	0	0	3	3	2	922	175	1099	1986
% Cars	95.8	100	90.0	94.9	100	96.3	0	96.4	0	0	100	100	100	97.1	96.2	96.9	96.5
Heavy Vehicles	7	0	3	10	0	26	0	26	0	0	0	0	0	28	7	35	71
% Heavy Vehicles	4.2	0	10.0	5.1	0	3.7	0	3.6	0	0	0	0	0	2.9	3.8	3.1	3.5



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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-DDD
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dean Street (Route 104) From North			Cape Highway (Route 44) From East			Greenhouse Driveway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	69	2	10	2	256	0	0	0	6	4	259	34	642
04:15 PM	61	3	15	7	292	0	0	3	6	3	253	33	676
04:30 PM	68	3	16	5	247	0	0	2	2	4	231	30	608
04:45 PM	66	5	12	2	240	0	2	4	3	7	233	38	612
Total	264	13	53	16	1035	0	2	9	17	18	976	135	2538
05:00 PM	73	2	17	2	211	0	2	3	6	6	248	33	603
05:15 PM	45	4	10	8	260	0	0	3	7	4	227	35	603
05:30 PM	70	2	10	3	279	0	0	2	4	2	239	44	655
05:45 PM	53	0	11	6	266	0	1	3	5	6	212	31	594
Total	241	8	48	19	1016	0	3	11	22	18	926	143	2455
Grand Total	505	21	101	35	2051	0	5	20	39	36	1902	278	4993
Apprch %	80.5	3.3	16.1	1.7	98.3	0	7.8	31.2	60.9	1.6	85.8	12.5	
Total %	10.1	0.4	2	0.7	41.1	0	0.1	0.4	0.8	0.7	38.1	5.6	
Cars	495	20	101	34	2022	0	5	19	39	36	1870	270	4911
% Cars	98	95.2	100	97.1	98.6	0	100	95	100	100	98.3	97.1	98.4
Heavy Vehicles	10	1	0	1	29	0	0	1	0	0	32	8	82
% Heavy Vehicles	2	4.8	0	2.9	1.4	0	0	5	0	0	1.7	2.9	1.6

	Dean Street (Route 104) From North				Cape Highway (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**69**	2	10	81	2	256	0	258	0	0	**6**	6	4	**259**	34	**297**	642
04:15 PM	61	3	15	79	**7**	**292**	0	**299**	0	3	6	**9**	3	253	33	289	**676**
04:30 PM	68	3	**16**	**87**	5	247	0	252	0	2	2	4	4	231	30	265	608
04:45 PM	66	**5**	12	83	2	240	0	242	**2**	**4**	3	9	**7**	233	**38**	278	612
Total Volume	264	13	53	330	16	1035	0	1051	2	9	17	28	18	976	135	1129	2538
% App. Total	80	3.9	16.1		1.5	98.5	0		7.1	32.1	60.7		1.6	86.4	12		
PHF	.957	.650	.828	.948	.571	.886	.000	.879	.250	.563	.708	.778	.643	.942	.888	.950	.939
Cars	258	13	53	324	15	1014	0	1029	2	9	17	28	18	957	129	1104	2485
% Cars	97.7	100	100	98.2	93.8	98.0	0	97.9	100	100	100	100	100	98.1	95.6	97.8	97.9
Heavy Vehicles	6	0	0	6	1	21	0	22	0	0	0	0	0	19	6	25	53
% Heavy Vehicles	2.3	0	0	1.8	6.3	2.0	0	2.1	0	0	0	0	0	1.9	4.4	2.2	2.1

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N/S: Dean Street (Route 104)/Driveway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-DDD
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Dean Street (Route 104) From North			Cape Highway (Route 44) From East			Greenhouse Driveway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	68	2	10	2	250	0	0	0	6	4	254	31	627
04:15 PM	60	3	15	6	288	0	0	3	6	3	248	32	664
04:30 PM	66	3	16	5	241	0	0	2	2	4	227	29	595
04:45 PM	64	5	12	2	235	0	2	4	3	7	228	37	599
Total	258	13	53	15	1014	0	2	9	17	18	957	129	2485
05:00 PM	72	2	17	2	209	0	2	3	6	6	243	33	595
05:15 PM	45	3	10	8	258	0	0	3	7	4	222	35	595
05:30 PM	69	2	10	3	278	0	0	1	4	2	236	44	649
05:45 PM	51	0	11	6	263	0	1	3	5	6	212	29	587
Total	237	7	48	19	1008	0	3	10	22	18	913	141	2426
Grand Total	495	20	101	34	2022	0	5	19	39	36	1870	270	4911
Apprch %	80.4	3.2	16.4	1.7	98.3	0	7.9	30.2	61.9	1.7	85.9	12.4	
Total %	10.1	0.4	2.1	0.7	41.2	0	0.1	0.4	0.8	0.7	38.1	5.5	

	Dean Street (Route 104) From North				Cape Highway (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**68**	2	10	80	2	250	0	252	0	0	**6**	6	4	**254**	31	**289**	627
04:15 PM	60	3	15	78	**6**	**288**	0	**294**	0	3	6	**9**	3	248	32	283	**664**
04:30 PM	66	3	**16**	**85**	5	241	0	246	0	2	2	4	4	227	29	260	595
04:45 PM	64	**5**	12	81	2	235	0	237	**2**	**4**	3	9	**7**	228	**37**	272	599
Total Volume	258	13	53	324	15	1014	0	1029	2	9	17	28	18	957	129	1104	2485
% App. Total	79.6	4	16.4		1.5	98.5	0		7.1	32.1	60.7		1.6	86.7	11.7		
PHF	.949	.650	.828	.953	.625	.880	.000	.875	.250	.563	.708	.778	.643	.942	.872	.955	.936

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N/S: Dean Street (Route 104)/Driveway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-DDD
Site Code : 10111.31
Start Date : 9/17/2008
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Groups Printed- Heavy Vehicles

	Dean Street (Route 104) From North			Cape Highway (Route 44) From East			Greenhouse Driveway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	0	0	0	6	0	0	0	0	0	5	3	15
04:15 PM	1	0	0	1	4	0	0	0	0	0	5	1	12
04:30 PM	2	0	0	0	6	0	0	0	0	0	4	1	13
04:45 PM	2	0	0	0	5	0	0	0	0	0	5	1	13
Total	6	0	0	1	21	0	0	0	0	0	19	6	53
05:00 PM	1	0	0	0	2	0	0	0	0	0	5	0	8
05:15 PM	0	1	0	0	2	0	0	0	0	0	5	0	8
05:30 PM	1	0	0	0	1	0	0	1	0	0	3	0	6
05:45 PM	2	0	0	0	3	0	0	0	0	0	0	2	7
Total	4	1	0	0	8	0	0	1	0	0	13	2	29
Grand Total	10	1	0	1	29	0	0	1	0	0	32	8	82
Apprch %	90.9	9.1	0	3.3	96.7	0	0	100	0	0	80	20	
Total %	12.2	1.2	0	1.2	35.4	0	0	1.2	0	0	39	9.8	

	Dean Street (Route 104) From North				Cape Highway (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	0	0	1	0	**6**	0	**6**	0	0	0	0	0	**5**	**3**	**8**	**15**
04:15 PM	1	0	0	1	**1**	4	0	5	0	0	0	0	0	5	1	6	12
04:30 PM	**2**	0	0	**2**	0	6	0	6	0	0	0	0	0	4	1	5	13
04:45 PM	2	0	0	2	0	5	0	5	0	0	0	0	0	5	1	6	13
Total Volume	6	0	0	6	1	21	0	22	0	0	0	0	0	19	6	25	53
% App. Total	100	0	0		4.5	95.5	0		0	0	0		0	76	24		
PHF	.750	.000	.000	.750	.250	.875	.000	.917	.000	.000	.000	.000	.000	.950	.500	.781	.883

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E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-DDD
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Dean Street (Route 104) From North				Cape Highway (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	5
Grand Total	0	0	0	5	0	2	0	3	0	0	0	0	0	0	0	0	10
Apprch %	0	0	0	100	0	40	0	60	0	0	0	0	0	0	0	0	
Total %	0	0	0	50	0	20	0	30	0	0	0	0	0	0	0	0	

	Dean Street (Route 104) From North					Cape Highway (Route 44) From East					Greenhouse Driveway From South					Dean Street (Route 44/104) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	**2**	**2**	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
05:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
05:15 PM	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**3**	**3**	0	0	0	0	0	0	0	0	0	0	**5**
Total Volume	0	0	0	4	4	0	1	0	3	4	0	0	0	0	0	0	0	0	0	0	8
% App. Total	0	0	0	100		0	25	0	75		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.500	.500	.000	.250	.000	.250	.333	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.400

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N/S: Dean Street (Route 104)/Driveway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-DDD
Site Code : 10111.31
Start Date : 9/17/2008
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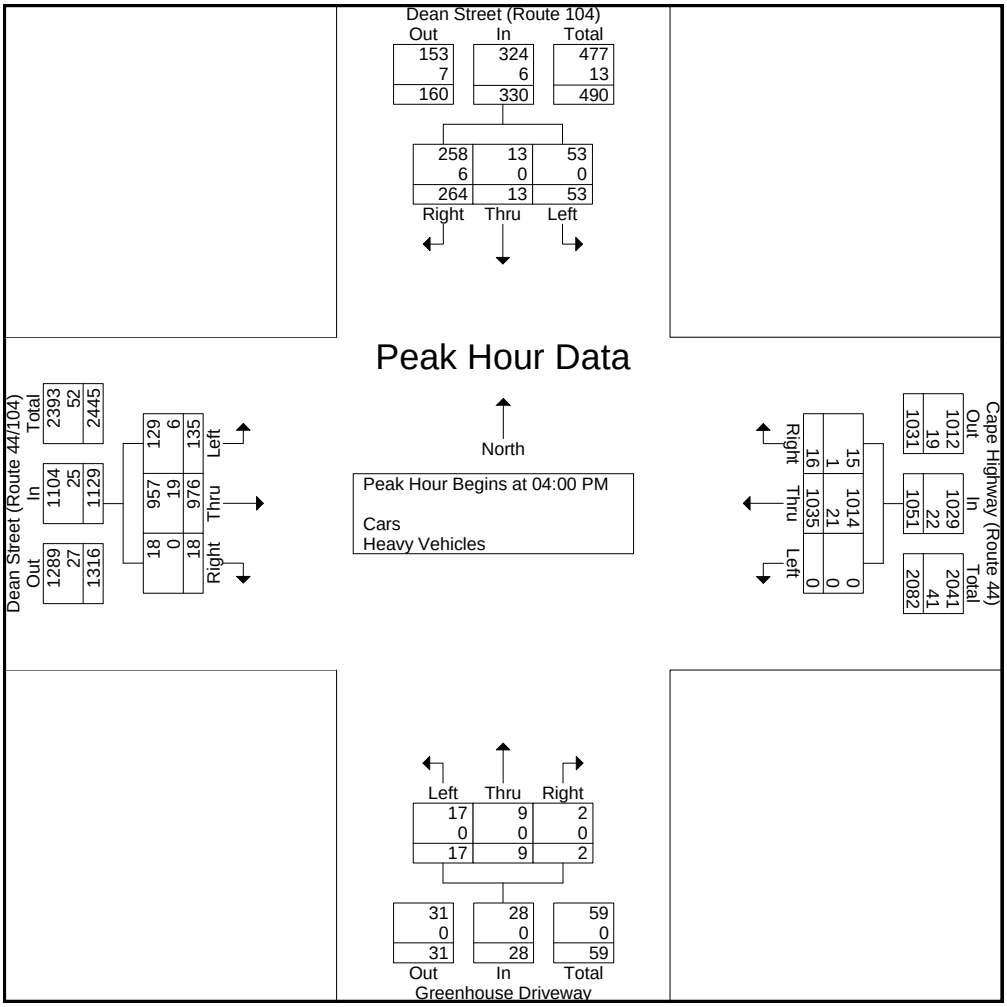
	Dean Street (Route 104) From North				Cape Highway (Route 44) From East				Greenhouse Driveway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**69**	2	10	81	2	256	0	258	0	0	**6**	6	4	**259**	34	**297**	642
04:15 PM	61	3	15	79	**7**	**292**	0	**299**	0	3	6	**9**	3	253	33	289	**676**
04:30 PM	68	3	**16**	**87**	5	247	0	252	0	2	2	4	4	231	30	265	608
04:45 PM	66	**5**	12	83	2	240	0	242	**2**	**4**	3	9	**7**	233	**38**	278	612
Total Volume	264	13	53	330	16	1035	0	1051	2	9	17	28	18	976	135	1129	2538
% App. Total	80	3.9	16.1		1.5	98.5	0		7.1	32.1	60.7		1.6	86.4	12		
PHF	.957	.650	.828	.948	.571	.886	.000	.879	.250	.563	.708	.778	.643	.942	.888	.950	.939
Cars	258	13	53	324	15	1014	0	1029	2	9	17	28	18	957	129	1104	2485
% Cars	97.7	100	100	98.2	93.8	98.0	0	97.9	100	100	100	100	100	98.1	95.6	97.8	97.9
Heavy Vehicles	6	0	0	6	1	21	0	22	0	0	0	0	0	19	6	25	53
% Heavy Vehicles	2.3	0	0	1.8	6.3	2.0	0	2.1	0	0	0	0	0	1.9	4.4	2.2	2.1



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N/S: Longmeadow Rd/Gordon Owen Riverway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-E
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Longmeadow Road From North			Dean Street (Route 44/104) From East			Gordon Owen Riverway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	4	61	29	25	103	60	56	60	11	74	157	0	640
07:15 AM	6	98	23	18	144	49	55	94	35	111	165	2	800
07:30 AM	5	46	43	30	165	38	70	98	38	70	209	2	814
07:45 AM	3	38	28	16	154	44	59	75	27	52	218	5	719
Total	18	243	123	89	566	191	240	327	111	307	749	9	2973
08:00 AM	1	28	26	25	146	44	76	69	12	38	181	2	648
08:15 AM	0	32	30	9	150	37	66	83	29	28	174	5	643
08:30 AM	2	35	25	34	132	46	69	48	16	32	181	8	628
08:45 AM	3	22	33	18	168	38	77	51	17	27	189	3	646
Total	6	117	114	86	596	165	288	251	74	125	725	18	2565
Grand Total	24	360	237	175	1162	356	528	578	185	432	1474	27	5538
Apprch %	3.9	58	38.2	10.3	68.6	21	40.9	44.8	14.3	22.3	76.3	1.4	
Total %	0.4	6.5	4.3	3.2	21	6.4	9.5	10.4	3.3	7.8	26.6	0.5	
Cars	19	338	225	172	1104	338	512	542	176	416	1428	20	5290
% Cars	79.2	93.9	94.9	98.3	95	94.9	97	93.8	95.1	96.3	96.9	74.1	95.5
Heavy Vehicles	5	22	12	3	58	18	16	36	9	16	46	7	248
% Heavy Vehicles	20.8	6.1	5.1	1.7	5	5.1	3	6.2	4.9	3.7	3.1	25.9	4.5

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**6**	**98**	23	**127**	18	144	**49**	211	55	94	35	184	**111**	165	2	278	800
07:30 AM	5	46	**43**	94	**30**	**165**	38	**233**	70	**98**	**38**	**206**	70	209	2	**281**	**814**
07:45 AM	3	38	28	69	16	154	44	214	59	75	27	161	52	**218**	**5**	275	719
08:00 AM	1	28	26	55	25	146	44	215	**76**	69	12	157	38	181	2	221	648
Total Volume	15	210	120	345	89	609	175	873	260	336	112	708	271	773	11	1055	2981
% App. Total	4.3	60.9	34.8		10.2	69.8	20		36.7	47.5	15.8		25.7	73.3	1		
PHF	.625	.536	.698	.679	.742	.923	.893	.937	.855	.857	.737	.859	.610	.886	.550	.939	.916
Cars	12	194	116	322	87	584	166	837	252	316	103	671	262	746	9	1017	2847
% Cars	80.0	92.4	96.7	93.3	97.8	95.9	94.9	95.9	96.9	94.0	92.0	94.8	96.7	96.5	81.8	96.4	95.5
Heavy Vehicles	3	16	4	23	2	25	9	36	8	20	9	37	9	27	2	38	134
% Heavy Vehicles	20.0	7.6	3.3	6.7	2.2	4.1	5.1	4.1	3.1	6.0	8.0	5.2	3.3	3.5	18.2	3.6	4.5

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-E
Site Code : 10111.31
Start Date : 9/17/2008
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Groups Printed- Cars

	Longmeadow Road From North			Dean Street (Route 44/104) From East			Gordon Owen Riverway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	60	27	25	94	58	56	58	11	74	150	0	615
07:15 AM	5	87	22	17	134	48	54	91	34	109	160	2	763
07:30 AM	4	44	43	30	162	37	69	89	33	69	200	2	782
07:45 AM	2	36	27	15	146	41	58	70	26	47	209	3	680
Total	13	227	119	87	536	184	237	308	104	299	719	7	2840
08:00 AM	1	27	24	25	142	40	71	66	10	37	177	2	622
08:15 AM	0	30	30	8	141	34	64	76	29	27	170	3	612
08:30 AM	2	32	21	34	127	44	65	44	16	29	177	5	596
08:45 AM	3	22	31	18	158	36	75	48	17	24	185	3	620
Total	6	111	106	85	568	154	275	234	72	117	709	13	2450
Grand Total	19	338	225	172	1104	338	512	542	176	416	1428	20	5290
Apprch %	3.3	58.1	38.7	10.7	68.4	20.9	41.6	44.1	14.3	22.3	76.6	1.1	
Total %	0.4	6.4	4.3	3.3	20.9	6.4	9.7	10.2	3.3	7.9	27	0.4	

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**5**	**87**	22	**114**	17	134	**48**	199	54	**91**	**34**	179	**109**	160	2	**271**	763
07:30 AM	4	44	**43**	91	**30**	**162**	37	**229**	69	89	33	**191**	69	200	2	271	**782**
07:45 AM	2	36	27	65	15	146	41	202	58	70	26	154	47	**209**	**3**	259	680
08:00 AM	1	27	24	52	25	142	40	207	**71**	66	10	147	37	177	2	216	622
Total Volume	12	194	116	322	87	584	166	837	252	316	103	671	262	746	9	1017	2847
% App. Total	3.7	60.2	36		10.4	69.8	19.8		37.6	47.1	15.4		25.8	73.4	0.9		
PHF	.600	.557	.674	.706	.725	.901	.865	.914	.887	.868	.757	.878	.601	.892	.750	.938	.910

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File Name : 81676 K-E
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Longmeadow Road From North			Dean Street (Route 44/104) From East			Gordon Owen Riverway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	1	2	0	9	2	0	2	0	0	7	0	25
07:15 AM	1	11	1	1	10	1	1	3	1	2	5	0	37
07:30 AM	1	2	0	0	3	1	1	9	5	1	9	0	32
07:45 AM	1	2	1	1	8	3	1	5	1	5	9	2	39
Total	5	16	4	2	30	7	3	19	7	8	30	2	133
08:00 AM	0	1	2	0	4	4	5	3	2	1	4	0	26
08:15 AM	0	2	0	1	9	3	2	7	0	1	4	2	31
08:30 AM	0	3	4	0	5	2	4	4	0	3	4	3	32
08:45 AM	0	0	2	0	10	2	2	3	0	3	4	0	26
Total	0	6	8	1	28	11	13	17	2	8	16	5	115
Grand Total	5	22	12	3	58	18	16	36	9	16	46	7	248
Apprch %	12.8	56.4	30.8	3.8	73.4	22.8	26.2	59	14.8	23.2	66.7	10.1	
Total %	2	8.9	4.8	1.2	23.4	7.3	6.5	14.5	3.6	6.5	18.5	2.8	

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	**11**	1	**13**	**1**	**10**	1	**12**	1	3	1	5	2	5	0	7	37
07:30 AM	1	2	0	3	0	3	1	4	1	**9**	**5**	**15**	1	**9**	0	10	32
07:45 AM	1	2	1	4	1	8	3	12	1	5	1	7	**5**	9	**2**	**16**	**39**
08:00 AM	0	1	**2**	3	0	4	**4**	8	**5**	3	2	10	1	4	0	5	26
Total Volume	3	16	4	23	2	25	9	36	8	20	9	37	9	27	2	38	134
% App. Total	13	69.6	17.4		5.6	69.4	25		21.6	54.1	24.3		23.7	71.1	5.3		
PHF	.750	.364	.500	.442	.500	.625	.563	.750	.400	.556	.450	.617	.450	.750	.250	.594	.859

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N/S: Longmeadow Rd/Gordon Owen Riverway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-E
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
07:15 AM	0	1	0	1	0	1	0	0	0	0	0	1	1	0	0	6	11
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	4
07:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3
Total	0	1	0	1	0	1	0	2	0	0	0	3	1	2	0	9	20
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	1	0	0	0	0	0	0	0	1	0	1	5
Grand Total	0	1	0	3	0	2	0	2	0	0	0	3	1	3	0	10	25
Apprch %	0	25	0	75	0	50	0	50	0	0	0	100	7.1	21.4	0	71.4	
Total %	0	4	0	12	0	8	0	8	0	0	0	12	4	12	0	40	

	Longmeadow Road From North					Dean Street (Route 44/104) From East					Gordon Owen Riverway From South					Dean Street (Route 44/104) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	1	1	2
07:15 AM	0	**1**	0	**1**	**2**	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**6**	**7**	**11**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	**1**	0	2	3	4
07:45 AM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	1	0	0	1	3
Total Volume	0	1	0	1	2	0	1	0	2	3	0	0	0	3	3	1	2	0	9	12	20
% App. Total	0	50	0	50		0	33.3	0	66.7		0	0	0	100		8.3	16.7	0	75		
PHF	.000	.250	.000	.250	.250	.000	.250	.000	.250	.375	.000	.000	.000	.750	.750	.250	.500	.000	.375	.429	.455

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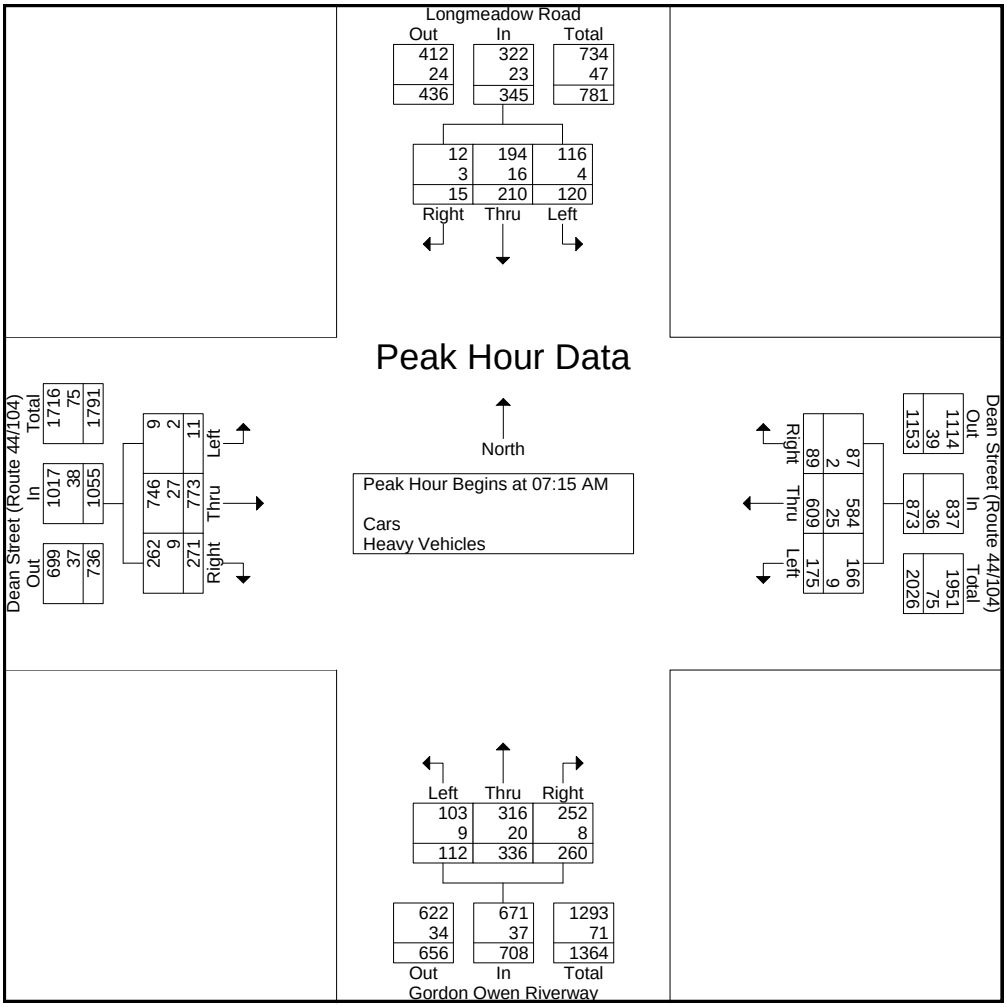
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-E
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**6**	**98**	23	**127**	18	144	**49**	211	55	94	35	184	**111**	165	2	278	800
07:30 AM	5	46	**43**	94	**30**	**165**	38	**233**	70	**98**	**38**	**206**	70	209	2	**281**	**814**
07:45 AM	3	38	28	69	16	154	44	214	59	75	27	161	52	**218**	**5**	275	719
08:00 AM	1	28	26	55	25	146	44	215	**76**	69	12	157	38	181	2	221	648
Total Volume	15	210	120	345	89	609	175	873	260	336	112	708	271	773	11	1055	2981
% App. Total	4.3	60.9	34.8		10.2	69.8	20		36.7	47.5	15.8		25.7	73.3	1		
PHF	.625	.536	.698	.679	.742	.923	.893	.937	.855	.857	.737	.859	.610	.886	.550	.939	.916
Cars	12	194	116	322	87	584	166	837	252	316	103	671	262	746	9	1017	2847
% Cars	80.0	92.4	96.7	93.3	97.8	95.9	94.9	95.9	96.9	94.0	92.0	94.8	96.7	96.5	81.8	96.4	95.5
Heavy Vehicles	3	16	4	23	2	25	9	36	8	20	9	37	9	27	2	38	134
% Heavy Vehicles	20.0	7.6	3.3	6.7	2.2	4.1	5.1	4.1	3.1	6.0	8.0	5.2	3.3	3.5	18.2	3.6	4.5



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N/S: Longmeadow Road/Owen Riverway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-EEE
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Longmeadow Road From North			Dean Street (Route 44/104) From East			Gordon M. Owen Riverway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	54	30	63	190	86	58	89	16	58	196	2	843
04:15 PM	3	42	46	66	171	97	50	74	20	71	184	4	828
04:30 PM	3	72	38	51	178	97	53	83	20	97	200	5	897
04:45 PM	0	43	24	50	201	94	56	87	18	87	190	2	852
Total	7	211	138	230	740	374	217	333	74	313	770	13	3420
05:00 PM	6	68	36	41	181	95	49	71	10	79	206	0	842
05:15 PM	2	95	39	45	167	101	43	76	18	60	177	3	826
05:30 PM	4	103	52	59	192	102	57	95	10	30	161	10	875
05:45 PM	1	99	39	60	220	75	49	66	27	43	175	14	868
Total	13	365	166	205	760	373	198	308	65	212	719	27	3411
Grand Total	20	576	304	435	1500	747	415	641	139	525	1489	40	6831
Apprch %	2.2	64	33.8	16.2	55.9	27.9	34.7	53.6	11.6	25.6	72.5	1.9	
Total %	0.3	8.4	4.5	6.4	22	10.9	6.1	9.4	2	7.7	21.8	0.6	
Cars	20	568	300	426	1468	736	409	628	135	515	1446	40	6691
% Cars	100	98.6	98.7	97.9	97.9	98.5	98.6	98	97.1	98.1	97.1	100	98
Heavy Vehicles	0	8	4	9	32	11	6	13	4	10	43	0	140
% Heavy Vehicles	0	1.4	1.3	2.1	2.1	1.5	1.4	2	2.9	1.9	2.9	0	2

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon M. Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	54	30	85	63	190	86	339	**58**	**89**	16	**163**	58	196	2	256	843
04:15 PM	**3**	42	**46**	91	**66**	171	**97**	334	50	74	**20**	144	71	184	4	259	828
04:30 PM	3	**72**	38	**113**	51	178	97	326	53	83	20	156	**97**	**200**	**5**	**302**	**897**
04:45 PM	0	43	24	67	50	**201**	94	**345**	56	87	18	161	87	190	2	279	852
Total Volume	7	211	138	356	230	740	374	1344	217	333	74	624	313	770	13	1096	3420
% App. Total	2	59.3	38.8		17.1	55.1	27.8		34.8	53.4	11.9		28.6	70.3	1.2		
PHF	.583	.733	.750	.788	.871	.920	.964	.974	.935	.935	.925	.957	.807	.963	.650	.907	.953
Cars	7	208	136	351	223	717	366	1306	215	330	72	617	304	743	13	1060	3334
% Cars	100	98.6	98.6	98.6	97.0	96.9	97.9	97.2	99.1	99.1	97.3	98.9	97.1	96.5	100	96.7	97.5
Heavy Vehicles	0	3	2	5	7	23	8	38	2	3	2	7	9	27	0	36	86
% Heavy Vehicles	0	1.4	1.4	1.4	3.0	3.1	2.1	2.8	0.9	0.9	2.7	1.1	2.9	3.5	0	3.3	2.5

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E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-EEE
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Longmeadow Road From North			Dean Street (Route 44/104) From East			Gordon M. Owen Riverway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	53	30	61	183	85	58	88	15	58	189	2	823
04:15 PM	3	40	45	62	166	97	50	74	20	68	180	4	809
04:30 PM	3	72	38	50	171	93	52	82	19	94	189	5	868
04:45 PM	0	43	23	50	197	91	55	86	18	84	185	2	834
Total	7	208	136	223	717	366	215	330	72	304	743	13	3334
05:00 PM	6	67	36	40	177	94	48	68	10	79	201	0	826
05:15 PM	2	93	37	45	166	100	42	75	18	60	171	3	812
05:30 PM	4	102	52	59	191	101	55	91	8	29	159	10	861
05:45 PM	1	98	39	59	217	75	49	64	27	43	172	14	858
Total	13	360	164	203	751	370	194	298	63	211	703	27	3357
Grand Total	20	568	300	426	1468	736	409	628	135	515	1446	40	6691
Apprch %	2.3	64	33.8	16.2	55.8	28	34.9	53.6	11.5	25.7	72.3	2	
Total %	0.3	8.5	4.5	6.4	21.9	11	6.1	9.4	2	7.7	21.6	0.6	

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon M. Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**6**	67	36	109	40	177	94	311	48	68	10	126	**79**	**201**	0	**280**	826
05:15 PM	2	93	37	132	45	166	100	311	42	75	18	135	60	171	3	234	812
05:30 PM	4	**102**	**52**	**158**	**59**	191	**101**	**351**	**55**	**91**	8	**154**	29	159	10	198	**861**
05:45 PM	1	98	39	138	59	**217**	75	351	49	64	**27**	140	43	172	**14**	229	858
Total Volume	13	360	164	537	203	751	370	1324	194	298	63	555	211	703	27	941	3357
% App. Total	2.4	67	30.5		15.3	56.7	27.9		35	53.7	11.4		22.4	74.7	2.9		
PHF	.542	.882	.788	.850	.860	.865	.916	.943	.882	.819	.583	.901	.668	.874	.482	.840	.975

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Page No : 1

Groups Printed- Heavy Vehicles

	Longmeadow Road From North			Dean Street (Route 44/104) From East			Gordon M. Owen Riverway From South			Dean Street (Route 44/104) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	0	2	7	1	0	1	1	0	7	0	20
04:15 PM	0	2	1	4	5	0	0	0	0	3	4	0	19
04:30 PM	0	0	0	1	7	4	1	1	1	3	11	0	29
04:45 PM	0	0	1	0	4	3	1	1	0	3	5	0	18
Total	0	3	2	7	23	8	2	3	2	9	27	0	86
05:00 PM	0	1	0	1	4	1	1	3	0	0	5	0	16
05:15 PM	0	2	2	0	1	1	1	1	0	0	6	0	14
05:30 PM	0	1	0	0	1	1	2	4	2	1	2	0	14
05:45 PM	0	1	0	1	3	0	0	2	0	0	3	0	10
Total	0	5	2	2	9	3	4	10	2	1	16	0	54
Grand Total	0	8	4	9	32	11	6	13	4	10	43	0	140
Apprch %	0	66.7	33.3	17.3	61.5	21.2	26.1	56.5	17.4	18.9	81.1	0	
Total %	0	5.7	2.9	6.4	22.9	7.9	4.3	9.3	2.9	7.1	30.7	0	

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon M. Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	0	1	2	**7**	1	10	0	**1**	**1**	2	0	7	0	7	20
04:15 PM	0	**2**	**1**	**3**	**4**	5	0	9	0	0	0	0	**3**	4	0	7	19
04:30 PM	0	0	0	0	1	7	**4**	**12**	**1**	1	1	**3**	3	**11**	0	**14**	**29**
04:45 PM	0	0	1	1	0	4	3	7	1	1	0	2	3	5	0	8	18
Total Volume	0	3	2	5	7	23	8	38	2	3	2	7	9	27	0	36	86
% App. Total	0	60	40		18.4	60.5	21.1		28.6	42.9	28.6		25	75	0		
PHF	.000	.375	.500	.417	.438	.821	.500	.792	.500	.750	.500	.583	.750	.614	.000	.643	.741

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Page No : 1

Groups Printed- Peds and Bicycles

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon M. Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	2	5
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
04:45 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	3
Total	0	1	0	1	0	2	0	0	0	2	1	0	1	1	0	4	13
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	5
Total	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	3	8
Grand Total	0	1	0	5	0	2	0	1	0	2	1	0	1	1	0	7	21
Apprch %	0	16.7	0	83.3	0	66.7	0	33.3	0	66.7	33.3	0	11.1	11.1	0	77.8	
Total %	0	4.8	0	23.8	0	9.5	0	4.8	0	9.5	4.8	0	4.8	4.8	0	33.3	

	Longmeadow Road From North					Dean Street (Route 44/104) From East					Gordon M. Owen Riverway From South					Dean Street (Route 44/104) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**1**	0	0	**1**	0	**1**	**0**	**0**	**1**	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**2**	**5**
04:15 PM	0	0	0	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**3**
04:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	0	0	2	2
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	1	**1**	0	**2**	0	0	0	0	0	3
Total Volume	0	1	0	1	2	0	2	0	0	2	0	2	1	0	3	1	1	0	4	6	13
% App. Total	0	50	0	50		0	100	0	0		0	66.7	33.3	0		16.7	16.7	0	66.7		
PHF	.000	.250	.000	.250	.500	.000	.500	.000	.000	.500	.000	.500	.250	.000	.375	.250	.250	.000	.500	.750	.650

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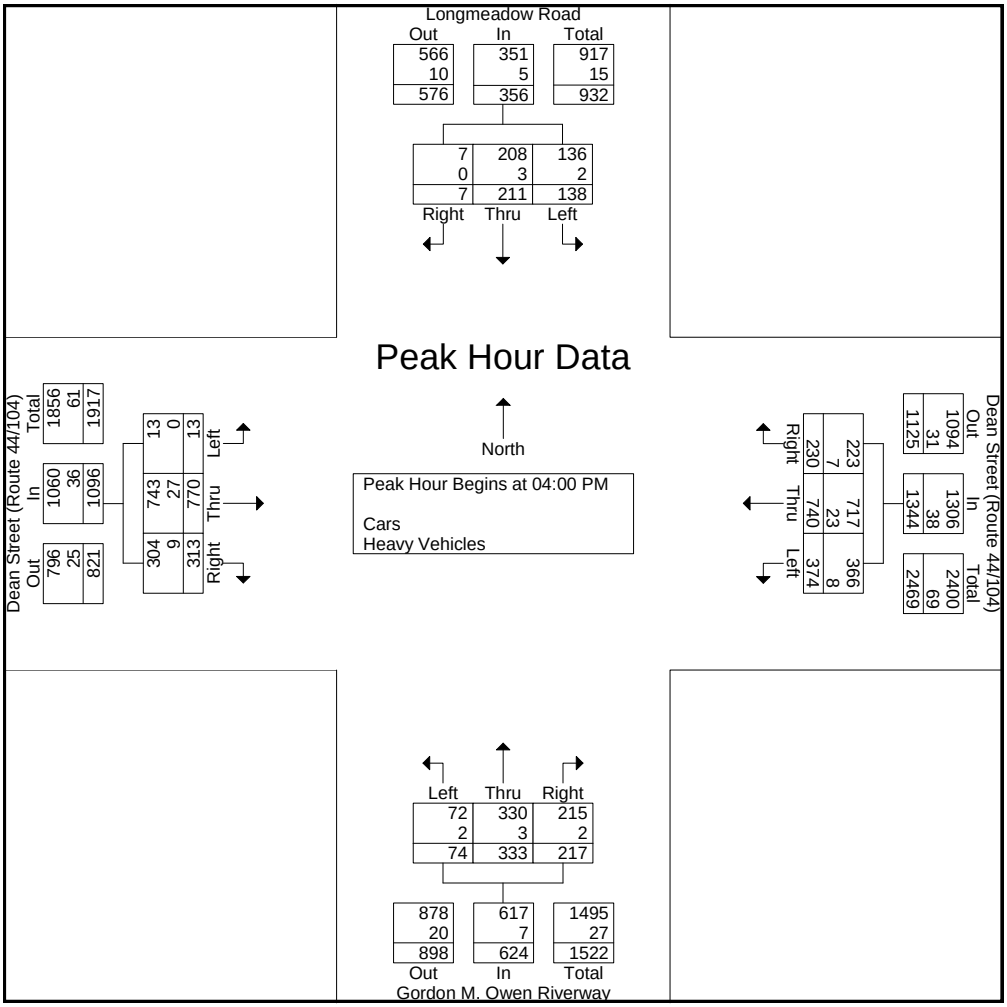
N/S: Longmeadow Road/Owen Riverway
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-EEE
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Longmeadow Road From North				Dean Street (Route 44/104) From East				Gordon M. Owen Riverway From South				Dean Street (Route 44/104) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	54	30	85	63	190	86	339	**58**	**89**	16	**163**	58	196	2	256	843
04:15 PM	**3**	42	**46**	91	**66**	171	**97**	334	50	74	**20**	144	71	184	4	259	828
04:30 PM	3	**72**	38	**113**	51	178	97	326	53	83	20	156	**97**	**200**	**5**	**302**	**897**
04:45 PM	0	43	24	67	50	**201**	94	**345**	56	87	18	161	87	190	2	279	852
Total Volume	7	211	138	356	230	740	374	1344	217	333	74	624	313	770	13	1096	3420
% App. Total	2	59.3	38.8		17.1	55.1	27.8		34.8	53.4	11.9		28.6	70.3	1.2		
PHF	.583	.733	.750	.788	.871	.920	.964	.974	.935	.935	.925	.957	.807	.963	.650	.907	.953
Cars	7	208	136	351	223	717	366	1306	215	330	72	617	304	743	13	1060	3334
% Cars	100	98.6	98.6	98.6	97.0	96.9	97.9	97.2	99.1	99.1	97.3	98.9	97.1	96.5	100	96.7	97.5
Heavy Vehicles	0	3	2	5	7	23	8	38	2	3	2	7	9	27	0	36	86
% Heavy Vehicles	0	1.4	1.4	1.4	3.0	3.1	2.1	2.8	0.9	0.9	2.7	1.1	2.9	3.5	0	3.3	2.5



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N: Arlington Street
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-F
Site Code : 10111.31
Start Date : 9/17/2008
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Groups Printed- Cars - Heavy Vehicles

	Arlington Street From North		Dean Street (Route 44/104) From East		Dean Street (Route 44/104) From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	6	59	13	101	194	8	381
07:15 AM	16	81	40	159	191	6	493
07:30 AM	11	69	36	178	214	15	523
07:45 AM	9	60	22	150	194	8	443
Total	42	269	111	588	793	37	1840
08:00 AM	13	55	12	139	166	1	386
08:15 AM	8	39	19	159	153	3	381
08:30 AM	7	49	23	151	177	6	413
08:45 AM	13	47	14	164	180	3	421
Total	41	190	68	613	676	13	1601
Grand Total	83	459	179	1201	1469	50	3441
Apprch %	15.3	84.7	13	87	96.7	3.3	
Total %	2.4	13.3	5.2	34.9	42.7	1.5	
Cars	74	442	175	1133	1399	45	3268
% Cars	89.2	96.3	97.8	94.3	95.2	90	95
Heavy Vehicles	9	17	4	68	70	5	173
% Heavy Vehicles	10.8	3.7	2.2	5.7	4.8	10	5

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	**16**	**81**	**97**	**40**	159	199	191	6	197	493
07:30 AM	11	69	80	36	**178**	**214**	**214**	**15**	**229**	**523**
07:45 AM	**9**	**60**	**69**	**22**	**150**	**172**	**194**	**8**	**202**	**443**
08:00 AM	**13**	**55**	**68**	**12**	**139**	**151**	**166**	**1**	**167**	**386**
Total Volume	**49**	**265**	**314**	**110**	**626**	**736**	**765**	**30**	**795**	**1845**
% App. Total	**15.6**	**84.4**		**14.9**	**85.1**		**96.2**	**3.8**		
PHF	**.766**	**.818**	**.809**	**.688**	**.879**	**.860**	**.894**	**.500**	**.868**	**.882**
Cars	**43**	**255**	**298**	**107**	**594**	**701**	**725**	**29**	**754**	**1753**
% Cars	**87.8**	**96.2**	**94.9**	**97.3**	**94.9**	**95.2**	**94.8**	**96.7**	**94.8**	**95.0**
Heavy Vehicles	**6**	**10**	**16**	**3**	**32**	**35**	**40**	**1**	**41**	**92**
% Heavy Vehicles	**12.2**	**3.8**	**5.1**	**2.7**	**5.1**	**4.8**	**5.2**	**3.3**	**5.2**	**5.0**

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-F
Site Code : 10111.31
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Groups Printed- Cars

	Arlington Street From North		Dean Street (Route 44/104) From East		Dean Street (Route 44/104) From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	5	59	13	92	187	7	363
07:15 AM	15	78	39	149	182	6	469
07:30 AM	10	66	35	170	203	14	498
07:45 AM	8	57	22	142	179	8	416
Total	38	260	109	553	751	35	1746
08:00 AM	10	54	11	133	161	1	370
08:15 AM	8	38	19	145	146	2	358
08:30 AM	5	44	23	147	169	5	393
08:45 AM	13	46	13	155	172	2	401
Total	36	182	66	580	648	10	1522
Grand Total	74	442	175	1133	1399	45	3268
Apprch %	14.3	85.7	13.4	86.6	96.9	3.1	
Total %	2.3	13.5	5.4	34.7	42.8	1.4	

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	**15**	**78**	**93**	**39**	149	188	182	6	188	469
07:30 AM	10	66	76	35	**170**	**205**	**203**	**14**	**217**	**498**
07:45 AM	**8**	**57**	**65**	**22**	**142**	**164**	**179**	**8**	**187**	**416**
08:00 AM	**10**	**54**	**64**	**11**	**133**	**144**	**161**	**1**	**162**	**370**
Total Volume	**43**	**255**	**298**	**107**	**594**	**701**	**725**	**29**	**754**	**1753**
% App. Total	**14.4**	**85.6**		**15.3**	**84.7**		**96.2**	**3.8**		
PHF	**.717**	**.817**	**.801**	**.686**	**.874**	**.855**	**.893**	**.518**	**.869**	**.880**

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Client: VHB/J. Quitter

File Name : 81676 K-F
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Groups Printed- Heavy Vehicles

	Arlington Street From North		Dean Street (Route 44/104) From East		Dean Street (Route 44/104) From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	1	0	0	9	7	1	18
07:15 AM	1	3	1	10	9	0	24
07:30 AM	1	3	1	8	11	1	25
07:45 AM	1	3	0	8	15	0	27
Total	4	9	2	35	42	2	94
08:00 AM	3	1	1	6	5	0	16
08:15 AM	0	1	0	14	7	1	23
08:30 AM	2	5	0	4	8	1	20
08:45 AM	0	1	1	9	8	1	20
Total	5	8	2	33	28	3	79
Grand Total	9	17	4	68	70	5	173
Apprch %	34.6	65.4	5.6	94.4	93.3	6.7	
Total %	5.2	9.8	2.3	39.3	40.5	2.9	

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	0	1	0	9	9	7	**1**	8	18
07:15 AM	1	**3**	**4**	**1**	**10**	**11**	9	0	9	24
07:30 AM	1	3	4	1	8	9	11	1	12	25
07:45 AM	1	3	4	0	8	8	**15**	0	**15**	**27**
Total Volume	**4**	**9**	**13**	**2**	**35**	**37**	**42**	**2**	**44**	**94**
% App. Total	**30.8**	**69.2**		**5.4**	**94.6**		**95.5**	**4.5**		
PHF	**1.000**	**.750**	**.813**	**.500**	**.875**	**.841**	**.700**	**.500**	**.733**	**.870**

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File Name : 81676 K-F
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	0	3	0	0	0	0	0	0	3
07:15 AM	0	0	2	0	1	0	3	0	0	6
07:30 AM	0	1	1	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	1	0	0	1
Total	0	1	6	0	1	0	4	0	0	12
08:00 AM	0	0	4	0	0	0	0	0	0	4
08:15 AM	0	0	0	0	1	0	0	0	0	1
08:30 AM	0	0	1	0	0	0	0	0	0	1
08:45 AM	0	0	1	0	0	0	0	0	0	1
Total	0	0	6	0	1	0	0	0	0	7
Grand Total	0	1	12	0	2	0	4	0	0	19
Apprch %	0	7.7	92.3	0	100	0	100	0	0	
Total %	0	5.3	63.2	0	10.5	0	21.1	0	0	

	Arlington Street From North				Dean Street (Route 44/104) From East				Dean Street (Route 44/104) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	0	2	2	0	**1**	0	**1**	**3**	0	0	**3**	**6**
07:30 AM	0	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**
08:00 AM	**0**	**0**	**4**	**4**	0	0	0	0	0	0	0	0	4
Total Volume	0	1	7	8	0	1	0	1	4	0	0	4	13
% App. Total	0	12.5	87.5		0	100	0		100	0	0		
PHF	.000	.250	.438	.500	.000	.250	.000	.250	.333	.000	.000	.333	.542

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-F
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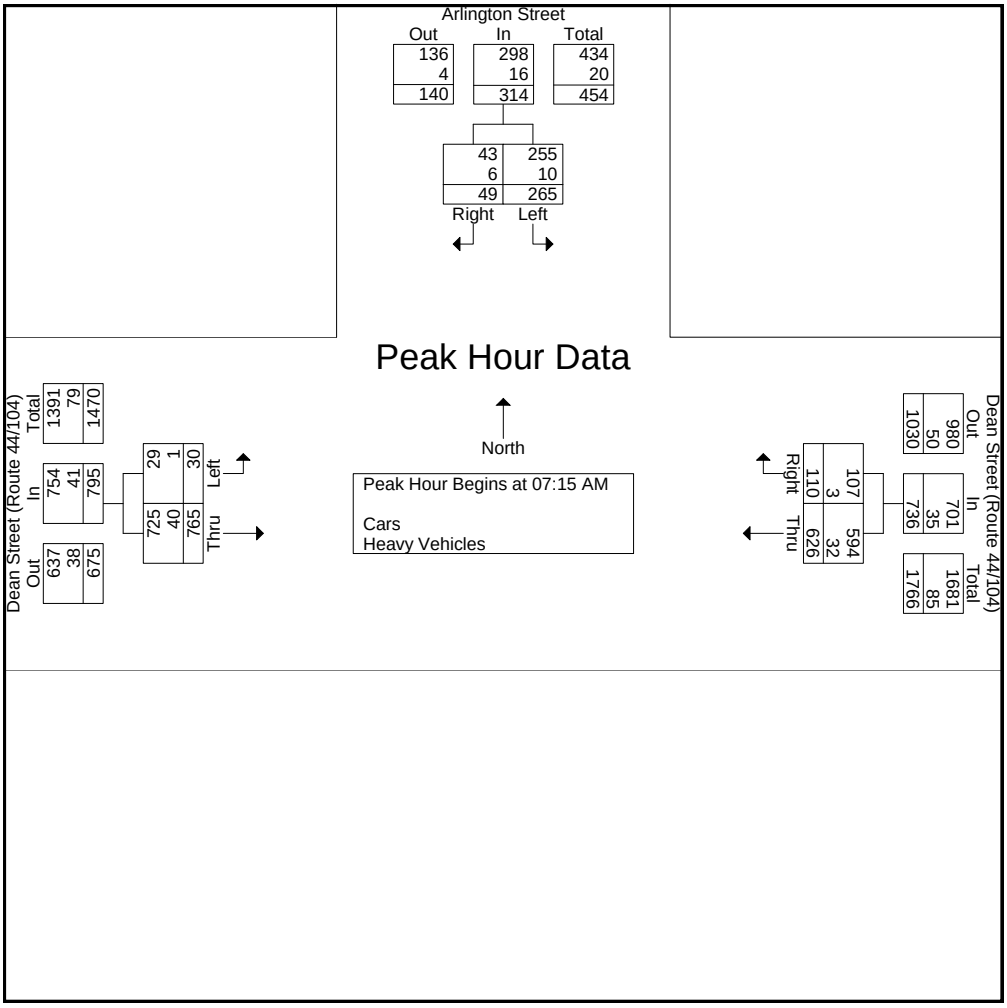
	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	16	81	97	40	159	199	191	6	197	493
07:30 AM	11	69	80	36	178	214	214	15	229	523
07:45 AM	9	60	69	22	150	172	194	8	202	443
08:00 AM	13	55	68	12	139	151	166	1	167	386
Total Volume	49	265	314	110	626	736	765	30	795	1845
% App. Total	15.6	84.4		14.9	85.1		96.2	3.8		
PHF	.766	.818	.809	.688	.879	.860	.894	.500	.868	.882
Cars	43	255	298	107	594	701	725	29	754	1753
% Cars	87.8	96.2	94.9	97.3	94.9	95.2	94.8	96.7	94.8	95.0
Heavy Vehicles	6	10	16	3	32	35	40	1	41	92
% Heavy Vehicles	12.2	3.8	5.1	2.7	5.1	4.8	5.2	3.3	5.2	5.0



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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-FFF
Site Code : 10111.31
Start Date : 9/17/2008
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Groups Printed- Cars - Heavy Vehicles

	Arlington Street From North		Dean Street (Route 44/104) From East		Dean Street (Route 44/104) From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	17	69	19	203	195	12	515
04:15 PM	19	88	27	172	185	0	491
04:30 PM	16	96	10	183	189	5	499
04:45 PM	16	92	29	174	174	7	492
Total	68	345	85	732	743	24	1997
05:00 PM	15	94	14	184	211	7	525
05:15 PM	10	50	29	195	172	4	460
05:30 PM	9	36	15	199	145	6	410
05:45 PM	6	44	20	204	168	3	445
Total	40	224	78	782	696	20	1840
Grand Total	108	569	163	1514	1439	44	3837
Apprch %	16	84	9.7	90.3	97	3	
Total %	2.8	14.8	4.2	39.5	37.5	1.1	
Cars	105	562	161	1483	1403	43	3757
% Cars	97.2	98.8	98.8	98	97.5	97.7	97.9
Heavy Vehicles	3	7	2	31	36	1	80
% Heavy Vehicles	2.8	1.2	1.2	2	2.5	2.3	2.1

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**19**	88	107	27	172	199	185	0	185	491
04:30 PM	16	**96**	**112**	10	183	193	189	5	194	499
04:45 PM	16	92	108	**29**	174	**203**	174	**7**	181	492
05:00 PM	15	94	109	14	**184**	198	**211**	7	**218**	**525**
Total Volume	**66**	**370**	**436**	**80**	**713**	**793**	**759**	**19**	**778**	**2007**
% App. Total	**15.1**	**84.9**		**10.1**	**89.9**		**97.6**	**2.4**		
PHF	**.868**	**.964**	**.973**	**.690**	**.969**	**.977**	**.899**	**.679**	**.892**	**.956**
Cars	**63**	**367**	**430**	**80**	**695**	**775**	**737**	**19**	**756**	**1961**
% Cars	**95.5**	**99.2**	**98.6**	**100**	**97.5**	**97.7**	**97.1**	**100**	**97.2**	**97.7**
Heavy Vehicles	**3**	**3**	**6**	**0**	**18**	**18**	**22**	**0**	**22**	**46**
% Heavy Vehicles	**4.5**	**0.8**	**1.4**	**0**	**2.5**	**2.3**	**2.9**	**0**	**2.8**	**2.3**

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Client: VHB/J. Quitter

File Name : 81676 K-FFF
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Groups Printed- Cars

	Arlington Street From North		Dean Street (Route 44/104) From East		Dean Street (Route 44/104) From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	17	66	19	195	192	12	501
04:15 PM	18	87	27	168	178	0	478
04:30 PM	16	96	10	176	179	5	482
04:45 PM	15	90	29	170	172	7	483
Total	66	339	85	709	721	24	1944
05:00 PM	14	94	14	181	208	7	518
05:15 PM	10	50	29	194	165	4	452
05:30 PM	9	35	14	198	144	6	406
05:45 PM	6	44	19	201	165	2	437
Total	39	223	76	774	682	19	1813
Grand Total	105	562	161	1483	1403	43	3757
Apprch %	15.7	84.3	9.8	90.2	97	3	
Total %	2.8	15	4.3	39.5	37.3	1.1	

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**18**	87	105	27	168	195	178	0	178	478
04:30 PM	16	**96**	**112**	10	176	186	179	5	184	482
04:45 PM	15	90	105	**29**	170	**199**	172	**7**	179	483
05:00 PM	14	94	108	14	**181**	195	**208**	7	**215**	**518**
Total Volume	**63**	**367**	**430**	**80**	**695**	**775**	**737**	**19**	**756**	**1961**
% App. Total	**14.7**	**85.3**		**10.3**	**89.7**		**97.5**	**2.5**		
PHF	**.875**	**.956**	**.960**	**.690**	**.960**	**.974**	**.886**	**.679**	**.879**	**.946**

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N: Arlington Street
E/W: Dean Street (Route 44/104)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-FFF
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Arlington Street From North		Dean Street (Route 44/104) From East		Dean Street (Route 44/104) From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	0	3	0	8	3	0	14
04:15 PM	1	1	0	4	7	0	13
04:30 PM	0	0	0	7	10	0	17
04:45 PM	1	2	0	4	2	0	9
Total	2	6	0	23	22	0	53
05:00 PM	1	0	0	3	3	0	7
05:15 PM	0	0	0	1	7	0	8
05:30 PM	0	1	1	1	1	0	4
05:45 PM	0	0	1	3	3	1	8
Total	1	1	2	8	14	1	27
Grand Total	3	7	2	31	36	1	80
Apprch %	30	70	6.1	93.9	97.3	2.7	
Total %	3.8	8.8	2.5	38.8	45	1.2	

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**3**	**3**	0	**8**	**8**	3	0	3	14
04:15 PM	**1**	1	2	0	4	4	7	0	7	13
04:30 PM	0	0	0	0	7	7	**10**	0	**10**	**17**
04:45 PM	**1**	**2**	**3**	**0**	**4**	**4**	**2**	**0**	**2**	**9**
Total Volume	**2**	**6**	**8**	**0**	**23**	**23**	**22**	**0**	**22**	**53**
% App. Total	**25**	**75**		**0**	**100**		**100**	**0**		
PHF	**.500**	**.500**	**.667**	**.000**	**.719**	**.719**	**.550**	**.000**	**.550**	**.779**

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City, State: Taunton, MA
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File Name : 81676 K-FFF
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	1	0	0	0	0	1
04:15 PM	0	2	0	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	1	0	0	1
04:45 PM	0	0	3	1	1	0	0	0	0	5
Total	0	2	3	1	2	0	1	0	0	9
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	0	1
Grand Total	0	2	4	1	2	0	1	0	0	10
Apprch %	0	33.3	66.7	33.3	66.7	0	100	0	0	
Total %	0	20	40	10	20	0	10	0	0	

	Arlington Street From North				Dean Street (Route 44/104) From East				Dean Street (Route 44/104) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	**1**	0	1	0	0	0	0	1
04:15 PM	0	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
04:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0	0	**1**	1
04:45 PM	0	0	**3**	**3**	**1**	1	0	**2**	0	0	0	0	**5**
Total Volume	0	2	3	5	1	2	0	3	1	0	0	1	9
% App. Total	0	40	60		33.3	66.7	0		100	0	0		
PHF	.000	.250	.250	.417	.250	.500	.000	.375	.250	.000	.000	.250	.450

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File Name : 81676 K-FFF
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Start Date : 9/17/2008
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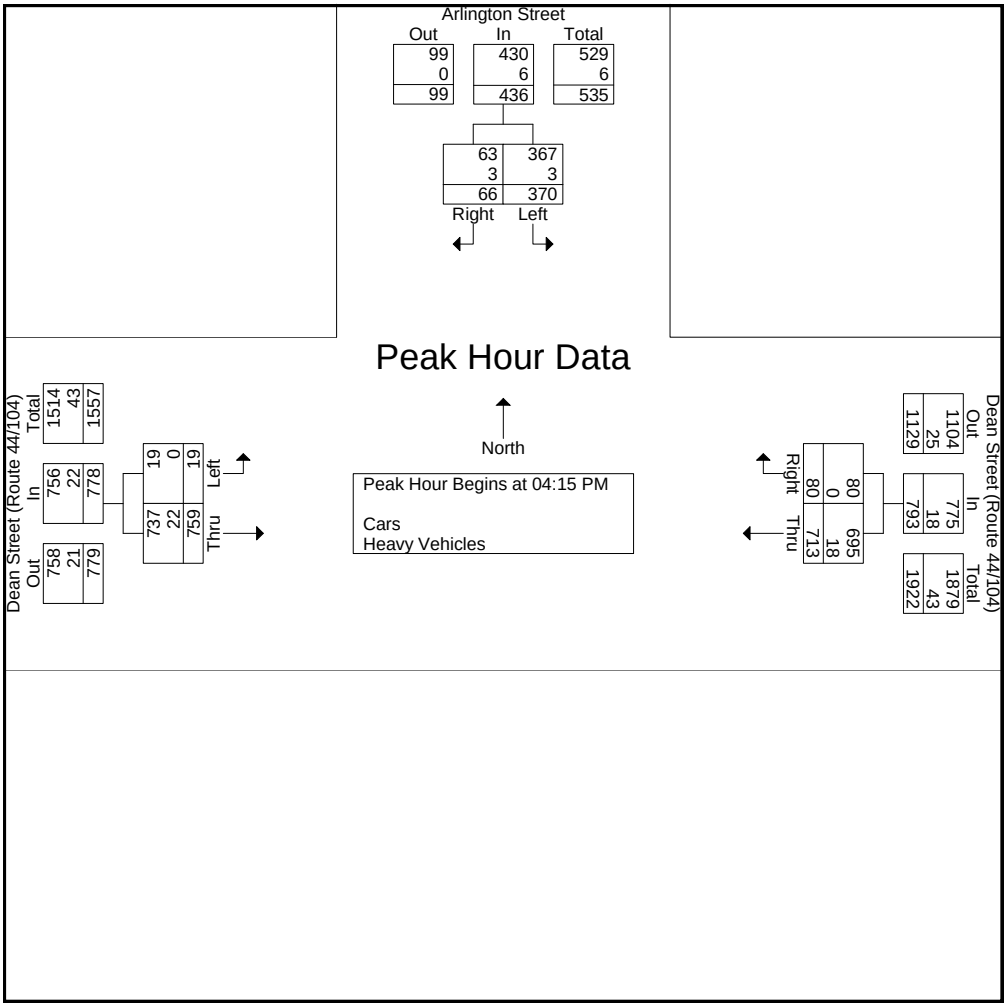
	Arlington Street From North			Dean Street (Route 44/104) From East			Dean Street (Route 44/104) From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**19**	88	107	27	172	199	185	0	185	491
04:30 PM	16	**96**	**112**	10	183	193	189	5	194	499
04:45 PM	16	92	108	**29**	174	**203**	174	**7**	181	492
05:00 PM	15	94	109	14	**184**	198	**211**	7	**218**	**525**
Total Volume	**66**	**370**	**436**	**80**	**713**	**793**	**759**	**19**	**778**	**2007**
% App. Total	**15.1**	**84.9**		**10.1**	**89.9**		**97.6**	**2.4**		
PHF	**.868**	**.964**	**.973**	**.690**	**.969**	**.977**	**.899**	**.679**	**.892**	**.956**
Cars	**63**	**367**	**430**	**80**	**695**	**775**	**737**	**19**	**756**	**1961**
% Cars	**95.5**	**99.2**	**98.6**	**100**	**97.5**	**97.7**	**97.1**	**100**	**97.2**	**97.7**
Heavy Vehicles	**3**	**3**	**6**	**0**	**18**	**18**	**22**	**0**	**22**	**46**
% Heavy Vehicles	**4.5**	**0.8**	**1.4**	**0**	**2.5**	**2.3**	**2.9**	**0**	**2.8**	**2.3**



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N/S: Union Street/Summer St (Route 140)
E/W: Church Green Street/Main Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-G
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Union Street From North			Church Green Street (Route 44/104) From East			Summer Street (Route 140) From South			Main Street (Route 44/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	74	0	3	1	81	77	126	1	363
07:15 AM	0	0	0	0	99	0	4	2	106	69	142	5	427
07:30 AM	0	0	0	2	131	0	4	3	111	95	126	3	475
07:45 AM	0	0	0	5	128	0	5	4	104	56	133	1	436
Total	0	0	0	7	432	0	16	10	402	297	527	10	1701
08:00 AM	0	0	0	0	106	0	6	1	108	71	105	1	398
08:15 AM	0	0	0	1	114	0	5	6	95	59	115	3	398
08:30 AM	0	0	0	2	115	0	3	0	98	57	112	3	390
08:45 AM	0	0	0	1	109	0	5	4	89	66	132	2	408
Total	0	0	0	4	444	0	19	11	390	253	464	9	1594
Grand Total	0	0	0	11	876	0	35	21	792	550	991	19	3295
Apprch %	0	0	0	1.2	98.8	0	4.1	2.5	93.4	35.3	63.5	1.2	
Total %	0	0	0	0.3	26.6	0	1.1	0.6	24	16.7	30.1	0.6	
Cars	0	0	0	10	820	0	35	21	743	524	942	19	3114
% Cars	0	0	0	90.9	93.6	0	100	100	93.8	95.3	95.1	100	94.5
Heavy Vehicles	0	0	0	1	56	0	0	0	49	26	49	0	181
% Heavy Vehicles	0	0	0	9.1	6.4	0	0	0	6.2	4.7	4.9	0	5.5

	Union Street From North				Church Green Street (Route 44/104) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	99	0	99	4	2	106	112	69	**142**	**5**	216	427
07:30 AM	0	0	0	0	2	**131**	0	**133**	4	3	**111**	**118**	**95**	126	3	**224**	**475**
07:45 AM	0	0	0	0	**5**	128	0	133	5	**4**	104	113	56	133	1	190	436
08:00 AM	0	0	0	0	0	106	0	106	**6**	1	108	115	71	105	1	177	398
Total Volume	0	0	0	0	7	464	0	471	19	10	429	458	291	506	10	807	1736
% App. Total	0	0	0		1.5	98.5	0		4.1	2.2	93.7		36.1	62.7	1.2		
PHF	.000	.000	.000	.000	.350	.885	.000	.885	.792	.625	.966	.970	.766	.891	.500	.901	.914
Cars	0	0	0	0	6	435	0	441	19	10	401	430	276	479	10	765	1636
% Cars	0	0	0	0	85.7	93.8	0	93.6	100	100	93.5	93.9	94.8	94.7	100	94.8	94.2
Heavy Vehicles	0	0	0	0	1	29	0	30	0	0	28	28	15	27	0	42	100
% Heavy Vehicles	0	0	0	0	14.3	6.3	0	6.4	0	0	6.5	6.1	5.2	5.3	0	5.2	5.8

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E/W: Church Green Street/Main Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-G
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Union Street From North			Church Green Street (Route 44/104) From East			Summer Street (Route 140) From South			Main Street (Route 44/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	66	0	3	1	76	74	121	1	342
07:15 AM	0	0	0	0	91	0	4	2	100	62	134	5	398
07:30 AM	0	0	0	2	123	0	4	3	105	90	119	3	449
07:45 AM	0	0	0	4	123	0	5	4	96	56	125	1	414
Total	0	0	0	6	403	0	16	10	377	282	499	10	1603
08:00 AM	0	0	0	0	98	0	6	1	100	68	101	1	375
08:15 AM	0	0	0	1	106	0	5	6	92	56	110	3	379
08:30 AM	0	0	0	2	112	0	3	0	92	55	108	3	375
08:45 AM	0	0	0	1	101	0	5	4	82	63	124	2	382
Total	0	0	0	4	417	0	19	11	366	242	443	9	1511
Grand Total	0	0	0	10	820	0	35	21	743	524	942	19	3114
Apprch %	0	0	0	1.2	98.8	0	4.4	2.6	93	35.3	63.4	1.3	
Total %	0	0	0	0.3	26.3	0	1.1	0.7	23.9	16.8	30.3	0.6	

	Union Street From North				Church Green Street (Route 44/104) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	91	0	91	4	2	100	106	62	**134**	**5**	201	398
07:30 AM	0	0	0	0	2	**123**	0	125	4	3	**105**	**112**	**90**	119	3	**212**	**449**
07:45 AM	0	0	0	0	**4**	123	0	**127**	5	**4**	96	105	56	125	1	182	414
08:00 AM	0	0	0	0	0	98	0	98	**6**	1	100	107	68	101	1	170	375
Total Volume	0	0	0	0	6	435	0	441	19	10	401	430	276	479	10	765	1636
% App. Total	0	0	0		1.4	98.6	0		4.4	2.3	93.3		36.1	62.6	1.3		
PHF	.000	.000	.000	.000	.375	.884	.000	.868	.792	.625	.955	.960	.767	.894	.500	.902	.911

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Page No : 1

Groups Printed- Heavy Vehicles

	Union Street From North			Church Green Street (Route 44/104) From East			Summer Street (Route 140) From South			Main Street (Route 44/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	8	0	0	0	5	3	5	0	21
07:15 AM	0	0	0	0	8	0	0	0	6	7	8	0	29
07:30 AM	0	0	0	0	8	0	0	0	6	5	7	0	26
07:45 AM	0	0	0	1	5	0	0	0	8	0	8	0	22
Total	0	0	0	1	29	0	0	0	25	15	28	0	98
08:00 AM	0	0	0	0	8	0	0	0	8	3	4	0	23
08:15 AM	0	0	0	0	8	0	0	0	3	3	5	0	19
08:30 AM	0	0	0	0	3	0	0	0	6	2	4	0	15
08:45 AM	0	0	0	0	8	0	0	0	7	3	8	0	26
Total	0	0	0	0	27	0	0	0	24	11	21	0	83
Grand Total	0	0	0	1	56	0	0	0	49	26	49	0	181
Apprch %	0	0	0	1.8	98.2	0	0	0	100	34.7	65.3	0	
Total %	0	0	0	0.6	30.9	0	0	0	27.1	14.4	27.1	0	

	Union Street From North				Church Green Street (Route 44/104) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	**8**	0	**8**	0	0	6	6	**7**	**8**	0	**15**	**29**
07:30 AM	0	0	0	0	0	8	0	8	0	0	6	6	5	7	0	12	26
07:45 AM	0	0	0	0	**1**	5	0	6	0	0	**8**	**8**	0	8	0	8	22
08:00 AM	0	0	0	0	0	8	0	8	0	0	8	8	3	4	0	7	23
Total Volume	0	0	0	0	1	29	0	30	0	0	28	28	15	27	0	42	100
% App. Total	0	0	0		3.3	96.7	0		0	0	100		35.7	64.3	0		
PHF	.000	.000	.000	.000	.250	.906	.000	.938	.000	.000	.875	.875	.536	.844	.000	.700	.862

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Groups Printed- Peds and Bicycles

	Union Street From North				Church Green Street (Route 44/104) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	3	0	0	0	5	0	0	0	2	0	0	0	0	10
07:15 AM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3
07:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Total	0	0	0	5	0	0	0	9	0	0	0	3	0	0	0	1	18
08:00 AM	0	0	0	4	0	0	0	0	0	2	0	0	0	0	0	0	6
08:15 AM	0	0	0	6	0	0	0	3	0	0	0	1	0	0	0	2	12
08:30 AM	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	4
08:45 AM	0	0	0	2	0	1	0	3	0	0	1	0	0	0	0	0	7
Total	0	0	0	15	0	1	0	7	0	2	1	1	0	0	0	2	29
Grand Total	0	0	0	20	0	1	0	16	0	2	1	4	0	0	0	3	47
Apprch %	0	0	0	100	0	5.9	0	94.1	0	28.6	14.3	57.1	0	0	0	100	
Total %	0	0	0	42.6	0	2.1	0	34	0	4.3	2.1	8.5	0	0	0	6.4	

	Union Street From North					Church Green Street (Route 44/104) From East					Summer Street (Route 140) From South					Main Street (Route 44/140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	4	4	0	0	0	0	0	0	**2**	**0**	**0**	**2**	0	0	0	0	0	6
08:15 AM	0	0	0	**6**	**6**	0	0	0	**3**	3	0	0	0	**1**	**1**	**0**	**0**	**0**	**2**	**2**	**12**
08:30 AM	0	0	0	3	3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4
08:45 AM	0	0	0	2	2	0	**1**	**0**	**3**	**4**	0	0	**1**	0	1	0	0	0	0	0	7
Total Volume	0	0	0	15	15	0	1	0	7	8	0	2	1	1	4	0	0	0	2	2	29
% App. Total	0	0	0	100		0	12.5	0	87.5		0	50	25	25		0	0	0	100		
PHF	.000	.000	.000	.625	.625	.000	.250	.000	.583	.500	.000	.250	.250	.250	.500	.000	.000	.000	.250	.250	.604

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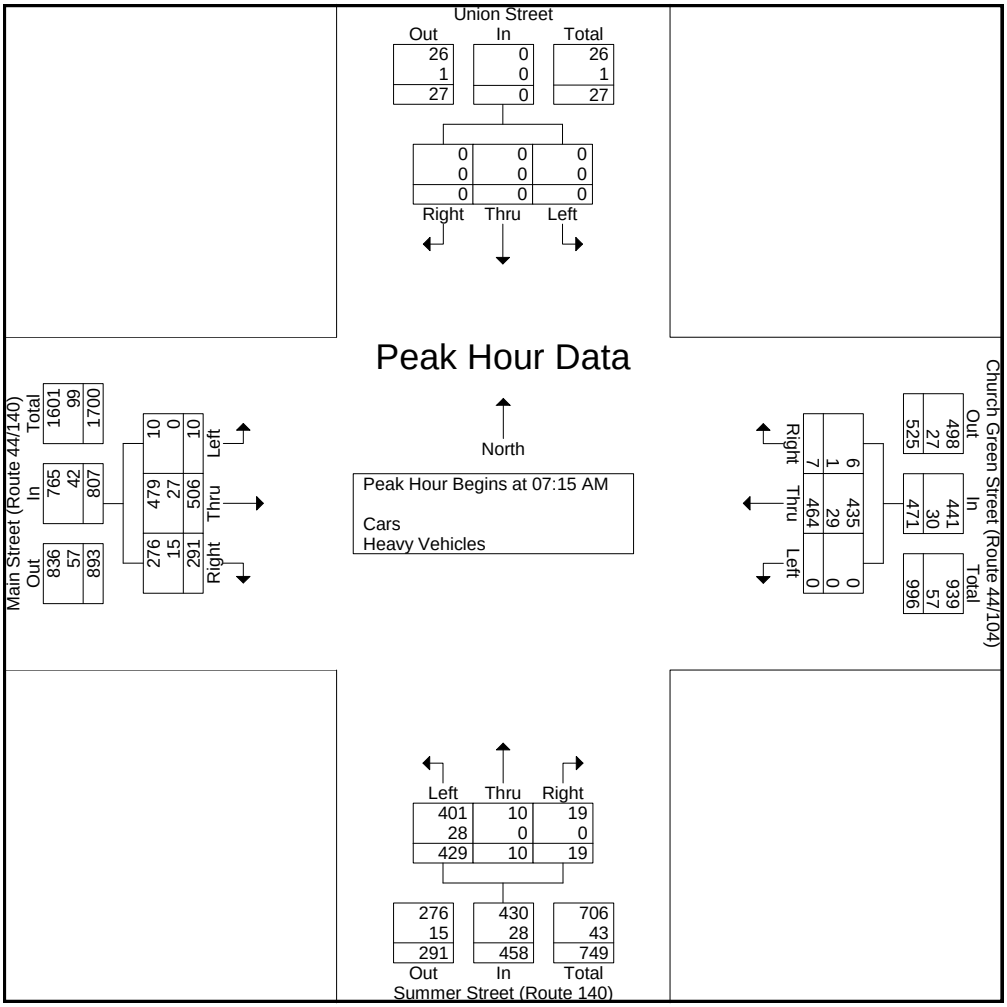
	Union Street From North				Church Green Street (Route 44/104) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	99	0	99	4	2	106	112	69	**142**	**5**	216	427
07:30 AM	0	0	0	0	2	**131**	0	**133**	4	3	**111**	**118**	**95**	126	3	**224**	**475**
07:45 AM	0	0	0	0	**5**	128	0	133	5	**4**	104	113	56	133	1	190	436
08:00 AM	0	0	0	0	0	106	0	106	**6**	1	108	115	71	105	1	177	398
Total Volume	0	0	0	0	7	464	0	471	19	10	429	458	291	506	10	807	1736
% App. Total	0	0	0		1.5	98.5	0		4.1	2.2	93.7		36.1	62.7	1.2		
PHF	.000	.000	.000	.000	.350	.885	.000	.885	.792	.625	.966	.970	.766	.891	.500	.901	.914
Cars	0	0	0	0	6	435	0	441	19	10	401	430	276	479	10	765	1636
% Cars	0	0	0	0	85.7	93.8	0	93.6	100	100	93.5	93.9	94.8	94.7	100	94.8	94.2
Heavy Vehicles	0	0	0	0	1	29	0	30	0	0	28	28	15	27	0	42	100
% Heavy Vehicles	0	0	0	0	14.3	6.3	0	6.4	0	0	6.5	6.1	5.2	5.3	0	5.2	5.8



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N/S: Union Street/Summer St (Route 140)
E/W: Church Green Street/Main Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-GGG
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Union Street From North			Church Green Street (Route 44) From East			Summer Street (Route 140) From South			Main Street (Route 44/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	4	112	0	4	9	95	72	123	3	422
04:15 PM	0	0	0	5	126	0	2	8	105	83	118	2	449
04:30 PM	0	0	0	4	115	0	5	4	88	111	112	5	444
04:45 PM	0	0	0	4	142	0	2	7	93	87	108	3	446
Total	0	0	0	17	495	0	13	28	381	353	461	13	1761
05:00 PM	0	0	0	5	103	0	8	6	89	94	121	4	430
05:15 PM	0	0	0	1	138	0	3	10	95	83	110	3	443
05:30 PM	0	0	0	3	121	0	0	3	90	76	103	5	401
05:45 PM	0	0	0	3	119	0	2	8	86	77	111	3	409
Total	0	0	0	12	481	0	13	27	360	330	445	15	1683
Grand Total	0	0	0	29	976	0	26	55	741	683	906	28	3444
Apprch %	0	0	0	2.9	97.1	0	3.2	6.7	90.1	42.2	56	1.7	
Total %	0	0	0	0.8	28.3	0	0.8	1.6	21.5	19.8	26.3	0.8	
Cars	0	0	0	28	946	0	26	53	719	672	886	27	3357
% Cars	0	0	0	96.6	96.9	0	100	96.4	97	98.4	97.8	96.4	97.5
Heavy Vehicles	0	0	0	1	30	0	0	2	22	11	20	1	87
% Heavy Vehicles	0	0	0	3.4	3.1	0	0	3.6	3	1.6	2.2	3.6	2.5

	Union Street From North				Church Green Street (Route 44) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	**5**	126	0	131	2	**8**	**105**	**115**	83	118	2	203	**449**
04:30 PM	0	0	0	0	4	115	0	119	5	4	88	97	**111**	112	**5**	**228**	444
04:45 PM	0	0	0	0	4	**142**	0	**146**	2	7	93	102	87	108	3	198	446
05:00 PM	0	0	0	0	5	103	0	108	**8**	6	89	103	94	**121**	4	219	430
Total Volume	0	0	0	0	18	486	0	504	17	25	375	417	375	459	14	848	1769
% App. Total	0	0	0		3.6	96.4	0		4.1	6	89.9		44.2	54.1	1.7		
PHF	.000	.000	.000	.000	.900	.856	.000	.863	.531	.781	.893	.907	.845	.948	.700	.930	.985
Cars	0	0	0	0	18	467	0	485	17	24	366	407	370	446	13	829	1721
% Cars	0	0	0	0	100	96.1	0	96.2	100	96.0	97.6	97.6	98.7	97.2	92.9	97.8	97.3
Heavy Vehicles	0	0	0	0	0	19	0	19	0	1	9	10	5	13	1	19	48
% Heavy Vehicles	0	0	0	0	0	3.9	0	3.8	0	4.0	2.4	2.4	1.3	2.8	7.1	2.2	2.7

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E/W: Church Green Street/Main Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-GGG
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Union Street From North			Church Green Street (Route 44) From East			Summer Street (Route 140) From South			Main Street (Route 44/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	3	107	0	4	8	88	68	121	3	402
04:15 PM	0	0	0	5	121	0	2	7	99	82	113	2	431
04:30 PM	0	0	0	4	112	0	5	4	87	110	106	4	432
04:45 PM	0	0	0	4	138	0	2	7	91	87	107	3	439
Total	0	0	0	16	478	0	13	26	365	347	447	12	1704
05:00 PM	0	0	0	5	96	0	8	6	89	91	120	4	419
05:15 PM	0	0	0	1	136	0	3	10	92	82	108	3	435
05:30 PM	0	0	0	3	119	0	0	3	87	75	101	5	393
05:45 PM	0	0	0	3	117	0	2	8	86	77	110	3	406
Total	0	0	0	12	468	0	13	27	354	325	439	15	1653
Grand Total	0	0	0	28	946	0	26	53	719	672	886	27	3357
Apprch %	0	0	0	2.9	97.1	0	3.3	6.6	90.1	42.4	55.9	1.7	
Total %	0	0	0	0.8	28.2	0	0.8	1.6	21.4	20	26.4	0.8	

	Union Street From North				Church Green Street (Route 44) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	4	112	0	116	5	4	87	96	**110**	106	**4**	**220**	432
04:45 PM	0	0	0	0	4	**138**	0	**142**	2	7	91	100	87	107	3	197	**439**
05:00 PM	0	0	0	0	**5**	96	0	101	**8**	6	89	103	91	**120**	4	215	419
05:15 PM	0	0	0	0	1	136	0	137	3	**10**	**92**	**105**	82	108	3	193	435
Total Volume	0	0	0	0	14	482	0	496	18	27	359	404	370	441	14	825	1725
% App. Total	0	0	0		2.8	97.2	0		4.5	6.7	88.9		44.8	53.5	1.7		
PHF	.000	.000	.000	.000	.700	.873	.000	.873	.563	.675	.976	.962	.841	.919	.875	.938	.982

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File Name : 81676 K-GGG
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Union Street From North			Church Green Street (Route 44) From East			Summer Street (Route 140) From South			Main Street (Route 44/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	1	5	0	0	1	7	4	2	0	20
04:15 PM	0	0	0	0	5	0	0	1	6	1	5	0	18
04:30 PM	0	0	0	0	3	0	0	0	1	1	6	1	12
04:45 PM	0	0	0	0	4	0	0	0	2	0	1	0	7
Total	0	0	0	1	17	0	0	2	16	6	14	1	57
05:00 PM	0	0	0	0	7	0	0	0	0	3	1	0	11
05:15 PM	0	0	0	0	2	0	0	0	3	1	2	0	8
05:30 PM	0	0	0	0	2	0	0	0	3	1	2	0	8
05:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
Total	0	0	0	0	13	0	0	0	6	5	6	0	30
Grand Total	0	0	0	1	30	0	0	2	22	11	20	1	87
Apprch %	0	0	0	3.2	96.8	0	0	8.3	91.7	34.4	62.5	3.1	
Total %	0	0	0	1.1	34.5	0	0	2.3	25.3	12.6	23	1.1	

	Union Street From North				Church Green Street (Route 44) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	**1**	**5**	0	**6**	0	**1**	**7**	**8**	**4**	2	0	6	**20**
04:15 PM	0	0	0	0	0	5	0	5	0	1	6	7	1	5	0	6	18
04:30 PM	0	0	0	0	0	3	0	3	0	0	1	1	1	**6**	**1**	**8**	12
04:45 PM	0	0	0	0	0	4	0	4	0	0	2	2	0	1	0	1	7
Total Volume	0	0	0	0	1	17	0	18	0	2	16	18	6	14	1	21	57
% App. Total	0	0	0		5.6	94.4	0		0	11.1	88.9		28.6	66.7	4.8		
PHF	.000	.000	.000	.000	.250	.850	.000	.750	.000	.500	.571	.563	.375	.583	.250	.656	.713

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File Name : 81676 K-GGG
Site Code : 10111.31
Start Date : 9/17/2008
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Groups Printed- Peds and Bicycles

	Union Street From North				Church Green Street (Route 44) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	6
04:15 PM	0	0	0	3	0	0	0	7	0	0	0	2	1	0	0	0	13
04:30 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4
04:45 PM	0	0	0	1	0	0	0	10	0	0	0	5	0	0	0	1	17
Total	0	0	0	6	0	0	0	19	0	0	0	7	1	1	0	6	40
05:00 PM	0	0	0	1	0	0	0	8	0	0	0	2	0	0	0	1	12
05:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3
Total	0	0	0	4	0	0	0	11	0	0	1	2	1	1	0	1	21
Grand Total	0	0	0	10	0	0	0	30	0	0	1	9	2	2	0	7	61
Apprch %	0	0	0	100	0	0	0	100	0	0	10	90	18.2	18.2	0	63.6	
Total %	0	0	0	16.4	0	0	0	49.2	0	0	1.6	14.8	3.3	3.3	0	11.5	

	Union Street From North					Church Green Street (Route 44) From East					Summer Street (Route 140) From South					Main Street (Route 44/140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	**3**	**3**	0	0	0	7	7	0	0	0	2	2	**1**	**0**	**0**	**0**	**1**	13
04:30 PM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4
04:45 PM	0	0	0	1	1	0	0	0	**10**	**10**	0	0	0	**5**	**5**	0	0	0	**1**	**1**	**17**
05:00 PM	0	0	0	1	1	0	0	0	8	8	0	0	0	2	2	0	0	0	1	1	12
Total Volume	0	0	0	7	7	0	0	0	27	27	0	0	0	9	9	1	0	0	2	3	46
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		33.3	0	0	66.7		
PHF	.000	.000	.000	.583	.583	.000	.000	.000	.675	.675	.000	.000	.000	.450	.450	.250	.000	.000	.500	.750	.676

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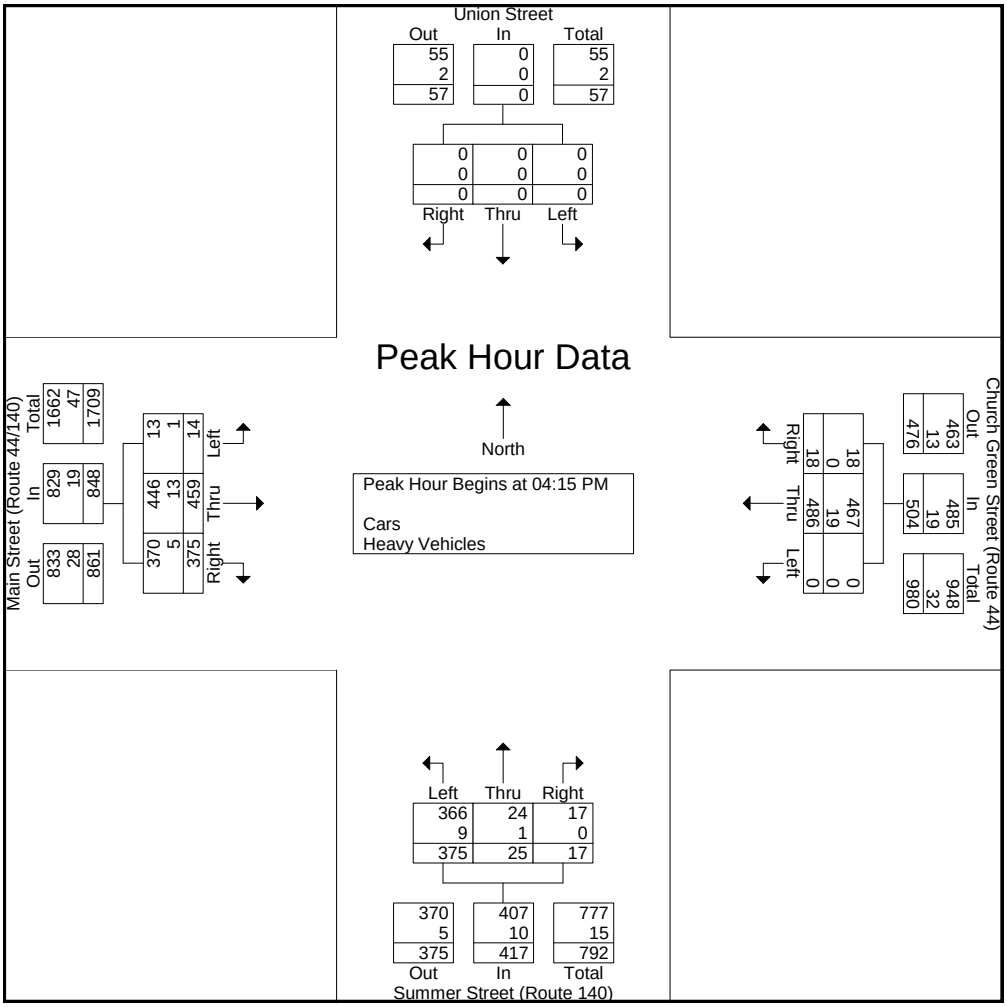
	Union Street From North				Church Green Street (Route 44) From East				Summer Street (Route 140) From South				Main Street (Route 44/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	**5**	126	0	131	2	**8**	**105**	**115**	83	118	2	203	**449**
04:30 PM	0	0	0	0	4	115	0	119	5	4	88	97	**111**	112	**5**	**228**	444
04:45 PM	0	0	0	0	4	**142**	0	**146**	2	7	93	102	87	108	3	198	446
05:00 PM	0	0	0	0	5	103	0	108	**8**	6	89	103	94	**121**	4	219	430
Total Volume	0	0	0	0	18	486	0	504	17	25	375	417	375	459	14	848	1769
% App. Total	0	0	0		3.6	96.4	0		4.1	6	89.9		44.2	54.1	1.7		
PHF	.000	.000	.000	.000	.900	.856	.000	.863	.531	.781	.893	.907	.845	.948	.700	.930	.985
Cars	0	0	0	0	18	467	0	485	17	24	366	407	370	446	13	829	1721
% Cars	0	0	0	0	100	96.1	0	96.2	100	96.0	97.6	97.6	98.7	97.2	92.9	97.8	97.3
Heavy Vehicles	0	0	0	0	0	19	0	19	0	1	9	10	5	13	1	19	48
% Heavy Vehicles	0	0	0	0	0	3.9	0	3.8	0	4.0	2.4	2.4	1.3	2.8	7.1	2.2	2.7



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E/W: Church Green Street/Spring Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-H
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Summer Street (Route 140) From North			Church Green Street From East			Summer Street (Route 140) From South			Spring Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	80	1	0	16	3	4	80	15	4	49	6	261
07:15 AM	8	57	1	3	36	9	5	104	9	13	49	3	297
07:30 AM	2	87	3	1	33	20	4	104	10	19	56	6	345
07:45 AM	5	43	3	3	28	2	3	107	15	14	42	7	272
Total	18	267	8	7	113	34	16	395	49	50	196	22	1175
08:00 AM	7	63	2	1	36	5	8	112	13	8	60	4	319
08:15 AM	3	54	4	1	39	2	4	101	14	13	46	7	288
08:30 AM	3	49	1	1	41	2	1	95	18	9	51	1	272
08:45 AM	7	52	1	2	59	1	4	90	22	11	57	8	314
Total	20	218	8	5	175	10	17	398	67	41	214	20	1193
Grand Total	38	485	16	12	288	44	33	793	116	91	410	42	2368
Apprch %	7.1	90	3	3.5	83.7	12.8	3.5	84.2	12.3	16.8	75.5	7.7	
Total %	1.6	20.5	0.7	0.5	12.2	1.9	1.4	33.5	4.9	3.8	17.3	1.8	
Cars	37	470	16	11	272	42	31	751	113	87	396	40	2266
% Cars	97.4	96.9	100	91.7	94.4	95.5	93.9	94.7	97.4	95.6	96.6	95.2	95.7
Heavy Vehicles	1	15	0	1	16	2	2	42	3	4	14	2	102
% Heavy Vehicles	2.6	3.1	0	8.3	5.6	4.5	6.1	5.3	2.6	4.4	3.4	4.8	4.3

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**8**	57	1	66	**3**	**36**	9	48	5	104	9	118	13	49	3	65	297
07:30 AM	2	**87**	**3**	**92**	1	33	**20**	**54**	4	104	10	118	**19**	56	6	**81**	**345**
07:45 AM	5	43	3	51	3	28	2	33	3	107	**15**	125	14	42	**7**	63	272
08:00 AM	7	63	2	72	1	36	5	42	**8**	**112**	13	**133**	8	**60**	4	72	319
Total Volume	22	250	9	281	8	133	36	177	20	427	47	494	54	207	20	281	1233
% App. Total	7.8	89	3.2		4.5	75.1	20.3		4	86.4	9.5		19.2	73.7	7.1		
PHF	.688	.718	.750	.764	.667	.924	.450	.819	.625	.953	.783	.929	.711	.863	.714	.867	.893
Cars	21	244	9	274	7	127	35	169	20	404	46	470	52	199	19	270	1183
% Cars	95.5	97.6	100	97.5	87.5	95.5	97.2	95.5	100	94.6	97.9	95.1	96.3	96.1	95.0	96.1	95.9
Heavy Vehicles	1	6	0	7	1	6	1	8	0	23	1	24	2	8	1	11	50
% Heavy Vehicles	4.5	2.4	0	2.5	12.5	4.5	2.8	4.5	0	5.4	2.1	4.9	3.7	3.9	5.0	3.9	4.1

PRECISION DATA INDUSTRIES, LLC
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N/S: Summer Street (Route 140)
E/W: Church Green Street/Spring Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-H
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Summer Street (Route 140) From North			Church Green Street From East			Summer Street (Route 140) From South			Spring Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	78	1	0	14	3	3	76	14	3	49	6	250
07:15 AM	7	55	1	2	34	9	5	101	9	13	49	2	287
07:30 AM	2	84	3	1	33	19	4	99	10	19	54	6	334
07:45 AM	5	43	3	3	26	2	3	99	14	13	40	7	258
Total	17	260	8	6	107	33	15	375	47	48	192	21	1129
08:00 AM	7	62	2	1	34	5	8	105	13	7	56	4	304
08:15 AM	3	50	4	1	37	2	3	98	14	12	42	6	272
08:30 AM	3	47	1	1	39	1	1	91	18	9	49	1	261
08:45 AM	7	51	1	2	55	1	4	82	21	11	57	8	300
Total	20	210	8	5	165	9	16	376	66	39	204	19	1137
Grand Total	37	470	16	11	272	42	31	751	113	87	396	40	2266
Apprch %	7.1	89.9	3.1	3.4	83.7	12.9	3.5	83.9	12.6	16.6	75.7	7.6	
Total %	1.6	20.7	0.7	0.5	12	1.9	1.4	33.1	5	3.8	17.5	1.8	

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**7**	55	1	63	2	**34**	9	45	5	101	9	115	13	49	2	64	287
07:30 AM	2	**84**	**3**	**89**	1	33	**19**	**53**	4	99	10	113	**19**	54	6	**79**	**334**
07:45 AM	5	43	3	51	**3**	26	2	31	3	99	**14**	116	13	40	**7**	60	258
08:00 AM	7	62	2	71	1	34	5	40	**8**	**105**	13	**126**	7	**56**	4	67	304
Total Volume	21	244	9	274	7	127	35	169	20	404	46	470	52	199	19	270	1183
% App. Total	7.7	89.1	3.3		4.1	75.1	20.7		4.3	86	9.8		19.3	73.7	7		
PHF	.750	.726	.750	.770	.583	.934	.461	.797	.625	.962	.821	.933	.684	.888	.679	.854	.885

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Client: VHB/J. Quitter

File Name : 81676 K-H
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Summer Street (Route 140) From North			Church Green Street From East			Summer Street (Route 140) From South			Spring Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	2	0	0	2	0	1	4	1	1	0	0	11
07:15 AM	1	2	0	1	2	0	0	3	0	0	0	1	10
07:30 AM	0	3	0	0	0	1	0	5	0	0	2	0	11
07:45 AM	0	0	0	0	2	0	0	8	1	1	2	0	14
Total	1	7	0	1	6	1	1	20	2	2	4	1	46
08:00 AM	0	1	0	0	2	0	0	7	0	1	4	0	15
08:15 AM	0	4	0	0	2	0	1	3	0	1	4	1	16
08:30 AM	0	2	0	0	2	1	0	4	0	0	2	0	11
08:45 AM	0	1	0	0	4	0	0	8	1	0	0	0	14
Total	0	8	0	0	10	1	1	22	1	2	10	1	56
Grand Total	1	15	0	1	16	2	2	42	3	4	14	2	102
Apprch %	6.2	93.8	0	5.3	84.2	10.5	4.3	89.4	6.4	20	70	10	
Total %	1	14.7	0	1	15.7	2	2	41.2	2.9	3.9	13.7	2	

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	3	0	3	0	0	**1**	1	0	5	0	5	0	2	0	2	11
07:45 AM	0	0	0	0	0	**2**	0	**2**	0	**8**	**1**	**9**	**1**	2	0	3	14
08:00 AM	0	1	0	1	0	2	0	2	0	7	0	7	1	**4**	0	5	15
08:15 AM	0	**4**	0	**4**	0	2	0	2	**1**	3	0	4	1	4	**1**	**6**	**16**
Total Volume	0	8	0	8	0	6	1	7	1	23	1	25	3	12	1	16	56
% App. Total	0	100	0		0	85.7	14.3		4	92	4		18.8	75	6.2		
PHF	.000	.500	.000	.500	.000	.750	.250	.875	.250	.719	.250	.694	.750	.750	.250	.667	.875

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Client: VHB/J. Quitter

File Name : 81676 K-H
Site Code : 10111.31
Start Date : 9/17/2008
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Groups Printed- Peds and Bicycles

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	5
07:15 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	3	5
07:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	3	0	0	0	2	0	0	0	8	14
08:00 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
08:30 AM	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	1	5
08:45 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	4
Total	0	0	0	5	0	0	0	6	0	0	0	1	0	0	0	2	14
Grand Total	0	0	0	6	0	0	0	9	0	0	0	3	0	0	0	10	28
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	
Total %	0	0	0	21.4	0	0	0	32.1	0	0	0	10.7	0	0	0	35.7	

	Summer Street (Route 140) From North					Church Green Street From East					Summer Street (Route 140) From South					Spring Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	**3**	**3**	**5**
07:15 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	3	3	5
07:30 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	2	2	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	1	0	0	0	3	3	0	0	0	2	2	0	0	0	8	8	14
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.375	.375	.000	.000	.000	.500	.500	.000	.000	.000	.667	.667	.700

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File Name : 81676 K-H
Site Code : 10111.31
Start Date : 9/17/2008
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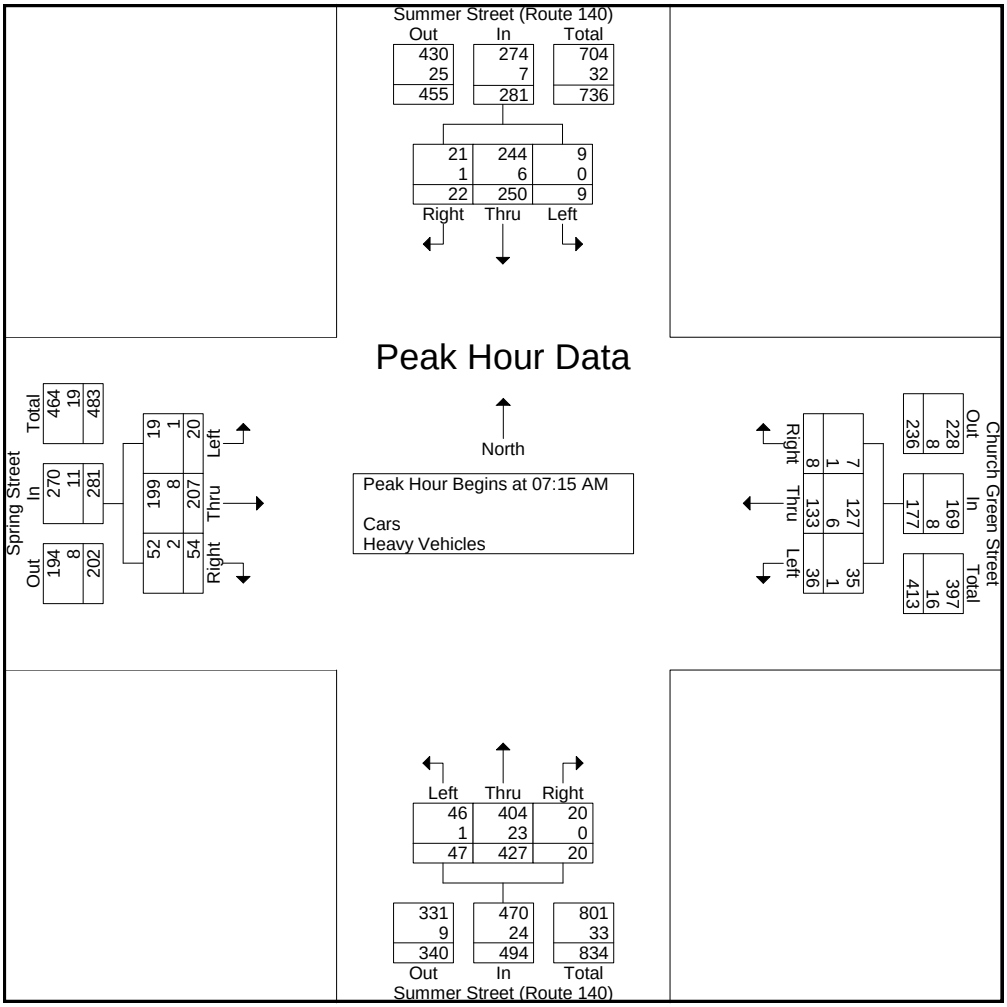
	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**8**	57	1	66	**3**	**36**	9	48	5	104	9	118	13	49	3	65	297
07:30 AM	2	**87**	**3**	**92**	1	33	**20**	**54**	4	104	10	118	**19**	56	6	**81**	**345**
07:45 AM	5	43	3	51	3	28	2	33	3	107	**15**	125	14	42	**7**	63	272
08:00 AM	7	63	2	72	1	36	5	42	**8**	**112**	13	**133**	8	**60**	4	72	319
Total Volume	22	250	9	281	8	133	36	177	20	427	47	494	54	207	20	281	1233
% App. Total	7.8	89	3.2		4.5	75.1	20.3		4	86.4	9.5		19.2	73.7	7.1		
PHF	.688	.718	.750	.764	.667	.924	.450	.819	.625	.953	.783	.929	.711	.863	.714	.867	.893
Cars	21	244	9	274	7	127	35	169	20	404	46	470	52	199	19	270	1183
% Cars	95.5	97.6	100	97.5	87.5	95.5	97.2	95.5	100	94.6	97.9	95.1	96.3	96.1	95.0	96.1	95.9
Heavy Vehicles	1	6	0	7	1	6	1	8	0	23	1	24	2	8	1	11	50
% Heavy Vehicles	4.5	2.4	0	2.5	12.5	4.5	2.8	4.5	0	5.4	2.1	4.9	3.7	3.9	5.0	3.9	4.1



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N/S: Summer Street (Route 140)
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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-HHH
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Summer Street (Route 140) From North			Church Green Street From East			Summer Street (Route 140) From South			Spring Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	10	62	0	3	57	7	4	73	13	41	50	16	336
04:15 PM	8	73	0	3	58	3	1	106	16	23	46	10	347
04:30 PM	5	91	3	0	49	4	3	82	8	23	53	10	331
04:45 PM	12	85	4	3	51	3	3	92	11	22	42	13	341
Total	35	311	7	9	215	17	11	353	48	109	191	49	1355
05:00 PM	7	86	1	6	75	4	2	77	18	38	65	8	387
05:15 PM	6	86	0	4	54	3	1	99	15	18	50	8	344
05:30 PM	5	73	0	1	54	2	1	80	9	28	43	1	297
05:45 PM	2	70	3	3	54	1	3	79	7	11	44	11	288
Total	20	315	4	14	237	10	7	335	49	95	202	28	1316
Grand Total	55	626	11	23	452	27	18	688	97	204	393	77	2671
Apprch %	7.9	90.5	1.6	4.6	90	5.4	2.2	85.7	12.1	30.3	58.3	11.4	
Total %	2.1	23.4	0.4	0.9	16.9	1	0.7	25.8	3.6	7.6	14.7	2.9	
Cars	54	617	11	23	448	27	18	671	97	203	386	74	2629
% Cars	98.2	98.6	100	100	99.1	100	100	97.5	100	99.5	98.2	96.1	98.4
Heavy Vehicles	1	9	0	0	4	0	0	17	0	1	7	3	42
% Heavy Vehicles	1.8	1.4	0	0	0.9	0	0	2.5	0	0.5	1.8	3.9	1.6

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	8	73	0	81	3	58	3	64	1	**106**	16	**123**	23	46	10	79	347
04:30 PM	5	**91**	3	99	0	49	**4**	53	**3**	82	8	93	23	53	10	86	331
04:45 PM	**12**	85	**4**	**101**	3	51	3	57	3	92	11	106	22	42	**13**	77	341
05:00 PM	7	86	1	94	**6**	**75**	4	**85**	2	77	**18**	97	**38**	**65**	8	**111**	**387**
Total Volume	32	335	8	375	12	233	14	259	9	357	53	419	106	206	41	353	1406
% App. Total	8.5	89.3	2.1		4.6	90	5.4		2.1	85.2	12.6		30	58.4	11.6		
PHF	.667	.920	.500	.928	.500	.777	.875	.762	.750	.842	.736	.852	.697	.792	.788	.795	.908
Cars	31	331	8	370	12	231	14	257	9	350	53	412	105	202	40	347	1386
% Cars	96.9	98.8	100	98.7	100	99.1	100	99.2	100	98.0	100	98.3	99.1	98.1	97.6	98.3	98.6
Heavy Vehicles	1	4	0	5	0	2	0	2	0	7	0	7	1	4	1	6	20
% Heavy Vehicles	3.1	1.2	0	1.3	0	0.9	0	0.8	0	2.0	0	1.7	0.9	1.9	2.4	1.7	1.4

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City, State: Taunton, MA
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File Name : 81676 K-HHH
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Summer Street (Route 140) From North			Church Green Street From East			Summer Street (Route 140) From South			Spring Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	10	59	0	3	56	7	4	67	13	41	48	15	323
04:15 PM	8	72	0	3	58	3	1	101	16	23	46	9	340
04:30 PM	5	90	3	0	49	4	3	81	8	22	50	10	325
04:45 PM	12	85	4	3	50	3	3	91	11	22	42	13	339
Total	35	306	7	9	213	17	11	340	48	108	186	47	1327
05:00 PM	6	84	1	6	74	4	2	77	18	38	64	8	382
05:15 PM	6	85	0	4	54	3	1	98	15	18	49	7	340
05:30 PM	5	72	0	1	54	2	1	77	9	28	43	1	293
05:45 PM	2	70	3	3	53	1	3	79	7	11	44	11	287
Total	19	311	4	14	235	10	7	331	49	95	200	27	1302
Grand Total	54	617	11	23	448	27	18	671	97	203	386	74	2629
Apprch %	7.9	90.5	1.6	4.6	90	5.4	2.3	85.4	12.3	30.6	58.2	11.2	
Total %	2.1	23.5	0.4	0.9	17	1	0.7	25.5	3.7	7.7	14.7	2.8	

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	8	72	0	80	3	58	3	64	1	**101**	16	**118**	23	46	9	78	340
04:30 PM	5	**90**	3	98	0	49	**4**	53	**3**	81	8	92	22	50	10	82	325
04:45 PM	**12**	85	**4**	**101**	3	50	3	56	3	91	11	105	22	42	**13**	77	339
05:00 PM	6	84	1	91	**6**	**74**	4	**84**	2	77	**18**	97	**38**	**64**	8	**110**	**382**
Total Volume	31	331	8	370	12	231	14	257	9	350	53	412	105	202	40	347	1386
% App. Total	8.4	89.5	2.2		4.7	89.9	5.4		2.2	85	12.9		30.3	58.2	11.5		
PHF	.646	.919	.500	.916	.500	.780	.875	.765	.750	.866	.736	.873	.691	.789	.769	.789	.907

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File Name : 81676 K-HHH
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Summer Street (Route 140) From North			Church Green Street From East			Summer Street (Route 140) From South			Spring Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	3	0	0	1	0	0	6	0	0	2	1	13
04:15 PM	0	1	0	0	0	0	0	5	0	0	0	1	7
04:30 PM	0	1	0	0	0	0	0	1	0	1	3	0	6
04:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
Total	0	5	0	0	2	0	0	13	0	1	5	2	28
05:00 PM	1	2	0	0	1	0	0	0	0	0	1	0	5
05:15 PM	0	1	0	0	0	0	0	1	0	0	1	1	4
05:30 PM	0	1	0	0	0	0	0	3	0	0	0	0	4
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	1	4	0	0	2	0	0	4	0	0	2	1	14
Grand Total	1	9	0	0	4	0	0	17	0	1	7	3	42
Apprch %	10	90	0	0	100	0	0	100	0	9.1	63.6	27.3	
Total %	2.4	21.4	0	0	9.5	0	0	40.5	0	2.4	16.7	7.1	

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**3**	0	**3**	0	**1**	0	**1**	0	**6**	0	**6**	0	2	**1**	3	**13**
04:15 PM	0	1	0	1	0	0	0	0	0	5	0	5	0	0	1	1	7
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	**1**	**3**	0	**4**	6
04:45 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	2
Total Volume	0	5	0	5	0	2	0	2	0	13	0	13	1	5	2	8	28
% App. Total	0	100	0		0	100	0		0	100	0		12.5	62.5	25		
PHF	.000	.417	.000	.417	.000	.500	.000	.500	.000	.542	.000	.542	.250	.417	.500	.500	.538

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N/S: Summer Street (Route 140)
E/W: Church Green Street/Spring Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-HHH
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	3
04:15 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	4	8
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	6
04:45 PM	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	5
Total	0	0	0	1	0	0	0	4	0	0	0	7	0	0	0	10	22
05:00 PM	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	5
05:15 PM	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	1	6
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	4	7
Total	0	0	0	2	0	0	0	4	0	0	0	5	0	0	0	8	19
Grand Total	0	0	0	3	0	0	0	8	0	0	0	12	0	0	0	18	41
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	
Total %	0	0	0	7.3	0	0	0	19.5	0	0	0	29.3	0	0	0	43.9	

	Summer Street (Route 140) From North					Church Green Street From East					Summer Street (Route 140) From South					Spring Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	2	2	0	0	0	**4**	**4**	**8**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	0	0	3	3	6
04:45 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	0	0	0	2	2	5
05:00 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	0	0	0	2	2	5
Total Volume	0	0	0	0	0	0	0	0	6	6	0	0	0	7	7	0	0	0	11	11	24
% App. Total	0	0	0	0		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.750	.750	.000	.000	.000	.583	.583	.000	.000	.000	.688	.688	.750

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City, State: Taunton, MA
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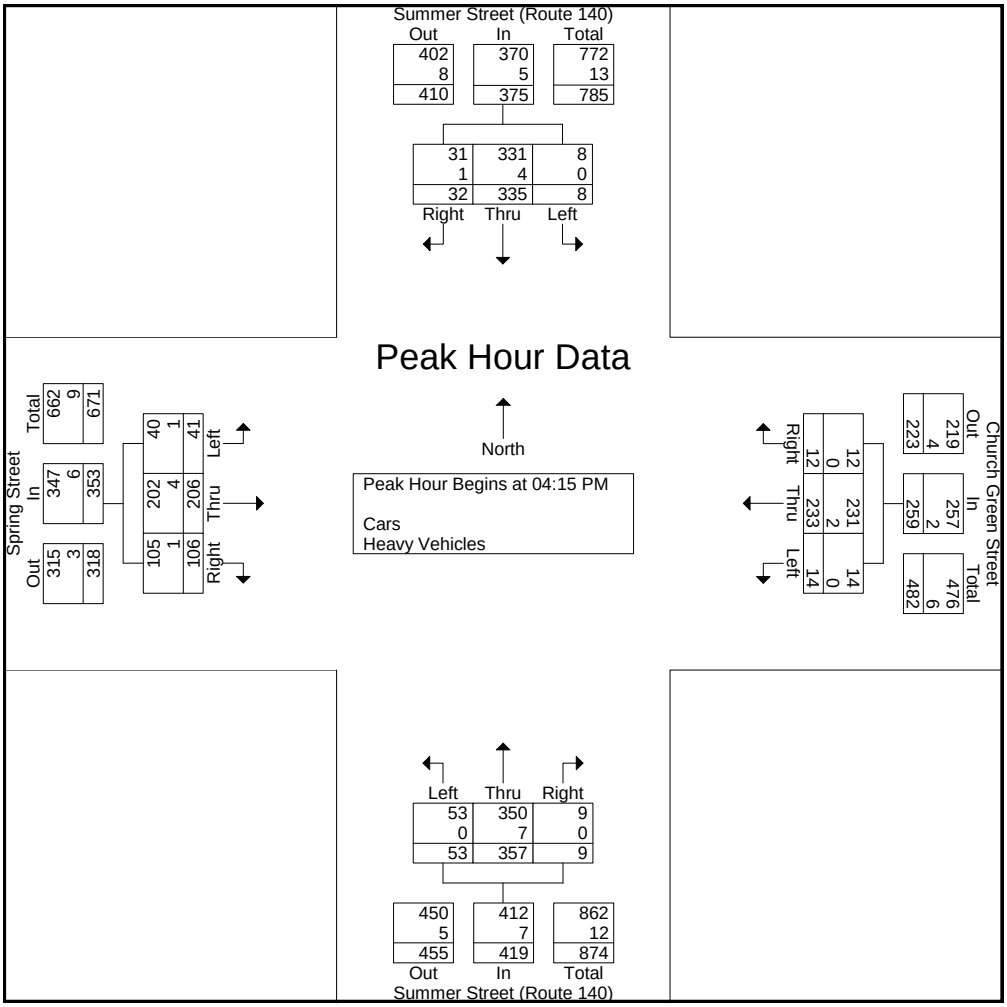
File Name : 81676 K-HHH
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Summer Street (Route 140) From North				Church Green Street From East				Summer Street (Route 140) From South				Spring Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	8	73	0	81	3	58	3	64	1	**106**	16	**123**	23	46	10	79	347
04:30 PM	5	**91**	3	99	0	49	**4**	53	**3**	82	8	93	23	53	10	86	331
04:45 PM	**12**	85	**4**	**101**	3	51	3	57	3	92	11	106	22	42	**13**	77	341
05:00 PM	7	86	1	94	**6**	**75**	4	**85**	2	77	**18**	97	**38**	**65**	8	**111**	**387**
Total Volume	32	335	8	375	12	233	14	259	9	357	53	419	106	206	41	353	1406
% App. Total	8.5	89.3	2.1		4.6	90	5.4		2.1	85.2	12.6		30	58.4	11.6		
PHF	.667	.920	.500	.928	.500	.777	.875	.762	.750	.842	.736	.852	.697	.792	.788	.795	.908
Cars	31	331	8	370	12	231	14	257	9	350	53	412	105	202	40	347	1386
% Cars	96.9	98.8	100	98.7	100	99.1	100	99.2	100	98.0	100	98.3	99.1	98.1	97.6	98.3	98.6
Heavy Vehicles	1	4	0	5	0	2	0	2	0	7	0	7	1	4	1	6	20
% Heavy Vehicles	3.1	1.2	0	1.3	0	0.9	0	0.8	0	2.0	0	1.7	0.9	1.9	2.4	1.7	1.4



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N/S: County Street (Route 140)
E: Gordon M. Owen Riverway
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-J
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North		Gordon M. Owen Riverway From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	79	2	1	66	61	135	344
07:15 AM	93	5	0	58	79	149	384
07:30 AM	109	1	2	61	68	164	405
07:45 AM	86	4	0	45	63	176	374
Total	367	12	3	230	271	624	1507
08:00 AM	91	2	1	44	64	128	330
08:15 AM	97	3	1	58	81	163	403
08:30 AM	101	1	0	50	59	149	360
08:45 AM	94	1	0	40	59	173	367
Total	383	7	2	192	263	613	1460
Grand Total	750	19	5	422	534	1237	2967
Apprch %	97.5	2.5	1.2	98.8	30.2	69.8	
Total %	25.3	0.6	0.2	14.2	18	41.7	
Cars	703	17	5	389	521	1160	2795
% Cars	93.7	89.5	100	92.2	97.6	93.8	94.2
Heavy Vehicles	47	2	0	33	13	77	172
% Heavy Vehicles	6.3	10.5	0	7.8	2.4	6.2	5.8

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**109**	1	**110**	**2**	**61**	**63**	68	164	232	**405**
07:45 AM	**86**	**4**	90	0	45	45	63	**176**	239	374
08:00 AM	91	2	93	1	44	45	64	128	192	330
08:15 AM	97	3	100	1	58	59	**81**	163	**244**	403
Total Volume	383	10	393	4	208	212	276	631	907	1512
% App. Total	97.5	2.5		1.9	98.1		30.4	69.6		
PHF	.878	.625	.893	.500	.852	.841	.852	.896	.929	.933
Cars	362	9	371	4	191	195	267	593	860	1426
% Cars	94.5	90.0	94.4	100	91.8	92.0	96.7	94.0	94.8	94.3
Heavy Vehicles	21	1	22	0	17	17	9	38	47	86
% Heavy Vehicles	5.5	10.0	5.6	0	8.2	8.0	3.3	6.0	5.2	5.7

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N/S: County Street (Route 140)
E: Gordon M. Owen Riverway
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-J
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North		Gordon M. Owen Riverway From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	74	2	1	62	59	127	325
07:15 AM	88	5	0	53	77	142	365
07:30 AM	103	1	2	55	64	152	377
07:45 AM	81	3	0	43	62	166	355
Total	346	11	3	213	262	587	1422
08:00 AM	87	2	1	41	61	120	312
08:15 AM	91	3	1	52	80	155	382
08:30 AM	89	0	0	45	59	140	333
08:45 AM	90	1	0	38	59	158	346
Total	357	6	2	176	259	573	1373
Grand Total	703	17	5	389	521	1160	2795
Apprch %	97.6	2.4	1.3	98.7	31	69	
Total %	25.2	0.6	0.2	13.9	18.6	41.5	

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**103**	1	**104**	**2**	**55**	**57**	64	152	216	377
07:45 AM	81	**3**	84	0	43	43	62	**166**	228	355
08:00 AM	87	2	89	1	41	42	61	120	181	312
08:15 AM	91	3	94	1	52	53	**80**	155	**235**	**382**
Total Volume	**362**	**9**	**371**	**4**	**191**	**195**	**267**	**593**	**860**	**1426**
% App. Total	**97.6**	**2.4**		**2.1**	**97.9**		**31**	**69**		
PHF	**.879**	**.750**	**.892**	**.500**	**.868**	**.855**	**.834**	**.893**	**.915**	**.933**

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File Name : 81676 K-J
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	County Street (Route 140) From North		Gordon M. Owen Riverway From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	5	0	0	4	2	8	19
07:15 AM	5	0	0	5	2	7	19
07:30 AM	6	0	0	6	4	12	28
07:45 AM	5	1	0	2	1	10	19
Total	21	1	0	17	9	37	85
08:00 AM	4	0	0	3	3	8	18
08:15 AM	6	0	0	6	1	8	21
08:30 AM	12	1	0	5	0	9	27
08:45 AM	4	0	0	2	0	15	21
Total	26	1	0	16	4	40	87
Grand Total	47	2	0	33	13	77	172
Apprch %	95.9	4.1	0	100	14.4	85.6	
Total %	27.3	1.2	0	19.2	7.6	44.8	

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**6**	0	**6**	0	**6**	**6**	**4**	**12**	**16**	**28**
07:45 AM	**5**	**1**	6	0	2	2	1	10	11	19
08:00 AM	4	0	4	0	3	3	3	8	11	18
08:15 AM	6	0	6	0	6	6	1	8	9	21
Total Volume	21	1	22	0	17	17	9	38	47	86
% App. Total	95.5	4.5		0	100		19.1	80.9		
PHF	.875	.250	.917	.000	.708	.708	.563	.792	.734	.768

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-J
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	1	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	2	0	2
Total	0	0	0	0	0	1	1	2	0	4
08:00 AM	0	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	2	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	3	0	1	0	4
Grand Total	0	0	0	0	0	4	1	3	0	8
Apprch %	0	0	0	0	0	100	25	75	0	
Total %	0	0	0	0	0	50	12.5	37.5	0	

	County Street (Route 140) From North				Gordon M. Owen Riverway From East				County Street (Route 140) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	0	0	0	0	0	**1**	**1**	**1**	0	0	1	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	**2**	**0**	**2**	2
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	1	1	1	3	0	4	5
% App. Total	0	0	0		0	0	100		25	75	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.250	.375	.000	.500	.625

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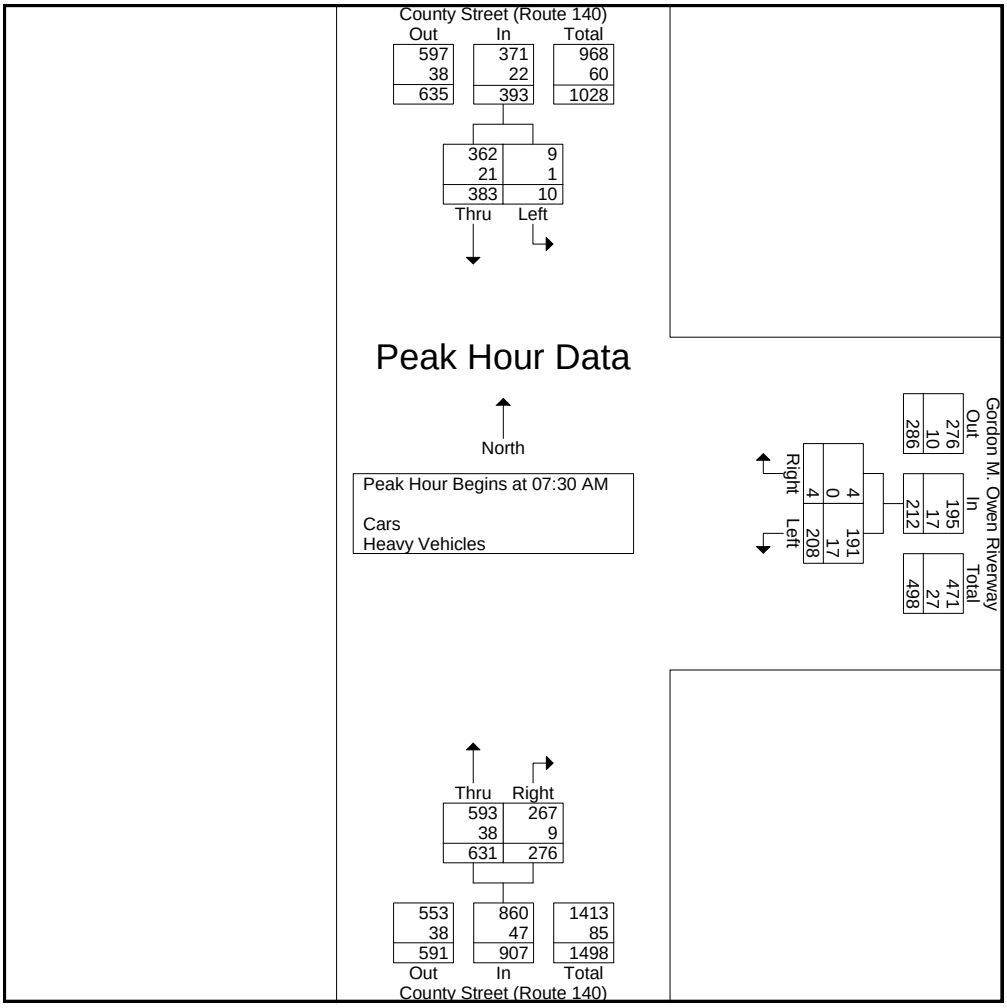
	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**109**	1	**110**	**2**	**61**	**63**	68	164	232	**405**
07:45 AM	**86**	**4**	90	0	45	45	63	**176**	239	374
08:00 AM	91	2	93	1	44	45	64	128	192	330
08:15 AM	97	3	100	1	58	59	**81**	163	**244**	403
Total Volume	383	10	393	4	208	212	276	631	907	1512
% App. Total	97.5	2.5		1.9	98.1		30.4	69.6		
PHF	.878	.625	.893	.500	.852	.841	.852	.896	.929	.933
Cars	362	9	371	4	191	195	267	593	860	1426
% Cars	94.5	90.0	94.4	100	91.8	92.0	96.7	94.0	94.8	94.3
Heavy Vehicles	21	1	22	0	17	17	9	38	47	86
% Heavy Vehicles	5.5	10.0	5.6	0	8.2	8.0	3.3	6.0	5.2	5.7



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E: Gordon M. Owen Riverway
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-JJJ
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North		Gordon M. Owen Riverway From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	142	3	0	79	85	131	440
04:15 PM	140	3	0	95	74	130	442
04:30 PM	182	2	1	116	85	113	499
04:45 PM	157	2	0	103	91	128	481
Total	621	10	1	393	335	502	1862
05:00 PM	164	6	0	137	75	143	525
05:15 PM	134	2	2	96	85	121	440
05:30 PM	134	0	0	94	80	105	413
05:45 PM	126	7	1	100	70	107	411
Total	558	15	3	427	310	476	1789
Grand Total	1179	25	4	820	645	978	3651
Apprch %	97.9	2.1	0.5	99.5	39.7	60.3	
Total %	32.3	0.7	0.1	22.5	17.7	26.8	
Cars	1162	25	3	811	640	944	3585
% Cars	98.6	100	75	98.9	99.2	96.5	98.2
Heavy Vehicles	17	0	1	9	5	34	66
% Heavy Vehicles	1.4	0	25	1.1	0.8	3.5	1.8

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	140	3	143	0	95	95	74	130	204	442
04:30 PM	**182**	2	**184**	**1**	116	117	85	113	198	499
04:45 PM	157	2	159	0	103	103	**91**	128	**219**	481
05:00 PM	164	**6**	170	0	**137**	**137**	75	**143**	218	**525**
Total Volume	**643**	**13**	**656**	**1**	**451**	**452**	**325**	**514**	**839**	**1947**
% App. Total	**98**	**2**		**0.2**	**99.8**		**38.7**	**61.3**		
PHF	**.883**	**.542**	**.891**	**.250**	**.823**	**.825**	**.893**	**.899**	**.958**	**.927**
Cars	**632**	**13**	**645**	**0**	**445**	**445**	**323**	**499**	**822**	**1912**
% Cars	**98.3**	**100**	**98.3**	**0**	**98.7**	**98.5**	**99.4**	**97.1**	**98.0**	**98.2**
Heavy Vehicles	**11**	**0**	**11**	**1**	**6**	**7**	**2**	**15**	**17**	**35**
% Heavy Vehicles	**1.7**	**0**	**1.7**	**100**	**1.3**	**1.5**	**0.6**	**2.9**	**2.0**	**1.8**

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File Name : 81676 K-JJJ
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Groups Printed- Cars

	County Street (Route 140) From North		Gordon M. Owen Riverway From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	140	3	0	78	84	124	429
04:15 PM	138	3	0	94	74	123	432
04:30 PM	180	2	0	114	84	111	491
04:45 PM	155	2	0	101	90	125	473
Total	613	10	0	387	332	483	1825
05:00 PM	159	6	0	136	75	140	516
05:15 PM	133	2	2	95	83	114	429
05:30 PM	131	0	0	93	80	103	407
05:45 PM	126	7	1	100	70	104	408
Total	549	15	3	424	308	461	1760
Grand Total	1162	25	3	811	640	944	3585
Apprch %	97.9	2.1	0.4	99.6	40.4	59.6	
Total %	32.4	0.7	0.1	22.6	17.9	26.3	

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	138	3	141	0	94	94	74	123	197	432
04:30 PM	**180**	2	**182**	0	114	114	84	111	195	491
04:45 PM	155	2	157	0	101	101	**90**	125	**215**	473
05:00 PM	159	**6**	165	0	**136**	**136**	75	**140**	215	**516**
Total Volume	**632**	**13**	**645**	**0**	**445**	**445**	**323**	**499**	**822**	**1912**
% App. Total	**98**	**2**		**0**	**100**		**39.3**	**60.7**		
PHF	**.878**	**.542**	**.886**	**.000**	**.818**	**.818**	**.897**	**.891**	**.956**	**.926**

PRECISION DATA INDUSTRIES, LLC
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Email: datarequests@pdillc.com

N/S: County Street (Route 140)
E: Gordon M. Owen Riverway
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-JJJ
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) From North		Gordon M. Owen Riverway From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	2	0	0	1	1	7	11
04:15 PM	2	0	0	1	0	7	10
04:30 PM	2	0	1	2	1	2	8
04:45 PM	2	0	0	2	1	3	8
Total	8	0	1	6	3	19	37
05:00 PM	5	0	0	1	0	3	9
05:15 PM	1	0	0	1	2	7	11
05:30 PM	3	0	0	1	0	2	6
05:45 PM	0	0	0	0	0	3	3
Total	9	0	0	3	2	15	29
Grand Total	17	0	1	9	5	34	66
Apprch %	100	0	10	90	12.8	87.2	
Total %	25.8	0	1.5	13.6	7.6	51.5	

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**2**	0	**2**	0	1	1	**1**	**7**	**8**	**11**
04:15 PM	**2**	**0**	**2**	**0**	**1**	**1**	**0**	**7**	**7**	**10**
04:30 PM	**2**	**0**	**2**	**1**	**2**	**3**	1	2	3	8
04:45 PM	2	0	2	0	2	2	1	3	4	8
Total Volume	8	0	8	1	6	7	3	19	22	37
% App. Total	100	0		14.3	85.7		13.6	86.4		
PHF	1.000	.000	1.000	.250	.750	.583	.750	.679	.688	.841

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E: Gordon M. Owen Riverway
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-JJJ
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	2	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	1	0	0	2
04:45 PM	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	1	1	2	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	2
Grand Total	1	0	0	0	0	2	1	3	0	7
Apprch %	100	0	0	0	0	100	25	75	0	
Total %	14.3	0	0	0	0	28.6	14.3	42.9	0	

	County Street (Route 140) From North				Gordon M. Owen Riverway From East				County Street (Route 140) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	**2**	**0**	**2**	**2**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	**1**	**1**	**1**	0	0	1	2
04:45 PM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	0	1	1	1	2	0	3	5
% App. Total	100	0	0		0	0	100		33.3	66.7	0		
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.250	.250	.000	.375	.625

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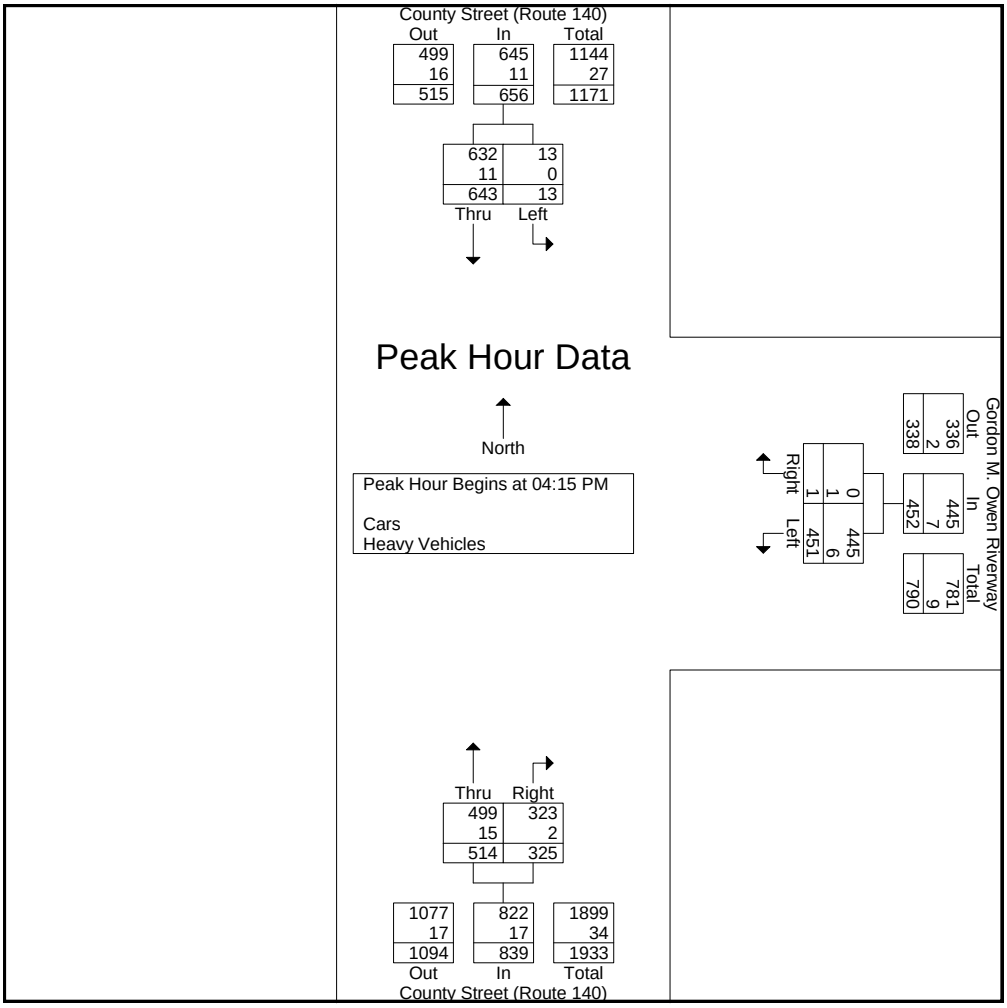
E: Gordon M. Owen Riverway
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-JJJ
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	County Street (Route 140) From North			Gordon M. Owen Riverway From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	140	3	143	0	95	95	74	130	204	442
04:30 PM	**182**	2	**184**	**1**	116	117	85	113	198	499
04:45 PM	157	2	159	0	103	103	**91**	128	**219**	481
05:00 PM	164	**6**	170	0	**137**	**137**	75	**143**	218	**525**
Total Volume	**643**	**13**	**656**	**1**	**451**	**452**	**325**	**514**	**839**	**1947**
% App. Total	**98**	**2**		**0.2**	**99.8**		**38.7**	**61.3**		
PHF	**.883**	**.542**	**.891**	**.250**	**.823**	**.825**	**.893**	**.899**	**.958**	**.927**
Cars	**632**	**13**	**645**	**0**	**445**	**445**	**323**	**499**	**822**	**1912**
% Cars	**98.3**	**100**	**98.3**	**0**	**98.7**	**98.5**	**99.4**	**97.1**	**98.0**	**98.2**
Heavy Vehicles	**11**	**0**	**11**	**1**	**6**	**7**	**2**	**15**	**17**	**35**
% Heavy Vehicles	**1.7**	**0**	**1.7**	**100**	**1.3**	**1.5**	**0.6**	**2.9**	**2.0**	**1.8**



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N/S: Winter Street
E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-K
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Winter Street From North			School Street From East			Winter Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	86	0	2	2	6	3	65	6	13	3	5	196
07:15 AM	3	102	3	1	6	3	3	106	18	17	11	3	276
07:30 AM	2	55	2	3	9	2	10	96	27	12	8	9	235
07:45 AM	5	30	3	4	13	11	2	80	12	16	10	4	190
Total	15	273	8	10	30	22	18	347	63	58	32	21	897
08:00 AM	2	32	4	3	10	5	7	72	12	13	5	7	172
08:15 AM	1	29	0	5	10	3	9	77	13	18	6	5	176
08:30 AM	2	38	1	3	15	4	6	61	15	19	9	6	179
08:45 AM	4	39	2	5	9	0	5	63	13	16	9	3	168
Total	9	138	7	16	44	12	27	273	53	66	29	21	695
Grand Total	24	411	15	26	74	34	45	620	116	124	61	42	1592
Apprch %	5.3	91.3	3.3	19.4	55.2	25.4	5.8	79.4	14.9	54.6	26.9	18.5	
Total %	1.5	25.8	0.9	1.6	4.6	2.1	2.8	38.9	7.3	7.8	3.8	2.6	
Cars	20	397	14	25	72	29	36	598	112	115	56	41	1515
% Cars	83.3	96.6	93.3	96.2	97.3	85.3	80	96.5	96.6	92.7	91.8	97.6	95.2
Heavy Vehicles	4	14	1	1	2	5	9	22	4	9	5	1	77
% Heavy Vehicles	16.7	3.4	6.7	3.8	2.7	14.7	20	3.5	3.4	7.3	8.2	2.4	4.8

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**5**	86	0	91	2	2	6	10	3	65	6	74	13	3	5	21	196
07:15 AM	3	**102**	**3**	**108**	1	6	3	10	3	**106**	18	127	**17**	**11**	3	**31**	**276**
07:30 AM	2	55	2	59	3	9	2	14	**10**	96	**27**	**133**	12	8	**9**	29	235
07:45 AM	5	30	3	38	**4**	**13**	**11**	**28**	2	80	12	94	16	10	4	30	190
Total Volume	15	273	8	296	10	30	22	62	18	347	63	428	58	32	21	111	897
% App. Total	5.1	92.2	2.7		16.1	48.4	35.5		4.2	81.1	14.7		52.3	28.8	18.9		
PHF	.750	.669	.667	.685	.625	.577	.500	.554	.450	.818	.583	.805	.853	.727	.583	.895	.813
Cars	14	262	7	283	10	30	19	59	14	336	61	411	56	30	20	106	859
% Cars	93.3	96.0	87.5	95.6	100	100	86.4	95.2	77.8	96.8	96.8	96.0	96.6	93.8	95.2	95.5	95.8
Heavy Vehicles	1	11	1	13	0	0	3	3	4	11	2	17	2	2	1	5	38
% Heavy Vehicles	6.7	4.0	12.5	4.4	0	0	13.6	4.8	22.2	3.2	3.2	4.0	3.4	6.3	4.8	4.5	4.2

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N/S: Winter Street
E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-K
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Winter Street From North			School Street From East			Winter Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	4	84	0	2	2	5	3	63	5	13	3	5	189
07:15 AM	3	95	3	1	6	3	3	104	18	16	10	3	265
07:30 AM	2	54	2	3	9	2	7	92	26	12	8	8	225
07:45 AM	5	29	2	4	13	9	1	77	12	15	9	4	180
Total	14	262	7	10	30	19	14	336	61	56	30	20	859
08:00 AM	2	32	4	3	10	4	6	68	12	12	5	7	165
08:15 AM	0	29	0	5	9	2	7	73	12	15	6	5	163
08:30 AM	1	38	1	2	14	4	5	59	14	17	7	6	168
08:45 AM	3	36	2	5	9	0	4	62	13	15	8	3	160
Total	6	135	7	15	42	10	22	262	51	59	26	21	656
Grand Total	20	397	14	25	72	29	36	598	112	115	56	41	1515
Apprch %	4.6	92.1	3.2	19.8	57.1	23	4.8	80.2	15	54.2	26.4	19.3	
Total %	1.3	26.2	0.9	1.7	4.8	1.9	2.4	39.5	7.4	7.6	3.7	2.7	

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	4	84	0	88	2	2	5	9	3	63	5	71	13	3	5	21	189
07:15 AM	3	**95**	**3**	**101**	1	6	3	10	3	**104**	18	**125**	**16**	**10**	3	**29**	**265**
07:30 AM	2	54	2	58	3	9	2	14	**7**	92	**26**	125	12	8	**8**	28	225
07:45 AM	**5**	29	2	36	**4**	**13**	**9**	**26**	1	77	12	90	15	9	4	28	180
Total Volume	14	262	7	283	10	30	19	59	14	336	61	411	56	30	20	106	859
% App. Total	4.9	92.6	2.5		16.9	50.8	32.2		3.4	81.8	14.8		52.8	28.3	18.9		
PHF	.700	.689	.583	.700	.625	.577	.528	.567	.500	.808	.587	.822	.875	.750	.625	.914	.810

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E/W: School Street
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Client: VHB/J. Quitter

File Name : 81676 K-K
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Winter Street From North			School Street From East			Winter Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	2	0	0	0	1	0	2	1	0	0	0	7
07:15 AM	0	7	0	0	0	0	0	2	0	1	1	0	11
07:30 AM	0	1	0	0	0	0	3	4	1	0	0	1	10
07:45 AM	0	1	1	0	0	2	1	3	0	1	1	0	10
Total	1	11	1	0	0	3	4	11	2	2	2	1	38
08:00 AM	0	0	0	0	0	1	1	4	0	1	0	0	7
08:15 AM	1	0	0	0	1	1	2	4	1	3	0	0	13
08:30 AM	1	0	0	1	1	0	1	2	1	2	2	0	11
08:45 AM	1	3	0	0	0	0	1	1	0	1	1	0	8
Total	3	3	0	1	2	2	5	11	2	7	3	0	39
Grand Total	4	14	1	1	2	5	9	22	4	9	5	1	77
Apprch %	21.1	73.7	5.3	12.5	25	62.5	25.7	62.9	11.4	60	33.3	6.7	
Total %	5.2	18.2	1.3	1.3	2.6	6.5	11.7	28.6	5.2	11.7	6.5	1.3	

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**1**	**1**	**2**	0	0	**2**	**2**	1	3	0	4	1	1	0	2	10
08:00 AM	0	0	0	0	0	0	1	1	1	**4**	0	5	1	0	0	1	7
08:15 AM	**1**	0	0	1	0	**1**	1	2	**2**	4	**1**	**7**	**3**	0	0	3	**13**
08:30 AM	1	0	0	1	**1**	1	0	2	1	2	1	4	2	**2**	0	**4**	11
Total Volume	2	1	1	4	1	2	4	7	5	13	2	20	7	3	0	10	41
% App. Total	50	25	25		14.3	28.6	57.1		25	65	10		70	30	0		
PHF	.500	.250	.250	.500	.250	.500	.500	.875	.625	.813	.500	.714	.583	.375	.000	.625	.788

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File Name : 81676 K-K
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	4	9
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	4	11
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	1	6
08:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	2	0	0	0	2	0	0	0	3	0	0	0	1	8
Grand Total	0	0	0	2	0	0	0	9	0	0	0	3	0	0	0	5	19
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	100	
Total %	0	0	0	10.5	0	0	0	47.4	0	0	0	15.8	0	0	0	26.3	

	Winter Street From North					School Street From East					Winter Street From South					School Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	**5**	**5**	0	0	0	0	0	0	0	0	**4**	**4**	**9**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	4	4	11
% App. Total	0	0	0	0		0	0	0	100		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.350	.350	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.306

PRECISION DATA INDUSTRIES, LLC
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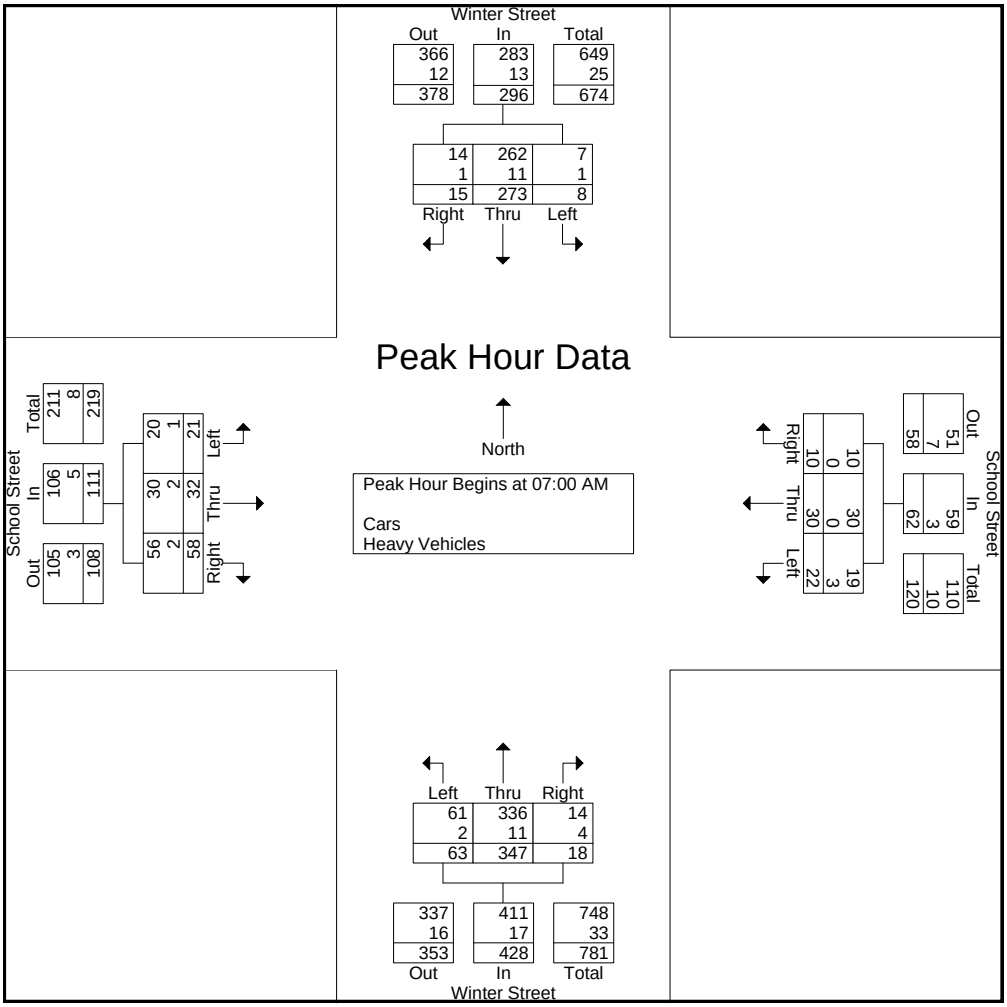
N/S: Winter Street
E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-K
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**5**	86	0	91	2	2	6	10	3	65	6	74	13	3	5	21	196
07:15 AM	3	**102**	**3**	**108**	1	6	3	10	3	**106**	18	127	**17**	**11**	3	**31**	**276**
07:30 AM	2	55	2	59	3	9	2	14	**10**	96	**27**	**133**	12	8	**9**	29	235
07:45 AM	5	30	3	38	**4**	**13**	**11**	**28**	2	80	12	94	16	10	4	30	190
Total Volume	15	273	8	296	10	30	22	62	18	347	63	428	58	32	21	111	897
% App. Total	5.1	92.2	2.7		16.1	48.4	35.5		4.2	81.1	14.7		52.3	28.8	18.9		
PHF	.750	.669	.667	.685	.625	.577	.500	.554	.450	.818	.583	.805	.853	.727	.583	.895	.813
Cars	14	262	7	283	10	30	19	59	14	336	61	411	56	30	20	106	859
% Cars	93.3	96.0	87.5	95.6	100	100	86.4	95.2	77.8	96.8	96.8	96.0	96.6	93.8	95.2	95.5	95.8
Heavy Vehicles	1	11	1	13	0	0	3	3	4	11	2	17	2	2	1	5	38
% Heavy Vehicles	6.7	4.0	12.5	4.4	0	0	13.6	4.8	22.2	3.2	3.2	4.0	3.4	6.3	4.8	4.5	4.2



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N/S: Winter Street
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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-KKK
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Winter Street From North			School Street From East			Winter Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	2	46	1	1	20	4	7	106	43	25	10	6	271
04:15 PM	1	57	0	4	18	3	9	108	51	17	5	6	279
04:30 PM	4	60	2	1	14	13	9	101	39	19	9	10	281
04:45 PM	4	41	1	6	14	4	5	86	37	26	19	4	247
Total	11	204	4	12	66	24	30	401	170	87	43	26	1078
05:00 PM	6	83	2	5	12	5	2	85	41	20	10	7	278
05:15 PM	4	113	1	6	19	6	6	97	29	12	6	9	308
05:30 PM	7	143	1	1	9	5	5	105	32	17	6	2	333
05:45 PM	6	111	2	3	10	6	6	104	31	14	4	9	306
Total	23	450	6	15	50	22	19	391	133	63	26	27	1225
Grand Total	34	654	10	27	116	46	49	792	303	150	69	53	2303
Apprch %	4.9	93.7	1.4	14.3	61.4	24.3	4.3	69.2	26.5	55.1	25.4	19.5	
Total %	1.5	28.4	0.4	1.2	5	2	2.1	34.4	13.2	6.5	3	2.3	
Cars	33	646	10	27	115	45	47	782	297	146	69	52	2269
% Cars	97.1	98.8	100	100	99.1	97.8	95.9	98.7	98	97.3	100	98.1	98.5
Heavy Vehicles	1	8	0	0	1	1	2	10	6	4	0	1	34
% Heavy Vehicles	2.9	1.2	0	0	0.9	2.2	4.1	1.3	2	2.7	0	1.9	1.5

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	6	83	**2**	91	5	12	5	22	2	85	**41**	128	**20**	**10**	7	**37**	278
05:15 PM	4	113	1	118	**6**	**19**	**6**	**31**	**6**	97	29	132	12	6	**9**	27	308
05:30 PM	**7**	**143**	1	**151**	1	9	5	15	5	**105**	32	**142**	17	6	2	25	**333**
05:45 PM	6	111	2	119	3	10	6	19	6	104	31	141	14	4	9	27	306
Total Volume	23	450	6	479	15	50	22	87	19	391	133	543	63	26	27	116	1225
% App. Total	4.8	93.9	1.3		17.2	57.5	25.3		3.5	72	24.5		54.3	22.4	23.3		
PHF	.821	.787	.750	.793	.625	.658	.917	.702	.792	.931	.811	.956	.788	.650	.750	.784	.920
Cars	22	445	6	473	15	50	21	86	19	386	129	534	61	26	27	114	1207
% Cars	95.7	98.9	100	98.7	100	100	95.5	98.9	100	98.7	97.0	98.3	96.8	100	100	98.3	98.5
Heavy Vehicles	1	5	0	6	0	0	1	1	0	5	4	9	2	0	0	2	18
% Heavy Vehicles	4.3	1.1	0	1.3	0	0	4.5	1.1	0	1.3	3.0	1.7	3.2	0	0	1.7	1.5

PRECISION DATA INDUSTRIES, LLC
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N/S: Winter Street
E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-KKK
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Cars

	Winter Street From North			School Street From East			Winter Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	2	44	1	1	20	4	7	105	42	25	10	6	267
04:15 PM	1	56	0	4	18	3	8	107	50	17	5	5	274
04:30 PM	4	60	2	1	13	13	9	99	39	18	9	10	277
04:45 PM	4	41	1	6	14	4	4	85	37	25	19	4	244
Total	11	201	4	12	65	24	28	396	168	85	43	25	1062
05:00 PM	5	83	2	5	12	4	2	84	40	19	10	7	273
05:15 PM	4	112	1	6	19	6	6	97	27	12	6	9	305
05:30 PM	7	141	1	1	9	5	5	101	32	17	6	2	327
05:45 PM	6	109	2	3	10	6	6	104	30	13	4	9	302
Total	22	445	6	15	50	21	19	386	129	61	26	27	1207
Grand Total	33	646	10	27	115	45	47	782	297	146	69	52	2269
Apprch %	4.8	93.8	1.5	14.4	61.5	24.1	4.2	69.4	26.4	54.7	25.8	19.5	
Total %	1.5	28.5	0.4	1.2	5.1	2	2.1	34.5	13.1	6.4	3	2.3	

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	5	83	**2**	90	5	12	4	21	2	84	**40**	126	**19**	**10**	7	**36**	273
05:15 PM	4	112	1	117	**6**	**19**	**6**	**31**	**6**	97	27	130	12	6	**9**	27	305
05:30 PM	**7**	**141**	1	**149**	1	9	5	15	5	101	32	138	17	6	2	25	**327**
05:45 PM	6	109	2	117	3	10	6	19	6	**104**	30	**140**	13	4	9	26	302
Total Volume	22	445	6	473	15	50	21	86	19	386	129	534	61	26	27	114	1207
% App. Total	4.7	94.1	1.3		17.4	58.1	24.4		3.6	72.3	24.2		53.5	22.8	23.7		
PHF	.786	.789	.750	.794	.625	.658	.875	.694	.792	.928	.806	.954	.803	.650	.750	.792	.923

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-KKK
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Winter Street From North			School Street From East			Winter Street From South			School Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	0	0	0	0	1	1	0	0	0	4
04:15 PM	0	1	0	0	0	0	1	1	1	0	0	1	5
04:30 PM	0	0	0	0	1	0	0	2	0	1	0	0	4
04:45 PM	0	0	0	0	0	0	1	1	0	1	0	0	3
Total	0	3	0	0	1	0	2	5	2	2	0	1	16
05:00 PM	1	0	0	0	0	1	0	1	1	1	0	0	5
05:15 PM	0	1	0	0	0	0	0	0	2	0	0	0	3
05:30 PM	0	2	0	0	0	0	0	4	0	0	0	0	6
05:45 PM	0	2	0	0	0	0	0	0	1	1	0	0	4
Total	1	5	0	0	0	1	0	5	4	2	0	0	18
Grand Total	1	8	0	0	1	1	2	10	6	4	0	1	34
Apprch %	11.1	88.9	0	0	50	50	11.1	55.6	33.3	80	0	20	
Total %	2.9	23.5	0	0	2.9	2.9	5.9	29.4	17.6	11.8	0	2.9	

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**1**	0	0	1	0	0	**1**	**1**	0	1	1	2	**1**	0	0	**1**	5
05:15 PM	0	1	0	1	0	0	0	0	0	0	**2**	2	0	0	0	0	3
05:30 PM	0	**2**	0	**2**	0	0	0	0	0	**4**	0	**4**	0	0	0	0	**6**
05:45 PM	0	2	0	2	0	0	0	0	0	0	1	1	1	0	0	1	4
Total Volume	1	5	0	6	0	0	1	1	0	5	4	9	2	0	0	2	18
% App. Total	16.7	83.3	0		0	0	100		0	55.6	44.4		100	0	0		
PHF	.250	.625	.000	.750	.000	.000	.250	.250	.000	.313	.500	.563	.500	.000	.000	.500	.750

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N/S: Winter Street
E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-KKK
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
04:30 PM	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	4
04:45 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3
Total	1	1	0	5	0	0	0	0	0	0	0	0	0	0	0	4	11
05:00 PM	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	4	9
Total	1	0	3	4	2	0	0	0	0	0	0	0	0	0	0	6	16
Grand Total	2	1	3	9	2	0	0	0	0	0	0	0	0	0	0	10	27
Apprch %	13.3	6.7	20	60	100	0	0	0	0	0	0	0	0	0	0	100	
Total %	7.4	3.7	11.1	33.3	7.4	0	0	0	0	0	0	0	0	0	0	37	

	Winter Street From North					School Street From East					Winter Street From South					School Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**1**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
05:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**2**
05:30 PM	**0**	**0**	**0**	**0**	**0**	**2**	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	**3**	**2**	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	**4**	**9**
Total Volume	1	0	3	4	8	2	0	0	0	2	0	0	0	0	0	0	0	0	6	6	16
% App. Total	12.5	0	37.5	50		100	0	0	0		0	0	0	0		0	0	0	100		
PHF	.250	.000	.250	.500	.400	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.444

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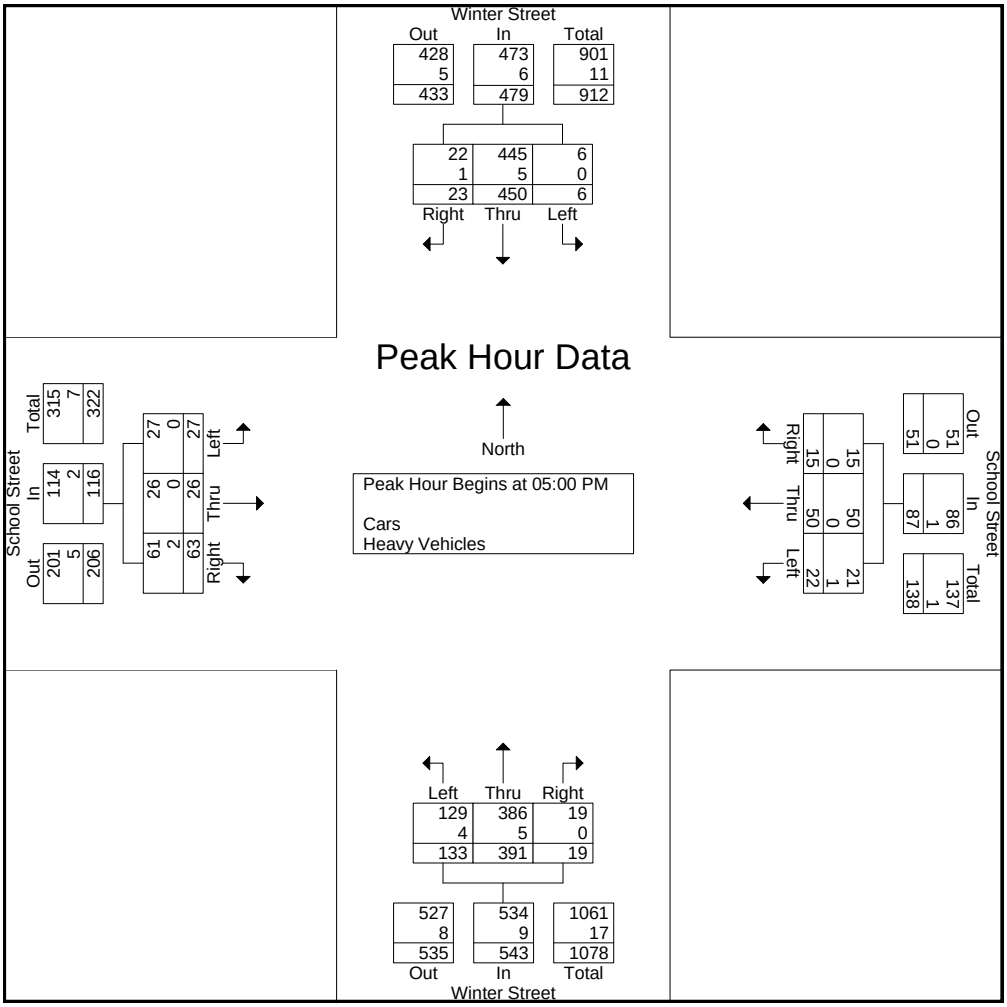
N/S: Winter Street
E/W: School Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 K-KKK
Site Code : 10111.31
Start Date : 9/17/2008
Page No : 1

	Winter Street From North				School Street From East				Winter Street From South				School Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	6	83	**2**	91	5	12	5	22	2	85	**41**	128	**20**	**10**	7	**37**	278
05:15 PM	4	113	1	118	**6**	**19**	**6**	**31**	**6**	97	29	132	12	6	**9**	27	308
05:30 PM	**7**	**143**	1	**151**	1	9	5	15	5	**105**	32	**142**	17	6	2	25	**333**
05:45 PM	6	111	2	119	3	10	6	19	6	104	31	141	14	4	9	27	306
Total Volume	23	450	6	479	15	50	22	87	19	391	133	543	63	26	27	116	1225
% App. Total	4.8	93.9	1.3		17.2	57.5	25.3		3.5	72	24.5		54.3	22.4	23.3		
PHF	.821	.787	.750	.793	.625	.658	.917	.702	.792	.931	.811	.956	.788	.650	.750	.784	.920
Cars	22	445	6	473	15	50	21	86	19	386	129	534	61	26	27	114	1207
% Cars	95.7	98.9	100	98.7	100	100	95.5	98.9	100	98.7	97.0	98.3	96.8	100	100	98.3	98.5
Heavy Vehicles	1	5	0	6	0	0	1	1	0	5	4	9	2	0	0	2	18
% Heavy Vehicles	4.3	1.1	0	1.3	0	0	4.5	1.1	0	1.3	3.0	1.7	3.2	0	0	1.7	1.5



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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Wed 10/1/08 and Sat 9/27/08	81676	Taunton, MA

PRECISION DATA INDUSTRIES, LLC
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N/S: Broadway/Taunton Green
E/W: Main Street/Taunton Green
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-B
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			Main Street (Route 44/140) From East			Taunton Green (Route 44/138/140) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	40	0	0	52	93	0	0	95	4	0	0	0	284
07:15 AM	90	0	0	55	116	0	0	95	14	0	0	0	370
07:30 AM	91	0	0	89	148	0	0	103	16	0	0	0	447
07:45 AM	95	0	0	82	140	0	0	89	19	0	0	0	425
Total	316	0	0	278	497	0	0	382	53	0	0	0	1526
08:00 AM	85	0	0	77	146	0	0	73	16	0	0	0	397
08:15 AM	76	0	0	65	143	0	0	70	23	0	0	0	377
08:30 AM	100	0	0	88	128	0	0	76	13	0	0	0	405
08:45 AM	97	0	0	71	142	0	0	88	21	0	0	0	419
Total	358	0	0	301	559	0	0	307	73	0	0	0	1598
Grand Total	674	0	0	579	1056	0	0	689	126	0	0	0	3124
Apprch %	100	0	0	35.4	64.6	0	0	84.5	15.5	0	0	0	
Total %	21.6	0	0	18.5	33.8	0	0	22.1	4	0	0	0	

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	91	0	0	91	**89**	**148**	0	**237**	0	**103**	16	**119**	0	0	0	0	**447**
07:45 AM	**95**	0	0	**95**	82	140	0	222	0	89	19	108	0	0	0	0	425
08:00 AM	85	0	0	85	77	146	0	223	0	73	16	89	0	0	0	0	397
08:15 AM	76	0	0	76	65	143	0	208	0	70	**23**	93	0	0	0	0	377
Total Volume	347	0	0	347	313	577	0	890	0	335	74	409	0	0	0	0	1646
% App. Total	100	0	0		35.2	64.8	0		0	81.9	18.1		0	0	0		
PHF	.913	.000	.000	.913	.879	.975	.000	.939	.000	.813	.804	.859	.000	.000	.000	.000	.921

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E/W: Main Street/Taunton Green
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-B
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Main Street (Route 44/140) From East			Taunton Green (Route 44/138/140) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	0	0	1	5	0	0	3	1	0	0	0	13
07:15 AM	3	0	0	2	17	0	0	5	3	0	0	0	30
07:30 AM	5	0	0	1	9	0	0	7	2	0	0	0	24
07:45 AM	3	0	1	4	10	0	0	6	1	0	0	0	25
Total	14	0	1	8	41	0	0	21	7	0	0	0	92
08:00 AM	9	0	0	1	10	0	0	4	1	0	0	0	25
08:15 AM	8	0	0	3	6	0	0	4	2	0	0	0	23
08:30 AM	5	0	0	4	11	0	0	4	3	0	0	0	27
08:45 AM	6	0	0	1	10	0	0	11	1	0	0	0	29
Total	28	0	0	9	37	0	0	23	7	0	0	0	104
Grand Total	42	0	1	17	78	0	0	44	14	0	0	0	196
Apprch %	97.7	0	2.3	17.9	82.1	0	0	75.9	24.1	0	0	0	
Total %	21.4	0	0.5	8.7	39.8	0	0	22.4	7.1	0	0	0	

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	0	0	3	2	**17**	0	**19**	0	5	**3**	8	0	0	0	0	**30**
07:30 AM	5	0	0	5	1	9	0	10	0	**7**	2	**9**	0	0	0	0	24
07:45 AM	3	0	**1**	4	**4**	10	0	14	0	6	1	7	0	0	0	0	25
08:00 AM	**9**	0	0	**9**	1	10	0	11	0	4	1	5	0	0	0	0	25
Total Volume	20	0	1	21	8	46	0	54	0	22	7	29	0	0	0	0	104
% App. Total	95.2	0	4.8		14.8	85.2	0		0	75.9	24.1		0	0	0		
PHF	.556	.000	.250	.583	.500	.676	.000	.711	.000	.786	.583	.806	.000	.000	.000	.000	.867

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Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	6
07:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
07:30 AM	1	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	4
07:45 AM	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	1	0	0	12	1	0	0	0	0	1	0	0	0	0	0	4	19
08:00 AM	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
08:15 AM	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	4	11
08:30 AM	0	0	0	12	0	1	0	0	0	0	0	0	0	0	0	1	14
08:45 AM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	30	0	1	0	0	0	0	0	0	0	0	0	5	36
Grand Total	1	0	0	42	1	1	0	0	0	1	0	0	0	0	0	9	55
Apprch %	2.3	0	0	97.7	50	50	0	0	0	100	0	0	0	0	0	100	
Total %	1.8	0	0	76.4	1.8	1.8	0	0	0	1.8	0	0	0	0	0	16.4	

	Broadway (Route 138) From North					Main Street (Route 44/140) From East					Taunton Green (Route 44/138/140) From South					Taunton Green (Route 44/138/140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
08:00 AM	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
08:15 AM	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	**4**	11
08:30 AM	0	0	0	**12**	**12**	0	**1**	**0**	**0**	**1**	0	0	0	0	0	0	0	0	1	1	**14**
Total Volume	0	0	0	33	33	0	1	0	0	1	0	0	0	0	0	0	0	0	5	5	39
% App. Total	0	0	0	100		0	100	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.688	.688	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.313	.313	.696

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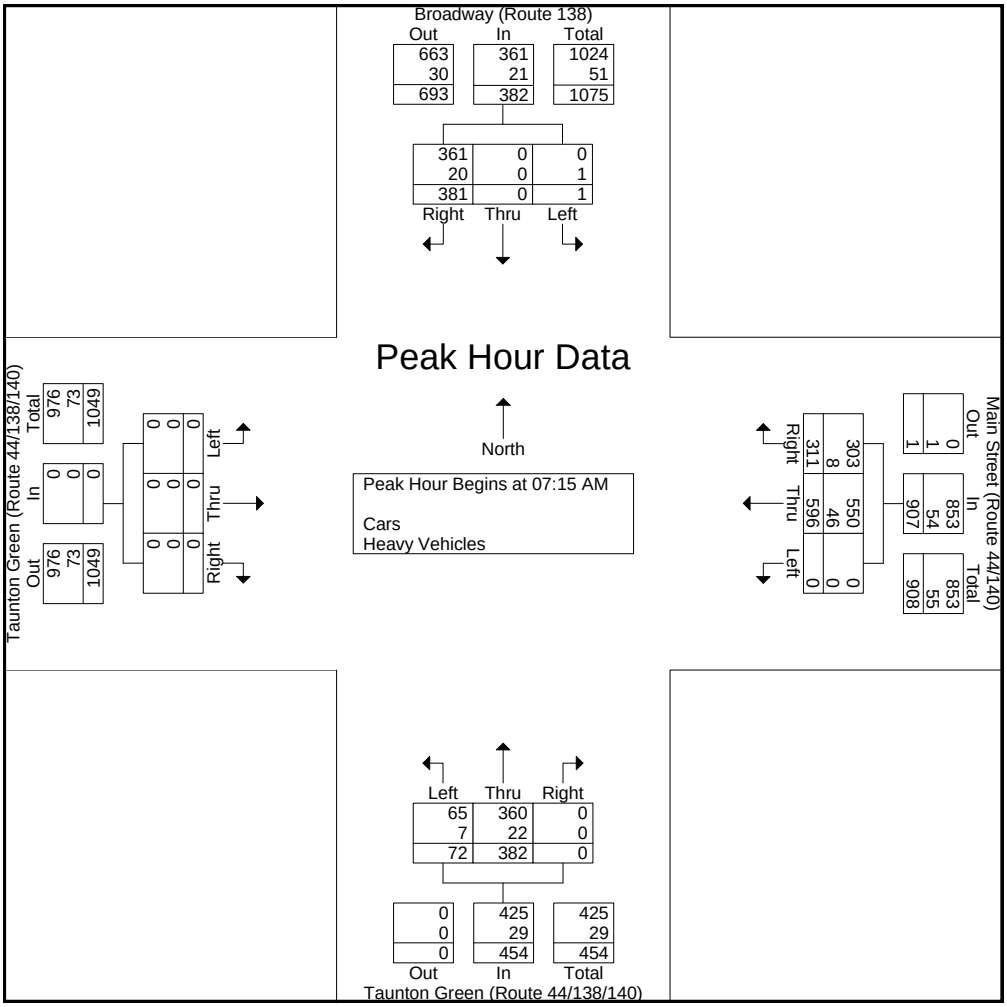
	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	93	0	0	93	57	133	0	190	0	100	17	117	0	0	0	0	400
07:30 AM	96	0	0	96	**90**	**157**	0	**247**	0	**110**	18	**128**	0	0	0	0	**471**
07:45 AM	**98**	0	**1**	**99**	86	150	0	236	0	95	**20**	115	0	0	0	0	450
08:00 AM	94	0	0	94	78	156	0	234	0	77	17	94	0	0	0	0	422
Total Volume	381	0	1	382	311	596	0	907	0	382	72	454	0	0	0	0	1743
% App. Total	99.7	0	0.3		34.3	65.7	0		0	84.1	15.9		0	0	0		
PHF	.972	.000	.250	.965	.864	.949	.000	.918	.000	.868	.900	.887	.000	.000	.000	.000	.925
Cars	361	0	0	361	303	550	0	853	0	360	65	425	0	0	0	0	1639
% Cars	94.8	0	0	94.5	97.4	92.3	0	94.0	0	94.2	90.3	93.6	0	0	0	0	94.0
Heavy Vehicles	20	0	1	21	8	46	0	54	0	22	7	29	0	0	0	0	104
% Heavy Vehicles	5.2	0	100	5.5	2.6	7.7	0	6.0	0	5.8	9.7	6.4	0	0	0	0	6.0



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Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			Main Street (Route 44/140) From East			Taunton Green (Route 44/138/140) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	123	0	0	68	168	0	0	64	25	0	0	0	448
04:15 PM	128	0	0	66	211	0	0	65	14	0	0	0	484
04:30 PM	143	0	0	70	179	0	0	62	30	0	0	0	484
04:45 PM	145	0	0	65	193	0	0	69	19	0	0	0	491
Total	539	0	0	269	751	0	0	260	88	0	0	0	1907
05:00 PM	102	0	0	75	217	0	0	58	21	0	0	0	473
05:15 PM	70	0	0	52	239	0	0	76	24	0	0	0	461
05:30 PM	138	0	0	66	198	0	0	64	14	0	0	0	480
05:45 PM	148	0	0	55	182	0	0	71	25	0	0	0	481
Total	458	0	0	248	836	0	0	269	84	0	0	0	1895
Grand Total	997	0	0	517	1587	0	0	529	172	0	0	0	3802
Apprch %	100	0	0	24.6	75.4	0	0	75.5	24.5	0	0	0	
Total %	26.2	0	0	13.6	41.7	0	0	13.9	4.5	0	0	0	
Cars	978	0	0	513	1554	0	0	520	168	0	0	0	3733
% Cars	98.1	0	0	99.2	97.9	0	0	98.3	97.7	0	0	0	98.2
Heavy Vehicles	19	0	0	4	33	0	0	9	4	0	0	0	69
% Heavy Vehicles	1.9	0	0	0.8	2.1	0	0	1.7	2.3	0	0	0	1.8

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	128	0	0	128	66	211	0	277	0	65	14	79	0	0	0	0	484
04:30 PM	143	0	0	143	70	179	0	249	0	62	**30**	**92**	0	0	0	0	484
04:45 PM	**145**	0	0	**145**	65	193	0	258	0	**69**	19	88	0	0	0	0	**491**
05:00 PM	102	0	0	102	**75**	**217**	0	**292**	0	58	21	79	0	0	0	0	473
Total Volume	518	0	0	518	276	800	0	1076	0	254	84	338	0	0	0	0	1932
% App. Total	100	0	0		25.7	74.3	0		0	75.1	24.9		0	0	0		
PHF	.893	.000	.000	.893	.920	.922	.000	.921	.000	.920	.700	.918	.000	.000	.000	.000	.984
Cars	507	0	0	507	274	785	0	1059	0	249	84	333	0	0	0	0	1899
% Cars	97.9	0	0	97.9	99.3	98.1	0	98.4	0	98.0	100	98.5	0	0	0	0	98.3
Heavy Vehicles	11	0	0	11	2	15	0	17	0	5	0	5	0	0	0	0	33
% Heavy Vehicles	2.1	0	0	2.1	0.7	1.9	0	1.6	0	2.0	0	1.5	0	0	0	0	1.7

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Groups Printed- Cars

	Broadway (Route 138) From North			Main Street (Route 44/140) From East			Taunton Green (Route 44/138/140) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	116	0	0	67	164	0	0	63	23	0	0	0	433
04:15 PM	125	0	0	65	204	0	0	63	14	0	0	0	471
04:30 PM	139	0	0	70	178	0	0	62	30	0	0	0	479
04:45 PM	141	0	0	65	187	0	0	67	19	0	0	0	479
Total	521	0	0	267	733	0	0	255	86	0	0	0	1862
05:00 PM	102	0	0	74	216	0	0	57	21	0	0	0	470
05:15 PM	70	0	0	52	232	0	0	76	23	0	0	0	453
05:30 PM	138	0	0	65	196	0	0	63	13	0	0	0	475
05:45 PM	147	0	0	55	177	0	0	69	25	0	0	0	473
Total	457	0	0	246	821	0	0	265	82	0	0	0	1871
Grand Total	978	0	0	513	1554	0	0	520	168	0	0	0	3733
Apprch %	100	0	0	24.8	75.2	0	0	75.6	24.4	0	0	0	
Total %	26.2	0	0	13.7	41.6	0	0	13.9	4.5	0	0	0	

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	125	0	0	125	65	204	0	269	0	63	14	77	0	0	0	0	471
04:30 PM	139	0	0	139	70	178	0	248	0	62	**30**	**92**	0	0	0	0	**479**
04:45 PM	**141**	0	0	**141**	65	187	0	252	0	**67**	19	86	0	0	0	0	479
05:00 PM	102	0	0	102	**74**	**216**	0	**290**	0	57	21	78	0	0	0	0	470
Total Volume	507	0	0	507	274	785	0	1059	0	249	84	333	0	0	0	0	1899
% App. Total	100	0	0		25.9	74.1	0		0	74.8	25.2		0	0	0		
PHF	.899	.000	.000	.899	.926	.909	.000	.913	.000	.929	.700	.905	.000	.000	.000	.000	.991

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Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Main Street (Route 44/140) From East			Taunton Green (Route 44/138/140) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	7	0	0	1	4	0	0	1	2	0	0	0	15
04:15 PM	3	0	0	1	7	0	0	2	0	0	0	0	13
04:30 PM	4	0	0	0	1	0	0	0	0	0	0	0	5
04:45 PM	4	0	0	0	6	0	0	2	0	0	0	0	12
Total	18	0	0	2	18	0	0	5	2	0	0	0	45
05:00 PM	0	0	0	1	1	0	0	1	0	0	0	0	3
05:15 PM	0	0	0	0	7	0	0	0	1	0	0	0	8
05:30 PM	0	0	0	1	2	0	0	1	1	0	0	0	5
05:45 PM	1	0	0	0	5	0	0	2	0	0	0	0	8
Total	1	0	0	2	15	0	0	4	2	0	0	0	24
Grand Total	19	0	0	4	33	0	0	9	4	0	0	0	69
Apprch %	100	0	0	10.8	89.2	0	0	69.2	30.8	0	0	0	
Total %	27.5	0	0	5.8	47.8	0	0	13	5.8	0	0	0	

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**7**	0	0	**7**	**1**	4	0	5	0	1	**2**	**3**	0	0	0	0	**15**
04:15 PM	3	0	0	3	1	**7**	0	**8**	0	**2**	0	2	0	0	0	0	13
04:30 PM	4	0	0	4	0	1	0	1	0	0	0	0	0	0	0	0	5
04:45 PM	4	0	0	4	0	6	0	6	0	2	0	2	0	0	0	0	12
Total Volume	18	0	0	18	2	18	0	20	0	5	2	7	0	0	0	0	45
% App. Total	100	0	0		10	90	0		0	71.4	28.6		0	0	0		
PHF	.643	.000	.000	.643	.500	.643	.000	.625	.000	.625	.250	.583	.000	.000	.000	.000	.750

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Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	0	6
04:15 PM	0	0	0	9	0	0	0	0	0	0	0	2	0	0	0	6	17
04:30 PM	0	0	0	4	0	0	0	0	0	0	0	3	0	0	0	2	9
04:45 PM	0	0	0	7	0	0	0	0	0	0	0	5	0	0	0	4	16
Total	0	0	0	24	0	0	0	0	0	0	0	12	0	0	0	12	48
05:00 PM	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	2	11
05:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	5
05:30 PM	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	1	10
05:45 PM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	4	7
Total	0	0	0	23	0	0	0	0	0	0	0	1	0	0	0	9	33
Grand Total	0	0	0	47	0	0	0	0	0	0	0	13	0	0	0	21	81
Apprch %	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	100	
Total %	0	0	0	58	0	0	0	0	0	0	0	16	0	0	0	25.9	

	Broadway (Route 138) From North					Main Street (Route 44/140) From East					Taunton Green (Route 44/138/140) From South					Taunton Green (Route 44/138/140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	**9**	**9**	0	0	0	0	0	0	0	0	2	2	0	0	0	**6**	**6**	**17**
04:30 PM	0	0	0	4	4	0	0	0	0	0	0	0	0	3	3	0	0	0	2	2	9
04:45 PM	0	0	0	7	7	0	0	0	0	0	0	0	0	**5**	**5**	0	0	0	4	4	16
05:00 PM	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	11
Total Volume	0	0	0	29	29	0	0	0	0	0	0	0	0	10	10	0	0	0	14	14	53
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.806	.806	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.583	.583	.779

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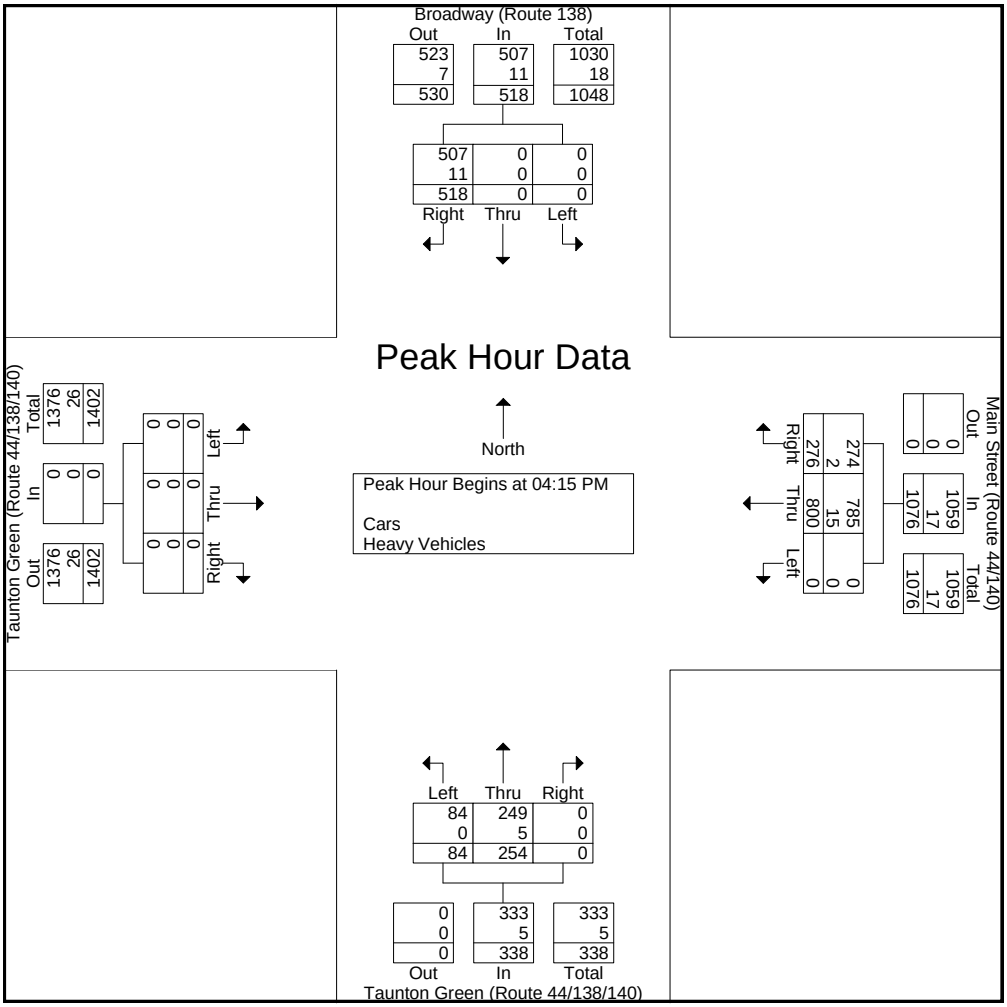
N/S: Broadway/Taunton Green
E/W: Main Street/Taunton Green
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-BBB
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

	Broadway (Route 138) From North				Main Street (Route 44/140) From East				Taunton Green (Route 44/138/140) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	128	0	0	128	66	211	0	277	0	65	14	79	0	0	0	0	484
04:30 PM	143	0	0	143	70	179	0	249	0	62	**30**	**92**	0	0	0	0	484
04:45 PM	**145**	0	0	**145**	65	193	0	258	0	**69**	19	88	0	0	0	0	**491**
05:00 PM	102	0	0	102	**75**	**217**	0	**292**	0	58	21	79	0	0	0	0	473
Total Volume	518	0	0	518	276	800	0	1076	0	254	84	338	0	0	0	0	1932
% App. Total	100	0	0		25.7	74.3	0		0	75.1	24.9		0	0	0		
PHF	.893	.000	.000	.893	.920	.922	.000	.921	.000	.920	.700	.918	.000	.000	.000	.000	.984
Cars	507	0	0	507	274	785	0	1059	0	249	84	333	0	0	0	0	1899
% Cars	97.9	0	0	97.9	99.3	98.1	0	98.4	0	98.0	100	98.5	0	0	0	0	98.3
Heavy Vehicles	11	0	0	11	2	15	0	17	0	5	0	5	0	0	0	0	33
% Heavy Vehicles	2.1	0	0	2.1	0.7	1.9	0	1.6	0	2.0	0	1.5	0	0	0	0	1.7



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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-C
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Court Street (Route 140) From North			Taunton Green From East			Taunton Green From South			Post Office Square From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	83	0	61	13	79	0	0	0	3	0	0	240
07:15 AM	0	75	0	86	8	145	0	0	0	2	0	0	316
07:30 AM	0	68	0	101	11	142	0	0	0	1	0	0	323
07:45 AM	1	67	0	108	16	153	0	0	0	2	0	0	347
Total	2	293	0	356	48	519	0	0	0	8	0	0	1226
08:00 AM	0	55	0	87	21	158	0	0	0	6	0	0	327
08:15 AM	0	67	0	93	11	141	0	0	0	4	0	0	316
08:30 AM	2	63	0	73	16	175	0	0	0	4	0	0	333
08:45 AM	4	68	0	79	21	176	0	0	0	5	0	0	353
Total	6	253	0	332	69	650	0	0	0	19	0	0	1329
Grand Total	8	546	0	688	117	1169	0	0	0	27	0	0	2555
Apprch %	1.4	98.6	0	34.9	5.9	59.2	0	0	0	100	0	0	
Total %	0.3	21.4	0	26.9	4.6	45.8	0	0	0	1.1	0	0	
Cars	8	522	0	637	116	1084	0	0	0	27	0	0	2394
% Cars	100	95.6	0	92.6	99.1	92.7	0	0	0	100	0	0	93.7
Heavy Vehicles	0	24	0	51	1	85	0	0	0	0	0	0	161
% Heavy Vehicles	0	4.4	0	7.4	0.9	7.3	0	0	0	0	0	0	6.3

	Court Street (Route 140) From North				Taunton Green From East				Taunton Green From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	55	0	55	87	**21**	158	266	0	0	0	0	**6**	0	0	**6**	327
08:15 AM	0	67	0	67	**93**	11	141	245	0	0	0	0	4	0	0	4	316
08:30 AM	2	63	0	65	73	16	175	264	0	0	0	0	4	0	0	4	333
08:45 AM	**4**	**68**	0	**72**	79	21	**176**	**276**	0	0	0	0	5	0	0	5	**353**
Total Volume	6	253	0	259	332	69	650	1051	0	0	0	0	19	0	0	19	1329
% App. Total	2.3	97.7	0		31.6	6.6	61.8		0	0	0		100	0	0		
PHF	.375	.930	.000	.899	.892	.821	.923	.952	.000	.000	.000	.000	.792	.000	.000	.792	.941
Cars	6	246	0	252	307	69	602	978	0	0	0	0	19	0	0	19	1249
% Cars	100	97.2	0	97.3	92.5	100	92.6	93.1	0	0	0	0	100	0	0	100	94.0
Heavy Vehicles	0	7	0	7	25	0	48	73	0	0	0	0	0	0	0	0	80
% Heavy Vehicles	0	2.8	0	2.7	7.5	0	7.4	6.9	0	0	0	0	0	0	0	0	6.0

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-C
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars

	Court Street (Route 140) From North			Taunton Green From East			Taunton Green From South			Post Office Square From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	80	0	58	13	72	0	0	0	3	0	0	227
07:15 AM	0	68	0	79	7	130	0	0	0	2	0	0	286
07:30 AM	0	64	0	92	11	133	0	0	0	1	0	0	301
07:45 AM	1	64	0	101	16	147	0	0	0	2	0	0	331
Total	2	276	0	330	47	482	0	0	0	8	0	0	1145
08:00 AM	0	54	0	81	21	145	0	0	0	6	0	0	307
08:15 AM	0	64	0	87	11	131	0	0	0	4	0	0	297
08:30 AM	2	62	0	65	16	163	0	0	0	4	0	0	312
08:45 AM	4	66	0	74	21	163	0	0	0	5	0	0	333
Total	6	246	0	307	69	602	0	0	0	19	0	0	1249
Grand Total	8	522	0	637	116	1084	0	0	0	27	0	0	2394
Apprch %	1.5	98.5	0	34.7	6.3	59	0	0	0	100	0	0	
Total %	0.3	21.8	0	26.6	4.8	45.3	0	0	0	1.1	0	0	

	Court Street (Route 140) From North				Taunton Green From East				Taunton Green From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	54	0	54	81	**21**	145	247	0	0	0	0	**6**	0	0	**6**	307
08:15 AM	0	64	0	64	**87**	11	131	229	0	0	0	0	4	0	0	4	297
08:30 AM	2	62	0	64	65	16	**163**	244	0	0	0	0	4	0	0	4	312
08:45 AM	**4**	**66**	0	**70**	74	21	163	**258**	0	0	0	0	5	0	0	5	**333**
Total Volume	6	246	0	252	307	69	602	978	0	0	0	0	19	0	0	19	1249
% App. Total	2.4	97.6	0		31.4	7.1	61.6		0	0	0		100	0	0		
PHF	.375	.932	.000	.900	.882	.821	.923	.948	.000	.000	.000	.000	.792	.000	.000	.792	.938

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-C
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Heavy Vehicles

	Court Street (Route 140) From North			Taunton Green From East			Taunton Green From South			Post Office Square From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	3	0	3	0	7	0	0	0	0	0	0	13
07:15 AM	0	7	0	7	1	15	0	0	0	0	0	0	30
07:30 AM	0	4	0	9	0	9	0	0	0	0	0	0	22
07:45 AM	0	3	0	7	0	6	0	0	0	0	0	0	16
Total	0	17	0	26	1	37	0	0	0	0	0	0	81
08:00 AM	0	1	0	6	0	13	0	0	0	0	0	0	20
08:15 AM	0	3	0	6	0	10	0	0	0	0	0	0	19
08:30 AM	0	1	0	8	0	12	0	0	0	0	0	0	21
08:45 AM	0	2	0	5	0	13	0	0	0	0	0	0	20
Total	0	7	0	25	0	48	0	0	0	0	0	0	80
Grand Total	0	24	0	51	1	85	0	0	0	0	0	0	161
Apprch %	0	100	0	37.2	0.7	62	0	0	0	0	0	0	
Total %	0	14.9	0	31.7	0.6	52.8	0	0	0	0	0	0	

	Court Street (Route 140) From North				Taunton Green From East				Taunton Green From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**7**	0	**7**	7	**1**	**15**	**23**	0	0	0	0	0	0	0	0	**30**
07:30 AM	0	4	0	4	**9**	0	9	18	0	0	0	0	0	0	0	0	22
07:45 AM	0	3	0	3	7	0	6	13	0	0	0	0	0	0	0	0	16
08:00 AM	0	1	0	1	6	0	13	19	0	0	0	0	0	0	0	0	20
Total Volume	0	15	0	15	29	1	43	73	0	0	0	0	0	0	0	0	88
% App. Total	0	100	0		39.7	1.4	58.9		0	0	0		0	0	0		
PHF	.000	.536	.000	.536	.806	.250	.717	.793	.000	.000	.000	.000	.000	.000	.000	.000	.733

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-C
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Court Street (Route 140) From North				Taunton Green From East				Taunton Green From South				Post Office Square From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	3
07:45 AM	0	0	2	1	0	0	0	0	0	0	0	0	0	0	1	0	4
Total	0	0	2	4	0	1	0	0	0	0	0	0	0	0	2	0	9
08:00 AM	0	0	6	0	0	0	0	0	0	0	0	1	0	0	0	1	8
08:15 AM	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1	9
08:30 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:45 AM	0	0	7	0	0	0	0	0	0	0	0	1	0	0	0	4	12
Total	0	0	25	0	0	0	0	0	0	0	0	2	0	0	0	7	34
Grand Total	0	0	27	4	0	1	0	0	0	0	0	2	0	0	2	7	43
Apprch %	0	0	87.1	12.9	0	100	0	0	0	0	0	100	0	0	22.2	77.8	
Total %	0	0	62.8	9.3	0	2.3	0	0	0	0	0	4.7	0	0	4.7	16.3	

	Court Street (Route 140) From North					Taunton Green From East					Taunton Green From South					Post Office Square From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	6	0	6	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	1	1	8
08:15 AM	0	0	**8**	**0**	**8**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9
08:30 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5
08:45 AM	0	0	7	0	7	0	0	0	0	0	0	0	0	1	1	0	0	0	**4**	**4**	**12**
Total Volume	0	0	25	0	25	0	0	0	0	0	0	0	0	2	2	0	0	0	7	7	34
% App. Total	0	0	100	0		0	0	0	0		0	0	0	100		0	0	0	100		
PHF	.000	.000	.781	.000	.781	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.438	.438	.708

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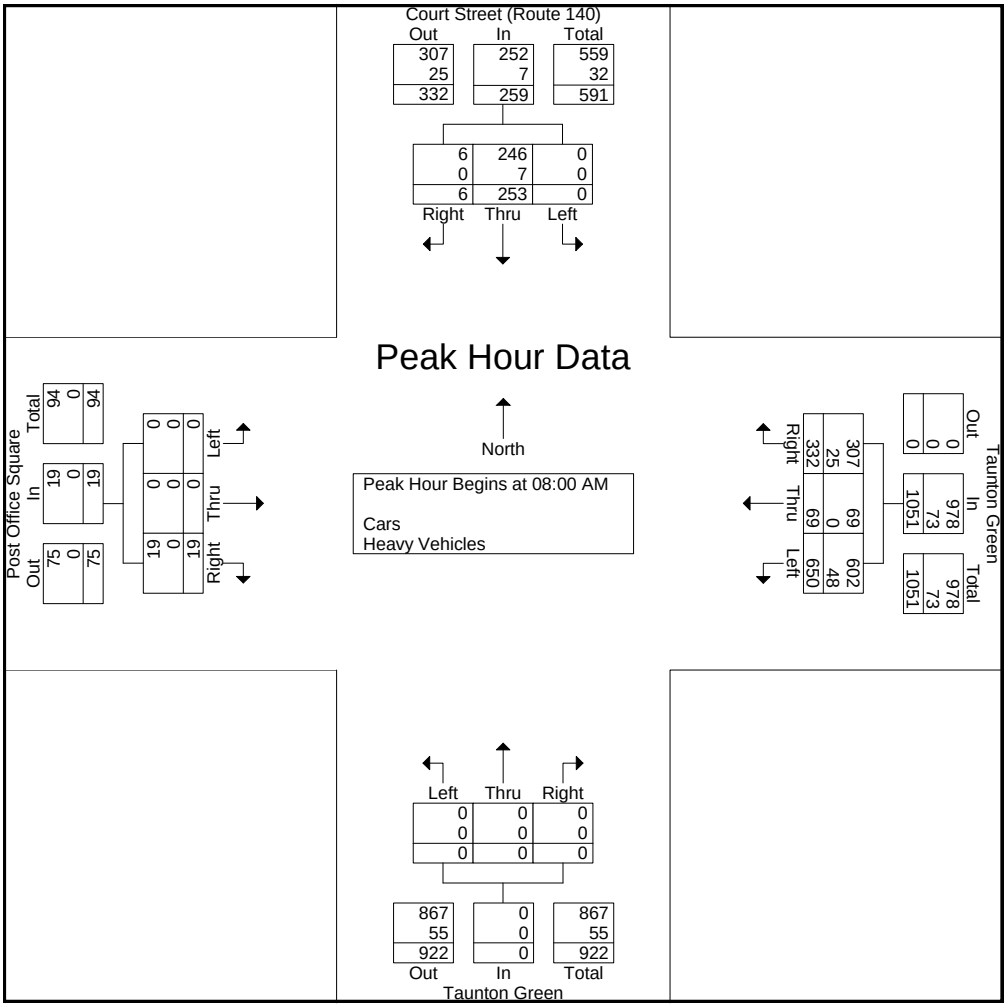
	Court Street (Route 140) From North				Taunton Green From East				Taunton Green From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	55	0	55	87	**21**	158	266	0	0	0	0	**6**	0	0	**6**	327
08:15 AM	0	67	0	67	**93**	11	141	245	0	0	0	0	4	0	0	4	316
08:30 AM	2	63	0	65	73	16	175	264	0	0	0	0	4	0	0	4	333
08:45 AM	**4**	**68**	0	**72**	79	21	**176**	**276**	0	0	0	0	5	0	0	5	**353**
Total Volume	6	253	0	259	332	69	650	1051	0	0	0	0	19	0	0	19	1329
% App. Total	2.3	97.7	0		31.6	6.6	61.8		0	0	0		100	0	0		
PHF	.375	.930	.000	.899	.892	.821	.923	.952	.000	.000	.000	.000	.792	.000	.000	.792	.941
Cars	6	246	0	252	307	69	602	978	0	0	0	0	19	0	0	19	1249
% Cars	100	97.2	0	97.3	92.5	100	92.6	93.1	0	0	0	0	100	0	0	100	94.0
Heavy Vehicles	0	7	0	7	25	0	48	73	0	0	0	0	0	0	0	0	80
% Heavy Vehicles	0	2.8	0	2.7	7.5	0	7.4	6.9	0	0	0	0	0	0	0	0	6.0



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Client: VHB/J. Quitter

File Name : 81676 H-CCC
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Cars - Heavy Vehicles

	Court Street (Route 140) From North			Taunton Green (Route 44/138/140) From East			Taunton Green (Route 44/138/140) From South			Post Office Square From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	4	81	0	85	44	225	0	0	0	12	0	0	451
04:15 PM	3	77	0	88	24	225	0	0	0	7	0	0	424
04:30 PM	6	80	0	72	34	210	0	0	0	4	0	0	406
04:45 PM	4	79	0	86	33	251	0	0	0	6	0	0	459
Total	17	317	0	331	135	911	0	0	0	29	0	0	1740
05:00 PM	7	88	1	102	30	215	0	0	0	7	0	0	450
05:15 PM	3	100	0	104	26	195	0	0	0	4	0	0	432
05:30 PM	3	83	0	77	37	243	0	0	0	4	0	0	447
05:45 PM	1	70	0	70	24	252	0	0	0	2	0	0	419
Total	14	341	1	353	117	905	0	0	0	17	0	0	1748
Grand Total	31	658	1	684	252	1816	0	0	0	46	0	0	3488
Apprch %	4.5	95.4	0.1	24.9	9.2	66	0	0	0	100	0	0	
Total %	0.9	18.9	0	19.6	7.2	52.1	0	0	0	1.3	0	0	
Cars	31	645	1	669	250	1779	0	0	0	46	0	0	3421
% Cars	100	98	100	97.8	99.2	98	0	0	0	100	0	0	98.1
Heavy Vehicles	0	13	0	15	2	37	0	0	0	0	0	0	67
% Heavy Vehicles	0	2	0	2.2	0.8	2	0	0	0	0	0	0	1.9

	Court Street (Route 140) From North				Taunton Green (Route 44/138/140) From East				Taunton Green (Route 44/138/140) From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	4	79	0	83	86	33	**251**	**370**	0	0	0	0	6	0	0	6	**459**
05:00 PM	**7**	88	**1**	96	102	30	215	347	0	0	0	0	**7**	0	0	**7**	450
05:15 PM	3	**100**	0	**103**	**104**	26	195	325	0	0	0	0	4	0	0	4	432
05:30 PM	3	83	0	86	77	**37**	243	357	0	0	0	0	4	0	0	4	447
Total Volume	17	350	1	368	369	126	904	1399	0	0	0	0	21	0	0	21	1788
% App. Total	4.6	95.1	0.3		26.4	9	64.6		0	0	0		100	0	0		
PHF	.607	.875	.250	.893	.887	.851	.900	.945	.000	.000	.000	.000	.750	.000	.000	.750	.974
Cars	17	343	1	361	361	125	893	1379	0	0	0	0	21	0	0	21	1761
% Cars	100	98.0	100	98.1	97.8	99.2	98.8	98.6	0	0	0	0	100	0	0	100	98.5
Heavy Vehicles	0	7	0	7	8	1	11	20	0	0	0	0	0	0	0	0	27
% Heavy Vehicles	0	2.0	0	1.9	2.2	0.8	1.2	1.4	0	0	0	0	0	0	0	0	1.5

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E/W: Taunton Green/Post Office Square
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-CCC
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Groups Printed- Cars

	Court Street (Route 140) From North			Taunton Green (Route 44/138/140) From East			Taunton Green (Route 44/138/140) From South			Post Office Square From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	4	80	0	83	44	216	0	0	0	12	0	0	439
04:15 PM	3	75	0	85	23	219	0	0	0	7	0	0	412
04:30 PM	6	79	0	71	34	203	0	0	0	4	0	0	397
04:45 PM	4	77	0	85	33	244	0	0	0	6	0	0	449
Total	17	311	0	324	134	882	0	0	0	29	0	0	1697
05:00 PM	7	87	1	100	30	214	0	0	0	7	0	0	446
05:15 PM	3	98	0	101	26	192	0	0	0	4	0	0	424
05:30 PM	3	81	0	75	36	243	0	0	0	4	0	0	442
05:45 PM	1	68	0	69	24	248	0	0	0	2	0	0	412
Total	14	334	1	345	116	897	0	0	0	17	0	0	1724
Grand Total	31	645	1	669	250	1779	0	0	0	46	0	0	3421
Apprch %	4.6	95.3	0.1	24.8	9.3	65.9	0	0	0	100	0	0	
Total %	0.9	18.9	0	19.6	7.3	52	0	0	0	1.3	0	0	

	Court Street (Route 140) From North				Taunton Green (Route 44/138/140) From East				Taunton Green (Route 44/138/140) From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	4	77	0	81	85	33	**244**	**362**	0	0	0	0	6	0	0	6	**449**
05:00 PM	**7**	87	**1**	95	100	30	214	344	0	0	0	0	**7**	0	0	**7**	446
05:15 PM	3	**98**	0	**101**	**101**	26	192	319	0	0	0	0	4	0	0	4	424
05:30 PM	3	81	0	84	75	**36**	243	354	0	0	0	0	4	0	0	4	442
Total Volume	17	343	1	361	361	125	893	1379	0	0	0	0	21	0	0	21	1761
% App. Total	4.7	95	0.3		26.2	9.1	64.8		0	0	0		100	0	0		
PHF	.607	.875	.250	.894	.894	.868	.915	.952	.000	.000	.000	.000	.750	.000	.000	.750	.981

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Groups Printed- Heavy Vehicles

	Court Street (Route 140) From North			Taunton Green (Route 44/138/140) From East			Taunton Green (Route 44/138/140) From South			Post Office Square From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	0	2	0	9	0	0	0	0	0	0	12
04:15 PM	0	2	0	3	1	6	0	0	0	0	0	0	12
04:30 PM	0	1	0	1	0	7	0	0	0	0	0	0	9
04:45 PM	0	2	0	1	0	7	0	0	0	0	0	0	10
Total	0	6	0	7	1	29	0	0	0	0	0	0	43
05:00 PM	0	1	0	2	0	1	0	0	0	0	0	0	4
05:15 PM	0	2	0	3	0	3	0	0	0	0	0	0	8
05:30 PM	0	2	0	2	1	0	0	0	0	0	0	0	5
05:45 PM	0	2	0	1	0	4	0	0	0	0	0	0	7
Total	0	7	0	8	1	8	0	0	0	0	0	0	24
Grand Total	0	13	0	15	2	37	0	0	0	0	0	0	67
Apprch %	0	100	0	27.8	3.7	68.5	0	0	0	0	0	0	
Total %	0	19.4	0	22.4	3	55.2	0	0	0	0	0	0	

	Court Street (Route 140) From North				Taunton Green (Route 44/138/140) From East				Taunton Green (Route 44/138/140) From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	0	1	2	0	**9**	**11**	0	0	0	0	0	0	0	0	**12**
04:15 PM	0	**2**	0	**2**	**3**	**1**	6	10	0	0	0	0	0	0	0	0	12
04:30 PM	0	1	0	1	1	0	7	8	0	0	0	0	0	0	0	0	9
04:45 PM	0	2	0	2	1	0	7	8	0	0	0	0	0	0	0	0	10
Total Volume	0	6	0	6	7	1	29	37	0	0	0	0	0	0	0	0	43
% App. Total	0	100	0		18.9	2.7	78.4		0	0	0		0	0	0		
PHF	.000	.750	.000	.750	.583	.250	.806	.841	.000	.000	.000	.000	.000	.000	.000	.000	.896

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Groups Printed- Peds and Bicycles

	Court Street (Route 140) From North				Taunton Green (Route 44/138/140) From East				Taunton Green (Route 44/138/140) From South				Post Office Square From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	2	8
04:15 PM	0	0	0	11	0	1	0	0	0	0	0	0	1	0	0	10	23
04:30 PM	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	6	14
04:45 PM	0	0	0	8	0	0	0	0	0	0	0	4	0	0	1	10	23
Total	0	0	0	33	0	1	0	0	0	0	0	4	1	0	1	28	68
05:00 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	4
05:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3
05:30 PM	0	0	0	12	1	0	0	0	0	0	0	0	0	0	0	0	13
05:45 PM	0	0	0	1	2	0	0	1	0	0	0	0	0	0	0	1	5
Total	0	0	0	16	3	0	0	1	0	0	0	2	0	0	0	3	25
Grand Total	0	0	0	49	3	1	0	1	0	0	0	6	1	0	1	31	93
Apprch %	0	0	0	100	60	20	0	20	0	0	0	100	3	0	3	93.9	
Total %	0	0	0	52.7	3.2	1.1	0	1.1	0	0	0	6.5	1.1	0	1.1	33.3	

	Court Street (Route 140) From North					Taunton Green (Route 44/138/140) From East					Taunton Green (Route 44/138/140) From South					Post Office Square From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	8
04:15 PM	0	0	0	**11**	**11**	0	**1**	**0**	**0**	**1**	0	0	0	0	0	**1**	**0**	**0**	**10**	**11**	**23**
04:30 PM	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	14
04:45 PM	0	0	0	8	8	0	0	0	0	0	0	0	0	**4**	**4**	0	0	**1**	**10**	**11**	**23**
Total Volume	0	0	0	33	33	0	1	0	0	1	0	0	0	4	4	1	0	1	28	30	68
% App. Total	0	0	0	100		0	100	0	0		0	0	0	100		3.3	0	3.3	93.3		
PHF	.000	.000	.000	.750	.750	.000	.250	.000	.000	.250	.000	.000	.000	.250	.250	.250	.000	.250	.700	.682	.739

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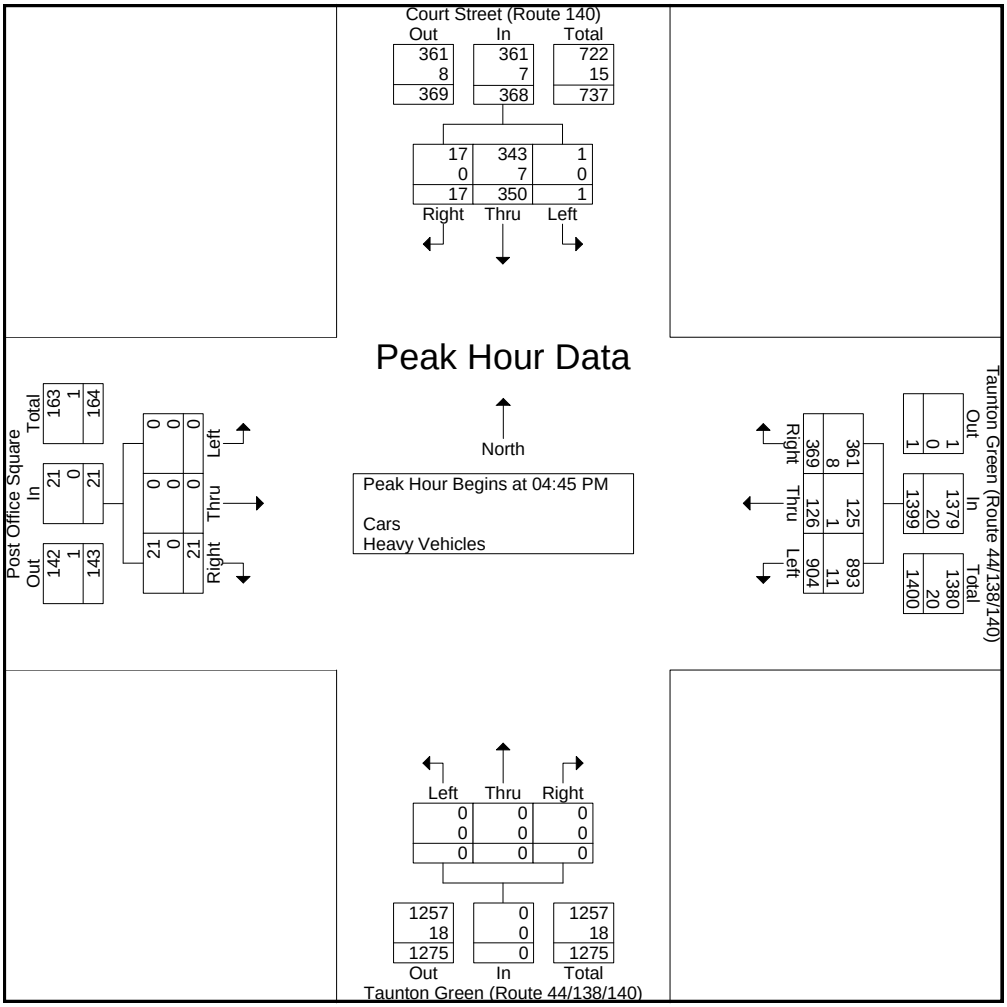
	Court Street (Route 140) From North				Taunton Green (Route 44/138/140) From East				Taunton Green (Route 44/138/140) From South				Post Office Square From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	4	79	0	83	86	33	**251**	**370**	0	0	0	0	6	0	0	6	**459**
05:00 PM	**7**	88	**1**	96	102	30	215	347	0	0	0	0	**7**	0	0	**7**	450
05:15 PM	3	**100**	0	**103**	**104**	26	195	325	0	0	0	0	4	0	0	4	432
05:30 PM	3	83	0	86	77	**37**	243	357	0	0	0	0	4	0	0	4	447
Total Volume	17	350	1	368	369	126	904	1399	0	0	0	0	21	0	0	21	1788
% App. Total	4.6	95.1	0.3		26.4	9	64.6		0	0	0		100	0	0		
PHF	.607	.875	.250	.893	.887	.851	.900	.945	.000	.000	.000	.000	.750	.000	.000	.750	.974
Cars	17	343	1	361	361	125	893	1379	0	0	0	0	21	0	0	21	1761
% Cars	100	98.0	100	98.1	97.8	99.2	98.8	98.6	0	0	0	0	100	0	0	100	98.5
Heavy Vehicles	0	7	0	7	8	1	11	20	0	0	0	0	0	0	0	0	27
% Heavy Vehicles	0	2.0	0	1.9	2.2	0.8	1.2	1.4	0	0	0	0	0	0	0	0	1.5



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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-D
Site Code : 10111.31
Start Date : 10/1/2008

Groups Printed- Cars - Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Taunton Green (Route 44/138/140) From East			Winthrop Street (Route 44) From South			Cohannet Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	11	35	124	0	0	0	88	0	0	3	31	0	292
07:15 AM	24	54	157	0	0	0	104	0	1	3	32	0	375
07:30 AM	21	42	157	0	0	0	111	0	0	3	34	0	368
07:45 AM	17	53	144	0	0	0	126	0	0	1	33	0	374
Total	73	184	582	0	0	0	429	0	1	10	130	0	1409
08:00 AM	22	72	109	0	0	0	69	6	2	1	30	0	311
08:15 AM	23	58	136	0	0	0	90	12	3	4	34	0	360
08:30 AM	31	57	154	0	0	0	108	0	2	5	49	0	406
08:45 AM	36	62	157	0	0	0	113	4	0	6	43	0	421
Total	112	249	556	0	0	0	380	22	7	16	156	0	1498
Grand Total	185	433	1138	0	0	0	809	22	8	26	286	0	2907
Apprch %	10.5	24.7	64.8	0	0	0	96.4	2.6	1	8.3	91.7	0	
Total %	6.4	14.9	39.1	0	0	0	27.8	0.8	0.3	0.9	9.8	0	
Cars	179	383	1081	0	0	0	757	22	7	25	266	0	2720
% Cars	96.8	88.5	95	0	0	0	93.6	100	87.5	96.2	93	0	93.6
Heavy Vehicles	6	50	57	0	0	0	52	0	1	1	20	0	187
% Heavy Vehicles	3.2	11.5	5	0	0	0	6.4	0	12.5	3.8	7	0	6.4

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	22	**72**	109	203	0	0	0	0	69	6	2	77	1	30	0	31	311
08:15 AM	23	58	136	217	0	0	0	0	90	**12**	**3**	105	4	34	0	38	360
08:30 AM	31	57	154	242	0	0	0	0	108	0	2	110	5	**49**	0	**54**	406
08:45 AM	**36**	62	**157**	**255**	0	0	0	0	**113**	4	0	**117**	**6**	43	0	49	**421**
Total Volume	112	249	556	917	0	0	0	0	380	22	7	409	16	156	0	172	1498
% App. Total	12.2	27.2	60.6		0	0	0		92.9	5.4	1.7		9.3	90.7	0		
PHF	.778	.865	.885	.899	.000	.000	.000	.000	.841	.458	.583	.874	.667	.796	.000	.796	.890
Cars	110	219	532	861	0	0	0	0	353	22	7	382	15	147	0	162	1405
% Cars	98.2	88.0	95.7	93.9	0	0	0	0	92.9	100	100	93.4	93.8	94.2	0	94.2	93.8
Heavy Vehicles	2	30	24	56	0	0	0	0	27	0	0	27	1	9	0	10	93
% Heavy Vehicles	1.8	12.0	4.3	6.1	0	0	0	0	7.1	0	0	6.6	6.3	5.8	0	5.8	6.2

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Client: VHB/J. Quitter

File Name : 81676 H-D
Site Code : 10111.31
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Groups Printed- Cars

	Taunton Green (Route 44/138/140) From North			Taunton Green (Route 44/138/140) From East			Winthrop Street (Route 44) From South			Cohannet Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	11	30	119	0	0	0	84	0	0	3	29	0	276
07:15 AM	22	48	142	0	0	0	96	0	0	3	30	0	341
07:30 AM	19	38	149	0	0	0	105	0	0	3	27	0	341
07:45 AM	17	48	139	0	0	0	119	0	0	1	33	0	357
Total	69	164	549	0	0	0	404	0	0	10	119	0	1315
08:00 AM	21	63	105	0	0	0	63	6	2	1	28	0	289
08:15 AM	23	53	125	0	0	0	88	12	3	4	33	0	341
08:30 AM	30	48	151	0	0	0	96	0	2	5	45	0	377
08:45 AM	36	55	151	0	0	0	106	4	0	5	41	0	398
Total	110	219	532	0	0	0	353	22	7	15	147	0	1405
Grand Total	179	383	1081	0	0	0	757	22	7	25	266	0	2720
Apprch %	10.9	23.3	65.8	0	0	0	96.3	2.8	0.9	8.6	91.4	0	
Total %	6.6	14.1	39.7	0	0	0	27.8	0.8	0.3	0.9	9.8	0	

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	21	**63**	105	189	0	0	0	0	63	6	2	71	1	28	0	29	289
08:15 AM	23	53	125	201	0	0	0	0	88	**12**	**3**	103	4	33	0	37	341
08:30 AM	30	48	**151**	229	0	0	0	0	96	0	2	98	**5**	**45**	0	**50**	377
08:45 AM	**36**	55	151	**242**	0	0	0	0	**106**	4	0	**110**	5	41	0	46	**398**
Total Volume	110	219	532	861	0	0	0	0	353	22	7	382	15	147	0	162	1405
% App. Total	12.8	25.4	61.8		0	0	0		92.4	5.8	1.8		9.3	90.7	0		
PHF	.764	.869	.881	.889	.000	.000	.000	.000	.833	.458	.583	.868	.750	.817	.000	.810	.883

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File Name : 81676 H-D
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Groups Printed- Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Taunton Green (Route 44/138/140) From East			Winthrop Street (Route 44) From South			Cohannet Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	5	5	0	0	0	4	0	0	0	2	0	16
07:15 AM	2	6	15	0	0	0	8	0	1	0	2	0	34
07:30 AM	2	4	8	0	0	0	6	0	0	0	7	0	27
07:45 AM	0	5	5	0	0	0	7	0	0	0	0	0	17
Total	4	20	33	0	0	0	25	0	1	0	11	0	94
08:00 AM	1	9	4	0	0	0	6	0	0	0	2	0	22
08:15 AM	0	5	11	0	0	0	2	0	0	0	1	0	19
08:30 AM	1	9	3	0	0	0	12	0	0	0	4	0	29
08:45 AM	0	7	6	0	0	0	7	0	0	1	2	0	23
Total	2	30	24	0	0	0	27	0	0	1	9	0	93
Grand Total	6	50	57	0	0	0	52	0	1	1	20	0	187
Apprch %	5.3	44.2	50.4	0	0	0	98.1	0	1.9	4.8	95.2	0	
Total %	3.2	26.7	30.5	0	0	0	27.8	0	0.5	0.5	10.7	0	

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**2**	6	**15**	**23**	0	0	0	0	**8**	0	**1**	**9**	0	2	0	2	**34**
07:30 AM	2	4	8	14	0	0	0	0	6	0	0	6	0	**7**	0	**7**	27
07:45 AM	0	5	5	10	0	0	0	0	7	0	0	7	0	0	0	0	17
08:00 AM	1	**9**	4	14	0	0	0	0	6	0	0	6	0	2	0	2	22
Total Volume	5	24	32	61	0	0	0	0	27	0	1	28	0	11	0	11	100
% App. Total	8.2	39.3	52.5		0	0	0		96.4	0	3.6		0	100	0		
PHF	.625	.667	.533	.663	.000	.000	.000	.000	.844	.000	.250	.778	.000	.393	.000	.393	.735

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E/W: Taunton Green/Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-D
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Peds and Bicycles

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:30 AM	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	4
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	0	4
Total	0	0	0	4	0	1	0	0	0	0	0	6	0	2	0	0	13
08:00 AM	0	0	0	6	0	0	0	0	0	0	0	4	0	0	0	1	11
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5
08:30 AM	0	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	6
08:45 AM	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	1	6
Total	0	0	0	10	0	0	0	0	0	0	0	16	0	0	0	2	28
Grand Total	0	0	0	14	0	1	0	0	0	0	0	22	0	2	0	2	41
Apprch %	0	0	0	100	0	100	0	0	0	0	0	100	0	50	0	50	
Total %	0	0	0	34.1	0	2.4	0	0	0	0	0	53.7	0	4.9	0	4.9	

	Taunton Green (Route 44/138/140) From North					Taunton Green (Route 44/138/140) From East					Winthrop Street (Route 44) From South					Cohannet Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	**6**	**6**	0	0	0	0	0	0	0	0	4	4	0	0	0	**1**	**1**	**11**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**	**5**	0	0	0	0	0	5
08:30 AM	0	0	0	2	2	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	6
08:45 AM	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	0	0	0	1	1	6
Total Volume	0	0	0	10	10	0	0	0	0	0	0	0	0	16	16	0	0	0	2	2	28
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.417	.417	.000	.000	.000	.000	.000	.000	.000	.000	.800	.800	.000	.000	.000	.500	.500	.636

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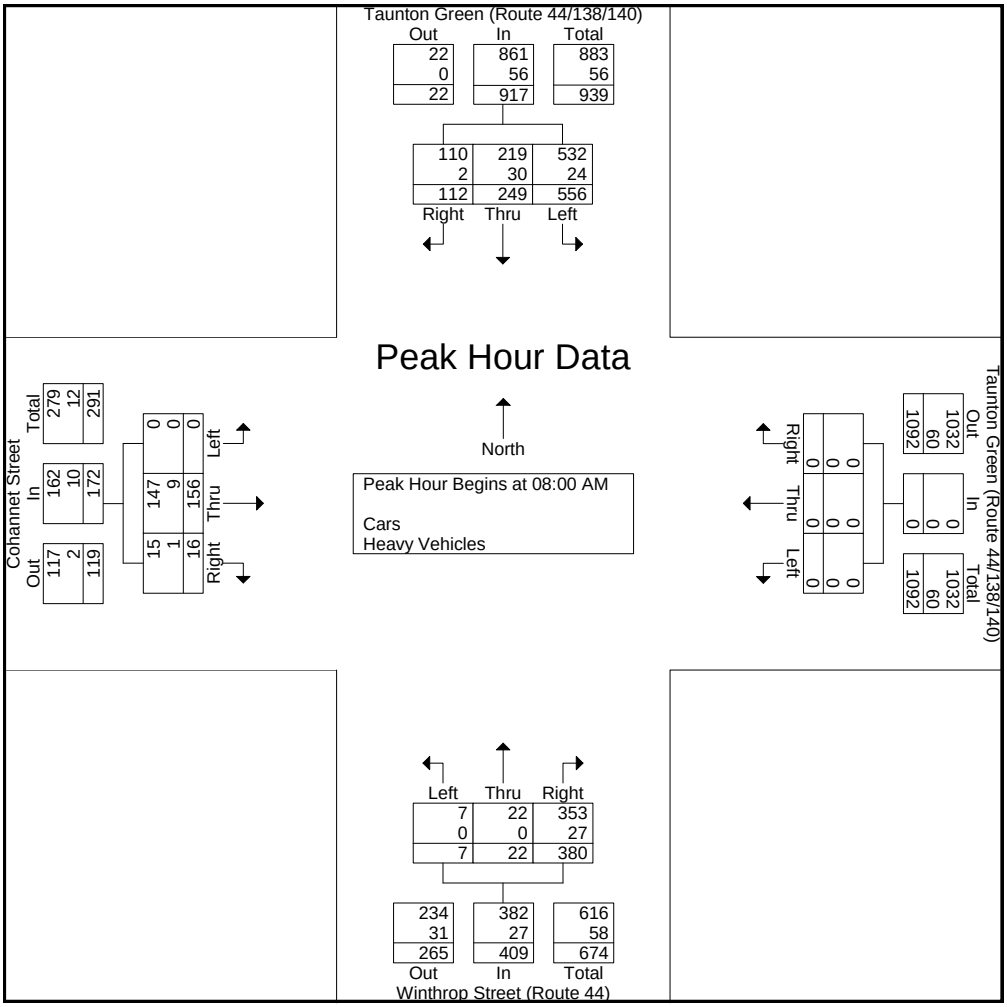
	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	22	**72**	109	203	0	0	0	0	69	6	2	77	1	30	0	31	311
08:15 AM	23	58	136	217	0	0	0	0	90	**12**	**3**	105	4	34	0	38	360
08:30 AM	31	57	154	242	0	0	0	0	108	0	2	110	5	**49**	0	**54**	406
08:45 AM	**36**	62	**157**	**255**	0	0	0	0	**113**	4	0	**117**	**6**	43	0	49	**421**
Total Volume	112	249	556	917	0	0	0	0	380	22	7	409	16	156	0	172	1498
% App. Total	12.2	27.2	60.6		0	0	0		92.9	5.4	1.7		9.3	90.7	0		
PHF	.778	.865	.885	.899	.000	.000	.000	.000	.841	.458	.583	.874	.667	.796	.000	.796	.890
Cars	110	219	532	861	0	0	0	0	353	22	7	382	15	147	0	162	1405
% Cars	98.2	88.0	95.7	93.9	0	0	0	0	92.9	100	100	93.4	93.8	94.2	0	94.2	93.8
Heavy Vehicles	2	30	24	56	0	0	0	0	27	0	0	27	1	9	0	10	93
% Heavy Vehicles	1.8	12.0	4.3	6.1	0	0	0	0	7.1	0	0	6.6	6.3	5.8	0	5.8	6.2



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File Name : 81676 H-DDD
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Cars - Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Taunton Green (Route 44/138/140) From East			Winthrop Street (Route 44) From South			Cohannet Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	31	125	177	0	0	0	96	0	1	4	62	0	496
04:15 PM	19	108	186	0	0	0	100	0	1	6	58	0	478
04:30 PM	17	100	183	0	0	0	103	0	0	7	67	0	477
04:45 PM	33	111	193	0	0	0	101	0	2	11	59	0	510
Total	100	444	739	0	0	0	400	0	4	28	246	0	1961
05:00 PM	25	113	177	0	0	0	97	0	3	9	68	0	492
05:15 PM	26	102	191	0	0	0	98	0	1	4	55	0	477
05:30 PM	24	107	191	0	0	0	87	0	0	9	49	0	467
05:45 PM	12	134	182	0	0	0	77	0	0	5	43	0	453
Total	87	456	741	0	0	0	359	0	4	27	215	0	1889
Grand Total	187	900	1480	0	0	0	759	0	8	55	461	0	3850
Apprch %	7.3	35.1	57.7	0	0	0	99	0	1	10.7	89.3	0	
Total %	4.9	23.4	38.4	0	0	0	19.7	0	0.2	1.4	12	0	
Cars	185	869	1453	0	0	0	737	0	8	54	443	0	3749
% Cars	98.9	96.6	98.2	0	0	0	97.1	0	100	98.2	96.1	0	97.4
Heavy Vehicles	2	31	27	0	0	0	22	0	0	1	18	0	101
% Heavy Vehicles	1.1	3.4	1.8	0	0	0	2.9	0	0	1.8	3.9	0	2.6

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	31	**125**	177	333	0	0	0	0	96	0	1	97	4	62	0	66	496
04:15 PM	19	108	186	313	0	0	0	0	100	0	1	101	6	58	0	64	478
04:30 PM	17	100	183	300	0	0	0	0	**103**	0	0	**103**	7	**67**	0	**74**	477
04:45 PM	**33**	111	**193**	**337**	0	0	0	0	101	0	**2**	103	**11**	59	0	70	**510**
Total Volume	100	444	739	1283	0	0	0	0	400	0	4	404	28	246	0	274	1961
% App. Total	7.8	34.6	57.6		0	0	0		99	0	1		10.2	89.8	0		
PHF	.758	.888	.957	.952	.000	.000	.000	.000	.971	.000	.500	.981	.636	.918	.000	.926	.961
Cars	98	420	725	1243	0	0	0	0	387	0	4	391	27	238	0	265	1899
% Cars	98.0	94.6	98.1	96.9	0	0	0	0	96.8	0	100	96.8	96.4	96.7	0	96.7	96.8
Heavy Vehicles	2	24	14	40	0	0	0	0	13	0	0	13	1	8	0	9	62
% Heavy Vehicles	2.0	5.4	1.9	3.1	0	0	0	0	3.3	0	0	3.2	3.6	3.3	0	3.3	3.2

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Site Code : 10111.31
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Groups Printed- Cars

	Taunton Green (Route 44/138/140) From North			Taunton Green (Route 44/138/140) From East			Winthrop Street (Route 44) From South			Cohannet Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	31	117	174	0	0	0	92	0	1	4	60	0	479
04:15 PM	19	102	182	0	0	0	98	0	1	6	56	0	464
04:30 PM	17	95	179	0	0	0	99	0	0	7	66	0	463
04:45 PM	31	106	190	0	0	0	98	0	2	10	56	0	493
Total	98	420	725	0	0	0	387	0	4	27	238	0	1899
05:00 PM	25	111	175	0	0	0	94	0	3	9	64	0	481
05:15 PM	26	99	188	0	0	0	96	0	1	4	53	0	467
05:30 PM	24	107	189	0	0	0	84	0	0	9	47	0	460
05:45 PM	12	132	176	0	0	0	76	0	0	5	41	0	442
Total	87	449	728	0	0	0	350	0	4	27	205	0	1850
Grand Total	185	869	1453	0	0	0	737	0	8	54	443	0	3749
Apprch %	7.4	34.7	58	0	0	0	98.9	0	1.1	10.9	89.1	0	
Total %	4.9	23.2	38.8	0	0	0	19.7	0	0.2	1.4	11.8	0	

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	17	95	179	291	0	0	0	0	**99**	0	0	99	7	**66**	0	**73**	463
04:45 PM	**31**	106	**190**	**327**	0	0	0	0	98	0	2	**100**	**10**	56	0	66	**493**
05:00 PM	25	**111**	175	311	0	0	0	0	94	0	**3**	97	9	64	0	73	481
05:15 PM	26	99	188	313	0	0	0	0	96	0	1	97	4	53	0	57	467
Total Volume	99	411	732	1242	0	0	0	0	387	0	6	393	30	239	0	269	1904
% App. Total	8	33.1	58.9		0	0	0		98.5	0	1.5		11.2	88.8	0		
PHF	.798	.926	.963	.950	.000	.000	.000	.000	.977	.000	.500	.983	.750	.905	.000	.921	.966

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Groups Printed- Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Taunton Green (Route 44/138/140) From East			Winthrop Street (Route 44) From South			Cohannet Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	8	3	0	0	0	4	0	0	0	2	0	17
04:15 PM	0	6	4	0	0	0	2	0	0	0	2	0	14
04:30 PM	0	5	4	0	0	0	4	0	0	0	1	0	14
04:45 PM	2	5	3	0	0	0	3	0	0	1	3	0	17
Total	2	24	14	0	0	0	13	0	0	1	8	0	62
05:00 PM	0	2	2	0	0	0	3	0	0	0	4	0	11
05:15 PM	0	3	3	0	0	0	2	0	0	0	2	0	10
05:30 PM	0	0	2	0	0	0	3	0	0	0	2	0	7
05:45 PM	0	2	6	0	0	0	1	0	0	0	2	0	11
Total	0	7	13	0	0	0	9	0	0	0	10	0	39
Grand Total	2	31	27	0	0	0	22	0	0	1	18	0	101
Apprch %	3.3	51.7	45	0	0	0	100	0	0	5.3	94.7	0	
Total %	2	30.7	26.7	0	0	0	21.8	0	0	1	17.8	0	

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**8**	3	**11**	0	0	0	0	**4**	0	0	**4**	0	2	0	2	**17**
04:15 PM	0	6	**4**	10	0	0	0	0	2	0	0	2	0	2	0	2	14
04:30 PM	0	5	4	9	0	0	0	0	4	0	0	4	0	1	0	1	14
04:45 PM	**2**	5	3	10	0	0	0	0	3	0	0	3	**1**	**3**	0	**4**	17
Total Volume	2	24	14	40	0	0	0	0	13	0	0	13	1	8	0	9	62
% App. Total	5	60	35		0	0	0		100	0	0		11.1	88.9	0		
PHF	.250	.750	.875	.909	.000	.000	.000	.000	.813	.000	.000	.813	.250	.667	.000	.563	.912

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Groups Printed- Peds and Bicycles

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	4	0	0	0	1	1	0	0	11	0	1	0	3	22
04:15 PM	0	0	1	2	0	0	1	3	2	0	0	5	1	0	0	9	24
04:30 PM	1	0	0	2	0	0	1	0	0	0	1	5	0	0	0	6	16
04:45 PM	0	1	0	1	0	1	0	0	1	0	1	1	0	0	0	3	9
Total	1	2	1	9	0	1	2	4	4	0	2	22	1	1	0	21	71
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	6	0	0	0	3	10
05:15 PM	0	0	0	0	0	0	0	2	2	0	0	5	0	1	0	6	16
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	1	4
05:45 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	3	7
Total	0	0	0	1	0	0	0	3	3	0	0	15	0	2	0	13	37
Grand Total	1	2	1	10	0	1	2	7	7	0	2	37	1	3	0	34	108
Apprch %	7.1	14.3	7.1	71.4	0	10	20	70	15.2	0	4.3	80.4	2.6	7.9	0	89.5	
Total %	0.9	1.9	0.9	9.3	0	0.9	1.9	6.5	6.5	0	1.9	34.3	0.9	2.8	0	31.5	

	Taunton Green (Route 44/138/140) From North					Taunton Green (Route 44/138/140) From East					Winthrop Street (Route 44) From South					Cohannet Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**1**	0	**4**	**5**	0	0	0	1	1	1	0	0	**11**	**12**	0	**1**	0	3	4	22
04:15 PM	0	0	**1**	**2**	**3**	**0**	**0**	**1**	**3**	**4**	**2**	**0**	**0**	**5**	**7**	**1**	**0**	**0**	**9**	**10**	**24**
04:30 PM	**1**	**0**	**0**	**2**	**3**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	5	6	0	0	0	6	6	16
04:45 PM	0	1	0	1	2	0	**1**	**0**	**0**	**1**	**1**	**0**	**1**	**1**	**3**	**0**	**0**	**0**	**3**	**3**	**9**
Total Volume	1	2	1	9	13	0	1	2	4	7	4	0	2	22	28	1	1	0	21	23	71
% App. Total	7.7	15.4	7.7	69.2		0	14.3	28.6	57.1		14.3	0	7.1	78.6		4.3	4.3	0	91.3		
PHF	.250	.500	.250	.563	.650	.000	.250	.500	.333	.438	.500	.000	.500	.500	.583	.250	.250	.000	.583	.575	.740

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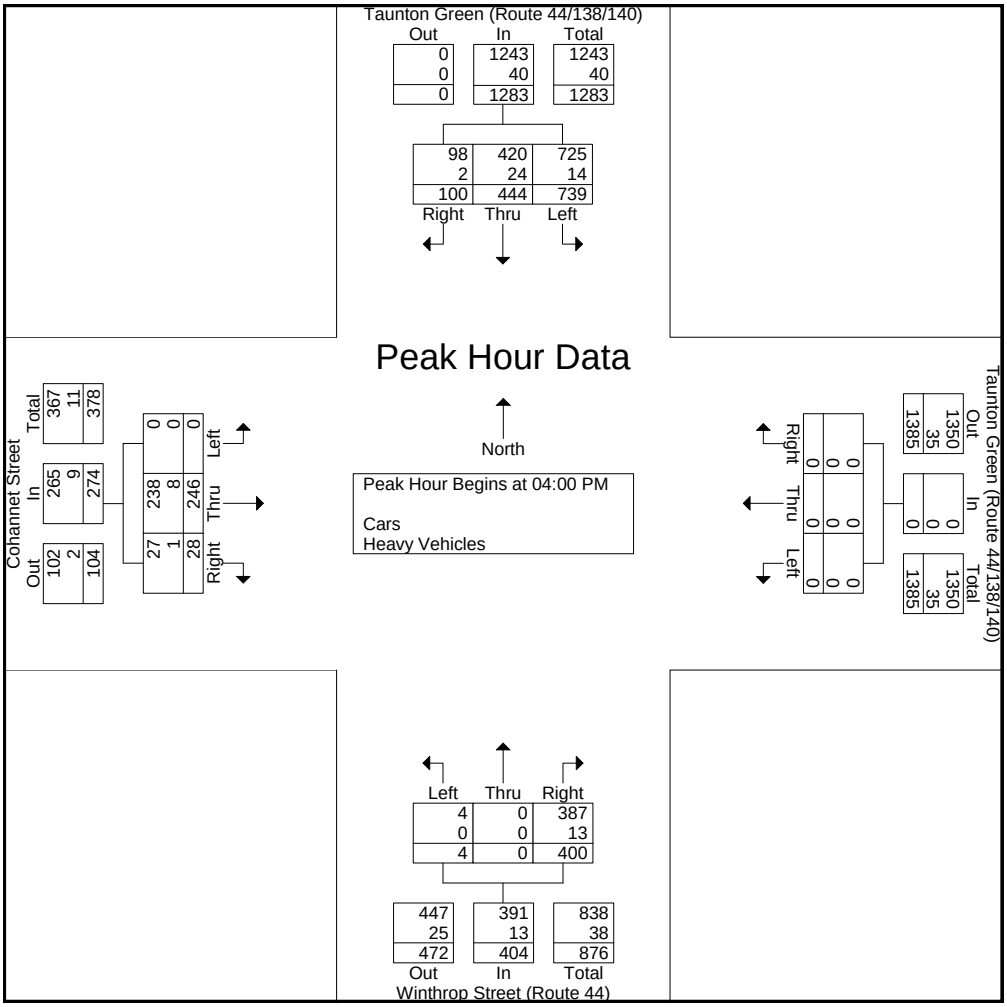
N/S: Taunton Green/Winthrop Street
E/W: Taunton Green/Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-DDD
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

	Taunton Green (Route 44/138/140) From North				Taunton Green (Route 44/138/140) From East				Winthrop Street (Route 44) From South				Cohannet Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	31	**125**	177	333	0	0	0	0	96	0	1	97	4	62	0	66	496
04:15 PM	19	108	186	313	0	0	0	0	100	0	1	101	6	58	0	64	478
04:30 PM	17	100	183	300	0	0	0	0	**103**	0	0	**103**	7	**67**	0	**74**	477
04:45 PM	**33**	111	**193**	**337**	0	0	0	0	101	0	**2**	103	**11**	59	0	70	**510**
Total Volume	100	444	739	1283	0	0	0	0	400	0	4	404	28	246	0	274	1961
% App. Total	7.8	34.6	57.6		0	0	0		99	0	1		10.2	89.8	0		
PHF	.758	.888	.957	.952	.000	.000	.000	.000	.971	.000	.500	.981	.636	.918	.000	.926	.961
Cars	98	420	725	1243	0	0	0	0	387	0	4	391	27	238	0	265	1899
% Cars	98.0	94.6	98.1	96.9	0	0	0	0	96.8	0	100	96.8	96.4	96.7	0	96.7	96.8
Heavy Vehicles	2	24	14	40	0	0	0	0	13	0	0	13	1	8	0	9	62
% Heavy Vehicles	2.0	5.4	1.9	3.1	0	0	0	0	3.3	0	0	3.2	3.6	3.3	0	3.3	3.2



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N/S: Apartment Drive/Court St (Rte 140)
E/W: Washington Street/Route 140
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-E
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Apartment Driveway From North			Washington Street From East			Court Street (Route 140) From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	68	5	5	3	68	86	115	0	350
07:15 AM	0	0	0	0	72	9	10	1	78	74	170	0	414
07:30 AM	0	0	0	0	118	8	6	0	89	69	162	0	452
07:45 AM	0	0	0	0	87	6	1	0	103	63	131	0	391
Total	0	0	0	0	345	28	22	4	338	292	578	0	1607
08:00 AM	0	0	0	0	115	11	2	0	74	53	126	2	383
08:15 AM	0	0	0	0	83	6	4	0	81	56	116	1	347
08:30 AM	0	0	0	0	101	9	10	0	59	69	118	0	366
08:45 AM	0	0	0	0	99	11	3	0	68	64	123	0	368
Total	0	0	0	0	398	37	19	0	282	242	483	3	1464
Grand Total	0	0	0	0	743	65	41	4	620	534	1061	3	3071
Apprch %	0	0	0	0	92	8	6.2	0.6	93.2	33.4	66.4	0.2	
Total %	0	0	0	0	24.2	2.1	1.3	0.1	20.2	17.4	34.5	0.1	
Cars	0	0	0	0	705	63	39	4	567	513	1027	3	2921
% Cars	0	0	0	0	94.9	96.9	95.1	100	91.5	96.1	96.8	100	95.1
Heavy Vehicles	0	0	0	0	38	2	2	0	53	21	34	0	150
% Heavy Vehicles	0	0	0	0	5.1	3.1	4.9	0	8.5	3.9	3.2	0	4.9

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	72	9	81	**10**	**1**	78	89	**74**	**170**	0	**244**	414
07:30 AM	0	0	0	0	0	**118**	8	**126**	6	0	89	95	69	162	0	231	**452**
07:45 AM	0	0	0	0	0	87	6	93	1	0	**103**	**104**	63	131	0	194	391
08:00 AM	0	0	0	0	0	115	**11**	126	2	0	74	76	53	126	**2**	181	383
Total Volume	0	0	0	0	0	392	34	426	19	1	344	364	259	589	2	850	1640
% App. Total	0	0	0		0	92	8		5.2	0.3	94.5		30.5	69.3	0.2		
PHF	.000	.000	.000	.000	.000	.831	.773	.845	.475	.250	.835	.875	.875	.866	.250	.871	.907
Cars	0	0	0	0	0	379	34	413	19	1	314	334	249	574	2	825	1572
% Cars	0	0	0	0	0	96.7	100	96.9	100	100	91.3	91.8	96.1	97.5	100	97.1	95.9
Heavy Vehicles	0	0	0	0	0	13	0	13	0	0	30	30	10	15	0	25	68
% Heavy Vehicles	0	0	0	0	0	3.3	0	3.1	0	0	8.7	8.2	3.9	2.5	0	2.9	4.1

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E/W: Washington Street/Route 140
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-E
Site Code : 10111.31
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Page No : 1

Groups Printed- Cars

	Apartment Driveway From North			Washington Street From East			Court Street (Route 140) From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	64	5	4	3	66	83	110	0	335
07:15 AM	0	0	0	0	70	9	10	1	67	69	165	0	391
07:30 AM	0	0	0	0	115	8	6	0	83	66	159	0	437
07:45 AM	0	0	0	0	84	6	1	0	96	62	129	0	378
Total	0	0	0	0	333	28	21	4	312	280	563	0	1541
08:00 AM	0	0	0	0	110	11	2	0	68	52	121	2	366
08:15 AM	0	0	0	0	79	5	3	0	76	54	108	1	326
08:30 AM	0	0	0	0	96	9	10	0	50	67	115	0	347
08:45 AM	0	0	0	0	87	10	3	0	61	60	120	0	341
Total	0	0	0	0	372	35	18	0	255	233	464	3	1380
Grand Total	0	0	0	0	705	63	39	4	567	513	1027	3	2921
Apprch %	0	0	0	0	91.8	8.2	6.4	0.7	93	33.2	66.6	0.2	
Total %	0	0	0	0	24.1	2.2	1.3	0.1	19.4	17.6	35.2	0.1	

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	70	9	79	**10**	**1**	67	78	**69**	**165**	0	**234**	391
07:30 AM	0	0	0	0	0	**115**	8	**123**	6	0	83	89	66	159	0	225	**437**
07:45 AM	0	0	0	0	0	84	6	90	1	0	**96**	**97**	62	129	0	191	378
08:00 AM	0	0	0	0	0	110	**11**	121	2	0	68	70	52	121	**2**	175	366
Total Volume	0	0	0	0	0	379	34	413	19	1	314	334	249	574	2	825	1572
% App. Total	0	0	0		0	91.8	8.2		5.7	0.3	94		30.2	69.6	0.2		
PHF	.000	.000	.000	.000	.000	.824	.773	.839	.475	.250	.818	.861	.902	.870	.250	.881	.899

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E/W: Washington Street/Route 140
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-E
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Apartment Driveway From North			Washington Street From East			Court Street (Route 140) From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	4	0	1	0	2	3	5	0	15
07:15 AM	0	0	0	0	2	0	0	0	11	5	5	0	23
07:30 AM	0	0	0	0	3	0	0	0	6	3	3	0	15
07:45 AM	0	0	0	0	3	0	0	0	7	1	2	0	13
Total	0	0	0	0	12	0	1	0	26	12	15	0	66
08:00 AM	0	0	0	0	5	0	0	0	6	1	5	0	17
08:15 AM	0	0	0	0	4	1	1	0	5	2	8	0	21
08:30 AM	0	0	0	0	5	0	0	0	9	2	3	0	19
08:45 AM	0	0	0	0	12	1	0	0	7	4	3	0	27
Total	0	0	0	0	26	2	1	0	27	9	19	0	84
Grand Total	0	0	0	0	38	2	2	0	53	21	34	0	150
Apprch %	0	0	0	0	95	5	3.6	0	96.4	38.2	61.8	0	
Total %	0	0	0	0	25.3	1.3	1.3	0	35.3	14	22.7	0	

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	5	0	5	0	0	6	6	1	5	0	6	17
08:15 AM	0	0	0	0	0	4	**1**	5	**1**	0	5	6	2	**8**	0	**10**	21
08:30 AM	0	0	0	0	0	5	0	5	0	0	**9**	**9**	2	3	0	5	19
08:45 AM	0	0	0	0	0	**12**	1	**13**	0	0	7	7	**4**	3	0	7	**27**
Total Volume	0	0	0	0	0	26	2	28	1	0	27	28	9	19	0	28	84
% App. Total	0	0	0		0	92.9	7.1		3.6	0	96.4		32.1	67.9	0		
PHF	.000	.000	.000	.000	.000	.542	.500	.538	.250	.000	.750	.778	.563	.594	.000	.700	.778

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Client: VHB/J. Quitter

File Name : 81676 H-E
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
07:30 AM	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	5
07:45 AM	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	10	0	1	0	0	0	0	1	3	0	0	0	0	15
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	3
08:15 AM	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	2	7
08:30 AM	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	0	6
08:45 AM	0	0	0	11	0	0	0	2	0	0	0	1	1	0	0	5	20
Total	0	0	0	19	0	0	0	2	0	0	0	5	2	1	0	7	36
Grand Total	0	0	0	29	0	1	0	2	0	0	1	8	2	1	0	7	51
Apprch %	0	0	0	100	0	33.3	0	66.7	0	0	11.1	88.9	20	10	0	70	
Total %	0	0	0	56.9	0	2	0	3.9	0	0	2	15.7	3.9	2	0	13.7	

	Apartment Driveway From North					Washington Street From East					Court Street (Route 140) From South					Washington Street (Route 140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	2	3
08:15 AM	0	0	0	3	3	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	2	2	7
08:30 AM	0	0	0	4	4	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	6
08:45 AM	0	0	0	**11**	**11**	0	0	0	**2**	**2**	0	0	0	1	1	1	0	0	**5**	**6**	**20**
Total Volume	0	0	0	19	19	0	0	0	2	2	0	0	0	5	5	2	1	0	7	10	36
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		20	10	0	70		
PHF	.000	.000	.000	.432	.432	.000	.000	.000	.250	.250	.000	.000	.000	.625	.625	.500	.250	.000	.350	.417	.450

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File Name : 81676 H-E
Site Code : 10111.31
Start Date : 10/1/2008
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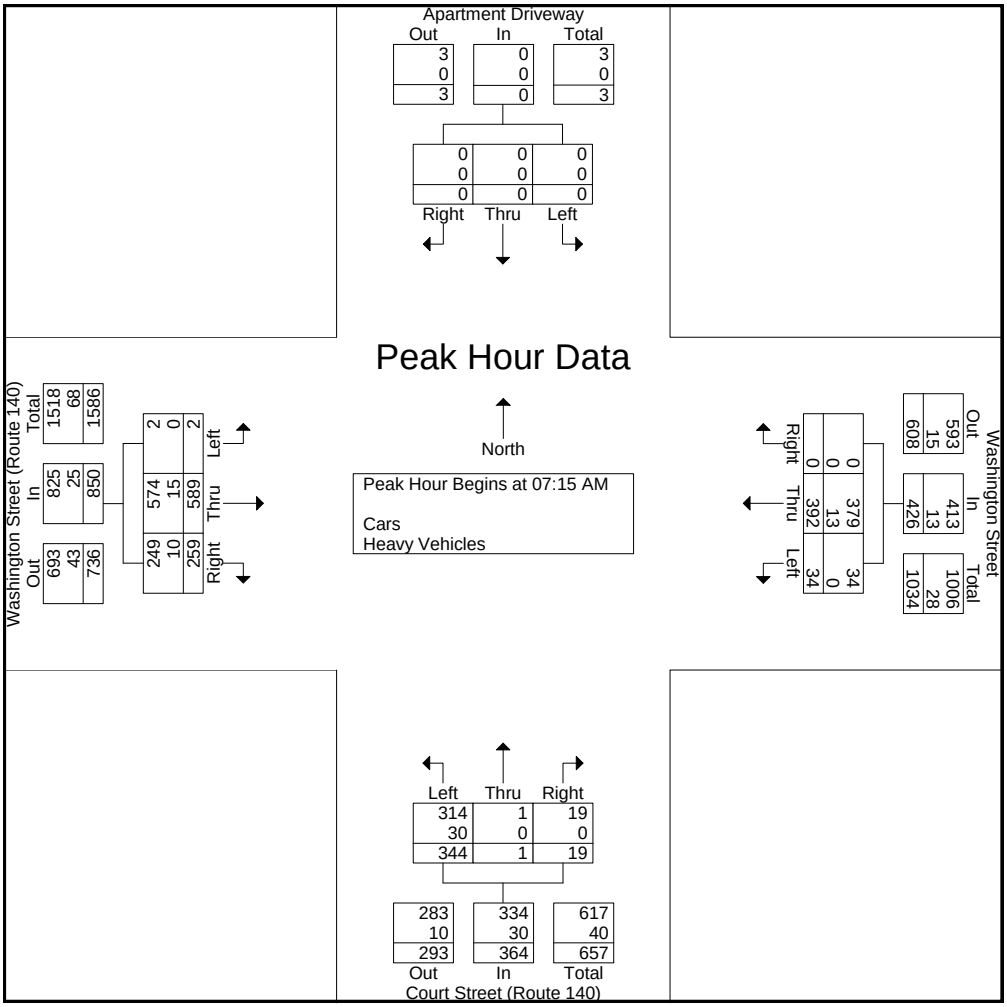
	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	72	9	81	**10**	**1**	78	89	**74**	**170**	0	**244**	414
07:30 AM	0	0	0	0	0	**118**	8	**126**	6	0	89	95	69	162	0	231	**452**
07:45 AM	0	0	0	0	0	87	6	93	1	0	**103**	**104**	63	131	0	194	391
08:00 AM	0	0	0	0	0	115	**11**	126	2	0	74	76	53	126	**2**	181	383
Total Volume	0	0	0	0	0	392	34	426	19	1	344	364	259	589	2	850	1640
% App. Total	0	0	0		0	92	8		5.2	0.3	94.5		30.5	69.3	0.2		
PHF	.000	.000	.000	.000	.000	.831	.773	.845	.475	.250	.835	.875	.875	.866	.250	.871	.907
Cars	0	0	0	0	0	379	34	413	19	1	314	334	249	574	2	825	1572
% Cars	0	0	0	0	0	96.7	100	96.9	100	100	91.3	91.8	96.1	97.5	100	97.1	95.9
Heavy Vehicles	0	0	0	0	0	13	0	13	0	0	30	30	10	15	0	25	68
% Heavy Vehicles	0	0	0	0	0	3.3	0	3.1	0	0	8.7	8.2	3.9	2.5	0	2.9	4.1



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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-EEE
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Apartment Driveway From North			Washington Street From East			Court Street (Route 140) From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	182	8	1	0	95	57	134	0	477
04:15 PM	0	0	0	0	177	7	8	0	102	53	156	0	503
04:30 PM	0	0	0	0	167	15	4	0	109	53	106	0	454
04:45 PM	0	0	0	0	148	15	3	0	92	70	131	0	459
Total	0	0	0	0	674	45	16	0	398	233	527	0	1893
05:00 PM	0	0	0	0	156	13	3	0	112	53	149	0	486
05:15 PM	0	0	0	0	171	18	5	0	103	48	106	0	451
05:30 PM	0	0	0	0	162	8	1	0	104	57	124	0	456
05:45 PM	0	0	0	0	155	11	1	0	86	60	105	0	418
Total	0	0	0	0	644	50	10	0	405	218	484	0	1811
Grand Total	0	0	0	0	1318	95	26	0	803	451	1011	0	3704
Apprch %	0	0	0	0	93.3	6.7	3.1	0	96.9	30.8	69.2	0	
Total %	0	0	0	0	35.6	2.6	0.7	0	21.7	12.2	27.3	0	
Cars	0	0	0	0	1298	91	26	0	778	441	996	0	3630
% Cars	0	0	0	0	98.5	95.8	100	0	96.9	97.8	98.5	0	98
Heavy Vehicles	0	0	0	0	20	4	0	0	25	10	15	0	74
% Heavy Vehicles	0	0	0	0	1.5	4.2	0	0	3.1	2.2	1.5	0	2

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**177**	7	**184**	**8**	0	102	110	53	**156**	0	**209**	**503**
04:30 PM	0	0	0	0	0	167	**15**	182	4	0	109	113	53	106	0	159	454
04:45 PM	0	0	0	0	0	148	15	163	3	0	92	95	**70**	131	0	201	459
05:00 PM	0	0	0	0	0	156	13	169	3	0	**112**	**115**	53	149	0	202	486
Total Volume	0	0	0	0	0	648	50	698	18	0	415	433	229	542	0	771	1902
% App. Total	0	0	0		0	92.8	7.2		4.2	0	95.8		29.7	70.3	0		
PHF	.000	.000	.000	.000	.000	.915	.833	.948	.563	.000	.926	.941	.818	.869	.000	.922	.945
Cars	0	0	0	0	0	639	46	685	18	0	404	422	225	535	0	760	1867
% Cars	0	0	0	0	0	98.6	92.0	98.1	100	0	97.3	97.5	98.3	98.7	0	98.6	98.2
Heavy Vehicles	0	0	0	0	0	9	4	13	0	0	11	11	4	7	0	11	35
% Heavy Vehicles	0	0	0	0	0	1.4	8.0	1.9	0	0	2.7	2.5	1.7	1.3	0	1.4	1.8

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N/S: Apartment Dr/Court Street (Rte 140)
E/W: Washington Street/Route 140
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-EEE
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Cars

	Apartment Driveway From North			Washington Street From East			Court Street (Route 140) From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	179	8	1	0	89	57	131	0	465
04:15 PM	0	0	0	0	174	7	8	0	97	52	154	0	492
04:30 PM	0	0	0	0	164	12	4	0	108	53	105	0	446
04:45 PM	0	0	0	0	145	14	3	0	89	68	129	0	448
Total	0	0	0	0	662	41	16	0	383	230	519	0	1851
05:00 PM	0	0	0	0	156	13	3	0	110	52	147	0	481
05:15 PM	0	0	0	0	170	18	5	0	99	46	105	0	443
05:30 PM	0	0	0	0	158	8	1	0	102	55	122	0	446
05:45 PM	0	0	0	0	152	11	1	0	84	58	103	0	409
Total	0	0	0	0	636	50	10	0	395	211	477	0	1779
Grand Total	0	0	0	0	1298	91	26	0	778	441	996	0	3630
Apprch %	0	0	0	0	93.4	6.6	3.2	0	96.8	30.7	69.3	0	
Total %	0	0	0	0	35.8	2.5	0.7	0	21.4	12.1	27.4	0	

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**174**	7	**181**	**8**	0	97	105	52	**154**	0	**206**	**492**
04:30 PM	0	0	0	0	0	164	12	176	4	0	108	112	53	105	0	158	446
04:45 PM	0	0	0	0	0	145	**14**	159	3	0	89	92	**68**	129	0	197	448
05:00 PM	0	0	0	0	0	156	13	169	3	0	**110**	**113**	52	147	0	199	481
Total Volume	0	0	0	0	0	639	46	685	18	0	404	422	225	535	0	760	1867
% App. Total	0	0	0		0	93.3	6.7		4.3	0	95.7		29.6	70.4	0		
PHF	.000	.000	.000	.000	.000	.918	.821	.946	.563	.000	.918	.934	.827	.869	.000	.922	.949

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-EEE
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Apartment Driveway From North			Washington Street From East			Court Street (Route 140) From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	3	0	0	0	6	0	3	0	12
04:15 PM	0	0	0	0	3	0	0	0	5	1	2	0	11
04:30 PM	0	0	0	0	3	3	0	0	1	0	1	0	8
04:45 PM	0	0	0	0	3	1	0	0	3	2	2	0	11
Total	0	0	0	0	12	4	0	0	15	3	8	0	42
05:00 PM	0	0	0	0	0	0	0	0	2	1	2	0	5
05:15 PM	0	0	0	0	1	0	0	0	4	2	1	0	8
05:30 PM	0	0	0	0	4	0	0	0	2	2	2	0	10
05:45 PM	0	0	0	0	3	0	0	0	2	2	2	0	9
Total	0	0	0	0	8	0	0	0	10	7	7	0	32
Grand Total	0	0	0	0	20	4	0	0	25	10	15	0	74
Apprch %	0	0	0	0	83.3	16.7	0	0	100	40	60	0	
Total %	0	0	0	0	27	5.4	0	0	33.8	13.5	20.3	0	

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**3**	0	3	0	0	**6**	**6**	0	**3**	0	3	**12**
04:15 PM	0	0	0	0	0	3	0	3	0	0	5	5	1	2	0	3	11
04:30 PM	0	0	0	0	0	3	**3**	**6**	0	0	1	1	0	1	0	1	8
04:45 PM	0	0	0	0	0	3	1	4	0	0	3	3	**2**	2	0	**4**	11
Total Volume	0	0	0	0	0	12	4	16	0	0	15	15	3	8	0	11	42
% App. Total	0	0	0		0	75	25		0	0	100		27.3	72.7	0		
PHF	.000	.000	.000	.000	.000	1.000	.333	.667	.000	.000	.625	.625	.375	.667	.000	.688	.875

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File Name : 81676 H-EEE
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Peds and Bicycles

	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	2	6
04:15 PM	0	0	0	6	0	1	0	0	0	0	0	1	0	2	0	1	11
04:30 PM	0	0	0	9	0	2	0	0	0	0	0	0	0	0	0	0	11
04:45 PM	0	0	0	9	0	1	0	0	0	0	0	2	1	1	0	2	16
Total	0	0	0	28	0	4	0	0	0	0	0	3	1	3	0	5	44
05:00 PM	0	0	0	6	0	0	0	0	0	0	0	2	0	0	0	4	12
05:15 PM	0	0	0	13	0	1	0	0	0	0	0	0	0	0	0	2	16
05:30 PM	0	0	0	9	0	0	0	0	0	0	0	0	0	1	0	1	11
05:45 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	5
Total	0	0	0	31	0	1	0	0	0	0	0	2	0	2	0	8	44
Grand Total	0	0	0	59	0	5	0	0	0	0	0	5	1	5	0	13	88
Apprch %	0	0	0	100	0	100	0	0	0	0	0	100	5.3	26.3	0	68.4	
Total %	0	0	0	67	0	5.7	0	0	0	0	0	5.7	1.1	5.7	0	14.8	

	Apartment Driveway From North					Washington Street From East					Court Street (Route 140) From South					Washington Street (Route 140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	9	9	0	**2**	**0**	**0**	**2**	0	0	0	0	0	0	0	0	0	0	11
04:45 PM	0	0	0	9	9	0	1	0	0	1	0	0	0	**2**	**2**	**1**	**1**	0	2	**4**	**16**
05:00 PM	0	0	0	6	6	0	0	0	0	0	0	0	0	2	2	0	0	0	**4**	**4**	**12**
05:15 PM	**0**	**0**	**0**	**13**	**13**	0	1	0	0	1	0	0	0	0	0	0	0	0	2	2	16
Total Volume	0	0	0	37	37	0	4	0	0	4	0	0	0	4	4	1	1	0	8	10	55
% App. Total	0	0	0	100		0	100	0	0		0	0	0	100		10	10	0	80		
PHF	.000	.000	.000	.712	.712	.000	.500	.000	.000	.500	.000	.000	.000	.500	.500	.250	.250	.000	.500	.625	.859

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-EEE
Site Code : 10111.31
Start Date : 10/1/2008
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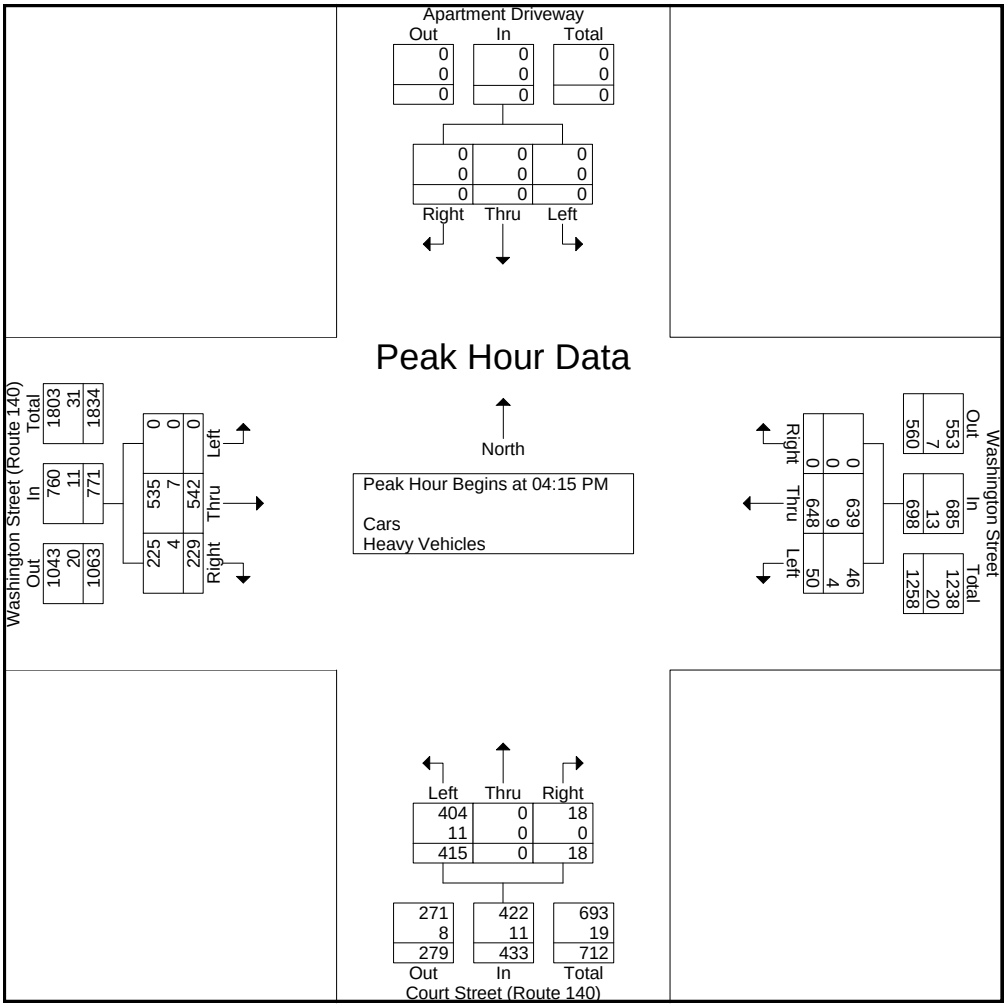
	Apartment Driveway From North				Washington Street From East				Court Street (Route 140) From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**177**	7	**184**	**8**	0	102	110	53	**156**	0	**209**	**503**
04:30 PM	0	0	0	0	0	167	**15**	182	4	0	109	113	53	106	0	159	454
04:45 PM	0	0	0	0	0	148	15	163	3	0	92	95	**70**	131	0	201	459
05:00 PM	0	0	0	0	0	156	13	169	3	0	**112**	**115**	53	149	0	202	486
Total Volume	0	0	0	0	0	648	50	698	18	0	415	433	229	542	0	771	1902
% App. Total	0	0	0		0	92.8	7.2		4.2	0	95.8		29.7	70.3	0		
PHF	.000	.000	.000	.000	.000	.915	.833	.948	.563	.000	.926	.941	.818	.869	.000	.922	.945
Cars	0	0	0	0	0	639	46	685	18	0	404	422	225	535	0	760	1867
% Cars	0	0	0	0	0	98.6	92.0	98.1	100	0	97.3	97.5	98.3	98.7	0	98.6	98.2
Heavy Vehicles	0	0	0	0	0	9	4	13	0	0	11	11	4	7	0	11	35
% Heavy Vehicles	0	0	0	0	0	1.4	8.0	1.9	0	0	2.7	2.5	1.7	1.3	0	1.4	1.8



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E/W: Washington St (Rte 140)/Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-F
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Tremont Street (Route 140) From North			Washington Street (Route 140) From East			Plaza Driveway From South			Oak Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	7	35	108	64	37	4	13	26	6	8	90	14	412
07:15 AM	12	33	117	76	36	10	13	28	6	18	97	24	470
07:30 AM	10	44	104	100	56	6	13	31	12	12	101	16	505
07:45 AM	11	31	107	96	63	8	17	30	7	11	93	17	491
Total	40	143	436	336	192	28	56	115	31	49	381	71	1878
08:00 AM	17	40	102	80	77	5	8	31	12	13	72	22	479
08:15 AM	18	37	101	69	48	9	18	20	4	23	87	14	448
08:30 AM	13	34	108	43	47	17	12	33	5	21	77	18	428
08:45 AM	5	45	87	95	45	11	9	27	5	22	83	15	449
Total	53	156	398	287	217	42	47	111	26	79	319	69	1804
Grand Total	93	299	834	623	409	70	103	226	57	128	700	140	3682
Apprch %	7.6	24.4	68	56.5	37.1	6.4	26.7	58.5	14.8	13.2	72.3	14.5	
Total %	2.5	8.1	22.7	16.9	11.1	1.9	2.8	6.1	1.5	3.5	19	3.8	
Cars	83	289	794	571	379	68	96	223	52	125	672	128	3480
% Cars	89.2	96.7	95.2	91.7	92.7	97.1	93.2	98.7	91.2	97.7	96	91.4	94.5
Heavy Vehicles	10	10	40	52	30	2	7	3	5	3	28	12	202
% Heavy Vehicles	10.8	3.3	4.8	8.3	7.3	2.9	6.8	1.3	8.8	2.3	4	8.6	5.5

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	12	33	**117**	**162**	76	36	**10**	122	13	28	6	47	**18**	97	**24**	**139**	470
07:30 AM	10	**44**	104	158	**100**	56	6	162	13	**31**	**12**	**56**	12	**101**	16	129	**505**
07:45 AM	11	31	107	149	96	63	8	**167**	**17**	30	7	54	11	93	17	121	491
08:00 AM	**17**	40	102	159	80	**77**	5	162	8	31	12	51	13	72	22	107	479
Total Volume	50	148	430	628	352	232	29	613	51	120	37	208	54	363	79	496	1945
% App. Total	8	23.6	68.5		57.4	37.8	4.7		24.5	57.7	17.8		10.9	73.2	15.9		
PHF	.735	.841	.919	.969	.880	.753	.725	.918	.750	.968	.771	.929	.750	.899	.823	.892	.963
Cars	45	142	412	599	325	217	28	570	46	119	34	199	51	348	73	472	1840
% Cars	90.0	95.9	95.8	95.4	92.3	93.5	96.6	93.0	90.2	99.2	91.9	95.7	94.4	95.9	92.4	95.2	94.6
Heavy Vehicles	5	6	18	29	27	15	1	43	5	1	3	9	3	15	6	24	105
% Heavy Vehicles	10.0	4.1	4.2	4.6	7.7	6.5	3.4	7.0	9.8	0.8	8.1	4.3	5.6	4.1	7.6	4.8	5.4

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Client: VHB/J. Quitter

File Name : 81676 H-F
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Cars

	Tremont Street (Route 140) From North			Washington Street (Route 140) From East			Plaza Driveway From South			Oak Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	4	34	104	63	34	4	12	24	5	8	85	14	391
07:15 AM	11	32	110	70	32	10	12	28	5	17	92	21	440
07:30 AM	10	43	97	93	54	5	11	31	12	11	98	15	480
07:45 AM	11	27	105	88	60	8	17	30	5	10	91	16	468
Total	36	136	416	314	180	27	52	113	27	46	366	66	1779
08:00 AM	13	40	100	74	71	5	6	30	12	13	67	21	452
08:15 AM	16	37	95	63	45	9	17	20	3	23	84	12	424
08:30 AM	13	31	105	37	43	17	12	33	5	21	75	15	407
08:45 AM	5	45	78	83	40	10	9	27	5	22	80	14	418
Total	47	153	378	257	199	41	44	110	25	79	306	62	1701
Grand Total	83	289	794	571	379	68	96	223	52	125	672	128	3480
Apprch %	7.1	24.8	68.1	56.1	37.2	6.7	25.9	60.1	14	13.5	72.6	13.8	
Total %	2.4	8.3	22.8	16.4	10.9	2	2.8	6.4	1.5	3.6	19.3	3.7	

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	11	32	**110**	**153**	70	32	**10**	112	12	28	5	45	**17**	92	**21**	**130**	440
07:30 AM	10	**43**	97	150	**93**	54	5	152	11	**31**	**12**	**54**	11	**98**	15	124	**480**
07:45 AM	11	27	105	143	88	60	8	**156**	**17**	30	5	52	10	91	16	117	468
08:00 AM	**13**	40	100	153	74	**71**	5	150	6	30	12	48	13	67	21	101	452
Total Volume	45	142	412	599	325	217	28	570	46	119	34	199	51	348	73	472	1840
% App. Total	7.5	23.7	68.8		57	38.1	4.9		23.1	59.8	17.1		10.8	73.7	15.5		
PHF	.865	.826	.936	.979	.874	.764	.700	.913	.676	.960	.708	.921	.750	.888	.869	.908	.958

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File Name : 81676 H-F
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Tremont Street (Route 140) From North			Washington Street (Route 140) From East			Plaza Driveway From South			Oak Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	1	4	1	3	0	1	2	1	0	5	0	21
07:15 AM	1	1	7	6	4	0	1	0	1	1	5	3	30
07:30 AM	0	1	7	7	2	1	2	0	0	1	3	1	25
07:45 AM	0	4	2	8	3	0	0	0	2	1	2	1	23
Total	4	7	20	22	12	1	4	2	4	3	15	5	99
08:00 AM	4	0	2	6	6	0	2	1	0	0	5	1	27
08:15 AM	2	0	6	6	3	0	1	0	1	0	3	2	24
08:30 AM	0	3	3	6	4	0	0	0	0	0	2	3	21
08:45 AM	0	0	9	12	5	1	0	0	0	0	3	1	31
Total	6	3	20	30	18	1	3	1	1	0	13	7	103
Grand Total	10	10	40	52	30	2	7	3	5	3	28	12	202
Apprch %	16.7	16.7	66.7	61.9	35.7	2.4	46.7	20	33.3	7	65.1	27.9	
Total %	5	5	19.8	25.7	14.9	1	3.5	1.5	2.5	1.5	13.9	5.9	

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	1	**7**	**9**	6	4	0	10	1	0	1	2	**1**	**5**	**3**	**9**	**30**
07:30 AM	0	1	7	8	7	2	**1**	10	**2**	0	0	2	1	3	1	5	25
07:45 AM	0	**4**	2	6	**8**	3	0	11	0	0	**2**	2	1	2	1	4	23
08:00 AM	**4**	0	2	6	6	**6**	0	**12**	2	**1**	0	**3**	0	5	1	6	27
Total Volume	5	6	18	29	27	15	1	43	5	1	3	9	3	15	6	24	105
% App. Total	17.2	20.7	62.1		62.8	34.9	2.3		55.6	11.1	33.3		12.5	62.5	25		
PHF	.313	.375	.643	.806	.844	.625	.250	.896	.625	.250	.375	.750	.750	.750	.500	.667	.875

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E/W: Washington St (Rte 140)/Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-F
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	4
07:15 AM	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	3
07:45 AM	0	0	0	5	0	0	0	0	0	0	0	1	0	1	0	1	8
Total	0	0	0	8	0	0	0	2	0	0	1	5	0	1	0	2	19
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	4
08:30 AM	0	0	0	1	0	0	0	2	0	0	0	4	0	0	0	0	7
08:45 AM	0	0	0	4	0	0	0	0	1	0	0	1	0	0	0	3	9
Total	0	0	1	6	0	0	0	2	1	0	0	7	0	0	0	6	23
Grand Total	0	0	1	14	0	0	0	4	1	0	1	12	0	1	0	8	42
Apprch %	0	0	6.7	93.3	0	0	0	100	7.1	0	7.1	85.7	0	11.1	0	88.9	
Total %	0	0	2.4	33.3	0	0	0	9.5	2.4	0	2.4	28.6	0	2.4	0	19	

	Tremont Street (Route 140) From North					Washington Street (Route 140) From East					Plaza Driveway From South					Oak Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**3**
08:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**3**	**3**	4
08:30 AM	0	0	0	1	1	0	0	0	**2**	**2**	0	0	0	**4**	**4**	0	0	0	0	0	7
08:45 AM	0	0	0	**4**	**4**	0	0	0	0	0	**1**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**3**	**3**	**9**
Total Volume	0	0	1	6	7	0	0	0	2	2	1	0	0	7	8	0	0	0	6	6	23
% App. Total	0	0	14.3	85.7		0	0	0	100		12.5	0	0	87.5		0	0	0	100		
PHF	.000	.000	.250	.375	.438	.000	.000	.000	.250	.250	.250	.000	.000	.438	.500	.000	.000	.000	.500	.500	.639

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E/W: Washington St (Rte 140)/Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-F
Site Code : 10111.31
Start Date : 10/1/2008
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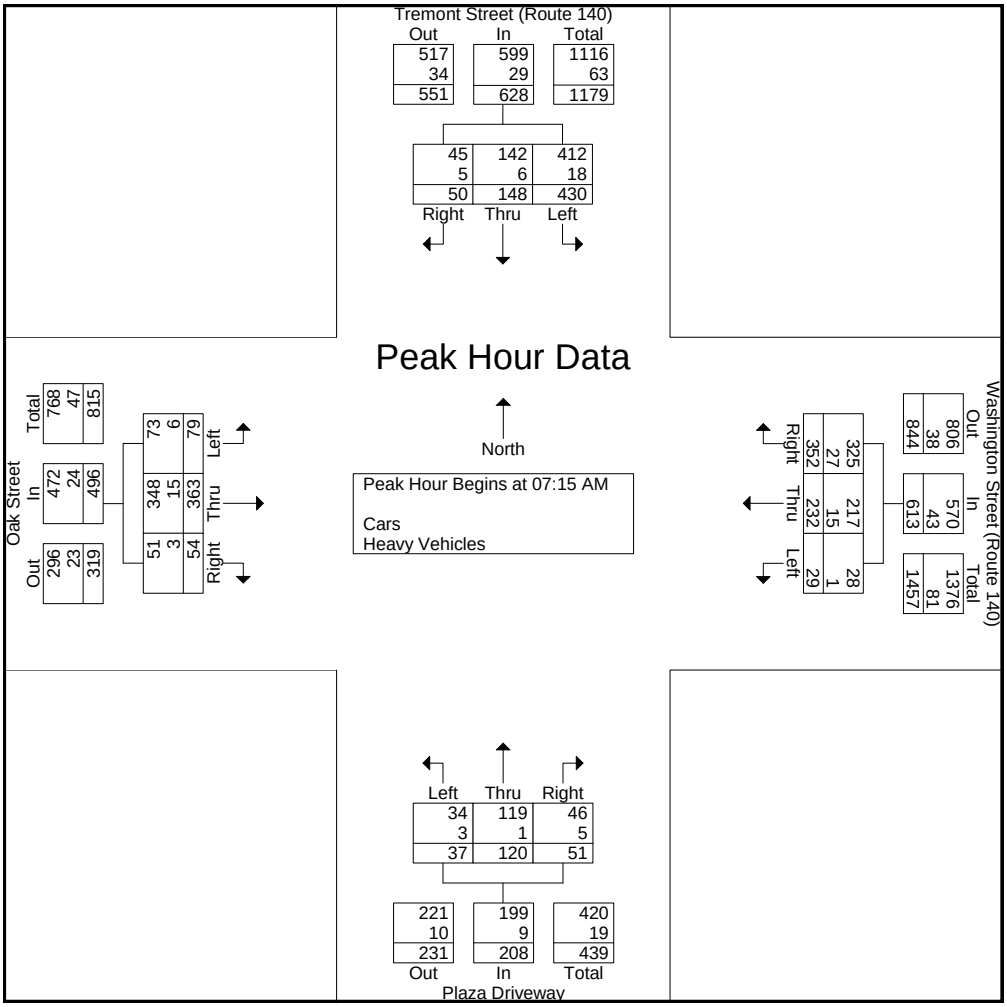
	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	12	33	**117**	**162**	76	36	**10**	122	13	28	6	47	**18**	97	**24**	**139**	470
07:30 AM	10	**44**	104	158	**100**	56	6	162	13	**31**	**12**	**56**	12	**101**	16	129	**505**
07:45 AM	11	31	107	149	96	63	8	**167**	**17**	30	7	54	11	93	17	121	491
08:00 AM	**17**	40	102	159	80	**77**	5	162	8	31	12	51	13	72	22	107	479
Total Volume	50	148	430	628	352	232	29	613	51	120	37	208	54	363	79	496	1945
% App. Total	8	23.6	68.5		57.4	37.8	4.7		24.5	57.7	17.8		10.9	73.2	15.9		
PHF	.735	.841	.919	.969	.880	.753	.725	.918	.750	.968	.771	.929	.750	.899	.823	.892	.963
Cars	45	142	412	599	325	217	28	570	46	119	34	199	51	348	73	472	1840
% Cars	90.0	95.9	95.8	95.4	92.3	93.5	96.6	93.0	90.2	99.2	91.9	95.7	94.4	95.9	92.4	95.2	94.6
Heavy Vehicles	5	6	18	29	27	15	1	43	5	1	3	9	3	15	6	24	105
% Heavy Vehicles	10.0	4.1	4.2	4.6	7.7	6.5	3.4	7.0	9.8	0.8	8.1	4.3	5.6	4.1	7.6	4.8	5.4



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E/W: Washington St (Rte 140)/Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-FFF
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Tremont Street (Route 140) From North			Washington Street (Route 140) From East			Plaza Driveway From South			Oak Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	20	36	116	125	77	9	16	32	3	12	67	22	535
04:15 PM	29	44	118	143	93	7	10	39	8	14	81	21	607
04:30 PM	22	50	108	115	101	11	8	35	2	9	67	24	552
04:45 PM	24	34	124	116	63	6	7	21	9	21	76	24	525
Total	95	164	466	499	334	33	41	127	22	56	291	91	2219
05:00 PM	21	35	129	115	81	9	11	28	7	12	76	30	554
05:15 PM	29	51	107	107	87	8	7	43	7	7	58	12	523
05:30 PM	26	50	125	101	81	8	8	37	4	9	70	27	546
05:45 PM	20	40	86	97	79	7	8	31	6	10	64	20	468
Total	96	176	447	420	328	32	34	139	24	38	268	89	2091
Grand Total	191	340	913	919	662	65	75	266	46	94	559	180	4310
Apprch %	13.2	23.5	63.2	55.8	40.2	3.9	19.4	68.7	11.9	11.3	67.1	21.6	
Total %	4.4	7.9	21.2	21.3	15.4	1.5	1.7	6.2	1.1	2.2	13	4.2	
Cars	185	335	900	897	636	64	74	264	46	94	534	176	4205
% Cars	96.9	98.5	98.6	97.6	96.1	98.5	98.7	99.2	100	100	95.5	97.8	97.6
Heavy Vehicles	6	5	13	22	26	1	1	2	0	0	25	4	105
% Heavy Vehicles	3.1	1.5	1.4	2.4	3.9	1.5	1.3	0.8	0	0	4.5	2.2	2.4

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**29**	44	118	**191**	**143**	93	7	**243**	10	**39**	8	**57**	14	**81**	21	116	**607**
04:30 PM	22	**50**	108	180	115	**101**	**11**	227	8	35	2	45	9	67	24	100	552
04:45 PM	24	34	124	182	116	63	6	185	7	21	**9**	37	**21**	76	24	**121**	525
05:00 PM	21	35	**129**	185	115	81	9	205	**11**	28	7	46	12	76	**30**	118	554
Total Volume	96	163	479	738	489	338	33	860	36	123	26	185	56	300	99	455	2238
% App. Total	13	22.1	64.9		56.9	39.3	3.8		19.5	66.5	14.1		12.3	65.9	21.8		
PHF	.828	.815	.928	.966	.855	.837	.750	.885	.818	.788	.722	.811	.667	.926	.825	.940	.922
Cars	94	160	473	727	480	326	33	839	35	121	26	182	56	283	96	435	2183
% Cars	97.9	98.2	98.7	98.5	98.2	96.4	100	97.6	97.2	98.4	100	98.4	100	94.3	97.0	95.6	97.5
Heavy Vehicles	2	3	6	11	9	12	0	21	1	2	0	3	0	17	3	20	55
% Heavy Vehicles	2.1	1.8	1.3	1.5	1.8	3.6	0	2.4	2.8	1.6	0	1.6	0	5.7	3.0	4.4	2.5

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E/W: Washington St (Rte 140)/Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-FFF
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars

	Tremont Street (Route 140) From North			Washington Street (Route 140) From East			Plaza Driveway From South			Oak Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	17	36	115	119	71	9	16	32	3	12	65	21	516
04:15 PM	28	44	115	140	91	7	10	39	8	14	76	21	593
04:30 PM	22	48	108	114	98	11	7	34	2	9	64	22	539
04:45 PM	23	34	122	113	58	6	7	20	9	21	73	23	509
Total	90	162	460	486	318	33	40	125	22	56	278	87	2157
05:00 PM	21	34	128	113	79	9	11	28	7	12	70	30	542
05:15 PM	29	51	104	105	86	7	7	43	7	7	55	12	513
05:30 PM	25	50	124	98	77	8	8	37	4	9	69	27	536
05:45 PM	20	38	84	95	76	7	8	31	6	10	62	20	457
Total	95	173	440	411	318	31	34	139	24	38	256	89	2048
Grand Total	185	335	900	897	636	64	74	264	46	94	534	176	4205
Apprch %	13	23.6	63.4	56.2	39.8	4	19.3	68.8	12	11.7	66.4	21.9	
Total %	4.4	8	21.4	21.3	15.1	1.5	1.8	6.3	1.1	2.2	12.7	4.2	

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**28**	44	115	**187**	**140**	91	7	**238**	10	**39**	8	**57**	14	**76**	21	111	**593**
04:30 PM	22	**48**	108	178	114	**98**	**11**	223	7	34	2	43	9	64	22	95	539
04:45 PM	23	34	122	179	113	58	6	177	7	20	**9**	36	**21**	73	23	**117**	509
05:00 PM	21	34	**128**	183	113	79	9	201	**11**	28	7	46	12	70	**30**	112	542
Total Volume	94	160	473	727	480	326	33	839	35	121	26	182	56	283	96	435	2183
% App. Total	12.9	22	65.1		57.2	38.9	3.9		19.2	66.5	14.3		12.9	65.1	22.1		
PHF	.839	.833	.924	.972	.857	.832	.750	.881	.795	.776	.722	.798	.667	.931	.800	.929	.920

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Page No : 1

Groups Printed- Heavy Vehicles

	Tremont Street (Route 140) From North			Washington Street (Route 140) From East			Plaza Driveway From South			Oak Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	3	0	1	6	6	0	0	0	0	0	2	1	19
04:15 PM	1	0	3	3	2	0	0	0	0	0	5	0	14
04:30 PM	0	2	0	1	3	0	1	1	0	0	3	2	13
04:45 PM	1	0	2	3	5	0	0	1	0	0	3	1	16
Total	5	2	6	13	16	0	1	2	0	0	13	4	62
05:00 PM	0	1	1	2	2	0	0	0	0	0	6	0	12
05:15 PM	0	0	3	2	1	1	0	0	0	0	3	0	10
05:30 PM	1	0	1	3	4	0	0	0	0	0	1	0	10
05:45 PM	0	2	2	2	3	0	0	0	0	0	2	0	11
Total	1	3	7	9	10	1	0	0	0	0	12	0	43
Grand Total	6	5	13	22	26	1	1	2	0	0	25	4	105
Apprch %	25	20.8	54.2	44.9	53.1	2	33.3	66.7	0	0	86.2	13.8	
Total %	5.7	4.8	12.4	21	24.8	1	1	1.9	0	0	23.8	3.8	

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**3**	0	1	**4**	**6**	**6**	0	**12**	0	0	0	0	0	2	1	3	**19**
04:15 PM	1	0	**3**	4	3	2	0	5	0	0	0	0	0	**5**	0	**5**	14
04:30 PM	0	**2**	0	2	1	3	0	4	**1**	**1**	0	**2**	0	3	**2**	5	13
04:45 PM	1	0	2	3	3	5	0	8	0	1	0	1	0	3	1	4	16
Total Volume	5	2	6	13	13	16	0	29	1	2	0	3	0	13	4	17	62
% App. Total	38.5	15.4	46.2		44.8	55.2	0		33.3	66.7	0		0	76.5	23.5		
PHF	.417	.250	.500	.813	.542	.667	.000	.604	.250	.500	.000	.375	.000	.650	.500	.850	.816

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Groups Printed- Peds and Bicycles

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	1	0	0	0	15	0	0	1	5	1	0	0	5	29
04:15 PM	0	0	0	1	0	0	0	2	0	0	0	0	0	2	0	0	5
04:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3
04:45 PM	0	0	0	5	0	0	0	6	0	0	0	6	0	2	0	1	20
Total	0	1	0	7	0	0	0	25	0	0	1	11	1	4	0	7	57
05:00 PM	0	0	0	2	0	0	1	5	0	1	0	4	0	0	0	2	15
05:15 PM	0	1	0	3	1	1	0	0	0	1	0	0	0	1	0	1	9
05:30 PM	0	0	0	5	0	0	0	0	0	0	0	1	1	0	0	0	7
05:45 PM	0	0	0	2	0	0	0	3	0	0	1	1	0	1	0	0	8
Total	0	1	0	12	1	1	1	8	0	2	1	6	1	2	0	3	39
Grand Total	0	2	0	19	1	1	1	33	0	2	2	17	2	6	0	10	96
Apprch %	0	9.5	0	90.5	2.8	2.8	2.8	91.7	0	9.5	9.5	81	11.1	33.3	0	55.6	
Total %	0	2.1	0	19.8	1	1	1	34.4	0	2.1	2.1	17.7	2.1	6.2	0	10.4	

	Tremont Street (Route 140) From North					Washington Street (Route 140) From East					Plaza Driveway From South					Oak Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**1**	0	1	2	0	0	0	**15**	**15**	0	0	**1**	5	**6**	**1**	**0**	**0**	**5**	**6**	**29**
04:15 PM	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	**2**	0	0	2	5
04:30 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	1	1	3
04:45 PM	0	0	0	**5**	**5**	0	0	0	6	6	0	0	0	**6**	**6**	**0**	**2**	**0**	**1**	**3**	**20**
Total Volume	0	1	0	7	8	0	0	0	25	25	0	0	1	11	12	1	4	0	7	12	57
% App. Total	0	12.5	0	87.5		0	0	0	100		0	0	8.3	91.7		8.3	33.3	0	58.3		
PHF	.000	.250	.000	.350	.400	.000	.000	.000	.417	.417	.000	.000	.250	.458	.500	.250	.500	.000	.350	.500	.491

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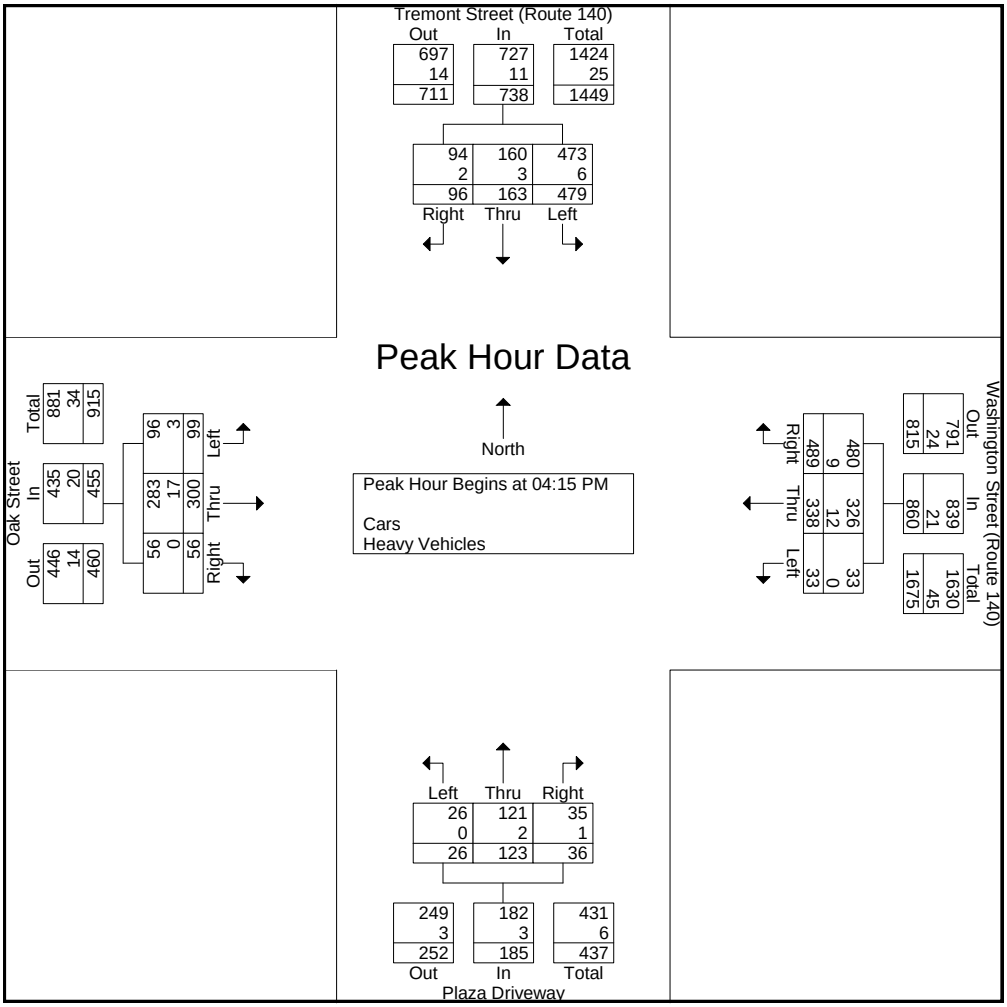
N/S: Tremont Street (Route 140)/Plaza Dr
E/W: Washington St (Rte 140)/Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-FFF
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

	Tremont Street (Route 140) From North				Washington Street (Route 140) From East				Plaza Driveway From South				Oak Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**29**	44	118	**191**	**143**	93	7	**243**	10	**39**	8	**57**	14	**81**	21	116	**607**
04:30 PM	22	**50**	108	180	115	**101**	**11**	227	8	35	2	45	9	67	24	100	552
04:45 PM	24	34	124	182	116	63	6	185	7	21	**9**	37	**21**	76	24	**121**	525
05:00 PM	21	35	**129**	185	115	81	9	205	**11**	28	7	46	12	76	**30**	118	554
Total Volume	96	163	479	738	489	338	33	860	36	123	26	185	56	300	99	455	2238
% App. Total	13	22.1	64.9		56.9	39.3	3.8		19.5	66.5	14.1		12.3	65.9	21.8		
PHF	.828	.815	.928	.966	.855	.837	.750	.885	.818	.788	.722	.811	.667	.926	.825	.940	.922
Cars	94	160	473	727	480	326	33	839	35	121	26	182	56	283	96	435	2183
% Cars	97.9	98.2	98.7	98.5	98.2	96.4	100	97.6	97.2	98.4	100	98.4	100	94.3	97.0	95.6	97.5
Heavy Vehicles	2	3	6	11	9	12	0	21	1	2	0	3	0	17	3	20	55
% Heavy Vehicles	2.1	1.8	1.3	1.5	1.8	3.6	0	2.4	2.8	1.6	0	1.6	0	5.7	3.0	4.4	2.5



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N/NE: Kilmer Avenue/Lowell Street
E/W: Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-G
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Kilmer Avenue From North			Lowell Street From Northeast			Oak Street From East			Oak Street From West			
Start Time	Right	Left	Hard Left	Hard Right	Bear Right	Hard Left	Hard Right	Right	Thru	Thru	Bear Left	Left	Int. Total
07:00 AM	2	14	1	0	0	1	1	16	32	64	1	3	135
07:15 AM	5	17	0	0	0	0	1	14	35	105	0	4	181
07:30 AM	0	24	4	0	0	0	4	16	43	77	0	4	172
07:45 AM	4	20	2	1	0	2	8	21	34	86	1	4	183
Total	11	75	7	1	0	3	14	67	144	332	2	15	671
08:00 AM	1	31	0	0	0	3	6	23	53	64	2	1	184
08:15 AM	3	23	1	1	0	2	0	15	38	60	1	2	146
08:30 AM	3	17	0	0	0	4	1	12	44	69	0	1	151
08:45 AM	2	21	0	0	0	1	0	6	38	85	0	2	155
Total	9	92	1	1	0	10	7	56	173	278	3	6	636
Grand Total	20	167	8	2	0	13	21	123	317	610	5	21	1307
Apprch %	10.3	85.6	4.1	13.3	0	86.7	4.6	26.7	68.8	95.9	0.8	3.3	
Total %	1.5	12.8	0.6	0.2	0	1	1.6	9.4	24.3	46.7	0.4	1.6	
Cars	18	162	6	0	0	12	21	106	299	598	5	20	1247
% Cars	90	97	75	0	0	92.3	100	86.2	94.3	98	100	95.2	95.4
Heavy Vehicles	2	5	2	2	0	1	0	17	18	12	0	1	60
% Heavy Vehicles	10	3	25	100	0	7.7	0	13.8	5.7	2	0	4.8	4.6

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**5**	17	0	22	0	0	0	0	1	14	35	50	**105**	0	**4**	**109**	181
07:30 AM	0	24	**4**	28	0	0	0	0	4	16	43	63	77	0	4	81	172
07:45 AM	4	20	2	26	**1**	0	2	**3**	**8**	21	34	63	86	1	4	91	183
08:00 AM	1	**31**	0	**32**	0	0	**3**	3	6	**23**	**53**	**82**	64	**2**	1	67	**184**
Total Volume	10	92	6	108	1	0	5	6	19	74	165	258	332	3	13	348	720
% App. Total	9.3	85.2	5.6		16.7	0	83.3		7.4	28.7	64		95.4	0.9	3.7		
PHF	.500	.742	.375	.844	.250	.000	.417	.500	.594	.804	.778	.787	.790	.375	.813	.798	.978
Cars	8	89	5	102	0	0	5	5	19	64	155	238	328	3	12	343	688
% Cars	80.0	96.7	83.3	94.4	0	0	100	83.3	100	86.5	93.9	92.2	98.8	100	92.3	98.6	95.6
Heavy Vehicles	2	3	1	6	1	0	0	1	0	10	10	20	4	0	1	5	32
% Heavy Vehicles	20.0	3.3	16.7	5.6	100	0	0	16.7	0	13.5	6.1	7.8	1.2	0	7.7	1.4	4.4

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E/W: Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-G
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars

	Kilmer Avenue From North			Lowell Street From Northeast			Oak Street From East			Oak Street From West			
Start Time	Right	Left	Hard Left	Hard Right	Bear Right	Hard Left	Hard Right	Right	Thru	Thru	Bear Left	Left	Int. Total
07:00 AM	2	14	1	0	0	1	1	13	30	63	1	3	129
07:15 AM	4	16	0	0	0	0	1	13	33	104	0	4	175
07:30 AM	0	24	3	0	0	0	4	15	42	76	0	3	167
07:45 AM	4	19	2	0	0	2	8	18	32	86	1	4	176
Total	10	73	6	0	0	3	14	59	137	329	2	14	647
08:00 AM	0	30	0	0	0	3	6	18	48	62	2	1	170
08:15 AM	3	22	0	0	0	2	0	13	35	59	1	2	137
08:30 AM	3	16	0	0	0	4	1	11	43	65	0	1	144
08:45 AM	2	21	0	0	0	0	0	5	36	83	0	2	149
Total	8	89	0	0	0	9	7	47	162	269	3	6	600
Grand Total	18	162	6	0	0	12	21	106	299	598	5	20	1247
Apprch %	9.7	87.1	3.2	0	0	100	4.9	24.9	70.2	96	0.8	3.2	
Total %	1.4	13	0.5	0	0	1	1.7	8.5	24	48	0.4	1.6	

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**4**	16	0	20	0	0	0	0	1	13	33	47	**104**	0	**4**	**108**	175
07:30 AM	0	24	**3**	27	0	0	0	0	4	15	42	61	76	0	3	79	167
07:45 AM	4	19	2	25	0	0	2	2	**8**	**18**	32	58	86	1	4	91	**176**
08:00 AM	0	**30**	0	**30**	0	0	**3**	**3**	6	18	**48**	**72**	62	**2**	1	65	170
Total Volume	8	89	5	102	0	0	5	5	19	64	155	238	328	3	12	343	688
% App. Total	7.8	87.3	4.9		0	0	100		8	26.9	65.1		95.6	0.9	3.5		
PHF	.500	.742	.417	.850	.000	.000	.417	.417	.594	.889	.807	.826	.788	.375	.750	.794	.977

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-G
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Heavy Vehicles

	Kilmer Avenue From North			Lowell Street From Northeast			Oak Street From East			Oak Street From West			
Start Time	Right	Left	Hard Left	Hard Right	Bear Right	Hard Left	Hard Right	Right	Thru	Thru	Bear Left	Left	Int. Total
07:00 AM	0	0	0	0	0	0	0	3	2	1	0	0	6
07:15 AM	1	1	0	0	0	0	0	1	2	1	0	0	6
07:30 AM	0	0	1	0	0	0	0	1	1	1	0	1	5
07:45 AM	0	1	0	1	0	0	0	3	2	0	0	0	7
Total	1	2	1	1	0	0	0	8	7	3	0	1	24
08:00 AM	1	1	0	0	0	0	0	5	5	2	0	0	14
08:15 AM	0	1	1	1	0	0	0	2	3	1	0	0	9
08:30 AM	0	1	0	0	0	0	0	1	1	4	0	0	7
08:45 AM	0	0	0	0	0	1	0	1	2	2	0	0	6
Total	1	3	1	1	0	1	0	9	11	9	0	0	36
Grand Total	2	5	2	2	0	1	0	17	18	12	0	1	60
Apprch %	22.2	55.6	22.2	66.7	0	33.3	0	48.6	51.4	92.3	0	7.7	
Total %	3.3	8.3	3.3	3.3	0	1.7	0	28.3	30	20	0	1.7	

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**1**	0	1	**1**	0	0	**1**	0	3	2	5	0	0	0	0	7
08:00 AM	**1**	1	0	**2**	0	0	0	0	0	**5**	**5**	**10**	2	0	0	2	**14**
08:15 AM	0	1	**1**	2	1	0	0	1	0	2	3	5	1	0	0	1	9
08:30 AM	0	1	0	1	0	0	0	0	0	1	1	2	**4**	0	0	**4**	7
Total Volume	1	4	1	6	2	0	0	2	0	11	11	22	7	0	0	7	37
% App. Total	16.7	66.7	16.7		100	0	0		0	50	50		100	0	0		
PHF	.250	1.000	.250	.750	.500	.000	.000	.500	.000	.550	.550	.550	.438	.000	.000	.438	.661

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File Name : 81676 H-G
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	Peds	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	Peds	Thru	Bear Left	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	6	1	0	0	0	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3
Grand Total	0	0	0	1	0	0	0	0	0	0	2	8	1	0	0	0	12
Apprch %	0	0	0	100	0	0	0	0	0	0	20	80	100	0	0	0	
Total %	0	0	0	8.3	0	0	0	0	0	0	16.7	66.7	8.3	0	0	0	

	Kilmer Avenue From North					Lowell Street From Northeast					Oak Street From East					Oak Street From West					
Start Time	Right	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Peds	App. Total	Thru	Bear Left	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**6**	**7**	0	0	0	0	0	**7**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	**1**	**0**	**0**	**0**	**1**	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	6	8	1	0	0	0	1	9
% App. Total	0	0	0	0		0	0	0	0		0	0	25	75		100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.286	.250	.000	.000	.000	.250	.321

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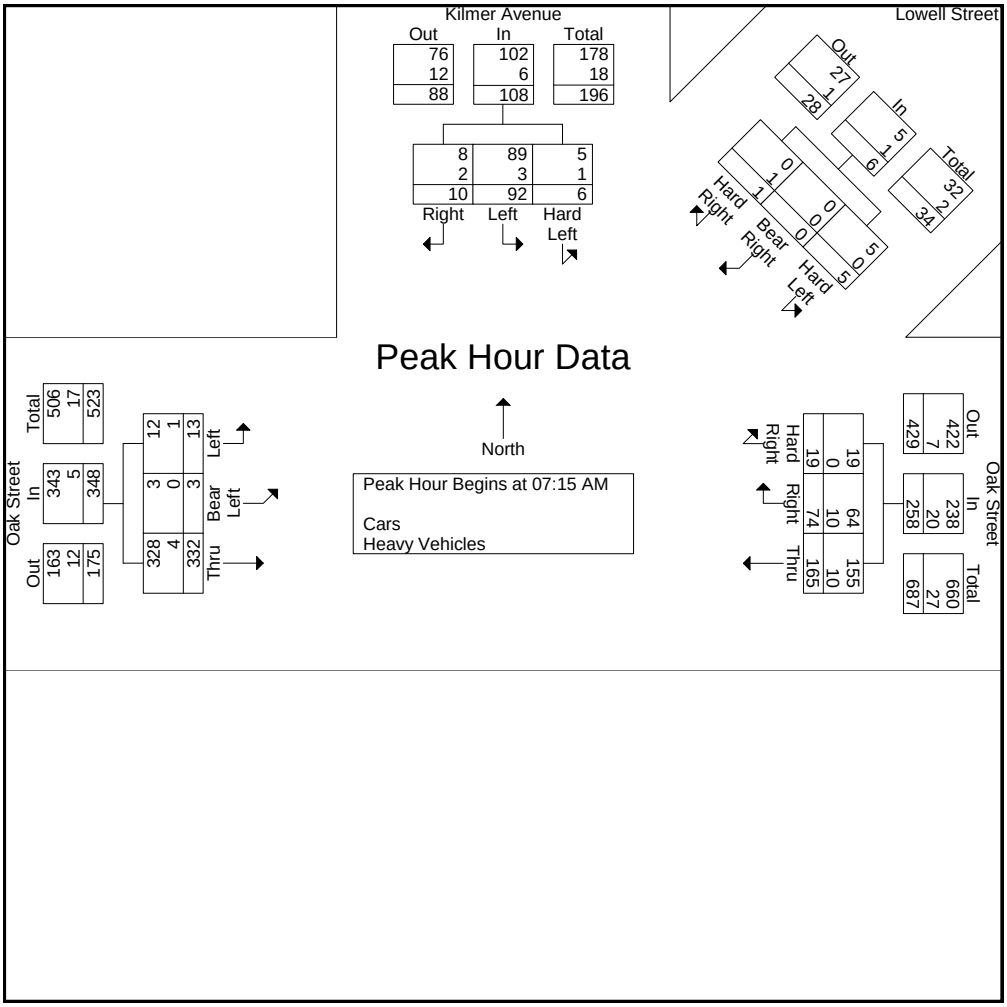
	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**5**	17	0	22	0	0	0	0	1	14	35	50	**105**	0	**4**	**109**	181
07:30 AM	0	24	**4**	28	0	0	0	0	4	16	43	63	77	0	4	81	172
07:45 AM	4	20	2	26	**1**	0	2	**3**	**8**	21	34	63	86	1	4	91	183
08:00 AM	1	**31**	0	**32**	0	0	**3**	3	6	**23**	**53**	**82**	64	**2**	1	67	**184**
Total Volume	10	92	6	108	1	0	5	6	19	74	165	258	332	3	13	348	720
% App. Total	9.3	85.2	5.6		16.7	0	83.3		7.4	28.7	64		95.4	0.9	3.7		
PHF	.500	.742	.375	.844	.250	.000	.417	.500	.594	.804	.778	.787	.790	.375	.813	.798	.978
Cars	8	89	5	102	0	0	5	5	19	64	155	238	328	3	12	343	688
% Cars	80.0	96.7	83.3	94.4	0	0	100	83.3	100	86.5	93.9	92.2	98.8	100	92.3	98.6	95.6
Heavy Vehicles	2	3	1	6	1	0	0	1	0	10	10	20	4	0	1	5	32
% Heavy Vehicles	20.0	3.3	16.7	5.6	100	0	0	16.7	0	13.5	6.1	7.8	1.2	0	7.7	1.4	4.4



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File Name : 81676 H-GGG
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Page No : 1

Groups Printed- Heavy Vehicles

	Kilmer Avenue From North			Lowell Street From Northeast			Oak Street From East			Oak Street From West			
Start Time	Right	Left	Hard Left	Hard Right	Bear Right	Hard Left	Hard Right	Right	Thru	Thru	Bear Left	Left	Int. Total
04:00 PM	0	3	0	0	0	0	0	3	3	1	0	0	10
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
04:45 PM	0	1	0	0	0	0	0	2	0	5	0	0	8
Total	0	6	0	0	0	0	0	5	4	6	0	0	21
05:00 PM	0	0	0	0	0	0	0	1	2	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	1	3	0	0	0	5
Grand Total	0	7	0	0	0	0	0	6	7	6	0	0	26
Apprch %	0	100	0	0	0	0	0	46.2	53.8	100	0	0	
Total %	0	26.9	0	0	0	0	0	23.1	26.9	23.1	0	0	

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**3**	0	**3**	0	0	0	0	0	**3**	**3**	**6**	1	0	0	1	**10**
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
04:45 PM	0	1	0	1	0	0	0	0	0	2	0	2	**5**	0	0	**5**	8
Total Volume	0	6	0	6	0	0	0	0	0	5	4	9	6	0	0	6	21
% App. Total	0	100	0		0	0	0		0	55.6	44.4		100	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.333	.375	.300	.000	.000	.300	.525

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N/NE: Kilmer Avenue/Lowell Street
E/W: Oak Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-GGG
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Kilmer Avenue From North			Lowell Street From Northeast			Oak Street From East			Oak Street From West			
Start Time	Right	Left	Hard Left	Hard Right	Bear Right	Hard Left	Hard Right	Right	Thru	Thru	Bear Left	Left	Int. Total
04:00 PM	1	30	0	0	0	0	1	27	77	44	0	3	183
04:15 PM	4	18	0	0	0	1	0	29	87	45	1	5	190
04:30 PM	5	17	0	0	0	0	0	22	94	38	0	3	179
04:45 PM	3	19	1	0	0	1	0	18	70	68	1	9	190
Total	13	84	1	0	0	2	1	96	328	195	2	20	742
05:00 PM	8	23	0	0	0	0	0	10	90	52	0	2	185
05:15 PM	3	14	0	0	0	0	1	20	88	43	1	1	171
05:30 PM	4	15	0	0	0	0	1	12	81	63	1	2	179
05:45 PM	4	11	0	0	0	0	1	15	57	51	0	3	142
Total	19	63	0	0	0	0	3	57	316	209	2	8	677
Grand Total	32	147	1	0	0	2	4	153	644	404	4	28	1419
Apprch %	17.8	81.7	0.6	0	0	100	0.5	19.1	80.4	92.7	0.9	6.4	
Total %	2.3	10.4	0.1	0	0	0.1	0.3	10.8	45.4	28.5	0.3	2	
Cars	32	140	1	0	0	2	4	147	637	398	4	28	1393
% Cars	100	95.2	100	0	0	100	100	96.1	98.9	98.5	100	100	98.2
Heavy Vehicles	0	7	0	0	0	0	0	6	7	6	0	0	26
% Heavy Vehicles	0	4.8	0	0	0	0	0	3.9	1.1	1.5	0	0	1.8

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	18	0	22	0	0	**1**	**1**	0	**29**	87	**116**	45	**1**	5	51	**190**
04:30 PM	5	17	0	22	0	0	0	0	0	22	**94**	116	38	0	3	41	179
04:45 PM	3	19	**1**	23	0	0	1	1	0	18	70	88	**68**	1	**9**	**78**	190
05:00 PM	**8**	**23**	0	**31**	0	0	0	0	0	10	90	100	52	0	2	54	185
Total Volume	20	77	1	98	0	0	2	2	0	79	341	420	203	2	19	224	744
% App. Total	20.4	78.6	1		0	0	100		0	18.8	81.2		90.6	0.9	8.5		
PHF	.625	.837	.250	.790	.000	.000	.500	.500	.000	.681	.907	.905	.746	.500	.528	.718	.979
Cars	20	74	1	95	0	0	2	2	0	76	338	414	198	2	19	219	730
% Cars	100	96.1	100	96.9	0	0	100	100	0	96.2	99.1	98.6	97.5	100	100	97.8	98.1
Heavy Vehicles	0	3	0	3	0	0	0	0	0	3	3	6	5	0	0	5	14
% Heavy Vehicles	0	3.9	0	3.1	0	0	0	0	0	3.8	0.9	1.4	2.5	0	0	2.2	1.9

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-GGG
Site Code : 10111.31
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Groups Printed- Cars

	Kilmer Avenue From North			Lowell Street From Northeast			Oak Street From East			Oak Street From West			
Start Time	Right	Left	Hard Left	Hard Right	Bear Right	Hard Left	Hard Right	Right	Thru	Thru	Bear Left	Left	Int. Total
04:00 PM	1	27	0	0	0	0	1	24	74	43	0	3	173
04:15 PM	4	17	0	0	0	1	0	29	87	45	1	5	189
04:30 PM	5	16	0	0	0	0	0	22	93	38	0	3	177
04:45 PM	3	18	1	0	0	1	0	16	70	63	1	9	182
Total	13	78	1	0	0	2	1	91	324	189	2	20	721
05:00 PM	8	23	0	0	0	0	0	9	88	52	0	2	182
05:15 PM	3	14	0	0	0	0	1	20	88	43	1	1	171
05:30 PM	4	14	0	0	0	0	1	12	80	63	1	2	177
05:45 PM	4	11	0	0	0	0	1	15	57	51	0	3	142
Total	19	62	0	0	0	0	3	56	313	209	2	8	672
Grand Total	32	140	1	0	0	2	4	147	637	398	4	28	1393
Apprch %	18.5	80.9	0.6	0	0	100	0.5	18.7	80.8	92.6	0.9	6.5	
Total %	2.3	10.1	0.1	0	0	0.1	0.3	10.6	45.7	28.6	0.3	2	

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	17	0	21	0	0	**1**	**1**	0	**29**	87	**116**	45	**1**	5	51	**189**
04:30 PM	5	16	0	21	0	0	0	0	0	22	**93**	115	38	0	3	41	177
04:45 PM	3	18	**1**	22	0	0	1	1	0	16	70	86	**63**	1	**9**	**73**	182
05:00 PM	**8**	**23**	0	**31**	0	0	0	0	0	9	88	97	52	0	2	54	182
Total Volume	20	74	1	95	0	0	2	2	0	76	338	414	198	2	19	219	730
% App. Total	21.1	77.9	1.1		0	0	100		0	18.4	81.6		90.4	0.9	8.7		
PHF	.625	.804	.250	.766	.000	.000	.500	.500	.000	.655	.909	.892	.786	.500	.528	.750	.966

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Groups Printed- Heavy Vehicles

	Kilmer Avenue From North			Lowell Street From Northeast			Oak Street From East			Oak Street From West			
Start Time	Right	Left	Hard Left	Hard Right	Bear Right	Hard Left	Hard Right	Right	Thru	Thru	Bear Left	Left	Int. Total
04:00 PM	0	3	0	0	0	0	0	3	3	1	0	0	10
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
04:45 PM	0	1	0	0	0	0	0	2	0	5	0	0	8
Total	0	6	0	0	0	0	0	5	4	6	0	0	21
05:00 PM	0	0	0	0	0	0	0	1	2	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	1	3	0	0	0	5
Grand Total	0	7	0	0	0	0	0	6	7	6	0	0	26
Apprch %	0	100	0	0	0	0	0	46.2	53.8	100	0	0	
Total %	0	26.9	0	0	0	0	0	23.1	26.9	23.1	0	0	

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**3**	0	**3**	0	0	0	0	0	**3**	**3**	**6**	1	0	0	1	**10**
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
04:45 PM	0	1	0	1	0	0	0	0	0	2	0	2	**5**	0	0	**5**	8
Total Volume	0	6	0	6	0	0	0	0	0	5	4	9	6	0	0	6	21
% App. Total	0	100	0		0	0	0		0	55.6	44.4		100	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.333	.375	.300	.000	.000	.300	.525

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File Name : 81676 H-GGG
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Peds and Bicycles

	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	Peds	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	Peds	Thru	Bear Left	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	2	0	0	0	0	4
Total	0	1	0	1	0	0	0	0	0	0	0	7	1	0	0	0	10
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	6
Grand Total	0	5	0	1	0	0	0	0	0	0	0	9	1	0	0	0	16
Apprch %	0	83.3	0	16.7	0	0	0	0	0	0	0	100	100	0	0	0	
Total %	0	31.2	0	6.2	0	0	0	0	0	0	0	56.2	6.2	0	0	0	

	Kilmer Avenue From North					Lowell Street From Northeast					Oak Street From East					Oak Street From West					
Start Time	Right	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Peds	App. Total	Thru	Bear Left	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	**4**	**1**	**0**	**0**	**0**	**1**	**5**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	**1**	0	**1**	**2**	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	4
Total Volume	0	1	0	1	2	0	0	0	0	0	0	0	0	7	7	1	0	0	0	1	10
% App. Total	0	50	0	50		0	0	0	0		0	0	0	100		100	0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.438	.438	.250	.000	.000	.000	.250	.500

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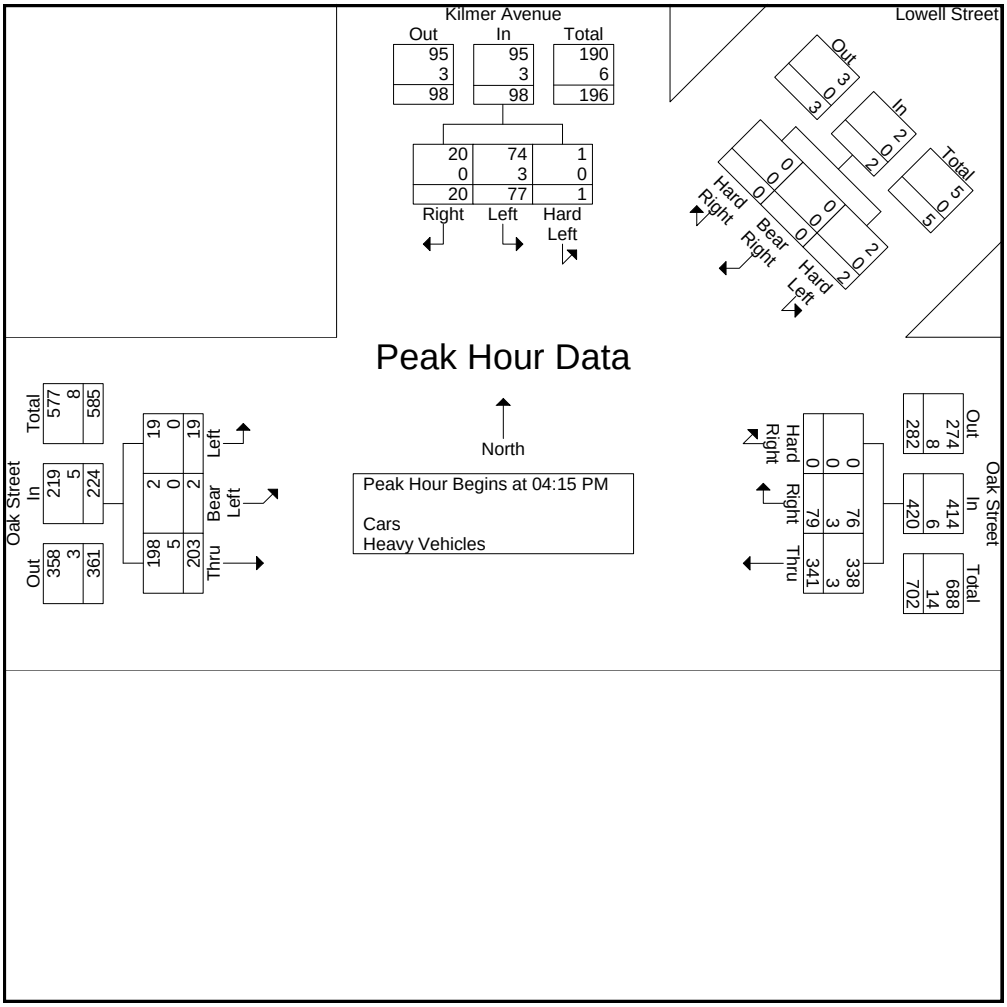
	Kilmer Avenue From North				Lowell Street From Northeast				Oak Street From East				Oak Street From West				
Start Time	Right	Left	Hard Left	App. Total	Hard Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Thru	App. Total	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	18	0	22	0	0	**1**	**1**	0	**29**	87	**116**	45	**1**	5	51	**190**
04:30 PM	5	17	0	22	0	0	0	0	0	22	**94**	116	38	0	3	41	179
04:45 PM	3	19	**1**	23	0	0	1	1	0	18	70	88	**68**	1	**9**	**78**	190
05:00 PM	**8**	**23**	0	**31**	0	0	0	0	0	10	90	100	52	0	2	54	185
Total Volume	20	77	1	98	0	0	2	2	0	79	341	420	203	2	19	224	744
% App. Total	20.4	78.6	1		0	0	100		0	18.8	81.2		90.6	0.9	8.5		
PHF	.625	.837	.250	.790	.000	.000	.500	.500	.000	.681	.907	.905	.746	.500	.528	.718	.979
Cars	20	74	1	95	0	0	2	2	0	76	338	414	198	2	19	219	730
% Cars	100	96.1	100	96.9	0	0	100	100	0	96.2	99.1	98.6	97.5	100	100	97.8	98.1
Heavy Vehicles	0	3	0	3	0	0	0	0	0	3	3	6	5	0	0	5	14
% Heavy Vehicles	0	3.9	0	3.1	0	0	0	0	0	3.8	0.9	1.4	2.5	0	0	2.2	1.9



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N/S: Mill Pond Dr/Frederick Martin Prky
E/W: Washington Street (Route 140)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-H
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Mill Pond Apartments Driveway From North			Washington Street (Route 140) From East			Frederick Martin Sr Parkway From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	0	0	0	117	14	21	0	13	48	180	0	395
07:15 AM	0	1	1	1	129	20	34	0	13	34	207	0	440
07:30 AM	0	0	0	2	173	31	40	0	23	41	184	0	494
07:45 AM	1	0	2	1	164	26	27	0	30	39	160	1	451
Total	3	1	3	4	583	91	122	0	79	162	731	1	1780
08:00 AM	0	0	0	0	160	21	29	0	22	35	150	0	417
08:15 AM	0	0	1	0	140	23	24	0	22	51	154	2	417
08:30 AM	1	1	1	0	138	26	31	0	12	42	157	0	409
08:45 AM	1	0	0	0	134	24	45	0	27	39	148	1	419
Total	2	1	2	0	572	94	129	0	83	167	609	3	1662
Grand Total	5	2	5	4	1155	185	251	0	162	329	1340	4	3442
Apprch %	41.7	16.7	41.7	0.3	85.9	13.8	60.8	0	39.2	19.7	80.1	0.2	
Total %	0.1	0.1	0.1	0.1	33.6	5.4	7.3	0	4.7	9.6	38.9	0.1	
Cars	5	2	5	4	1072	175	245	0	150	288	1292	4	3242
% Cars	100	100	100	100	92.8	94.6	97.6	0	92.6	87.5	96.4	100	94.2
Heavy Vehicles	0	0	0	0	83	10	6	0	12	41	48	0	200
% Heavy Vehicles	0	0	0	0	7.2	5.4	2.4	0	7.4	12.5	3.6	0	5.8

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	1	2	1	129	20	150	34	0	13	47	34	**207**	0	**241**	440
07:30 AM	0	0	0	0	**2**	**173**	**31**	**206**	**40**	0	23	**63**	**41**	184	0	225	**494**
07:45 AM	**1**	0	**2**	**3**	1	164	26	191	27	0	**30**	57	39	160	**1**	200	451
08:00 AM	0	0	0	0	0	160	21	181	29	0	22	51	35	150	0	185	417
Total Volume	1	1	3	5	4	626	98	728	130	0	88	218	149	701	1	851	1802
% App. Total	20	20	60		0.5	86	13.5		59.6	0	40.4		17.5	82.4	0.1		
PHF	.250	.250	.375	.417	.500	.905	.790	.883	.813	.000	.733	.865	.909	.847	.250	.883	.912
Cars	1	1	3	5	4	586	93	683	126	0	80	206	127	682	1	810	1704
% Cars	100	100	100	100	100	93.6	94.9	93.8	96.9	0	90.9	94.5	85.2	97.3	100	95.2	94.6
Heavy Vehicles	0	0	0	0	0	40	5	45	4	0	8	12	22	19	0	41	98
% Heavy Vehicles	0	0	0	0	0	6.4	5.1	6.2	3.1	0	9.1	5.5	14.8	2.7	0	4.8	5.4

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File Name : 81676 H-H
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars

	Mill Pond Apartments Driveway From North			Washington Street (Route 140) From East			Frederick Martin Sr Parkway From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	0	0	0	112	13	21	0	13	44	171	0	376
07:15 AM	0	1	1	1	119	18	33	0	12	26	200	0	411
07:30 AM	0	0	0	2	162	31	39	0	21	32	179	0	466
07:45 AM	1	0	2	1	155	25	26	0	26	37	158	1	432
Total	3	1	3	4	548	87	119	0	72	139	708	1	1685
08:00 AM	0	0	0	0	150	19	28	0	21	32	145	0	395
08:15 AM	0	0	1	0	131	23	23	0	19	47	145	2	391
08:30 AM	1	1	1	0	126	25	30	0	12	37	154	0	387
08:45 AM	1	0	0	0	117	21	45	0	26	33	140	1	384
Total	2	1	2	0	524	88	126	0	78	149	584	3	1557
Grand Total	5	2	5	4	1072	175	245	0	150	288	1292	4	3242
Apprch %	41.7	16.7	41.7	0.3	85.7	14	62	0	38	18.2	81.6	0.3	
Total %	0.2	0.1	0.2	0.1	33.1	5.4	7.6	0	4.6	8.9	39.9	0.1	

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	1	2	1	119	18	138	33	0	12	45	26	**200**	0	**226**	411
07:30 AM	0	0	0	0	**2**	**162**	**31**	**195**	**39**	0	21	**60**	32	179	0	211	**466**
07:45 AM	**1**	0	**2**	**3**	1	155	25	181	26	0	**26**	52	**37**	158	**1**	196	432
08:00 AM	0	0	0	0	0	150	19	169	28	0	21	49	32	145	0	177	395
Total Volume	1	1	3	5	4	586	93	683	126	0	80	206	127	682	1	810	1704
% App. Total	20	20	60		0.6	85.8	13.6		61.2	0	38.8		15.7	84.2	0.1		
PHF	.250	.250	.375	.417	.500	.904	.750	.876	.808	.000	.769	.858	.858	.853	.250	.896	.914

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N/S: Mill Pond Dr/Frederick Martin Prky
E/W: Washington Street (Route 140)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-H
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Heavy Vehicles

	Mill Pond Apartments Driveway From North			Washington Street (Route 140) From East			Frederick Martin Sr Parkway From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	5	1	0	0	0	4	9	0	19
07:15 AM	0	0	0	0	10	2	1	0	1	8	7	0	29
07:30 AM	0	0	0	0	11	0	1	0	2	9	5	0	28
07:45 AM	0	0	0	0	9	1	1	0	4	2	2	0	19
Total	0	0	0	0	35	4	3	0	7	23	23	0	95
08:00 AM	0	0	0	0	10	2	1	0	1	3	5	0	22
08:15 AM	0	0	0	0	9	0	1	0	3	4	9	0	26
08:30 AM	0	0	0	0	12	1	1	0	0	5	3	0	22
08:45 AM	0	0	0	0	17	3	0	0	1	6	8	0	35
Total	0	0	0	0	48	6	3	0	5	18	25	0	105
Grand Total	0	0	0	0	83	10	6	0	12	41	48	0	200
Apprch %	0	0	0	0	89.2	10.8	33.3	0	66.7	46.1	53.9	0	
Total %	0	0	0	0	41.5	5	3	0	6	20.5	24	0	

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	10	2	12	**1**	0	1	2	3	5	0	8	22
08:15 AM	0	0	0	0	0	9	0	9	1	0	**3**	**4**	4	**9**	0	13	26
08:30 AM	0	0	0	0	0	12	1	13	1	0	0	1	5	3	0	8	22
08:45 AM	0	0	0	0	0	**17**	**3**	**20**	0	0	1	1	**6**	8	0	**14**	**35**
Total Volume	0	0	0	0	0	48	6	54	3	0	5	8	18	25	0	43	105
% App. Total	0	0	0		0	88.9	11.1		37.5	0	62.5		41.9	58.1	0		
PHF	.000	.000	.000	.000	.000	.706	.500	.675	.750	.000	.417	.500	.750	.694	.000	.768	.750

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File Name : 81676 H-H
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	4	0	0	0	0	0	0	0	3	0	0	0	1	8
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:30 AM	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	5
07:45 AM	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	4
Total	0	0	0	11	0	0	0	0	0	0	1	4	1	0	0	1	18
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	3
08:15 AM	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	7
08:30 AM	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	1	8
08:45 AM	0	0	0	7	0	0	0	1	0	0	0	4	0	1	0	1	14
Total	0	0	0	14	0	0	0	1	0	0	0	13	0	2	0	2	32
Grand Total	0	0	0	25	0	0	0	1	0	0	1	17	1	2	0	3	50
Apprch %	0	0	0	100	0	0	0	100	0	0	5.6	94.4	16.7	33.3	0	50	
Total %	0	0	0	50	0	0	0	2	0	0	2	34	2	4	0	6	

	Mill Pond Apartments Driveway From North					Washington Street (Route 140) From East					Frederick Martin Sr Parkway From South					Washington Street (Route 140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	**1**	0	0	1	3
08:15 AM	0	0	0	3	3	0	0	0	0	0	0	0	0	**4**	**4**	0	0	0	0	0	7
08:30 AM	0	0	0	3	3	0	0	0	0	0	0	0	0	4	4	0	0	0	**1**	**1**	**8**
08:45 AM	**0**	**0**	**0**	**7**	**7**	0	0	0	**1**	**1**	0	0	0	4	4	0	1	0	1	**2**	**14**
Total Volume	0	0	0	14	14	0	0	0	1	1	0	0	0	13	13	0	2	0	2	4	32
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	50	0	50		
PHF	.000	.000	.000	.500	.500	.000	.000	.000	.250	.250	.000	.000	.000	.813	.813	.000	.500	.000	.500	.500	.571

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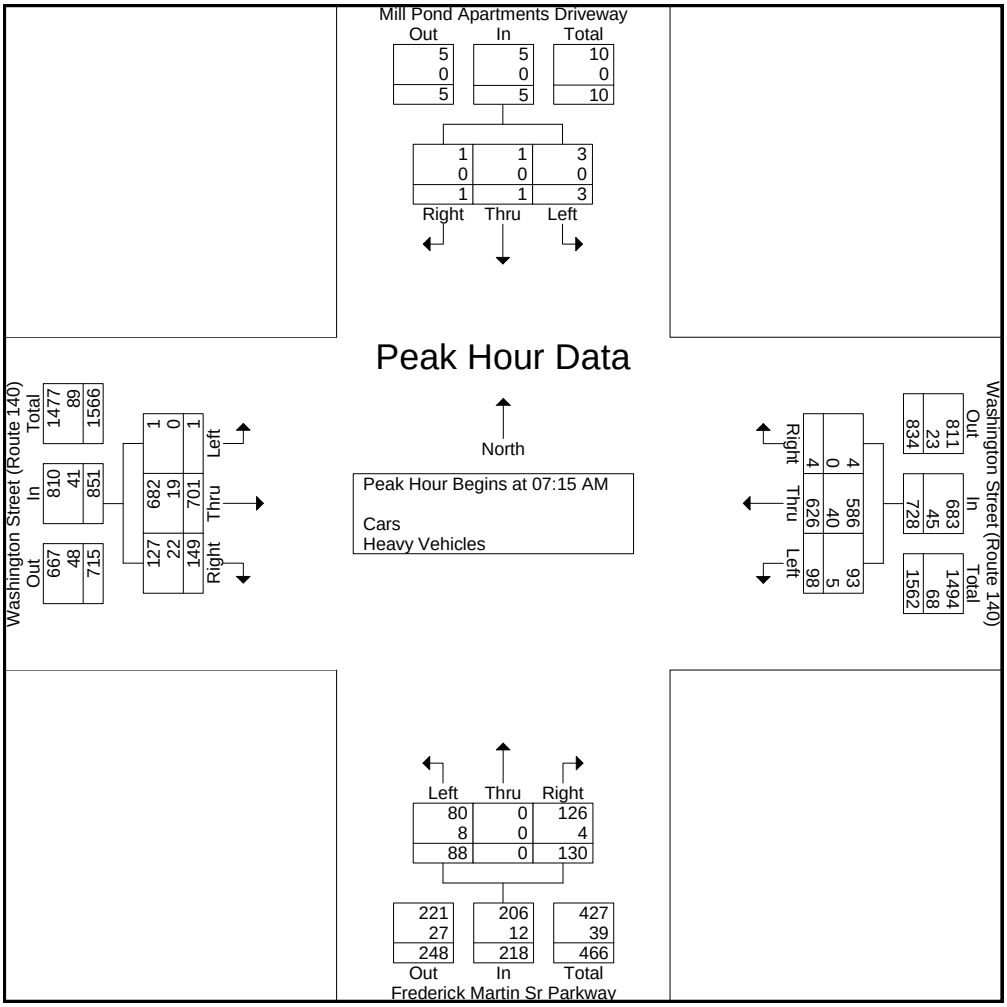
	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	1	2	1	129	20	150	34	0	13	47	34	**207**	0	**241**	440
07:30 AM	0	0	0	0	**2**	**173**	**31**	**206**	**40**	0	23	**63**	**41**	184	0	225	**494**
07:45 AM	**1**	0	**2**	**3**	1	164	26	191	27	0	**30**	57	39	160	**1**	200	451
08:00 AM	0	0	0	0	0	160	21	181	29	0	22	51	35	150	0	185	417
Total Volume	1	1	3	5	4	626	98	728	130	0	88	218	149	701	1	851	1802
% App. Total	20	20	60		0.5	86	13.5		59.6	0	40.4		17.5	82.4	0.1		
PHF	.250	.250	.375	.417	.500	.905	.790	.883	.813	.000	.733	.865	.909	.847	.250	.883	.912
Cars	1	1	3	5	4	586	93	683	126	0	80	206	127	682	1	810	1704
% Cars	100	100	100	100	100	93.6	94.9	93.8	96.9	0	90.9	94.5	85.2	97.3	100	95.2	94.6
Heavy Vehicles	0	0	0	0	0	40	5	45	4	0	8	12	22	19	0	41	98
% Heavy Vehicles	0	0	0	0	0	6.4	5.1	6.2	3.1	0	9.1	5.5	14.8	2.7	0	4.8	5.4



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Client: VHB/J. Quitter

File Name : 81676 H-HHH
Site Code : 10111.31
Start Date : 10/1/2008
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Groups Printed- Cars - Heavy Vehicles

	Mill Pond Apartments Driveway From North			Washington Street (Route 140) From East			Frederick Martin Sr Parkway From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	1	0	207	53	34	1	20	74	157	2	549
04:15 PM	0	0	0	0	210	57	40	0	22	62	172	1	564
04:30 PM	0	0	0	0	219	56	33	0	24	63	134	1	530
04:45 PM	1	1	0	1	190	52	48	0	21	70	166	0	550
Total	1	1	1	1	826	218	155	1	87	269	629	4	2193
05:00 PM	2	0	0	0	186	64	42	1	21	104	143	0	563
05:15 PM	1	0	0	1	178	61	21	0	31	53	133	0	479
05:30 PM	0	0	1	0	206	50	25	0	16	55	174	3	530
05:45 PM	1	0	0	1	177	63	26	0	16	52	143	1	480
Total	4	0	1	2	747	238	114	1	84	264	593	4	2052
Grand Total	5	1	2	3	1573	456	269	2	171	533	1222	8	4245
Apprch %	62.5	12.5	25	0.1	77.4	22.4	60.9	0.5	38.7	30.2	69.3	0.5	
Total %	0.1	0	0	0.1	37.1	10.7	6.3	0	4	12.6	28.8	0.2	
Cars	5	1	2	3	1531	454	267	2	164	512	1197	8	4146
% Cars	100	100	100	100	97.3	99.6	99.3	100	95.9	96.1	98	100	97.7
Heavy Vehicles	0	0	0	0	42	2	2	0	7	21	25	0	99
% Heavy Vehicles	0	0	0	0	2.7	0.4	0.7	0	4.1	3.9	2	0	2.3

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	210	57	267	40	0	22	62	62	**172**	**1**	235	**564**
04:30 PM	0	0	0	0	0	**219**	56	**275**	33	0	**24**	57	63	134	1	198	530
04:45 PM	1	**1**	0	**2**	**1**	190	52	243	**48**	0	21	**69**	70	166	0	236	550
05:00 PM	**2**	0	0	2	0	186	**64**	250	42	**1**	21	64	**104**	143	0	**247**	563
Total Volume	3	1	0	4	1	805	229	1035	163	1	88	252	299	615	2	916	2207
% App. Total	75	25	0		0.1	77.8	22.1		64.7	0.4	34.9		32.6	67.1	0.2		
PHF	.375	.250	.000	.500	.250	.919	.895	.941	.849	.250	.917	.913	.719	.894	.500	.927	.978
Cars	3	1	0	4	1	786	227	1014	163	1	87	251	290	601	2	893	2162
% Cars	100	100	0	100	100	97.6	99.1	98.0	100	100	98.9	99.6	97.0	97.7	100	97.5	98.0
Heavy Vehicles	0	0	0	0	0	19	2	21	0	0	1	1	9	14	0	23	45
% Heavy Vehicles	0	0	0	0	0	2.4	0.9	2.0	0	0	1.1	0.4	3.0	2.3	0	2.5	2.0

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File Name : 81676 H-HHH
Site Code : 10111.31
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Page No : 1

Groups Printed- Cars

	Mill Pond Apartments Driveway From North			Washington Street (Route 140) From East			Frederick Martin Sr Parkway From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	1	0	198	53	34	1	19	72	155	2	535
04:15 PM	0	0	0	0	204	56	40	0	22	60	166	1	549
04:30 PM	0	0	0	0	215	55	33	0	24	61	133	1	522
04:45 PM	1	1	0	1	184	52	48	0	20	69	163	0	539
Total	1	1	1	1	801	216	155	1	85	262	617	4	2145
05:00 PM	2	0	0	0	183	64	42	1	21	100	139	0	552
05:15 PM	1	0	0	1	173	61	21	0	30	49	130	0	466
05:30 PM	0	0	1	0	201	50	25	0	15	52	171	3	518
05:45 PM	1	0	0	1	173	63	24	0	13	49	140	1	465
Total	4	0	1	2	730	238	112	1	79	250	580	4	2001
Grand Total	5	1	2	3	1531	454	267	2	164	512	1197	8	4146
Apprch %	62.5	12.5	25	0.2	77	22.8	61.7	0.5	37.9	29.8	69.7	0.5	
Total %	0.1	0	0	0.1	36.9	11	6.4	0	4	12.3	28.9	0.2	

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	204	56	260	40	0	22	62	60	**166**	**1**	227	549
04:30 PM	0	0	0	0	0	**215**	55	**270**	33	0	**24**	57	61	133	1	195	522
04:45 PM	1	**1**	0	**2**	**1**	184	52	237	**48**	0	20	**68**	69	163	0	232	539
05:00 PM	**2**	0	0	2	0	183	**64**	247	42	**1**	21	64	**100**	139	0	**239**	**552**
Total Volume	3	1	0	4	1	786	227	1014	163	1	87	251	290	601	2	893	2162
% App. Total	75	25	0		0.1	77.5	22.4		64.9	0.4	34.7		32.5	67.3	0.2		
PHF	.375	.250	.000	.500	.250	.914	.887	.939	.849	.250	.906	.923	.725	.905	.500	.934	.979

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Groups Printed- Heavy Vehicles

	Mill Pond Apartments Driveway From North			Washington Street (Route 140) From East			Frederick Martin Sr Parkway From South			Washington Street (Route 140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	9	0	0	0	1	2	2	0	14
04:15 PM	0	0	0	0	6	1	0	0	0	2	6	0	15
04:30 PM	0	0	0	0	4	1	0	0	0	2	1	0	8
04:45 PM	0	0	0	0	6	0	0	0	1	1	3	0	11
Total	0	0	0	0	25	2	0	0	2	7	12	0	48
05:00 PM	0	0	0	0	3	0	0	0	0	4	4	0	11
05:15 PM	0	0	0	0	5	0	0	0	1	4	3	0	13
05:30 PM	0	0	0	0	5	0	0	0	1	3	3	0	12
05:45 PM	0	0	0	0	4	0	2	0	3	3	3	0	15
Total	0	0	0	0	17	0	2	0	5	14	13	0	51
Grand Total	0	0	0	0	42	2	2	0	7	21	25	0	99
Apprch %	0	0	0	0	95.5	4.5	22.2	0	77.8	45.7	54.3	0	
Total %	0	0	0	0	42.4	2	2	0	7.1	21.2	25.3	0	

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	**4**	**4**	0	**8**	11
05:15 PM	0	0	0	0	0	**5**	0	**5**	0	0	1	1	4	3	0	7	13
05:30 PM	0	0	0	0	0	5	0	5	0	0	1	1	3	3	0	6	12
05:45 PM	0	0	0	0	0	4	0	4	**2**	0	**3**	**5**	3	3	0	6	**15**
Total Volume	0	0	0	0	0	17	0	17	2	0	5	7	14	13	0	27	51
% App. Total	0	0	0		0	100	0		28.6	0	71.4		51.9	48.1	0		
PHF	.000	.000	.000	.000	.000	.850	.000	.850	.250	.000	.417	.350	.875	.813	.000	.844	.850

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Groups Printed- Peds and Bicycles

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	14	0	0	0	1	0	0	0	0	0	0	0	2	17
04:15 PM	0	0	0	8	0	1	0	1	1	0	0	0	1	1	0	0	13
04:30 PM	0	0	0	10	0	1	0	6	0	0	0	1	0	0	0	2	20
04:45 PM	0	0	0	14	0	0	0	0	0	0	0	5	0	2	0	0	21
Total	0	0	0	46	0	2	0	8	1	0	0	6	1	3	0	4	71
05:00 PM	0	0	0	5	0	0	1	0	0	0	1	0	0	0	0	0	7
05:15 PM	0	0	0	4	0	1	0	0	0	0	0	1	0	0	0	0	6
05:30 PM	0	0	0	7	0	0	0	1	0	0	0	2	0	0	0	0	10
05:45 PM	0	0	0	5	0	4	0	0	0	0	0	3	0	0	0	0	12
Total	0	0	0	21	0	5	1	1	0	0	1	6	0	0	0	0	35
Grand Total	0	0	0	67	0	7	1	9	1	0	1	12	1	3	0	4	106
Apprch %	0	0	0	100	0	41.2	5.9	52.9	7.1	0	7.1	85.7	12.5	37.5	0	50	
Total %	0	0	0	63.2	0	6.6	0.9	8.5	0.9	0	0.9	11.3	0.9	2.8	0	3.8	

	Mill Pond Apartments Driveway From North					Washington Street (Route 140) From East					Frederick Martin Sr Parkway From South					Washington Street (Route 140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	**14**	**14**	0	0	0	1	1	0	0	0	0	0	0	0	0	**2**	**2**	17
04:15 PM	0	0	0	8	8	0	**1**	**0**	**1**	**2**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**2**	**13**
04:30 PM	**0**	**0**	**0**	**10**	**10**	**0**	**1**	**0**	**6**	**7**	0	0	0	1	1	0	0	0	2	2	20
04:45 PM	0	0	0	14	14	0	0	0	0	0	0	0	0	**5**	**5**	0	**2**	0	0	2	**21**
Total Volume	0	0	0	46	46	0	2	0	8	10	1	0	0	6	7	1	3	0	4	8	71
% App. Total	0	0	0	100		0	20	0	80		14.3	0	0	85.7		12.5	37.5	0	50		
PHF	.000	.000	.000	.821	.821	.000	.500	.000	.333	.357	.250	.000	.000	.300	.350	.250	.375	.000	.500	1.000	.845

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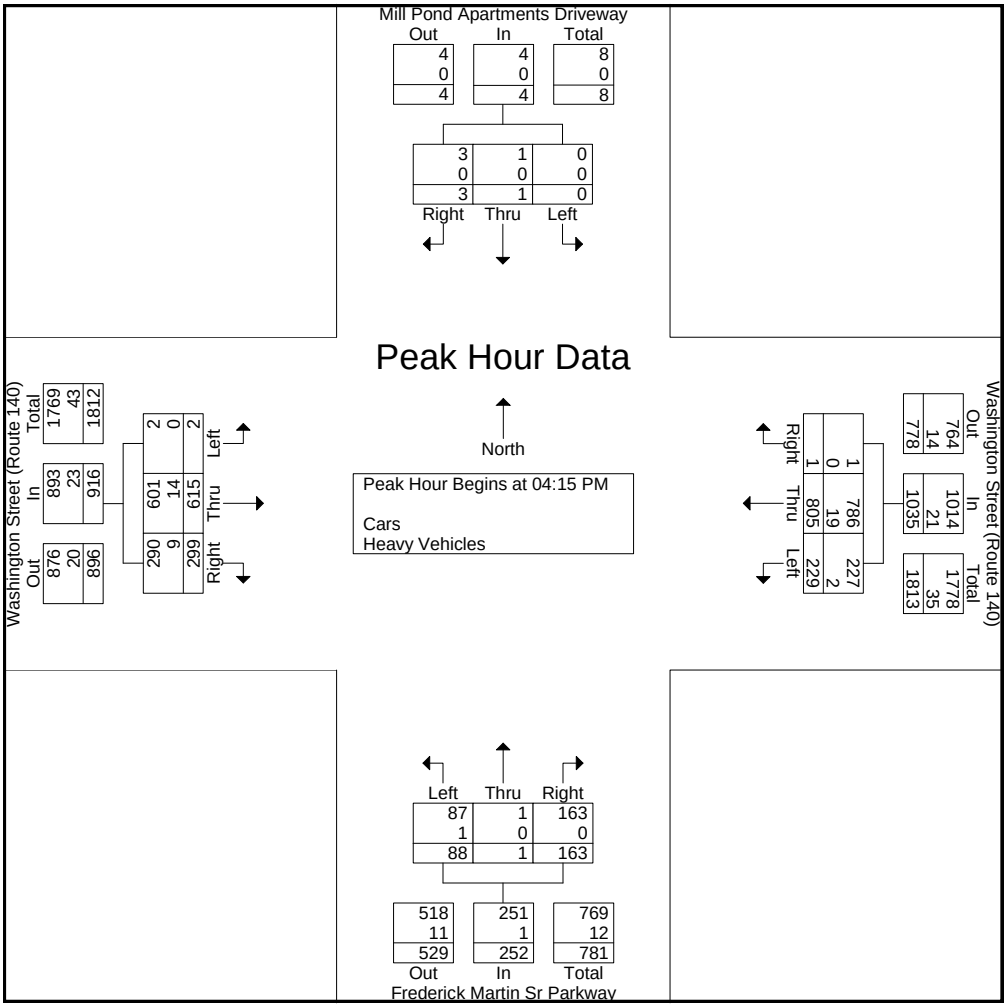
N/S: Mill Pond Dr/Frederick Martin Prky
E/W: Washington Street (Route 140)
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-HHH
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

	Mill Pond Apartments Driveway From North				Washington Street (Route 140) From East				Frederick Martin Sr Parkway From South				Washington Street (Route 140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	210	57	267	40	0	22	62	62	**172**	**1**	235	**564**
04:30 PM	0	0	0	0	0	**219**	56	**275**	33	0	**24**	57	63	134	1	198	530
04:45 PM	1	**1**	0	**2**	**1**	190	52	243	**48**	0	21	**69**	70	166	0	236	550
05:00 PM	**2**	0	0	2	0	186	**64**	250	42	**1**	21	64	**104**	143	0	**247**	563
Total Volume	3	1	0	4	1	805	229	1035	163	1	88	252	299	615	2	916	2207
% App. Total	75	25	0		0.1	77.8	22.1		64.7	0.4	34.9		32.6	67.1	0.2		
PHF	.375	.250	.000	.500	.250	.919	.895	.941	.849	.250	.917	.913	.719	.894	.500	.927	.978
Cars	3	1	0	4	1	786	227	1014	163	1	87	251	290	601	2	893	2162
% Cars	100	100	0	100	100	97.6	99.1	98.0	100	100	98.9	99.6	97.0	97.7	100	97.5	98.0
Heavy Vehicles	0	0	0	0	0	19	2	21	0	0	1	1	9	14	0	23	45
% Heavy Vehicles	0	0	0	0	0	2.4	0.9	2.0	0	0	1.1	0.4	3.0	2.3	0	2.5	2.0



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N/S: Taunton Green/Weir Street
E/W: Main Street/Taunton Green
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-A
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Main Street (Route 44/140) From East			Weir Street (Route 138) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	12	72	0	30	174	37	325
07:15 AM	0	0	0	0	0	0	21	72	0	49	193	41	376
07:30 AM	0	0	0	0	0	0	15	81	0	40	190	49	375
07:45 AM	0	0	0	0	0	0	31	70	0	51	201	46	399
Total	0	0	0	0	0	0	79	295	0	170	758	173	1475
08:00 AM	0	0	0	0	0	0	18	55	0	39	147	34	293
08:15 AM	0	0	0	0	0	0	17	52	0	52	156	51	328
08:30 AM	0	0	0	0	0	0	33	58	0	55	174	64	384
08:45 AM	0	0	0	0	0	0	42	66	0	62	177	65	412
Total	0	0	0	0	0	0	110	231	0	208	654	214	1417
Grand Total	0	0	0	0	0	0	189	526	0	378	1412	387	2892
Apprch %	0	0	0	0	0	0	26.4	73.6	0	17.4	64.9	17.8	
Total %	0	0	0	0	0	0	6.5	18.2	0	13.1	48.8	13.4	
Cars	0	0	0	0	0	0	171	490	0	339	1336	365	2701
% Cars	0	0	0	0	0	0	90.5	93.2	0	89.7	94.6	94.3	93.4
Heavy Vehicles	0	0	0	0	0	0	18	36	0	39	76	22	191
% Heavy Vehicles	0	0	0	0	0	0	9.5	6.8	0	10.3	5.4	5.7	6.6

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	12	72	0	84	30	174	37	241	325
07:15 AM	0	0	0	0	0	0	0	0	21	72	0	93	49	193	41	283	376
07:30 AM	0	0	0	0	0	0	0	0	15	**81**	0	96	40	190	**49**	279	375
07:45 AM	0	0	0	0	0	0	0	0	**31**	70	0	**101**	**51**	**201**	46	**298**	**399**
Total Volume	0	0	0	0	0	0	0	0	79	295	0	374	170	758	173	1101	1475
% App. Total	0	0	0		0	0	0		21.1	78.9	0		15.4	68.8	15.7		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.637	.910	.000	.926	.833	.943	.883	.924	.924
Cars	0	0	0	0	0	0	0	0	73	280	0	353	151	722	161	1034	1387
% Cars	0	0	0	0	0	0	0	0	92.4	94.9	0	94.4	88.8	95.3	93.1	93.9	94.0
Heavy Vehicles	0	0	0	0	0	0	0	0	6	15	0	21	19	36	12	67	88
% Heavy Vehicles	0	0	0	0	0	0	0	0	7.6	5.1	0	5.6	11.2	4.7	6.9	6.1	6.0

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E/W: Main Street/Taunton Green
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-A
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars

	Taunton Green (Route 44/138/140) From North			Main Street (Route 44/140) From East			Weir Street (Route 138) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	12	70	0	27	169	35	313
07:15 AM	0	0	0	0	0	0	20	69	0	41	181	38	349
07:30 AM	0	0	0	0	0	0	14	77	0	36	178	45	350
07:45 AM	0	0	0	0	0	0	27	64	0	47	194	43	375
Total	0	0	0	0	0	0	73	280	0	151	722	161	1387
08:00 AM	0	0	0	0	0	0	17	50	0	35	136	33	271
08:15 AM	0	0	0	0	0	0	14	47	0	44	148	50	303
08:30 AM	0	0	0	0	0	0	31	55	0	52	162	60	360
08:45 AM	0	0	0	0	0	0	36	58	0	57	168	61	380
Total	0	0	0	0	0	0	98	210	0	188	614	204	1314
Grand Total	0	0	0	0	0	0	171	490	0	339	1336	365	2701
Apprch %	0	0	0	0	0	0	25.9	74.1	0	16.6	65.5	17.9	
Total %	0	0	0	0	0	0	6.3	18.1	0	12.6	49.5	13.5	

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	12	70	0	82	27	169	35	231	313
07:15 AM	0	0	0	0	0	0	0	0	20	69	0	89	41	181	38	260	349
07:30 AM	0	0	0	0	0	0	0	0	14	**77**	0	**91**	36	178	**45**	259	350
07:45 AM	0	0	0	0	0	0	0	0	**27**	64	0	91	**47**	**194**	43	**284**	**375**
Total Volume	0	0	0	0	0	0	0	0	73	280	0	353	151	722	161	1034	1387
% App. Total	0	0	0		0	0	0		20.7	79.3	0		14.6	69.8	15.6		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.676	.909	.000	.970	.803	.930	.894	.910	.925

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Start Date : 10/1/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Main Street (Route 44/140) From East			Weir Street (Route 138) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	0	2	0	3	5	2	12
07:15 AM	0	0	0	0	0	0	1	3	0	8	12	3	27
07:30 AM	0	0	0	0	0	0	1	4	0	4	12	4	25
07:45 AM	0	0	0	0	0	0	4	6	0	4	7	3	24
Total	0	0	0	0	0	0	6	15	0	19	36	12	88
08:00 AM	0	0	0	0	0	0	1	5	0	4	11	1	22
08:15 AM	0	0	0	0	0	0	3	5	0	8	8	1	25
08:30 AM	0	0	0	0	0	0	2	3	0	3	12	4	24
08:45 AM	0	0	0	0	0	0	6	8	0	5	9	4	32
Total	0	0	0	0	0	0	12	21	0	20	40	10	103
Grand Total	0	0	0	0	0	0	18	36	0	39	76	22	191
Apprch %	0	0	0	0	0	0	33.3	66.7	0	28.5	55.5	16.1	
Total %	0	0	0	0	0	0	9.4	18.8	0	20.4	39.8	11.5	

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	0	0	1	5	0	6	4	11	1	16	22
08:15 AM	0	0	0	0	0	0	0	0	3	5	0	8	**8**	8	1	17	25
08:30 AM	0	0	0	0	0	0	0	0	2	3	0	5	3	**12**	**4**	**19**	24
08:45 AM	0	0	0	0	0	0	0	0	**6**	**8**	0	**14**	5	9	4	18	**32**
Total Volume	0	0	0	0	0	0	0	0	12	21	0	33	20	40	10	70	103
% App. Total	0	0	0		0	0	0		36.4	63.6	0		28.6	57.1	14.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.500	.656	.000	.589	.625	.833	.625	.921	.805

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Groups Printed- Peds and Bicycles

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1	5
07:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	8
Total	0	0	0	2	0	0	0	3	0	1	0	6	0	0	1	5	18
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	5
08:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3
Total	0	0	0	0	0	0	0	2	0	0	0	7	0	0	0	4	13
Grand Total	0	0	0	2	0	0	0	5	0	1	0	13	0	0	1	9	31
Apprch %	0	0	0	100	0	0	0	100	0	7.1	0	92.9	0	0	10	90	
Total %	0	0	0	6.5	0	0	0	16.1	0	3.2	0	41.9	0	0	3.2	29	

	Taunton Green (Route 44/138/140) From North					Main Street (Route 44/140) From East					Weir Street (Route 138) From South					Taunton Green (Route 44/138/140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	**2**	**2**	0	0	0	**1**	**1**	0	0	0	1	1	0	0	0	1	1	5
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**
07:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**	**3**
07:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	0	0	0	**3**	**3**	**8**
Total Volume	0	0	0	2	2	0	0	0	3	3	0	1	0	6	7	0	0	1	5	6	18
% App. Total	0	0	0	100		0	0	0	100		0	14.3	0	85.7		0	0	16.7	83.3		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.750	.750	.000	.250	.000	.300	.350	.000	.000	.250	.417	.500	.563

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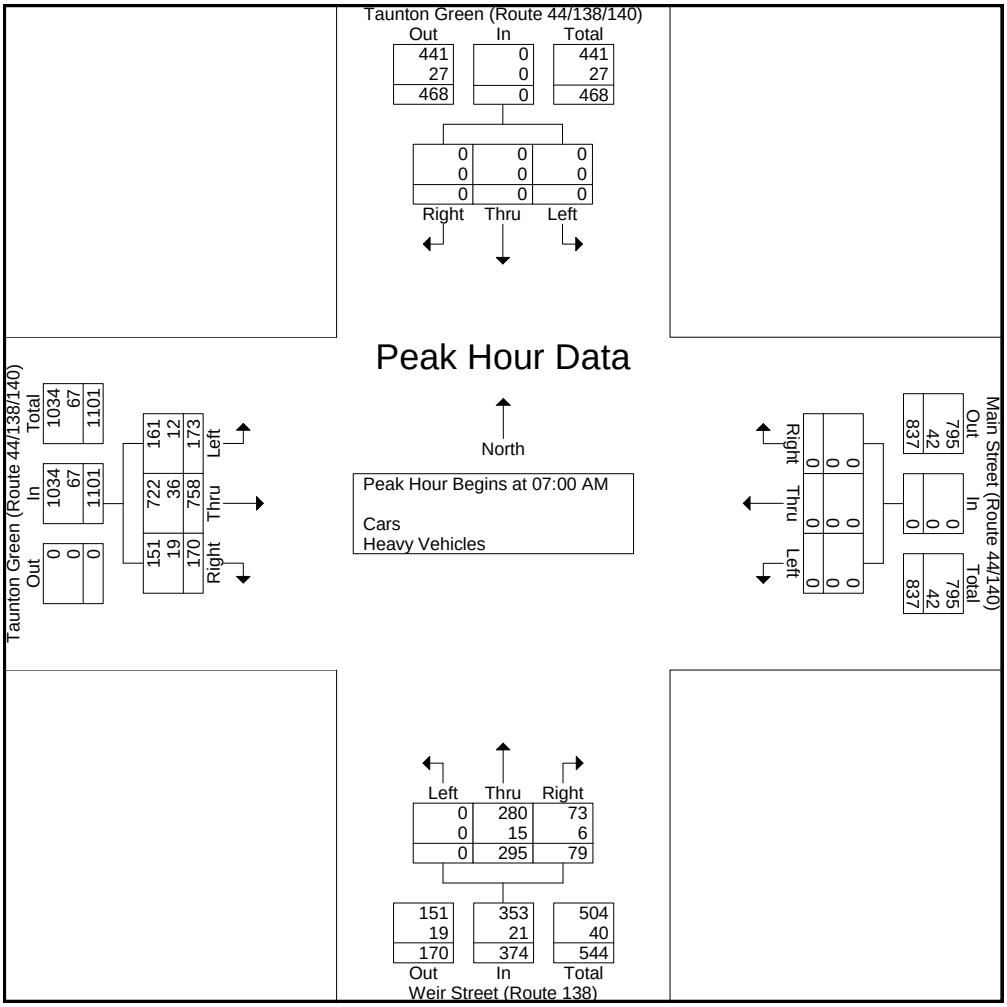
	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	12	72	0	84	30	174	37	241	325
07:15 AM	0	0	0	0	0	0	0	0	21	72	0	93	49	193	41	283	376
07:30 AM	0	0	0	0	0	0	0	0	15	**81**	0	96	40	190	**49**	279	375
07:45 AM	0	0	0	0	0	0	0	0	**31**	70	0	**101**	**51**	**201**	46	**298**	**399**
Total Volume	0	0	0	0	0	0	0	0	79	295	0	374	170	758	173	1101	1475
% App. Total	0	0	0		0	0	0		21.1	78.9	0		15.4	68.8	15.7		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.637	.910	.000	.926	.833	.943	.883	.924	.924
Cars	0	0	0	0	0	0	0	0	73	280	0	353	151	722	161	1034	1387
% Cars	0	0	0	0	0	0	0	0	92.4	94.9	0	94.4	88.8	95.3	93.1	93.9	94.0
Heavy Vehicles	0	0	0	0	0	0	0	0	6	15	0	21	19	36	12	67	88
% Heavy Vehicles	0	0	0	0	0	0	0	0	7.6	5.1	0	5.6	11.2	4.7	6.9	6.1	6.0



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N/S: Taunton Green/Weir Street
E/W: Main Street/Taunton Green
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-AAA
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Main Street (Route 44/140) From East			Weir Street (Route 138) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	24	47	0	77	209	43	400
04:15 PM	0	0	0	0	0	0	17	48	0	75	206	39	385
04:30 PM	0	0	0	0	0	0	34	55	0	90	228	41	448
04:45 PM	0	0	0	0	0	0	37	40	0	80	220	38	415
Total	0	0	0	0	0	0	112	190	0	322	863	161	1648
05:00 PM	0	0	0	0	0	0	35	47	0	74	200	44	400
05:15 PM	0	0	0	0	0	0	29	48	0	85	203	42	407
05:30 PM	0	0	0	0	0	0	29	40	0	87	198	39	393
05:45 PM	0	0	0	0	0	0	19	54	0	73	185	35	366
Total	0	0	0	0	0	0	112	189	0	319	786	160	1566
Grand Total	0	0	0	0	0	0	224	379	0	641	1649	321	3214
Apprch %	0	0	0	0	0	0	37.1	62.9	0	24.5	63.2	12.3	
Total %	0	0	0	0	0	0	7	11.8	0	19.9	51.3	10	
Cars	0	0	0	0	0	0	219	369	0	626	1600	316	3130
% Cars	0	0	0	0	0	0	97.8	97.4	0	97.7	97	98.4	97.4
Heavy Vehicles	0	0	0	0	0	0	5	10	0	15	49	5	84
% Heavy Vehicles	0	0	0	0	0	0	2.2	2.6	0	2.3	3	1.6	2.6

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	34	**55**	0	**89**	**90**	**228**	41	**359**	**448**
04:45 PM	0	0	0	0	0	0	0	0	**37**	40	0	77	80	220	38	338	415
05:00 PM	0	0	0	0	0	0	0	0	35	47	0	82	74	200	**44**	318	400
05:15 PM	0	0	0	0	0	0	0	0	29	48	0	77	85	203	42	330	407
Total Volume	0	0	0	0	0	0	0	0	135	190	0	325	329	851	165	1345	1670
% App. Total	0	0	0		0	0	0		41.5	58.5	0		24.5	63.3	12.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.912	.864	.000	.913	.914	.933	.938	.937	.932
Cars	0	0	0	0	0	0	0	0	133	187	0	320	322	822	164	1308	1628
% Cars	0	0	0	0	0	0	0	0	98.5	98.4	0	98.5	97.9	96.6	99.4	97.2	97.5
Heavy Vehicles	0	0	0	0	0	0	0	0	2	3	0	5	7	29	1	37	42
% Heavy Vehicles	0	0	0	0	0	0	0	0	1.5	1.6	0	1.5	2.1	3.4	0.6	2.8	2.5

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N/S: Taunton Green/Weir Street
E/W: Main Street/Taunton Green
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-AAA
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Cars

	Taunton Green (Route 44/138/140) From North			Main Street (Route 44/140) From East			Weir Street (Route 138) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	23	44	0	74	203	43	387
04:15 PM	0	0	0	0	0	0	16	47	0	74	201	37	375
04:30 PM	0	0	0	0	0	0	34	55	0	88	221	41	439
04:45 PM	0	0	0	0	0	0	37	39	0	78	216	37	407
Total	0	0	0	0	0	0	110	185	0	314	841	158	1608
05:00 PM	0	0	0	0	0	0	33	45	0	73	188	44	383
05:15 PM	0	0	0	0	0	0	29	48	0	83	197	42	399
05:30 PM	0	0	0	0	0	0	29	39	0	86	194	38	386
05:45 PM	0	0	0	0	0	0	18	52	0	70	180	34	354
Total	0	0	0	0	0	0	109	184	0	312	759	158	1522
Grand Total	0	0	0	0	0	0	219	369	0	626	1600	316	3130
Apprch %	0	0	0	0	0	0	37.2	62.8	0	24.6	62.9	12.4	
Total %	0	0	0	0	0	0	7	11.8	0	20	51.1	10.1	

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	34	**55**	0	**89**	**88**	**221**	41	**350**	**439**
04:45 PM	0	0	0	0	0	0	0	0	**37**	39	0	76	78	216	37	331	407
05:00 PM	0	0	0	0	0	0	0	0	33	45	0	78	73	188	**44**	305	383
05:15 PM	0	0	0	0	0	0	0	0	29	48	0	77	83	197	42	322	399
Total Volume	0	0	0	0	0	0	0	0	133	187	0	320	322	822	164	1308	1628
% App. Total	0	0	0		0	0	0		41.6	58.4	0		24.6	62.8	12.5		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.899	.850	.000	.899	.915	.930	.932	.934	.927

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-AAA
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Taunton Green (Route 44/138/140) From North			Main Street (Route 44/140) From East			Weir Street (Route 138) From South			Taunton Green (Route 44/138/140) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	1	3	0	3	6	0	13
04:15 PM	0	0	0	0	0	0	1	1	0	1	5	2	10
04:30 PM	0	0	0	0	0	0	0	0	0	2	7	0	9
04:45 PM	0	0	0	0	0	0	0	1	0	2	4	1	8
Total	0	0	0	0	0	0	2	5	0	8	22	3	40
05:00 PM	0	0	0	0	0	0	2	2	0	1	12	0	17
05:15 PM	0	0	0	0	0	0	0	0	0	2	6	0	8
05:30 PM	0	0	0	0	0	0	0	1	0	1	4	1	7
05:45 PM	0	0	0	0	0	0	1	2	0	3	5	1	12
Total	0	0	0	0	0	0	3	5	0	7	27	2	44
Grand Total	0	0	0	0	0	0	5	10	0	15	49	5	84
Apprch %	0	0	0	0	0	0	33.3	66.7	0	21.7	71	7.2	
Total %	0	0	0	0	0	0	6	11.9	0	17.9	58.3	6	

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	1	1	0	2	1	5	**2**	8	10
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	**2**	7	0	9	9
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	2	4	1	7	8
05:00 PM	0	0	0	0	0	0	0	0	**2**	**2**	0	**4**	1	**12**	0	**13**	**17**
Total Volume	0	0	0	0	0	0	0	0	3	4	0	7	6	28	3	37	44
% App. Total	0	0	0		0	0	0		42.9	57.1	0		16.2	75.7	8.1		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.375	.500	.000	.438	.750	.583	.375	.712	.647

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 H-AAA
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	2	14
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	3	7
Total	0	0	0	1	0	0	0	0	0	0	0	23	0	0	0	5	29
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	5	11
05:15 PM	0	0	0	0	0	0	0	1	0	0	0	7	0	0	0	1	9
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	4	7
Total	0	0	0	1	0	0	0	1	0	0	0	17	0	2	0	10	31
Grand Total	0	0	0	2	0	0	0	1	0	0	0	40	0	2	0	15	60
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	0	11.8	0	88.2	
Total %	0	0	0	3.3	0	0	0	1.7	0	0	0	66.7	0	3.3	0	25	

	Taunton Green (Route 44/138/140) From North					Main Street (Route 44/140) From East					Weir Street (Route 138) From South					Taunton Green (Route 44/138/140) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	3	3	0	0	0	3	3	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	**5**	**5**	**11**
05:15 PM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	**7**	**7**	0	0	0	1	1	9
05:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2	0	**1**	0	0	1	4
Total Volume	0	0	0	2	2	0	0	0	1	1	0	0	0	18	18	0	1	0	9	10	31
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	10	0	90		
PHF	.000	.000	.000	.500	.500	.000	.000	.000	.250	.250	.000	.000	.000	.643	.643	.000	.250	.000	.450	.500	.705

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City, State: Taunton, MA
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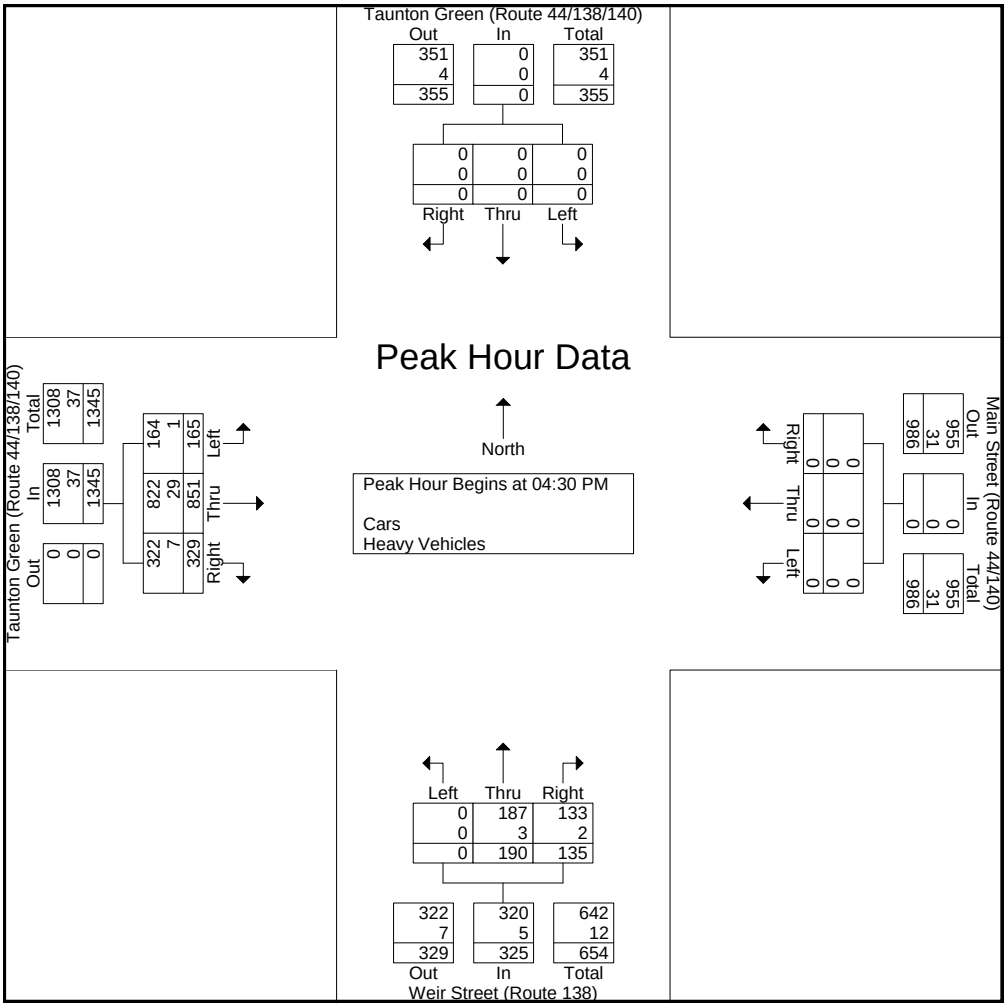
File Name : 81676 H-AAA
Site Code : 10111.31
Start Date : 10/1/2008
Page No : 1

	Taunton Green (Route 44/138/140) From North				Main Street (Route 44/140) From East				Weir Street (Route 138) From South				Taunton Green (Route 44/138/140) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	34	**55**	0	**89**	**90**	**228**	41	**359**	**448**
04:45 PM	0	0	0	0	0	0	0	0	**37**	40	0	77	80	220	38	338	415
05:00 PM	0	0	0	0	0	0	0	0	35	47	0	82	74	200	**44**	318	400
05:15 PM	0	0	0	0	0	0	0	0	29	48	0	77	85	203	42	330	407
Total Volume	0	0	0	0	0	0	0	0	135	190	0	325	329	851	165	1345	1670
% App. Total	0	0	0		0	0	0		41.5	58.5	0		24.5	63.3	12.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.912	.864	.000	.913	.914	.933	.938	.937	.932
Cars	0	0	0	0	0	0	0	0	133	187	0	320	322	822	164	1308	1628
% Cars	0	0	0	0	0	0	0	0	98.5	98.4	0	98.5	97.9	96.6	99.4	97.2	97.5
Heavy Vehicles	0	0	0	0	0	0	0	0	2	3	0	5	7	29	1	37	42
% Heavy Vehicles	0	0	0	0	0	0	0	0	1.5	1.6	0	1.5	2.1	3.4	0.6	2.8	2.5



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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Thurs 9/11/08 and Sat 9/13/08	81676	Taunton, MA

PRECISION DATA INDUSTRIES, LLC
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N/S: County Street (Route 140)
E/W: Hart Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-A
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North			Hart Street From East			County Street (Route 140) From South			Hart Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	122	18	32	18	26	17	120	26	64	36	6	488
07:15 AM	1	81	24	48	21	37	12	129	35	72	44	8	512
07:30 AM	3	138	28	60	32	22	17	146	31	61	35	5	578
07:45 AM	2	97	23	56	21	25	12	159	27	55	33	6	516
Total	9	438	93	196	92	110	58	554	119	252	148	25	2094
08:00 AM	2	82	11	57	26	29	15	139	33	44	29	4	471
08:15 AM	0	97	19	50	16	22	12	118	15	47	16	8	420
08:30 AM	2	92	16	44	14	14	12	105	32	40	31	8	410
08:45 AM	4	92	25	49	23	21	11	130	21	40	20	4	440
Total	8	363	71	200	79	86	50	492	101	171	96	24	1741
Grand Total	17	801	164	396	171	196	108	1046	220	423	244	49	3835
Apprch %	1.7	81.6	16.7	51.9	22.4	25.7	7.9	76.1	16	59.1	34.1	6.8	
Total %	0.4	20.9	4.3	10.3	4.5	5.1	2.8	27.3	5.7	11	6.4	1.3	
Cars	15	747	147	386	163	192	106	1001	210	413	234	49	3663
% Cars	88.2	93.3	89.6	97.5	95.3	98	98.1	95.7	95.5	97.6	95.9	100	95.5
Heavy Vehicles	2	54	17	10	8	4	2	45	10	10	10	0	172
% Heavy Vehicles	11.8	6.7	10.4	2.5	4.7	2	1.9	4.3	4.5	2.4	4.1	0	4.5

	County Street (Route 140) From North				Hart Street From East				County Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**3**	122	18	143	32	18	26	76	**17**	120	26	163	64	36	6	106	488
07:15 AM	1	81	24	106	48	21	**37**	106	12	129	**35**	176	**72**	**44**	**8**	**124**	512
07:30 AM	3	**138**	**28**	**169**	**60**	**32**	22	**114**	17	146	31	194	61	35	5	101	**578**
07:45 AM	2	97	23	122	56	21	25	102	12	**159**	27	**198**	55	33	6	94	516
Total Volume	9	438	93	540	196	92	110	398	58	554	119	731	252	148	25	425	2094
% App. Total	1.7	81.1	17.2		49.2	23.1	27.6		7.9	75.8	16.3		59.3	34.8	5.9		
PHF	.750	.793	.830	.799	.817	.719	.743	.873	.853	.871	.850	.923	.875	.841	.781	.857	.906
Cars	8	411	85	504	193	90	109	392	57	527	114	698	249	141	25	415	2009
% Cars	88.9	93.8	91.4	93.3	98.5	97.8	99.1	98.5	98.3	95.1	95.8	95.5	98.8	95.3	100	97.6	95.9
Heavy Vehicles	1	27	8	36	3	2	1	6	1	27	5	33	3	7	0	10	85
% Heavy Vehicles	11.1	6.2	8.6	6.7	1.5	2.2	0.9	1.5	1.7	4.9	4.2	4.5	1.2	4.7	0	2.4	4.1

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N/S: County Street (Route 140)
E/W: Hart Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-A
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North			Hart Street From East			County Street (Route 140) From South			Hart Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	112	18	32	17	26	17	118	25	64	36	6	474
07:15 AM	1	78	20	46	21	36	12	125	34	71	42	8	494
07:30 AM	2	131	25	60	31	22	17	135	29	61	34	5	552
07:45 AM	2	90	22	55	21	25	11	149	26	53	29	6	489
Total	8	411	85	193	90	109	57	527	114	249	141	25	2009
08:00 AM	2	75	10	54	23	29	15	133	32	41	28	4	446
08:15 AM	0	94	17	50	14	22	12	112	15	45	16	8	405
08:30 AM	2	86	12	43	14	13	12	102	29	40	29	8	390
08:45 AM	3	81	23	46	22	19	10	127	20	38	20	4	413
Total	7	336	62	193	73	83	49	474	96	164	93	24	1654
Grand Total	15	747	147	386	163	192	106	1001	210	413	234	49	3663
Apprch %	1.7	82.2	16.2	52.1	22	25.9	8	76	15.9	59.3	33.6	7	
Total %	0.4	20.4	4	10.5	4.4	5.2	2.9	27.3	5.7	11.3	6.4	1.3	

	County Street (Route 140) From North				Hart Street From East				County Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**3**	112	18	133	32	17	26	75	**17**	118	25	160	64	36	6	106	474
07:15 AM	1	78	20	99	46	21	**36**	103	12	125	**34**	171	**71**	**42**	**8**	**121**	494
07:30 AM	2	**131**	**25**	**158**	**60**	**31**	22	**113**	17	135	29	181	61	34	5	100	**552**
07:45 AM	2	90	22	114	55	21	25	101	11	**149**	26	**186**	53	29	6	88	489
Total Volume	8	411	85	504	193	90	109	392	57	527	114	698	249	141	25	415	2009
% App. Total	1.6	81.5	16.9		49.2	23	27.8		8.2	75.5	16.3		60	34	6		
PHF	.667	.784	.850	.797	.804	.726	.757	.867	.838	.884	.838	.938	.877	.839	.781	.857	.910

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N/S: County Street (Route 140)
E/W: Hart Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-A
Site Code : 10111.31
Start Date : 9/11/2008
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Groups Printed- Heavy Vehicles

	County Street (Route 140) From North			Hart Street From East			County Street (Route 140) From South			Hart Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	10	0	0	1	0	0	2	1	0	0	0	14
07:15 AM	0	3	4	2	0	1	0	4	1	1	2	0	18
07:30 AM	1	7	3	0	1	0	0	11	2	0	1	0	26
07:45 AM	0	7	1	1	0	0	1	10	1	2	4	0	27
Total	1	27	8	3	2	1	1	27	5	3	7	0	85
08:00 AM	0	7	1	3	3	0	0	6	1	3	1	0	25
08:15 AM	0	3	2	0	2	0	0	6	0	2	0	0	15
08:30 AM	0	6	4	1	0	1	0	3	3	0	2	0	20
08:45 AM	1	11	2	3	1	2	1	3	1	2	0	0	27
Total	1	27	9	7	6	3	1	18	5	7	3	0	87
Grand Total	2	54	17	10	8	4	2	45	10	10	10	0	172
Apprch %	2.7	74	23.3	45.5	36.4	18.2	3.5	78.9	17.5	50	50	0	
Total %	1.2	31.4	9.9	5.8	4.7	2.3	1.2	26.2	5.8	5.8	5.8	0	

	County Street (Route 140) From North				Hart Street From East				County Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	3	**4**	7	2	0	**1**	3	0	4	1	5	1	2	0	3	18
07:30 AM	**1**	**7**	3	**11**	0	1	0	1	0	**11**	**2**	**13**	0	1	0	1	26
07:45 AM	0	7	1	8	1	0	0	1	**1**	10	1	12	2	**4**	0	**6**	**27**
08:00 AM	0	7	1	8	**3**	**3**	0	**6**	0	6	1	7	**3**	1	0	4	25
Total Volume	1	24	9	34	6	4	1	11	1	31	5	37	6	8	0	14	96
% App. Total	2.9	70.6	26.5		54.5	36.4	9.1		2.7	83.8	13.5		42.9	57.1	0		
PHF	.250	.857	.563	.773	.500	.333	.250	.458	.250	.705	.625	.712	.500	.500	.000	.583	.889

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File Name : 81676 G-A
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	County Street (Route 140) From North				Hart Street From East				County Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	1	0	2	0	1	0	0	0	0	0	0	0	0	4
08:15 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	5	0	2	0	1	0	0	0	0	0	0	0	0	8
Grand Total	0	0	0	7	0	2	0	2	0	0	0	0	0	0	0	0	11
Apprch %	0	0	0	100	0	50	0	50	0	0	0	0	0	0	0	0	
Total %	0	0	0	63.6	0	18.2	0	18.2	0	0	0	0	0	0	0	0	

	County Street (Route 140) From North					Hart Street From East					County Street (Route 140) From South					Hart Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	1	1	0	**2**	**0**	**1**	**3**	0	0	0	0	0	0	0	0	0	0	**4**
08:15 AM	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	5	5	0	2	0	2	4	0	0	0	0	0	0	0	0	0	0	9
% App. Total	0	0	0	100		0	50	0	50		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.625	.625	.000	.250	.000	.500	.333	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.563

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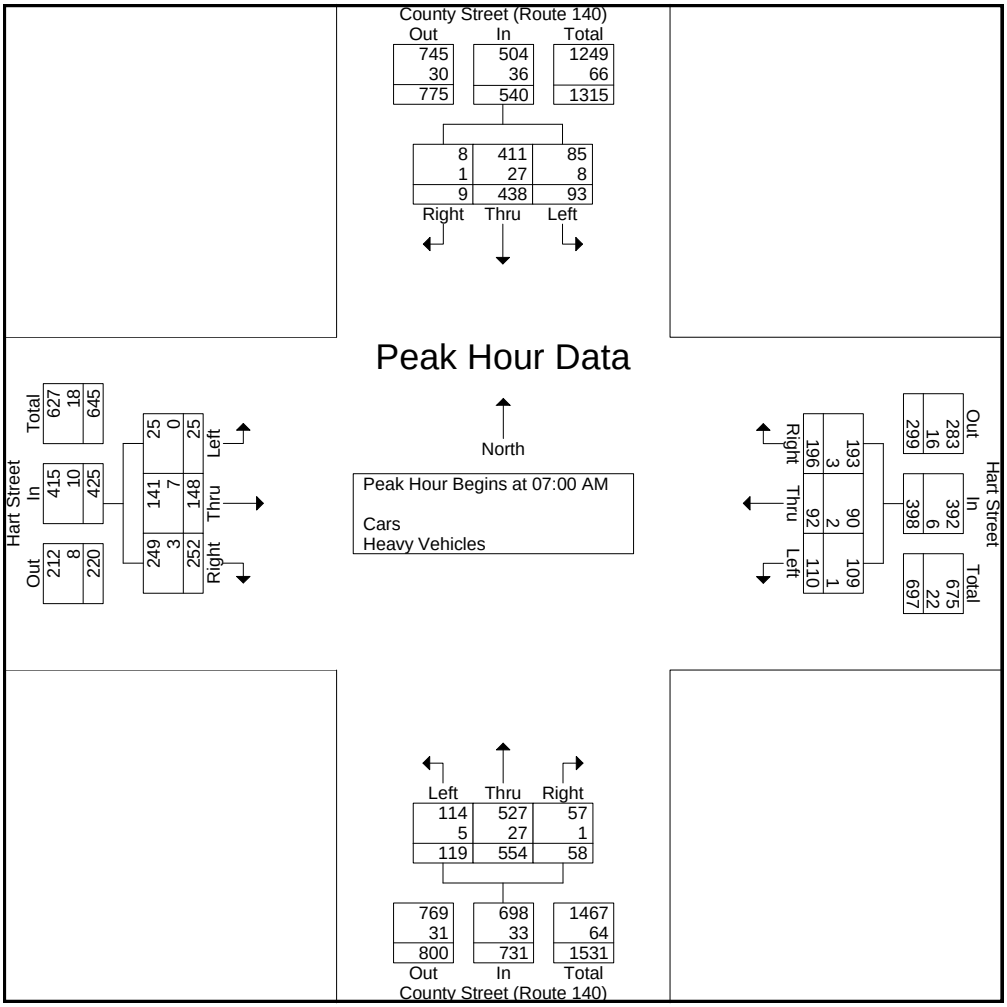
	County Street (Route 140) From North				Hart Street From East				County Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**3**	122	18	143	32	18	26	76	**17**	120	26	163	64	36	6	106	488
07:15 AM	1	81	24	106	48	21	**37**	106	12	129	**35**	176	**72**	**44**	**8**	**124**	512
07:30 AM	3	**138**	**28**	**169**	**60**	**32**	22	**114**	17	146	31	194	61	35	5	101	**578**
07:45 AM	2	97	23	122	56	21	25	102	12	**159**	27	**198**	55	33	6	94	516
Total Volume	9	438	93	540	196	92	110	398	58	554	119	731	252	148	25	425	2094
% App. Total	1.7	81.1	17.2		49.2	23.1	27.6		7.9	75.8	16.3		59.3	34.8	5.9		
PHF	.750	.793	.830	.799	.817	.719	.743	.873	.853	.871	.850	.923	.875	.841	.781	.857	.906
Cars	8	411	85	504	193	90	109	392	57	527	114	698	249	141	25	415	2009
% Cars	88.9	93.8	91.4	93.3	98.5	97.8	99.1	98.5	98.3	95.1	95.8	95.5	98.8	95.3	100	97.6	95.9
Heavy Vehicles	1	27	8	36	3	2	1	6	1	27	5	33	3	7	0	10	85
% Heavy Vehicles	11.1	6.2	8.6	6.7	1.5	2.2	0.9	1.5	1.7	4.9	4.2	4.5	1.2	4.7	0	2.4	4.1



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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-AAA
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Country Street (Route 140) From North			Hart Street From East			Country Street (Route 140) From South			Hart Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	3	161	28	33	32	23	21	160	55	42	20	8	586
04:15 PM	1	195	16	38	37	24	19	146	51	51	31	10	619
04:30 PM	2	205	32	44	31	28	25	178	50	26	23	3	647
04:45 PM	4	204	32	36	38	20	30	162	55	18	12	6	617
Total	10	765	108	151	138	95	95	646	211	137	86	27	2469
05:00 PM	3	213	17	40	38	28	35	145	62	58	29	18	686
05:15 PM	1	224	25	48	46	20	33	170	45	73	43	8	736
05:30 PM	5	176	34	39	38	27	17	143	57	65	34	10	645
05:45 PM	5	198	22	58	35	21	27	137	53	75	46	12	689
Total	14	811	98	185	157	96	112	595	217	271	152	48	2756
Grand Total	24	1576	206	336	295	191	207	1241	428	408	238	75	5225
Apprch %	1.3	87.3	11.4	40.9	35.9	23.2	11	66.2	22.8	56.6	33	10.4	
Total %	0.5	30.2	3.9	6.4	5.6	3.7	4	23.8	8.2	7.8	4.6	1.4	
Cars	24	1540	203	334	291	186	206	1228	419	404	234	75	5144
% Cars	100	97.7	98.5	99.4	98.6	97.4	99.5	99	97.9	99	98.3	100	98.4
Heavy Vehicles	0	36	3	2	4	5	1	13	9	4	4	0	81
% Heavy Vehicles	0	2.3	1.5	0.6	1.4	2.6	0.5	1	2.1	1	1.7	0	1.6

	Country Street (Route 140) From North				Hart Street From East				Country Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	213	17	233	40	38	**28**	106	**35**	145	**62**	242	58	29	**18**	105	686
05:15 PM	1	**224**	25	**250**	48	**46**	20	**114**	33	**170**	45	**248**	73	43	8	124	**736**
05:30 PM	**5**	176	**34**	215	39	38	27	104	17	143	57	217	65	34	10	109	645
05:45 PM	5	198	22	225	**58**	35	21	114	27	137	53	217	**75**	**46**	12	**133**	689
Total Volume	14	811	98	923	185	157	96	438	112	595	217	924	271	152	48	471	2756
% App. Total	1.5	87.9	10.6		42.2	35.8	21.9		12.1	64.4	23.5		57.5	32.3	10.2		
PHF	.700	.905	.721	.923	.797	.853	.857	.961	.800	.875	.875	.931	.903	.826	.667	.885	.936
Cars	14	800	98	912	184	155	94	433	111	586	212	909	268	149	48	465	2719
% Cars	100	98.6	100	98.8	99.5	98.7	97.9	98.9	99.1	98.5	97.7	98.4	98.9	98.0	100	98.7	98.7
Heavy Vehicles	0	11	0	11	1	2	2	5	1	9	5	15	3	3	0	6	37
% Heavy Vehicles	0	1.4	0	1.2	0.5	1.3	2.1	1.1	0.9	1.5	2.3	1.6	1.1	2.0	0	1.3	1.3

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-AAA
Site Code : 10111.31
Start Date : 9/11/2008
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Groups Printed- Cars

	Country Street (Route 140) From North			Hart Street From East			Country Street (Route 140) From South			Hart Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	3	156	27	33	31	22	21	159	53	42	20	8	575
04:15 PM	1	178	14	38	37	24	19	146	51	50	30	10	598
04:30 PM	2	204	32	43	31	26	25	175	49	26	23	3	639
04:45 PM	4	202	32	36	37	20	30	162	54	18	12	6	613
Total	10	740	105	150	136	92	95	642	207	136	85	27	2425
05:00 PM	3	212	17	40	37	28	34	143	62	56	29	18	679
05:15 PM	1	217	25	47	46	18	33	166	44	73	42	8	720
05:30 PM	5	176	34	39	37	27	17	141	55	65	33	10	639
05:45 PM	5	195	22	58	35	21	27	136	51	74	45	12	681
Total	14	800	98	184	155	94	111	586	212	268	149	48	2719
Grand Total	24	1540	203	334	291	186	206	1228	419	404	234	75	5144
Apprch %	1.4	87.2	11.5	41.2	35.9	22.9	11.1	66.3	22.6	56.7	32.8	10.5	
Total %	0.5	29.9	3.9	6.5	5.7	3.6	4	23.9	8.1	7.9	4.5	1.5	

	Country Street (Route 140) From North				Hart Street From East				Country Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	212	17	232	40	37	**28**	105	**34**	143	**62**	239	56	29	**18**	103	679
05:15 PM	1	**217**	25	**243**	47	**46**	18	111	33	**166**	44	**243**	73	42	8	123	**720**
05:30 PM	**5**	176	**34**	215	39	37	27	103	17	141	55	213	65	33	10	108	639
05:45 PM	5	195	22	222	**58**	35	21	**114**	27	136	51	214	**74**	**45**	12	**131**	681
Total Volume	14	800	98	912	184	155	94	433	111	586	212	909	268	149	48	465	2719
% App. Total	1.5	87.7	10.7		42.5	35.8	21.7		12.2	64.5	23.3		57.6	32	10.3		
PHF	.700	.922	.721	.938	.793	.842	.839	.950	.816	.883	.855	.935	.905	.828	.667	.887	.944

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Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Country Street (Route 140) From North			Hart Street From East			Country Street (Route 140) From South			Hart Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	5	1	0	1	1	0	1	2	0	0	0	11
04:15 PM	0	17	2	0	0	0	0	0	0	1	1	0	21
04:30 PM	0	1	0	1	0	2	0	3	1	0	0	0	8
04:45 PM	0	2	0	0	1	0	0	0	1	0	0	0	4
Total	0	25	3	1	2	3	0	4	4	1	1	0	44
05:00 PM	0	1	0	0	1	0	1	2	0	2	0	0	7
05:15 PM	0	7	0	1	0	2	0	4	1	0	1	0	16
05:30 PM	0	0	0	0	1	0	0	2	2	0	1	0	6
05:45 PM	0	3	0	0	0	0	0	1	2	1	1	0	8
Total	0	11	0	1	2	2	1	9	5	3	3	0	37
Grand Total	0	36	3	2	4	5	1	13	9	4	4	0	81
Apprch %	0	92.3	7.7	18.2	36.4	45.5	4.3	56.5	39.1	50	50	0	
Total %	0	44.4	3.7	2.5	4.9	6.2	1.2	16	11.1	4.9	4.9	0	

	Country Street (Route 140) From North				Hart Street From East				Country Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	5	1	6	0	**1**	1	2	0	1	**2**	3	0	0	0	0	11
04:15 PM	0	**17**	**2**	**19**	0	0	0	0	0	0	0	0	**1**	**1**	0	**2**	**21**
04:30 PM	0	1	0	1	**1**	0	**2**	**3**	0	**3**	1	**4**	0	0	0	0	8
04:45 PM	0	2	0	2	0	1	0	1	0	0	1	1	0	0	0	0	4
Total Volume	0	25	3	28	1	2	3	6	0	4	4	8	1	1	0	2	44
% App. Total	0	89.3	10.7		16.7	33.3	50		0	50	50		50	50	0		
PHF	.000	.368	.375	.368	.250	.500	.375	.500	.000	.333	.500	.500	.250	.250	.000	.250	.524

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File Name : 81676 G-AAA
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Country Street (Route 140) From North				Hart Street From East				Country Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
Total	0	0	0	2	0	0	0	3	1	0	0	0	0	0	0	0	6
Grand Total	0	1	0	2	0	0	0	3	1	1	0	0	0	0	0	0	8
Apprch %	0	33.3	0	66.7	0	0	0	100	50	50	0	0	0	0	0	0	
Total %	0	12.5	0	25	0	0	0	37.5	12.5	12.5	0	0	0	0	0	0	

	Country Street (Route 140) From North					Hart Street From East					Country Street (Route 140) From South					Hart Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**0**	**0**	**1**	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	**2**	**2**	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**3**
Total Volume	0	0	0	2	2	0	0	0	3	3	1	0	0	0	1	0	0	0	0	0	6
% App. Total	0	0	0	100		0	0	0	100		100	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.750	.750	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.500

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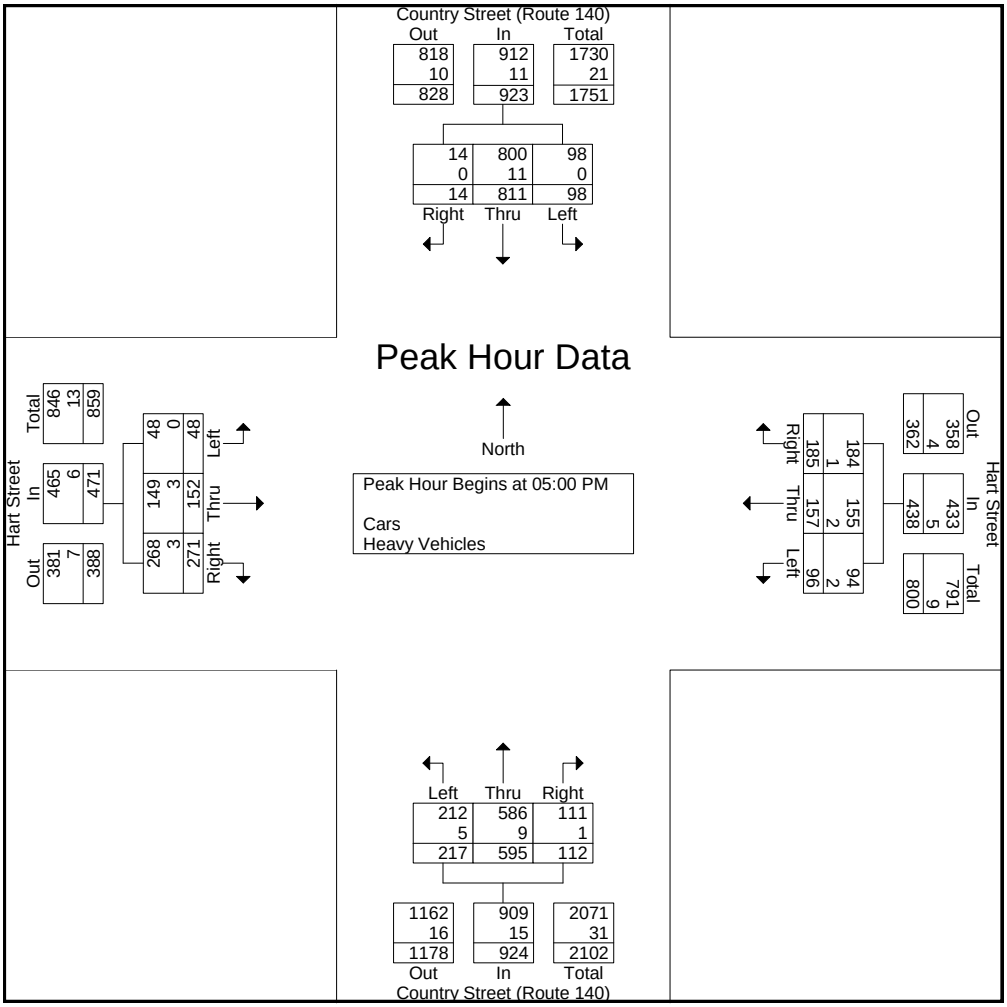
N/S: County Street (Route 140)
E/W: Hart Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-AAA
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	Country Street (Route 140) From North				Hart Street From East				Country Street (Route 140) From South				Hart Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	213	17	233	40	38	**28**	106	**35**	145	**62**	242	58	29	**18**	105	686
05:15 PM	1	**224**	25	**250**	48	**46**	20	**114**	33	**170**	45	**248**	73	43	8	124	**736**
05:30 PM	**5**	176	**34**	215	39	38	27	104	17	143	57	217	65	34	10	109	645
05:45 PM	5	198	22	225	**58**	35	21	114	27	137	53	217	**75**	**46**	12	**133**	689
Total Volume	14	811	98	923	185	157	96	438	112	595	217	924	271	152	48	471	2756
% App. Total	1.5	87.9	10.6		42.2	35.8	21.9		12.1	64.4	23.5		57.5	32.3	10.2		
PHF	.700	.905	.721	.923	.797	.853	.857	.961	.800	.875	.875	.931	.903	.826	.667	.885	.936
Cars	14	800	98	912	184	155	94	433	111	586	212	909	268	149	48	465	2719
% Cars	100	98.6	100	98.8	99.5	98.7	97.9	98.9	99.1	98.5	97.7	98.4	98.9	98.0	100	98.7	98.7
Heavy Vehicles	0	11	0	11	1	2	2	5	1	9	5	15	3	3	0	6	37
% Heavy Vehicles	0	1.4	0	1.2	0.5	1.3	2.1	1.1	0.9	1.5	2.3	1.6	1.1	2.0	0	1.3	1.3



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N/S: Country Street (Route 140)
E: Route 24 NB Ramps
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-B
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North		Route 24 NB Ramps From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	224	48	51	0	296	109	728
07:15 AM	242	63	74	0	312	167	858
07:30 AM	247	73	63	0	279	137	799
07:45 AM	214	65	73	0	263	145	760
Total	927	249	261	0	1150	558	3145
08:00 AM	206	68	62	0	239	113	688
08:15 AM	229	41	46	0	217	106	639
08:30 AM	240	45	54	0	216	114	669
08:45 AM	195	37	42	0	225	116	615
Total	870	191	204	0	897	449	2611
Grand Total	1797	440	465	0	2047	1007	5756
Apprch %	80.3	19.7	100	0	67	33	
Total %	31.2	7.6	8.1	0	35.6	17.5	
Cars	1626	406	453	0	1912	936	5333
% Cars	90.5	92.3	97.4	0	93.4	92.9	92.7
Heavy Vehicles	171	34	12	0	135	71	423
% Heavy Vehicles	9.5	7.7	2.6	0	6.6	7.1	7.3

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	224	48	272	51	0	51	296	109	405	728
07:15 AM	242	63	305	**74**	0	**74**	**312**	**167**	**479**	**858**
07:30 AM	**247**	**73**	**320**	63	0	63	279	137	416	799
07:45 AM	214	65	279	73	0	73	263	145	408	760
Total Volume	927	249	1176	261	0	261	1150	558	1708	3145
% App. Total	78.8	21.2		100	0		67.3	32.7		
PHF	.938	.853	.919	.882	.000	.882	.921	.835	.891	.916
Cars	854	235	1089	257	0	257	1083	522	1605	2951
% Cars	92.1	94.4	92.6	98.5	0	98.5	94.2	93.5	94.0	93.8
Heavy Vehicles	73	14	87	4	0	4	67	36	103	194
% Heavy Vehicles	7.9	5.6	7.4	1.5	0	1.5	5.8	6.5	6.0	6.2

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N/S: Country Street (Route 140)
E: Route 24 NB Ramps
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-B
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North		Route 24 NB Ramps From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	206	44	51	0	275	103	679
07:15 AM	225	59	74	0	295	155	808
07:30 AM	226	70	60	0	260	128	744
07:45 AM	197	62	72	0	253	136	720
Total	854	235	257	0	1083	522	2951
08:00 AM	184	61	62	0	222	102	631
08:15 AM	198	39	44	0	204	98	583
08:30 AM	215	40	51	0	202	106	614
08:45 AM	175	31	39	0	201	108	554
Total	772	171	196	0	829	414	2382
Grand Total	1626	406	453	0	1912	936	5333
Apprch %	80	20	100	0	67.1	32.9	
Total %	30.5	7.6	8.5	0	35.9	17.6	

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	206	44	250	51	0	51	275	103	378	679
07:15 AM	225	59	284	**74**	0	**74**	**295**	**155**	**450**	**808**
07:30 AM	**226**	**70**	**296**	60	0	60	260	128	388	744
07:45 AM	197	62	259	72	0	72	253	136	389	720
Total Volume	854	235	1089	257	0	257	1083	522	1605	2951
% App. Total	78.4	21.6		100	0		67.5	32.5		
PHF	.945	.839	.920	.868	.000	.868	.918	.842	.892	.913

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File Name : 81676 G-B
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) From North		Route 24 NB Ramps From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	18	4	0	0	21	6	49
07:15 AM	17	4	0	0	17	12	50
07:30 AM	21	3	3	0	19	9	55
07:45 AM	17	3	1	0	10	9	40
Total	73	14	4	0	67	36	194
08:00 AM	22	7	0	0	17	11	57
08:15 AM	31	2	2	0	13	8	56
08:30 AM	25	5	3	0	14	8	55
08:45 AM	20	6	3	0	24	8	61
Total	98	20	8	0	68	35	229
Grand Total	171	34	12	0	135	71	423
Apprch %	83.4	16.6	100	0	65.5	34.5	
Total %	40.4	8	2.8	0	31.9	16.8	

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	22	**7**	29	0	0	0	17	**11**	28	57
08:15 AM	**31**	2	**33**	2	0	2	13	8	21	56
08:30 AM	25	5	30	**3**	0	**3**	14	8	22	55
08:45 AM	20	6	26	3	0	3	**24**	8	**32**	**61**
Total Volume	**98**	**20**	**118**	**8**	**0**	**8**	**68**	**35**	**103**	**229**
% App. Total	**83.1**	**16.9**		**100**	**0**		**66**	**34**		
PHF	**.790**	**.714**	**.894**	**.667**	**.000**	**.667**	**.708**	**.795**	**.805**	**.939**

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City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-B
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	County Street (Route 140) From North				Route 24 NB Ramps From East				County Street (Route 140) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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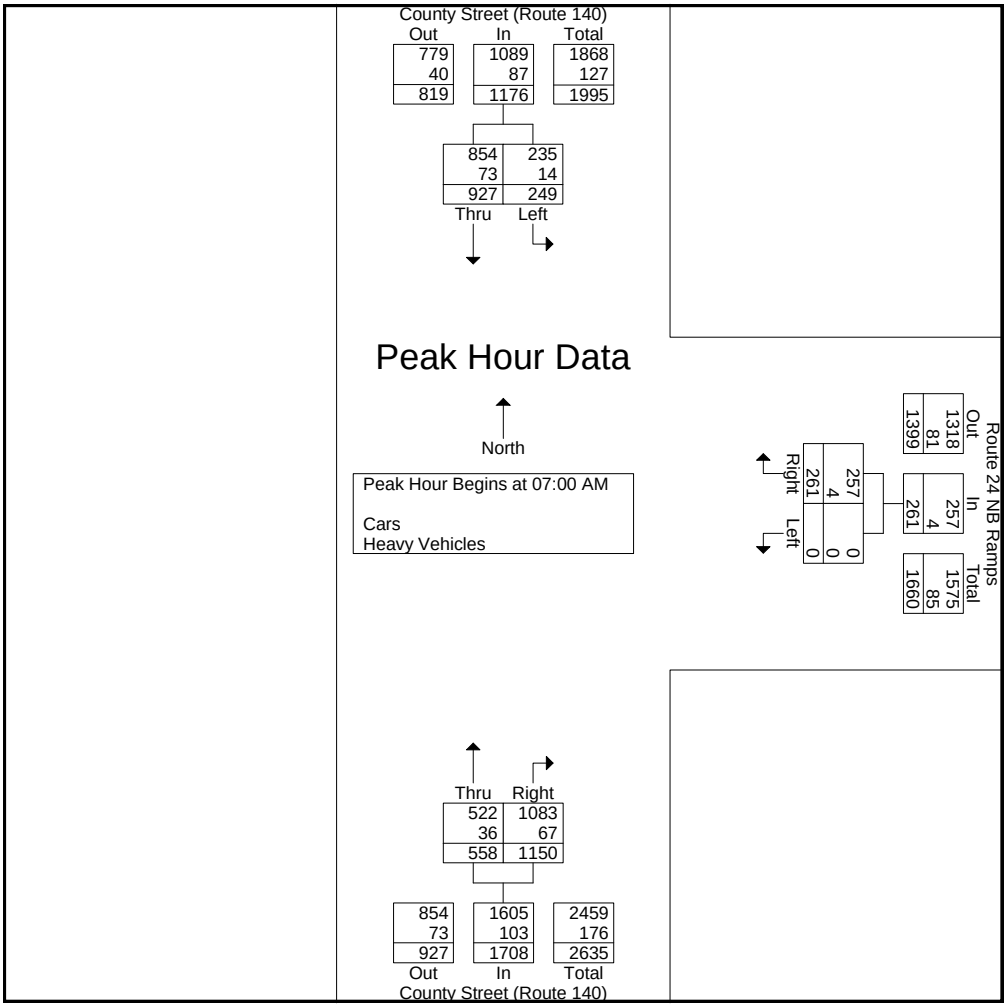
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-B
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	224	48	272	51	0	51	296	109	405	728
07:15 AM	242	63	305	**74**	0	**74**	**312**	**167**	**479**	**858**
07:30 AM	**247**	**73**	**320**	63	0	63	279	137	416	799
07:45 AM	214	65	279	73	0	73	263	145	408	760
Total Volume	927	249	1176	261	0	261	1150	558	1708	3145
% App. Total	78.8	21.2		100	0		67.3	32.7		
PHF	.938	.853	.919	.882	.000	.882	.921	.835	.891	.916
Cars	854	235	1089	257	0	257	1083	522	1605	2951
% Cars	92.1	94.4	92.6	98.5	0	98.5	94.2	93.5	94.0	93.8
Heavy Vehicles	73	14	87	4	0	4	67	36	103	194
% Heavy Vehicles	7.9	5.6	7.4	1.5	0	1.5	5.8	6.5	6.0	6.2



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Client: VHB/J. Quitter

File Name : 81676 G-BBB
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North		Route 24 NB Ramps From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	500	57	63	0	180	192	992
04:15 PM	571	39	53	0	185	169	1017
04:30 PM	541	35	59	0	181	183	999
04:45 PM	564	35	62	0	165	204	1030
Total	2176	166	237	0	711	748	4038
05:00 PM	537	51	59	0	186	185	1018
05:15 PM	528	56	56	0	186	161	987
05:30 PM	461	34	64	0	188	177	924
05:45 PM	407	38	45	0	172	176	838
Total	1933	179	224	0	732	699	3767
Grand Total	4109	345	461	0	1443	1447	7805
Apprch %	92.3	7.7	100	0	49.9	50.1	
Total %	52.6	4.4	5.9	0	18.5	18.5	
Cars	3998	325	454	0	1360	1405	7542
% Cars	97.3	94.2	98.5	0	94.2	97.1	96.6
Heavy Vehicles	111	20	7	0	83	42	263
% Heavy Vehicles	2.7	5.8	1.5	0	5.8	2.9	3.4

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**571**	39	**610**	53	0	53	185	169	354	1017
04:30 PM	541	35	576	59	0	59	181	183	364	999
04:45 PM	564	35	599	**62**	0	**62**	165	**204**	369	**1030**
05:00 PM	**537**	**51**	588	59	0	59	**186**	185	**371**	1018
Total Volume	2213	160	2373	233	0	233	717	741	1458	4064
% App. Total	93.3	6.7		100	0		49.2	50.8		
PHF	.969	.784	.973	.940	.000	.940	.964	.908	.982	.986
Cars	2139	151	2290	229	0	229	675	722	1397	3916
% Cars	96.7	94.4	96.5	98.3	0	98.3	94.1	97.4	95.8	96.4
Heavy Vehicles	74	9	83	4	0	4	42	19	61	148
% Heavy Vehicles	3.3	5.6	3.5	1.7	0	1.7	5.9	2.6	4.2	3.6

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E: Route 24 NB Ramps
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-BBB
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North		Route 24 NB Ramps From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	493	53	61	0	167	182	956
04:15 PM	552	37	53	0	177	164	983
04:30 PM	527	34	58	0	164	177	960
04:45 PM	544	31	60	0	157	200	992
Total	2116	155	232	0	665	723	3891
05:00 PM	516	49	58	0	177	181	981
05:15 PM	513	53	55	0	177	158	956
05:30 PM	452	32	64	0	181	174	903
05:45 PM	401	36	45	0	160	169	811
Total	1882	170	222	0	695	682	3651
Grand Total	3998	325	454	0	1360	1405	7542
Apprch %	92.5	7.5	100	0	49.2	50.8	
Total %	53	4.3	6	0	18	18.6	

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**552**	37	**589**	53	0	53	**177**	164	341	983
04:30 PM	527	34	561	58	0	58	164	177	341	960
04:45 PM	544	31	575	**60**	0	**60**	157	**200**	357	**992**
05:00 PM	**516**	**49**	565	58	0	58	177	181	**358**	981
Total Volume	2139	151	2290	229	0	229	675	722	1397	3916
% App. Total	93.4	6.6		100	0		48.3	51.7		
PHF	.969	.770	.972	.954	.000	.954	.953	.903	.976	.987

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N/S: County Street (Route 140)
E: Route 24 NB Ramps
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-BBB
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) From North		Route 24 NB Ramps From East		County Street (Route 140) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	7	4	2	0	13	10	36
04:15 PM	19	2	0	0	8	5	34
04:30 PM	14	1	1	0	17	6	39
04:45 PM	20	4	2	0	8	4	38
Total	60	11	5	0	46	25	147
05:00 PM	21	2	1	0	9	4	37
05:15 PM	15	3	1	0	9	3	31
05:30 PM	9	2	0	0	7	3	21
05:45 PM	6	2	0	0	12	7	27
Total	51	9	2	0	37	17	116
Grand Total	111	20	7	0	83	42	263
Apprch %	84.7	15.3	100	0	66.4	33.6	
Total %	42.2	7.6	2.7	0	31.6	16	

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	19	2	21	0	0	0	8	5	13	34
04:30 PM	14	1	15	1	0	1	**17**	**6**	**23**	**39**
04:45 PM	**20**	**4**	**24**	**2**	0	**2**	8	4	12	38
05:00 PM	**21**	2	23	1	0	1	9	4	13	37
Total Volume	74	9	83	4	0	4	42	19	61	148
% App. Total	89.2	10.8		100	0		68.9	31.1		
PHF	.881	.563	.865	.500	.000	.500	.618	.792	.663	.949

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City, State: Taunton, MA
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File Name : 81676 G-BBB
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	County Street (Route 140) From North				Route 24 NB Ramps From East				County Street (Route 140) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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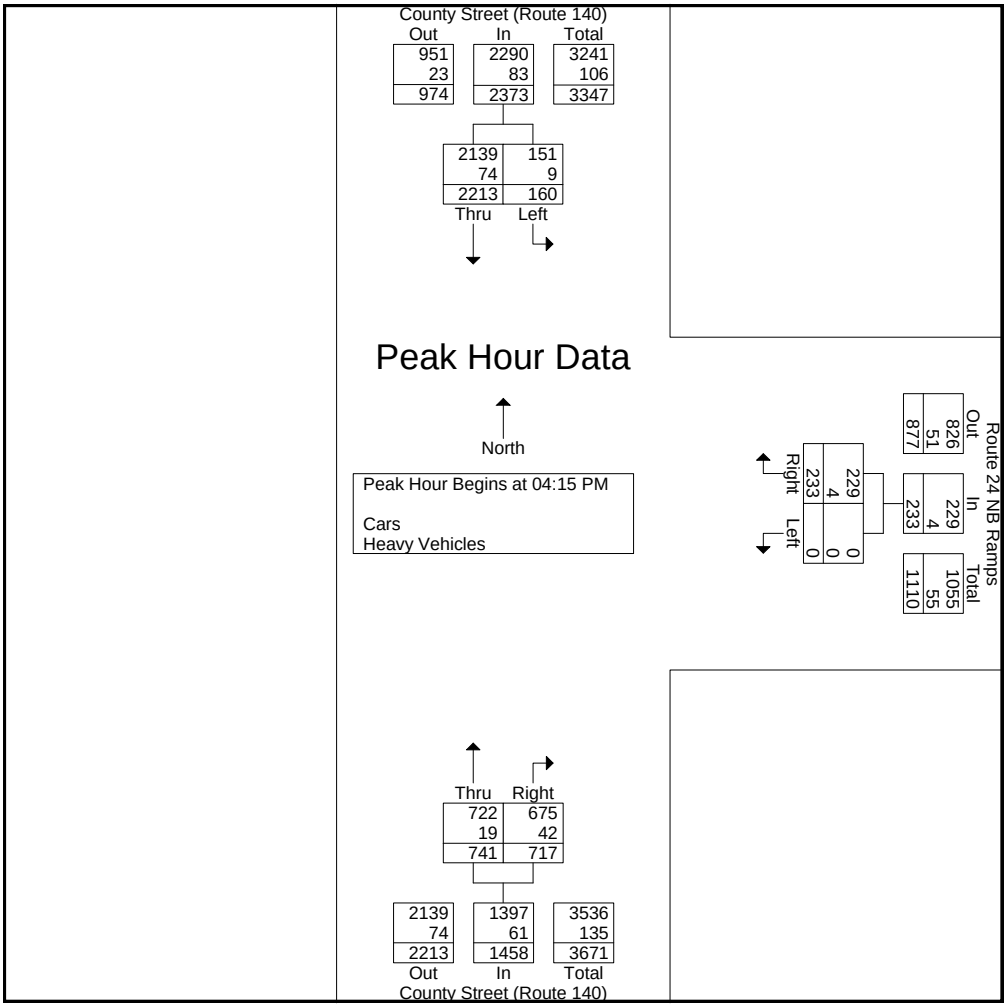
	County Street (Route 140) From North			Route 24 NB Ramps From East			County Street (Route 140) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**571**	39	**610**	53	0	53	185	169	354	1017
04:30 PM	541	35	576	59	0	59	181	183	364	999
04:45 PM	564	35	599	**62**	0	**62**	165	**204**	369	**1030**
05:00 PM	**537**	**51**	588	59	0	59	**186**	185	**371**	1018
Total Volume	2213	160	2373	233	0	233	717	741	1458	4064
% App. Total	93.3	6.7		100	0		49.2	50.8		
PHF	.969	.784	.973	.940	.000	.940	.964	.908	.982	.986
Cars	2139	151	2290	229	0	229	675	722	1397	3916
% Cars	96.7	94.4	96.5	98.3	0	98.3	94.1	97.4	95.8	96.4
Heavy Vehicles	74	9	83	4	0	4	42	19	61	148
% Heavy Vehicles	3.3	5.6	3.5	1.7	0	1.7	5.9	2.6	4.2	3.6



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N/S: Country Street (Route 140)
W: Route 24 SB Ramps
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-C
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North		County Street (Route 140) From South		Route 24 SB Ramps From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	55	160	158	11	117	48	549
07:15 AM	44	141	200	27	161	76	649
07:30 AM	68	175	182	24	155	52	656
07:45 AM	62	134	204	10	146	46	602
Total	229	610	744	72	579	222	2456
08:00 AM	52	137	152	16	141	27	525
08:15 AM	51	120	148	13	153	33	518
08:30 AM	53	130	153	20	164	31	551
08:45 AM	42	111	140	12	120	36	461
Total	198	498	593	61	578	127	2055
Grand Total	427	1108	1337	133	1157	349	4511
Apprch %	27.8	72.2	91	9	76.8	23.2	
Total %	9.5	24.6	29.6	2.9	25.6	7.7	
Cars	413	1039	1277	110	1030	319	4188
% Cars	96.7	93.8	95.5	82.7	89	91.4	92.8
Heavy Vehicles	14	69	60	23	127	30	323
% Heavy Vehicles	3.3	6.2	4.5	17.3	11	8.6	7.2

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	55	160	215	158	11	169	117	48	165	549
07:15 AM	44	141	185	200	**27**	**227**	**161**	**76**	**237**	649
07:30 AM	**68**	**175**	**243**	182	24	206	155	52	207	**656**
07:45 AM	**62**	**134**	**196**	**204**	10	214	146	46	192	602
Total Volume	229	610	839	744	72	816	579	222	801	2456
% App. Total	27.3	72.7		91.2	8.8		72.3	27.7		
PHF	.842	.871	.863	.912	.667	.899	.899	.730	.845	.936
Cars	221	584	805	716	59	775	524	210	734	2314
% Cars	96.5	95.7	95.9	96.2	81.9	95.0	90.5	94.6	91.6	94.2
Heavy Vehicles	8	26	34	28	13	41	55	12	67	142
% Heavy Vehicles	3.5	4.3	4.1	3.8	18.1	5.0	9.5	5.4	8.4	5.8

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N/S: Country Street (Route 140)
W: Route 24 SB Ramps
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-C
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North		County Street (Route 140) From South		Route 24 SB Ramps From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	52	155	153	9	106	45	520
07:15 AM	42	136	192	22	146	73	611
07:30 AM	65	165	175	20	139	51	615
07:45 AM	62	128	196	8	133	41	568
Total	221	584	716	59	524	210	2314
08:00 AM	52	123	143	15	128	26	487
08:15 AM	51	113	140	10	128	24	466
08:30 AM	52	124	147	15	142	27	507
08:45 AM	37	95	131	11	108	32	414
Total	192	455	561	51	506	109	1874
Grand Total	413	1039	1277	110	1030	319	4188
Apprch %	28.4	71.6	92.1	7.9	76.4	23.6	
Total %	9.9	24.8	30.5	2.6	24.6	7.6	

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	52	155	207	153	9	162	106	45	151	520
07:15 AM	42	136	178	192	**22**	**214**	**146**	**73**	**219**	611
07:30 AM	**65**	**165**	**230**	175	20	195	139	51	190	**615**
07:45 AM	**62**	**128**	**190**	**196**	8	204	133	41	174	568
Total Volume	221	584	805	716	59	775	524	210	734	2314
% App. Total	27.5	72.5		92.4	7.6		71.4	28.6		
PHF	.850	.885	.875	.913	.670	.905	.897	.719	.838	.941

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File Name : 81676 G-C
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) From North		County Street (Route 140) From South		Route 24 SB Ramps From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	3	5	5	2	11	3	29
07:15 AM	2	5	8	5	15	3	38
07:30 AM	3	10	7	4	16	1	41
07:45 AM	0	6	8	2	13	5	34
Total	8	26	28	13	55	12	142
08:00 AM	0	14	9	1	13	1	38
08:15 AM	0	7	8	3	25	9	52
08:30 AM	1	6	6	5	22	4	44
08:45 AM	5	16	9	1	12	4	47
Total	6	43	32	10	72	18	181
Grand Total	14	69	60	23	127	30	323
Apprch %	16.9	83.1	72.3	27.7	80.9	19.1	
Total %	4.3	21.4	18.6	7.1	39.3	9.3	

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	14	14	**9**	1	10	13	1	14	38
08:15 AM	0	7	7	8	3	**11**	**25**	**9**	**34**	**52**
08:30 AM	**1**	**6**	**7**	**6**	**5**	11	22	4	26	44
08:45 AM	**5**	**16**	**21**	9	1	10	12	4	16	47
Total Volume	6	43	49	32	10	42	72	18	90	181
% App. Total	12.2	87.8		76.2	23.8		80	20		
PHF	.300	.672	.583	.889	.500	.955	.720	.500	.662	.870

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File Name : 81676 G-C
Site Code : 10111.31
Start Date : 9/11/2008
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Groups Printed- Peds and Bicycles

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	County Street (Route 140) From North				County Street (Route 140) From South				Route 24 SB Ramps From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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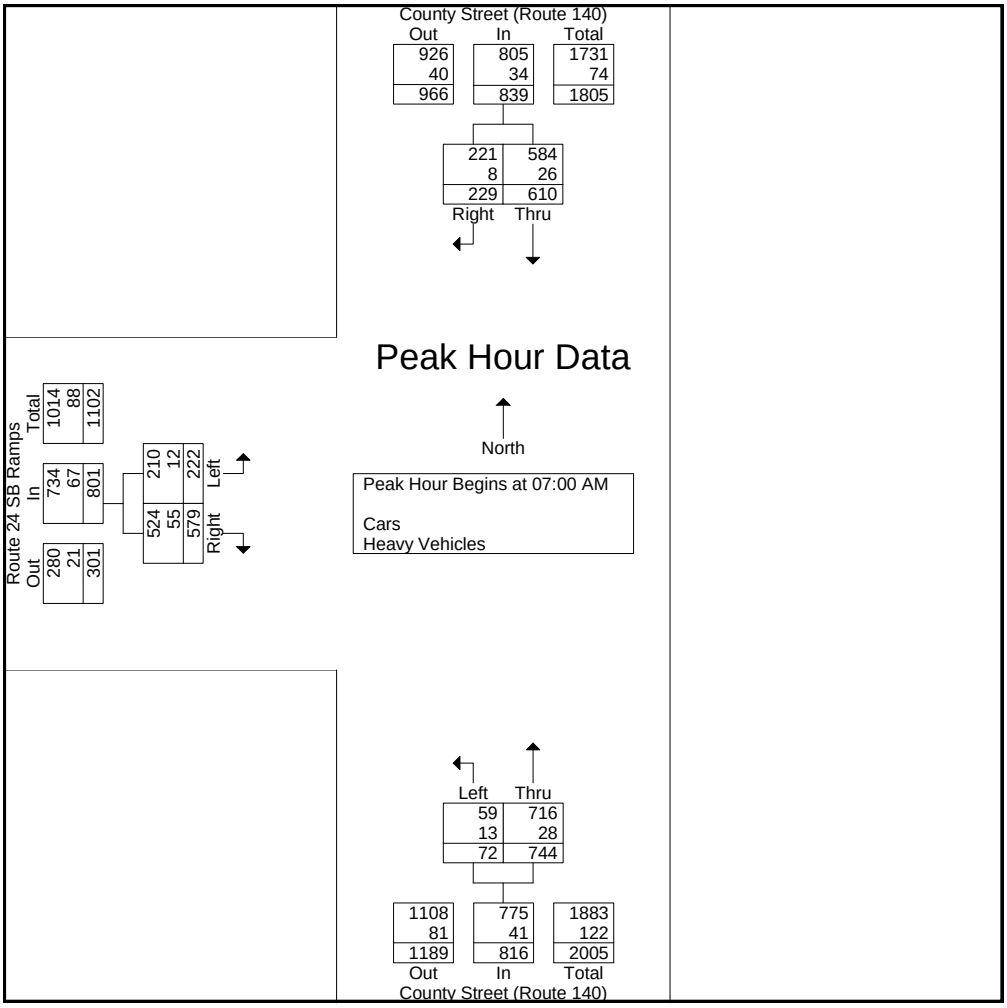
Client: VHB/J.Quitter

File Name : 81676 G-C
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	55	160	215	158	11	169	117	48	165	549
07:15 AM	44	141	185	200	**27**	**227**	**161**	**76**	**237**	649
07:30 AM	**68**	**175**	**243**	182	24	206	155	52	207	**656**
07:45 AM	**62**	**134**	**196**	**204**	10	214	146	46	192	602
Total Volume	229	610	839	744	72	816	579	222	801	2456
% App. Total	27.3	72.7		91.2	8.8		72.3	27.7		
PHF	.842	.871	.863	.912	.667	.899	.899	.730	.845	.936
Cars	221	584	805	716	59	775	524	210	734	2314
% Cars	96.5	95.7	95.9	96.2	81.9	95.0	90.5	94.6	91.6	94.2
Heavy Vehicles	8	26	34	28	13	41	55	12	67	142
% Heavy Vehicles	3.5	4.3	4.1	3.8	18.1	5.0	9.5	5.4	8.4	5.8



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N/S: County Street (Route 140)
W: Route 24 SB Ramps
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-CCC
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North		County Street (Route 140) From South		Route 24 SB Ramps From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	81	213	184	59	340	55	932
04:15 PM	77	265	194	46	340	55	977
04:30 PM	74	219	190	47	348	62	940
04:45 PM	78	248	206	64	334	73	1003
Total	310	945	774	216	1362	245	3852
05:00 PM	89	268	200	47	317	50	971
05:15 PM	77	242	178	43	339	85	964
05:30 PM	76	219	190	44	267	49	845
05:45 PM	61	207	177	34	241	51	771
Total	303	936	745	168	1164	235	3551
Grand Total	613	1881	1519	384	2526	480	7403
Apprch %	24.6	75.4	79.8	20.2	84	16	
Total %	8.3	25.4	20.5	5.2	34.1	6.5	
Cars	605	1838	1473	381	2439	465	7201
% Cars	98.7	97.7	97	99.2	96.6	96.9	97.3
Heavy Vehicles	8	43	46	3	87	15	202
% Heavy Vehicles	1.3	2.3	3	0.8	3.4	3.1	2.7

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	77	265	342	194	46	240	340	55	395	977
04:30 PM	74	219	293	190	47	237	**348**	62	**410**	940
04:45 PM	78	248	326	**206**	**64**	**270**	334	**73**	407	**1003**
05:00 PM	**89**	**268**	**357**	200	47	247	317	50	367	971
Total Volume	318	1000	1318	790	204	994	1339	240	1579	3891
% App. Total	24.1	75.9		79.5	20.5		84.8	15.2		
PHF	.893	.933	.923	.959	.797	.920	.962	.822	.963	.970
Cars	313	976	1289	767	203	970	1281	235	1516	3775
% Cars	98.4	97.6	97.8	97.1	99.5	97.6	95.7	97.9	96.0	97.0
Heavy Vehicles	5	24	29	23	1	24	58	5	63	116
% Heavy Vehicles	1.6	2.4	2.2	2.9	0.5	2.4	4.3	2.1	4.0	3.0

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-CCC
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North		County Street (Route 140) From South		Route 24 SB Ramps From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	80	209	175	57	333	47	901
04:15 PM	76	256	189	45	327	53	946
04:30 PM	74	216	184	47	338	62	921
04:45 PM	74	240	199	64	317	72	966
Total	304	921	747	213	1315	234	3734
05:00 PM	89	264	195	47	299	48	942
05:15 PM	76	233	174	43	328	83	937
05:30 PM	76	216	186	44	260	49	831
05:45 PM	60	204	171	34	237	51	757
Total	301	917	726	168	1124	231	3467
Grand Total	605	1838	1473	381	2439	465	7201
Apprch %	24.8	75.2	79.4	20.6	84	16	
Total %	8.4	25.5	20.5	5.3	33.9	6.5	

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	76	256	332	189	45	234	327	53	380	946
04:30 PM	74	216	290	184	47	231	**338**	62	**400**	921
04:45 PM	74	240	314	**199**	**64**	**263**	317	**72**	389	**966**
05:00 PM	**89**	**264**	**353**	195	47	242	299	48	347	942
Total Volume	313	976	1289	767	203	970	1281	235	1516	3775
% App. Total	24.3	75.7		79.1	20.9		84.5	15.5		
PHF	.879	.924	.913	.964	.793	.922	.947	.816	.948	.977

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N/S: County Street (Route 140)
W: Route 24 SB Ramps
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-CCC
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) From North		County Street (Route 140) From South		Route 24 SB Ramps From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	1	4	9	2	7	8	31
04:15 PM	1	9	5	1	13	2	31
04:30 PM	0	3	6	0	10	0	19
04:45 PM	4	8	7	0	17	1	37
Total	6	24	27	3	47	11	118
05:00 PM	0	4	5	0	18	2	29
05:15 PM	1	9	4	0	11	2	27
05:30 PM	0	3	4	0	7	0	14
05:45 PM	1	3	6	0	4	0	14
Total	2	19	19	0	40	4	84
Grand Total	8	43	46	3	87	15	202
Apprch %	15.7	84.3	93.9	6.1	85.3	14.7	
Total %	4	21.3	22.8	1.5	43.1	7.4	

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	4	5	**9**	**2**	**11**	7	**8**	15	31
04:15 PM	1	**9**	10	5	1	6	13	2	15	31
04:30 PM	0	3	3	6	0	6	10	0	10	19
04:45 PM	**4**	8	**12**	7	0	7	**17**	1	**18**	**37**
Total Volume	**6**	**24**	**30**	**27**	**3**	**30**	**47**	**11**	**58**	**118**
% App. Total	**20**	**80**		**90**	**10**		**81**	**19**		
PHF	**.375**	**.667**	**.625**	**.750**	**.375**	**.682**	**.691**	**.344**	**.806**	**.797**

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File Name : 81676 G-CCC
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	County Street (Route 140) From North				County Street (Route 140) From South				Route 24 SB Ramps From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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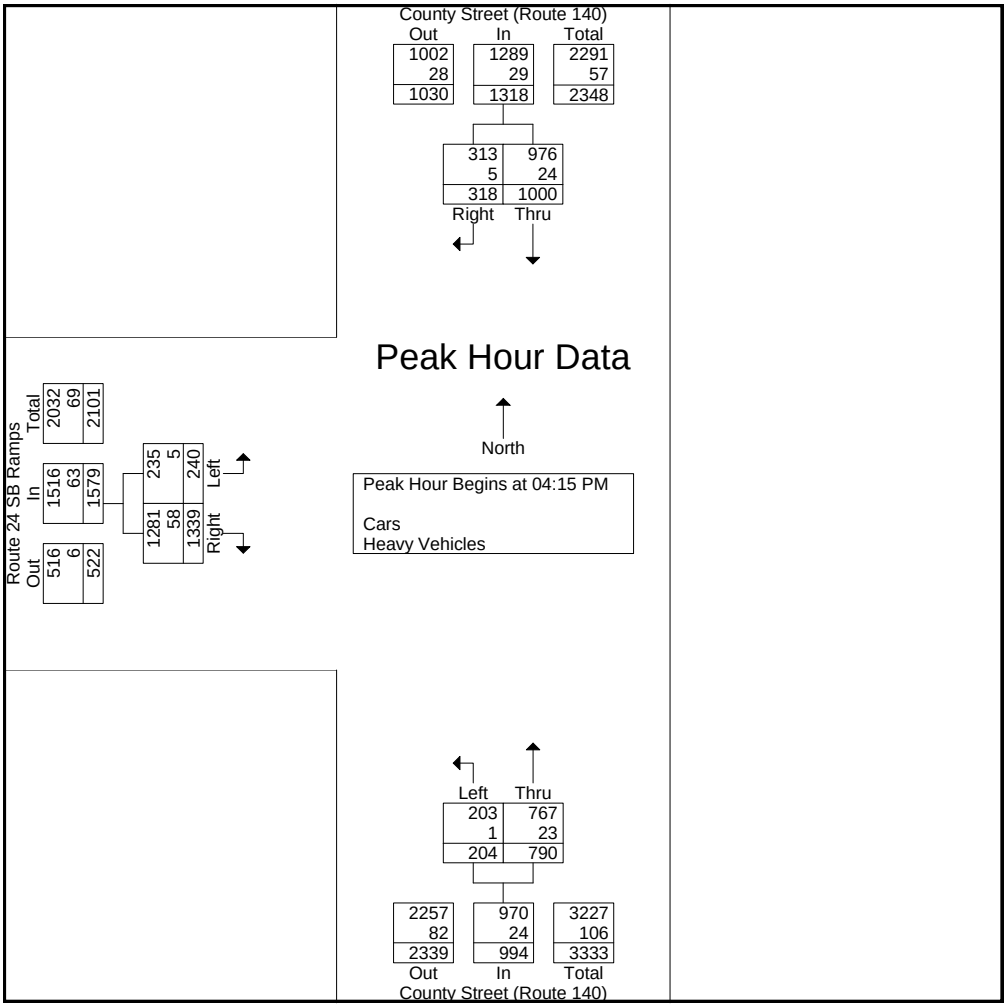
	County Street (Route 140) From North			County Street (Route 140) From South			Route 24 SB Ramps From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	77	265	342	194	46	240	340	55	395	977
04:30 PM	74	219	293	190	47	237	**348**	62	**410**	940
04:45 PM	78	248	326	**206**	**64**	**270**	334	**73**	407	**1003**
05:00 PM	**89**	**268**	**357**	200	47	247	317	50	367	971
Total Volume	318	1000	1318	790	204	994	1339	240	1579	3891
% App. Total	24.1	75.9		79.5	20.5		84.8	15.2		
PHF	.893	.933	.923	.959	.797	.920	.962	.822	.963	.970
Cars	313	976	1289	767	203	970	1281	235	1516	3775
% Cars	98.4	97.6	97.8	97.1	99.5	97.6	95.7	97.9	96.0	97.0
Heavy Vehicles	5	24	29	23	1	24	58	5	63	116
% Heavy Vehicles	1.6	2.4	2.2	2.9	0.5	2.4	4.3	2.1	4.0	3.0



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City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-E
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North			USA Storage Driveway From East			County Street (Route 140) From South			Taunton Depot Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	16	191	0	0	0	1	2	134	18	18	0	8	388
07:15 AM	16	205	0	0	0	0	0	160	24	13	0	12	430
07:30 AM	31	205	1	0	0	1	0	184	19	23	0	12	476
07:45 AM	34	175	0	0	0	1	0	181	15	11	0	15	432
Total	97	776	1	0	0	3	2	659	76	65	0	47	1726
08:00 AM	40	142	0	0	0	0	0	145	24	20	0	16	387
08:15 AM	33	149	0	0	0	0	0	133	19	21	0	19	374
08:30 AM	27	137	0	0	0	0	0	139	21	16	0	22	362
08:45 AM	39	129	0	1	0	1	2	136	24	17	0	18	367
Total	139	557	0	1	0	1	2	553	88	74	0	75	1490
Grand Total	236	1333	1	1	0	4	4	1212	164	139	0	122	3216
Apprch %	15	84.9	0.1	20	0	80	0.3	87.8	11.9	53.3	0	46.7	
Total %	7.3	41.4	0	0	0	0.1	0.1	37.7	5.1	4.3	0	3.8	
Cars	225	1269	1	1	0	4	3	1156	158	134	0	115	3066
% Cars	95.3	95.2	100	100	0	100	75	95.4	96.3	96.4	0	94.3	95.3
Heavy Vehicles	11	64	0	0	0	0	1	56	6	5	0	7	150
% Heavy Vehicles	4.7	4.8	0	0	0	0	25	4.6	3.7	3.6	0	5.7	4.7

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	16	191	0	207	0	0	**1**	**1**	**2**	134	18	154	18	0	8	26	388
07:15 AM	16	**205**	0	221	0	0	0	0	0	160	**24**	184	13	0	12	25	430
07:30 AM	31	205	**1**	**237**	0	0	1	1	0	**184**	19	**203**	**23**	0	12	**35**	**476**
07:45 AM	**34**	175	0	209	0	0	1	1	0	181	15	196	11	0	**15**	26	432
Total Volume	97	776	1	874	0	0	3	3	2	659	76	737	65	0	47	112	1726
% App. Total	11.1	88.8	0.1		0	0	100		0.3	89.4	10.3		58	0	42		
PHF	.713	.946	.250	.922	.000	.000	.750	.750	.250	.895	.792	.908	.707	.000	.783	.800	.907
Cars	91	750	1	842	0	0	3	3	1	626	75	702	62	0	42	104	1651
% Cars	93.8	96.6	100	96.3	0	0	100	100	50.0	95.0	98.7	95.3	95.4	0	89.4	92.9	95.7
Heavy Vehicles	6	26	0	32	0	0	0	0	1	33	1	35	3	0	5	8	75
% Heavy Vehicles	6.2	3.4	0	3.7	0	0	0	0	50.0	5.0	1.3	4.7	4.6	0	10.6	7.1	4.3

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E/W: USA Storage Dr/Taunton Depot Drive
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-E
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North			USA Storage Driveway From East			County Street (Route 140) From South			Taunton Depot Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	14	183	0	0	0	1	1	131	17	18	0	8	373
07:15 AM	14	202	0	0	0	0	0	155	24	13	0	10	418
07:30 AM	30	199	1	0	0	1	0	170	19	21	0	10	451
07:45 AM	33	166	0	0	0	1	0	170	15	10	0	14	409
Total	91	750	1	0	0	3	1	626	75	62	0	42	1651
08:00 AM	38	130	0	0	0	0	0	138	24	20	0	16	366
08:15 AM	33	143	0	0	0	0	0	128	16	19	0	19	358
08:30 AM	26	129	0	0	0	0	0	135	19	16	0	21	346
08:45 AM	37	117	0	1	0	1	2	129	24	17	0	17	345
Total	134	519	0	1	0	1	2	530	83	72	0	73	1415
Grand Total	225	1269	1	1	0	4	3	1156	158	134	0	115	3066
Apprch %	15.1	84.9	0.1	20	0	80	0.2	87.8	12	53.8	0	46.2	
Total %	7.3	41.4	0	0	0	0.1	0.1	37.7	5.2	4.4	0	3.8	

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	14	183	0	197	0	0	**1**	**1**	**1**	131	17	149	18	0	8	26	373
07:15 AM	14	**202**	0	216	0	0	0	0	0	155	**24**	179	13	0	10	23	418
07:30 AM	30	199	**1**	**230**	0	0	1	1	0	**170**	19	**189**	**21**	0	10	**31**	**451**
07:45 AM	**33**	166	0	199	0	0	1	1	0	170	15	185	10	0	**14**	24	409
Total Volume	91	750	1	842	0	0	3	3	1	626	75	702	62	0	42	104	1651
% App. Total	10.8	89.1	0.1		0	0	100		0.1	89.2	10.7		59.6	0	40.4		
PHF	.689	.928	.250	.915	.000	.000	.750	.750	.250	.921	.781	.929	.738	.000	.750	.839	.915

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File Name : 81676 G-E
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) From North			USA Storage Driveway From East			County Street (Route 140) From South			Taunton Depot Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	8	0	0	0	0	1	3	1	0	0	0	15
07:15 AM	2	3	0	0	0	0	0	5	0	0	0	2	12
07:30 AM	1	6	0	0	0	0	0	14	0	2	0	2	25
07:45 AM	1	9	0	0	0	0	0	11	0	1	0	1	23
Total	6	26	0	0	0	0	1	33	1	3	0	5	75
08:00 AM	2	12	0	0	0	0	0	7	0	0	0	0	21
08:15 AM	0	6	0	0	0	0	0	5	3	2	0	0	16
08:30 AM	1	8	0	0	0	0	0	4	2	0	0	1	16
08:45 AM	2	12	0	0	0	0	0	7	0	0	0	1	22
Total	5	38	0	0	0	0	0	23	5	2	0	2	75
Grand Total	11	64	0	0	0	0	1	56	6	5	0	7	150
Apprch %	14.7	85.3	0	0	0	0	1.6	88.9	9.5	41.7	0	58.3	
Total %	7.3	42.7	0	0	0	0	0.7	37.3	4	3.3	0	4.7	

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	6	0	7	0	0	0	0	0	**14**	0	**14**	**2**	0	**2**	**4**	**25**
07:45 AM	1	9	0	10	0	0	0	0	0	11	0	11	1	0	1	2	23
08:00 AM	**2**	**12**	0	**14**	0	0	0	0	0	7	0	7	0	0	0	0	21
08:15 AM	0	6	0	6	0	0	0	0	0	5	**3**	8	2	0	0	2	16
Total Volume	4	33	0	37	0	0	0	0	0	37	3	40	5	0	3	8	85
% App. Total	10.8	89.2	0		0	0	0		0	92.5	7.5		62.5	0	37.5		
PHF	.500	.688	.000	.661	.000	.000	.000	.000	.000	.661	.250	.714	.625	.000	.375	.500	.850

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Groups Printed- Peds and Bicycles

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
Apprch %	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	0	
Total %	0	0	0	66.7	0	0	0	33.3	0	0	0	0	0	0	0	0	

	County Street (Route 140) From North					USA Storage Driveway From East					County Street (Route 140) From South					Taunton Depot Drive From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	1	1	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
% App. Total	0	0	0	100		0	0	0	100		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.500	.500	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375

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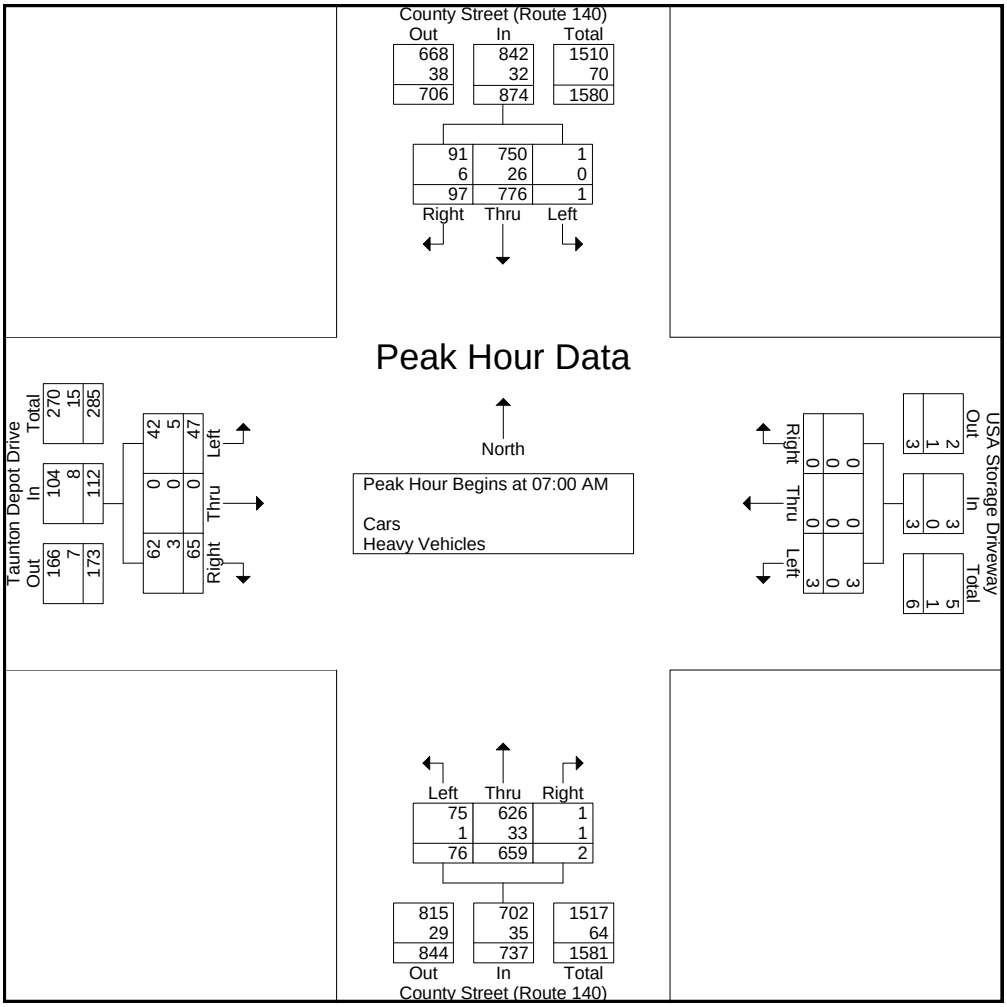
File Name : 81676 G-E
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	16	191	0	207	0	0	**1**	**1**	**2**	134	18	154	18	0	8	26	388
07:15 AM	16	**205**	0	221	0	0	0	0	0	160	**24**	184	13	0	12	25	430
07:30 AM	31	205	**1**	**237**	0	0	1	1	0	**184**	19	**203**	**23**	0	12	**35**	**476**
07:45 AM	**34**	175	0	209	0	0	1	1	0	181	15	196	11	0	**15**	26	432
Total Volume	97	776	1	874	0	0	3	3	2	659	76	737	65	0	47	112	1726
% App. Total	11.1	88.8	0.1		0	0	100		0.3	89.4	10.3		58	0	42		
PHF	.713	.946	.250	.922	.000	.000	.750	.750	.250	.895	.792	.908	.707	.000	.783	.800	.907
Cars	91	750	1	842	0	0	3	3	1	626	75	702	62	0	42	104	1651
% Cars	93.8	96.6	100	96.3	0	0	100	100	50.0	95.0	98.7	95.3	95.4	0	89.4	92.9	95.7
Heavy Vehicles	6	26	0	32	0	0	0	0	1	33	1	35	3	0	5	8	75
% Heavy Vehicles	6.2	3.4	0	3.7	0	0	0	0	50.0	5.0	1.3	4.7	4.6	0	10.6	7.1	4.3



PRECISION DATA INDUSTRIES, LLC
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N/S: County Street (Route 140)
E/W: USA Storage Dr/Taunton Depot Drive
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-EEE
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) From North			USA Storage Driveway From East			County Street (Route 140) From South			Taunton Depot Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	53	186	0	1	0	1	0	188	36	46	0	57	568
04:15 PM	73	192	0	0	0	2	0	161	48	55	0	57	588
04:30 PM	56	203	0	0	0	1	0	205	34	56	1	63	619
04:45 PM	59	207	0	0	0	0	0	191	57	51	2	43	610
Total	241	788	0	1	0	4	0	745	175	208	3	220	2385
05:00 PM	60	210	1	1	0	1	0	197	44	57	0	64	635
05:15 PM	73	223	0	1	1	1	0	190	59	54	0	57	659
05:30 PM	65	179	0	0	0	0	0	168	65	59	0	48	584
05:45 PM	72	208	0	0	0	0	0	154	72	48	1	62	617
Total	270	820	1	2	1	2	0	709	240	218	1	231	2495
Grand Total	511	1608	1	3	1	6	0	1454	415	426	4	451	4880
Apprch %	24.1	75.8	0	30	10	60	0	77.8	22.2	48.4	0.5	51.2	
Total %	10.5	33	0	0.1	0	0.1	0	29.8	8.5	8.7	0.1	9.2	
Cars	505	1566	1	3	1	6	0	1435	413	422	4	446	4802
% Cars	98.8	97.4	100	100	100	100	0	98.7	99.5	99.1	100	98.9	98.4
Heavy Vehicles	6	42	0	0	0	0	0	19	2	4	0	5	78
% Heavy Vehicles	1.2	2.6	0	0	0	0	0	1.3	0.5	0.9	0	1.1	1.6

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	56	203	0	259	0	0	**1**	1	0	**205**	34	239	56	1	63	120	619
04:45 PM	59	207	0	266	0	0	0	0	0	191	57	248	51	**2**	43	96	610
05:00 PM	60	210	**1**	271	**1**	0	1	2	0	197	44	241	**57**	0	**64**	**121**	635
05:15 PM	**73**	**223**	0	**296**	1	**1**	1	**3**	0	190	**59**	**249**	54	0	57	111	**659**
Total Volume	248	843	1	1092	2	1	3	6	0	783	194	977	218	3	227	448	2523
% App. Total	22.7	77.2	0.1		33.3	16.7	50		0	80.1	19.9		48.7	0.7	50.7		
PHF	.849	.945	.250	.922	.500	.250	.750	.500	.000	.955	.822	.981	.956	.375	.887	.926	.957
Cars	245	820	1	1066	2	1	3	6	0	771	194	965	217	3	223	443	2480
% Cars	98.8	97.3	100	97.6	100	100	100	100	0	98.5	100	98.8	99.5	100	98.2	98.9	98.3
Heavy Vehicles	3	23	0	26	0	0	0	0	0	12	0	12	1	0	4	5	43
% Heavy Vehicles	1.2	2.7	0	2.4	0	0	0	0	0	1.5	0	1.2	0.5	0	1.8	1.1	1.7

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N/S: County Street (Route 140)
E/W: USA Storage Dr/Taunton Depot Drive
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-EEE
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) From North			USA Storage Driveway From East			County Street (Route 140) From South			Taunton Depot Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	53	178	0	1	0	1	0	184	35	45	0	57	554
04:15 PM	70	186	0	0	0	2	0	161	48	54	0	57	578
04:30 PM	56	198	0	0	0	1	0	201	34	55	1	61	607
04:45 PM	57	204	0	0	0	0	0	189	57	51	2	42	602
Total	236	766	0	1	0	4	0	735	174	205	3	217	2341
05:00 PM	60	207	1	1	0	1	0	193	44	57	0	63	627
05:15 PM	72	211	0	1	1	1	0	188	59	54	0	57	644
05:30 PM	65	178	0	0	0	0	0	167	64	58	0	47	579
05:45 PM	72	204	0	0	0	0	0	152	72	48	1	62	611
Total	269	800	1	2	1	2	0	700	239	217	1	229	2461
Grand Total	505	1566	1	3	1	6	0	1435	413	422	4	446	4802
Apprch %	24.4	75.6	0	30	10	60	0	77.7	22.3	48.4	0.5	51.1	
Total %	10.5	32.6	0	0.1	0	0.1	0	29.9	8.6	8.8	0.1	9.3	

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	56	198	0	254	0	0	**1**	1	0	**201**	34	235	55	1	61	117	607
04:45 PM	57	204	0	261	0	0	0	0	0	189	57	246	51	**2**	42	95	602
05:00 PM	60	207	**1**	268	**1**	0	1	2	0	193	44	237	**57**	0	**63**	**120**	627
05:15 PM	**72**	**211**	0	**283**	1	**1**	1	**3**	0	188	**59**	**247**	54	0	57	111	**644**
Total Volume	245	820	1	1066	2	1	3	6	0	771	194	965	217	3	223	443	2480
% App. Total	23	76.9	0.1		33.3	16.7	50		0	79.9	20.1		49	0.7	50.3		
PHF	.851	.972	.250	.942	.500	.250	.750	.500	.000	.959	.822	.977	.952	.375	.885	.923	.963

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-EEE
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) From North			USA Storage Driveway From East			County Street (Route 140) From South			Taunton Depot Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	8	0	0	0	0	0	4	1	1	0	0	14
04:15 PM	3	6	0	0	0	0	0	0	0	1	0	0	10
04:30 PM	0	5	0	0	0	0	0	4	0	1	0	2	12
04:45 PM	2	3	0	0	0	0	0	2	0	0	0	1	8
Total	5	22	0	0	0	0	0	10	1	3	0	3	44
05:00 PM	0	3	0	0	0	0	0	4	0	0	0	1	8
05:15 PM	1	12	0	0	0	0	0	2	0	0	0	0	15
05:30 PM	0	1	0	0	0	0	0	1	1	1	0	1	5
05:45 PM	0	4	0	0	0	0	0	2	0	0	0	0	6
Total	1	20	0	0	0	0	0	9	1	1	0	2	34
Grand Total	6	42	0	0	0	0	0	19	2	4	0	5	78
Apprch %	12.5	87.5	0	0	0	0	0	90.5	9.5	44.4	0	55.6	
Total %	7.7	53.8	0	0	0	0	0	24.4	2.6	5.1	0	6.4	

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**8**	0	8	0	0	0	0	0	**4**	**1**	**5**	**1**	0	0	1	**14**
04:15 PM	**3**	6	0	**9**	0	0	0	0	0	0	0	0	1	0	0	1	10
04:30 PM	0	5	0	5	0	0	0	0	0	4	0	4	1	0	**2**	**3**	12
04:45 PM	2	3	0	5	0	0	0	0	0	2	0	2	0	0	1	1	8
Total Volume	5	22	0	27	0	0	0	0	0	10	1	11	3	0	3	6	44
% App. Total	18.5	81.5	0		0	0	0		0	90.9	9.1		50	0	50		
PHF	.417	.688	.000	.750	.000	.000	.000	.000	.000	.625	.250	.550	.750	.000	.375	.500	.786

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E/W: USA Storage Dr/Taunton Depot Drive
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-EEE
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3	5
04:15 PM	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	3
04:30 PM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	4
Total	0	0	0	4	0	0	0	5	0	1	0	2	0	0	0	3	15
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	5
Total	0	0	0	5	0	0	0	2	0	1	0	0	0	0	0	0	8
Grand Total	0	0	0	9	0	0	0	7	0	2	0	2	0	0	0	3	23
Apprch %	0	0	0	100	0	0	0	100	0	50	0	50	0	0	0	100	
Total %	0	0	0	39.1	0	0	0	30.4	0	8.7	0	8.7	0	0	0	13	

	County Street (Route 140) From North					USA Storage Driveway From East					County Street (Route 140) From South					Taunton Depot Drive From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	**3**	**3**	**5**
04:15 PM	0	0	0	1	1	0	0	0	1	1	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**
04:30 PM	**0**	**0**	**0**	**2**	**2**	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	**2**	**2**	0	0	0	0	0	4
Total Volume	0	0	0	4	4	0	0	0	5	5	0	1	0	2	3	0	0	0	3	3	15
% App. Total	0	0	0	100		0	0	0	100		0	33.3	0	66.7		0	0	0	100		
PHF	.000	.000	.000	.500	.500	.000	.000	.000	.625	.625	.000	.250	.000	.250	.375	.000	.000	.000	.250	.250	.750

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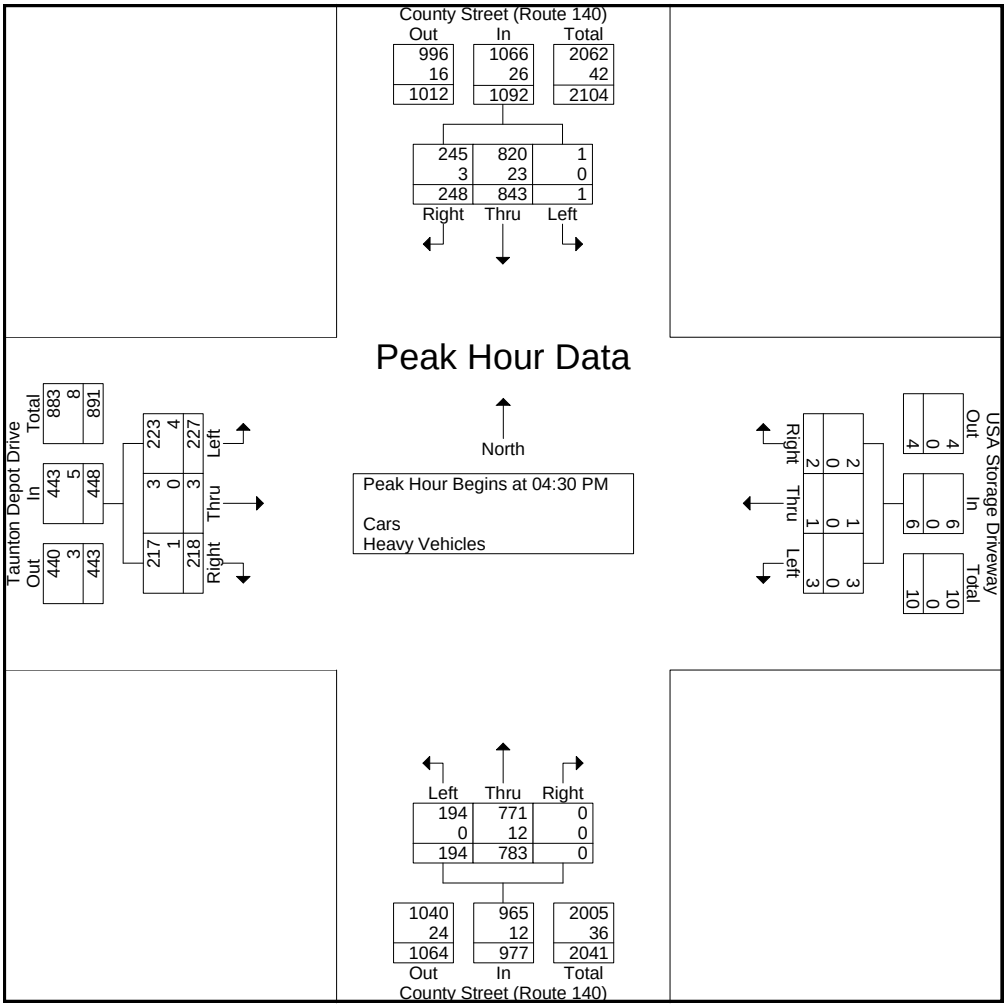
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-EEE
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	County Street (Route 140) From North				USA Storage Driveway From East				County Street (Route 140) From South				Taunton Depot Drive From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	56	203	0	259	0	0	**1**	1	0	**205**	34	239	56	1	63	120	619
04:45 PM	59	207	0	266	0	0	0	0	0	191	57	248	51	**2**	43	96	610
05:00 PM	60	210	**1**	271	**1**	0	1	2	0	197	44	241	**57**	0	**64**	**121**	635
05:15 PM	**73**	**223**	0	**296**	1	**1**	1	**3**	0	190	**59**	**249**	54	0	57	111	**659**
Total Volume	248	843	1	1092	2	1	3	6	0	783	194	977	218	3	227	448	2523
% App. Total	22.7	77.2	0.1		33.3	16.7	50		0	80.1	19.9		48.7	0.7	50.7		
PHF	.849	.945	.250	.922	.500	.250	.750	.500	.000	.955	.822	.981	.956	.375	.887	.926	.957
Cars	245	820	1	1066	2	1	3	6	0	771	194	965	217	3	223	443	2480
% Cars	98.8	97.3	100	97.6	100	100	100	100	0	98.5	100	98.8	99.5	100	98.2	98.9	98.3
Heavy Vehicles	3	23	0	26	0	0	0	0	0	12	0	12	1	0	4	5	43
% Heavy Vehicles	1.2	2.7	0	2.4	0	0	0	0	0	1.5	0	1.2	0.5	0	1.8	1.1	1.7



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N/S: Silver City Mall/Route 140 NB Ramps
E/W: Stevens Street
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-F
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Silver City Mall Entrance From North			Stevens Street From East			Route 140 NB Ramps From South			Stevens Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	3	2	9	26	15	3	5	17	40	0	120
07:15 AM	0	0	1	0	13	26	25	1	2	15	52	1	136
07:30 AM	1	3	1	1	13	29	21	2	1	16	57	0	145
07:45 AM	0	3	0	5	17	11	33	2	1	19	63	0	154
Total	1	6	5	8	52	92	94	8	9	67	212	1	555
08:00 AM	0	0	0	2	14	14	31	1	5	19	37	0	123
08:15 AM	0	1	1	3	12	10	10	4	3	11	53	0	108
08:30 AM	0	1	3	4	13	23	14	5	6	16	57	0	142
08:45 AM	1	1	2	6	21	16	18	11	4	21	41	1	143
Total	1	3	6	15	60	63	73	21	18	67	188	1	516
Grand Total	2	9	11	23	112	155	167	29	27	134	400	2	1071
Apprch %	9.1	40.9	50	7.9	38.6	53.4	74.9	13	12.1	25	74.6	0.4	
Total %	0.2	0.8	1	2.1	10.5	14.5	15.6	2.7	2.5	12.5	37.3	0.2	
Cars	2	9	10	21	108	140	163	27	22	119	367	2	990
% Cars	100	100	90.9	91.3	96.4	90.3	97.6	93.1	81.5	88.8	91.8	100	92.4
Heavy Vehicles	0	0	1	2	4	15	4	2	5	15	33	0	81
% Heavy Vehicles	0	0	9.1	8.7	3.6	9.7	2.4	6.9	18.5	11.2	8.2	0	7.6

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:15 AM	0	0	**1**	1	0	13	26	39	25	1	2	28	15	52	**1**	68	136
07:30 AM	**1**	**3**	1	**5**	1	13	**29**	**43**	21	**2**	1	24	16	57	0	73	145
07:45 AM	0	3	0	3	**5**	**17**	11	33	**33**	2	1	36	**19**	**63**	0	**82**	**154**
08:00 AM	0	0	0	0	2	14	14	30	31	1	**5**	**37**	19	37	0	56	123
Total Volume	1	6	2	9	8	57	80	145	110	6	9	125	69	209	1	279	558
% App. Total	11.1	66.7	22.2		5.5	39.3	55.2		88	4.8	7.2		24.7	74.9	0.4		
PHF	.250	.500	.500	.450	.400	.838	.690	.843	.833	.750	.450	.845	.908	.829	.250	.851	.906
Cars	1	6	2	9	8	55	71	134	107	6	6	119	60	194	1	255	517
% Cars	100	100	100	100	100	96.5	88.8	92.4	97.3	100	66.7	95.2	87.0	92.8	100	91.4	92.7
Heavy Vehicles	0	0	0	0	0	2	9	11	3	0	3	6	9	15	0	24	41
% Heavy Vehicles	0	0	0	0	0	3.5	11.3	7.6	2.7	0	33.3	4.8	13.0	7.2	0	8.6	7.3

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N/S: Silver City Mall/Route 140 NB Ramps
E/W: Stevens Street
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-F
Site Code : 10111.31
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Groups Printed- Cars

	Silver City Mall Entrance From North			Stevens Street From East			Route 140 NB Ramps From South			Stevens Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	3	2	9	26	15	2	5	16	37	0	115
07:15 AM	0	0	1	0	13	21	24	1	2	15	49	1	127
07:30 AM	1	3	1	1	13	26	19	2	0	14	53	0	133
07:45 AM	0	3	0	5	17	11	33	2	1	15	59	0	146
Total	1	6	5	8	52	84	91	7	8	60	198	1	521
08:00 AM	0	0	0	2	12	13	31	1	3	16	33	0	111
08:15 AM	0	1	0	2	11	9	10	4	3	9	49	0	98
08:30 AM	0	1	3	4	13	21	13	5	5	14	50	0	129
08:45 AM	1	1	2	5	20	13	18	10	3	20	37	1	131
Total	1	3	5	13	56	56	72	20	14	59	169	1	469
Grand Total	2	9	10	21	108	140	163	27	22	119	367	2	990
Apprch %	9.5	42.9	47.6	7.8	40.1	52	76.9	12.7	10.4	24.4	75.2	0.4	
Total %	0.2	0.9	1	2.1	10.9	14.1	16.5	2.7	2.2	12	37.1	0.2	

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**3**	3	2	9	**26**	37	15	**2**	**5**	22	**16**	37	0	53	115
07:15 AM	0	0	1	1	0	13	21	34	24	1	2	27	15	49	**1**	65	127
07:30 AM	**1**	**3**	1	**5**	1	13	26	**40**	19	2	0	21	14	53	0	67	133
07:45 AM	0	3	0	3	**5**	**17**	11	33	**33**	2	1	**36**	15	**59**	0	**74**	**146**
Total Volume	1	6	5	12	8	52	84	144	91	7	8	106	60	198	1	259	521
% App. Total	8.3	50	41.7		5.6	36.1	58.3		85.8	6.6	7.5		23.2	76.4	0.4		
PHF	.250	.500	.417	.600	.400	.765	.808	.900	.689	.875	.400	.736	.938	.839	.250	.875	.892

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Groups Printed- Heavy Vehicles

	Silver City Mall Entrance From North			Stevens Street From East			Route 140 NB Ramps From South			Stevens Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	0	1	0	1	3	0	5
07:15 AM	0	0	0	0	0	5	1	0	0	0	3	0	9
07:30 AM	0	0	0	0	0	3	2	0	1	2	4	0	12
07:45 AM	0	0	0	0	0	0	0	0	0	4	4	0	8
Total	0	0	0	0	0	8	3	1	1	7	14	0	34
08:00 AM	0	0	0	0	2	1	0	0	2	3	4	0	12
08:15 AM	0	0	1	1	1	1	0	0	0	2	4	0	10
08:30 AM	0	0	0	0	0	2	1	0	1	2	7	0	13
08:45 AM	0	0	0	1	1	3	0	1	1	1	4	0	12
Total	0	0	1	2	4	7	1	1	4	8	19	0	47
Grand Total	0	0	1	2	4	15	4	2	5	15	33	0	81
Apprch %	0	0	100	9.5	19	71.4	36.4	18.2	45.5	31.2	68.8	0	
Total %	0	0	1.2	2.5	4.9	18.5	4.9	2.5	6.2	18.5	40.7	0	

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	**2**	1	3	0	0	**2**	**2**	**3**	4	0	7	12
08:15 AM	0	0	**1**	**1**	**1**	1	1	3	0	0	0	0	2	4	0	6	10
08:30 AM	0	0	0	0	0	0	2	2	**1**	0	1	2	2	**7**	0	**9**	**13**
08:45 AM	0	0	0	0	1	1	**3**	**5**	0	**1**	1	2	1	4	0	5	12
Total Volume	0	0	1	1	2	4	7	13	1	1	4	6	8	19	0	27	47
% App. Total	0	0	100		15.4	30.8	53.8		16.7	16.7	66.7		29.6	70.4	0		
PHF	.000	.000	.250	.250	.500	.500	.583	.650	.250	.250	.500	.750	.667	.679	.000	.750	.904

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Groups Printed- Peds and Bicycles

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

	Silver City Mall Entrance From North					Stevens Street From East					Route 140 NB Ramps From South					Stevens Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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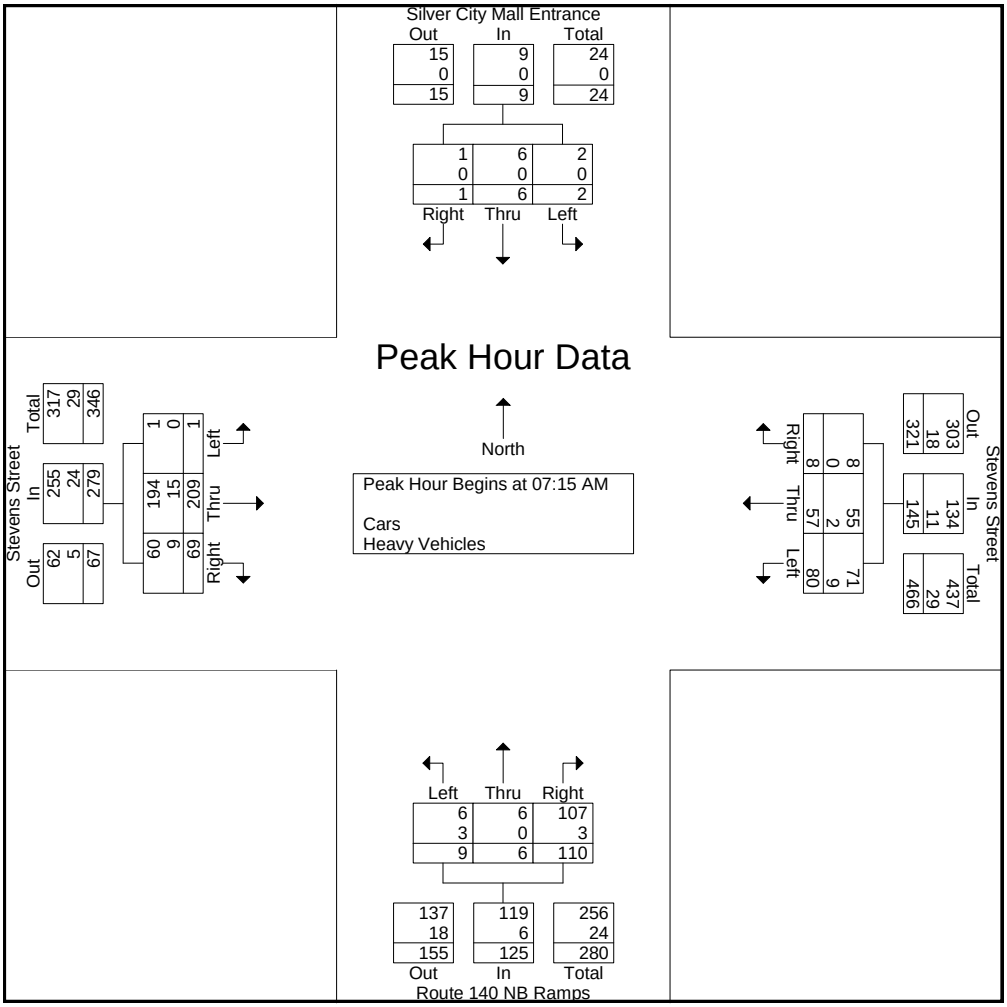
	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**1**	1	0	13	26	39	25	1	2	28	15	52	**1**	68	136
07:30 AM	**1**	**3**	1	**5**	1	13	**29**	**43**	21	**2**	1	24	16	57	0	73	145
07:45 AM	0	3	0	3	**5**	**17**	11	33	**33**	2	1	36	**19**	**63**	0	**82**	**154**
08:00 AM	0	0	0	0	2	14	14	30	31	1	**5**	**37**	19	37	0	56	123
Total Volume	1	6	2	9	8	57	80	145	110	6	9	125	69	209	1	279	558
% App. Total	11.1	66.7	22.2		5.5	39.3	55.2		88	4.8	7.2		24.7	74.9	0.4		
PHF	.250	.500	.500	.450	.400	.838	.690	.843	.833	.750	.450	.845	.908	.829	.250	.851	.906
Cars	1	6	2	9	8	55	71	134	107	6	6	119	60	194	1	255	517
% Cars	100	100	100	100	100	96.5	88.8	92.4	97.3	100	66.7	95.2	87.0	92.8	100	91.4	92.7
Heavy Vehicles	0	0	0	0	0	2	9	11	3	0	3	6	9	15	0	24	41
% Heavy Vehicles	0	0	0	0	0	3.5	11.3	7.6	2.7	0	33.3	4.8	13.0	7.2	0	8.6	7.3



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N/S: Silver City Mall/Route 140 NB Ramps
E/W: Stevens Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-FFF
Site Code : 10111.31
Start Date : 9/11/2008
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Groups Printed- Cars - Heavy Vehicles

	Silver City Mall Entrance From North			Stevens Street From East			Route 140 NB Ramps From South			Stevens Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	15	9	7	34	37	13	12	9	63	43	0	243
04:15 PM	0	16	14	6	31	31	10	5	4	77	29	0	223
04:30 PM	3	14	7	12	50	55	10	13	7	74	30	0	275
04:45 PM	0	22	10	11	36	34	14	12	7	77	52	2	277
Total	4	67	40	36	151	157	47	42	27	291	154	2	1018
05:00 PM	3	28	11	4	59	58	11	12	12	78	56	0	332
05:15 PM	3	19	5	14	43	38	11	15	5	66	56	0	275
05:30 PM	2	28	11	15	47	47	12	9	6	63	50	1	291
05:45 PM	0	35	16	17	37	34	15	22	9	59	41	0	285
Total	8	110	43	50	186	177	49	58	32	266	203	1	1183
Grand Total	12	177	83	86	337	334	96	100	59	557	357	3	2201
Apprch %	4.4	65.1	30.5	11.4	44.5	44.1	37.6	39.2	23.1	60.7	38.9	0.3	
Total %	0.5	8	3.8	3.9	15.3	15.2	4.4	4.5	2.7	25.3	16.2	0.1	
Cars	12	176	83	84	335	332	92	99	56	549	331	3	2152
% Cars	100	99.4	100	97.7	99.4	99.4	95.8	99	94.9	98.6	92.7	100	97.8
Heavy Vehicles	0	1	0	2	2	2	4	1	3	8	26	0	49
% Heavy Vehicles	0	0.6	0	2.3	0.6	0.6	4.2	1	5.1	1.4	7.3	0	2.2

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	22	10	32	11	36	34	81	**14**	12	7	33	77	52	**2**	131	277
05:00 PM	**3**	**28**	**11**	**42**	4	**59**	**58**	**121**	11	12	**12**	**35**	**78**	**56**	0	**134**	**332**
05:15 PM	3	19	5	27	14	43	38	95	11	**15**	5	31	66	56	0	122	275
05:30 PM	2	28	11	41	**15**	47	47	109	12	9	6	27	63	50	1	114	291
Total Volume	8	97	37	142	44	185	177	406	48	48	30	126	284	214	3	501	1175
% App. Total	5.6	68.3	26.1		10.8	45.6	43.6		38.1	38.1	23.8		56.7	42.7	0.6		
PHF	.667	.866	.841	.845	.733	.784	.763	.839	.857	.800	.625	.900	.910	.955	.375	.935	.885
Cars	8	97	37	142	43	184	176	403	46	47	28	121	280	202	3	485	1151
% Cars	100	100	100	100	97.7	99.5	99.4	99.3	95.8	97.9	93.3	96.0	98.6	94.4	100	96.8	98.0
Heavy Vehicles	0	0	0	0	1	1	1	3	2	1	2	5	4	12	0	16	24
% Heavy Vehicles	0	0	0	0	2.3	0.5	0.6	0.7	4.2	2.1	6.7	4.0	1.4	5.6	0	3.2	2.0

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E/W: Stevens Street
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Client: VHB/J. Quitter

File Name : 81676 G-FFF
Site Code : 10111.31
Start Date : 9/11/2008
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Groups Printed- Cars

	Silver City Mall Entrance From North			Stevens Street From East			Route 140 NB Ramps From South			Stevens Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	15	9	7	34	37	13	12	9	61	36	0	234
04:15 PM	0	16	14	5	30	31	9	5	3	76	28	0	217
04:30 PM	3	14	7	12	50	54	10	13	7	74	26	0	270
04:45 PM	0	22	10	11	35	34	14	12	7	77	47	2	271
Total	4	67	40	35	149	156	46	42	26	288	137	2	992
05:00 PM	3	28	11	4	59	58	11	12	10	78	53	0	327
05:15 PM	3	19	5	13	43	38	11	14	5	63	55	0	269
05:30 PM	2	28	11	15	47	46	10	9	6	62	47	1	284
05:45 PM	0	34	16	17	37	34	14	22	9	58	39	0	280
Total	8	109	43	49	186	176	46	57	30	261	194	1	1160
Grand Total	12	176	83	84	335	332	92	99	56	549	331	3	2152
Apprch %	4.4	64.9	30.6	11.2	44.6	44.2	37.2	40.1	22.7	62.2	37.5	0.3	
Total %	0.6	8.2	3.9	3.9	15.6	15.4	4.3	4.6	2.6	25.5	15.4	0.1	

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	22	10	32	11	35	34	80	**14**	12	7	**33**	77	47	**2**	126	271
05:00 PM	**3**	**28**	**11**	**42**	4	**59**	**58**	**121**	11	12	**10**	33	**78**	53	0	**131**	**327**
05:15 PM	3	19	5	27	13	43	38	94	11	**14**	5	30	63	**55**	0	118	269
05:30 PM	2	28	11	41	**15**	47	46	108	10	9	6	25	62	47	1	110	284
Total Volume	8	97	37	142	43	184	176	403	46	47	28	121	280	202	3	485	1151
% App. Total	5.6	68.3	26.1		10.7	45.7	43.7		38	38.8	23.1		57.7	41.6	0.6		
PHF	.667	.866	.841	.845	.717	.780	.759	.833	.821	.839	.700	.917	.897	.918	.375	.926	.880

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File Name : 81676 G-FFF
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Silver City Mall Entrance From North			Stevens Street From East			Route 140 NB Ramps From South			Stevens Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	2	7	0	9
04:15 PM	0	0	0	1	1	0	1	0	1	1	1	0	6
04:30 PM	0	0	0	0	0	1	0	0	0	0	4	0	5
04:45 PM	0	0	0	0	1	0	0	0	0	0	5	0	6
Total	0	0	0	1	2	1	1	0	1	3	17	0	26
05:00 PM	0	0	0	0	0	0	0	0	2	0	3	0	5
05:15 PM	0	0	0	1	0	0	0	1	0	3	1	0	6
05:30 PM	0	0	0	0	0	1	2	0	0	1	3	0	7
05:45 PM	0	1	0	0	0	0	1	0	0	1	2	0	5
Total	0	1	0	1	0	1	3	1	2	5	9	0	23
Grand Total	0	1	0	2	2	2	4	1	3	8	26	0	49
Apprch %	0	100	0	33.3	33.3	33.3	50	12.5	37.5	23.5	76.5	0	
Total %	0	2	0	4.1	4.1	4.1	8.2	2	6.1	16.3	53.1	0	

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**7**	0	**9**	**9**
04:15 PM	0	0	0	0	**1**	**1**	0	**2**	**1**	0	**1**	**2**	1	1	0	2	6
04:30 PM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	4	0	4	5
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	5	0	5	6
Total Volume	0	0	0	0	1	2	1	4	1	0	1	2	3	17	0	20	26
% App. Total	0	0	0		25	50	25		50	0	50		15	85	0		
PHF	.000	.000	.000	.000	.250	.500	.250	.500	.250	.000	.250	.250	.375	.607	.000	.556	.722

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

N/S: Silver City Mall/Route 140 NB Ramps
E/W: Stevens Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-FFF
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	2	0	0	0	0	0	0	1	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	1	0	2	0	0	0	0	0	0	1	0	0	0	0	4
Apprch %	0	0	100	0	100	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	25	0	50	0	0	0	0	0	0	25	0	0	0	0	

	Silver City Mall Entrance From North					Stevens Street From East					Route 140 NB Ramps From South					Stevens Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	**2**	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	**2**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	**1**	**0**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	0	1	2	0	0	0	2	0	0	0	1	1	0	0	0	0	0	4
% App. Total	0	0	100	0		100	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.250	.000	.250	.250	.000	.000	.000	.250	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.500

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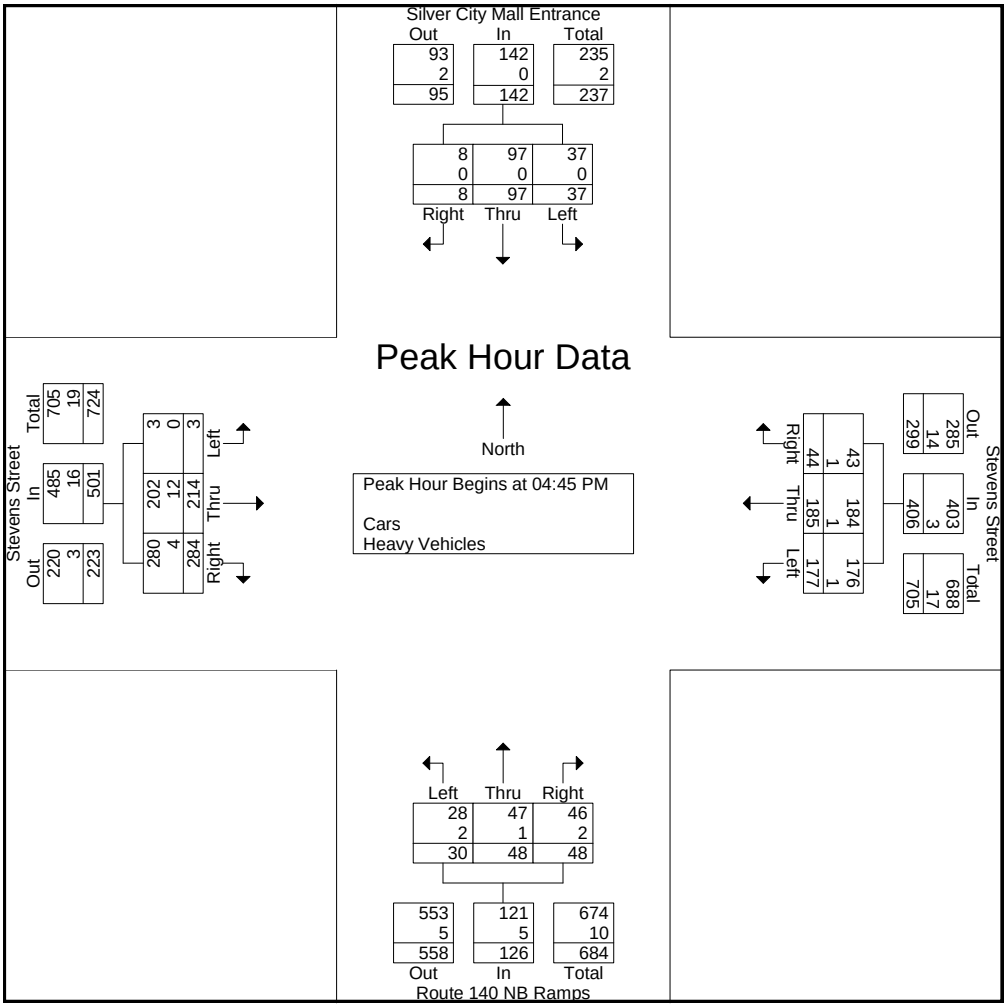
File Name : 81676 G-FFF
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	Silver City Mall Entrance From North				Stevens Street From East				Route 140 NB Ramps From South				Stevens Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	22	10	32	11	36	34	81	**14**	12	7	33	77	52	**2**	131	277
05:00 PM	**3**	**28**	**11**	**42**	4	**59**	**58**	**121**	11	12	**12**	**35**	**78**	**56**	0	**134**	**332**
05:15 PM	3	19	5	27	14	43	38	95	11	**15**	5	31	66	56	0	122	275
05:30 PM	2	28	11	41	**15**	47	47	109	12	9	6	27	63	50	1	114	291
Total Volume	8	97	37	142	44	185	177	406	48	48	30	126	284	214	3	501	1175
% App. Total	5.6	68.3	26.1		10.8	45.6	43.6		38.1	38.1	23.8		56.7	42.7	0.6		
PHF	.667	.866	.841	.845	.733	.784	.763	.839	.857	.800	.625	.900	.910	.955	.375	.935	.885
Cars	8	97	37	142	43	184	176	403	46	47	28	121	280	202	3	485	1151
% Cars	100	100	100	100	97.7	99.5	99.4	99.3	95.8	97.9	93.3	96.0	98.6	94.4	100	96.8	98.0
Heavy Vehicles	0	0	0	0	1	1	1	3	2	1	2	5	4	12	0	16	24
% Heavy Vehicles	0	0	0	0	2.3	0.5	0.6	0.7	4.2	2.1	6.7	4.0	1.4	5.6	0	3.2	2.0



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N/S: County Street
E/W: Route 140 SB Ramps/Silver City Mall
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-G
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street From North			Route 140 SB Ramps From East			County Street From South			Silver City Mall Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	20	10	10	29	0	0	0	21	0	0	0	5	95
07:15 AM	12	8	11	37	0	0	0	31	2	1	1	3	106
07:30 AM	22	13	14	39	0	0	0	26	8	6	2	2	132
07:45 AM	15	14	12	52	0	0	0	25	2	0	2	6	128
Total	69	45	47	157	0	0	0	103	12	7	5	16	461
08:00 AM	25	13	11	32	0	0	0	20	2	1	3	6	113
08:15 AM	31	12	6	41	0	0	0	15	3	0	1	4	113
08:30 AM	20	4	8	45	0	0	0	22	2	0	2	8	111
08:45 AM	38	9	13	26	0	0	0	31	9	3	2	1	132
Total	114	38	38	144	0	0	0	88	16	4	8	19	469
Grand Total	183	83	85	301	0	0	0	191	28	11	13	35	930
Apprch %	52.1	23.6	24.2	100	0	0	0	87.2	12.8	18.6	22	59.3	
Total %	19.7	8.9	9.1	32.4	0	0	0	20.5	3	1.2	1.4	3.8	
Cars	173	77	75	270	0	0	0	182	23	8	11	23	842
% Cars	94.5	92.8	88.2	89.7	0	0	0	95.3	82.1	72.7	84.6	65.7	90.5
Heavy Vehicles	10	6	10	31	0	0	0	9	5	3	2	12	88
% Heavy Vehicles	5.5	7.2	11.8	10.3	0	0	0	4.7	17.9	27.3	15.4	34.3	9.5

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	22	13	**14**	**49**	39	0	0	39	0	**26**	**8**	**34**	**6**	2	2	**10**	**132**
07:45 AM	15	**14**	12	41	**52**	0	0	**52**	0	25	2	27	0	2	**6**	8	128
08:00 AM	25	13	11	49	32	0	0	32	0	20	2	22	1	**3**	6	10	113
08:15 AM	**31**	12	6	49	41	0	0	41	0	15	3	18	0	1	4	5	113
Total Volume	93	52	43	188	164	0	0	164	0	86	15	101	7	8	18	33	486
% App. Total	49.5	27.7	22.9		100	0	0		0	85.1	14.9		21.2	24.2	54.5		
PHF	.750	.929	.768	.959	.788	.000	.000	.788	.000	.827	.469	.743	.292	.667	.750	.825	.920
Cars	84	48	36	168	146	0	0	146	0	83	10	93	4	6	9	19	426
% Cars	90.3	92.3	83.7	89.4	89.0	0	0	89.0	0	96.5	66.7	92.1	57.1	75.0	50.0	57.6	87.7
Heavy Vehicles	9	4	7	20	18	0	0	18	0	3	5	8	3	2	9	14	60
% Heavy Vehicles	9.7	7.7	16.3	10.6	11.0	0	0	11.0	0	3.5	33.3	7.9	42.9	25.0	50.0	42.4	12.3

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N/S: County Street
E/W: Route 140 SB Ramps/Silver City Mall
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-G
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street From North			Route 140 SB Ramps From East			County Street From South			Silver City Mall Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	20	9	10	25	0	0	0	21	0	0	0	3	88
07:15 AM	12	8	11	34	0	0	0	30	2	1	1	3	102
07:30 AM	18	11	11	35	0	0	0	26	3	3	2	1	110
07:45 AM	14	13	11	47	0	0	0	25	2	0	0	2	114
Total	64	41	43	141	0	0	0	102	7	4	3	9	414
08:00 AM	23	12	9	28	0	0	0	17	2	1	3	4	99
08:15 AM	29	12	5	36	0	0	0	15	3	0	1	2	103
08:30 AM	20	4	8	40	0	0	0	21	2	0	2	7	104
08:45 AM	37	8	10	25	0	0	0	27	9	3	2	1	122
Total	109	36	32	129	0	0	0	80	16	4	8	14	428
Grand Total	173	77	75	270	0	0	0	182	23	8	11	23	842
Apprch %	53.2	23.7	23.1	100	0	0	0	88.8	11.2	19	26.2	54.8	
Total %	20.5	9.1	8.9	32.1	0	0	0	21.6	2.7	1	1.3	2.7	

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	23	**12**	9	44	28	0	0	28	0	17	2	19	1	**3**	4	8	99
08:15 AM	29	12	5	46	36	0	0	36	0	15	3	18	0	1	2	3	103
08:30 AM	20	4	8	32	**40**	0	0	**40**	0	21	2	23	0	2	**7**	**9**	104
08:45 AM	**37**	8	**10**	**55**	25	0	0	25	0	**27**	**9**	**36**	**3**	2	1	6	**122**
Total Volume	109	36	32	177	129	0	0	129	0	80	16	96	4	8	14	26	428
% App. Total	61.6	20.3	18.1		100	0	0		0	83.3	16.7		15.4	30.8	53.8		
PHF	.736	.750	.800	.805	.806	.000	.000	.806	.000	.741	.444	.667	.333	.667	.500	.722	.877

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E/W: Route 140 SB Ramps/Silver City Mall
City, State: Taunton, MA
Client: VHB/J.Quitter

File Name : 81676 G-G
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street From North			Route 140 SB Ramps From East			County Street From South			Silver City Mall Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	1	0	4	0	0	0	0	0	0	0	2	7
07:15 AM	0	0	0	3	0	0	0	1	0	0	0	0	4
07:30 AM	4	2	3	4	0	0	0	0	5	3	0	1	22
07:45 AM	1	1	1	5	0	0	0	0	0	0	2	4	14
Total	5	4	4	16	0	0	0	1	5	3	2	7	47
08:00 AM	2	1	2	4	0	0	0	3	0	0	0	2	14
08:15 AM	2	0	1	5	0	0	0	0	0	0	0	2	10
08:30 AM	0	0	0	5	0	0	0	1	0	0	0	1	7
08:45 AM	1	1	3	1	0	0	0	4	0	0	0	0	10
Total	5	2	6	15	0	0	0	8	0	0	0	5	41
Grand Total	10	6	10	31	0	0	0	9	5	3	2	12	88
Apprch %	38.5	23.1	38.5	100	0	0	0	64.3	35.7	17.6	11.8	70.6	
Total %	11.4	6.8	11.4	35.2	0	0	0	10.2	5.7	3.4	2.3	13.6	

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**4**	**2**	**3**	**9**	4	0	0	4	0	0	**5**	**5**	**3**	0	1	4	**22**
07:45 AM	1	1	1	3	**5**	0	0	**5**	0	0	0	0	0	**2**	**4**	**6**	14
08:00 AM	2	1	2	5	4	0	0	4	0	**3**	0	3	0	0	2	2	14
08:15 AM	2	0	1	3	5	0	0	5	0	0	0	0	0	0	2	2	10
Total Volume	9	4	7	20	18	0	0	18	0	3	5	8	3	2	9	14	60
% App. Total	45	20	35		100	0	0		0	37.5	62.5		21.4	14.3	64.3		
PHF	.563	.500	.583	.556	.900	.000	.000	.900	.000	.250	.250	.400	.250	.250	.563	.583	.682

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File Name : 81676 G-G
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	

	County Street From North					Route 140 SB Ramps From East					County Street From South					Silver City Mall Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250

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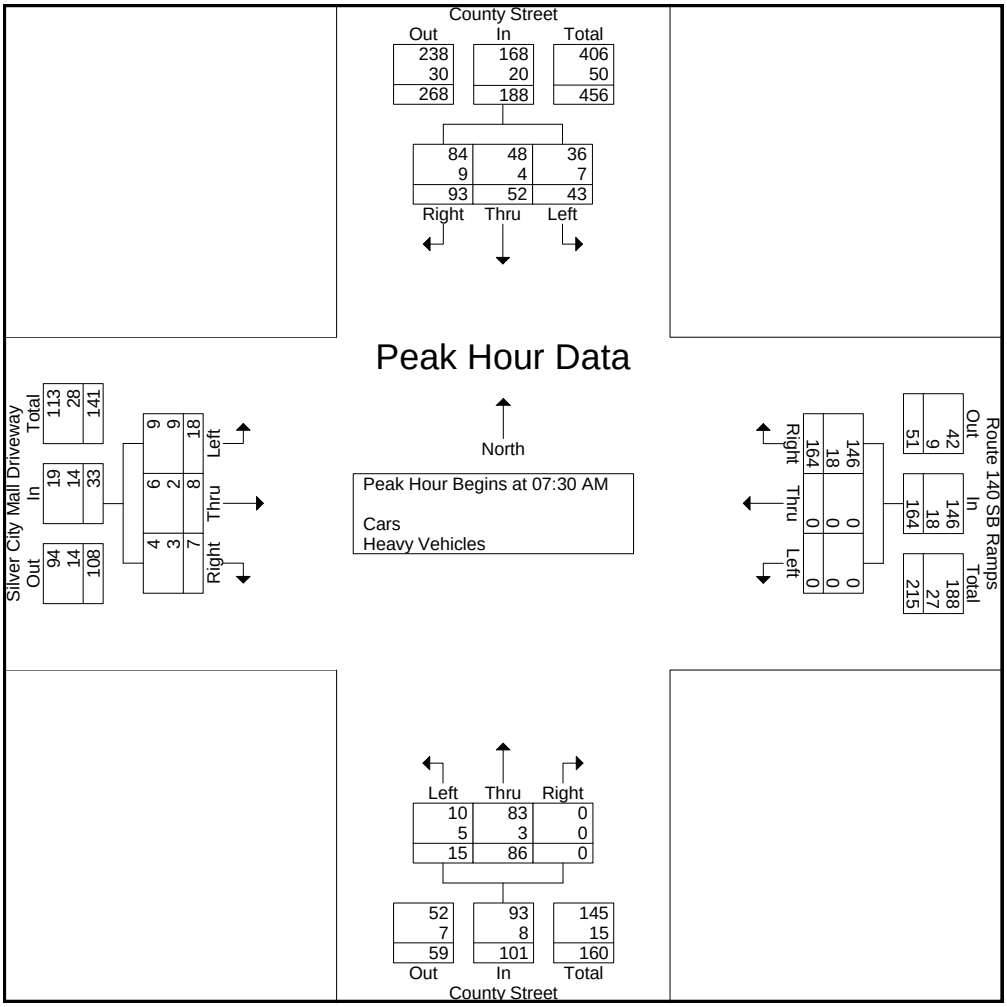
Client: VHB/J.Quitter

File Name : 81676 G-G
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	22	13	**14**	**49**	39	0	0	39	0	**26**	**8**	**34**	**6**	2	2	**10**	**132**
07:45 AM	15	**14**	12	41	**52**	0	0	**52**	0	25	2	27	0	2	**6**	8	128
08:00 AM	25	13	11	49	32	0	0	32	0	20	2	22	1	**3**	6	10	113
08:15 AM	**31**	12	6	49	41	0	0	41	0	15	3	18	0	1	4	5	113
Total Volume	93	52	43	188	164	0	0	164	0	86	15	101	7	8	18	33	486
% App. Total	49.5	27.7	22.9		100	0	0		0	85.1	14.9		21.2	24.2	54.5		
PHF	.750	.929	.768	.959	.788	.000	.000	.788	.000	.827	.469	.743	.292	.667	.750	.825	.920
Cars	84	48	36	168	146	0	0	146	0	83	10	93	4	6	9	19	426
% Cars	90.3	92.3	83.7	89.4	89.0	0	0	89.0	0	96.5	66.7	92.1	57.1	75.0	50.0	57.6	87.7
Heavy Vehicles	9	4	7	20	18	0	0	18	0	3	5	8	3	2	9	14	60
% Heavy Vehicles	9.7	7.7	16.3	10.6	11.0	0	0	11.0	0	3.5	33.3	7.9	42.9	25.0	50.0	42.4	12.3



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N/S: County Street
E/W: Route 140 SB Ramps/Silver City Mall
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-GGG
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street From North			Route 140 SB Ramps From East			County Street From South			Silver City Mall Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	105	27	27	25	0	0	0	24	2	5	31	66	312
04:15 PM	96	30	30	19	0	0	0	9	0	4	49	72	309
04:30 PM	125	35	38	25	0	0	0	16	10	17	31	66	363
04:45 PM	110	31	20	34	0	0	0	14	8	11	37	84	349
Total	436	123	115	103	0	0	0	63	20	37	148	288	1333
05:00 PM	106	41	48	30	0	0	0	22	6	14	35	78	380
05:15 PM	91	41	26	38	0	0	0	19	10	13	24	62	324
05:30 PM	100	30	27	24	0	0	0	21	7	6	27	69	311
05:45 PM	92	20	24	24	0	0	0	25	5	9	18	60	277
Total	389	132	125	116	0	0	0	87	28	42	104	269	1292
Grand Total	825	255	240	219	0	0	0	150	48	79	252	557	2625
Apprch %	62.5	19.3	18.2	100	0	0	0	75.8	24.2	8.9	28.4	62.7	
Total %	31.4	9.7	9.1	8.3	0	0	0	5.7	1.8	3	9.6	21.2	
Cars	810	253	235	199	0	0	0	150	47	79	244	546	2563
% Cars	98.2	99.2	97.9	90.9	0	0	0	100	97.9	100	96.8	98	97.6
Heavy Vehicles	15	2	5	20	0	0	0	0	1	0	8	11	62
% Heavy Vehicles	1.8	0.8	2.1	9.1	0	0	0	0	2.1	0	3.2	2	2.4

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**125**	35	38	**198**	25	0	0	25	0	16	**10**	26	**17**	31	66	114	363
04:45 PM	110	31	20	161	34	0	0	34	0	14	8	22	11	**37**	**84**	**132**	349
05:00 PM	106	**41**	**48**	195	30	0	0	30	0	**22**	6	28	14	35	78	127	**380**
05:15 PM	91	41	26	158	**38**	0	0	**38**	0	19	10	**29**	13	24	62	99	324
Total Volume	432	148	132	712	127	0	0	127	0	71	34	105	55	127	290	472	1416
% App. Total	60.7	20.8	18.5		100	0	0		0	67.6	32.4		11.7	26.9	61.4		
PHF	.864	.902	.688	.899	.836	.000	.000	.836	.000	.807	.850	.905	.809	.858	.863	.894	.932
Cars	423	148	129	700	116	0	0	116	0	71	34	105	55	123	286	464	1385
% Cars	97.9	100	97.7	98.3	91.3	0	0	91.3	0	100	100	100	100	96.9	98.6	98.3	97.8
Heavy Vehicles	9	0	3	12	11	0	0	11	0	0	0	0	0	4	4	8	31
% Heavy Vehicles	2.1	0	2.3	1.7	8.7	0	0	8.7	0	0	0	0	0	3.1	1.4	1.7	2.2

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City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-GGG
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street From North			Route 140 SB Ramps From East			County Street From South			Silver City Mall Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	103	27	26	21	0	0	0	24	2	5	31	64	303
04:15 PM	94	29	29	17	0	0	0	9	0	4	47	71	300
04:30 PM	124	35	38	22	0	0	0	16	10	17	29	65	356
04:45 PM	108	31	19	30	0	0	0	14	8	11	35	83	339
Total	429	122	112	90	0	0	0	63	20	37	142	283	1298
05:00 PM	104	41	46	27	0	0	0	22	6	14	35	78	373
05:15 PM	87	41	26	37	0	0	0	19	10	13	24	60	317
05:30 PM	99	29	27	23	0	0	0	21	6	6	26	65	302
05:45 PM	91	20	24	22	0	0	0	25	5	9	17	60	273
Total	381	131	123	109	0	0	0	87	27	42	102	263	1265
Grand Total	810	253	235	199	0	0	0	150	47	79	244	546	2563
Apprch %	62.4	19.5	18.1	100	0	0	0	76.1	23.9	9.1	28.1	62.8	
Total %	31.6	9.9	9.2	7.8	0	0	0	5.9	1.8	3.1	9.5	21.3	

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**124**	35	38	**197**	22	0	0	22	0	16	**10**	26	**17**	29	65	111	356
04:45 PM	108	31	19	158	30	0	0	30	0	14	8	22	11	**35**	**83**	**129**	339
05:00 PM	104	**41**	**46**	191	27	0	0	27	0	**22**	6	28	14	35	78	127	**373**
05:15 PM	87	41	26	154	**37**	0	0	**37**	0	19	10	**29**	13	24	60	97	317
Total Volume	423	148	129	700	116	0	0	116	0	71	34	105	55	123	286	464	1385
% App. Total	60.4	21.1	18.4		100	0	0		0	67.6	32.4		11.9	26.5	61.6		
PHF	.853	.902	.701	.888	.784	.000	.000	.784	.000	.807	.850	.905	.809	.879	.861	.899	.928

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File Name : 81676 G-GGG
Site Code : 10111.31
Start Date : 9/11/2008
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Groups Printed- Heavy Vehicles

	County Street From North			Route 140 SB Ramps From East			County Street From South			Silver City Mall Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	2	0	1	4	0	0	0	0	0	0	0	2	9
04:15 PM	2	1	1	2	0	0	0	0	0	0	2	1	9
04:30 PM	1	0	0	3	0	0	0	0	0	0	2	1	7
04:45 PM	2	0	1	4	0	0	0	0	0	0	2	1	10
Total	7	1	3	13	0	0	0	0	0	0	6	5	35
05:00 PM	2	0	2	3	0	0	0	0	0	0	0	0	7
05:15 PM	4	0	0	1	0	0	0	0	0	0	0	2	7
05:30 PM	1	1	0	1	0	0	0	0	1	0	1	4	9
05:45 PM	1	0	0	2	0	0	0	0	0	0	1	0	4
Total	8	1	2	7	0	0	0	0	1	0	2	6	27
Grand Total	15	2	5	20	0	0	0	0	1	0	8	11	62
Apprch %	68.2	9.1	22.7	100	0	0	0	0	100	0	42.1	57.9	
Total %	24.2	3.2	8.1	32.3	0	0	0	0	1.6	0	12.9	17.7	

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**2**	0	**1**	3	**4**	0	0	**4**	0	0	0	0	0	0	**2**	2	9
04:15 PM	2	**1**	1	**4**	2	0	0	2	0	0	0	0	0	**2**	1	**3**	9
04:30 PM	1	0	0	1	3	0	0	3	0	0	0	0	0	2	1	3	7
04:45 PM	2	0	1	3	4	0	0	4	0	0	0	0	0	2	1	3	**10**
Total Volume	7	1	3	11	13	0	0	13	0	0	0	0	0	6	5	11	35
% App. Total	63.6	9.1	27.3		100	0	0		0	0	0		0	54.5	45.5		
PHF	.875	.250	.750	.688	.813	.000	.000	.813	.000	.000	.000	.000	.000	.750	.625	.917	.875

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File Name : 81676 G-GGG
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	

	County Street From North					Route 140 SB Ramps From East					County Street From South					Silver City Mall Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250

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Site Code : 10111.31
Start Date : 9/11/2008
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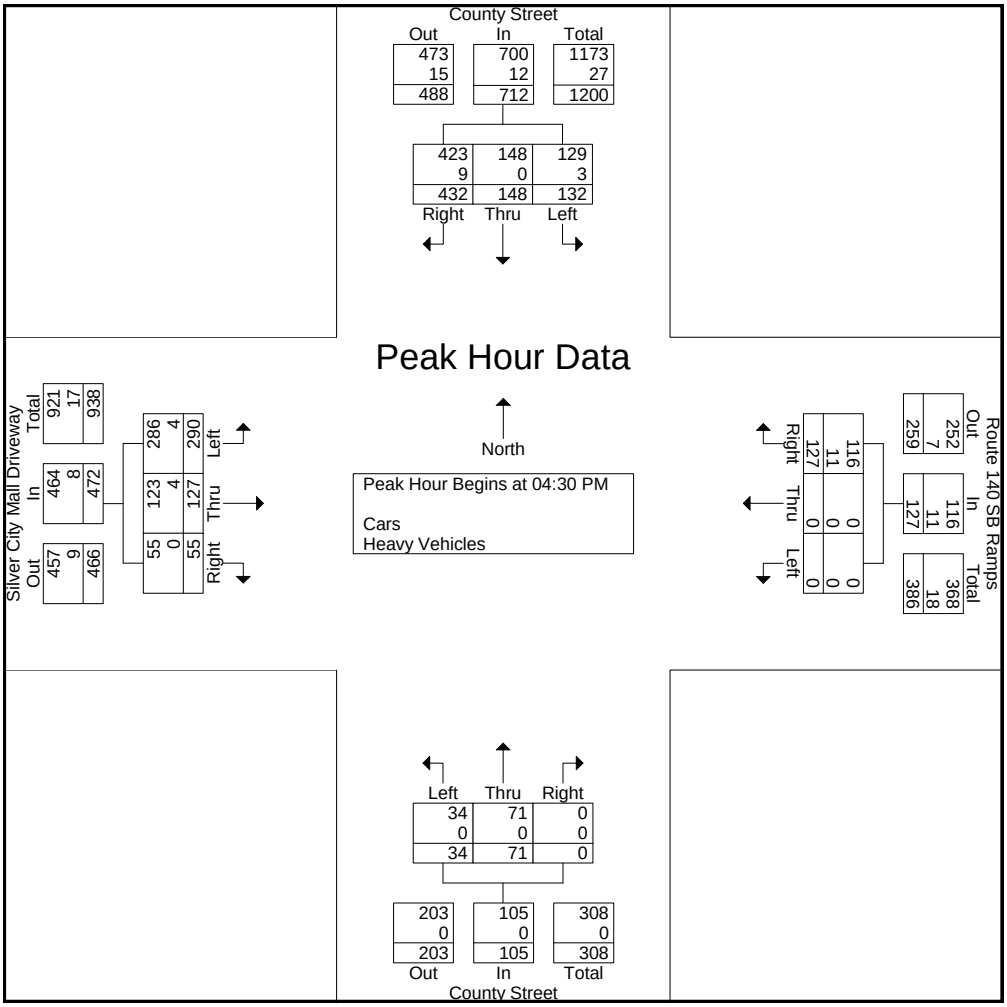
	County Street From North				Route 140 SB Ramps From East				County Street From South				Silver City Mall Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**125**	35	38	**198**	25	0	0	25	0	16	**10**	26	**17**	31	66	114	363
04:45 PM	110	31	20	161	34	0	0	34	0	14	8	22	11	**37**	**84**	**132**	349
05:00 PM	106	**41**	**48**	195	30	0	0	30	0	**22**	6	28	14	35	78	127	**380**
05:15 PM	91	41	26	158	**38**	0	0	**38**	0	19	10	**29**	13	24	62	99	324
Total Volume	432	148	132	712	127	0	0	127	0	71	34	105	55	127	290	472	1416
% App. Total	60.7	20.8	18.5		100	0	0		0	67.6	32.4		11.7	26.9	61.4		
PHF	.864	.902	.688	.899	.836	.000	.000	.836	.000	.807	.850	.905	.809	.858	.863	.894	.932
Cars	423	148	129	700	116	0	0	116	0	71	34	105	55	123	286	464	1385
% Cars	97.9	100	97.7	98.3	91.3	0	0	91.3	0	100	100	100	100	96.9	98.6	98.3	97.8
Heavy Vehicles	9	0	3	12	11	0	0	11	0	0	0	0	0	4	4	8	31
% Heavy Vehicles	2.1	0	2.3	1.7	8.7	0	0	8.7	0	0	0	0	0	3.1	1.4	1.7	2.2



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N: County Street (Route 140) SB Offramp
E/W: Stevens Street/County Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-H
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) SB Offramp From North		Stevens Street From East		County Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	26	0	0	0	0	0	26
07:15 AM	17	0	0	0	0	0	17
07:30 AM	33	0	0	0	0	0	33
07:45 AM	23	0	0	0	0	0	23
Total	99	0	0	0	0	0	99
08:00 AM	30	0	0	0	0	0	30
08:15 AM	33	0	0	0	0	0	33
08:30 AM	15	0	0	0	0	0	15
08:45 AM	31	0	0	0	0	0	31
Total	109	0	0	0	0	0	109
Grand Total	208	0	0	0	0	0	208
Apprch %	100	0	0	0	0	0	
Total %	100	0	0	0	0	0	
Cars	192	0	0	0	0	0	192
% Cars	92.3	0	0	0	0	0	92.3
Heavy Vehicles	16	0	0	0	0	0	16
% Heavy Vehicles	7.7	0	0	0	0	0	7.7

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**33**	0	**33**	0	0	0	0	0	0	**33**
07:45 AM	**23**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**23**
08:00 AM	**30**	**0**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**30**
08:15 AM	**33**	**0**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**33**
Total Volume	**119**	**0**	**119**	**0**	**0**	**0**	**0**	**0**	**0**	**119**
% App. Total	**100**	**0**		**0**	**0**		**0**	**0**		
PHF	**.902**	**.000**	**.902**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.902**
Cars	**105**	**0**	**105**	**0**	**0**	**0**	**0**	**0**	**0**	**105**
% Cars	**88.2**	**0**	**88.2**	**0**	**0**	**0**	**0**	**0**	**0**	**88.2**
Heavy Vehicles	**14**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**14**
% Heavy Vehicles	**11.8**	**0**	**11.8**	**0**	**0**	**0**	**0**	**0**	**0**	**11.8**

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Client: VHB/J. Quitter

File Name : 81676 G-H
Site Code : 10111.31
Start Date : 9/11/2008
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Groups Printed- Cars

	County Street (Route 140) SB Offramp From North		Stevens Street From East		County Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	25	0	0	0	0	0	25
07:15 AM	17	0	0	0	0	0	17
07:30 AM	25	0	0	0	0	0	25
07:45 AM	20	0	0	0	0	0	20
Total	87	0	0	0	0	0	87
08:00 AM	29	0	0	0	0	0	29
08:15 AM	31	0	0	0	0	0	31
08:30 AM	15	0	0	0	0	0	15
08:45 AM	30	0	0	0	0	0	30
Total	105	0	0	0	0	0	105
Grand Total	192	0	0	0	0	0	192
Apprch %	100	0	0	0	0	0	
Total %	100	0	0	0	0	0	

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	25	0	25	0	0	0	0	0	0	25
07:45 AM	20	0	20	0	0	0	0	0	0	20
08:00 AM	29	0	29	0	0	0	0	0	0	29
08:15 AM	**31**	0	**31**	0	0	0	0	0	0	**31**
Total Volume	**105**	**0**	**105**	**0**	**0**	**0**	**0**	**0**	**0**	**105**
% App. Total	**100**	**0**		**0**	**0**		**0**	**0**		
PHF	**.847**	**.000**	**.847**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.847**

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N: County Street (Route 140) SB Offramp
E/W: Stevens Street/County Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-H
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) SB Offramp From North		Stevens Street From East		County Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	1	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0
07:30 AM	8	0	0	0	0	0	8
07:45 AM	3	0	0	0	0	0	3
Total	12	0	0	0	0	0	12
08:00 AM	1	0	0	0	0	0	1
08:15 AM	2	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0
08:45 AM	1	0	0	0	0	0	1
Total	4	0	0	0	0	0	4
Grand Total	16	0	0	0	0	0	16
Apprch %	100	0	0	0	0	0	
Total %	100	0	0	0	0	0	

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**8**	0	**8**	0	0	0	0	0	0	**8**
07:45 AM	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
08:00 AM	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
08:15 AM	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
Total Volume	**14**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**14**
% App. Total	**100**	**0**		**0**	**0**		**0**	**0**		
PHF	**.438**	**.000**	**.438**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.438**

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N: County Street (Route 140) SB Offramp
E/W: Stevens Street/County Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-H
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	County Street (Route 140) SB Offramp From North				Stevens Street From East				County Street From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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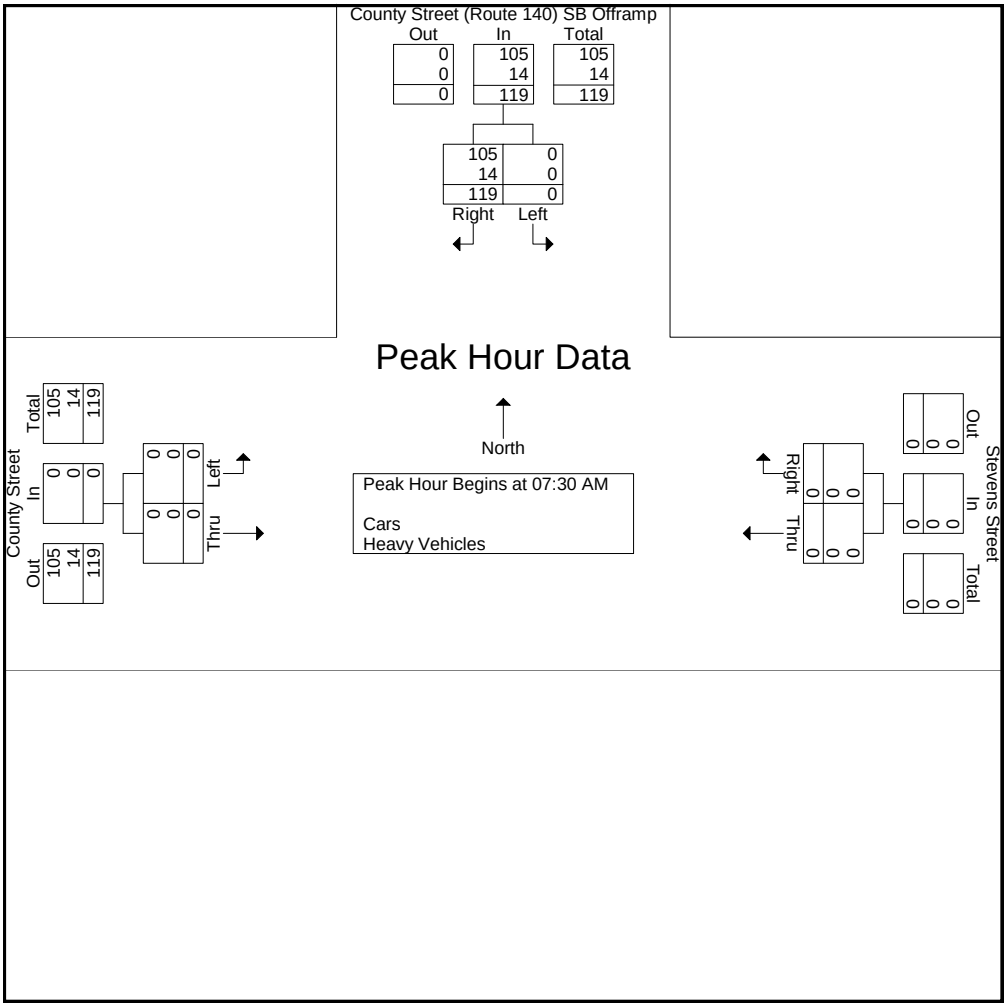
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-H
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	33	0	33	0	0	0	0	0	0	33
07:45 AM	23	0	23	0	0	0	0	0	0	23
08:00 AM	30	0	30	0	0	0	0	0	0	30
08:15 AM	33	0	33	0	0	0	0	0	0	33
Total Volume	119	0	119	0	0	0	0	0	0	119
% App. Total	100	0		0	0		0	0		
PHF	.902	.000	.902	.000	.000	.000	.000	.000	.000	.902
Cars	105	0	105	0	0	0	0	0	0	105
% Cars	88.2	0	88.2	0	0	0	0	0	0	88.2
Heavy Vehicles	14	0	14	0	0	0	0	0	0	14
% Heavy Vehicles	11.8	0	11.8	0	0	0	0	0	0	11.8



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N: County Street (Route 140) SB Offramp
E/W: Stevens Street/County Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-HHH
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	County Street (Route 140) SB Offramp From North		Stevens Street From East		County Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	112	0	0	0	0	0	112
04:15 PM	124	0	0	0	0	0	124
04:30 PM	136	0	0	0	0	0	136
04:45 PM	116	0	0	0	0	0	116
Total	488	0	0	0	0	0	488
05:00 PM	127	0	0	0	0	0	127
05:15 PM	105	0	0	0	0	0	105
05:30 PM	106	0	0	0	0	0	106
05:45 PM	85	0	0	0	0	0	85
Total	423	0	0	0	0	0	423
Grand Total	911	0	0	0	0	0	911
Apprch %	100	0	0	0	0	0	
Total %	100	0	0	0	0	0	
Cars	894	0	0	0	0	0	894
% Cars	98.1	0	0	0	0	0	98.1
Heavy Vehicles	17	0	0	0	0	0	17
% Heavy Vehicles	1.9	0	0	0	0	0	1.9

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	124	0	124	0	0	0	0	0	0	124
04:30 PM	**136**	0	**136**	0	0	0	0	0	0	**136**
04:45 PM	**116**	**0**	**116**	**0**	**0**	**0**	**0**	**0**	**0**	**116**
05:00 PM	**127**	**0**	**127**	**0**	**0**	**0**	**0**	**0**	**0**	**127**
Total Volume	**503**	**0**	**503**	**0**	**0**	**0**	**0**	**0**	**0**	**503**
% App. Total	**100**	**0**		**0**	**0**		**0**	**0**		
PHF	**.925**	**.000**	**.925**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.925**
Cars	**496**	**0**	**496**	**0**	**0**	**0**	**0**	**0**	**0**	**496**
% Cars	**98.6**	**0**	**98.6**	**0**	**0**	**0**	**0**	**0**	**0**	**98.6**
Heavy Vehicles	**7**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
% Heavy Vehicles	**1.4**	**0**	**1.4**	**0**	**0**	**0**	**0**	**0**	**0**	**1.4**

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Email: datarequests@pdillc.com

N: County Street (Route 140) SB Offramp
E/W: Stevens Street/County Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-HHH
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Cars

	County Street (Route 140) SB Offramp From North		Stevens Street From East		County Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	109	0	0	0	0	0	109
04:15 PM	122	0	0	0	0	0	122
04:30 PM	135	0	0	0	0	0	135
04:45 PM	114	0	0	0	0	0	114
Total	480	0	0	0	0	0	480
05:00 PM	125	0	0	0	0	0	125
05:15 PM	101	0	0	0	0	0	101
05:30 PM	104	0	0	0	0	0	104
05:45 PM	84	0	0	0	0	0	84
Total	414	0	0	0	0	0	414
Grand Total	894	0	0	0	0	0	894
Apprch %	100	0	0	0	0	0	
Total %	100	0	0	0	0	0	

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	122	0	122	0	0	0	0	0	0	122
04:30 PM	**135**	0	**135**	0	0	0	0	0	0	**135**
04:45 PM	**114**	**0**	**114**	**0**	**0**	**0**	**0**	**0**	**0**	**114**
05:00 PM	**125**	**0**	**125**	**0**	**0**	**0**	**0**	**0**	**0**	**125**
Total Volume	**496**	**0**	**496**	**0**	**0**	**0**	**0**	**0**	**0**	**496**
% App. Total	**100**	**0**		**0**	**0**		**0**	**0**		
PHF	**.919**	**.000**	**.919**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.919**

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N: County Street (Route 140) SB Offramp
E/W: Stevens Street/County Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-HHH
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Heavy Vehicles

	County Street (Route 140) SB Offramp From North		Stevens Street From East		County Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	3	0	0	0	0	0	3
04:15 PM	2	0	0	0	0	0	2
04:30 PM	1	0	0	0	0	0	1
04:45 PM	2	0	0	0	0	0	2
Total	8	0	0	0	0	0	8
05:00 PM	2	0	0	0	0	0	2
05:15 PM	4	0	0	0	0	0	4
05:30 PM	2	0	0	0	0	0	2
05:45 PM	1	0	0	0	0	0	1
Total	9	0	0	0	0	0	9
Grand Total	17	0	0	0	0	0	17
Apprch %	100	0	0	0	0	0	
Total %	100	0	0	0	0	0	

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	2	0	2	0	0	0	0	0	0	2
05:00 PM	2	0	2	0	0	0	0	0	0	2
05:15 PM	**4**	0	**4**	0	0	0	0	0	0	**4**
05:30 PM	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
Total Volume	**10**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**10**
% App. Total	**100**	**0**		**0**	**0**		**0**	**0**		
PHF	**.625**	**.000**	**.625**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.625**

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E/W: Stevens Street/County Street
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-HHH
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

Groups Printed- Peds and Bicycles

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	County Street (Route 140) SB Offramp From North				Stevens Street From East				County Street From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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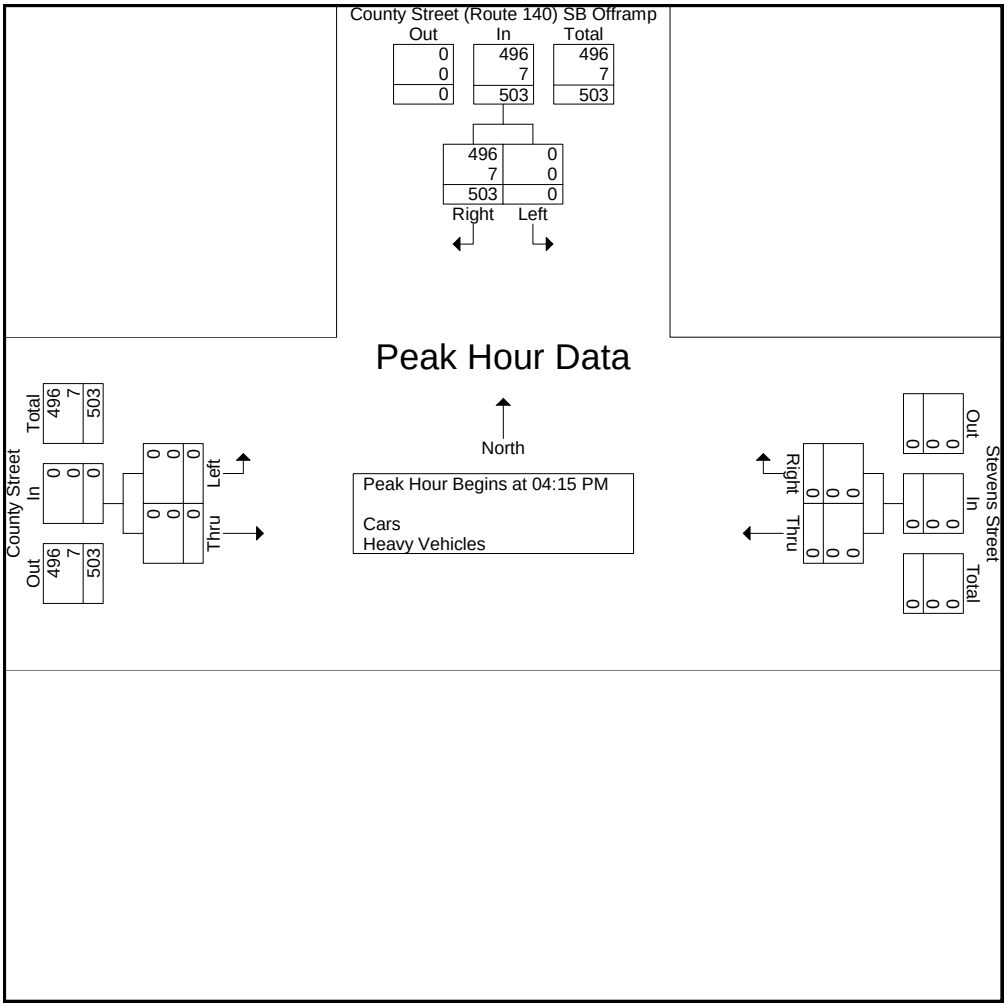
City, State: Taunton, MA
Client: VHB/J. Quitter

File Name : 81676 G-HHH
Site Code : 10111.31
Start Date : 9/11/2008
Page No : 1

	County Street (Route 140) SB Offramp From North			Stevens Street From East			County Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	124	0	124	0	0	0	0	0	0	124
04:30 PM	**136**	0	**136**	0	0	0	0	0	0	**136**
04:45 PM	**116**	**0**	**116**	**0**	**0**	**0**	**0**	**0**	**0**	**116**
05:00 PM	**127**	**0**	**127**	**0**	**0**	**0**	**0**	**0**	**0**	**127**
Total Volume	**503**	**0**	**503**	**0**	**0**	**0**	**0**	**0**	**0**	**503**
% App. Total	**100**	**0**		**0**	**0**		**0**	**0**		
PHF	**.925**	**.000**	**.925**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.925**
Cars	**496**	**0**	**496**	**0**	**0**	**0**	**0**	**0**	**0**	**496**
% Cars	**98.6**	**0**	**98.6**	**0**	**0**	**0**	**0**	**0**	**0**	**98.6**
Heavy Vehicles	**7**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
% Heavy Vehicles	**1.4**	**0**	**1.4**	**0**	**0**	**0**	**0**	**0**	**0**	**1.4**



Project: ***South Coast Rail - SCR***

Project #: 1011.00

Turning Movement Counts

Location: **Mozzone Blvd. at County St./Rt. 140**

City, State: Taunton, MA

Date: 3/19/2009

Time: 7:15 AM - 8:15 AM

Observer: N. Landrón

N/S: Route 140(County Street)

W: Mozzone Boulevard

Groups Printed - Cars - Heavy Vehicles

	Rt. 140/County St. From North			Rt. 140/County St. From South			Mozzone Blvd. From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Intersection Total
7:15 AM	6	162	0	0	250	4	2	0	0	424
7:30 AM	4	222	0	0	242	2	7	0	0	477
7:45 AM	4	188	0	0	220	14	4	0	3	433
8:00 AM	7	154	0	0	187	17	3	0	1	369
Total	21	726	0	0	899	37	16	0	4	1703

Groups Printed - Heavy Vehicles

	Rt. 140/County St. From North			Rt. 140/County St. From South			Mozzone Blvd. From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Intersection Total
7:15 AM						1				1
7:30 AM	1						3			4
7:45 AM	1					1	2		1	5
8:00 AM						1	2			3
Total	2	0	0	0	0	3	7	0	1	13
HV %	9.5%	0.0%			0.0%	8.1%	43.8%		25.0%	0.8%

PRECISION DATA INDUSTRIES, LLC
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Thurs 9/18/08 and Sat 9/20/08	81676	Raynham, MA

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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Thurs 9/18/08 and Sat 9/20/08	81676	Raynham, MA

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Turnpike Street (Route 138)
E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Turnpike Street (Route 138) From North			Foundry Street (Route 106) From East			Turnpike Street (Route 138) From South			Foundry Street (Route 106) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	24	40	13	48	83	30	80	133	15	12	70	23	571
07:15 AM	38	36	19	46	92	43	73	203	20	5	90	26	691
07:30 AM	25	43	19	30	74	51	94	195	13	7	105	16	672
07:45 AM	18	43	28	29	81	39	103	175	9	2	77	20	624
Total	105	162	79	153	330	163	350	706	57	26	342	85	2558
08:00 AM	8	39	32	36	58	35	86	163	2	5	70	13	547
08:15 AM	9	36	12	29	43	28	67	140	6	11	70	13	464
08:30 AM	8	32	26	29	51	48	63	121	7	6	71	15	477
08:45 AM	10	49	26	19	49	33	73	103	8	7	66	17	460
Total	35	156	96	113	201	144	289	527	23	29	277	58	1948
Grand Total	140	318	175	266	531	307	639	1233	80	55	619	143	4506
Apprch %	22.1	50.2	27.6	24.1	48.1	27.8	32.7	63.2	4.1	6.7	75.8	17.5	
Total %	3.1	7.1	3.9	5.9	11.8	6.8	14.2	27.4	1.8	1.2	13.7	3.2	
Cars	127	283	161	251	476	270	618	1190	79	47	602	135	4239
% Cars	90.7	89	92	94.4	89.6	87.9	96.7	96.5	98.8	85.5	97.3	94.4	94.1
Heavy Vehicles	13	35	14	15	55	37	21	43	1	8	17	8	267
% Heavy Vehicles	9.3	11	8	5.6	10.4	12.1	3.3	3.5	1.2	14.5	2.7	5.6	5.9

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	24	40	13	77	**48**	83	30	161	80	133	15	228	**12**	70	23	105	571
07:15 AM	**38**	36	19	**93**	46	**92**	43	**181**	73	**203**	**20**	296	5	90	**26**	121	**691**
07:30 AM	25	**43**	19	87	30	74	**51**	155	94	195	13	**302**	7	**105**	16	**128**	672
07:45 AM	18	43	**28**	89	29	81	39	149	**103**	175	9	287	2	77	20	99	624
Total Volume	105	162	79	346	153	330	163	646	350	706	57	1113	26	342	85	453	2558
% App. Total	30.3	46.8	22.8		23.7	51.1	25.2		31.4	63.4	5.1		5.7	75.5	18.8		
PHF	.691	.942	.705	.930	.797	.897	.799	.892	.850	.869	.713	.921	.542	.814	.817	.885	.925
Cars	96	142	75	313	147	296	148	591	342	685	57	1084	21	337	82	440	2428
% Cars	91.4	87.7	94.9	90.5	96.1	89.7	90.8	91.5	97.7	97.0	100	97.4	80.8	98.5	96.5	97.1	94.9
Heavy Vehicles	9	20	4	33	6	34	15	55	8	21	0	29	5	5	3	13	130
% Heavy Vehicles	8.6	12.3	5.1	9.5	3.9	10.3	9.2	8.5	2.3	3.0	0	2.6	19.2	1.5	3.5	2.9	5.1

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N/S: Turnpike Street (Route 138)
E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Turnpike Street (Route 138) From North			Foundry Street (Route 106) From East			Turnpike Street (Route 138) From South			Foundry Street (Route 106) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	18	35	12	46	70	30	78	131	15	8	70	21	534
07:15 AM	37	30	18	43	85	40	72	198	20	5	90	26	664
07:30 AM	24	39	19	29	71	41	93	185	13	6	102	16	638
07:45 AM	17	38	26	29	70	37	99	171	9	2	75	19	592
Total	96	142	75	147	296	148	342	685	57	21	337	82	2428
08:00 AM	8	34	28	32	54	30	86	158	2	4	69	12	517
08:15 AM	7	31	11	28	37	25	65	138	6	11	66	12	437
08:30 AM	7	30	23	25	46	43	57	114	6	4	68	12	435
08:45 AM	9	46	24	19	43	24	68	95	8	7	62	17	422
Total	31	141	86	104	180	122	276	505	22	26	265	53	1811
Grand Total	127	283	161	251	476	270	618	1190	79	47	602	135	4239
Apprch %	22.2	49.6	28.2	25.2	47.7	27.1	32.8	63.1	4.2	6	76.8	17.2	
Total %	3	6.7	3.8	5.9	11.2	6.4	14.6	28.1	1.9	1.1	14.2	3.2	

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	18	35	12	65	**46**	70	30	146	78	131	15	224	**8**	70	21	99	534
07:15 AM	**37**	30	18	**85**	43	**85**	40	**168**	72	**198**	**20**	290	5	90	**26**	121	**664**
07:30 AM	24	**39**	19	82	29	71	**41**	141	93	185	13	**291**	6	**102**	16	**124**	638
07:45 AM	17	38	**26**	81	29	70	37	136	**99**	171	9	279	2	75	19	96	592
Total Volume	96	142	75	313	147	296	148	591	342	685	57	1084	21	337	82	440	2428
% App. Total	30.7	45.4	24		24.9	50.1	25		31.5	63.2	5.3		4.8	76.6	18.6		
PHF	.649	.910	.721	.921	.799	.871	.902	.879	.864	.865	.713	.931	.656	.826	.788	.887	.914

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N/S: Turnpike Street (Route 138)
E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Turnpike Street (Route 138) From North			Foundry Street (Route 106) From East			Turnpike Street (Route 138) From South			Foundry Street (Route 106) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	6	5	1	2	13	0	2	2	0	4	0	2	37
07:15 AM	1	6	1	3	7	3	1	5	0	0	0	0	27
07:30 AM	1	4	0	1	3	10	1	10	0	1	3	0	34
07:45 AM	1	5	2	0	11	2	4	4	0	0	2	1	32
Total	9	20	4	6	34	15	8	21	0	5	5	3	130
08:00 AM	0	5	4	4	4	5	0	5	0	1	1	1	30
08:15 AM	2	5	1	1	6	3	2	2	0	0	4	1	27
08:30 AM	1	2	3	4	5	5	6	7	1	2	3	3	42
08:45 AM	1	3	2	0	6	9	5	8	0	0	4	0	38
Total	4	15	10	9	21	22	13	22	1	3	12	5	137
Grand Total	13	35	14	15	55	37	21	43	1	8	17	8	267
Apprch %	21	56.5	22.6	14	51.4	34.6	32.3	66.2	1.5	24.2	51.5	24.2	
Total %	4.9	13.1	5.2	5.6	20.6	13.9	7.9	16.1	0.4	3	6.4	3	

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	**5**	**4**	**9**	**4**	4	5	13	0	5	0	5	1	1	1	3	30
08:15 AM	**2**	5	1	8	1	**6**	3	10	2	2	0	4	0	**4**	1	5	27
08:30 AM	1	2	3	6	4	5	5	14	**6**	7	**1**	**14**	**2**	3	**3**	**8**	**42**
08:45 AM	1	3	2	6	0	6	**9**	**15**	5	**8**	0	13	0	4	0	4	38
Total Volume	4	15	10	29	9	21	22	52	13	22	1	36	3	12	5	20	137
% App. Total	13.8	51.7	34.5		17.3	40.4	42.3		36.1	61.1	2.8		15	60	25		
PHF	.500	.750	.625	.806	.563	.875	.611	.867	.542	.688	.250	.643	.375	.750	.417	.625	.815

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E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- A
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	3
Grand Total	0	0	0	1	0	0	0	1	0	0	0	4	0	0	0	0	6
Apprch %	0	0	0	100	0	0	0	100	0	0	0	100	0	0	0	0	
Total %	0	0	0	16.7	0	0	0	16.7	0	0	0	66.7	0	0	0	0	

	Turnpike Street (Route 138) From North					Foundry Street (Route 106) From East					Turnpike Street (Route 138) From South					Foundry Street (Route 106) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	0	0	0	0	**3**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3
% App. Total	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250

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N/S: Turnpike Street (Route 138)
E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- A
Site Code : 10111.31
Start Date : 9/18/2008
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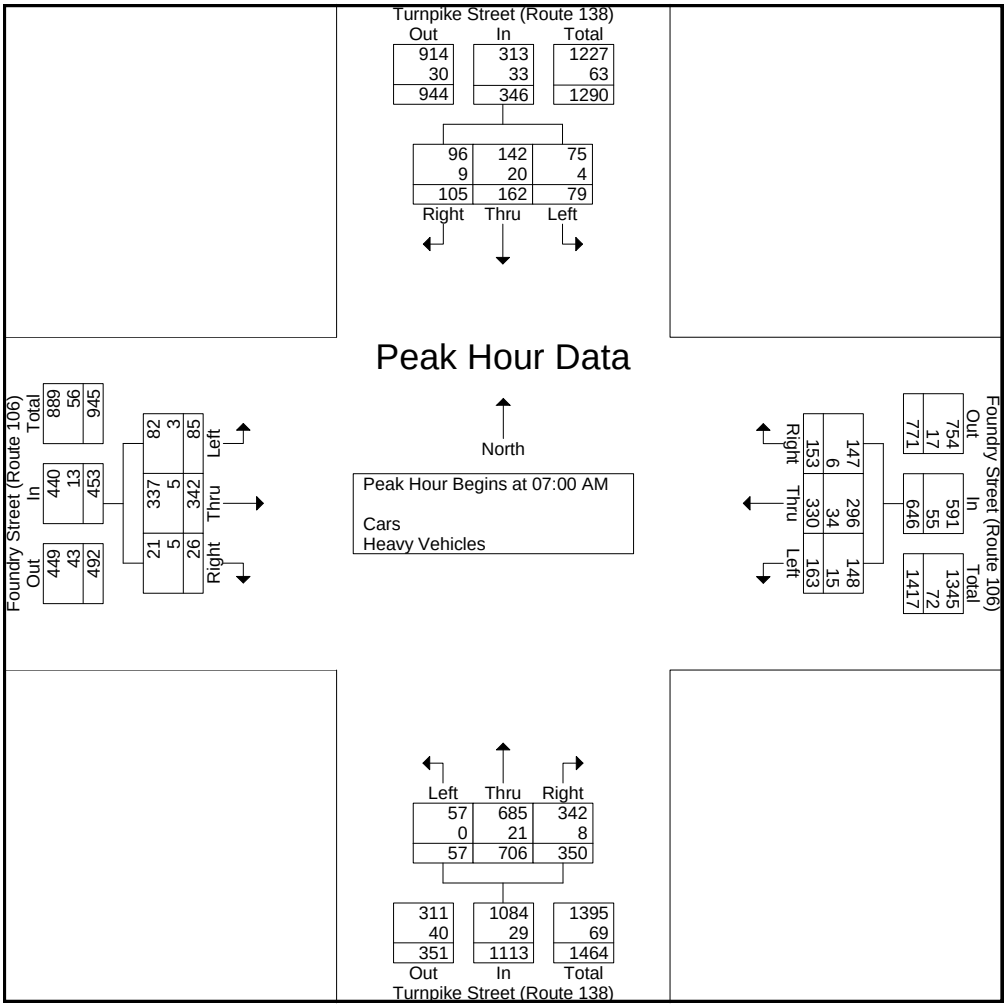
	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	24	40	13	77	**48**	83	30	161	80	133	15	228	**12**	70	23	105	571
07:15 AM	**38**	36	19	**93**	46	**92**	43	**181**	73	**203**	**20**	296	5	90	**26**	121	**691**
07:30 AM	25	**43**	19	87	30	74	**51**	155	94	195	13	**302**	7	**105**	16	**128**	672
07:45 AM	18	43	**28**	89	29	81	39	149	**103**	175	9	287	2	77	20	99	624
Total Volume	105	162	79	346	153	330	163	646	350	706	57	1113	26	342	85	453	2558
% App. Total	30.3	46.8	22.8		23.7	51.1	25.2		31.4	63.4	5.1		5.7	75.5	18.8		
PHF	.691	.942	.705	.930	.797	.897	.799	.892	.850	.869	.713	.921	.542	.814	.817	.885	.925
Cars	96	142	75	313	147	296	148	591	342	685	57	1084	21	337	82	440	2428
% Cars	91.4	87.7	94.9	90.5	96.1	89.7	90.8	91.5	97.7	97.0	100	97.4	80.8	98.5	96.5	97.1	94.9
Heavy Vehicles	9	20	4	33	6	34	15	55	8	21	0	29	5	5	3	13	130
% Heavy Vehicles	8.6	12.3	5.1	9.5	3.9	10.3	9.2	8.5	2.3	3.0	0	2.6	19.2	1.5	3.5	2.9	5.1



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N/S: Turnpike Street (Route 138)
E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- AAA
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Turnpike Street (Route 138) From North			Foundry Street (Route 106) From East			Turnpike Street (Route 138) From South			Foundry Street (Route 106) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	15	139	30	37	84	123	63	66	11	5	71	17	661
04:15 PM	26	145	39	21	82	88	53	77	19	10	77	22	659
04:30 PM	35	153	18	23	103	114	29	66	16	5	53	18	633
04:45 PM	18	139	31	21	84	100	52	72	15	10	45	19	606
Total	94	576	118	102	353	425	197	281	61	30	246	76	2559
05:00 PM	21	168	31	30	101	77	49	90	25	12	60	7	671
05:15 PM	38	150	35	25	106	104	44	63	13	12	75	28	693
05:30 PM	32	140	39	32	89	110	67	73	14	10	63	21	690
05:45 PM	26	106	27	22	100	76	55	71	23	18	71	18	613
Total	117	564	132	109	396	367	215	297	75	52	269	74	2667
Grand Total	211	1140	250	211	749	792	412	578	136	82	515	150	5226
Apprch %	13.2	71.2	15.6	12	42.8	45.2	36.6	51.3	12.1	11	68.9	20.1	
Total %	4	21.8	4.8	4	14.3	15.2	7.9	11.1	2.6	1.6	9.9	2.9	
Cars	203	1113	234	195	728	753	391	547	136	79	508	145	5032
% Cars	96.2	97.6	93.6	92.4	97.2	95.1	94.9	94.6	100	96.3	98.6	96.7	96.3
Heavy Vehicles	8	27	16	16	21	39	21	31	0	3	7	5	194
% Heavy Vehicles	3.8	2.4	6.4	7.6	2.8	4.9	5.1	5.4	0	3.7	1.4	3.3	3.7

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	21	**168**	31	220	30	101	77	208	49	**90**	**25**	**164**	12	60	7	79	671
05:15 PM	**38**	150	35	**223**	25	**106**	104	**235**	44	63	13	120	12	**75**	**28**	**115**	**693**
05:30 PM	32	140	**39**	211	**32**	89	**110**	231	**67**	73	14	154	10	63	21	94	690
05:45 PM	26	106	27	159	22	100	76	198	55	71	23	149	**18**	71	18	107	613
Total Volume	117	564	132	813	109	396	367	872	215	297	75	587	52	269	74	395	2667
% App. Total	14.4	69.4	16.2		12.5	45.4	42.1		36.6	50.6	12.8		13.2	68.1	18.7		
PHF	.770	.839	.846	.911	.852	.934	.834	.928	.802	.825	.750	.895	.722	.897	.661	.859	.962
Cars	115	552	124	791	97	387	348	832	204	283	75	562	50	267	74	391	2576
% Cars	98.3	97.9	93.9	97.3	89.0	97.7	94.8	95.4	94.9	95.3	100	95.7	96.2	99.3	100	99.0	96.6
Heavy Vehicles	2	12	8	22	12	9	19	40	11	14	0	25	2	2	0	4	91
% Heavy Vehicles	1.7	2.1	6.1	2.7	11.0	2.3	5.2	4.6	5.1	4.7	0	4.3	3.8	0.7	0	1.0	3.4

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City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- AAA
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Turnpike Street (Route 138) From North			Foundry Street (Route 106) From East			Turnpike Street (Route 138) From South			Foundry Street (Route 106) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	12	135	26	37	82	117	60	62	11	5	71	17	635
04:15 PM	25	138	35	19	79	82	52	73	19	10	73	21	626
04:30 PM	33	152	18	22	99	114	26	63	16	5	52	17	617
04:45 PM	18	136	31	20	81	92	49	66	15	9	45	16	578
Total	88	561	110	98	341	405	187	264	61	29	241	71	2456
05:00 PM	21	164	30	25	99	73	46	86	25	12	59	7	647
05:15 PM	38	148	34	23	104	99	42	62	13	10	75	28	676
05:30 PM	31	135	35	30	85	104	64	66	14	10	62	21	657
05:45 PM	25	105	25	19	99	72	52	69	23	18	71	18	596
Total	115	552	124	97	387	348	204	283	75	50	267	74	2576
Grand Total	203	1113	234	195	728	753	391	547	136	79	508	145	5032
Apprch %	13.1	71.8	15.1	11.6	43.4	44.9	36.4	50.9	12.7	10.8	69.4	19.8	
Total %	4	22.1	4.7	3.9	14.5	15	7.8	10.9	2.7	1.6	10.1	2.9	

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	21	**164**	30	215	25	99	73	197	46	**86**	**25**	**157**	12	59	7	78	647
05:15 PM	**38**	148	34	**220**	23	**104**	99	**226**	42	62	13	117	10	**75**	**28**	**113**	**676**
05:30 PM	31	135	**35**	201	**30**	85	**104**	219	**64**	66	14	144	10	62	21	93	657
05:45 PM	25	105	25	155	19	99	72	190	52	69	23	144	**18**	71	18	107	596
Total Volume	115	552	124	791	97	387	348	832	204	283	75	562	50	267	74	391	2576
% App. Total	14.5	69.8	15.7		11.7	46.5	41.8		36.3	50.4	13.3		12.8	68.3	18.9		
PHF	.757	.841	.886	.899	.808	.930	.837	.920	.797	.823	.750	.895	.694	.890	.661	.865	.953

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N/S: Turnpike Street (Route 138)
E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- AAA
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Turnpike Street (Route 138) From North			Foundry Street (Route 106) From East			Turnpike Street (Route 138) From South			Foundry Street (Route 106) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	3	4	4	0	2	6	3	4	0	0	0	0	26
04:15 PM	1	7	4	2	3	6	1	4	0	0	4	1	33
04:30 PM	2	1	0	1	4	0	3	3	0	0	1	1	16
04:45 PM	0	3	0	1	3	8	3	6	0	1	0	3	28
Total	6	15	8	4	12	20	10	17	0	1	5	5	103
05:00 PM	0	4	1	5	2	4	3	4	0	0	1	0	24
05:15 PM	0	2	1	2	2	5	2	1	0	2	0	0	17
05:30 PM	1	5	4	2	4	6	3	7	0	0	1	0	33
05:45 PM	1	1	2	3	1	4	3	2	0	0	0	0	17
Total	2	12	8	12	9	19	11	14	0	2	2	0	91
Grand Total	8	27	16	16	21	39	21	31	0	3	7	5	194
Apprch %	15.7	52.9	31.4	21.1	27.6	51.3	40.4	59.6	0	20	46.7	33.3	
Total %	4.1	13.9	8.2	8.2	10.8	20.1	10.8	16	0	1.5	3.6	2.6	

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**3**	4	**4**	11	0	2	6	8	**3**	4	0	7	0	0	0	0	26
04:15 PM	1	**7**	4	**12**	**2**	3	6	11	1	4	0	5	0	**4**	1	**5**	**33**
04:30 PM	2	1	0	3	1	**4**	0	5	3	3	0	6	0	1	1	2	16
04:45 PM	0	3	0	3	1	3	**8**	**12**	3	**6**	0	**9**	**1**	0	**3**	4	28
Total Volume	6	15	8	29	4	12	20	36	10	17	0	27	1	5	5	11	103
% App. Total	20.7	51.7	27.6		11.1	33.3	55.6		37	63	0		9.1	45.5	45.5		
PHF	.500	.536	.500	.604	.500	.750	.625	.750	.833	.708	.000	.750	.250	.313	.417	.550	.780

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N/S: Turnpike Street (Route 138)
E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- AAA
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Total	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Grand Total	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	4	6
Apprch %	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	100	
Total %	0	16.7	0	0	0	0	0	0	0	0	0	16.7	0	0	0	66.7	

	Turnpike Street (Route 138) From North					Foundry Street (Route 106) From East					Turnpike Street (Route 138) From South					Foundry Street (Route 106) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**2**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.375

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E/W: Foundry Street (Route 106)
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- AAA
Site Code : 10111.31
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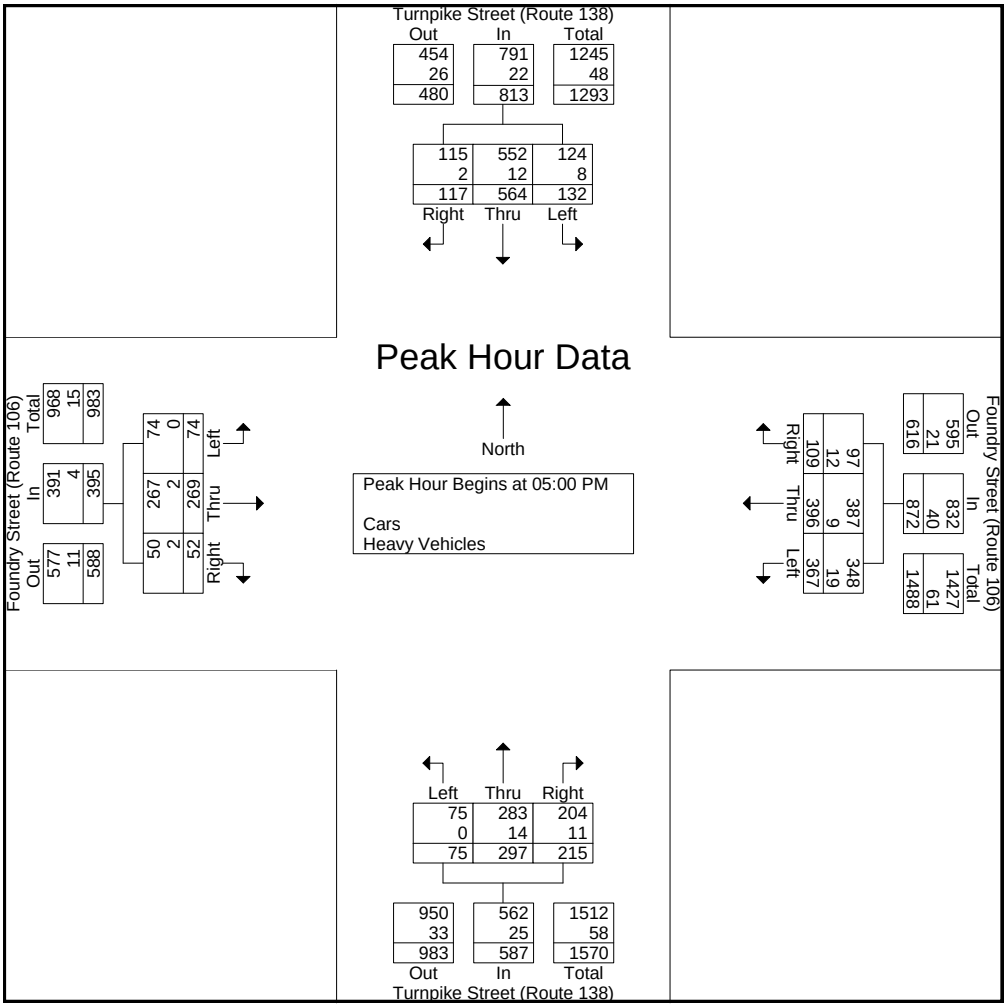
Page No : 1

	Turnpike Street (Route 138) From North				Foundry Street (Route 106) From East				Turnpike Street (Route 138) From South				Foundry Street (Route 106) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	21	**168**	31	220	30	101	77	208	49	**90**	**25**	**164**	12	60	7	79	671
05:15 PM	**38**	150	35	**223**	25	**106**	104	**235**	44	63	13	120	12	**75**	**28**	**115**	**693**
05:30 PM	32	140	**39**	211	**32**	89	**110**	231	**67**	73	14	154	10	63	21	94	690
05:45 PM	26	106	27	159	22	100	76	198	55	71	23	149	**18**	71	18	107	613
Total Volume	117	564	132	813	109	396	367	872	215	297	75	587	52	269	74	395	2667
% App. Total	14.4	69.4	16.2		12.5	45.4	42.1		36.6	50.6	12.8		13.2	68.1	18.7		
PHF	.770	.839	.846	.911	.852	.934	.834	.928	.802	.825	.750	.895	.722	.897	.661	.859	.962
Cars	115	552	124	791	97	387	348	832	204	283	75	562	50	267	74	391	2576
% Cars	98.3	97.9	93.9	97.3	89.0	97.7	94.8	95.4	94.9	95.3	100	95.7	96.2	99.3	100	99.0	96.6
Heavy Vehicles	2	12	8	22	12	9	19	40	11	14	0	25	2	2	0	4	91
% Heavy Vehicles	1.7	2.1	6.1	2.7	11.0	2.3	5.2	4.6	5.1	4.7	0	4.3	3.8	0.7	0	1.0	3.4



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N/S: Turnpike Street (Route 138)
E: Wilbur Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- B
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Turnpike Street (Route 138) From North		Wilbur Street From East		Turnpike Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	69	0	1	2	0	286	358
07:15 AM	98	0	3	1	2	293	397
07:30 AM	103	0	1	1	1	272	378
07:45 AM	81	0	0	1	2	309	393
Total	351	0	5	5	5	1160	1526
08:00 AM	84	0	1	1	3	245	334
08:15 AM	92	0	3	4	3	217	319
08:30 AM	80	1	1	3	2	194	281
08:45 AM	90	1	2	1	8	170	272
Total	346	2	7	9	16	826	1206
Grand Total	697	2	12	14	21	1986	2732
Apprch %	99.7	0.3	46.2	53.8	1	99	
Total %	25.5	0.1	0.4	0.5	0.8	72.7	
Cars	622	2	11	12	18	1921	2586
% Cars	89.2	100	91.7	85.7	85.7	96.7	94.7
Heavy Vehicles	75	0	1	2	3	65	146
% Heavy Vehicles	10.8	0	8.3	14.3	14.3	3.3	5.3

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	69	0	69	1	**2**	3	0	286	286	358
07:15 AM	98	0	98	**3**	1	**4**	**2**	293	295	**397**
07:30 AM	**103**	0	**103**	1	1	2	1	272	273	378
07:45 AM	81	0	81	0	1	1	2	**309**	**311**	393
Total Volume	351	0	351	5	5	10	5	1160	1165	1526
% App. Total	100	0		50	50		0.4	99.6		
PHF	.852	.000	.852	.417	.625	.625	.625	.939	.936	.961
Cars	310	0	310	5	5	10	4	1126	1130	1450
% Cars	88.3	0	88.3	100	100	100	80.0	97.1	97.0	95.0
Heavy Vehicles	41	0	41	0	0	0	1	34	35	76
% Heavy Vehicles	11.7	0	11.7	0	0	0	20.0	2.9	3.0	5.0

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N/S: Turnpike Street (Route 138)
E: Wilbur Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- B
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Turnpike Street (Route 138) From North		Wilbur Street From East		Turnpike Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	63	0	1	2	0	276	342
07:15 AM	86	0	3	1	2	285	377
07:30 AM	91	0	1	1	1	264	358
07:45 AM	70	0	0	1	1	301	373
Total	310	0	5	5	4	1126	1450
08:00 AM	74	0	1	0	2	240	317
08:15 AM	84	0	3	3	3	209	302
08:30 AM	77	1	1	3	1	185	268
08:45 AM	77	1	1	1	8	161	249
Total	312	2	6	7	14	795	1136
Grand Total	622	2	11	12	18	1921	2586
Apprch %	99.7	0.3	47.8	52.2	0.9	99.1	
Total %	24.1	0.1	0.4	0.5	0.7	74.3	

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	63	0	63	1	**2**	3	0	276	276	342
07:15 AM	86	0	86	**3**	1	**4**	**2**	285	287	**377**
07:30 AM	**91**	0	**91**	1	1	2	1	264	265	358
07:45 AM	70	0	70	0	1	1	1	**301**	**302**	373
Total Volume	310	0	310	5	5	10	4	1126	1130	1450
% App. Total	100	0		50	50		0.4	99.6		
PHF	.852	.000	.852	.417	.625	.625	.500	.935	.935	.962

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File Name : 81676L- B
Site Code : 10111.31
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Page No : 1

Groups Printed- Heavy Vehicles

	Turnpike Street (Route 138) From North		Wilbur Street From East		Turnpike Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	6	0	0	0	0	10	16
07:15 AM	12	0	0	0	0	8	20
07:30 AM	12	0	0	0	0	8	20
07:45 AM	11	0	0	0	1	8	20
Total	41	0	0	0	1	34	76
08:00 AM	10	0	0	1	1	5	17
08:15 AM	8	0	0	1	0	8	17
08:30 AM	3	0	0	0	1	9	13
08:45 AM	13	0	1	0	0	9	23
Total	34	0	1	2	2	31	70
Grand Total	75	0	1	2	3	65	146
Apprch %	100	0	33.3	66.7	4.4	95.6	
Total %	51.4	0	0.7	1.4	2.1	44.5	

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	**12**	0	**12**	0	0	0	0	**8**	8	**20**
07:30 AM	**12**	**0**	**12**	**0**	**0**	**0**	**0**	**8**	**8**	**20**
07:45 AM	**11**	**0**	**11**	**0**	**0**	**0**	**1**	8	**9**	20
08:00 AM	10	0	10	0	**1**	**1**	1	5	6	17
Total Volume	45	0	45	0	1	1	2	29	31	77
% App. Total	100	0		0	100		6.5	93.5		
PHF	.938	.000	.938	.000	.250	.250	.500	.906	.861	.963

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File Name : 81676L- B
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	4	0	0	2	0	0	2	8
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	4	0	0	2	0	0	2	8
Grand Total	0	0	4	0	0	2	0	0	3	9
Apprch %	0	0	100	0	0	100	0	0	100	
Total %	0	0	44.4	0	0	22.2	0	0	33.3	

	Turnpike Street (Route 138) From North				Wilbur Street From East				Turnpike Street (Route 138) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	**4**	**4**	0	0	**2**	**2**	0	0	**2**	**2**	**8**
Total Volume	0	0	4	4	0	0	2	2	0	0	3	3	9
% App. Total	0	0	100		0	0	100		0	0	100		
PHF	.000	.000	.250	.250	.000	.000	.250	.250	.000	.000	.375	.375	.281

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File Name : 81676L- B
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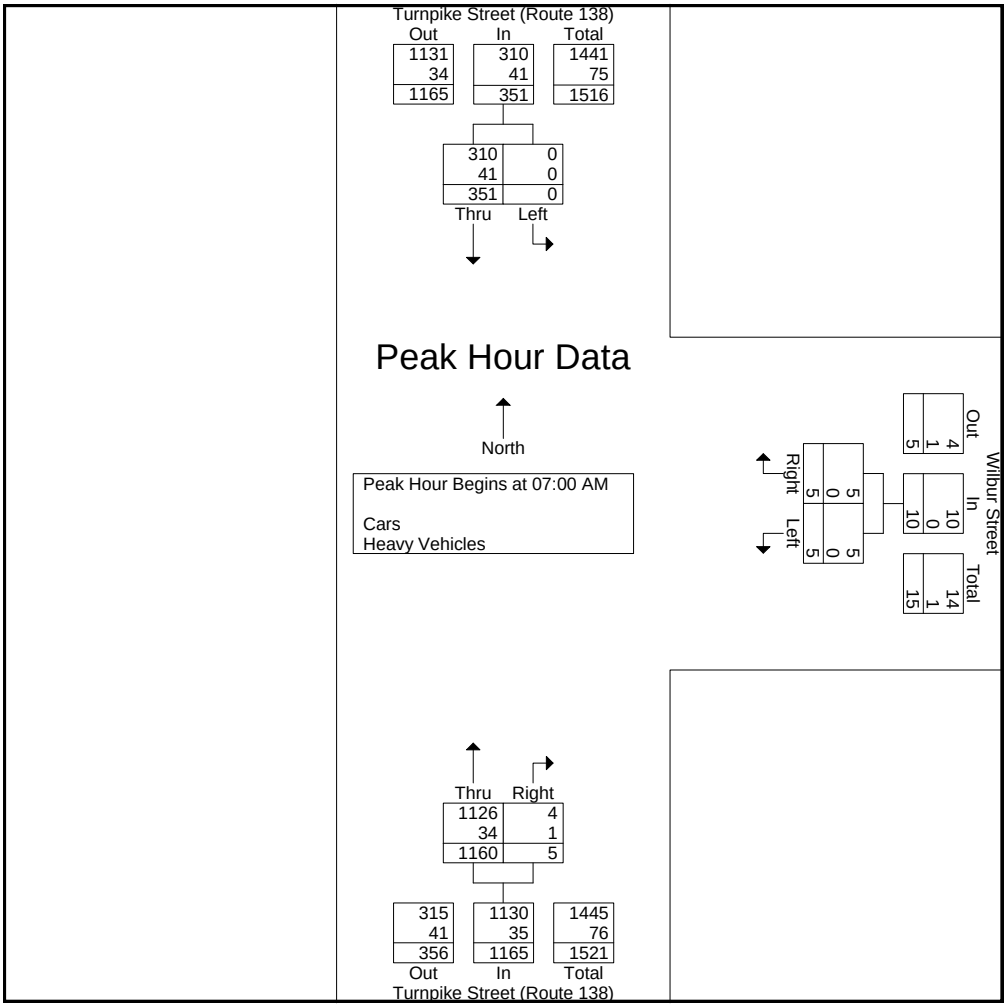
	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	69	0	69	1	**2**	3	0	286	286	358
07:15 AM	98	0	98	**3**	1	**4**	**2**	293	295	**397**
07:30 AM	**103**	0	**103**	1	1	2	1	272	273	378
07:45 AM	81	0	81	0	1	1	2	**309**	**311**	393
Total Volume	351	0	351	5	5	10	5	1160	1165	1526
% App. Total	100	0		50	50		0.4	99.6		
PHF	.852	.000	.852	.417	.625	.625	.625	.939	.936	.961
Cars	310	0	310	5	5	10	4	1126	1130	1450
% Cars	88.3	0	88.3	100	100	100	80.0	97.1	97.0	95.0
Heavy Vehicles	41	0	41	0	0	0	1	34	35	76
% Heavy Vehicles	11.7	0	11.7	0	0	0	20.0	2.9	3.0	5.0



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Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Turnpike Street (Route 138) From North		Wilbur Street From East		Turnpike Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	273	1	1	2	5	129	411
04:15 PM	289	4	2	1	2	119	417
04:30 PM	256	0	0	1	1	142	400
04:45 PM	272	2	0	1	3	139	417
Total	1090	7	3	5	11	529	1645
05:00 PM	248	3	1	0	3	143	398
05:15 PM	258	3	0	2	1	137	401
05:30 PM	264	3	3	4	4	144	422
05:45 PM	207	1	2	1	4	127	342
Total	977	10	6	7	12	551	1563
Grand Total	2067	17	9	12	23	1080	3208
Apprch %	99.2	0.8	42.9	57.1	2.1	97.9	
Total %	64.4	0.5	0.3	0.4	0.7	33.7	
Cars	2019	17	9	12	23	1005	3085
% Cars	97.7	100	100	100	100	93.1	96.2
Heavy Vehicles	48	0	0	0	0	75	123
% Heavy Vehicles	2.3	0	0	0	0	6.9	3.8

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	273	1	274	1	**2**	**3**	**5**	129	134	411
04:15 PM	**289**	**4**	**293**	**2**	1	3	2	119	121	**417**
04:30 PM	**256**	**0**	**256**	**0**	**1**	**1**	**1**	**142**	**143**	400
04:45 PM	272	2	274	0	1	1	3	139	142	417
Total Volume	1090	7	1097	3	5	8	11	529	540	1645
% App. Total	99.4	0.6		37.5	62.5		2	98		
PHF	.943	.438	.936	.375	.625	.667	.550	.931	.944	.986
Cars	1061	7	1068	3	5	8	11	484	495	1571
% Cars	97.3	100	97.4	100	100	100	100	91.5	91.7	95.5
Heavy Vehicles	29	0	29	0	0	0	0	45	45	74
% Heavy Vehicles	2.7	0	2.6	0	0	0	0	8.5	8.3	4.5

PRECISION DATA INDUSTRIES, LLC
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N/S: Turnpike Street (Route 138)
E: Wilbur Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- BBB
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Turnpike Street (Route 138) From North		Wilbur Street From East		Turnpike Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	266	1	1	2	5	116	391
04:15 PM	278	4	2	1	2	107	394
04:30 PM	253	0	0	1	1	129	384
04:45 PM	264	2	0	1	3	132	402
Total	1061	7	3	5	11	484	1571
05:00 PM	243	3	1	0	3	135	385
05:15 PM	252	3	0	2	1	132	390
05:30 PM	261	3	3	4	4	133	408
05:45 PM	202	1	2	1	4	121	331
Total	958	10	6	7	12	521	1514
Grand Total	2019	17	9	12	23	1005	3085
Apprch %	99.2	0.8	42.9	57.1	2.2	97.8	
Total %	65.4	0.6	0.3	0.4	0.7	32.6	

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**264**	2	**266**	0	1	1	3	132	135	402
05:00 PM	243	**3**	246	1	0	1	3	**135**	**138**	385
05:15 PM	252	3	255	0	2	2	1	132	133	390
05:30 PM	261	3	264	**3**	**4**	**7**	**4**	133	137	**408**
Total Volume	**1020**	**11**	**1031**	**4**	**7**	**11**	**11**	**532**	**543**	**1585**
% App. Total	**98.9**	**1.1**		**36.4**	**63.6**		**2**	**98**		
PHF	**.966**	**.917**	**.969**	**.333**	**.438**	**.393**	**.688**	**.985**	**.984**	**.971**

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File Name : 81676L- BBB
Site Code : 10111.31
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Groups Printed- Heavy Vehicles

	Turnpike Street (Route 138) From North		Wilbur Street From East		Turnpike Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	7	0	0	0	0	13	20
04:15 PM	11	0	0	0	0	12	23
04:30 PM	3	0	0	0	0	13	16
04:45 PM	8	0	0	0	0	7	15
Total	29	0	0	0	0	45	74
05:00 PM	5	0	0	0	0	8	13
05:15 PM	6	0	0	0	0	5	11
05:30 PM	3	0	0	0	0	11	14
05:45 PM	5	0	0	0	0	6	11
Total	19	0	0	0	0	30	49
Grand Total	48	0	0	0	0	75	123
Apprch %	100	0	0	0	0	100	
Total %	39	0	0	0	0	61	

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	7	0	7	0	0	0	0	**13**	**13**	20
04:15 PM	**11**	0	**11**	0	0	0	0	12	12	**23**
04:30 PM	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**13**	**13**	**16**
04:45 PM	**8**	**0**	**8**	**0**	**0**	**0**	**0**	**7**	**7**	**15**
Total Volume	**29**	**0**	**29**	**0**	**0**	**0**	**0**	**45**	**45**	**74**
% App. Total	**100**	**0**		**0**	**0**		**0**	**100**		
PHF	**.659**	**.000**	**.659**	**.000**	**.000**	**.000**	**.000**	**.865**	**.865**	**.804**

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File Name : 81676L- BBB
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	Turnpike Street (Route 138) From North				Wilbur Street From East				Turnpike Street (Route 138) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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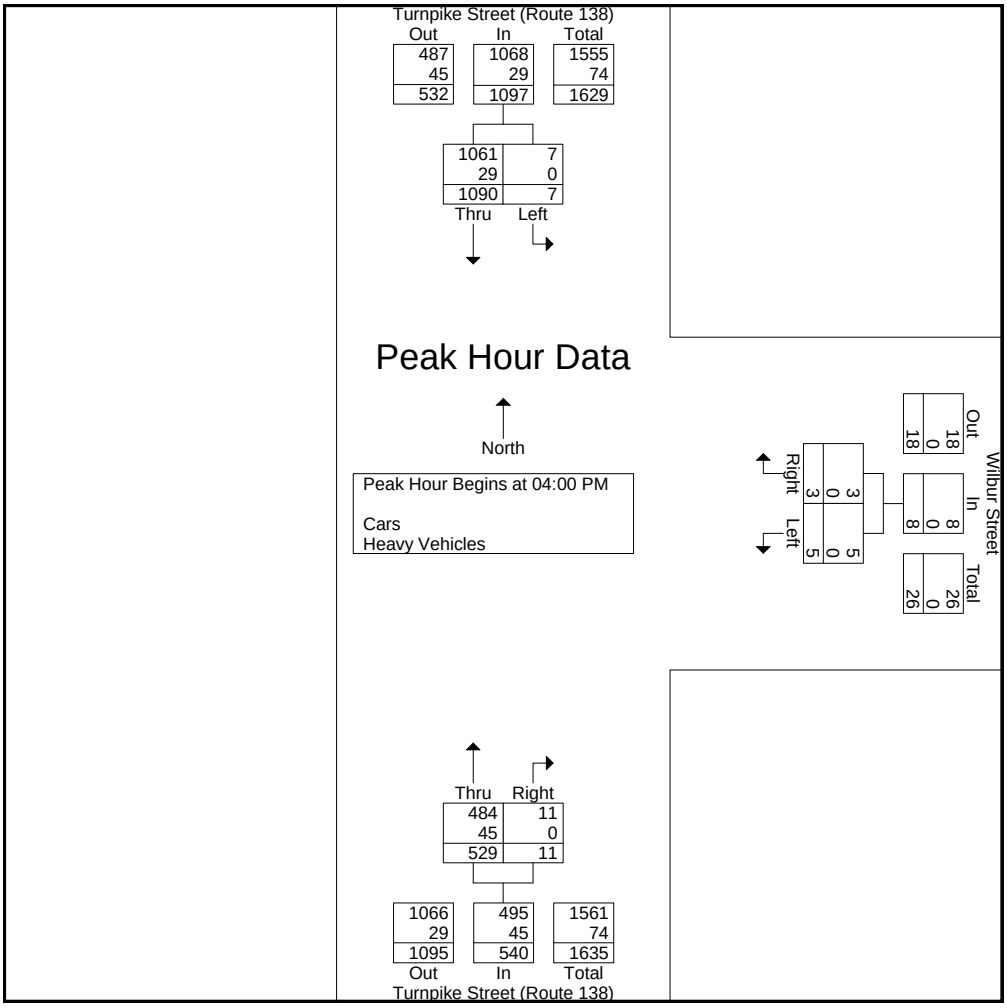
	Turnpike Street (Route 138) From North			Wilbur Street From East			Turnpike Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	273	1	274	1	**2**	**3**	**5**	129	134	411
04:15 PM	**289**	**4**	**293**	**2**	1	3	2	119	121	**417**
04:30 PM	**256**	**0**	**256**	**0**	**1**	**1**	**1**	**142**	**143**	400
04:45 PM	272	2	274	0	1	1	3	139	142	417
Total Volume	1090	7	1097	3	5	8	11	529	540	1645
% App. Total	99.4	0.6		37.5	62.5		2	98		
PHF	.943	.438	.936	.375	.625	.667	.550	.931	.944	.986
Cars	1061	7	1068	3	5	8	11	484	495	1571
% Cars	97.3	100	97.4	100	100	100	100	91.5	91.7	95.5
Heavy Vehicles	29	0	29	0	0	0	0	45	45	74
% Heavy Vehicles	2.7	0	2.6	0	0	0	0	8.5	8.3	4.5



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N/S: Broadway (Route 138)
E/W: Elm Street East/Elm Street West
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- C
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			Elm Street East From East			Broadway (Route 138) From South			Elm Street West From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	7	63	15	5	1	26	58	252	1	4	5	12	449
07:15 AM	10	67	7	15	2	58	50	269	1	6	4	6	495
07:30 AM	8	99	6	18	0	77	41	239	5	6	5	10	514
07:45 AM	1	80	7	18	0	43	41	289	0	11	7	7	504
Total	26	309	35	56	3	204	190	1049	7	27	21	35	1962
08:00 AM	2	99	2	15	0	41	34	233	2	7	3	2	440
08:15 AM	1	106	1	16	1	43	50	186	1	3	1	1	410
08:30 AM	0	63	2	11	1	61	45	195	4	7	1	2	392
08:45 AM	1	88	4	11	0	51	33	161	5	6	1	3	364
Total	4	356	9	53	2	196	162	775	12	23	6	8	1606
Grand Total	30	665	44	109	5	400	352	1824	19	50	27	43	3568
Apprch %	4.1	90	6	21.2	1	77.8	16	83.1	0.9	41.7	22.5	35.8	
Total %	0.8	18.6	1.2	3.1	0.1	11.2	9.9	51.1	0.5	1.4	0.8	1.2	
Cars	28	583	40	98	4	374	341	1746	15	46	25	42	3342
% Cars	93.3	87.7	90.9	89.9	80	93.5	96.9	95.7	78.9	92	92.6	97.7	93.7
Heavy Vehicles	2	82	4	11	1	26	11	78	4	4	2	1	226
% Heavy Vehicles	6.7	12.3	9.1	10.1	20	6.5	3.1	4.3	21.1	8	7.4	2.3	6.3

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	7	63	**15**	85	5	1	26	32	**58**	252	1	311	4	5	**12**	21	449
07:15 AM	**10**	67	7	84	15	**2**	58	75	50	269	1	320	6	4	6	16	495
07:30 AM	8	**99**	6	**113**	**18**	0	**77**	**95**	41	239	**5**	285	6	5	10	21	**514**
07:45 AM	1	80	7	88	18	0	43	61	41	**289**	0	**330**	**11**	**7**	7	**25**	504
Total Volume	26	309	35	370	56	3	204	263	190	1049	7	1246	27	21	35	83	1962
% App. Total	7	83.5	9.5		21.3	1.1	77.6		15.2	84.2	0.6		32.5	25.3	42.2		
PHF	.650	.780	.583	.819	.778	.375	.662	.692	.819	.907	.350	.944	.614	.750	.729	.830	.954
Cars	24	266	31	321	49	3	193	245	185	1017	6	1208	26	20	35	81	1855
% Cars	92.3	86.1	88.6	86.8	87.5	100	94.6	93.2	97.4	96.9	85.7	97.0	96.3	95.2	100	97.6	94.5
Heavy Vehicles	2	43	4	49	7	0	11	18	5	32	1	38	1	1	0	2	107
% Heavy Vehicles	7.7	13.9	11.4	13.2	12.5	0	5.4	6.8	2.6	3.1	14.3	3.0	3.7	4.8	0	2.4	5.5

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N/S: Broadway (Route 138)
E/W: Elm Street East/Elm Street West
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- C
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			Elm Street East From East			Broadway (Route 138) From South			Elm Street West From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	6	56	14	4	1	26	55	242	1	4	5	12	426
07:15 AM	9	56	7	12	2	53	49	261	0	6	4	6	465
07:30 AM	8	86	4	16	0	72	40	234	5	6	5	10	486
07:45 AM	1	68	6	17	0	42	41	280	0	10	6	7	478
Total	24	266	31	49	3	193	185	1017	6	26	20	35	1855
08:00 AM	2	89	2	15	0	40	34	221	2	6	2	2	415
08:15 AM	1	94	1	14	1	41	48	177	1	3	1	0	382
08:30 AM	0	59	2	9	0	56	42	181	1	7	1	2	360
08:45 AM	1	75	4	11	0	44	32	150	5	4	1	3	330
Total	4	317	9	49	1	181	156	729	9	20	5	7	1487
Grand Total	28	583	40	98	4	374	341	1746	15	46	25	42	3342
Apprch %	4.3	89.6	6.1	20.6	0.8	78.6	16.2	83.1	0.7	40.7	22.1	37.2	
Total %	0.8	17.4	1.2	2.9	0.1	11.2	10.2	52.2	0.4	1.4	0.7	1.3	

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	56	**14**	76	4	1	26	31	**55**	242	1	298	4	5	**12**	21	426
07:15 AM	**9**	56	7	72	12	**2**	53	67	49	261	0	310	6	4	6	16	465
07:30 AM	8	**86**	4	**98**	16	0	**72**	**88**	40	234	**5**	279	6	5	10	21	**486**
07:45 AM	1	68	6	75	**17**	0	42	59	41	**280**	0	**321**	**10**	**6**	7	**23**	478
Total Volume	24	266	31	321	49	3	193	245	185	1017	6	1208	26	20	35	81	1855
% App. Total	7.5	82.9	9.7		20	1.2	78.8		15.3	84.2	0.5		32.1	24.7	43.2		
PHF	.667	.773	.554	.819	.721	.375	.670	.696	.841	.908	.300	.941	.650	.833	.729	.880	.954

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File Name : 81676L- C
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Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Elm Street East From East			Broadway (Route 138) From South			Elm Street West From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	7	1	1	0	0	3	10	0	0	0	0	23
07:15 AM	1	11	0	3	0	5	1	8	1	0	0	0	30
07:30 AM	0	13	2	2	0	5	1	5	0	0	0	0	28
07:45 AM	0	12	1	1	0	1	0	9	0	1	1	0	26
Total	2	43	4	7	0	11	5	32	1	1	1	0	107
08:00 AM	0	10	0	0	0	1	0	12	0	1	1	0	25
08:15 AM	0	12	0	2	0	2	2	9	0	0	0	1	28
08:30 AM	0	4	0	2	1	5	3	14	3	0	0	0	32
08:45 AM	0	13	0	0	0	7	1	11	0	2	0	0	34
Total	0	39	0	4	1	15	6	46	3	3	1	1	119
Grand Total	2	82	4	11	1	26	11	78	4	4	2	1	226
Apprch %	2.3	93.2	4.5	28.9	2.6	68.4	11.8	83.9	4.3	57.1	28.6	14.3	
Total %	0.9	36.3	1.8	4.9	0.4	11.5	4.9	34.5	1.8	1.8	0.9	0.4	

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	10	0	10	0	0	1	1	0	12	0	12	1	**1**	0	**2**	25
08:15 AM	0	12	0	12	**2**	0	2	4	2	9	0	11	0	0	**1**	1	28
08:30 AM	0	4	0	4	2	**1**	5	**8**	**3**	**14**	**3**	**20**	0	0	0	0	32
08:45 AM	0	**13**	0	**13**	0	0	**7**	7	1	11	0	12	**2**	0	0	2	**34**
Total Volume	0	39	0	39	4	1	15	20	6	46	3	55	3	1	1	5	119
% App. Total	0	100	0		20	5	75		10.9	83.6	5.5		60	20	20		
PHF	.000	.750	.000	.750	.500	.250	.536	.625	.500	.821	.250	.688	.375	.250	.250	.625	.875

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Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Apprch %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	

	Broadway (Route 138) From North					Elm Street East From East					Broadway (Route 138) From South					Elm Street West From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	**1**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250

PRECISION DATA INDUSTRIES, LLC
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N/S: Broadway (Route 138)
E/W: Elm Street East/Elm Street West
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- C
Site Code : 10111.31
Start Date : 9/18/2008
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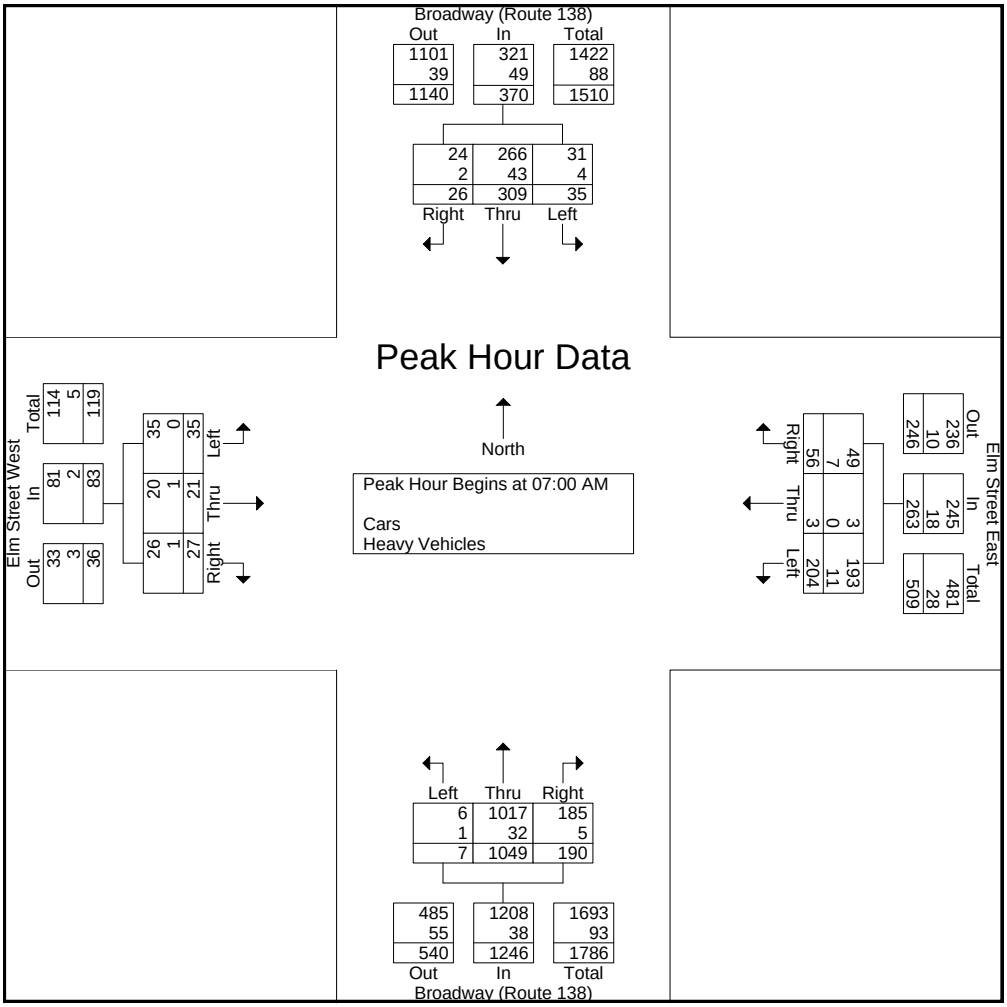
	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	7	63	**15**	85	5	1	26	32	**58**	252	1	311	4	5	**12**	21	449
07:15 AM	**10**	67	7	84	15	**2**	58	75	50	269	1	320	6	4	6	16	495
07:30 AM	8	**99**	6	**113**	**18**	0	**77**	**95**	41	239	**5**	285	6	5	10	21	**514**
07:45 AM	1	80	7	88	18	0	43	61	41	**289**	0	**330**	**11**	**7**	7	**25**	504
Total Volume	26	309	35	370	56	3	204	263	190	1049	7	1246	27	21	35	83	1962
% App. Total	7	83.5	9.5		21.3	1.1	77.6		15.2	84.2	0.6		32.5	25.3	42.2		
PHF	.650	.780	.583	.819	.778	.375	.662	.692	.819	.907	.350	.944	.614	.750	.729	.830	.954
Cars	24	266	31	321	49	3	193	245	185	1017	6	1208	26	20	35	81	1855
% Cars	92.3	86.1	88.6	86.8	87.5	100	94.6	93.2	97.4	96.9	85.7	97.0	96.3	95.2	100	97.6	94.5
Heavy Vehicles	2	43	4	49	7	0	11	18	5	32	1	38	1	1	0	2	107
% Heavy Vehicles	7.7	13.9	11.4	13.2	12.5	0	5.4	6.8	2.6	3.1	14.3	3.0	3.7	4.8	0	2.4	5.5



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N/S: Broadway (Route 138)
E/W: Elm Street East/Elm Street West
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- CCC
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			Elm Street East From East			Broadway (Route 138) From South			Elm Street West From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	6	267	15	6	3	68	49	120	8	5	0	1	548
04:15 PM	2	281	11	7	6	66	59	117	5	6	1	4	565
04:30 PM	4	216	28	3	3	65	64	144	12	7	5	5	556
04:45 PM	3	255	10	8	5	89	67	121	9	9	3	6	585
Total	15	1019	64	24	17	288	239	502	34	27	9	16	2254
05:00 PM	2	224	7	2	3	72	74	127	4	6	2	2	525
05:15 PM	4	245	10	5	5	80	83	147	7	7	2	1	596
05:30 PM	7	237	12	10	3	77	69	145	9	13	4	2	588
05:45 PM	3	194	10	9	1	61	59	131	6	3	5	4	486
Total	16	900	39	26	12	290	285	550	26	29	13	9	2195
Grand Total	31	1919	103	50	29	578	524	1052	60	56	22	25	4449
Apprch %	1.5	93.5	5	7.6	4.4	88	32	64.3	3.7	54.4	21.4	24.3	
Total %	0.7	43.1	2.3	1.1	0.7	13	11.8	23.6	1.3	1.3	0.5	0.6	
Cars	28	1868	95	47	28	562	511	979	57	54	22	22	4273
% Cars	90.3	97.3	92.2	94	96.6	97.2	97.5	93.1	95	96.4	100	88	96
Heavy Vehicles	3	51	8	3	1	16	13	73	3	2	0	3	176
% Heavy Vehicles	9.7	2.7	7.8	6	3.4	2.8	2.5	6.9	5	3.6	0	12	4

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	**255**	10	**268**	8	**5**	**89**	**102**	67	121	**9**	197	9	3	**6**	18	585
05:00 PM	2	224	7	233	2	3	72	77	74	127	4	205	6	2	2	10	525
05:15 PM	4	245	10	259	5	5	80	90	**83**	**147**	7	**237**	7	2	1	10	**596**
05:30 PM	**7**	237	**12**	256	**10**	3	77	90	69	145	9	223	**13**	**4**	2	**19**	588
Total Volume	16	961	39	1016	25	16	318	359	293	540	29	862	35	11	11	57	2294
% App. Total	1.6	94.6	3.8		7	4.5	88.6		34	62.6	3.4		61.4	19.3	19.3		
PHF	.571	.942	.813	.948	.625	.800	.893	.880	.883	.918	.806	.909	.673	.688	.458	.750	.962
Cars	16	938	38	992	25	16	312	353	286	507	29	822	34	11	10	55	2222
% Cars	100	97.6	97.4	97.6	100	100	98.1	98.3	97.6	93.9	100	95.4	97.1	100	90.9	96.5	96.9
Heavy Vehicles	0	23	1	24	0	0	6	6	7	33	0	40	1	0	1	2	72
% Heavy Vehicles	0	2.4	2.6	2.4	0	0	1.9	1.7	2.4	6.1	0	4.6	2.9	0	9.1	3.5	3.1

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N/S: Broadway (Route 138)
E/W: Elm Street East/Elm Street West
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- CCC
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			Elm Street East From East			Broadway (Route 138) From South			Elm Street West From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	4	261	12	6	3	64	48	110	7	5	0	1	521
04:15 PM	2	270	8	5	5	64	57	107	5	5	1	3	532
04:30 PM	3	208	28	3	3	62	61	131	10	7	5	5	526
04:45 PM	3	247	10	8	5	88	67	114	9	9	3	5	568
Total	12	986	58	22	16	278	233	462	31	26	9	14	2147
05:00 PM	2	219	6	2	3	69	69	117	4	6	2	2	501
05:15 PM	4	240	10	5	5	79	82	140	7	7	2	1	582
05:30 PM	7	232	12	10	3	76	68	136	9	12	4	2	571
05:45 PM	3	191	9	8	1	60	59	124	6	3	5	3	472
Total	16	882	37	25	12	284	278	517	26	28	13	8	2126
Grand Total	28	1868	95	47	28	562	511	979	57	54	22	22	4273
Apprch %	1.4	93.8	4.8	7.4	4.4	88.2	33	63.3	3.7	55.1	22.4	22.4	
Total %	0.7	43.7	2.2	1.1	0.7	13.2	12	22.9	1.3	1.3	0.5	0.5	

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	**247**	10	**260**	8	**5**	**88**	**101**	67	114	**9**	190	9	3	**5**	17	568
05:00 PM	2	219	6	227	2	3	69	74	69	117	4	190	6	2	2	10	501
05:15 PM	4	240	10	254	5	5	79	89	**82**	**140**	7	**229**	7	2	1	10	**582**
05:30 PM	**7**	232	**12**	251	**10**	3	76	89	68	136	9	213	**12**	**4**	2	**18**	571
Total Volume	16	938	38	992	25	16	312	353	286	507	29	822	34	11	10	55	2222
% App. Total	1.6	94.6	3.8		7.1	4.5	88.4		34.8	61.7	3.5		61.8	20	18.2		
PHF	.571	.949	.792	.954	.625	.800	.886	.874	.872	.905	.806	.897	.708	.688	.500	.764	.954

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Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Elm Street East From East			Broadway (Route 138) From South			Elm Street West From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	2	6	3	0	0	4	1	10	1	0	0	0	27
04:15 PM	0	11	3	2	1	2	2	10	0	1	0	1	33
04:30 PM	1	8	0	0	0	3	3	13	2	0	0	0	30
04:45 PM	0	8	0	0	0	1	0	7	0	0	0	1	17
Total	3	33	6	2	1	10	6	40	3	1	0	2	107
05:00 PM	0	5	1	0	0	3	5	10	0	0	0	0	24
05:15 PM	0	5	0	0	0	1	1	7	0	0	0	0	14
05:30 PM	0	5	0	0	0	1	1	9	0	1	0	0	17
05:45 PM	0	3	1	1	0	1	0	7	0	0	0	1	14
Total	0	18	2	1	0	6	7	33	0	1	0	1	69
Grand Total	3	51	8	3	1	16	13	73	3	2	0	3	176
Apprch %	4.8	82.3	12.9	15	5	80	14.6	82	3.4	40	0	60	
Total %	1.7	29	4.5	1.7	0.6	9.1	7.4	41.5	1.7	1.1	0	1.7	

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**2**	6	**3**	11	0	0	**4**	4	1	10	1	12	0	0	0	0	27
04:15 PM	0	**11**	3	**14**	**2**	**1**	2	**5**	2	10	0	12	**1**	0	**1**	**2**	**33**
04:30 PM	1	8	0	9	0	0	3	3	**3**	**13**	**2**	**18**	0	0	0	0	30
04:45 PM	0	8	0	8	0	0	1	1	0	7	0	7	0	0	1	1	17
Total Volume	3	33	6	42	2	1	10	13	6	40	3	49	1	0	2	3	107
% App. Total	7.1	78.6	14.3		15.4	7.7	76.9		12.2	81.6	6.1		33.3	0	66.7		
PHF	.375	.750	.500	.750	.250	.250	.625	.650	.500	.769	.375	.681	.250	.000	.500	.375	.811

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Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	3
Total	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	3
Grand Total	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	1	4
Apprch %	0	0	100	0	0	100	0	0	100	0	0	0	0	0	0	100	
Total %	0	0	25	0	0	25	0	0	25	0	0	0	0	0	0	25	

	Broadway (Route 138) From North					Elm Street East From East					Broadway (Route 138) From South					Elm Street West From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	**1**	**0**	**1**	0	**1**	**0**	**0**	**1**	0	0	0	0	0	0	0	0	**1**	**1**	**3**
Total Volume	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	3
% App. Total	0	0	100	0		0	100	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.000	.250	.000	.250	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250

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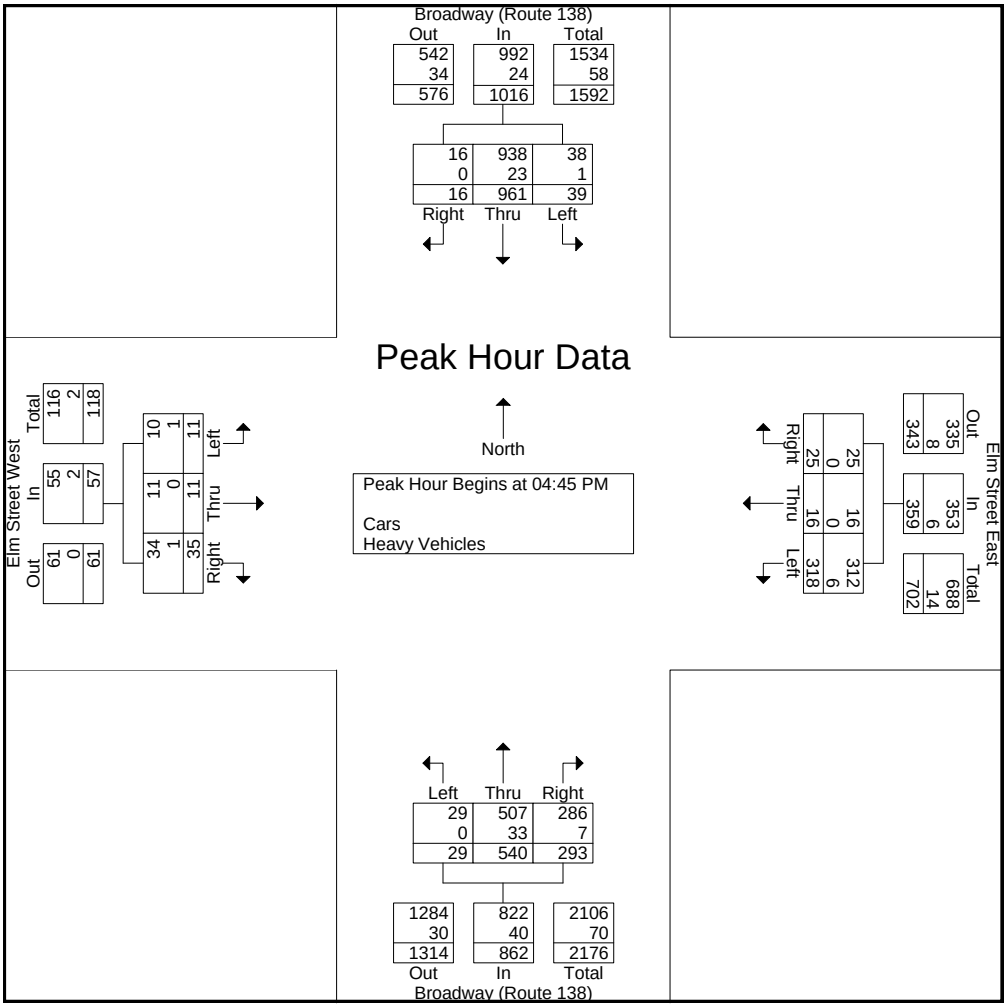
	Broadway (Route 138) From North				Elm Street East From East				Broadway (Route 138) From South				Elm Street West From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	**255**	10	**268**	8	**5**	**89**	**102**	67	121	**9**	197	9	3	**6**	18	585
05:00 PM	2	224	7	233	2	3	72	77	74	127	4	205	6	2	2	10	525
05:15 PM	4	245	10	259	5	5	80	90	**83**	**147**	7	**237**	7	2	1	10	**596**
05:30 PM	**7**	237	**12**	256	**10**	3	77	90	69	145	9	223	**13**	**4**	2	**19**	588
Total Volume	16	961	39	1016	25	16	318	359	293	540	29	862	35	11	11	57	2294
% App. Total	1.6	94.6	3.8		7	4.5	88.6		34	62.6	3.4		61.4	19.3	19.3		
PHF	.571	.942	.813	.948	.625	.800	.893	.880	.883	.918	.806	.909	.673	.688	.458	.750	.962
Cars	16	938	38	992	25	16	312	353	286	507	29	822	34	11	10	55	2222
% Cars	100	97.6	97.4	97.6	100	100	98.1	98.3	97.6	93.9	100	95.4	97.1	100	90.9	96.5	96.9
Heavy Vehicles	0	23	1	24	0	0	6	6	7	33	0	40	1	0	1	2	72
% Heavy Vehicles	0	2.4	2.6	2.4	0	0	1.9	1.7	2.4	6.1	0	4.6	2.9	0	9.1	3.5	3.1



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D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Broadway (Route 38)
E/W: I-495 SB On Ramp/ I-495 SB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- D
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			I-495 SB On Ramp From East			Broadway (Route 138) From South			I-495 SB Off Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	67	10	0	0	0	56	334	0	27	0	53	547
07:15 AM	0	108	11	0	0	0	57	339	0	36	0	62	613
07:30 AM	0	121	24	0	0	0	54	322	0	32	0	47	600
07:45 AM	0	99	17	0	0	0	44	317	0	51	0	72	600
Total	0	395	62	0	0	0	211	1312	0	146	0	234	2360
08:00 AM	0	112	16	0	0	0	48	257	0	55	0	52	540
08:15 AM	0	121	17	0	0	0	42	225	0	44	0	67	516
08:30 AM	0	120	11	0	0	0	51	210	0	38	0	60	490
08:45 AM	0	121	9	0	0	0	47	198	0	45	0	45	465
Total	0	474	53	0	0	0	188	890	0	182	0	224	2011
Grand Total	0	869	115	0	0	0	399	2202	0	328	0	458	4371
Apprch %	0	88.3	11.7	0	0	0	15.3	84.7	0	41.7	0	58.3	
Total %	0	19.9	2.6	0	0	0	9.1	50.4	0	7.5	0	10.5	
Cars	0	798	102	0	0	0	379	2116	0	292	0	426	4113
% Cars	0	91.8	88.7	0	0	0	95	96.1	0	89	0	93	94.1
Heavy Vehicles	0	71	13	0	0	0	20	86	0	36	0	32	258
% Heavy Vehicles	0	8.2	11.3	0	0	0	5	3.9	0	11	0	7	5.9

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	67	10	77	0	0	0	0	56	334	0	390	27	0	53	80	547
07:15 AM	0	108	11	119	0	0	0	0	**57**	**339**	0	**396**	36	0	62	98	**613**
07:30 AM	0	**121**	**24**	**145**	0	0	0	0	54	322	0	376	32	0	47	79	600
07:45 AM	0	99	17	116	0	0	0	0	44	317	0	361	**51**	0	**72**	**123**	600
Total Volume	0	395	62	457	0	0	0	0	211	1312	0	1523	146	0	234	380	2360
% App. Total	0	86.4	13.6		0	0	0		13.9	86.1	0		38.4	0	61.6		
PHF	.000	.816	.646	.788	.000	.000	.000	.000	.925	.968	.000	.961	.716	.000	.813	.772	.962
Cars	0	365	57	422	0	0	0	0	205	1275	0	1480	133	0	221	354	2256
% Cars	0	92.4	91.9	92.3	0	0	0	0	97.2	97.2	0	97.2	91.1	0	94.4	93.2	95.6
Heavy Vehicles	0	30	5	35	0	0	0	0	6	37	0	43	13	0	13	26	104
% Heavy Vehicles	0	7.6	8.1	7.7	0	0	0	0	2.8	2.8	0	2.8	8.9	0	5.6	6.8	4.4

PRECISION
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N/S: Broadway (Route 38)
E/W: I-495 SB On Ramp/ I-495 SB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- D
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			I-495 SB On Ramp From East			Broadway (Route 138) From South			I-495 SB Off Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	62	9	0	0	0	53	321	0	24	0	51	520
07:15 AM	0	99	11	0	0	0	55	326	0	35	0	59	585
07:30 AM	0	113	21	0	0	0	54	315	0	30	0	43	576
07:45 AM	0	91	16	0	0	0	43	313	0	44	0	68	575
Total	0	365	57	0	0	0	205	1275	0	133	0	221	2256
08:00 AM	0	103	13	0	0	0	44	245	0	50	0	45	500
08:15 AM	0	109	13	0	0	0	39	220	0	39	0	61	481
08:30 AM	0	112	11	0	0	0	48	190	0	31	0	56	448
08:45 AM	0	109	8	0	0	0	43	186	0	39	0	43	428
Total	0	433	45	0	0	0	174	841	0	159	0	205	1857
Grand Total	0	798	102	0	0	0	379	2116	0	292	0	426	4113
Apprch %	0	88.7	11.3	0	0	0	15.2	84.8	0	40.7	0	59.3	
Total %	0	19.4	2.5	0	0	0	9.2	51.4	0	7.1	0	10.4	

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	62	9	71	0	0	0	0	53	321	0	374	24	0	51	75	520
07:15 AM	0	99	11	110	0	0	0	0	**55**	**326**	0	**381**	35	0	59	94	**585**
07:30 AM	0	**113**	**21**	**134**	0	0	0	0	54	315	0	369	30	0	43	73	576
07:45 AM	0	91	16	107	0	0	0	0	43	313	0	356	**44**	0	**68**	**112**	575
Total Volume	0	365	57	422	0	0	0	0	205	1275	0	1480	133	0	221	354	2256
% App. Total	0	86.5	13.5		0	0	0		13.9	86.1	0		37.6	0	62.4		
PHF	.000	.808	.679	.787	.000	.000	.000	.000	.932	.978	.000	.971	.756	.000	.813	.790	.964

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City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- D
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			I-495 SB On Ramp From East			Broadway (Route 138) From South			I-495 SB Off Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	5	1	0	0	0	3	13	0	3	0	2	27
07:15 AM	0	9	0	0	0	0	2	13	0	1	0	3	28
07:30 AM	0	8	3	0	0	0	0	7	0	2	0	4	24
07:45 AM	0	8	1	0	0	0	1	4	0	7	0	4	25
Total	0	30	5	0	0	0	6	37	0	13	0	13	104
08:00 AM	0	9	3	0	0	0	4	12	0	5	0	7	40
08:15 AM	0	12	4	0	0	0	3	5	0	5	0	6	35
08:30 AM	0	8	0	0	0	0	3	20	0	7	0	4	42
08:45 AM	0	12	1	0	0	0	4	12	0	6	0	2	37
Total	0	41	8	0	0	0	14	49	0	23	0	19	154
Grand Total	0	71	13	0	0	0	20	86	0	36	0	32	258
Apprch %	0	84.5	15.5	0	0	0	18.9	81.1	0	52.9	0	47.1	
Total %	0	27.5	5	0	0	0	7.8	33.3	0	14	0	12.4	

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	9	3	12	0	0	0	0	**4**	12	0	16	5	0	**7**	**12**	40
08:15 AM	0	**12**	**4**	**16**	0	0	0	0	3	5	0	8	5	0	6	11	35
08:30 AM	0	8	0	8	0	0	0	0	3	**20**	0	**23**	**7**	0	4	11	**42**
08:45 AM	0	12	1	13	0	0	0	0	4	12	0	16	6	0	2	8	37
Total Volume	0	41	8	49	0	0	0	0	14	49	0	63	23	0	19	42	154
% App. Total	0	83.7	16.3		0	0	0		22.2	77.8	0		54.8	0	45.2		
PHF	.000	.854	.500	.766	.000	.000	.000	.000	.875	.613	.000	.685	.821	.000	.679	.875	.917

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File Name : 81676L- D
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

	Broadway (Route 138) From North					I-495 SB On Ramp From East					Broadway (Route 138) From South					I-495 SB Off Ramp From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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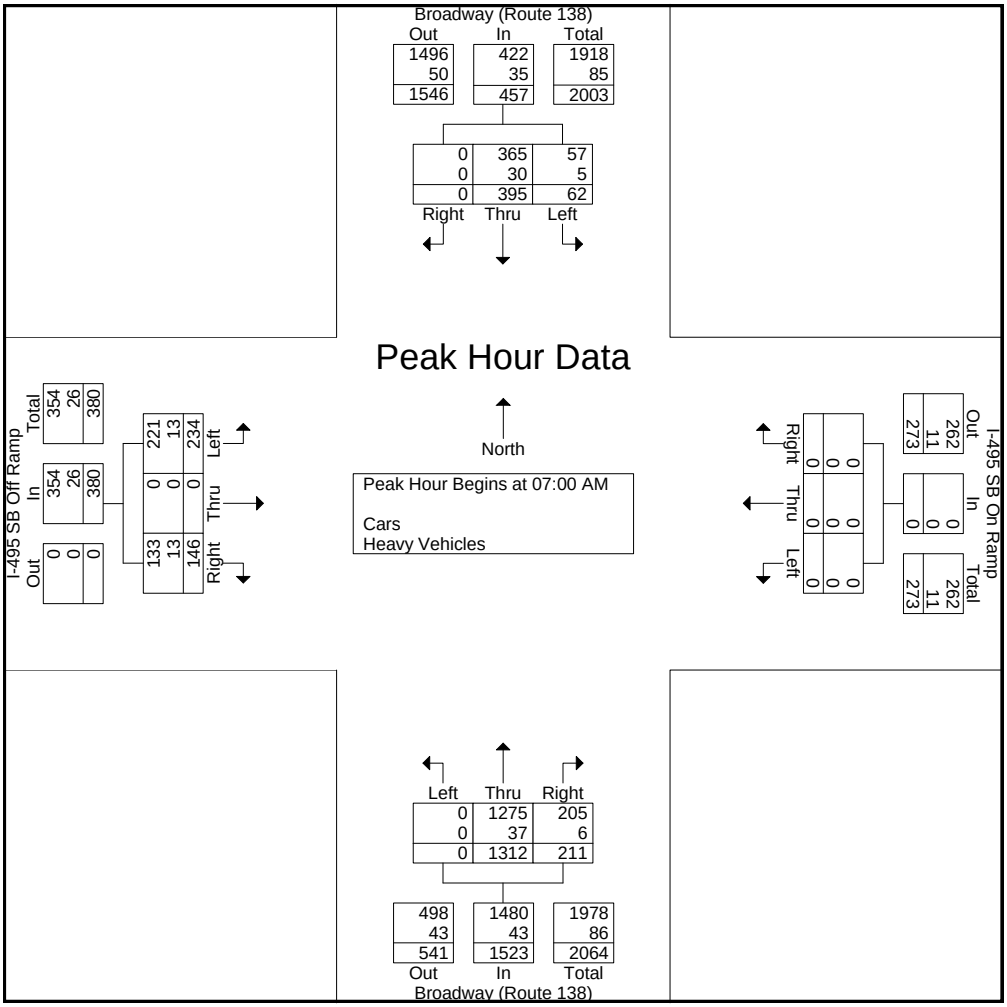
	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	67	10	77	0	0	0	0	56	334	0	390	27	0	53	80	547
07:15 AM	0	108	11	119	0	0	0	0	**57**	**339**	0	**396**	36	0	62	98	**613**
07:30 AM	0	**121**	**24**	**145**	0	0	0	0	54	322	0	376	32	0	47	79	600
07:45 AM	0	99	17	116	0	0	0	0	44	317	0	361	**51**	0	**72**	**123**	600
Total Volume	0	395	62	457	0	0	0	0	211	1312	0	1523	146	0	234	380	2360
% App. Total	0	86.4	13.6		0	0	0		13.9	86.1	0		38.4	0	61.6		
PHF	.000	.816	.646	.788	.000	.000	.000	.000	.925	.968	.000	.961	.716	.000	.813	.772	.962
Cars	0	365	57	422	0	0	0	0	205	1275	0	1480	133	0	221	354	2256
% Cars	0	92.4	91.9	92.3	0	0	0	0	97.2	97.2	0	97.2	91.1	0	94.4	93.2	95.6
Heavy Vehicles	0	30	5	35	0	0	0	0	6	37	0	43	13	0	13	26	104
% Heavy Vehicles	0	7.6	8.1	7.7	0	0	0	0	2.8	2.8	0	2.8	8.9	0	5.6	6.8	4.4



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E/W: I-495 SB On Ramp/ I-495 SB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- DDD
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			I-495 SB On Ramp From East			Broadway (Route 138) From South			I-495 SB Off Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	266	40	0	0	0	59	170	0	64	0	41	640
04:15 PM	0	269	39	0	0	0	48	163	0	66	0	41	626
04:30 PM	0	261	23	0	0	0	39	205	0	82	0	51	661
04:45 PM	0	284	22	0	0	0	42	195	0	105	0	43	691
Total	0	1080	124	0	0	0	188	733	0	317	0	176	2618
05:00 PM	0	284	26	0	0	0	44	203	0	107	0	56	720
05:15 PM	0	286	24	0	0	0	48	210	0	129	0	48	745
05:30 PM	0	270	23	0	0	0	39	196	0	159	0	58	745
05:45 PM	0	234	26	0	0	0	33	165	0	86	0	60	604
Total	0	1074	99	0	0	0	164	774	0	481	0	222	2814
Grand Total	0	2154	223	0	0	0	352	1507	0	798	0	398	5432
Apprch %	0	90.6	9.4	0	0	0	18.9	81.1	0	66.7	0	33.3	
Total %	0	39.7	4.1	0	0	0	6.5	27.7	0	14.7	0	7.3	
Cars	0	2112	217	0	0	0	339	1451	0	778	0	366	5263
% Cars	0	98.1	97.3	0	0	0	96.3	96.3	0	97.5	0	92	96.9
Heavy Vehicles	0	42	6	0	0	0	13	56	0	20	0	32	169
% Heavy Vehicles	0	1.9	2.7	0	0	0	3.7	3.7	0	2.5	0	8	3.1

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	284	22	306	0	0	0	0	42	195	0	237	105	0	43	148	691
05:00 PM	0	284	**26**	**310**	0	0	0	0	44	203	0	247	107	0	56	163	720
05:15 PM	0	**286**	24	310	0	0	0	0	**48**	**210**	0	**258**	129	0	48	177	**745**
05:30 PM	0	270	23	293	0	0	0	0	39	196	0	235	**159**	0	**58**	**217**	745
Total Volume	0	1124	95	1219	0	0	0	0	173	804	0	977	500	0	205	705	2901
% App. Total	0	92.2	7.8		0	0	0		17.7	82.3	0		70.9	0	29.1		
PHF	.000	.983	.913	.983	.000	.000	.000	.000	.901	.957	.000	.947	.786	.000	.884	.812	.973
Cars	0	1103	90	1193	0	0	0	0	169	777	0	946	491	0	189	680	2819
% Cars	0	98.1	94.7	97.9	0	0	0	0	97.7	96.6	0	96.8	98.2	0	92.2	96.5	97.2
Heavy Vehicles	0	21	5	26	0	0	0	0	4	27	0	31	9	0	16	25	82
% Heavy Vehicles	0	1.9	5.3	2.1	0	0	0	0	2.3	3.4	0	3.2	1.8	0	7.8	3.5	2.8

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File Name : 81676L- DDD
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			I-495 SB On Ramp From East			Broadway (Route 138) From South			I-495 SB Off Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	261	40	0	0	0	56	160	0	59	0	38	614
04:15 PM	0	265	39	0	0	0	46	153	0	65	0	39	607
04:30 PM	0	253	23	0	0	0	36	198	0	78	0	44	632
04:45 PM	0	279	21	0	0	0	40	187	0	103	0	40	670
Total	0	1058	123	0	0	0	178	698	0	305	0	161	2523
05:00 PM	0	277	26	0	0	0	43	194	0	104	0	52	696
05:15 PM	0	279	21	0	0	0	47	204	0	127	0	44	722
05:30 PM	0	268	22	0	0	0	39	192	0	157	0	53	731
05:45 PM	0	230	25	0	0	0	32	163	0	85	0	56	591
Total	0	1054	94	0	0	0	161	753	0	473	0	205	2740
Grand Total	0	2112	217	0	0	0	339	1451	0	778	0	366	5263
Apprch %	0	90.7	9.3	0	0	0	18.9	81.1	0	68	0	32	
Total %	0	40.1	4.1	0	0	0	6.4	27.6	0	14.8	0	7	

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**279**	21	300	0	0	0	0	40	187	0	227	103	0	40	143	670
05:00 PM	0	277	**26**	**303**	0	0	0	0	43	194	0	237	104	0	52	156	696
05:15 PM	0	279	21	300	0	0	0	0	**47**	**204**	0	**251**	127	0	44	171	722
05:30 PM	0	268	22	290	0	0	0	0	39	192	0	231	**157**	0	**53**	**210**	**731**
Total Volume	0	1103	90	1193	0	0	0	0	169	777	0	946	491	0	189	680	2819
% App. Total	0	92.5	7.5		0	0	0		17.9	82.1	0		72.2	0	27.8		
PHF	.000	.988	.865	.984	.000	.000	.000	.000	.899	.952	.000	.942	.782	.000	.892	.810	.964

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N/S: Broadway (Route 138)
E/W: I-495 SB On Ramp/ I-495 SB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- DDD
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			I-495 SB On Ramp From East			Broadway (Route 138) From South			I-495 SB Off Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	5	0	0	0	0	3	10	0	5	0	3	26
04:15 PM	0	4	0	0	0	0	2	10	0	1	0	2	19
04:30 PM	0	8	0	0	0	0	3	7	0	4	0	7	29
04:45 PM	0	5	1	0	0	0	2	8	0	2	0	3	21
Total	0	22	1	0	0	0	10	35	0	12	0	15	95
05:00 PM	0	7	0	0	0	0	1	9	0	3	0	4	24
05:15 PM	0	7	3	0	0	0	1	6	0	2	0	4	23
05:30 PM	0	2	1	0	0	0	0	4	0	2	0	5	14
05:45 PM	0	4	1	0	0	0	1	2	0	1	0	4	13
Total	0	20	5	0	0	0	3	21	0	8	0	17	74
Grand Total	0	42	6	0	0	0	13	56	0	20	0	32	169
Apprch %	0	87.5	12.5	0	0	0	18.8	81.2	0	38.5	0	61.5	
Total %	0	24.9	3.6	0	0	0	7.7	33.1	0	11.8	0	18.9	

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**8**	0	8	0	0	0	0	**3**	7	0	**10**	**4**	0	**7**	**11**	**29**
04:45 PM	0	5	1	6	0	0	0	0	2	8	0	10	2	0	3	5	21
05:00 PM	0	7	0	7	0	0	0	0	1	**9**	0	10	3	0	4	7	24
05:15 PM	0	7	**3**	**10**	0	0	0	0	1	6	0	7	2	0	4	6	23
Total Volume	0	27	4	31	0	0	0	0	7	30	0	37	11	0	18	29	97
% App. Total	0	87.1	12.9		0	0	0		18.9	81.1	0		37.9	0	62.1		
PHF	.000	.844	.333	.775	.000	.000	.000	.000	.583	.833	.000	.925	.688	.000	.643	.659	.836

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E/W: I-495 SB On Ramp/ I-495 SB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- DDD
Site Code : 10111.31
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Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
Total	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
Grand Total	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	4
Apprch %	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	
Total %	0	25	0	0	0	0	0	0	0	75	0	0	0	0	0	0	

	Broadway (Route 138) From North					I-495 SB On Ramp From East					Broadway (Route 138) From South					I-495 SB Off Ramp From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	**1**	0	0	**1**	0	0	0	0	0	0	**2**	**0**	**0**	**2**	0	0	0	0	0	**3**
Total Volume	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250

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File Name : 81676L- DDD
Site Code : 10111.31
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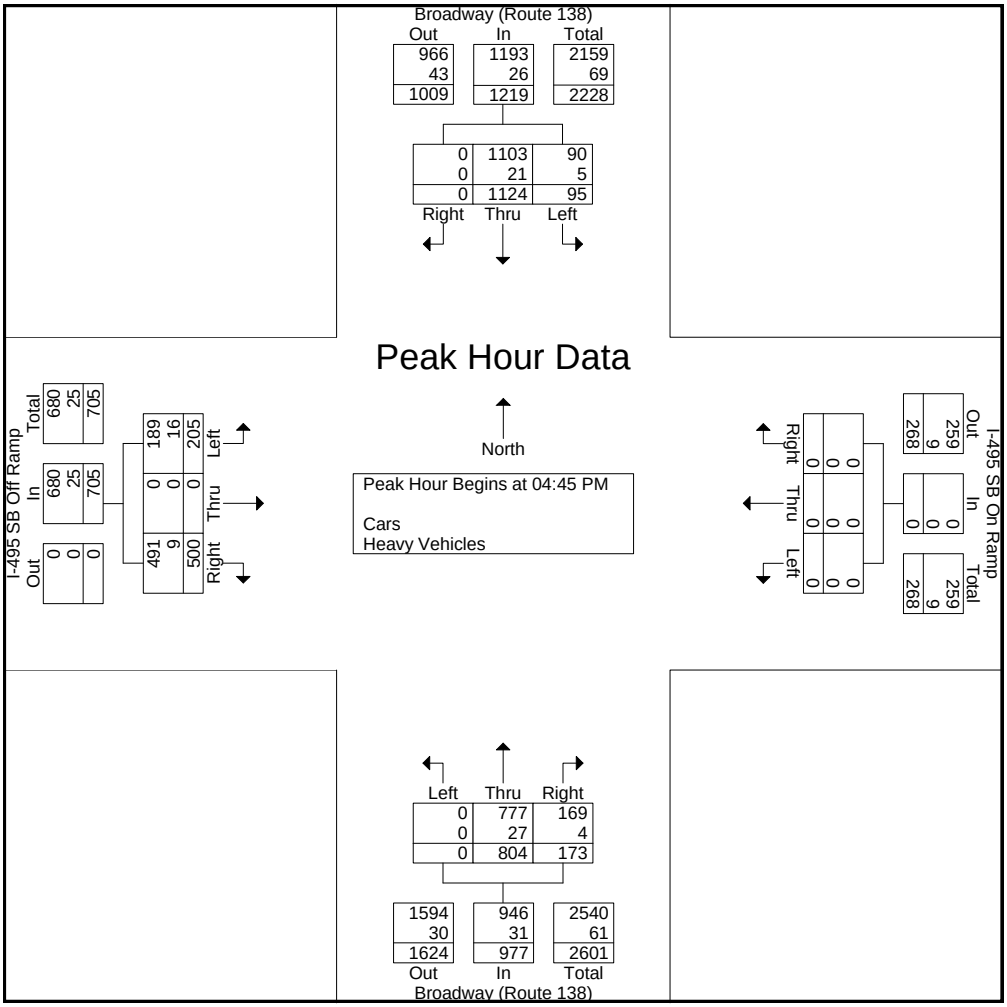
	Broadway (Route 138) From North				I-495 SB On Ramp From East				Broadway (Route 138) From South				I-495 SB Off Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	284	22	306	0	0	0	0	42	195	0	237	105	0	43	148	691
05:00 PM	0	284	**26**	**310**	0	0	0	0	44	203	0	247	107	0	56	163	720
05:15 PM	0	**286**	24	310	0	0	0	0	**48**	**210**	0	**258**	129	0	48	177	**745**
05:30 PM	0	270	23	293	0	0	0	0	39	196	0	235	**159**	0	**58**	**217**	745
Total Volume	0	1124	95	1219	0	0	0	0	173	804	0	977	500	0	205	705	2901
% App. Total	0	92.2	7.8		0	0	0		17.7	82.3	0		70.9	0	29.1		
PHF	.000	.983	.913	.983	.000	.000	.000	.000	.901	.957	.000	.947	.786	.000	.884	.812	.973
Cars	0	1103	90	1193	0	0	0	0	169	777	0	946	491	0	189	680	2819
% Cars	0	98.1	94.7	97.9	0	0	0	0	97.7	96.6	0	96.8	98.2	0	92.2	96.5	97.2
Heavy Vehicles	0	21	5	26	0	0	0	0	4	27	0	31	9	0	16	25	82
% Heavy Vehicles	0	1.9	5.3	2.1	0	0	0	0	2.3	3.4	0	3.2	1.8	0	7.8	3.5	2.8



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E/W: I-495 NB Off Ramp/ I-495 NB On Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L-F
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			I-495 NB Off Ramp From East			Broadway (Route 138) From South			I-495 NB On Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	50	85	0	35	0	24	0	285	72	0	0	0	551
07:15 AM	54	102	0	49	0	19	0	343	78	0	0	0	645
07:30 AM	85	117	0	37	0	36	0	316	85	0	0	0	676
07:45 AM	55	96	0	43	0	23	0	295	58	0	0	0	570
Total	244	400	0	164	0	102	0	1239	293	0	0	0	2442
08:00 AM	55	98	0	49	0	24	0	262	46	0	0	0	534
08:15 AM	43	109	0	36	0	21	0	233	55	0	0	0	497
08:30 AM	44	105	0	32	0	21	0	235	44	0	0	0	481
08:45 AM	42	100	0	30	0	33	0	223	43	0	0	0	471
Total	184	412	0	147	0	99	0	953	188	0	0	0	1983
Grand Total	428	812	0	311	0	201	0	2192	481	0	0	0	4425
Apprch %	34.5	65.5	0	60.7	0	39.3	0	82	18	0	0	0	
Total %	9.7	18.4	0	7	0	4.5	0	49.5	10.9	0	0	0	
Cars	382	750	0	306	0	180	0	2117	439	0	0	0	4174
% Cars	89.3	92.4	0	98.4	0	89.6	0	96.6	91.3	0	0	0	94.3
Heavy Vehicles	46	62	0	5	0	21	0	75	42	0	0	0	251
% Heavy Vehicles	10.7	7.6	0	1.6	0	10.4	0	3.4	8.7	0	0	0	5.7

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	50	85	0	135	35	0	24	59	0	285	72	357	0	0	0	0	551
07:15 AM	54	102	0	156	**49**	0	19	68	0	**343**	78	**421**	0	0	0	0	645
07:30 AM	**85**	**117**	0	**202**	37	0	**36**	**73**	0	316	**85**	401	0	0	0	0	**676**
07:45 AM	55	96	0	151	43	0	23	66	0	295	58	353	0	0	0	0	570
Total Volume	244	400	0	644	164	0	102	266	0	1239	293	1532	0	0	0	0	2442
% App. Total	37.9	62.1	0		61.7	0	38.3		0	80.9	19.1		0	0	0		
PHF	.718	.855	.000	.797	.837	.000	.708	.911	.000	.903	.862	.910	.000	.000	.000	.000	.903
Cars	217	370	0	587	163	0	93	256	0	1208	274	1482	0	0	0	0	2325
% Cars	88.9	92.5	0	91.1	99.4	0	91.2	96.2	0	97.5	93.5	96.7	0	0	0	0	95.2
Heavy Vehicles	27	30	0	57	1	0	9	10	0	31	19	50	0	0	0	0	117
% Heavy Vehicles	11.1	7.5	0	8.9	0.6	0	8.8	3.8	0	2.5	6.5	3.3	0	0	0	0	4.8

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City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L-F
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			I-495 NB Off Ramp From East			Broadway (Route 138) From South			I-495 NB On Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	43	81	0	35	0	22	0	275	66	0	0	0	522
07:15 AM	49	94	0	48	0	17	0	335	71	0	0	0	614
07:30 AM	76	107	0	37	0	35	0	310	80	0	0	0	645
07:45 AM	49	88	0	43	0	19	0	288	57	0	0	0	544
Total	217	370	0	163	0	93	0	1208	274	0	0	0	2325
08:00 AM	51	90	0	49	0	21	0	250	39	0	0	0	500
08:15 AM	38	100	0	35	0	19	0	225	52	0	0	0	469
08:30 AM	41	101	0	32	0	16	0	220	36	0	0	0	446
08:45 AM	35	89	0	27	0	31	0	214	38	0	0	0	434
Total	165	380	0	143	0	87	0	909	165	0	0	0	1849
Grand Total	382	750	0	306	0	180	0	2117	439	0	0	0	4174
Apprch %	33.7	66.3	0	63	0	37	0	82.8	17.2	0	0	0	
Total %	9.2	18	0	7.3	0	4.3	0	50.7	10.5	0	0	0	

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	43	81	0	124	35	0	22	57	0	275	66	341	0	0	0	0	522
07:15 AM	49	94	0	143	**48**	0	17	65	0	**335**	71	**406**	0	0	0	0	614
07:30 AM	**76**	**107**	0	**183**	37	0	**35**	**72**	0	310	**80**	390	0	0	0	0	**645**
07:45 AM	49	88	0	137	43	0	19	62	0	288	57	345	0	0	0	0	544
Total Volume	217	370	0	587	163	0	93	256	0	1208	274	1482	0	0	0	0	2325
% App. Total	37	63	0		63.7	0	36.3		0	81.5	18.5		0	0	0		
PHF	.714	.864	.000	.802	.849	.000	.664	.889	.000	.901	.856	.913	.000	.000	.000	.000	.901

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File Name : 81676L-F
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			I-495 NB Off Ramp From East			Broadway (Route 138) From South			I-495 NB On Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	7	4	0	0	0	2	0	10	6	0	0	0	29
07:15 AM	5	8	0	1	0	2	0	8	7	0	0	0	31
07:30 AM	9	10	0	0	0	1	0	6	5	0	0	0	31
07:45 AM	6	8	0	0	0	4	0	7	1	0	0	0	26
Total	27	30	0	1	0	9	0	31	19	0	0	0	117
08:00 AM	4	8	0	0	0	3	0	12	7	0	0	0	34
08:15 AM	5	9	0	1	0	2	0	8	3	0	0	0	28
08:30 AM	3	4	0	0	0	5	0	15	8	0	0	0	35
08:45 AM	7	11	0	3	0	2	0	9	5	0	0	0	37
Total	19	32	0	4	0	12	0	44	23	0	0	0	134
Grand Total	46	62	0	5	0	21	0	75	42	0	0	0	251
Apprch %	42.6	57.4	0	19.2	0	80.8	0	64.1	35.9	0	0	0	
Total %	18.3	24.7	0	2	0	8.4	0	29.9	16.7	0	0	0	

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	4	8	0	12	0	0	3	3	0	12	7	19	0	0	0	0	34
08:15 AM	5	9	0	14	1	0	2	3	0	8	3	11	0	0	0	0	28
08:30 AM	3	4	0	7	0	0	**5**	**5**	0	**15**	**8**	**23**	0	0	0	0	35
08:45 AM	**7**	**11**	0	**18**	**3**	0	2	5	0	9	5	14	0	0	0	0	**37**
Total Volume	19	32	0	51	4	0	12	16	0	44	23	67	0	0	0	0	134
% App. Total	37.3	62.7	0		25	0	75		0	65.7	34.3		0	0	0		
PHF	.679	.727	.000	.708	.333	.000	.600	.800	.000	.733	.719	.728	.000	.000	.000	.000	.905

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Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

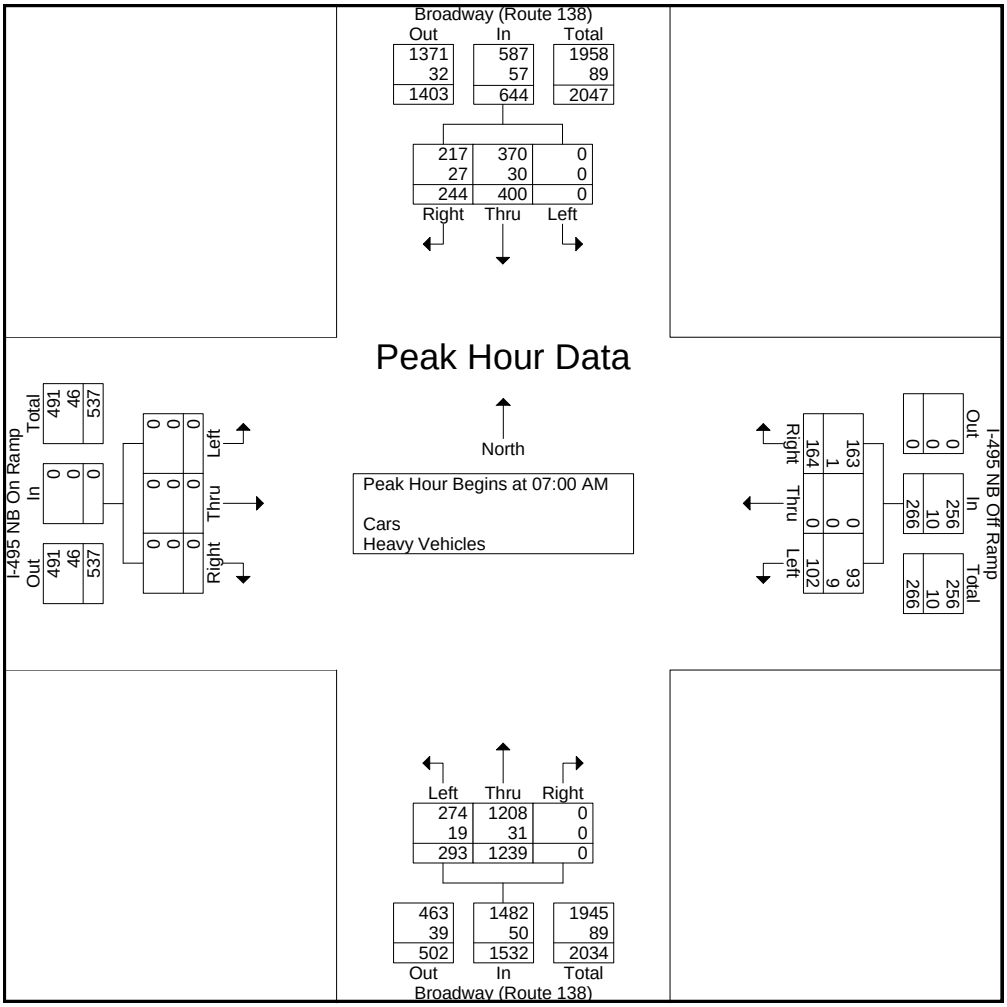
	Broadway (Route 138) From North					I-495 NB Off Ramp From East					Broadway (Route 138) From South					I-495 NB On Ramp From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Broadway (Route 138)
E/W: I-495 NB Off Ramp/ I-495 NB On Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L-F
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	50	85	0	135	35	0	24	59	0	285	72	357	0	0	0	0	551
07:15 AM	54	102	0	156	**49**	0	19	68	0	**343**	78	**421**	0	0	0	0	645
07:30 AM	**85**	**117**	0	**202**	37	0	**36**	**73**	0	316	**85**	401	0	0	0	0	**676**
07:45 AM	55	96	0	151	43	0	23	66	0	295	58	353	0	0	0	0	570
Total Volume	244	400	0	644	164	0	102	266	0	1239	293	1532	0	0	0	0	2442
% App. Total	37.9	62.1	0		61.7	0	38.3		0	80.9	19.1		0	0	0		
PHF	.718	.855	.000	.797	.837	.000	.708	.911	.000	.903	.862	.910	.000	.000	.000	.000	.903
Cars	217	370	0	587	163	0	93	256	0	1208	274	1482	0	0	0	0	2325
% Cars	88.9	92.5	0	91.1	99.4	0	91.2	96.2	0	97.5	93.5	96.7	0	0	0	0	95.2
Heavy Vehicles	27	30	0	57	1	0	9	10	0	31	19	50	0	0	0	0	117
% Heavy Vehicles	11.1	7.5	0	8.9	0.6	0	8.8	3.8	0	2.5	6.5	3.3	0	0	0	0	4.8



PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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N/S: Broadway (Route 138)
E/W: I-495 NB On Ramp/ I-495 NB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- FFF
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			I-495 NB Off Ramp From East			Broadway (Route 138) From South			I-495 NB On Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	55	270	0	25	2	32	0	178	21	0	0	0	583
04:15 PM	55	276	0	32	0	31	0	173	23	0	0	0	590
04:30 PM	70	253	0	22	0	35	0	232	28	0	0	0	640
04:45 PM	47	264	0	15	0	29	0	190	20	0	0	0	565
Total	227	1063	0	94	2	127	0	773	92	0	0	0	2378
05:00 PM	66	269	0	20	1	33	0	228	25	0	0	0	642
05:15 PM	61	266	0	37	0	38	0	234	27	0	0	0	663
05:30 PM	57	257	0	36	0	25	0	242	28	0	0	0	645
05:45 PM	55	222	0	24	0	29	0	198	29	0	0	0	557
Total	239	1014	0	117	1	125	0	902	109	0	0	0	2507
Grand Total	466	2077	0	211	3	252	0	1675	201	0	0	0	4885
Apprch %	18.3	81.7	0	45.3	0.6	54.1	0	89.3	10.7	0	0	0	
Total %	9.5	42.5	0	4.3	0.1	5.2	0	34.3	4.1	0	0	0	
Cars	444	2040	0	204	3	242	0	1598	190	0	0	0	4721
% Cars	95.3	98.2	0	96.7	100	96	0	95.4	94.5	0	0	0	96.6
Heavy Vehicles	22	37	0	7	0	10	0	77	11	0	0	0	164
% Heavy Vehicles	4.7	1.8	0	3.3	0	4	0	4.6	5.5	0	0	0	3.4

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	47	264	0	311	15	0	29	44	0	190	20	210	0	0	0	0	565
05:00 PM	**66**	**269**	0	**335**	20	**1**	33	54	0	228	25	253	0	0	0	0	642
05:15 PM	61	266	0	327	**37**	0	**38**	**75**	0	234	27	261	0	0	0	0	**663**
05:30 PM	57	257	0	314	36	0	25	61	0	**242**	**28**	**270**	0	0	0	0	645
Total Volume	231	1056	0	1287	108	1	125	234	0	894	100	994	0	0	0	0	2515
% App. Total	17.9	82.1	0		46.2	0.4	53.4		0	89.9	10.1		0	0	0		
PHF	.875	.981	.000	.960	.730	.250	.822	.780	.000	.924	.893	.920	.000	.000	.000	.000	.948
Cars	225	1039	0	1264	105	1	120	226	0	858	94	952	0	0	0	0	2442
% Cars	97.4	98.4	0	98.2	97.2	100	96.0	96.6	0	96.0	94.0	95.8	0	0	0	0	97.1
Heavy Vehicles	6	17	0	23	3	0	5	8	0	36	6	42	0	0	0	0	73
% Heavy Vehicles	2.6	1.6	0	1.8	2.8	0	4.0	3.4	0	4.0	6.0	4.2	0	0	0	0	2.9

N/S: Broadway (Route 138)
E/W: I-495 NB On Ramp/ I-495 NB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- FFF
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			I-495 NB Off Ramp From East			Broadway (Route 138) From South			I-495 NB On Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	52	265	0	24	2	31	0	166	19	0	0	0	559
04:15 PM	48	269	0	30	0	31	0	163	21	0	0	0	562
04:30 PM	65	247	0	22	0	32	0	219	27	0	0	0	612
04:45 PM	43	261	0	15	0	27	0	180	19	0	0	0	545
Total	208	1042	0	91	2	121	0	728	86	0	0	0	2278
05:00 PM	66	263	0	18	1	33	0	218	23	0	0	0	622
05:15 PM	61	261	0	37	0	35	0	227	24	0	0	0	645
05:30 PM	55	254	0	35	0	25	0	233	28	0	0	0	630
05:45 PM	54	220	0	23	0	28	0	192	29	0	0	0	546
Total	236	998	0	113	1	121	0	870	104	0	0	0	2443
Grand Total	444	2040	0	204	3	242	0	1598	190	0	0	0	4721
Apprch %	17.9	82.1	0	45.4	0.7	53.9	0	89.4	10.6	0	0	0	
Total %	9.4	43.2	0	4.3	0.1	5.1	0	33.8	4	0	0	0	

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**66**	**263**	0	**329**	18	**1**	33	52	0	218	23	241	0	0	0	0	622
05:15 PM	61	261	0	322	**37**	0	**35**	**72**	0	227	24	251	0	0	0	0	**645**
05:30 PM	55	254	0	309	35	0	25	60	0	**233**	28	**261**	0	0	0	0	630
05:45 PM	54	220	0	274	23	0	28	51	0	192	**29**	221	0	0	0	0	546
Total Volume	236	998	0	1234	113	1	121	235	0	870	104	974	0	0	0	0	2443
% App. Total	19.1	80.9	0		48.1	0.4	51.5		0	89.3	10.7		0	0	0		
PHF	.894	.949	.000	.938	.764	.250	.864	.816	.000	.933	.897	.933	.000	.000	.000	.000	.947

N/S: Broadway (Route 138)
E/W: I-495 NB On Ramp/ I-495 NB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- FFF
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			I-495 NB Off Ramp From East			Broadway (Route 138) From South			I-495 NB On Ramp From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	3	5	0	1	0	1	0	12	2	0	0	0	24
04:15 PM	7	7	0	2	0	0	0	10	2	0	0	0	28
04:30 PM	5	6	0	0	0	3	0	13	1	0	0	0	28
04:45 PM	4	3	0	0	0	2	0	10	1	0	0	0	20
Total	19	21	0	3	0	6	0	45	6	0	0	0	100
05:00 PM	0	6	0	2	0	0	0	10	2	0	0	0	20
05:15 PM	0	5	0	0	0	3	0	7	3	0	0	0	18
05:30 PM	2	3	0	1	0	0	0	9	0	0	0	0	15
05:45 PM	1	2	0	1	0	1	0	6	0	0	0	0	11
Total	3	16	0	4	0	4	0	32	5	0	0	0	64
Grand Total	22	37	0	7	0	10	0	77	11	0	0	0	164
Apprch %	37.3	62.7	0	41.2	0	58.8	0	87.5	12.5	0	0	0	
Total %	13.4	22.6	0	4.3	0	6.1	0	47	6.7	0	0	0	

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	3	5	0	8	1	0	1	2	0	12	**2**	**14**	0	0	0	0	24
04:15 PM	**7**	**7**	0	**14**	**2**	0	0	2	0	10	2	12	0	0	0	0	**28**
04:30 PM	5	6	0	11	0	0	**3**	**3**	0	**13**	1	14	0	0	0	0	28
04:45 PM	4	3	0	7	0	0	2	2	0	10	1	11	0	0	0	0	20
Total Volume	19	21	0	40	3	0	6	9	0	45	6	51	0	0	0	0	100
% App. Total	47.5	52.5	0		33.3	0	66.7		0	88.2	11.8		0	0	0		
PHF	.679	.750	.000	.714	.375	.000	.500	.750	.000	.865	.750	.911	.000	.000	.000	.000	.893

N/S: Broadway (Route 138)
E/W: I-495 NB On Ramp/ I-495 NB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- FFF
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

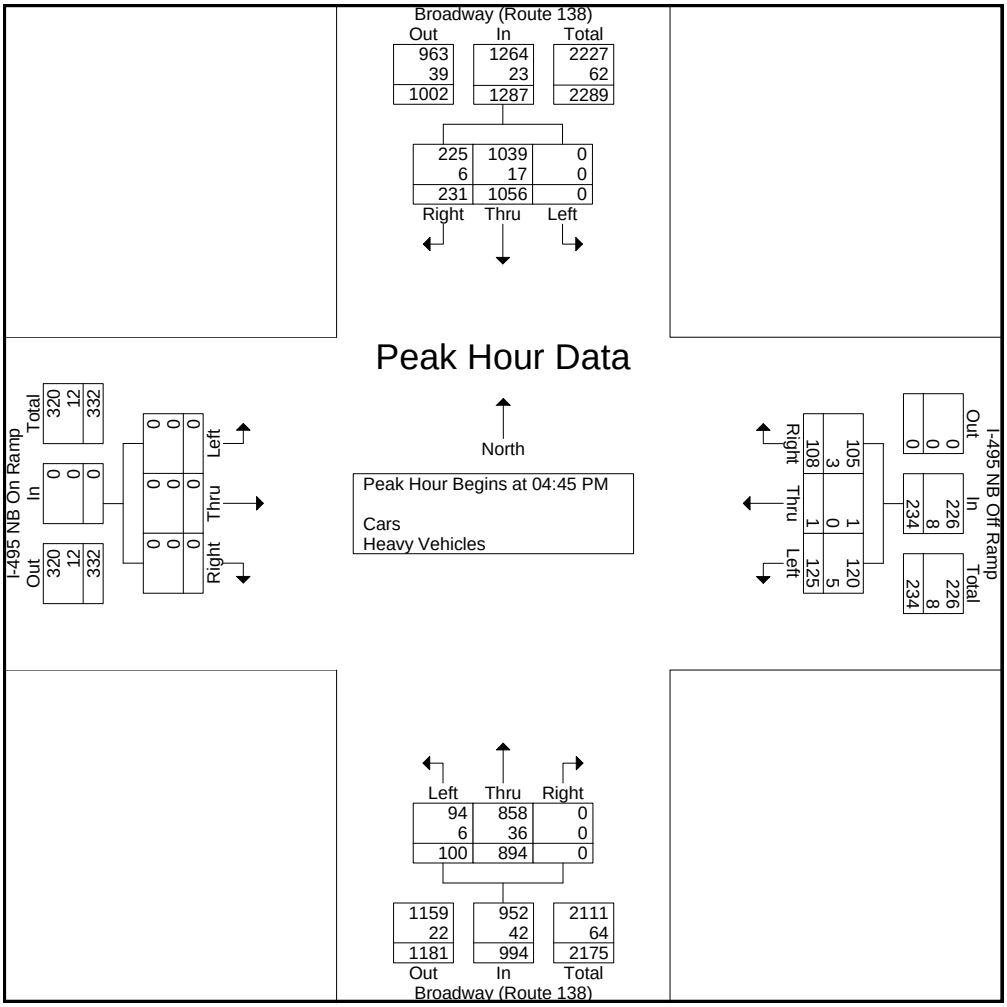
	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Total	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
Total	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
Grand Total	0	3	0	0	0	0	0	1	0	3	0	0	0	0	0	0	7
Apprch %	0	100	0	0	0	0	0	100	0	100	0	0	0	0	0	0	
Total %	0	42.9	0	0	0	0	0	14.3	0	42.9	0	0	0	0	0	0	

	Broadway (Route 138) From North					I-495 NB Off Ramp From East					Broadway (Route 138) From South					I-495 NB On Ramp From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	**2**	0	0	**2**	0	0	0	0	0	0	**1**	**0**	**0**	**1**	0	0	0	0	0	**3**
Total Volume	0	2	0	0	2	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	4
% App. Total	0	100	0	0		0	0	0	100		0	100	0	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.250	.250	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.333

N/S: Broadway (Route 138)
E/W: I-495 NB On Ramp/ I-495 NB Off Ramp
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- FFF
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Broadway (Route 138) From North				I-495 NB Off Ramp From East				Broadway (Route 138) From South				I-495 NB On Ramp From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	47	264	0	311	15	0	29	44	0	190	20	210	0	0	0	0	565
05:00 PM	**66**	**269**	0	**335**	20	**1**	33	54	0	228	25	253	0	0	0	0	642
05:15 PM	61	266	0	327	**37**	0	**38**	**75**	0	234	27	261	0	0	0	0	**663**
05:30 PM	57	257	0	314	36	0	25	61	0	**242**	**28**	**270**	0	0	0	0	645
Total Volume	231	1056	0	1287	108	1	125	234	0	894	100	994	0	0	0	0	2515
% App. Total	17.9	82.1	0		46.2	0.4	53.4		0	89.9	10.1		0	0	0		
PHF	.875	.981	.000	.960	.730	.250	.822	.780	.000	.924	.893	.920	.000	.000	.000	.000	.948
Cars	225	1039	0	1264	105	1	120	226	0	858	94	952	0	0	0	0	2442
% Cars	97.4	98.4	0	98.2	97.2	100	96.0	96.6	0	96.0	94.0	95.8	0	0	0	0	97.1
Heavy Vehicles	6	17	0	23	3	0	5	8	0	36	6	42	0	0	0	0	73
% Heavy Vehicles	2.6	1.6	0	1.8	2.8	0	4.0	3.4	0	4.0	6.0	4.2	0	0	0	0	2.9



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N/S: Broadway (Route 138)
E/W: Carver Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- H
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			Carver Street From East			Broadway (Route 138) From South			Carver Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	10	89	14	31	5	4	1	298	11	8	3	57	531
07:15 AM	11	124	1	27	15	2	0	291	5	11	7	58	552
07:30 AM	15	122	4	34	9	5	2	281	9	6	7	42	536
07:45 AM	10	120	24	29	12	3	0	267	11	7	7	43	533
Total	46	455	43	121	41	14	3	1137	36	32	24	200	2152
08:00 AM	14	130	8	27	10	3	1	218	19	12	1	45	488
08:15 AM	12	124	11	26	6	4	2	188	6	18	8	34	439
08:30 AM	9	132	6	17	4	5	0	182	15	11	9	34	424
08:45 AM	13	134	11	13	7	6	4	190	6	12	5	29	430
Total	48	520	36	83	27	18	7	778	46	53	23	142	1781
Grand Total	94	975	79	204	68	32	10	1915	82	85	47	342	3933
Apprch %	8.2	84.9	6.9	67.1	22.4	10.5	0.5	95.4	4.1	17.9	9.9	72.2	
Total %	2.4	24.8	2	5.2	1.7	0.8	0.3	48.7	2.1	2.2	1.2	8.7	
Cars	92	891	74	201	66	31	9	1827	77	82	45	339	3734
% Cars	97.9	91.4	93.7	98.5	97.1	96.9	90	95.4	93.9	96.5	95.7	99.1	94.9
Heavy Vehicles	2	84	5	3	2	1	1	88	5	3	2	3	199
% Heavy Vehicles	2.1	8.6	6.3	1.5	2.9	3.1	10	4.6	6.1	3.5	4.3	0.9	5.1

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	10	89	14	113	31	5	4	40	1	**298**	**11**	**310**	8	3	57	68	531
07:15 AM	11	**124**	1	136	27	**15**	2	44	0	291	5	296	**11**	**7**	**58**	**76**	**552**
07:30 AM	**15**	122	4	141	**34**	9	**5**	**48**	**2**	281	9	292	6	7	42	55	536
07:45 AM	10	120	**24**	**154**	29	12	3	44	0	267	11	278	7	7	43	57	533
Total Volume	46	455	43	544	121	41	14	176	3	1137	36	1176	32	24	200	256	2152
% App. Total	8.5	83.6	7.9		68.8	23.3	8		0.3	96.7	3.1		12.5	9.4	78.1		
PHF	.767	.917	.448	.883	.890	.683	.700	.917	.375	.954	.818	.948	.727	.857	.862	.842	.975
Cars	46	421	40	507	120	40	14	174	3	1100	35	1138	30	23	200	253	2072
% Cars	100	92.5	93.0	93.2	99.2	97.6	100	98.9	100	96.7	97.2	96.8	93.8	95.8	100	98.8	96.3
Heavy Vehicles	0	34	3	37	1	1	0	2	0	37	1	38	2	1	0	3	80
% Heavy Vehicles	0	7.5	7.0	6.8	0.8	2.4	0	1.1	0	3.3	2.8	3.2	6.3	4.2	0	1.2	3.7

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N/S: Broadway (Route 138)
E/W: Carver Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- H
Site Code : 10111.31
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Groups Printed- Cars

	Broadway (Route 138) From North			Carver Street From East			Broadway (Route 138) From South			Carver Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	10	81	14	30	5	4	1	285	11	6	2	57	506
07:15 AM	11	117	1	27	15	2	0	277	4	11	7	58	530
07:30 AM	15	111	4	34	9	5	2	275	9	6	7	42	519
07:45 AM	10	112	21	29	11	3	0	263	11	7	7	43	517
Total	46	421	40	120	40	14	3	1100	35	30	23	200	2072
08:00 AM	14	117	8	27	10	3	1	206	18	11	1	44	460
08:15 AM	12	110	10	24	5	3	1	182	4	18	7	34	410
08:30 AM	8	121	6	17	4	5	0	161	14	11	9	33	389
08:45 AM	12	122	10	13	7	6	4	178	6	12	5	28	403
Total	46	470	34	81	26	17	6	727	42	52	22	139	1662
Grand Total	92	891	74	201	66	31	9	1827	77	82	45	339	3734
Apprch %	8.7	84.3	7	67.4	22.1	10.4	0.5	95.5	4	17.6	9.7	72.7	
Total %	2.5	23.9	2	5.4	1.8	0.8	0.2	48.9	2.1	2.2	1.2	9.1	

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	10	81	14	105	30	5	4	39	1	**285**	**11**	**297**	6	2	57	65	506
07:15 AM	11	**117**	1	129	27	**15**	2	44	0	277	4	281	**11**	**7**	**58**	**76**	**530**
07:30 AM	**15**	111	4	130	**34**	9	**5**	**48**	**2**	275	9	286	6	7	42	55	519
07:45 AM	10	112	**21**	**143**	29	11	3	43	0	263	11	274	7	7	43	57	517
Total Volume	46	421	40	507	120	40	14	174	3	1100	35	1138	30	23	200	253	2072
% App. Total	9.1	83	7.9		69	23	8		0.3	96.7	3.1		11.9	9.1	79.1		
PHF	.767	.900	.476	.886	.882	.667	.700	.906	.375	.965	.795	.958	.682	.821	.862	.832	.977

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Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Carver Street From East			Broadway (Route 138) From South			Carver Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	8	0	1	0	0	0	13	0	2	1	0	25
07:15 AM	0	7	0	0	0	0	0	14	1	0	0	0	22
07:30 AM	0	11	0	0	0	0	0	6	0	0	0	0	17
07:45 AM	0	8	3	0	1	0	0	4	0	0	0	0	16
Total	0	34	3	1	1	0	0	37	1	2	1	0	80
08:00 AM	0	13	0	0	0	0	0	12	1	1	0	1	28
08:15 AM	0	14	1	2	1	1	1	6	2	0	1	0	29
08:30 AM	1	11	0	0	0	0	0	21	1	0	0	1	35
08:45 AM	1	12	1	0	0	0	0	12	0	0	0	1	27
Total	2	50	2	2	1	1	1	51	4	1	1	3	119
Grand Total	2	84	5	3	2	1	1	88	5	3	2	3	199
Apprch %	2.2	92.3	5.5	50	33.3	16.7	1.1	93.6	5.3	37.5	25	37.5	
Total %	1	42.2	2.5	1.5	1	0.5	0.5	44.2	2.5	1.5	1	1.5	

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	13	0	13	0	0	0	0	0	12	1	13	**1**	0	**1**	**2**	28
08:15 AM	0	**14**	**1**	**15**	**2**	**1**	**1**	**4**	**1**	6	**2**	9	0	**1**	0	1	29
08:30 AM	**1**	11	0	12	0	0	0	0	0	**21**	1	**22**	0	0	1	1	**35**
08:45 AM	1	12	1	14	0	0	0	0	0	12	0	12	0	0	1	1	27
Total Volume	2	50	2	54	2	1	1	4	1	51	4	56	1	1	3	5	119
% App. Total	3.7	92.6	3.7		50	25	25		1.8	91.1	7.1		20	20	60		
PHF	.500	.893	.500	.900	.250	.250	.250	.250	.250	.607	.500	.636	.250	.250	.750	.625	.850

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Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Apprch %	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	Broadway (Route 138) From North					Carver Street From East					Broadway (Route 138) From South					Carver Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% App. Total	0	100	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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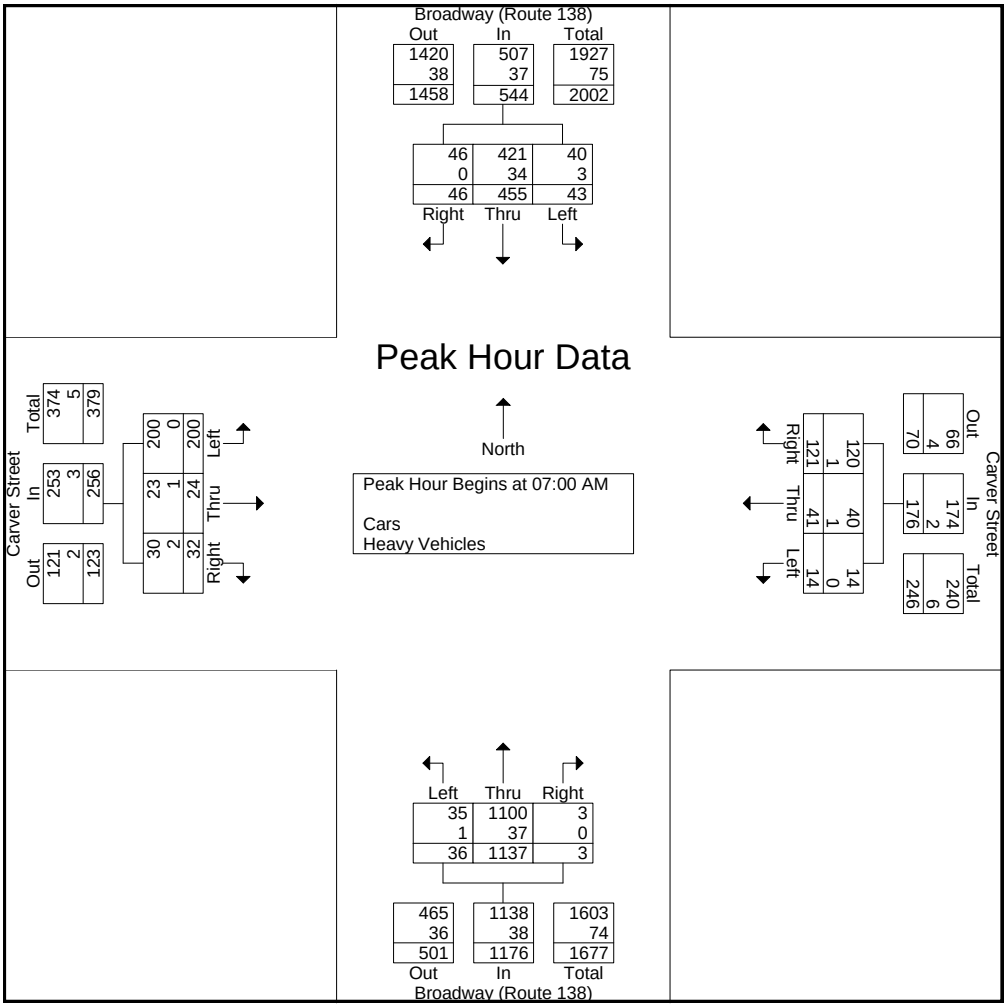
	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	10	89	14	113	31	5	4	40	1	**298**	**11**	**310**	8	3	57	68	531
07:15 AM	11	**124**	1	136	27	**15**	2	44	0	291	5	296	**11**	**7**	**58**	**76**	**552**
07:30 AM	**15**	122	4	141	**34**	9	**5**	**48**	**2**	281	9	292	6	7	42	55	536
07:45 AM	10	120	**24**	**154**	29	12	3	44	0	267	11	278	7	7	43	57	533
Total Volume	46	455	43	544	121	41	14	176	3	1137	36	1176	32	24	200	256	2152
% App. Total	8.5	83.6	7.9		68.8	23.3	8		0.3	96.7	3.1		12.5	9.4	78.1		
PHF	.767	.917	.448	.883	.890	.683	.700	.917	.375	.954	.818	.948	.727	.857	.862	.842	.975
Cars	46	421	40	507	120	40	14	174	3	1100	35	1138	30	23	200	253	2072
% Cars	100	92.5	93.0	93.2	99.2	97.6	100	98.9	100	96.7	97.2	96.8	93.8	95.8	100	98.8	96.3
Heavy Vehicles	0	34	3	37	1	1	0	2	0	37	1	38	2	1	0	3	80
% Heavy Vehicles	0	7.5	7.0	6.8	0.8	2.4	0	1.1	0	3.3	2.8	3.2	6.3	4.2	0	1.2	3.7



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E/W: Carver Street
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Client: VHB/ J. Quitter

File Name : 81676L- HHH
Site Code : 10111.31
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Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			Carver Street From East			Broadway (Route 138) From South			Carver Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	24	274	13	13	14	9	2	175	11	21	15	29	600
04:15 PM	45	278	17	14	11	6	4	157	11	24	21	25	613
04:30 PM	39	295	10	18	15	10	1	179	9	22	14	43	655
04:45 PM	75	286	23	6	15	13	3	156	13	20	23	40	673
Total	183	1133	63	51	55	38	10	667	44	87	73	137	2541
05:00 PM	37	306	32	8	18	15	8	187	5	24	22	30	692
05:15 PM	53	326	16	8	22	19	22	170	23	12	16	39	726
05:30 PM	42	326	27	13	11	7	6	155	11	24	20	37	679
05:45 PM	40	253	18	19	17	13	6	154	17	24	14	21	596
Total	172	1211	93	48	68	54	42	666	56	84	72	127	2693
Grand Total	355	2344	156	99	123	92	52	1333	100	171	145	264	5234
Apprch %	12.4	82.1	5.5	31.5	39.2	29.3	3.5	89.8	6.7	29.5	25	45.5	
Total %	6.8	44.8	3	1.9	2.4	1.8	1	25.5	1.9	3.3	2.8	5	
Cars	355	2283	156	95	121	91	51	1276	100	171	145	260	5104
% Cars	100	97.4	100	96	98.4	98.9	98.1	95.7	100	100	100	98.5	97.5
Heavy Vehicles	0	61	0	4	2	1	1	57	0	0	0	4	130
% Heavy Vehicles	0	2.6	0	4	1.6	1.1	1.9	4.3	0	0	0	1.5	2.5

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**75**	286	23	384	6	15	13	34	3	156	13	172	20	**23**	**40**	**83**	673
05:00 PM	37	306	**32**	375	8	18	15	41	8	**187**	5	200	**24**	22	30	76	692
05:15 PM	53	**326**	16	**395**	8	**22**	**19**	**49**	**22**	170	**23**	**215**	12	16	39	67	**726**
05:30 PM	42	326	27	395	**13**	11	7	31	6	155	11	172	24	20	37	81	679
Total Volume	207	1244	98	1549	35	66	54	155	39	668	52	759	80	81	146	307	2770
% App. Total	13.4	80.3	6.3		22.6	42.6	34.8		5.1	88	6.9		26.1	26.4	47.6		
PHF	.690	.954	.766	.980	.673	.750	.711	.791	.443	.893	.565	.883	.833	.880	.913	.925	.954
Cars	207	1215	98	1520	33	66	54	153	38	641	52	731	80	81	144	305	2709
% Cars	100	97.7	100	98.1	94.3	100	100	98.7	97.4	96.0	100	96.3	100	100	98.6	99.3	97.8
Heavy Vehicles	0	29	0	29	2	0	0	2	1	27	0	28	0	0	2	2	61
% Heavy Vehicles	0	2.3	0	1.9	5.7	0	0	1.3	2.6	4.0	0	3.7	0	0	1.4	0.7	2.2

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Groups Printed- Cars

	Broadway (Route 138) From North			Carver Street From East			Broadway (Route 138) From South			Carver Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	24	264	13	13	14	8	2	166	11	21	15	28	579
04:15 PM	45	273	17	13	10	6	4	146	11	24	21	25	595
04:30 PM	39	283	10	17	15	10	1	171	9	22	14	42	633
04:45 PM	75	279	23	6	15	13	3	145	13	20	23	40	655
Total	183	1099	63	49	54	37	10	628	44	87	73	135	2462
05:00 PM	37	297	32	8	18	15	8	178	5	24	22	29	673
05:15 PM	53	317	16	8	22	19	21	164	23	12	16	39	710
05:30 PM	42	322	27	11	11	7	6	154	11	24	20	36	671
05:45 PM	40	248	18	19	16	13	6	152	17	24	14	21	588
Total	172	1184	93	46	67	54	41	648	56	84	72	125	2642
Grand Total	355	2283	156	95	121	91	51	1276	100	171	145	260	5104
Apprch %	12.7	81.7	5.6	30.9	39.4	29.6	3.6	89.4	7	29.7	25.2	45.1	
Total %	7	44.7	3.1	1.9	2.4	1.8	1	25	2	3.4	2.8	5.1	

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**75**	279	23	377	6	15	13	34	3	145	13	161	20	**23**	**40**	**83**	655
05:00 PM	37	297	**32**	366	8	18	15	41	8	**178**	5	191	**24**	22	29	75	673
05:15 PM	53	317	16	386	8	**22**	**19**	**49**	**21**	164	**23**	**208**	12	16	39	67	**710**
05:30 PM	42	**322**	27	**391**	**11**	11	7	29	6	154	11	171	24	20	36	80	671
Total Volume	207	1215	98	1520	33	66	54	153	38	641	52	731	80	81	144	305	2709
% App. Total	13.6	79.9	6.4		21.6	43.1	35.3		5.2	87.7	7.1		26.2	26.6	47.2		
PHF	.690	.943	.766	.972	.750	.750	.711	.781	.452	.900	.565	.879	.833	.880	.900	.919	.954

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Start Date : 9/18/2008
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Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Carver Street From East			Broadway (Route 138) From South			Carver Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	10	0	0	0	1	0	9	0	0	0	1	21
04:15 PM	0	5	0	1	1	0	0	11	0	0	0	0	18
04:30 PM	0	12	0	1	0	0	0	8	0	0	0	1	22
04:45 PM	0	7	0	0	0	0	0	11	0	0	0	0	18
Total	0	34	0	2	1	1	0	39	0	0	0	2	79
05:00 PM	0	9	0	0	0	0	0	9	0	0	0	1	19
05:15 PM	0	9	0	0	0	0	1	6	0	0	0	0	16
05:30 PM	0	4	0	2	0	0	0	1	0	0	0	1	8
05:45 PM	0	5	0	0	1	0	0	2	0	0	0	0	8
Total	0	27	0	2	1	0	1	18	0	0	0	2	51
Grand Total	0	61	0	4	2	1	1	57	0	0	0	4	130
Apprch %	0	100	0	57.1	28.6	14.3	1.7	98.3	0	0	0	100	
Total %	0	46.9	0	3.1	1.5	0.8	0.8	43.8	0	0	0	3.1	

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	10	0	10	0	0	**1**	1	0	9	0	9	0	0	**1**	**1**	21
04:15 PM	0	5	0	5	**1**	**1**	0	**2**	0	**11**	0	**11**	0	0	0	0	18
04:30 PM	0	**12**	0	**12**	1	0	0	1	0	8	0	8	0	0	1	1	**22**
04:45 PM	0	7	0	7	0	0	0	0	0	11	0	11	0	0	0	0	18
Total Volume	0	34	0	34	2	1	1	4	0	39	0	39	0	0	2	2	79
% App. Total	0	100	0		50	25	25		0	100	0		0	0	100		
PHF	.000	.708	.000	.708	.500	.250	.250	.500	.000	.886	.000	.886	.000	.000	.500	.500	.898

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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N/S: Broadway (Route 138)
E/W: Carver Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- HHH
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	6
Total	0	0	0	6	0	0	0	0	0	0	0	0	0	0	1	1	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	3
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	2	6
Grand Total	0	1	0	6	0	0	1	0	0	0	0	0	0	2	1	3	14
Apprch %	0	14.3	0	85.7	0	0	100	0	0	0	0	0	0	33.3	16.7	50	
Total %	0	7.1	0	42.9	0	0	7.1	0	0	0	0	0	0	14.3	7.1	21.4	

	Broadway (Route 138) From North					Carver Street From East					Broadway (Route 138) From South					Carver Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	**5**	**5**	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	**6**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	2
Total Volume	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	9
% App. Total	0	0	0	100		0	0	0	0		0	0	0	0		0	25	25	50		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250	.500	.375

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N/S: Broadway (Route 138)
E/W: Carver Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- HHH
Site Code : 10111.31
Start Date : 9/18/2008
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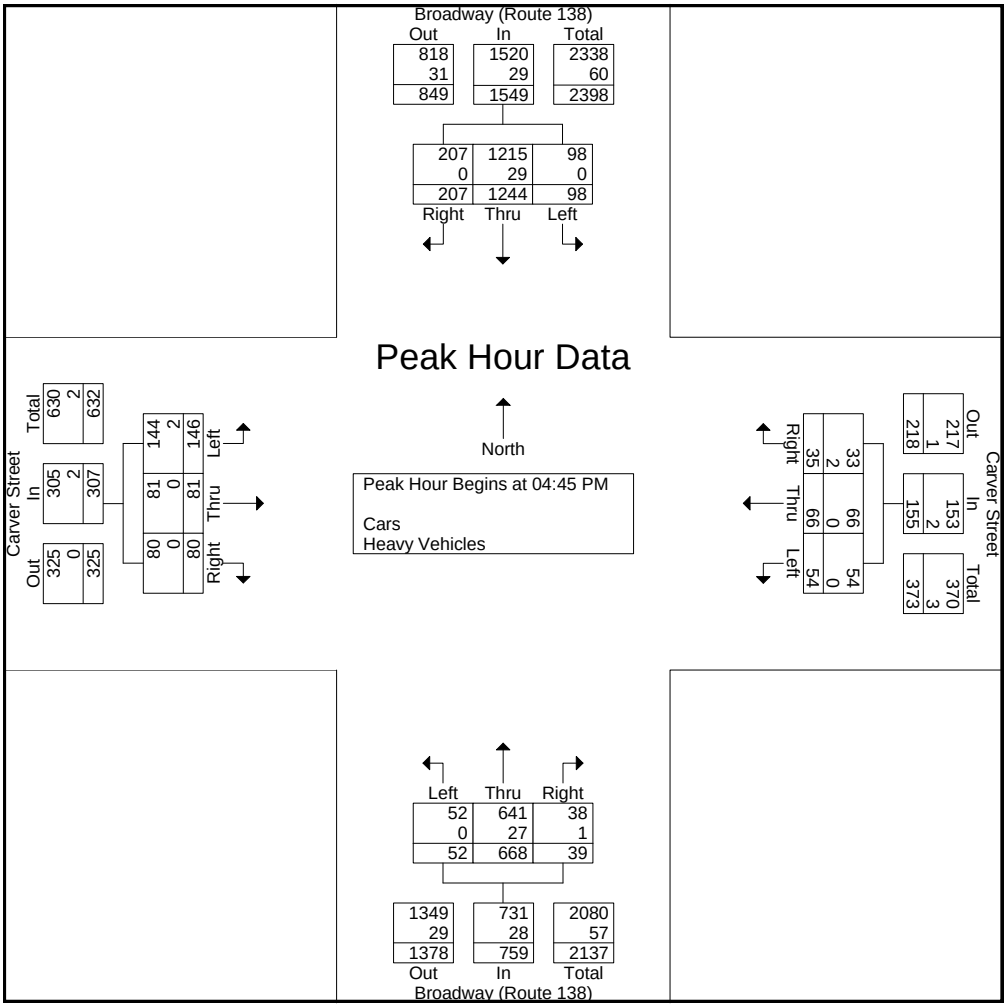
	Broadway (Route 138) From North				Carver Street From East				Broadway (Route 138) From South				Carver Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**75**	286	23	384	6	15	13	34	3	156	13	172	20	**23**	**40**	**83**	673
05:00 PM	37	306	**32**	375	8	18	15	41	8	**187**	5	200	**24**	22	30	76	692
05:15 PM	53	**326**	16	**395**	8	**22**	**19**	**49**	**22**	170	**23**	**215**	12	16	39	67	**726**
05:30 PM	42	326	27	395	**13**	11	7	31	6	155	11	172	24	20	37	81	679
Total Volume	207	1244	98	1549	35	66	54	155	39	668	52	759	80	81	146	307	2770
% App. Total	13.4	80.3	6.3		22.6	42.6	34.8		5.1	88	6.9		26.1	26.4	47.6		
PHF	.690	.954	.766	.980	.673	.750	.711	.791	.443	.893	.565	.883	.833	.880	.913	.925	.954
Cars	207	1215	98	1520	33	66	54	153	38	641	52	731	80	81	144	305	2709
% Cars	100	97.7	100	98.1	94.3	100	100	98.7	97.4	96.0	100	96.3	100	100	98.6	99.3	97.8
Heavy Vehicles	0	29	0	29	2	0	0	2	1	27	0	28	0	0	2	2	61
% Heavy Vehicles	0	2.3	0	1.9	5.7	0	0	1.3	2.6	4.0	0	3.7	0	0	1.4	0.7	2.2



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N/S: Broadway (Route 138)
E/W: Center Street/ Broadway Gardens
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- J
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			Center Street From East			Broadway (Route 138) From South			Broadway Gardens From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	85	14	30	0	2	8	269	0	0	0	0	408
07:15 AM	0	104	23	34	0	5	4	255	2	0	0	0	427
07:30 AM	0	110	18	30	0	5	12	278	0	0	0	0	453
07:45 AM	1	113	31	36	0	5	12	244	0	0	0	0	442
Total	1	412	86	130	0	17	36	1046	2	0	0	0	1730
08:00 AM	0	118	11	32	0	4	5	219	0	0	0	0	389
08:15 AM	1	124	17	25	0	5	3	180	1	0	0	0	356
08:30 AM	0	128	17	29	0	7	6	180	0	0	0	1	368
08:45 AM	0	129	20	50	0	5	3	180	1	0	0	1	389
Total	1	499	65	136	0	21	17	759	2	0	0	2	1502
Grand Total	2	911	151	266	0	38	53	1805	4	0	0	2	3232
Apprch %	0.2	85.6	14.2	87.5	0	12.5	2.8	96.9	0.2	0	0	100	
Total %	0.1	28.2	4.7	8.2	0	1.2	1.6	55.8	0.1	0	0	0.1	
Cars	2	821	136	259	0	34	48	1703	2	0	0	2	3007
% Cars	100	90.1	90.1	97.4	0	89.5	90.6	94.3	50	0	0	100	93
Heavy Vehicles	0	90	15	7	0	4	5	102	2	0	0	0	225
% Heavy Vehicles	0	9.9	9.9	2.6	0	10.5	9.4	5.7	50	0	0	0	7

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	85	14	99	30	0	2	32	8	269	0	277	0	0	0	0	408
07:15 AM	0	104	23	127	34	0	**5**	39	4	255	**2**	261	0	0	0	0	427
07:30 AM	0	110	18	128	30	0	5	35	**12**	**278**	0	**290**	0	0	0	0	**453**
07:45 AM	**1**	**113**	**31**	**145**	**36**	0	5	**41**	12	244	0	256	0	0	0	0	442
Total Volume	1	412	86	499	130	0	17	147	36	1046	2	1084	0	0	0	0	1730
% App. Total	0.2	82.6	17.2		88.4	0	11.6		3.3	96.5	0.2		0	0	0		
PHF	.250	.912	.694	.860	.903	.000	.850	.896	.750	.941	.250	.934	.000	.000	.000	.000	.955
Cars	1	379	77	457	127	0	16	143	34	1003	1	1038	0	0	0	0	1638
% Cars	100	92.0	89.5	91.6	97.7	0	94.1	97.3	94.4	95.9	50.0	95.8	0	0	0	0	94.7
Heavy Vehicles	0	33	9	42	3	0	1	4	2	43	1	46	0	0	0	0	92
% Heavy Vehicles	0	8.0	10.5	8.4	2.3	0	5.9	2.7	5.6	4.1	50.0	4.2	0	0	0	0	5.3

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E/W: Center Street/ Broadway Gardens
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- J
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			Center Street From East			Broadway (Route 138) From South			Broadway Gardens From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	74	12	30	0	2	8	252	0	0	0	0	378
07:15 AM	0	101	20	33	0	5	3	241	1	0	0	0	404
07:30 AM	0	101	16	29	0	4	12	269	0	0	0	0	431
07:45 AM	1	103	29	35	0	5	11	241	0	0	0	0	425
Total	1	379	77	127	0	16	34	1003	1	0	0	0	1638
08:00 AM	0	106	9	32	0	3	5	209	0	0	0	0	364
08:15 AM	1	104	14	24	0	4	2	170	1	0	0	0	320
08:30 AM	0	113	17	28	0	6	4	157	0	0	0	1	326
08:45 AM	0	119	19	48	0	5	3	164	0	0	0	1	359
Total	1	442	59	132	0	18	14	700	1	0	0	2	1369
Grand Total	2	821	136	259	0	34	48	1703	2	0	0	2	3007
Apprch %	0.2	85.6	14.2	88.4	0	11.6	2.7	97.1	0.1	0	0	100	
Total %	0.1	27.3	4.5	8.6	0	1.1	1.6	56.6	0.1	0	0	0.1	

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	74	12	86	30	0	2	32	8	252	0	260	0	0	0	0	378
07:15 AM	0	101	20	121	33	0	**5**	38	3	241	**1**	245	0	0	0	0	404
07:30 AM	0	101	16	117	29	0	4	33	**12**	**269**	0	**281**	0	0	0	0	**431**
07:45 AM	**1**	**103**	**29**	**133**	**35**	0	5	**40**	11	241	0	252	0	0	0	0	425
Total Volume	1	379	77	457	127	0	16	143	34	1003	1	1038	0	0	0	0	1638
% App. Total	0.2	82.9	16.8		88.8	0	11.2		3.3	96.6	0.1		0	0	0		
PHF	.250	.920	.664	.859	.907	.000	.800	.894	.708	.932	.250	.923	.000	.000	.000	.000	.950

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E/W: Center Street/ Broadway Gardens
City, State: Raynham, MA
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File Name : 81676L- J
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Center Street From East			Broadway (Route 138) From South			Broadway Gardens From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	11	2	0	0	0	0	17	0	0	0	0	30
07:15 AM	0	3	3	1	0	0	1	14	1	0	0	0	23
07:30 AM	0	9	2	1	0	1	0	9	0	0	0	0	22
07:45 AM	0	10	2	1	0	0	1	3	0	0	0	0	17
Total	0	33	9	3	0	1	2	43	1	0	0	0	92
08:00 AM	0	12	2	0	0	1	0	10	0	0	0	0	25
08:15 AM	0	20	3	1	0	1	1	10	0	0	0	0	36
08:30 AM	0	15	0	1	0	1	2	23	0	0	0	0	42
08:45 AM	0	10	1	2	0	0	0	16	1	0	0	0	30
Total	0	57	6	4	0	3	3	59	1	0	0	0	133
Grand Total	0	90	15	7	0	4	5	102	2	0	0	0	225
Apprch %	0	85.7	14.3	63.6	0	36.4	4.6	93.6	1.8	0	0	0	
Total %	0	40	6.7	3.1	0	1.8	2.2	45.3	0.9	0	0	0	

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	9	2	11	**1**	0	**1**	**2**	0	9	0	9	0	0	0	0	22
07:45 AM	0	10	2	12	1	0	0	1	**1**	3	0	4	0	0	0	0	17
08:00 AM	0	12	2	14	0	0	1	1	0	**10**	0	10	0	0	0	0	25
08:15 AM	0	**20**	**3**	**23**	1	0	1	2	1	10	0	**11**	0	0	0	0	**36**
Total Volume	0	51	9	60	3	0	3	6	2	32	0	34	0	0	0	0	100
% App. Total	0	85	15		50	0	50		5.9	94.1	0		0	0	0		
PHF	.000	.638	.750	.652	.750	.000	.750	.750	.500	.800	.000	.773	.000	.000	.000	.000	.694

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City, State: Raynham, MA
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File Name : 81676L- J
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

	Broadway (Route 138) From North					Center Street From East					Broadway (Route 138) From South					Broadway Gardens From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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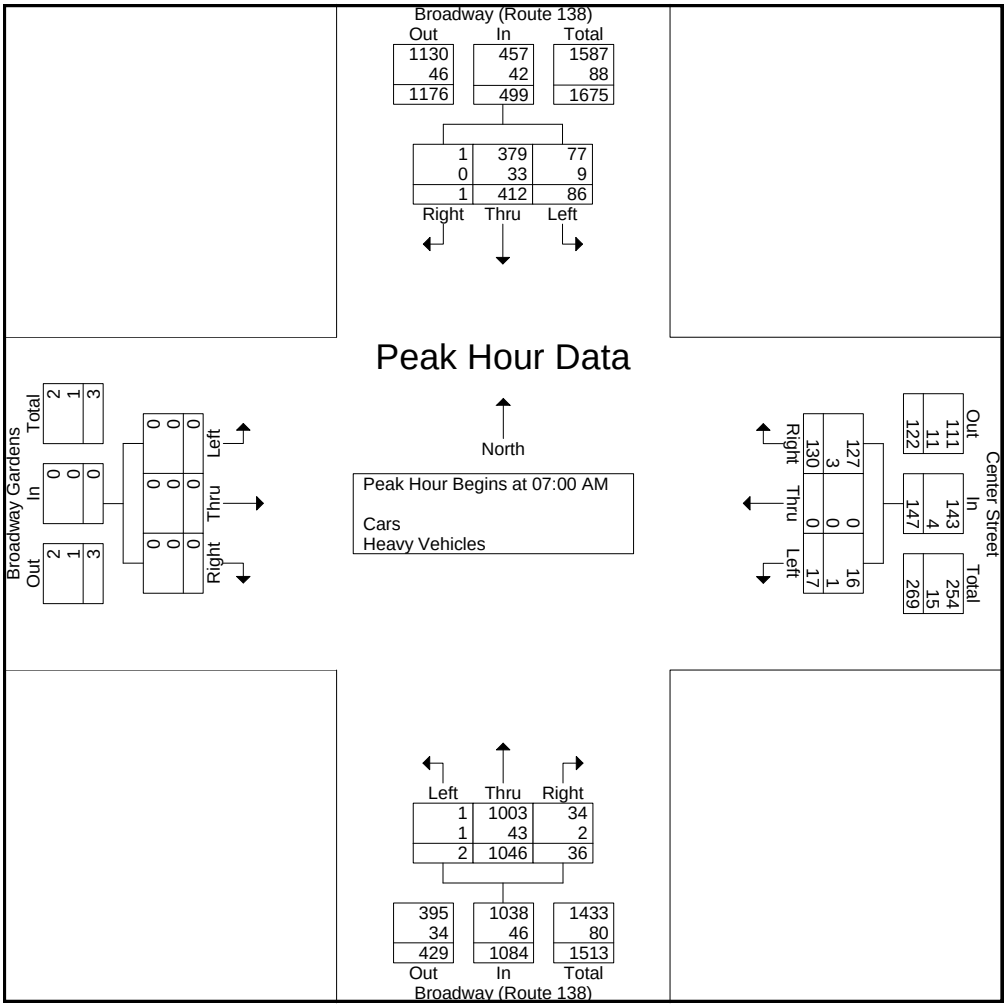
E/W: Center Street/ Broadway Gardens
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- J
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	85	14	99	30	0	2	32	8	269	0	277	0	0	0	0	408
07:15 AM	0	104	23	127	34	0	**5**	39	4	255	**2**	261	0	0	0	0	427
07:30 AM	0	110	18	128	30	0	5	35	**12**	**278**	0	**290**	0	0	0	0	**453**
07:45 AM	**1**	**113**	**31**	**145**	**36**	0	5	**41**	12	244	0	256	0	0	0	0	442
Total Volume	1	412	86	499	130	0	17	147	36	1046	2	1084	0	0	0	0	1730
% App. Total	0.2	82.6	17.2		88.4	0	11.6		3.3	96.5	0.2		0	0	0		
PHF	.250	.912	.694	.860	.903	.000	.850	.896	.750	.941	.250	.934	.000	.000	.000	.000	.955
Cars	1	379	77	457	127	0	16	143	34	1003	1	1038	0	0	0	0	1638
% Cars	100	92.0	89.5	91.6	97.7	0	94.1	97.3	94.4	95.9	50.0	95.8	0	0	0	0	94.7
Heavy Vehicles	0	33	9	42	3	0	1	4	2	43	1	46	0	0	0	0	92
% Heavy Vehicles	0	8.0	10.5	8.4	2.3	0	5.9	2.7	5.6	4.1	50.0	4.2	0	0	0	0	5.3



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N/S: Broadway (Route 138)
E/W: Center Street/ Broadway Gardens
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- JJJ
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North			Center Street From East			Broadway (Route 138) From South			Broadway Gardens From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	230	44	23	0	10	15	167	0	0	0	0	489
04:15 PM	0	248	63	29	0	8	10	136	0	0	0	0	494
04:30 PM	0	267	62	19	0	6	12	173	0	0	0	0	539
04:45 PM	0	283	61	23	0	5	14	173	0	0	0	0	559
Total	0	1028	230	94	0	29	51	649	0	0	0	0	2081
05:00 PM	0	291	72	25	0	7	8	173	0	0	0	1	577
05:15 PM	0	276	79	30	0	8	7	189	0	0	0	0	589
05:30 PM	0	276	80	20	0	7	7	137	0	2	0	0	529
05:45 PM	0	243	68	20	0	3	7	143	0	0	0	1	485
Total	0	1086	299	95	0	25	29	642	0	2	0	2	2180
Grand Total	0	2114	529	189	0	54	80	1291	0	2	0	2	4261
Apprch %	0	80	20	77.8	0	22.2	5.8	94.2	0	50	0	50	
Total %	0	49.6	12.4	4.4	0	1.3	1.9	30.3	0	0	0	0	
Cars	0	2062	515	176	0	51	73	1249	0	2	0	2	4130
% Cars	0	97.5	97.4	93.1	0	94.4	91.2	96.7	0	100	0	100	96.9
Heavy Vehicles	0	52	14	13	0	3	7	42	0	0	0	0	131
% Heavy Vehicles	0	2.5	2.6	6.9	0	5.6	8.8	3.3	0	0	0	0	3.1

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	267	62	329	19	0	6	25	12	173	0	185	0	0	0	0	539
04:45 PM	0	283	61	344	23	0	5	28	**14**	173	0	187	0	0	0	0	559
05:00 PM	0	**291**	72	**363**	25	0	7	32	8	173	0	181	0	0	**1**	**1**	577
05:15 PM	0	276	**79**	355	**30**	0	**8**	**38**	7	**189**	0	**196**	0	0	0	0	**589**
Total Volume	0	1117	274	1391	97	0	26	123	41	708	0	749	0	0	1	1	2264
% App. Total	0	80.3	19.7		78.9	0	21.1		5.5	94.5	0		0	0	100		
PHF	.000	.960	.867	.958	.808	.000	.813	.809	.732	.937	.000	.955	.000	.000	.250	.250	.961
Cars	0	1090	267	1357	91	0	24	115	37	685	0	722	0	0	1	1	2195
% Cars	0	97.6	97.4	97.6	93.8	0	92.3	93.5	90.2	96.8	0	96.4	0	0	100	100	97.0
Heavy Vehicles	0	27	7	34	6	0	2	8	4	23	0	27	0	0	0	0	69
% Heavy Vehicles	0	2.4	2.6	2.4	6.2	0	7.7	6.5	9.8	3.2	0	3.6	0	0	0	0	3.0

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N/S: Broadway (Route 138)
E/W: Center Street/ Broadway Gardens
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- JJJ
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North			Center Street From East			Broadway (Route 138) From South			Broadway Gardens From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	221	41	19	0	10	13	162	0	0	0	0	466
04:15 PM	0	242	62	26	0	8	10	126	0	0	0	0	474
04:30 PM	0	260	58	19	0	5	11	167	0	0	0	0	520
04:45 PM	0	277	61	20	0	4	12	164	0	0	0	0	538
Total	0	1000	222	84	0	27	46	619	0	0	0	0	1998
05:00 PM	0	284	70	23	0	7	8	168	0	0	0	1	561
05:15 PM	0	269	78	29	0	8	6	186	0	0	0	0	576
05:30 PM	0	272	78	20	0	6	7	136	0	2	0	0	521
05:45 PM	0	237	67	20	0	3	6	140	0	0	0	1	474
Total	0	1062	293	92	0	24	27	630	0	2	0	2	2132
Grand Total	0	2062	515	176	0	51	73	1249	0	2	0	2	4130
Apprch %	0	80	20	77.5	0	22.5	5.5	94.5	0	50	0	50	
Total %	0	49.9	12.5	4.3	0	1.2	1.8	30.2	0	0	0	0	

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	277	61	338	20	0	4	24	**12**	164	0	176	0	0	0	0	538
05:00 PM	0	**284**	70	**354**	23	0	7	30	8	168	0	176	0	0	**1**	1	561
05:15 PM	0	269	**78**	347	**29**	0	**8**	**37**	6	**186**	0	**192**	0	0	0	0	**576**
05:30 PM	0	272	78	350	20	0	6	26	7	136	0	143	**2**	0	0	**2**	521
Total Volume	0	1102	287	1389	92	0	25	117	33	654	0	687	2	0	1	3	2196
% App. Total	0	79.3	20.7		78.6	0	21.4		4.8	95.2	0		66.7	0	33.3		
PHF	.000	.970	.920	.981	.793	.000	.781	.791	.688	.879	.000	.895	.250	.000	.250	.375	.953

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City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- JJJ
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North			Center Street From East			Broadway (Route 138) From South			Broadway Gardens From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	9	3	4	0	0	2	5	0	0	0	0	23
04:15 PM	0	6	1	3	0	0	0	10	0	0	0	0	20
04:30 PM	0	7	4	0	0	1	1	6	0	0	0	0	19
04:45 PM	0	6	0	3	0	1	2	9	0	0	0	0	21
Total	0	28	8	10	0	2	5	30	0	0	0	0	83
05:00 PM	0	7	2	2	0	0	0	5	0	0	0	0	16
05:15 PM	0	7	1	1	0	0	1	3	0	0	0	0	13
05:30 PM	0	4	2	0	0	1	0	1	0	0	0	0	8
05:45 PM	0	6	1	0	0	0	1	3	0	0	0	0	11
Total	0	24	6	3	0	1	2	12	0	0	0	0	48
Grand Total	0	52	14	13	0	3	7	42	0	0	0	0	131
Apprch %	0	78.8	21.2	81.2	0	18.8	14.3	85.7	0	0	0	0	
Total %	0	39.7	10.7	9.9	0	2.3	5.3	32.1	0	0	0	0	

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**9**	3	**12**	**4**	0	0	**4**	**2**	5	0	7	0	0	0	0	**23**
04:15 PM	0	6	1	7	3	0	0	3	0	**10**	0	10	0	0	0	0	20
04:30 PM	0	7	**4**	11	0	0	**1**	1	1	6	0	7	0	0	0	0	19
04:45 PM	0	6	0	6	3	0	1	4	2	9	0	**11**	0	0	0	0	21
Total Volume	0	28	8	36	10	0	2	12	5	30	0	35	0	0	0	0	83
% App. Total	0	77.8	22.2		83.3	0	16.7		14.3	85.7	0		0	0	0		
PHF	.000	.778	.500	.750	.625	.000	.500	.750	.625	.750	.000	.795	.000	.000	.000	.000	.902

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City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- JJJ
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Apprch %	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
Total %	0	66.7	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	

	Broadway (Route 138) From North					Center Street From East					Broadway (Route 138) From South					Broadway Gardens From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	**2**	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Total Volume	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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N/S: Broadway (Route 138)
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File Name : 81676L- JJJ
Site Code : 10111.31
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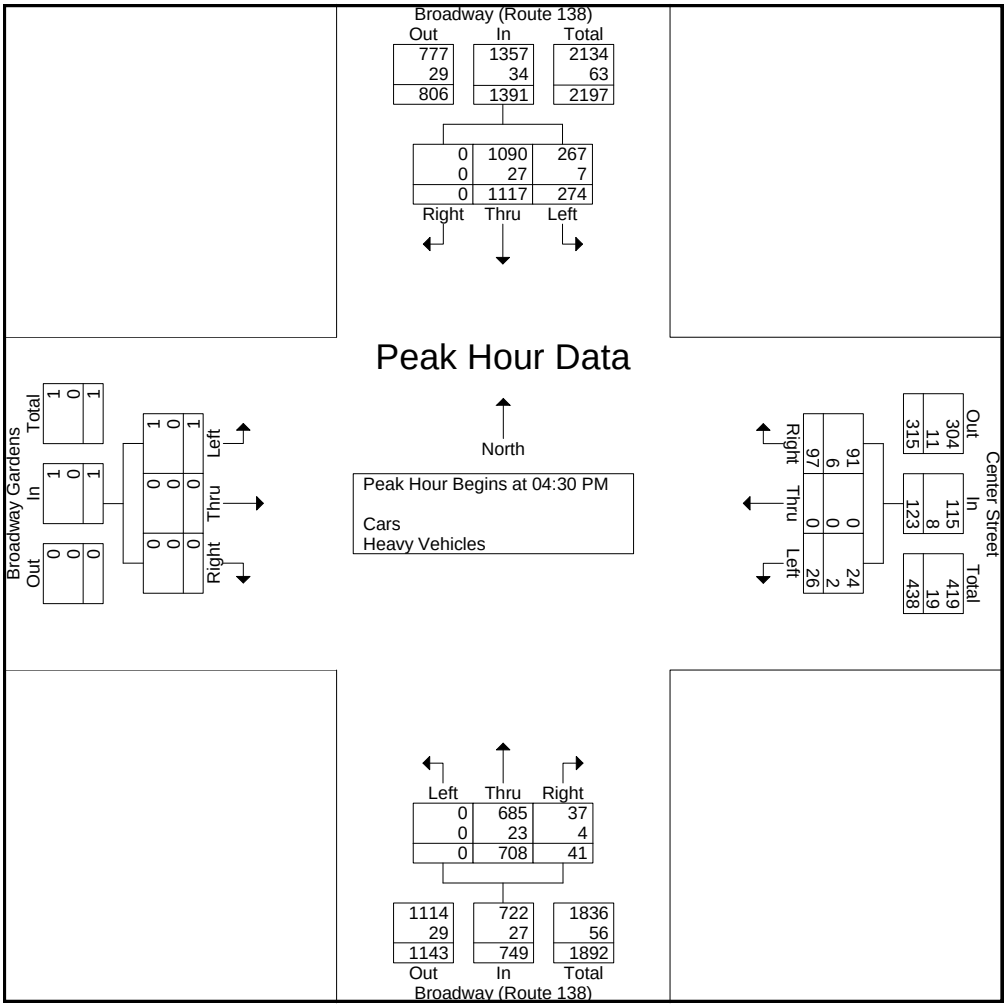
Page No : 1

	Broadway (Route 138) From North				Center Street From East				Broadway (Route 138) From South				Broadway Gardens From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	267	62	329	19	0	6	25	12	173	0	185	0	0	0	0	539
04:45 PM	0	283	61	344	23	0	5	28	**14**	173	0	187	0	0	0	0	559
05:00 PM	0	**291**	72	**363**	25	0	7	32	8	173	0	181	0	0	**1**	**1**	577
05:15 PM	0	276	**79**	355	**30**	0	**8**	**38**	7	**189**	0	**196**	0	0	0	0	**589**
Total Volume	0	1117	274	1391	97	0	26	123	41	708	0	749	0	0	1	1	2264
% App. Total	0	80.3	19.7		78.9	0	21.1		5.5	94.5	0		0	0	100		
PHF	.000	.960	.867	.958	.808	.000	.813	.809	.732	.937	.000	.955	.000	.000	.250	.250	.961
Cars	0	1090	267	1357	91	0	24	115	37	685	0	722	0	0	1	1	2195
% Cars	0	97.6	97.4	97.6	93.8	0	92.3	93.5	90.2	96.8	0	96.4	0	0	100	100	97.0
Heavy Vehicles	0	27	7	34	6	0	2	8	4	23	0	27	0	0	0	0	69
% Heavy Vehicles	0	2.4	2.6	2.4	6.2	0	7.7	6.5	9.8	3.2	0	3.6	0	0	0	0	3.0



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N/S: Broadway (Route 138)
E: Britton Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- K
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North		Britton Street From East		Broadway (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	92	0	3	6	3	276	380
07:15 AM	105	0	4	10	1	265	385
07:30 AM	111	1	10	5	3	273	403
07:45 AM	107	1	8	5	6	241	368
Total	415	2	25	26	13	1055	1536
08:00 AM	124	1	6	4	6	203	344
08:15 AM	119	3	8	5	11	168	314
08:30 AM	142	2	9	7	3	189	352
08:45 AM	122	4	3	3	8	176	316
Total	507	10	26	19	28	736	1326
Grand Total	922	12	51	45	41	1791	2862
Apprch %	98.7	1.3	53.1	46.9	2.2	97.8	
Total %	32.2	0.4	1.8	1.6	1.4	62.6	
Cars	837	12	49	43	40	1686	2667
% Cars	90.8	100	96.1	95.6	97.6	94.1	93.2
Heavy Vehicles	85	0	2	2	1	105	195
% Heavy Vehicles	9.2	0	3.9	4.4	2.4	5.9	6.8

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	92	0	92	3	6	9	3	**276**	**279**	380
07:15 AM	105	0	105	4	**10**	14	1	265	266	385
07:30 AM	**111**	**1**	**112**	**10**	5	**15**	3	273	276	**403**
07:45 AM	**107**	**1**	**108**	**8**	**5**	**13**	**6**	241	247	368
Total Volume	415	2	417	25	26	51	13	1055	1068	1536
% App. Total	99.5	0.5		49	51		1.2	98.8		
PHF	.935	.500	.931	.625	.650	.850	.542	.956	.957	.953
Cars	380	2	382	25	25	50	12	1012	1024	1456
% Cars	91.6	100	91.6	100	96.2	98.0	92.3	95.9	95.9	94.8
Heavy Vehicles	35	0	35	0	1	1	1	43	44	80
% Heavy Vehicles	8.4	0	8.4	0	3.8	2.0	7.7	4.1	4.1	5.2

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File Name : 81676L- K
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Groups Printed- Cars

	Broadway (Route 138) From North		Britton Street From East		Broadway (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	80	0	3	6	3	261	353
07:15 AM	103	0	4	9	1	249	366
07:30 AM	102	1	10	5	3	264	385
07:45 AM	95	1	8	5	5	238	352
Total	380	2	25	25	12	1012	1456
08:00 AM	114	1	5	4	6	193	323
08:15 AM	100	3	8	5	11	157	284
08:30 AM	127	2	8	6	3	159	305
08:45 AM	116	4	3	3	8	165	299
Total	457	10	24	18	28	674	1211
Grand Total	837	12	49	43	40	1686	2667
Apprch %	98.6	1.4	53.3	46.7	2.3	97.7	
Total %	31.4	0.4	1.8	1.6	1.5	63.2	

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	80	0	80	3	6	9	3	261	264	353
07:15 AM	**103**	0	**103**	4	**9**	13	1	249	250	366
07:30 AM	102	**1**	103	**10**	5	**15**	3	**264**	**267**	**385**
07:45 AM	**95**	**1**	**96**	**8**	**5**	**13**	**5**	238	243	352
Total Volume	380	2	382	25	25	50	12	1012	1024	1456
% App. Total	99.5	0.5		50	50		1.2	98.8		
PHF	.922	.500	.927	.625	.694	.833	.600	.958	.959	.945

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N/S: Broadway (Route 138)
E: Britton Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- K
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North		Britton Street From East		Broadway (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	12	0	0	0	0	15	27
07:15 AM	2	0	0	1	0	16	19
07:30 AM	9	0	0	0	0	9	18
07:45 AM	12	0	0	0	1	3	16
Total	35	0	0	1	1	43	80
08:00 AM	10	0	1	0	0	10	21
08:15 AM	19	0	0	0	0	11	30
08:30 AM	15	0	1	1	0	30	47
08:45 AM	6	0	0	0	0	11	17
Total	50	0	2	1	0	62	115
Grand Total	85	0	2	2	1	105	195
Apprch %	100	0	50	50	0.9	99.1	
Total %	43.6	0	1	1	0.5	53.8	

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	10	0	10	**1**	0	1	0	10	10	21
08:15 AM	**19**	0	**19**	0	0	0	0	11	11	30
08:30 AM	15	0	15	1	**1**	**2**	0	**30**	**30**	**47**
08:45 AM	**6**	**0**	**6**	**0**	**0**	**0**	**0**	**11**	**11**	**17**
Total Volume	**50**	**0**	**50**	**2**	**1**	**3**	**0**	**62**	**62**	**115**
% App. Total	**100**	**0**		**66.7**	**33.3**		**0**	**100**		
PHF	**.658**	**.000**	**.658**	**.500**	**.250**	**.375**	**.000**	**.517**	**.517**	**.612**

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File Name : 81676L- K
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	Broadway (Route 138) From North				Britton Street From East				Broadway (Route 138) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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File Name : 81676L- K
Site Code : 10111.31
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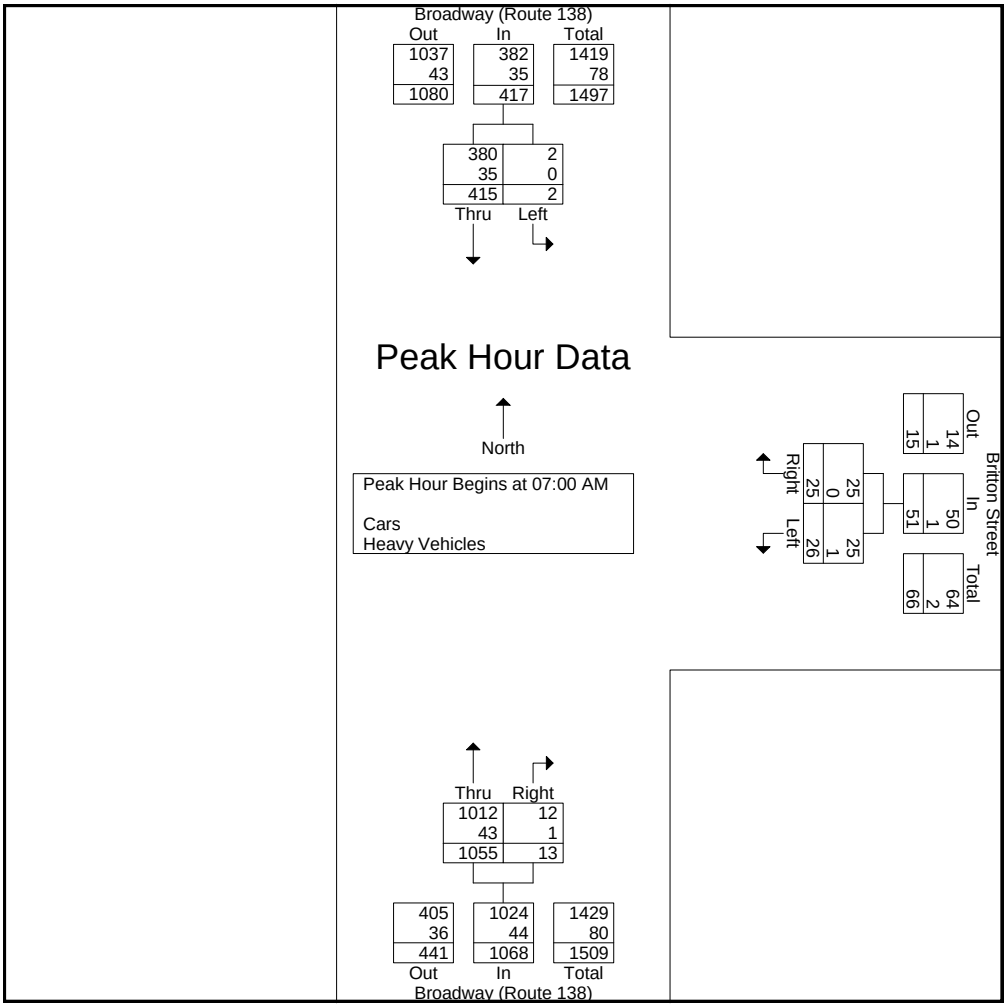
	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	92	0	92	3	6	9	3	**276**	**279**	380
07:15 AM	105	0	105	4	**10**	14	1	265	266	385
07:30 AM	**111**	**1**	**112**	**10**	5	**15**	3	273	276	**403**
07:45 AM	**107**	**1**	**108**	**8**	**5**	**13**	**6**	241	247	368
Total Volume	415	2	417	25	26	51	13	1055	1068	1536
% App. Total	99.5	0.5		49	51		1.2	98.8		
PHF	.935	.500	.931	.625	.650	.850	.542	.956	.957	.953
Cars	380	2	382	25	25	50	12	1012	1024	1456
% Cars	91.6	100	91.6	100	96.2	98.0	92.3	95.9	95.9	94.8
Heavy Vehicles	35	0	35	0	1	1	1	43	44	80
% Heavy Vehicles	8.4	0	8.4	0	3.8	2.0	7.7	4.1	4.1	5.2



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Client: VHB/ J. Quitter

File Name : 81676L- KKK
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North		Britton Street From East		Broadway (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	251	2	7	10	7	170	447
04:15 PM	272	2	1	5	9	144	433
04:30 PM	269	5	4	10	12	175	475
04:45 PM	277	6	7	10	7	178	485
Total	1069	15	19	35	35	667	1840
05:00 PM	295	6	6	7	9	172	495
05:15 PM	291	5	3	3	6	206	514
05:30 PM	279	6	3	12	5	137	442
05:45 PM	253	6	1	6	7	150	423
Total	1118	23	13	28	27	665	1874
Grand Total	2187	38	32	63	62	1332	3714
Apprch %	98.3	1.7	33.7	66.3	4.4	95.6	
Total %	58.9	1	0.9	1.7	1.7	35.9	
Cars	2134	37	30	62	62	1289	3614
% Cars	97.6	97.4	93.8	98.4	100	96.8	97.3
Heavy Vehicles	53	1	2	1	0	43	100
% Heavy Vehicles	2.4	2.6	6.2	1.6	0	3.2	2.7

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	269	5	274	4	**10**	14	**12**	175	187	475
04:45 PM	277	**6**	283	**7**	10	**17**	7	178	185	485
05:00 PM	**295**	6	**301**	6	7	13	9	172	181	495
05:15 PM	291	5	296	3	3	6	6	**206**	**212**	**514**
Total Volume	**1132**	**22**	**1154**	**20**	**30**	**50**	**34**	**731**	**765**	**1969**
% App. Total	**98.1**	**1.9**		**40**	**60**		**4.4**	**95.6**		
PHF	**.959**	**.917**	**.958**	**.714**	**.750**	**.735**	**.708**	**.887**	**.902**	**.958**
Cars	**1105**	**21**	**1126**	**19**	**29**	**48**	**34**	**708**	**742**	**1916**
% Cars	**97.6**	**95.5**	**97.6**	**95.0**	**96.7**	**96.0**	**100**	**96.9**	**97.0**	**97.3**
Heavy Vehicles	**27**	**1**	**28**	**1**	**1**	**2**	**0**	**23**	**23**	**53**
% Heavy Vehicles	**2.4**	**4.5**	**2.4**	**5.0**	**3.3**	**4.0**	**0**	**3.1**	**3.0**	**2.7**

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File Name : 81676L- KKK
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Groups Printed- Cars

	Broadway (Route 138) From North		Britton Street From East		Broadway (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	242	2	6	10	7	165	432
04:15 PM	266	2	1	5	9	133	416
04:30 PM	262	5	4	9	12	169	461
04:45 PM	270	5	7	10	7	169	468
Total	1040	14	18	34	35	636	1777
05:00 PM	288	6	5	7	9	168	483
05:15 PM	285	5	3	3	6	202	504
05:30 PM	274	6	3	12	5	136	436
05:45 PM	247	6	1	6	7	147	414
Total	1094	23	12	28	27	653	1837
Grand Total	2134	37	30	62	62	1289	3614
Apprch %	98.3	1.7	32.6	67.4	4.6	95.4	
Total %	59	1	0.8	1.7	1.7	35.7	

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	262	5	267	4	9	13	**12**	169	181	461
04:45 PM	270	5	275	**7**	**10**	**17**	7	169	176	468
05:00 PM	**288**	**6**	**294**	5	7	12	9	168	177	483
05:15 PM	285	5	290	3	3	6	6	**202**	**208**	**504**
Total Volume	**1105**	**21**	**1126**	**19**	**29**	**48**	**34**	**708**	**742**	**1916**
% App. Total	**98.1**	**1.9**		**39.6**	**60.4**		**4.6**	**95.4**		
PHF	**.959**	**.875**	**.957**	**.679**	**.725**	**.706**	**.708**	**.876**	**.892**	**.950**

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E: Britton Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- KKK
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North		Britton Street From East		Broadway (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	9	0	1	0	0	5	15
04:15 PM	6	0	0	0	0	11	17
04:30 PM	7	0	0	1	0	6	14
04:45 PM	7	1	0	0	0	9	17
Total	29	1	1	1	0	31	63
05:00 PM	7	0	1	0	0	4	12
05:15 PM	6	0	0	0	0	4	10
05:30 PM	5	0	0	0	0	1	6
05:45 PM	6	0	0	0	0	3	9
Total	24	0	1	0	0	12	37
Grand Total	53	1	2	1	0	43	100
Apprch %	98.1	1.9	66.7	33.3	0	100	
Total %	53	1	2	1	0	43	

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**9**	0	**9**	**1**	0	**1**	0	5	5	15
04:15 PM	6	0	6	0	0	0	0	**11**	**11**	**17**
04:30 PM	**7**	**0**	**7**	**0**	**1**	1	0	6	6	14
04:45 PM	7	**1**	8	0	0	0	0	9	9	17
Total Volume	29	1	30	1	1	2	0	31	31	63
% App. Total	96.7	3.3		50	50		0	100		
PHF	.806	.250	.833	.250	.250	.500	.000	.705	.705	.926

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Client: VHB/ J. Quitter

File Name : 81676L- KKK
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	2	0	0	0	0	0	0	0	0	2
Total	2	0	0	0	0	0	0	0	0	2
Grand Total	2	0	0	0	0	1	0	0	0	3
Apprch %	100	0	0	0	0	100	0	0	0	
Total %	66.7	0	0	0	0	33.3	0	0	0	

	Broadway (Route 138) From North				Britton Street From East				Broadway (Route 138) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	**2**	0	0	**2**	0	0	0	0	0	0	0	0	**2**
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	2
% App. Total	100	0	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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Client: VHB/ J. Quitter

File Name : 81676L- KKK
Site Code : 10111.31
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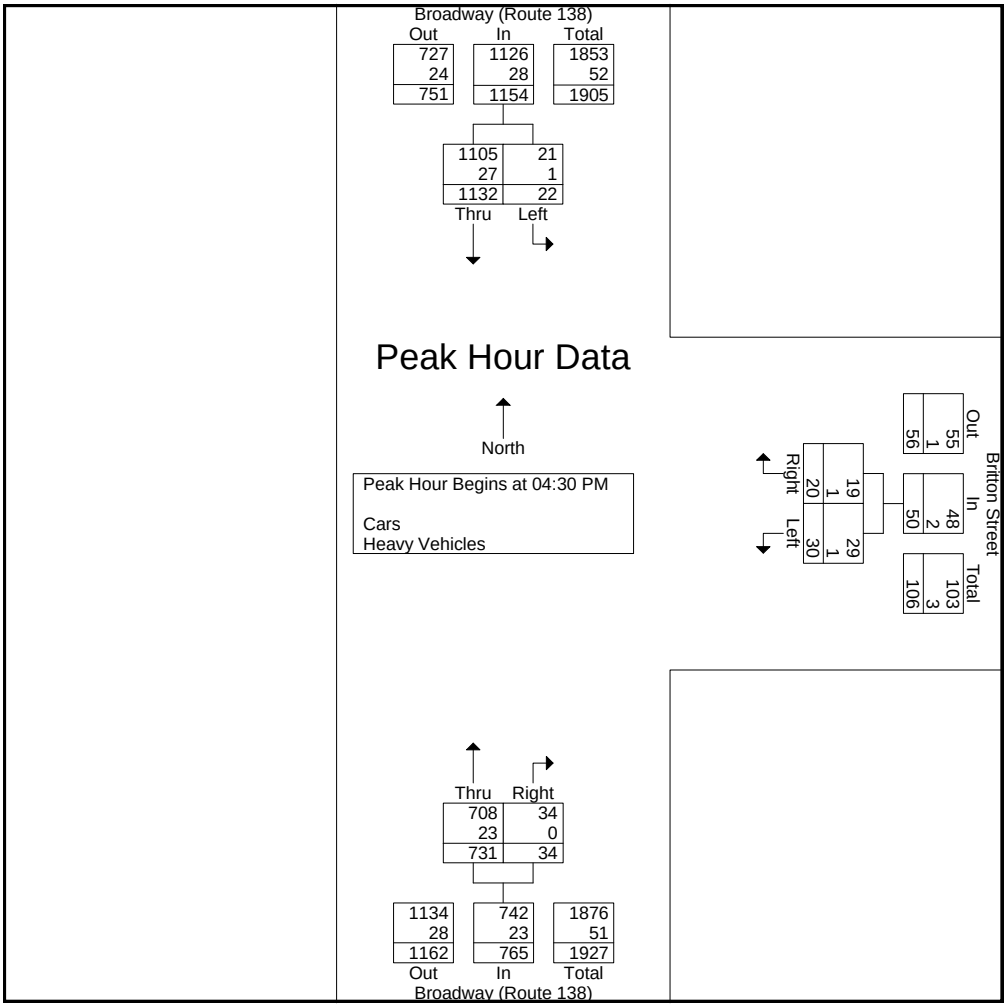
	Broadway (Route 138) From North			Britton Street From East			Broadway (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	269	5	274	4	**10**	14	**12**	175	187	475
04:45 PM	277	**6**	283	**7**	10	**17**	7	178	185	485
05:00 PM	**295**	6	**301**	6	7	13	9	172	181	495
05:15 PM	291	5	296	3	3	6	6	**206**	**212**	**514**
Total Volume	**1132**	**22**	**1154**	**20**	**30**	**50**	**34**	**731**	**765**	**1969**
% App. Total	**98.1**	**1.9**		**40**	**60**		**4.4**	**95.6**		
PHF	**.959**	**.917**	**.958**	**.714**	**.750**	**.735**	**.708**	**.887**	**.902**	**.958**
Cars	**1105**	**21**	**1126**	**19**	**29**	**48**	**34**	**708**	**742**	**1916**
% Cars	**97.6**	**95.5**	**97.6**	**95.0**	**96.7**	**96.0**	**100**	**96.9**	**97.0**	**97.3**
Heavy Vehicles	**27**	**1**	**28**	**1**	**1**	**2**	**0**	**23**	**23**	**53**
% Heavy Vehicles	**2.4**	**4.5**	**2.4**	**5.0**	**3.3**	**4.0**	**0**	**3.1**	**3.0**	**2.7**



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W: Britton Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- L
Site Code : 10111.31
Start Date : 9/18/2008
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Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North		Broadway (Route 138) From South		Britton Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	1	89	243	0	2	10	345
07:15 AM	0	117	253	0	3	3	376
07:30 AM	1	110	259	0	1	7	378
07:45 AM	1	111	230	2	0	8	352
Total	3	427	985	2	6	28	1451
08:00 AM	5	131	198	2	1	3	340
08:15 AM	2	124	158	0	2	9	295
08:30 AM	6	147	186	0	0	5	344
08:45 AM	4	121	179	0	2	4	310
Total	17	523	721	2	5	21	1289
Grand Total	20	950	1706	4	11	49	2740
Apprch %	2.1	97.9	99.8	0.2	18.3	81.7	
Total %	0.7	34.7	62.3	0.1	0.4	1.8	
Cars	16	876	1633	4	10	49	2588
% Cars	80	92.2	95.7	100	90.9	100	94.5
Heavy Vehicles	4	74	73	0	1	0	152
% Heavy Vehicles	20	7.8	4.3	0	9.1	0	5.5

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	89	90	243	0	243	2	**10**	**12**	345
07:15 AM	0	**117**	**117**	253	0	253	**3**	3	6	376
07:30 AM	1	110	111	**259**	0	**259**	1	7	8	**378**
07:45 AM	**1**	**111**	**112**	**230**	**2**	232	0	8	8	352
Total Volume	3	427	430	985	2	987	6	28	34	1451
% App. Total	0.7	99.3		99.8	0.2		17.6	82.4		
PHF	.750	.912	.919	.951	.250	.953	.500	.700	.708	.960
Cars	2	399	401	965	2	967	6	28	34	1402
% Cars	66.7	93.4	93.3	98.0	100	98.0	100	100	100	96.6
Heavy Vehicles	1	28	29	20	0	20	0	0	0	49
% Heavy Vehicles	33.3	6.6	6.7	2.0	0	2.0	0	0	0	3.4

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N/S: Broadway (Route 138)
W: Britton Street
City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- L
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North		Broadway (Route 138) From South		Britton Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	1	81	233	0	2	10	327
07:15 AM	0	116	248	0	3	3	370
07:30 AM	0	101	257	0	1	7	366
07:45 AM	1	101	227	2	0	8	339
Total	2	399	965	2	6	28	1402
08:00 AM	5	120	189	2	1	3	320
08:15 AM	1	108	150	0	1	9	269
08:30 AM	5	134	158	0	0	5	302
08:45 AM	3	115	171	0	2	4	295
Total	14	477	668	2	4	21	1186
Grand Total	16	876	1633	4	10	49	2588
Apprch %	1.8	98.2	99.8	0.2	16.9	83.1	
Total %	0.6	33.8	63.1	0.2	0.4	1.9	

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	81	82	233	0	233	2	**10**	**12**	327
07:15 AM	0	**116**	**116**	248	0	248	**3**	3	6	**370**
07:30 AM	**0**	**101**	**101**	**257**	0	**257**	1	7	8	366
07:45 AM	1	101	102	227	**2**	229	0	8	8	339
Total Volume	2	399	401	965	2	967	6	28	34	1402
% App. Total	0.5	99.5		99.8	0.2		17.6	82.4		
PHF	.500	.860	.864	.939	.250	.941	.500	.700	.708	.947

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File Name : 81676L- L
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North		Broadway (Route 138) From South		Britton Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
07:00 AM	0	8	10	0	0	0	18
07:15 AM	0	1	5	0	0	0	6
07:30 AM	1	9	2	0	0	0	12
07:45 AM	0	10	3	0	0	0	13
Total	1	28	20	0	0	0	49
08:00 AM	0	11	9	0	0	0	20
08:15 AM	1	16	8	0	1	0	26
08:30 AM	1	13	28	0	0	0	42
08:45 AM	1	6	8	0	0	0	15
Total	3	46	53	0	1	0	103
Grand Total	4	74	73	0	1	0	152
Apprch %	5.1	94.9	100	0	100	0	
Total %	2.6	48.7	48	0	0.7	0	

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	11	11	9	0	9	0	0	0	20
08:15 AM	**1**	**16**	**17**	8	0	8	**1**	0	**1**	26
08:30 AM	1	13	14	**28**	0	**28**	0	0	0	**42**
08:45 AM	**1**	**6**	**7**	**8**	**0**	**8**	**0**	**0**	**0**	**15**
Total Volume	**3**	**46**	**49**	**53**	**0**	**53**	**1**	**0**	**1**	**103**
% App. Total	**6.1**	**93.9**		**100**	**0**		**100**	**0**		
PHF	**.750**	**.719**	**.721**	**.473**	**.000**	**.473**	**.250**	**.000**	**.250**	**.613**

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Client: VHB/ J. Quitter

File Name : 81676L- L
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	1	1
Apprch %	0	0	0	0	0	0	0	0	100	
Total %	0	0	0	0	0	0	0	0	100	

	Broadway (Route 138) From North				Broadway (Route 138) From South				Britton Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	1
% App. Total	0	0	0		0	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250

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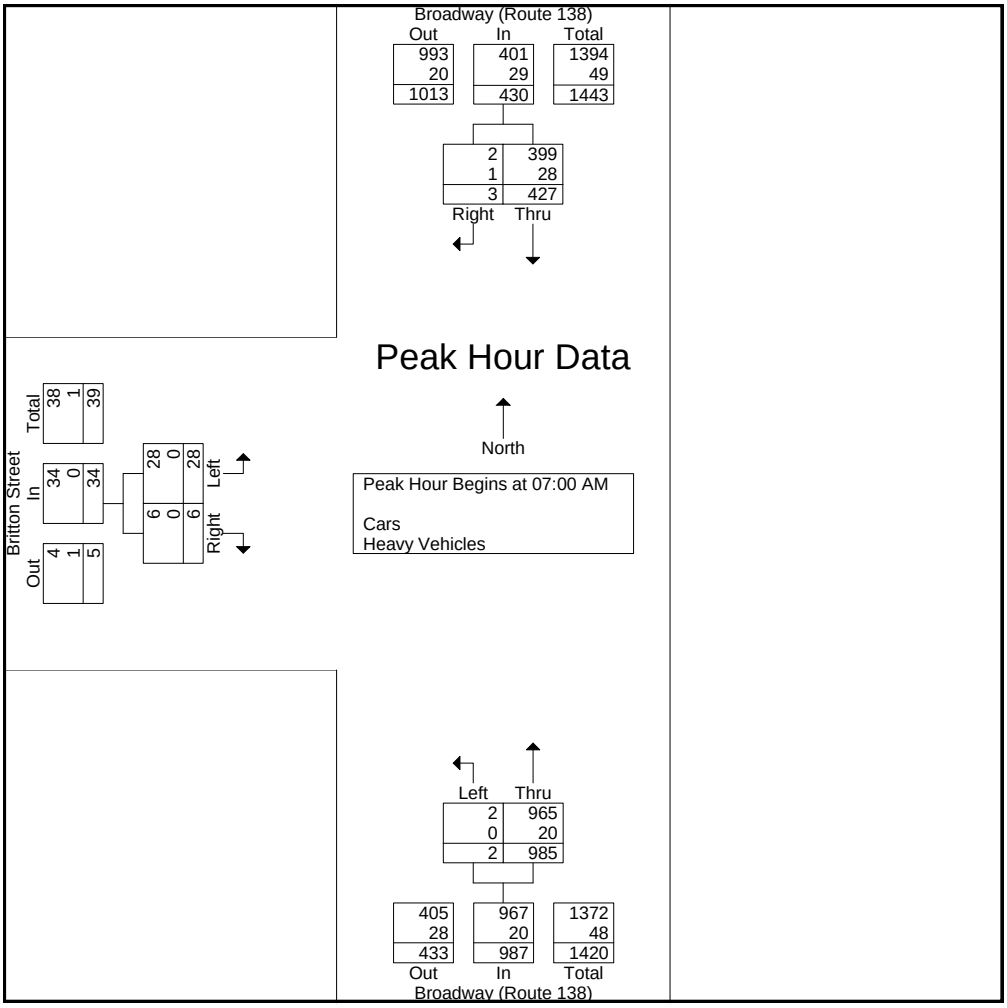
File Name : 81676L- L
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	89	90	243	0	243	2	**10**	**12**	345
07:15 AM	0	**117**	**117**	253	0	253	**3**	3	6	376
07:30 AM	1	110	111	**259**	0	**259**	1	7	8	**378**
07:45 AM	**1**	**111**	**112**	**230**	**2**	232	0	8	8	352
Total Volume	3	427	430	985	2	987	6	28	34	1451
% App. Total	0.7	99.3		99.8	0.2		17.6	82.4		
PHF	.750	.912	.919	.951	.250	.953	.500	.700	.708	.960
Cars	2	399	401	965	2	967	6	28	34	1402
% Cars	66.7	93.4	93.3	98.0	100	98.0	100	100	100	96.6
Heavy Vehicles	1	28	29	20	0	20	0	0	0	49
% Heavy Vehicles	33.3	6.6	6.7	2.0	0	2.0	0	0	0	3.4



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W: Britton Street
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Client: VHB/ J. Quitter

File Name : 81676L- LLL
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Broadway (Route 138) From North		Broadway (Route 138) From South		Britton Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	6	244	163	0	4	3	420
04:15 PM	5	252	158	2	0	3	420
04:30 PM	6	271	175	1	0	5	458
04:45 PM	6	273	179	2	1	5	466
Total	23	1040	675	5	5	16	1764
05:00 PM	8	289	171	3	1	5	477
05:15 PM	10	266	194	2	2	5	479
05:30 PM	11	273	138	0	2	2	426
05:45 PM	11	241	146	0	0	2	400
Total	40	1069	649	5	5	14	1782
Grand Total	63	2109	1324	10	10	30	3546
Apprch %	2.9	97.1	99.3	0.7	25	75	
Total %	1.8	59.5	37.3	0.3	0.3	0.8	
Cars	63	2056	1282	9	10	30	3450
% Cars	100	97.5	96.8	90	100	100	97.3
Heavy Vehicles	0	53	42	1	0	0	96
% Heavy Vehicles	0	2.5	3.2	10	0	0	2.7

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	6	271	277	175	1	176	0	**5**	5	458
04:45 PM	6	273	279	179	2	181	1	5	6	466
05:00 PM	8	**289**	**297**	171	**3**	174	1	5	6	477
05:15 PM	**10**	266	276	**194**	2	**196**	**2**	5	**7**	**479**
Total Volume	**30**	**1099**	**1129**	**719**	**8**	**727**	**4**	**20**	**24**	**1880**
% App. Total	**2.7**	**97.3**		**98.9**	**1.1**		**16.7**	**83.3**		
PHF	**.750**	**.951**	**.950**	**.927**	**.667**	**.927**	**.500**	**1.000**	**.857**	**.981**
Cars	**30**	**1072**	**1102**	**698**	**7**	**705**	**4**	**20**	**24**	**1831**
% Cars	**100**	**97.5**	**97.6**	**97.1**	**87.5**	**97.0**	**100**	**100**	**100**	**97.4**
Heavy Vehicles	**0**	**27**	**27**	**21**	**1**	**22**	**0**	**0**	**0**	**49**
% Heavy Vehicles	**0**	**2.5**	**2.4**	**2.9**	**12.5**	**3.0**	**0**	**0**	**0**	**2.6**

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City, State: Raynham, MA
Client: VHB/ J. Quitter

File Name : 81676L- LLL
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Cars

	Broadway (Route 138) From North		Broadway (Route 138) From South		Britton Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	6	235	157	0	4	3	405
04:15 PM	5	244	148	2	0	3	402
04:30 PM	6	262	170	0	0	5	443
04:45 PM	6	267	171	2	1	5	452
Total	23	1008	646	4	5	16	1702
05:00 PM	8	284	167	3	1	5	468
05:15 PM	10	259	190	2	2	5	468
05:30 PM	11	268	137	0	2	2	420
05:45 PM	11	237	142	0	0	2	392
Total	40	1048	636	5	5	14	1748
Grand Total	63	2056	1282	9	10	30	3450
Apprch %	3	97	99.3	0.7	25	75	
Total %	1.8	59.6	37.2	0.3	0.3	0.9	

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	6	262	268	170	0	170	0	**5**	5	443
04:45 PM	6	267	273	171	2	173	1	5	6	452
05:00 PM	8	**284**	**292**	167	**3**	170	1	5	6	**468**
05:15 PM	**10**	259	269	**190**	2	**192**	**2**	5	**7**	468
Total Volume	30	1072	1102	698	7	705	4	20	24	1831
% App. Total	2.7	97.3		99	1		16.7	83.3		
PHF	.750	.944	.943	.918	.583	.918	.500	1.000	.857	.978

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File Name : 81676L- LLL
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Broadway (Route 138) From North		Broadway (Route 138) From South		Britton Street From West		
Start Time	Right	Thru	Thru	Left	Right	Left	Int. Total
04:00 PM	0	9	6	0	0	0	15
04:15 PM	0	8	10	0	0	0	18
04:30 PM	0	9	5	1	0	0	15
04:45 PM	0	6	8	0	0	0	14
Total	0	32	29	1	0	0	62
05:00 PM	0	5	4	0	0	0	9
05:15 PM	0	7	4	0	0	0	11
05:30 PM	0	5	1	0	0	0	6
05:45 PM	0	4	4	0	0	0	8
Total	0	21	13	0	0	0	34
Grand Total	0	53	42	1	0	0	96
Apprch %	0	100	97.7	2.3	0	0	
Total %	0	55.2	43.8	1	0	0	

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**9**	**9**	6	0	6	0	0	0	15
04:15 PM	0	8	8	**10**	0	**10**	0	0	0	**18**
04:30 PM	**0**	**9**	**9**	**5**	**1**	6	0	0	0	15
04:45 PM	0	6	6	8	0	8	0	0	0	14
Total Volume	0	32	32	29	1	30	0	0	0	62
% App. Total	0	100		96.7	3.3		0	0		
PHF	.000	.889	.889	.725	.250	.750	.000	.000	.000	.861

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File Name : 81676L- LLL
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	1
Total	0	1	0	0	0	0	0	0	1	2
Grand Total	0	1	0	0	0	0	0	0	2	3
Apprch %	0	100	0	0	0	0	0	0	100	
Total %	0	33.3	0	0	0	0	0	0	66.7	

	Broadway (Route 138) From North				Broadway (Route 138) From South				Britton Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	2	2	2
% App. Total	0	0	0		0	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.500

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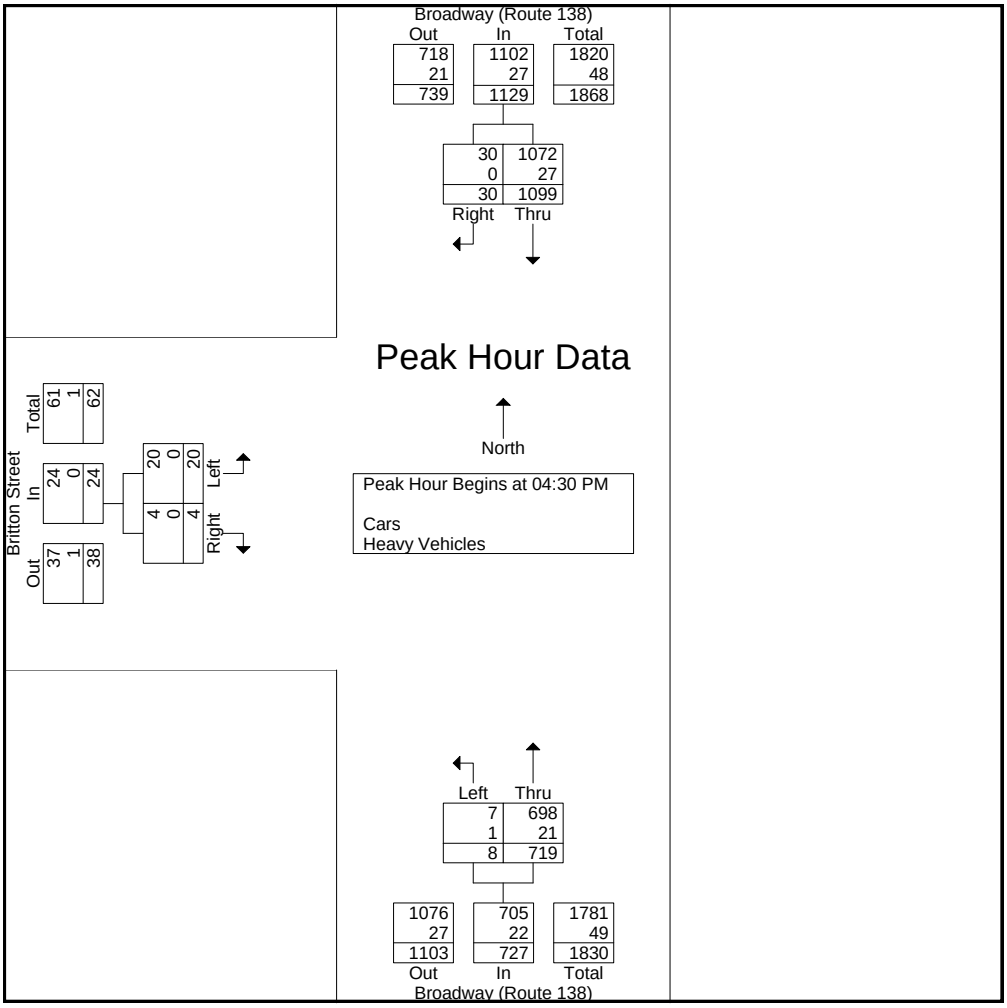
File Name : 81676L- LLL
Site Code : 10111.31
Start Date : 9/18/2008
Page No : 1

	Broadway (Route 138) From North			Broadway (Route 138) From South			Britton Street From West			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	6	271	277	175	1	176	0	**5**	5	458
04:45 PM	6	273	279	179	2	181	1	5	6	466
05:00 PM	8	**289**	**297**	171	**3**	174	1	5	6	477
05:15 PM	**10**	266	276	**194**	2	**196**	**2**	5	**7**	**479**
Total Volume	**30**	**1099**	**1129**	**719**	**8**	**727**	**4**	**20**	**24**	**1880**
% App. Total	**2.7**	**97.3**		**98.9**	**1.1**		**16.7**	**83.3**		
PHF	**.750**	**.951**	**.950**	**.927**	**.667**	**.927**	**.500**	**1.000**	**.857**	**.981**
Cars	**30**	**1072**	**1102**	**698**	**7**	**705**	**4**	**20**	**24**	**1831**
% Cars	**100**	**97.5**	**97.6**	**97.1**	**87.5**	**97.0**	**100**	**100**	**100**	**97.4**
Heavy Vehicles	**0**	**27**	**27**	**21**	**1**	**22**	**0**	**0**	**0**	**49**
% Heavy Vehicles	**0**	**2.5**	**2.4**	**2.9**	**12.5**	**3.0**	**0**	**0**	**0**	**2.6**



VHB *Computations*

Project: SCR
Location: Raynham
Calculated by: N.L.
Checked by:
Title Rt 138 @ Robinson St / Dog Track driveway

Project # 10111.00
Sheet 1 of 1
Date: June / 2009
Date:

Time 7:00 AM - 8:00 AM & 4:45 PM - 5:45 PM

TMCs:

	From North Route 138			From South Route 138			From East Robinson Street			From West Dog Track driveway		
	R	T	L	R	T	L	R	T	L	R	T	L
AM	0	325	5	0	1125	40	20	0	0	24	0	4
(HV%)		(12%)			(3%)	(11%)				(50%)		(75%)
PM	2	1000	10	2	555	32	13	0	2	40	0	3
(HV%)		(2%)			(5%)	(6%)	(8%)					(33%)

*(HV%) = Percent of Heavy Vehicles.
* movements not showing (HV%) mean no heavy vehicles during the count period.

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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 9/10/08 and Sat 9/25/08	81676	Norton, MA

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N/S: N. Worcester St/South Worcester St.
E/W: W. Main St/Old Colony Rd (Rte 123)
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-A
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Worcester Street From North			West Main Street (Route 123) From East			South Worcester Street From South			Old Colony Road (Route 123) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	16	13	12	52	22	28	28	23	23	51	5	278
07:15 AM	1	18	29	13	63	12	28	21	33	27	95	2	342
07:30 AM	4	16	14	8	67	10	36	37	45	31	92	4	364
07:45 AM	3	11	7	9	65	13	27	26	29	29	69	4	292
Total	13	61	63	42	247	57	119	112	130	110	307	15	1276
08:00 AM	3	10	13	16	89	12	19	21	51	36	71	3	344
08:15 AM	2	7	11	9	88	8	11	30	48	25	71	5	315
08:30 AM	2	8	7	14	81	9	13	14	26	25	61	4	264
08:45 AM	5	5	6	7	68	18	43	15	29	21	56	5	278
Total	12	30	37	46	326	47	86	80	154	107	259	17	1201
Grand Total	25	91	100	88	573	104	205	192	284	217	566	32	2477
Apprch %	11.6	42.1	46.3	11.5	74.9	13.6	30.1	28.2	41.7	26.6	69.4	3.9	
Total %	1	3.7	4	3.6	23.1	4.2	8.3	7.8	11.5	8.8	22.9	1.3	
Cars	24	85	91	81	548	89	192	180	281	211	546	32	2360
% Cars	96	93.4	91	92	95.6	85.6	93.7	93.8	98.9	97.2	96.5	100	95.3
Heavy Vehicles	1	6	9	7	25	15	13	12	3	6	20	0	117
% Heavy Vehicles	4	6.6	9	8	4.4	14.4	6.3	6.2	1.1	2.8	3.5	0	4.7

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**18**	**29**	**48**	13	63	12	88	28	21	33	82	27	**95**	2	124	342
07:30 AM	**4**	16	14	34	8	67	10	85	**36**	**37**	45	**118**	31	92	**4**	**127**	**364**
07:45 AM	3	11	7	21	9	65	**13**	87	27	26	29	82	29	69	4	102	292
08:00 AM	3	10	13	26	**16**	**89**	12	**117**	19	21	**51**	91	**36**	71	3	110	344
Total Volume	11	55	63	129	46	284	47	377	110	105	158	373	123	327	13	463	1342
% App. Total	8.5	42.6	48.8		12.2	75.3	12.5		29.5	28.2	42.4		26.6	70.6	2.8		
PHF	.688	.764	.543	.672	.719	.798	.904	.806	.764	.709	.775	.790	.854	.861	.813	.911	.922
Cars	10	50	55	115	43	274	41	358	104	100	156	360	120	317	13	450	1283
% Cars	90.9	90.9	87.3	89.1	93.5	96.5	87.2	95.0	94.5	95.2	98.7	96.5	97.6	96.9	100	97.2	95.6
Heavy Vehicles	1	5	8	14	3	10	6	19	6	5	2	13	3	10	0	13	59
% Heavy Vehicles	9.1	9.1	12.7	10.9	6.5	3.5	12.8	5.0	5.5	4.8	1.3	3.5	2.4	3.1	0	2.8	4.4

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N/S: N. Worcester St/South Worcester St.
E/W: W. Main St/Old Colony Rd (Rte 123)
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-A
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	North Worcester Street From North			West Main Street (Route 123) From East			South Worcester Street From South			Old Colony Road (Route 123) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	16	13	12	51	21	28	27	23	23	49	5	273
07:15 AM	1	16	26	11	59	12	26	20	33	26	91	2	323
07:30 AM	4	14	12	8	64	8	34	35	43	30	92	4	348
07:45 AM	2	11	6	9	65	12	26	25	29	28	66	4	283
Total	12	57	57	40	239	53	114	107	128	107	298	15	1227
08:00 AM	3	9	11	15	86	9	18	20	51	36	68	3	329
08:15 AM	2	7	11	8	85	8	10	29	47	23	71	5	306
08:30 AM	2	7	7	12	75	5	10	12	26	25	57	4	242
08:45 AM	5	5	5	6	63	14	40	12	29	20	52	5	256
Total	12	28	34	41	309	36	78	73	153	104	248	17	1133
Grand Total	24	85	91	81	548	89	192	180	281	211	546	32	2360
Apprch %	12	42.5	45.5	11.3	76.3	12.4	29.4	27.6	43	26.7	69.2	4.1	
Total %	1	3.6	3.9	3.4	23.2	3.8	8.1	7.6	11.9	8.9	23.1	1.4	

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**16**	**26**	**43**	11	59	**12**	82	26	20	33	79	26	91	2	119	323
07:30 AM	**4**	14	12	30	8	64	8	80	**34**	**35**	43	**112**	30	**92**	**4**	**126**	**348**
07:45 AM	2	11	6	19	9	65	12	86	26	25	29	80	28	66	4	98	283
08:00 AM	3	9	11	23	**15**	**86**	9	**110**	18	20	**51**	89	**36**	68	3	107	329
Total Volume	10	50	55	115	43	274	41	358	104	100	156	360	120	317	13	450	1283
% App. Total	8.7	43.5	47.8		12	76.5	11.5		28.9	27.8	43.3		26.7	70.4	2.9		
PHF	.625	.781	.529	.669	.717	.797	.854	.814	.765	.714	.765	.804	.833	.861	.813	.893	.922

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Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Worcester Street From North			West Main Street (Route 123) From East			South Worcester Street From South			Old Colony Road (Route 123) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	1	1	0	1	0	0	2	0	5
07:15 AM	0	2	3	2	4	0	2	1	0	1	4	0	19
07:30 AM	0	2	2	0	3	2	2	2	2	1	0	0	16
07:45 AM	1	0	1	0	0	1	1	1	0	1	3	0	9
Total	1	4	6	2	8	4	5	5	2	3	9	0	49
08:00 AM	0	1	2	1	3	3	1	1	0	0	3	0	15
08:15 AM	0	0	0	1	3	0	1	1	1	2	0	0	9
08:30 AM	0	1	0	2	6	4	3	2	0	0	4	0	22
08:45 AM	0	0	1	1	5	4	3	3	0	1	4	0	22
Total	0	2	3	5	17	11	8	7	1	3	11	0	68
Grand Total	1	6	9	7	25	15	13	12	3	6	20	0	117
Apprch %	6.2	37.5	56.2	14.9	53.2	31.9	46.4	42.9	10.7	23.1	76.9	0	
Total %	0.9	5.1	7.7	6	21.4	12.8	11.1	10.3	2.6	5.1	17.1	0	

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	**1**	**2**	**3**	1	3	3	7	1	1	0	2	0	3	0	3	15
08:15 AM	0	0	0	0	1	3	0	4	1	1	**1**	3	**2**	0	0	2	9
08:30 AM	0	1	0	1	**2**	**6**	**4**	**12**	**3**	2	0	5	0	**4**	0	4	**22**
08:45 AM	0	0	1	1	1	5	4	10	3	**3**	0	**6**	1	4	0	**5**	22
Total Volume	0	2	3	5	5	17	11	33	8	7	1	16	3	11	0	14	68
% App. Total	0	40	60		15.2	51.5	33.3		50	43.8	6.2		21.4	78.6	0		
PHF	.000	.500	.375	.417	.625	.708	.688	.688	.667	.583	.250	.667	.375	.688	.000	.700	.773

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Groups Printed- Peds and Bicycles

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	

	North Worcester Street From North					West Main Street (Route 123) From East					South Worcester Street From South					Old Colony Road (Route 123) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

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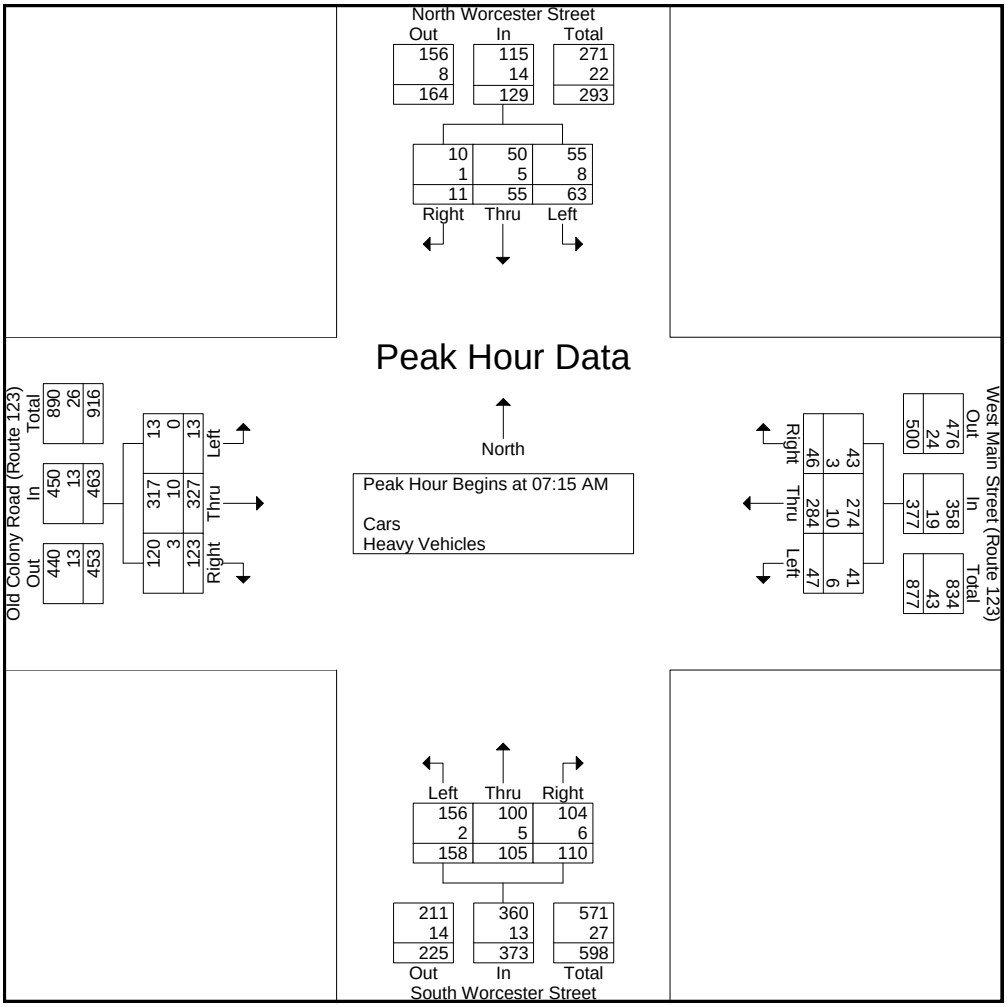
	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**18**	**29**	**48**	13	63	12	88	28	21	33	82	27	**95**	2	124	342
07:30 AM	**4**	16	14	34	8	67	10	85	**36**	**37**	45	**118**	31	92	**4**	**127**	**364**
07:45 AM	3	11	7	21	9	65	**13**	87	27	26	29	82	29	69	4	102	292
08:00 AM	3	10	13	26	**16**	**89**	12	**117**	19	21	**51**	91	**36**	71	3	110	344
Total Volume	11	55	63	129	46	284	47	377	110	105	158	373	123	327	13	463	1342
% App. Total	8.5	42.6	48.8		12.2	75.3	12.5		29.5	28.2	42.4		26.6	70.6	2.8		
PHF	.688	.764	.543	.672	.719	.798	.904	.806	.764	.709	.775	.790	.854	.861	.813	.911	.922
Cars	10	50	55	115	43	274	41	358	104	100	156	360	120	317	13	450	1283
% Cars	90.9	90.9	87.3	89.1	93.5	96.5	87.2	95.0	94.5	95.2	98.7	96.5	97.6	96.9	100	97.2	95.6
Heavy Vehicles	1	5	8	14	3	10	6	19	6	5	2	13	3	10	0	13	59
% Heavy Vehicles	9.1	9.1	12.7	10.9	6.5	3.5	12.8	5.0	5.5	4.8	1.3	3.5	2.4	3.1	0	2.8	4.4



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City, State: Norton, MA
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File Name : 81676I-AAA
Site Code : 10111.31
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	North Worcester Street From North			West Main Street (Route 123) From East			South Worcester Street From South			Old Colony Road (Route 123) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	3	19	10	19	79	36	19	16	30	51	78	1	361
04:15 PM	3	27	16	17	85	38	26	14	40	41	71	0	378
04:30 PM	2	33	8	15	97	26	25	21	36	70	75	2	410
04:45 PM	6	37	19	15	95	31	28	16	35	60	90	5	437
Total	14	116	53	66	356	131	98	67	141	222	314	8	1586
05:00 PM	5	29	18	27	83	31	29	13	26	46	100	5	412
05:15 PM	5	41	16	15	106	44	21	14	40	47	99	1	449
05:30 PM	4	23	15	18	72	49	17	18	28	42	80	3	369
05:45 PM	6	32	14	21	95	37	22	16	39	50	65	4	401
Total	20	125	63	81	356	161	89	61	133	185	344	13	1631
Grand Total	34	241	116	147	712	292	187	128	274	407	658	21	3217
Apprch %	8.7	61.6	29.7	12.8	61.9	25.4	31.7	21.7	46.5	37.5	60.6	1.9	
Total %	1.1	7.5	3.6	4.6	22.1	9.1	5.8	4	8.5	12.7	20.5	0.7	
Cars	33	241	114	147	700	289	184	126	269	402	643	21	3169
% Cars	97.1	100	98.3	100	98.3	99	98.4	98.4	98.2	98.8	97.7	100	98.5
Heavy Vehicles	1	0	2	0	12	3	3	2	5	5	15	0	48
% Heavy Vehicles	2.9	0	1.7	0	1.7	1	1.6	1.6	1.8	1.2	2.3	0	1.5

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	33	8	43	15	97	26	138	25	**21**	36	**82**	**70**	75	2	147	410
04:45 PM	**6**	37	**19**	**62**	15	95	31	141	28	16	35	79	60	90	**5**	**155**	437
05:00 PM	5	29	18	52	**27**	83	31	141	**29**	13	26	68	46	**100**	5	151	412
05:15 PM	5	**41**	16	62	15	**106**	**44**	**165**	21	14	**40**	75	47	99	1	147	**449**
Total Volume	18	140	61	219	72	381	132	585	103	64	137	304	223	364	13	600	1708
% App. Total	8.2	63.9	27.9		12.3	65.1	22.6		33.9	21.1	45.1		37.2	60.7	2.2		
PHF	.750	.854	.803	.883	.667	.899	.750	.886	.888	.762	.856	.927	.796	.910	.650	.968	.951
Cars	17	140	61	218	72	373	131	576	102	63	135	300	222	356	13	591	1685
% Cars	94.4	100	100	99.5	100	97.9	99.2	98.5	99.0	98.4	98.5	98.7	99.6	97.8	100	98.5	98.7
Heavy Vehicles	1	0	0	1	0	8	1	9	1	1	2	4	1	8	0	9	23
% Heavy Vehicles	5.6	0	0	0.5	0	2.1	0.8	1.5	1.0	1.6	1.5	1.3	0.4	2.2	0	1.5	1.3

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Page No : 1

Groups Printed- Cars

	North Worcester Street From North			West Main Street (Route 123) From East			South Worcester Street From South			Old Colony Road (Route 123) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	3	19	10	19	77	35	18	15	29	48	74	1	348
04:15 PM	3	27	14	17	83	38	25	14	39	41	69	0	370
04:30 PM	2	33	8	15	96	26	24	20	35	69	74	2	404
04:45 PM	5	37	19	15	89	30	28	16	35	60	89	5	428
Total	13	116	51	66	345	129	95	65	138	218	306	8	1550
05:00 PM	5	29	18	27	83	31	29	13	25	46	97	5	408
05:15 PM	5	41	16	15	105	44	21	14	40	47	96	1	445
05:30 PM	4	23	15	18	72	49	17	18	28	41	79	3	367
05:45 PM	6	32	14	21	95	36	22	16	38	50	65	4	399
Total	20	125	63	81	355	160	89	61	131	184	337	13	1619
Grand Total	33	241	114	147	700	289	184	126	269	402	643	21	3169
Apprch %	8.5	62.1	29.4	12.9	61.6	25.4	31.8	21.8	46.5	37.7	60.3	2	
Total %	1	7.6	3.6	4.6	22.1	9.1	5.8	4	8.5	12.7	20.3	0.7	

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	33	8	43	15	96	26	137	24	**20**	35	**79**	**69**	74	2	145	404
04:45 PM	**5**	37	**19**	61	15	89	30	134	28	16	35	79	60	89	**5**	**154**	428
05:00 PM	5	29	18	52	**27**	83	31	141	**29**	13	25	67	46	**97**	5	148	408
05:15 PM	5	**41**	16	**62**	15	**105**	**44**	**164**	21	14	**40**	75	47	96	1	144	**445**
Total Volume	17	140	61	218	72	373	131	576	102	63	135	300	222	356	13	591	1685
% App. Total	7.8	64.2	28		12.5	64.8	22.7		34	21	45		37.6	60.2	2.2		
PHF	.850	.854	.803	.879	.667	.888	.744	.878	.879	.788	.844	.949	.804	.918	.650	.959	.947

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N/S: N. Worcester St/South Worcester St.
E/W: W. Main St/Old Colony Rd (Rte 123)
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-AAA
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	North Worcester Street From North			West Main Street (Route 123) From East			South Worcester Street From South			Old Colony Road (Route 123) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	2	1	1	1	1	3	4	0	13
04:15 PM	0	0	2	0	2	0	1	0	1	0	2	0	8
04:30 PM	0	0	0	0	1	0	1	1	1	1	1	0	6
04:45 PM	1	0	0	0	6	1	0	0	0	0	1	0	9
Total	1	0	2	0	11	2	3	2	3	4	8	0	36
05:00 PM	0	0	0	0	0	0	0	0	1	0	3	0	4
05:15 PM	0	0	0	0	1	0	0	0	0	0	3	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
05:45 PM	0	0	0	0	0	1	0	0	1	0	0	0	2
Total	0	0	0	0	1	1	0	0	2	1	7	0	12
Grand Total	1	0	2	0	12	3	3	2	5	5	15	0	48
Apprch %	33.3	0	66.7	0	80	20	30	20	50	25	75	0	
Total %	2.1	0	4.2	0	25	6.2	6.2	4.2	10.4	10.4	31.2	0	

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	2	**1**	3	**1**	**1**	**1**	**3**	**3**	**4**	0	**7**	**13**
04:15 PM	0	0	**2**	**2**	0	2	0	2	1	0	1	2	0	2	0	2	8
04:30 PM	0	0	0	0	0	1	0	1	1	1	1	3	1	1	0	2	6
04:45 PM	**1**	0	0	1	0	**6**	1	**7**	0	0	0	0	0	1	0	1	9
Total Volume	1	0	2	3	0	11	2	13	3	2	3	8	4	8	0	12	36
% App. Total	33.3	0	66.7		0	84.6	15.4		37.5	25	37.5		33.3	66.7	0		
PHF	.250	.000	.250	.375	.000	.458	.500	.464	.750	.500	.750	.667	.333	.500	.000	.429	.692

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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-AAA
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0	4
Grand Total	0	1	0	1	0	0	0	0	1	1	0	0	1	0	0	0	5
Apprch %	0	50	0	50	0	0	0	0	50	50	0	0	100	0	0	0	
Total %	0	20	0	20	0	0	0	0	20	20	0	0	20	0	0	0	

	North Worcester Street From North					West Main Street (Route 123) From East					South Worcester Street From South					Old Colony Road (Route 123) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**0**	**0**	**1**	1
05:15 PM	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**0**	**1**	0	0	0	0	0	1
Total Volume	0	1	0	1	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	4
% App. Total	0	50	0	50		0	0	0	0		0	100	0	0		100	0	0	0		
PHF	.000	.250	.000	.250	.500	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250	.000	.000	.000	.250	1.000

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Site Code : 10111.31
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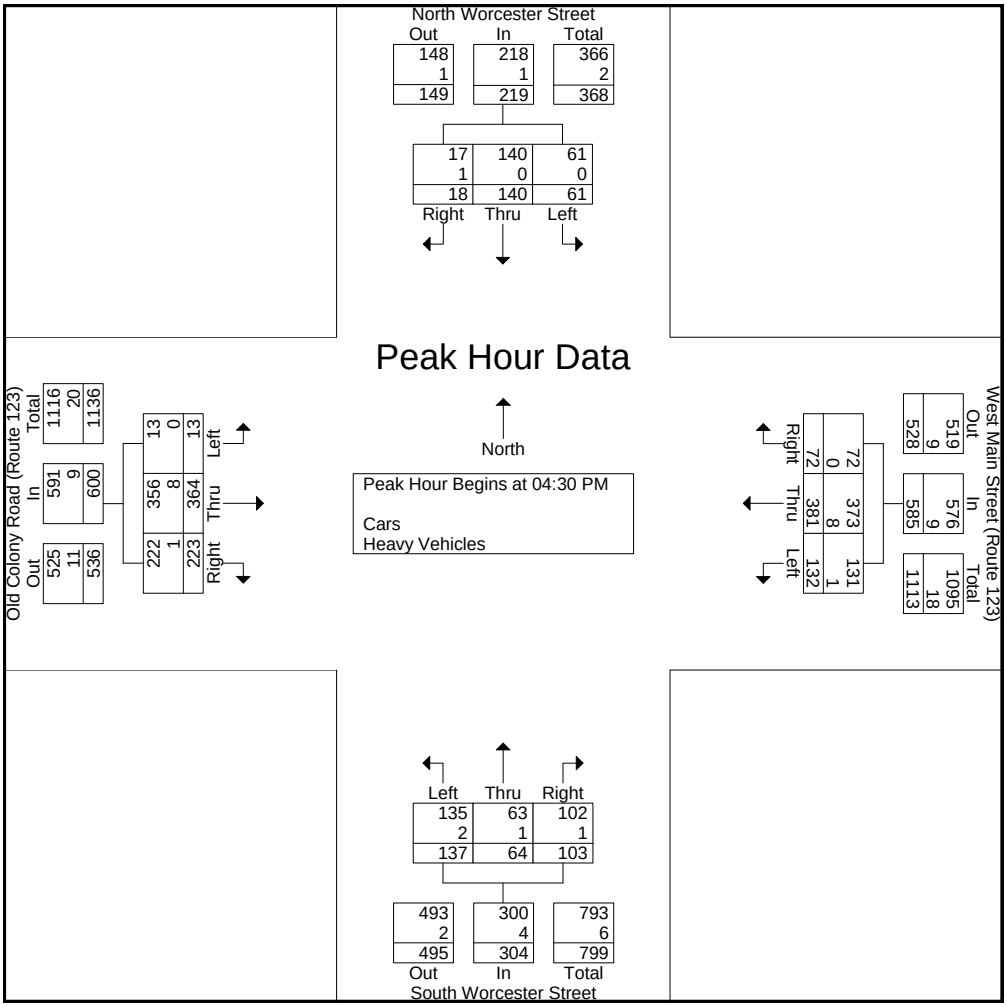
	North Worcester Street From North				West Main Street (Route 123) From East				South Worcester Street From South				Old Colony Road (Route 123) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	33	8	43	15	97	26	138	25	**21**	36	**82**	**70**	75	2	147	410
04:45 PM	**6**	37	**19**	**62**	15	95	31	141	28	16	35	79	60	90	**5**	**155**	437
05:00 PM	5	29	18	52	**27**	83	31	141	**29**	13	26	68	46	**100**	5	151	412
05:15 PM	5	**41**	16	62	15	**106**	**44**	**165**	21	14	**40**	75	47	99	1	147	**449**
Total Volume	18	140	61	219	72	381	132	585	103	64	137	304	223	364	13	600	1708
% App. Total	8.2	63.9	27.9		12.3	65.1	22.6		33.9	21.1	45.1		37.2	60.7	2.2		
PHF	.750	.854	.803	.883	.667	.899	.750	.886	.888	.762	.856	.927	.796	.910	.650	.968	.951
Cars	17	140	61	218	72	373	131	576	102	63	135	300	222	356	13	591	1685
% Cars	94.4	100	100	99.5	100	97.9	99.2	98.5	99.0	98.4	98.5	98.7	99.6	97.8	100	98.5	98.7
Heavy Vehicles	1	0	0	1	0	8	1	9	1	1	2	4	1	8	0	9	23
% Heavy Vehicles	5.6	0	0	0.5	0	2.1	0.8	1.5	1.0	1.6	1.5	1.3	0.4	2.2	0	1.5	1.3



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N/S: Harvey Street
E/W: John Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Harvey Street From North			John Scott Boulevard From East			Harvey Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	0	0	2	38	0	2	0	0	1	34	2	81
07:15 AM	2	0	0	0	50	1	3	0	5	0	36	1	98
07:30 AM	3	0	1	1	52	0	1	0	3	2	46	0	109
07:45 AM	1	0	1	0	47	3	4	1	2	1	42	0	102
Total	8	0	2	3	187	4	10	1	10	4	158	3	390
08:00 AM	1	0	2	0	53	2	1	0	4	1	47	0	111
08:15 AM	1	0	1	1	45	0	4	0	2	0	33	0	87
08:30 AM	1	0	0	0	23	0	4	0	3	2	28	0	61
08:45 AM	1	0	0	0	35	3	2	0	3	1	31	0	76
Total	4	0	3	1	156	5	11	0	12	4	139	0	335
Grand Total	12	0	5	4	343	9	21	1	22	8	297	3	725
Apprch %	70.6	0	29.4	1.1	96.3	2.5	47.7	2.3	50	2.6	96.4	1	
Total %	1.7	0	0.7	0.6	47.3	1.2	2.9	0.1	3	1.1	41	0.4	
Cars	12	0	3	0	334	8	20	1	15	3	279	3	678
% Cars	100	0	60	0	97.4	88.9	95.2	100	68.2	37.5	93.9	100	93.5
Heavy Vehicles	0	0	2	4	9	1	1	0	7	5	18	0	47
% Heavy Vehicles	0	0	40	100	2.6	11.1	4.8	0	31.8	62.5	6.1	0	6.5

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	0	0	2	0	50	1	51	3	0	**5**	**8**	0	36	**1**	37	98
07:30 AM	**3**	0	1	**4**	**1**	52	0	53	1	0	3	4	**2**	46	0	**48**	109
07:45 AM	1	0	1	2	0	47	**3**	50	**4**	**1**	2	7	1	42	0	43	102
08:00 AM	1	0	**2**	3	0	**53**	2	**55**	1	0	4	5	1	**47**	0	48	**111**
Total Volume	7	0	4	11	1	202	6	209	9	1	14	24	4	171	1	176	420
% App. Total	63.6	0	36.4		0.5	96.7	2.9		37.5	4.2	58.3		2.3	97.2	0.6		
PHF	.583	.000	.500	.688	.250	.953	.500	.950	.563	.250	.700	.750	.500	.910	.250	.917	.946
Cars	7	0	2	9	0	195	5	200	8	1	9	18	0	163	1	164	391
% Cars	100	0	50.0	81.8	0	96.5	83.3	95.7	88.9	100	64.3	75.0	0	95.3	100	93.2	93.1
Heavy Vehicles	0	0	2	2	1	7	1	9	1	0	5	6	4	8	0	12	29
% Heavy Vehicles	0	0	50.0	18.2	100	3.5	16.7	4.3	11.1	0	35.7	25.0	100	4.7	0	6.8	6.9

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N/S: Harvey Street
E/W: John Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Harvey Street From North			John Scott Boulevard From East			Harvey Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	0	0	0	38	0	2	0	0	1	33	2	78
07:15 AM	2	0	0	0	49	1	3	0	5	0	35	1	96
07:30 AM	3	0	0	0	48	0	1	0	2	0	44	0	98
07:45 AM	1	0	1	0	46	3	4	1	2	0	40	0	98
Total	8	0	1	0	181	4	10	1	9	1	152	3	370
08:00 AM	1	0	1	0	52	1	0	0	0	0	44	0	99
08:15 AM	1	0	1	0	45	0	4	0	2	0	30	0	83
08:30 AM	1	0	0	0	21	0	4	0	2	1	24	0	53
08:45 AM	1	0	0	0	35	3	2	0	2	1	29	0	73
Total	4	0	2	0	153	4	10	0	6	2	127	0	308
Grand Total	12	0	3	0	334	8	20	1	15	3	279	3	678
Apprch %	80	0	20	0	97.7	2.3	55.6	2.8	41.7	1.1	97.9	1.1	
Total %	1.8	0	0.4	0	49.3	1.2	2.9	0.1	2.2	0.4	41.2	0.4	

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	0	0	2	0	49	1	50	3	0	**5**	**8**	0	35	**1**	36	96
07:30 AM	**3**	0	0	**3**	0	48	0	48	1	0	2	3	0	**44**	0	**44**	98
07:45 AM	1	0	**1**	2	0	46	**3**	49	**4**	**1**	2	7	0	40	0	40	98
08:00 AM	1	0	1	2	0	**52**	1	**53**	0	0	0	0	0	44	0	44	**99**
Total Volume	7	0	2	9	0	195	5	200	8	1	9	18	0	163	1	164	391
% App. Total	77.8	0	22.2		0	97.5	2.5		44.4	5.6	50		0	99.4	0.6		
PHF	.583	.000	.500	.750	.000	.938	.417	.943	.500	.250	.450	.563	.000	.926	.250	.932	.987

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N/S: Harvey Street
E/W: John Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Harvey Street From North			John Scott Boulevard From East			Harvey Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	2	0	0	0	0	0	0	1	0	3
07:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
07:30 AM	0	0	1	1	4	0	0	0	1	2	2	0	11
07:45 AM	0	0	0	0	1	0	0	0	0	1	2	0	4
Total	0	0	1	3	6	0	0	0	1	3	6	0	20
08:00 AM	0	0	1	0	1	1	1	0	4	1	3	0	12
08:15 AM	0	0	0	1	0	0	0	0	0	0	3	0	4
08:30 AM	0	0	0	0	2	0	0	0	1	1	4	0	8
08:45 AM	0	0	0	0	0	0	0	0	1	0	2	0	3
Total	0	0	1	1	3	1	1	0	6	2	12	0	27
Grand Total	0	0	2	4	9	1	1	0	7	5	18	0	47
Apprch %	0	0	100	28.6	64.3	7.1	12.5	0	87.5	21.7	78.3	0	
Total %	0	0	4.3	8.5	19.1	2.1	2.1	0	14.9	10.6	38.3	0	

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	**1**	**1**	**1**	**4**	0	**5**	0	0	1	1	**2**	2	0	**4**	11
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	2	0	3	4
08:00 AM	0	0	1	1	0	1	**1**	2	**1**	0	**4**	**5**	1	**3**	0	4	**12**
08:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0	3	4
Total Volume	0	0	2	2	2	6	1	9	1	0	5	6	4	10	0	14	31
% App. Total	0	0	100		22.2	66.7	11.1		16.7	0	83.3		28.6	71.4	0		
PHF	.000	.000	.500	.500	.500	.375	.250	.450	.250	.000	.313	.300	.500	.833	.000	.875	.646

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File Name : 81676I-B
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

	Harvey Street From North					John Scott Boulevard From East					Harvey Street From South					John Scott Boulevard From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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N/S: Harvey Street
E/W: John Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-B
Site Code : 10111.31
Start Date : 9/10/2008
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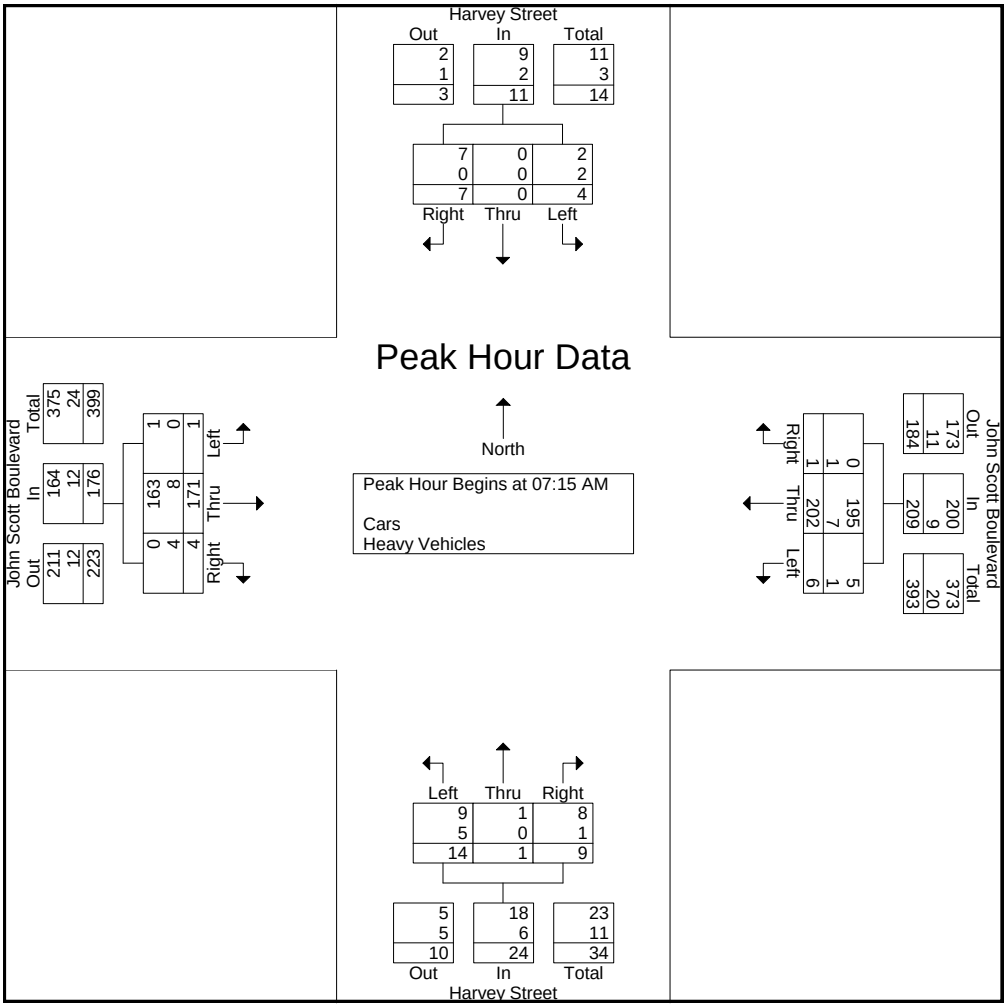
	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	0	0	2	0	50	1	51	3	0	**5**	**8**	0	36	**1**	37	98
07:30 AM	**3**	0	1	**4**	**1**	52	0	53	1	0	3	4	**2**	46	0	**48**	109
07:45 AM	1	0	1	2	0	47	**3**	50	**4**	**1**	2	7	1	42	0	43	102
08:00 AM	1	0	**2**	3	0	**53**	2	**55**	1	0	4	5	1	**47**	0	48	**111**
Total Volume	7	0	4	11	1	202	6	209	9	1	14	24	4	171	1	176	420
% App. Total	63.6	0	36.4		0.5	96.7	2.9		37.5	4.2	58.3		2.3	97.2	0.6		
PHF	.583	.000	.500	.688	.250	.953	.500	.950	.563	.250	.700	.750	.500	.910	.250	.917	.946
Cars	7	0	2	9	0	195	5	200	8	1	9	18	0	163	1	164	391
% Cars	100	0	50.0	81.8	0	96.5	83.3	95.7	88.9	100	64.3	75.0	0	95.3	100	93.2	93.1
Heavy Vehicles	0	0	2	2	1	7	1	9	1	0	5	6	4	8	0	12	29
% Heavy Vehicles	0	0	50.0	18.2	100	3.5	16.7	4.3	11.1	0	35.7	25.0	100	4.7	0	6.8	6.9



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Client: VHB/J. Quitter

File Name : 81676I-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Harvey Street From North			John Scott Boulevard From East			Harvey Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	1	36	6	0	1	4	2	59	2	113
04:15 PM	1	2	0	0	48	2	1	1	1	3	39	0	98
04:30 PM	0	0	0	0	50	3	1	2	0	3	84	0	143
04:45 PM	1	0	0	1	39	2	1	0	1	5	70	1	121
Total	2	4	0	2	173	13	3	4	6	13	252	3	475
05:00 PM	0	1	0	0	40	1	1	0	2	3	57	1	106
05:15 PM	3	0	0	0	44	6	1	2	1	2	72	5	136
05:30 PM	0	2	1	0	55	5	2	3	0	1	51	1	121
05:45 PM	0	2	0	0	28	5	0	1	2	2	45	3	88
Total	3	5	1	0	167	17	4	6	5	8	225	10	451
Grand Total	5	9	1	2	340	30	7	10	11	21	477	13	926
Apprch %	33.3	60	6.7	0.5	91.4	8.1	25	35.7	39.3	4.1	93.3	2.5	
Total %	0.5	1	0.1	0.2	36.7	3.2	0.8	1.1	1.2	2.3	51.5	1.4	
Cars	5	8	1	2	335	30	7	10	10	19	465	13	905
% Cars	100	88.9	100	100	98.5	100	100	100	90.9	90.5	97.5	100	97.7
Heavy Vehicles	0	1	0	0	5	0	0	0	1	2	12	0	21
% Heavy Vehicles	0	11.1	0	0	1.5	0	0	0	9.1	9.5	2.5	0	2.3

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**50**	3	**53**	**1**	**2**	0	3	3	**84**	0	**87**	**143**
04:45 PM	1	0	0	1	**1**	39	2	42	1	0	1	2	**5**	70	1	76	121
05:00 PM	0	**1**	0	1	0	40	1	41	1	0	**2**	3	3	57	1	61	106
05:15 PM	**3**	0	0	**3**	0	44	**6**	50	1	2	1	**4**	2	72	**5**	79	136
Total Volume	4	1	0	5	1	173	12	186	4	4	4	12	13	283	7	303	506
% App. Total	80	20	0		0.5	93	6.5		33.3	33.3	33.3		4.3	93.4	2.3		
PHF	.333	.250	.000	.417	.250	.865	.500	.877	1.000	.500	.500	.750	.650	.842	.350	.871	.885
Cars	4	1	0	5	1	170	12	183	4	4	3	11	12	280	7	299	498
% Cars	100	100	0	100	100	98.3	100	98.4	100	100	75.0	91.7	92.3	98.9	100	98.7	98.4
Heavy Vehicles	0	0	0	0	0	3	0	3	0	0	1	1	1	3	0	4	8
% Heavy Vehicles	0	0	0	0	0	1.7	0	1.6	0	0	25.0	8.3	7.7	1.1	0	1.3	1.6

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E/W: John Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Harvey Street From North			John Scott Boulevard From East			Harvey Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	2	0	1	36	6	0	1	4	1	52	2	105
04:15 PM	1	1	0	0	47	2	1	1	1	3	38	0	95
04:30 PM	0	0	0	0	49	3	1	2	0	3	83	0	141
04:45 PM	1	0	0	1	37	2	1	0	1	4	69	1	117
Total	2	3	0	2	169	13	3	4	6	11	242	3	458
05:00 PM	0	1	0	0	40	1	1	0	1	3	56	1	104
05:15 PM	3	0	0	0	44	6	1	2	1	2	72	5	136
05:30 PM	0	2	1	0	54	5	2	3	0	1	51	1	120
05:45 PM	0	2	0	0	28	5	0	1	2	2	44	3	87
Total	3	5	1	0	166	17	4	6	4	8	223	10	447
Grand Total	5	8	1	2	335	30	7	10	10	19	465	13	905
Apprch %	35.7	57.1	7.1	0.5	91.3	8.2	25.9	37	37	3.8	93.6	2.6	
Total %	0.6	0.9	0.1	0.2	37	3.3	0.8	1.1	1.1	2.1	51.4	1.4	

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**49**	3	**52**	**1**	**2**	0	3	3	**83**	0	**86**	**141**
04:45 PM	1	0	0	1	**1**	37	2	40	1	0	**1**	2	**4**	69	1	74	117
05:00 PM	0	**1**	0	1	0	40	1	41	1	0	1	2	3	56	1	60	104
05:15 PM	**3**	0	0	**3**	0	44	**6**	50	1	2	1	**4**	2	72	**5**	79	136
Total Volume	4	1	0	5	1	170	12	183	4	4	3	11	12	280	7	299	498
% App. Total	80	20	0		0.5	92.9	6.6		36.4	36.4	27.3		4	93.6	2.3		
PHF	.333	.250	.000	.417	.250	.867	.500	.880	1.000	.500	.750	.688	.750	.843	.350	.869	.883

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File Name : 81676I-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Harvey Street From North			John Scott Boulevard From East			Harvey Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	7	0	8
04:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	3
04:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
04:45 PM	0	0	0	0	2	0	0	0	0	1	1	0	4
Total	0	1	0	0	4	0	0	0	0	2	10	0	17
05:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	1	0	0	0	1	0	2	0	4
Grand Total	0	1	0	0	5	0	0	0	1	2	12	0	21
Apprch %	0	100	0	0	100	0	0	0	100	14.3	85.7	0	
Total %	0	4.8	0	0	23.8	0	0	0	4.8	9.5	57.1	0	

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**7**	0	**8**	**8**
04:15 PM	0	**1**	0	**1**	0	1	0	1	0	0	0	0	0	1	0	1	3
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	1	1	0	2	4
Total Volume	0	1	0	1	0	4	0	4	0	0	0	0	2	10	0	12	17
% App. Total	0	100	0		0	100	0		0	0	0		16.7	83.3	0		
PHF	.000	.250	.000	.250	.000	.500	.000	.500	.000	.000	.000	.000	.500	.357	.000	.375	.531

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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-BBB
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	1	0	1	0	2	0	0	0	0	0	1	0	0	5
Total	0	0	0	1	0	2	0	2	0	0	0	0	0	1	0	0	6
Grand Total	0	0	0	1	0	2	0	2	0	0	0	0	0	2	0	0	7
Apprch %	0	0	0	100	0	50	0	50	0	0	0	0	0	100	0	0	
Total %	0	0	0	14.3	0	28.6	0	28.6	0	0	0	0	0	28.6	0	0	

	Harvey Street From North					John Scott Boulevard From East					Harvey Street From South					John Scott Boulevard From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
05:45 PM	**0**	**0**	**0**	**1**	**1**	0	1	0	**2**	**3**	0	0	0	0	0	0	**1**	0	0	**1**	**5**
Total Volume	0	0	0	1	1	0	2	0	2	4	0	0	0	0	0	0	1	0	0	1	6
% App. Total	0	0	0	100		0	50	0	50		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.250	.250	.000	.500	.000	.250	.333	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.300

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File Name : 81676I-BBB
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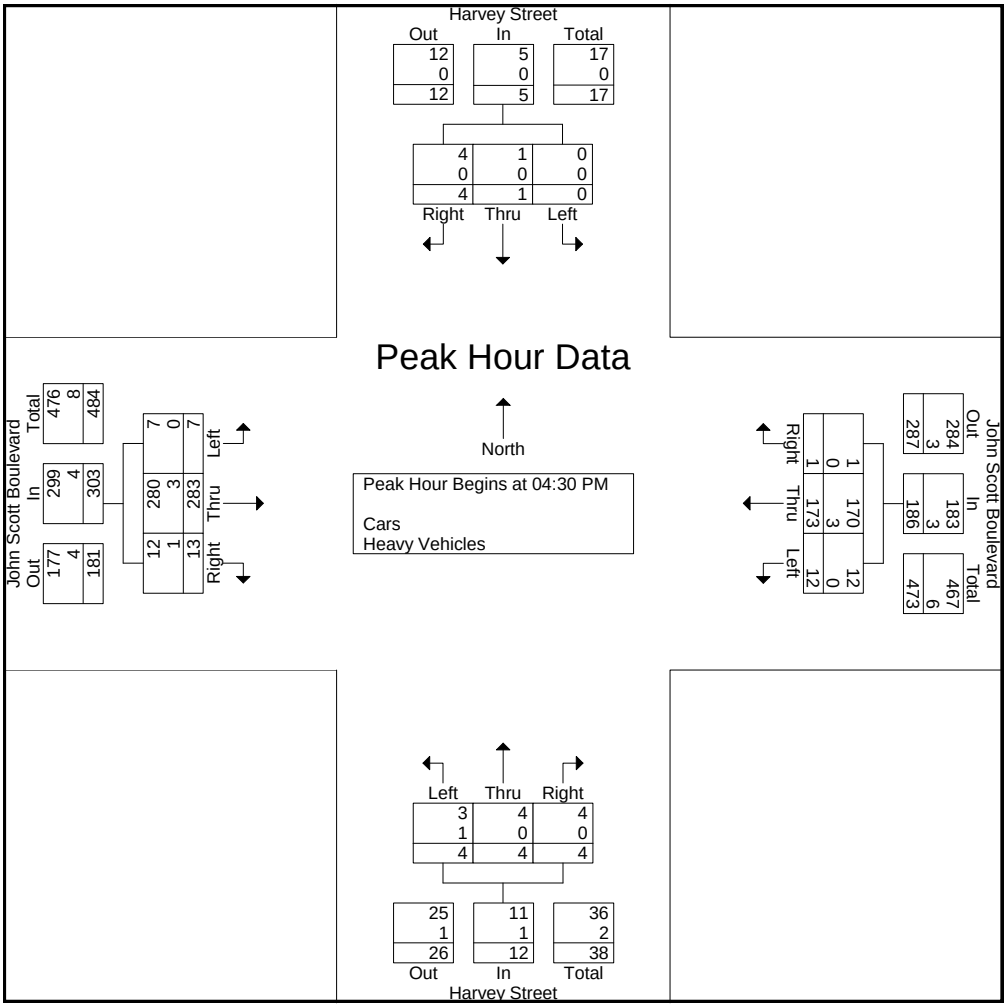
	Harvey Street From North				John Scott Boulevard From East				Harvey Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**50**	3	**53**	**1**	**2**	0	3	3	**84**	0	**87**	**143**
04:45 PM	1	0	0	1	**1**	39	2	42	1	0	1	2	**5**	70	1	76	121
05:00 PM	0	**1**	0	1	0	40	1	41	1	0	**2**	3	3	57	1	61	106
05:15 PM	**3**	0	0	**3**	0	44	**6**	50	1	2	1	**4**	2	72	**5**	79	136
Total Volume	4	1	0	5	1	173	12	186	4	4	4	12	13	283	7	303	506
% App. Total	80	20	0		0.5	93	6.5		33.3	33.3	33.3		4.3	93.4	2.3		
PHF	.333	.250	.000	.417	.250	.865	.500	.877	1.000	.500	.500	.750	.650	.842	.350	.871	.885
Cars	4	1	0	5	1	170	12	183	4	4	3	11	12	280	7	299	498
% Cars	100	100	0	100	100	98.3	100	98.4	100	100	75.0	91.7	92.3	98.9	100	98.7	98.4
Heavy Vehicles	0	0	0	0	0	3	0	3	0	0	1	1	1	3	0	4	8
% Heavy Vehicles	0	0	0	0	0	1.7	0	1.6	0	0	25.0	8.3	7.7	1.1	0	1.3	1.6



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N/S: S. Worcester Street/John Scott Blvd
E/W: S. Worcester Street/Sturdy Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-C
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	South Worcester Street From North			South Worcester Street From East			John Scott Boulevard From South			Sturdy Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	44	12	7	0	2	10	70	1	2	2	2	152
07:15 AM	0	45	2	11	0	1	22	83	0	0	0	0	164
07:30 AM	0	53	9	9	0	2	13	98	0	1	1	0	186
07:45 AM	0	48	11	16	0	4	13	67	0	1	1	1	162
Total	0	190	34	43	0	9	58	318	1	4	4	3	664
08:00 AM	0	57	8	9	1	2	21	84	0	3	0	1	186
08:15 AM	0	42	6	15	0	1	10	75	2	0	1	1	153
08:30 AM	0	34	10	16	2	4	4	52	0	0	0	0	122
08:45 AM	0	37	8	13	1	2	9	68	0	2	1	0	141
Total	0	170	32	53	4	9	44	279	2	5	2	2	602
Grand Total	0	360	66	96	4	18	102	597	3	9	6	5	1266
Apprch %	0	84.5	15.5	81.4	3.4	15.3	14.5	85	0.4	45	30	25	
Total %	0	28.4	5.2	7.6	0.3	1.4	8.1	47.2	0.2	0.7	0.5	0.4	
Cars	0	337	62	93	3	15	99	574	3	8	6	5	1205
% Cars	0	93.6	93.9	96.9	75	83.3	97.1	96.1	100	88.9	100	100	95.2
Heavy Vehicles	0	23	4	3	1	3	3	23	0	1	0	0	61
% Heavy Vehicles	0	6.4	6.1	3.1	25	16.7	2.9	3.9	0	11.1	0	0	4.8

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	45	2	47	11	0	1	12	**22**	83	0	105	0	0	0	0	164
07:30 AM	0	53	9	62	9	0	2	11	13	**98**	0	**111**	1	**1**	0	2	**186**
07:45 AM	0	48	**11**	59	**16**	0	**4**	**20**	13	67	0	80	1	1	**1**	3	162
08:00 AM	0	**57**	8	**65**	9	**1**	2	12	21	84	0	105	**3**	0	1	**4**	186
Total Volume	0	203	30	233	45	1	9	55	69	332	0	401	5	2	2	9	698
% App. Total	0	87.1	12.9		81.8	1.8	16.4		17.2	82.8	0		55.6	22.2	22.2		
PHF	.000	.890	.682	.896	.703	.250	.563	.688	.784	.847	.000	.903	.417	.500	.500	.563	.938
Cars	0	189	29	218	44	1	7	52	68	321	0	389	5	2	2	9	668
% Cars	0	93.1	96.7	93.6	97.8	100	77.8	94.5	98.6	96.7	0	97.0	100	100	100	100	95.7
Heavy Vehicles	0	14	1	15	1	0	2	3	1	11	0	12	0	0	0	0	30
% Heavy Vehicles	0	6.9	3.3	6.4	2.2	0	22.2	5.5	1.4	3.3	0	3.0	0	0	0	0	4.3

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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-C
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Groups Printed- Cars

	South Worcester Street From North			South Worcester Street From East			John Scott Boulevard From South			Sturdy Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	44	11	7	0	1	10	70	1	2	2	2	150
07:15 AM	0	41	2	11	0	1	22	81	0	0	0	0	158
07:30 AM	0	50	8	9	0	1	13	92	0	1	1	0	175
07:45 AM	0	46	11	15	0	3	13	66	0	1	1	1	157
Total	0	181	32	42	0	6	58	309	1	4	4	3	640
08:00 AM	0	52	8	9	1	2	20	82	0	3	0	1	178
08:15 AM	0	39	6	15	0	1	10	71	2	0	1	1	146
08:30 AM	0	30	8	15	1	4	3	47	0	0	0	0	108
08:45 AM	0	35	8	12	1	2	8	65	0	1	1	0	133
Total	0	156	30	51	3	9	41	265	2	4	2	2	565
Grand Total	0	337	62	93	3	15	99	574	3	8	6	5	1205
Apprch %	0	84.5	15.5	83.8	2.7	13.5	14.6	84.9	0.4	42.1	31.6	26.3	
Total %	0	28	5.1	7.7	0.2	1.2	8.2	47.6	0.2	0.7	0.5	0.4	

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	41	2	43	11	0	1	12	**22**	81	0	103	0	0	0	0	158
07:30 AM	0	50	8	58	9	0	1	10	13	**92**	0	**105**	1	**1**	0	2	175
07:45 AM	0	46	**11**	57	**15**	0	**3**	**18**	13	66	0	79	1	1	**1**	3	157
08:00 AM	0	**52**	8	**60**	9	**1**	2	12	20	82	0	102	**3**	0	1	**4**	**178**
Total Volume	0	189	29	218	44	1	7	52	68	321	0	389	5	2	2	9	668
% App. Total	0	86.7	13.3		84.6	1.9	13.5		17.5	82.5	0		55.6	22.2	22.2		
PHF	.000	.909	.659	.908	.733	.250	.583	.722	.773	.872	.000	.926	.417	.500	.500	.563	.938

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Groups Printed- Heavy Vehicles

	South Worcester Street From North			South Worcester Street From East			John Scott Boulevard From South			Sturdy Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	2
07:15 AM	0	4	0	0	0	0	0	2	0	0	0	0	6
07:30 AM	0	3	1	0	0	1	0	6	0	0	0	0	11
07:45 AM	0	2	0	1	0	1	0	1	0	0	0	0	5
Total	0	9	2	1	0	3	0	9	0	0	0	0	24
08:00 AM	0	5	0	0	0	0	1	2	0	0	0	0	8
08:15 AM	0	3	0	0	0	0	0	4	0	0	0	0	7
08:30 AM	0	4	2	1	1	0	1	5	0	0	0	0	14
08:45 AM	0	2	0	1	0	0	1	3	0	1	0	0	8
Total	0	14	2	2	1	0	3	14	0	1	0	0	37
Grand Total	0	23	4	3	1	3	3	23	0	1	0	0	61
Apprch %	0	85.2	14.8	42.9	14.3	42.9	11.5	88.5	0	100	0	0	
Total %	0	37.7	6.6	4.9	1.6	4.9	4.9	37.7	0	1.6	0	0	

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	**5**	0	5	0	0	0	0	**1**	2	0	3	0	0	0	0	8
08:15 AM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
08:30 AM	0	4	**2**	**6**	**1**	**1**	0	**2**	1	**5**	0	**6**	0	0	0	0	**14**
08:45 AM	0	2	0	2	1	0	0	1	1	3	0	4	**1**	0	0	**1**	8
Total Volume	0	14	2	16	2	1	0	3	3	14	0	17	1	0	0	1	37
% App. Total	0	87.5	12.5		66.7	33.3	0		17.6	82.4	0		100	0	0		
PHF	.000	.700	.250	.667	.500	.250	.000	.375	.750	.700	.000	.708	.250	.000	.000	.250	.661

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Groups Printed- Peds and Bicycles

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3
Grand Total	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3
Apprch %	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	
Total %	0	0	0	33.3	0	0	0	33.3	0	0	0	0	0	0	0	33.3	

	South Worcester Street From North					South Worcester Street From East					John Scott Boulevard From South					Sturdy Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	3
% App. Total	0	0	0	100		0	0	0	100		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.375

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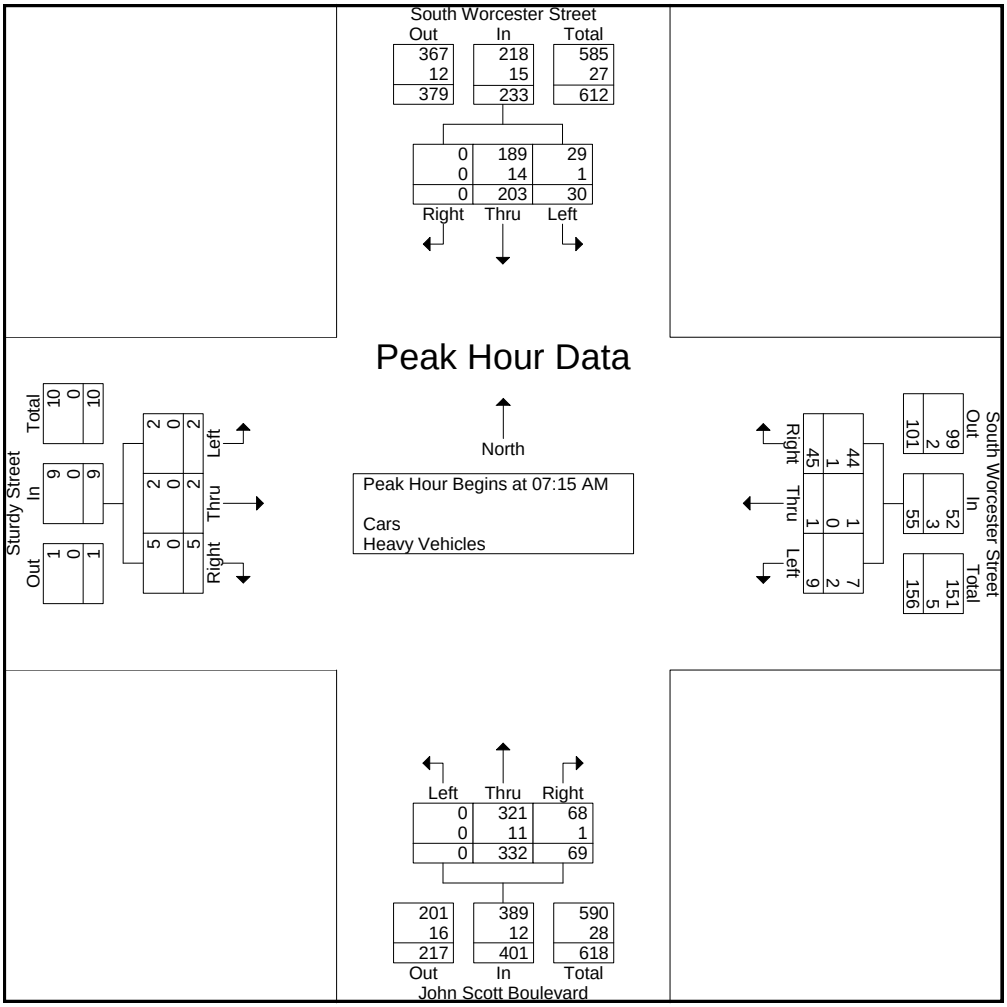
	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	45	2	47	11	0	1	12	**22**	83	0	105	0	0	0	0	164
07:30 AM	0	53	9	62	9	0	2	11	13	**98**	0	**111**	1	**1**	0	2	**186**
07:45 AM	0	48	**11**	59	**16**	0	**4**	**20**	13	67	0	80	1	1	**1**	3	162
08:00 AM	0	**57**	8	**65**	9	**1**	2	12	21	84	0	105	**3**	0	1	**4**	186
Total Volume	0	203	30	233	45	1	9	55	69	332	0	401	5	2	2	9	698
% App. Total	0	87.1	12.9		81.8	1.8	16.4		17.2	82.8	0		55.6	22.2	22.2		
PHF	.000	.890	.682	.896	.703	.250	.563	.688	.784	.847	.000	.903	.417	.500	.500	.563	.938
Cars	0	189	29	218	44	1	7	52	68	321	0	389	5	2	2	9	668
% Cars	0	93.1	96.7	93.6	97.8	100	77.8	94.5	98.6	96.7	0	97.0	100	100	100	100	95.7
Heavy Vehicles	0	14	1	15	1	0	2	3	1	11	0	12	0	0	0	0	30
% Heavy Vehicles	0	6.9	3.3	6.4	2.2	0	22.2	5.5	1.4	3.3	0	3.0	0	0	0	0	4.3



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Client: VHB/J. Quitter

File Name : 81676I-CCC
Site Code : 10111.31
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Groups Printed- Cars - Heavy Vehicles

	South Worcester Street From North			South Worcester Street From East			John Scott Boulevard From South			Sturdy Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	82	24	15	2	3	4	51	2	1	0	1	185
04:15 PM	1	86	15	10	0	5	7	59	10	2	1	1	197
04:30 PM	3	118	18	33	0	9	6	49	2	2	0	0	240
04:45 PM	0	103	24	18	0	8	7	53	0	0	0	0	213
Total	4	389	81	76	2	25	24	212	14	5	1	2	835
05:00 PM	1	91	15	15	0	6	12	60	2	0	0	1	203
05:15 PM	0	121	13	13	2	9	5	61	3	2	1	1	231
05:30 PM	0	95	8	19	3	6	7	61	4	1	0	0	204
05:45 PM	0	105	11	16	0	14	7	55	1	0	0	0	209
Total	1	412	47	63	5	35	31	237	10	3	1	2	847
Grand Total	5	801	128	139	7	60	55	449	24	8	2	4	1682
Apprch %	0.5	85.8	13.7	67.5	3.4	29.1	10.4	85	4.5	57.1	14.3	28.6	
Total %	0.3	47.6	7.6	8.3	0.4	3.6	3.3	26.7	1.4	0.5	0.1	0.2	
Cars	5	790	127	137	7	59	53	439	24	8	2	4	1655
% Cars	100	98.6	99.2	98.6	100	98.3	96.4	97.8	100	100	100	100	98.4
Heavy Vehicles	0	11	1	2	0	1	2	10	0	0	0	0	27
% Heavy Vehicles	0	1.4	0.8	1.4	0	1.7	3.6	2.2	0	0	0	0	1.6

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**3**	118	18	**139**	**33**	0	**9**	**42**	6	49	2	57	**2**	0	0	2	**240**
04:45 PM	0	103	**24**	127	18	0	8	26	7	53	0	60	0	0	0	0	213
05:00 PM	1	91	15	107	15	0	6	21	**12**	60	2	**74**	0	0	**1**	1	203
05:15 PM	0	**121**	13	134	13	**2**	9	24	5	**61**	**3**	69	2	**1**	1	**4**	231
Total Volume	4	433	70	507	79	2	32	113	30	223	7	260	4	1	2	7	887
% App. Total	0.8	85.4	13.8		69.9	1.8	28.3		11.5	85.8	2.7		57.1	14.3	28.6		
PHF	.333	.895	.729	.912	.598	.250	.889	.673	.625	.914	.583	.878	.500	.250	.500	.438	.924
Cars	4	430	70	504	78	2	31	111	30	219	7	256	4	1	2	7	878
% Cars	100	99.3	100	99.4	98.7	100	96.9	98.2	100	98.2	100	98.5	100	100	100	100	99.0
Heavy Vehicles	0	3	0	3	1	0	1	2	0	4	0	4	0	0	0	0	9
% Heavy Vehicles	0	0.7	0	0.6	1.3	0	3.1	1.8	0	1.8	0	1.5	0	0	0	0	1.0

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Groups Printed- Cars

	South Worcester Street From North			South Worcester Street From East			John Scott Boulevard From South			Sturdy Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	78	24	14	2	3	3	48	2	1	0	1	176
04:15 PM	1	84	14	10	0	5	6	57	10	2	1	1	191
04:30 PM	3	116	18	32	0	9	6	49	2	2	0	0	237
04:45 PM	0	102	24	18	0	8	7	51	0	0	0	0	210
Total	4	380	80	74	2	25	22	205	14	5	1	2	814
05:00 PM	1	91	15	15	0	5	12	58	2	0	0	1	200
05:15 PM	0	121	13	13	2	9	5	61	3	2	1	1	231
05:30 PM	0	94	8	19	3	6	7	61	4	1	0	0	203
05:45 PM	0	104	11	16	0	14	7	54	1	0	0	0	207
Total	1	410	47	63	5	34	31	234	10	3	1	2	841
Grand Total	5	790	127	137	7	59	53	439	24	8	2	4	1655
Apprch %	0.5	85.7	13.8	67.5	3.4	29.1	10.3	85.1	4.7	57.1	14.3	28.6	
Total %	0.3	47.7	7.7	8.3	0.4	3.6	3.2	26.5	1.5	0.5	0.1	0.2	

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**3**	116	18	**137**	**32**	0	**9**	**41**	6	49	2	57	**2**	0	0	2	**237**
04:45 PM	0	102	**24**	126	18	0	8	26	7	51	0	58	0	0	0	0	210
05:00 PM	1	91	15	107	15	0	5	20	**12**	58	2	**72**	0	0	**1**	1	200
05:15 PM	0	**121**	13	134	13	**2**	9	24	5	**61**	**3**	69	2	**1**	1	**4**	231
Total Volume	4	430	70	504	78	2	31	111	30	219	7	256	4	1	2	7	878
% App. Total	0.8	85.3	13.9		70.3	1.8	27.9		11.7	85.5	2.7		57.1	14.3	28.6		
PHF	.333	.888	.729	.920	.609	.250	.861	.677	.625	.898	.583	.889	.500	.250	.500	.438	.926

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N/S: S. Worcester Street/John Scott Blvd
E/W: S. Worcester Street/Sturdy Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-CCC
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	South Worcester Street From North			South Worcester Street From East			John Scott Boulevard From South			Sturdy Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	4	0	1	0	0	1	3	0	0	0	0	9
04:15 PM	0	2	1	0	0	0	1	2	0	0	0	0	6
04:30 PM	0	2	0	1	0	0	0	0	0	0	0	0	3
04:45 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
Total	0	9	1	2	0	0	2	7	0	0	0	0	21
05:00 PM	0	0	0	0	0	1	0	2	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	2	0	0	0	1	0	3	0	0	0	0	6
Grand Total	0	11	1	2	0	1	2	10	0	0	0	0	27
Apprch %	0	91.7	8.3	66.7	0	33.3	16.7	83.3	0	0	0	0	
Total %	0	40.7	3.7	7.4	0	3.7	7.4	37	0	0	0	0	

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**4**	0	**4**	**1**	0	0	**1**	**1**	**3**	0	**4**	0	0	0	0	**9**
04:15 PM	0	2	**1**	3	0	0	0	0	1	2	0	3	0	0	0	0	6
04:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3
04:45 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
Total Volume	0	9	1	10	2	0	0	2	2	7	0	9	0	0	0	0	21
% App. Total	0	90	10		100	0	0		22.2	77.8	0		0	0	0		
PHF	.000	.563	.250	.625	.500	.000	.000	.500	.500	.583	.000	.563	.000	.000	.000	.000	.583

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Site Code : 10111.31
Start Date : 9/10/2008
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Groups Printed- Peds and Bicycles

	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
05:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
Total	0	3	0	0	0	0	0	0	0	3	0	0	0	2	0	0	8
Grand Total	0	4	0	0	0	0	0	0	0	3	0	0	0	2	0	0	9
Apprch %	0	100	0	0	0	0	0	0	0	100	0	0	0	100	0	0	
Total %	0	44.4	0	0	0	0	0	0	0	33.3	0	0	0	22.2	0	0	

	South Worcester Street From North					South Worcester Street From East					John Scott Boulevard From South					Sturdy Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	**2**	0	0	**2**	**3**
05:45 PM	0	1	0	0	1	0	0	0	0	0	0	**2**	**0**	**0**	**2**	0	0	0	0	0	3
Total Volume	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	2	0	0	2	8
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		0	100	0	0		
PHF	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.000	.375	.000	.000	.375	.000	.250	.000	.000	.250	.667

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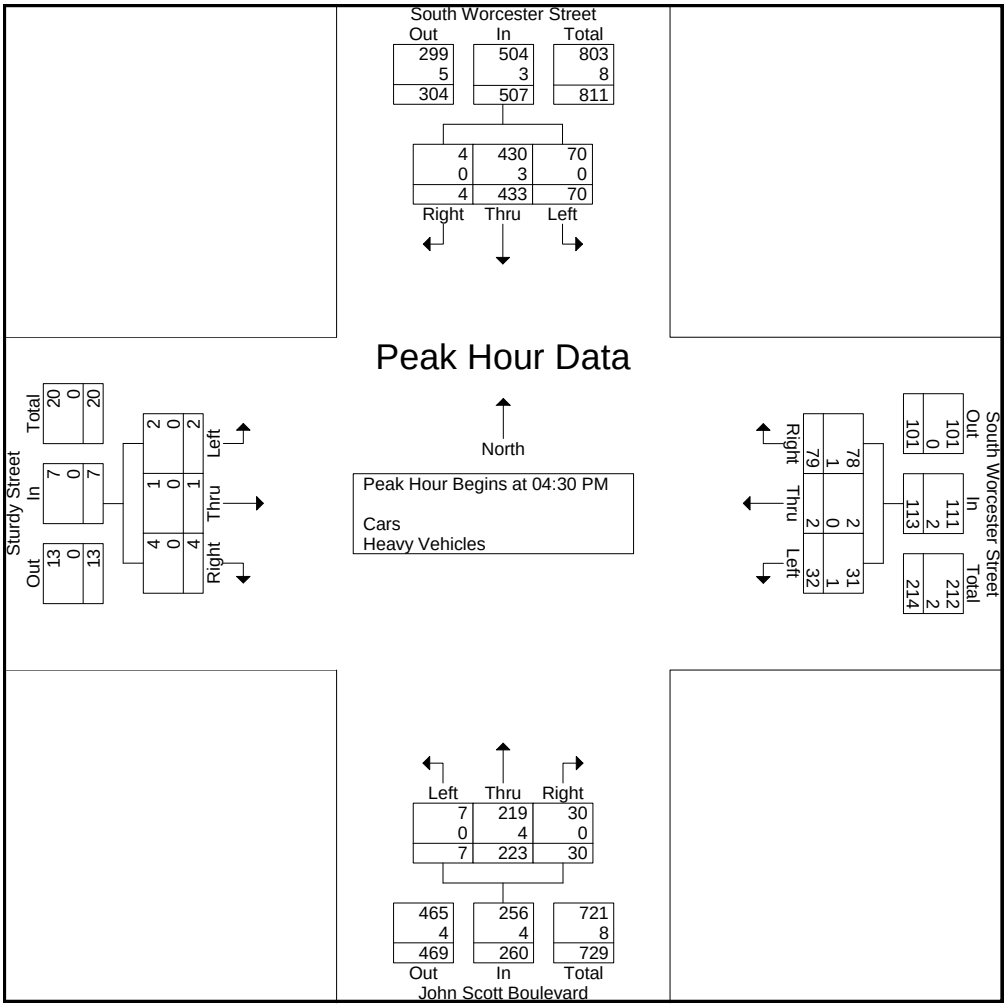
	South Worcester Street From North				South Worcester Street From East				John Scott Boulevard From South				Sturdy Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**3**	118	18	**139**	**33**	0	**9**	**42**	6	49	2	57	**2**	0	0	2	**240**
04:45 PM	0	103	**24**	127	18	0	8	26	7	53	0	60	0	0	0	0	213
05:00 PM	1	91	15	107	15	0	6	21	**12**	60	2	**74**	0	0	**1**	1	203
05:15 PM	0	**121**	13	134	13	**2**	9	24	5	**61**	**3**	69	2	**1**	1	**4**	231
Total Volume	4	433	70	507	79	2	32	113	30	223	7	260	4	1	2	7	887
% App. Total	0.8	85.4	13.8		69.9	1.8	28.3		11.5	85.8	2.7		57.1	14.3	28.6		
PHF	.333	.895	.729	.912	.598	.250	.889	.673	.625	.914	.583	.878	.500	.250	.500	.438	.924
Cars	4	430	70	504	78	2	31	111	30	219	7	256	4	1	2	7	878
% Cars	100	99.3	100	99.4	98.7	100	96.9	98.2	100	98.2	100	98.5	100	100	100	100	99.0
Heavy Vehicles	0	3	0	3	1	0	1	2	0	4	0	4	0	0	0	0	9
% Heavy Vehicles	0	0.7	0	0.6	1.3	0	3.1	1.8	0	1.8	0	1.5	0	0	0	0	1.0



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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-D
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dean Street From North			John Scott Boulevard From East			Dean Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	10	1	2	23	0	3	39	16	4	32	1	131
07:15 AM	0	7	1	3	40	3	1	45	12	6	33	1	152
07:30 AM	0	12	3	2	31	1	0	34	19	6	33	1	142
07:45 AM	0	9	3	3	40	1	1	28	11	4	44	0	144
Total	0	38	8	10	134	5	5	146	58	20	142	3	569
08:00 AM	2	7	1	2	38	1	3	35	11	3	43	3	149
08:15 AM	1	9	2	5	33	1	2	31	10	5	32	1	132
08:30 AM	0	9	0	2	15	1	2	22	3	4	27	0	85
08:45 AM	4	6	1	3	20	1	1	21	16	12	17	1	103
Total	7	31	4	12	106	4	8	109	40	24	119	5	469
Grand Total	7	69	12	22	240	9	13	255	98	44	261	8	1038
Apprch %	8	78.4	13.6	8.1	88.6	3.3	3.6	69.7	26.8	14.1	83.4	2.6	
Total %	0.7	6.6	1.2	2.1	23.1	0.9	1.3	24.6	9.4	4.2	25.1	0.8	
Cars	5	64	12	20	232	6	12	248	95	40	250	6	990
% Cars	71.4	92.8	100	90.9	96.7	66.7	92.3	97.3	96.9	90.9	95.8	75	95.4
Heavy Vehicles	2	5	0	2	8	3	1	7	3	4	11	2	48
% Heavy Vehicles	28.6	7.2	0	9.1	3.3	33.3	7.7	2.7	3.1	9.1	4.2	25	4.6

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	7	1	8	**3**	**40**	**3**	**46**	1	**45**	12	**58**	**6**	33	1	40	**152**
07:30 AM	0	**12**	**3**	**15**	2	31	1	34	0	34	**19**	53	6	33	1	40	142
07:45 AM	0	9	3	12	3	40	1	44	1	28	11	40	4	**44**	0	48	144
08:00 AM	**2**	7	1	10	2	38	1	41	**3**	35	11	49	3	43	**3**	**49**	149
Total Volume	2	35	8	45	10	149	6	165	5	142	53	200	19	153	5	177	587
% App. Total	4.4	77.8	17.8		6.1	90.3	3.6		2.5	71	26.5		10.7	86.4	2.8		
PHF	.250	.729	.667	.750	.833	.931	.500	.897	.417	.789	.697	.862	.792	.869	.417	.903	.965
Cars	1	33	8	42	10	144	5	159	5	139	51	195	18	147	3	168	564
% Cars	50.0	94.3	100	93.3	100	96.6	83.3	96.4	100	97.9	96.2	97.5	94.7	96.1	60.0	94.9	96.1
Heavy Vehicles	1	2	0	3	0	5	1	6	0	3	2	5	1	6	2	9	23
% Heavy Vehicles	50.0	5.7	0	6.7	0	3.4	16.7	3.6	0	2.1	3.8	2.5	5.3	3.9	40.0	5.1	3.9

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Client: VHB/J. Quitter

File Name : 81676I-D
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Dean Street From North			John Scott Boulevard From East			Dean Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	9	1	2	22	0	3	39	16	3	32	1	128
07:15 AM	0	6	1	3	39	2	1	44	12	6	32	1	147
07:30 AM	0	12	3	2	28	1	0	33	18	6	31	1	135
07:45 AM	0	8	3	3	39	1	1	28	11	3	43	0	140
Total	0	35	8	10	128	4	5	144	57	18	138	3	550
08:00 AM	1	7	1	2	38	1	3	34	10	3	41	1	142
08:15 AM	0	9	2	3	33	0	2	30	9	4	31	1	124
08:30 AM	0	8	0	2	14	1	1	20	3	3	25	0	77
08:45 AM	4	5	1	3	19	0	1	20	16	12	15	1	97
Total	5	29	4	10	104	2	7	104	38	22	112	3	440
Grand Total	5	64	12	20	232	6	12	248	95	40	250	6	990
Apprch %	6.2	79	14.8	7.8	89.9	2.3	3.4	69.9	26.8	13.5	84.5	2	
Total %	0.5	6.5	1.2	2	23.4	0.6	1.2	25.1	9.6	4	25.3	0.6	

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	6	1	7	**3**	**39**	**2**	**44**	1	**44**	12	**57**	**6**	32	**1**	39	**147**
07:30 AM	0	**12**	**3**	**15**	2	28	1	31	0	33	**18**	51	6	31	1	38	135
07:45 AM	0	8	3	11	3	39	1	43	1	28	11	40	3	**43**	0	**46**	140
08:00 AM	**1**	7	1	9	2	38	1	41	**3**	34	10	47	3	41	1	45	142
Total Volume	1	33	8	42	10	144	5	159	5	139	51	195	18	147	3	168	564
% App. Total	2.4	78.6	19		6.3	90.6	3.1		2.6	71.3	26.2		10.7	87.5	1.8		
PHF	.250	.688	.667	.700	.833	.923	.625	.903	.417	.790	.708	.855	.750	.855	.750	.913	.959

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File Name : 81676I-D
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Page No : 1

Groups Printed- Heavy Vehicles

	Dean Street From North			John Scott Boulevard From East			Dean Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	1	0	0	1	0	0	0	0	1	0	0	3
07:15 AM	0	1	0	0	1	1	0	1	0	0	1	0	5
07:30 AM	0	0	0	0	3	0	0	1	1	0	2	0	7
07:45 AM	0	1	0	0	1	0	0	0	0	1	1	0	4
Total	0	3	0	0	6	1	0	2	1	2	4	0	19
08:00 AM	1	0	0	0	0	0	0	1	1	0	2	2	7
08:15 AM	1	0	0	2	0	1	0	1	1	1	1	0	8
08:30 AM	0	1	0	0	1	0	1	2	0	1	2	0	8
08:45 AM	0	1	0	0	1	1	0	1	0	0	2	0	6
Total	2	2	0	2	2	2	1	5	2	2	7	2	29
Grand Total	2	5	0	2	8	3	1	7	3	4	11	2	48
Apprch %	28.6	71.4	0	15.4	61.5	23.1	9.1	63.6	27.3	23.5	64.7	11.8	
Total %	4.2	10.4	0	4.2	16.7	6.2	2.1	14.6	6.2	8.3	22.9	4.2	

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**1**	0	0	**1**	0	0	0	0	0	1	**1**	2	0	**2**	**2**	**4**	7
08:15 AM	1	0	0	1	**2**	0	**1**	**3**	0	1	1	2	**1**	1	0	2	**8**
08:30 AM	0	**1**	0	1	0	**1**	0	1	**1**	**2**	0	**3**	1	2	0	3	8
08:45 AM	0	1	0	1	0	1	1	2	0	1	0	1	0	2	0	2	6
Total Volume	2	2	0	4	2	2	2	6	1	5	2	8	2	7	2	11	29
% App. Total	50	50	0		33.3	33.3	33.3		12.5	62.5	25		18.2	63.6	18.2		
PHF	.500	.500	.000	1.000	.250	.500	.500	.500	.250	.625	.500	.667	.500	.875	.250	.688	.906

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Groups Printed- Peds and Bicycles

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
Grand Total	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	3
Apprch %	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	100	
Total %	0	0	0	33.3	0	0	0	0	0	0	33.3	0	0	0	0	33.3	

	Dean Street From North					John Scott Boulevard From East					Dean Street From South					John Scott Boulevard From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
Total Volume	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
% App. Total	0	0	0	100		0	0	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500

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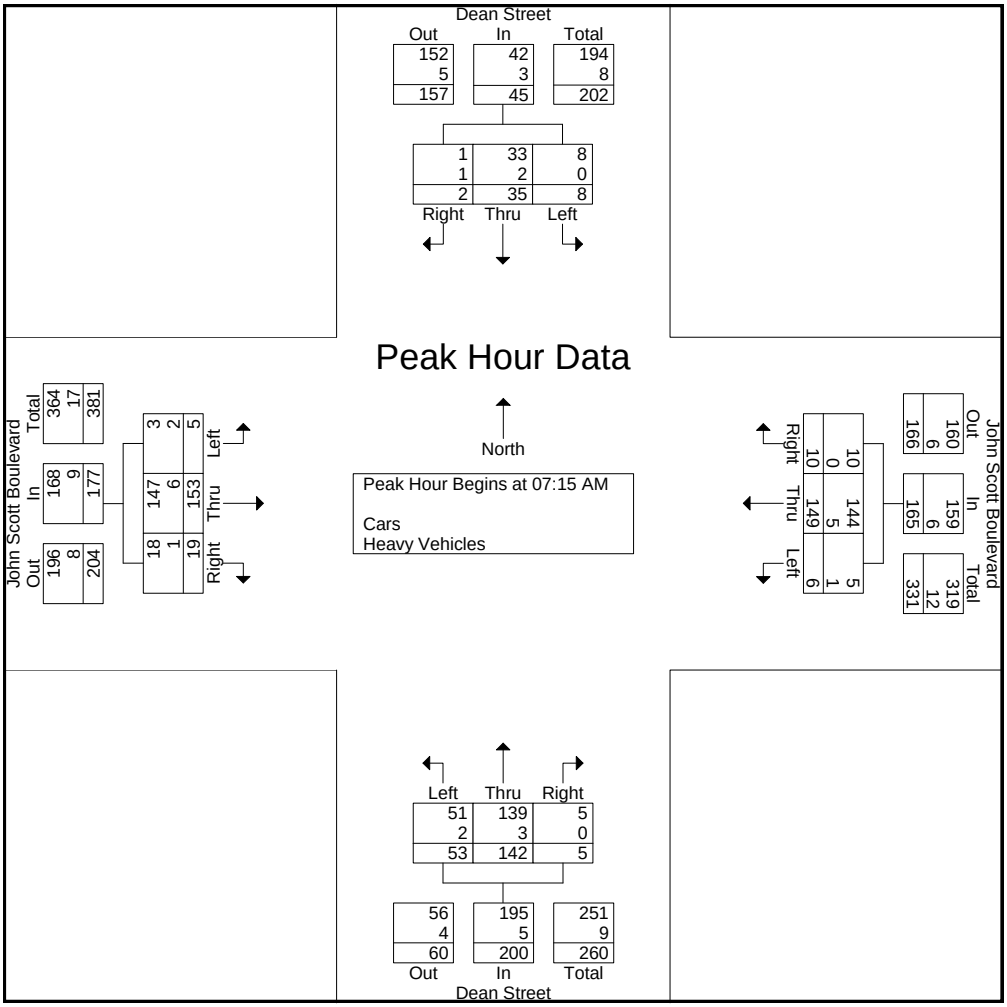
N/S: S. Worcester Street/John Scott Blvd
E/W: S. Worcester Street/Sturdy Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-D
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	7	1	8	**3**	**40**	**3**	**46**	1	**45**	12	**58**	**6**	33	1	40	**152**
07:30 AM	0	**12**	**3**	**15**	2	31	1	34	0	34	**19**	53	6	33	1	40	142
07:45 AM	0	9	3	12	3	40	1	44	1	28	11	40	4	**44**	0	48	144
08:00 AM	**2**	7	1	10	2	38	1	41	**3**	35	11	49	3	43	**3**	**49**	149
Total Volume	2	35	8	45	10	149	6	165	5	142	53	200	19	153	5	177	587
% App. Total	4.4	77.8	17.8		6.1	90.3	3.6		2.5	71	26.5		10.7	86.4	2.8		
PHF	.250	.729	.667	.750	.833	.931	.500	.897	.417	.789	.697	.862	.792	.869	.417	.903	.965
Cars	1	33	8	42	10	144	5	159	5	139	51	195	18	147	3	168	564
% Cars	50.0	94.3	100	93.3	100	96.6	83.3	96.4	100	97.9	96.2	97.5	94.7	96.1	60.0	94.9	96.1
Heavy Vehicles	1	2	0	3	0	5	1	6	0	3	2	5	1	6	2	9	23
% Heavy Vehicles	50.0	5.7	0	6.7	0	3.4	16.7	3.6	0	2.1	3.8	2.5	5.3	3.9	40.0	5.1	3.9



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N/S: Dean Street
E/W: John Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dean Street From North			John Scott Boulevard From East			Dean Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	25	2	4	35	2	3	11	10	13	42	1	149
04:15 PM	1	24	3	2	39	5	1	10	4	13	25	1	128
04:30 PM	1	30	4	2	40	5	1	19	9	17	60	2	190
04:45 PM	1	32	1	5	29	3	4	11	7	27	45	0	165
Total	4	111	10	13	143	15	9	51	30	70	172	4	632
05:00 PM	0	30	4	5	41	4	2	16	7	15	40	0	164
05:15 PM	1	28	3	1	37	3	2	14	8	27	39	1	164
05:30 PM	1	35	1	2	46	4	1	22	9	18	40	0	179
05:45 PM	0	30	5	1	32	1	1	27	7	20	30	0	154
Total	2	123	13	9	156	12	6	79	31	80	149	1	661
Grand Total	6	234	23	22	299	27	15	130	61	150	321	5	1293
Apprch %	2.3	89	8.7	6.3	85.9	7.8	7.3	63.1	29.6	31.5	67.4	1.1	
Total %	0.5	18.1	1.8	1.7	23.1	2.1	1.2	10.1	4.7	11.6	24.8	0.4	
Cars	6	231	22	21	296	25	11	130	61	147	316	5	1271
% Cars	100	98.7	95.7	95.5	99	92.6	73.3	100	100	98	98.4	100	98.3
Heavy Vehicles	0	3	1	1	3	2	4	0	0	3	5	0	22
% Heavy Vehicles	0	1.3	4.3	4.5	1	7.4	26.7	0	0	2	1.6	0	1.7

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	30	**4**	**35**	2	40	**5**	47	1	**19**	**9**	**29**	17	**60**	**2**	**79**	**190**
04:45 PM	1	**32**	1	34	**5**	29	3	37	**4**	11	7	22	**27**	45	0	72	165
05:00 PM	0	30	4	34	5	**41**	4	**50**	2	16	7	25	15	40	0	55	164
05:15 PM	1	28	3	32	1	37	3	41	2	14	8	24	27	39	1	67	164
Total Volume	3	120	12	135	13	147	15	175	9	60	31	100	86	184	3	273	683
% App. Total	2.2	88.9	8.9		7.4	84	8.6		9	60	31		31.5	67.4	1.1		
PHF	.750	.938	.750	.964	.650	.896	.750	.875	.563	.789	.861	.862	.796	.767	.375	.864	.899
Cars	3	119	12	134	13	145	14	172	6	60	31	97	86	181	3	270	673
% Cars	100	99.2	100	99.3	100	98.6	93.3	98.3	66.7	100	100	97.0	100	98.4	100	98.9	98.5
Heavy Vehicles	0	1	0	1	0	2	1	3	3	0	0	3	0	3	0	3	10
% Heavy Vehicles	0	0.8	0	0.7	0	1.4	6.7	1.7	33.3	0	0	3.0	0	1.6	0	1.1	1.5

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E/W: John Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Cars

	Dean Street From North			John Scott Boulevard From East			Dean Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	24	2	4	35	2	2	11	10	10	41	1	143
04:15 PM	1	24	3	1	38	4	1	10	4	13	24	1	124
04:30 PM	1	30	4	2	40	5	1	19	9	17	59	2	189
04:45 PM	1	32	1	5	27	3	2	11	7	27	44	0	160
Total	4	110	10	12	140	14	6	51	30	67	168	4	616
05:00 PM	0	30	4	5	41	4	1	16	7	15	39	0	162
05:15 PM	1	27	3	1	37	2	2	14	8	27	39	1	162
05:30 PM	1	35	1	2	46	4	1	22	9	18	40	0	179
05:45 PM	0	29	4	1	32	1	1	27	7	20	30	0	152
Total	2	121	12	9	156	11	5	79	31	80	148	1	655
Grand Total	6	231	22	21	296	25	11	130	61	147	316	5	1271
Apprch %	2.3	89.2	8.5	6.1	86.5	7.3	5.4	64.4	30.2	31.4	67.5	1.1	
Total %	0.5	18.2	1.7	1.7	23.3	2	0.9	10.2	4.8	11.6	24.9	0.4	

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	30	**4**	**35**	2	40	**5**	47	1	**19**	**9**	**29**	17	**59**	**2**	**78**	**189**
04:45 PM	1	**32**	1	34	**5**	27	3	35	**2**	11	7	20	**27**	44	0	71	160
05:00 PM	0	30	4	34	5	**41**	4	**50**	1	16	7	24	15	39	0	54	162
05:15 PM	1	27	3	31	1	37	2	40	2	14	8	24	27	39	1	67	162
Total Volume	3	119	12	134	13	145	14	172	6	60	31	97	86	181	3	270	673
% App. Total	2.2	88.8	9		7.6	84.3	8.1		6.2	61.9	32		31.9	67	1.1		
PHF	.750	.930	.750	.957	.650	.884	.700	.860	.750	.789	.861	.836	.796	.767	.375	.865	.890

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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Dean Street From North			John Scott Boulevard From East			Dean Street From South			John Scott Boulevard From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	0	0	0	0	1	0	0	3	1	0	6
04:15 PM	0	0	0	1	1	1	0	0	0	0	1	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
04:45 PM	0	0	0	0	2	0	2	0	0	0	1	0	5
Total	0	1	0	1	3	1	3	0	0	3	4	0	16
05:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
05:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
Total	0	2	1	0	0	1	1	0	0	0	1	0	6
Grand Total	0	3	1	1	3	2	4	0	0	3	5	0	22
Apprch %	0	75	25	16.7	50	33.3	100	0	0	37.5	62.5	0	
Total %	0	13.6	4.5	4.5	13.6	9.1	18.2	0	0	13.6	22.7	0	

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**1**	0	**1**	0	0	0	0	1	0	0	1	**3**	**1**	0	**4**	**6**
04:15 PM	0	0	0	0	**1**	1	**1**	**3**	0	0	0	0	0	1	0	1	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	**2**	0	2	**2**	0	0	**2**	0	1	0	1	5
Total Volume	0	1	0	1	1	3	1	5	3	0	0	3	3	4	0	7	16
% App. Total	0	100	0		20	60	20		100	0	0		42.9	57.1	0		
PHF	.000	.250	.000	.250	.250	.375	.250	.417	.375	.000	.000	.375	.250	1.000	.000	.438	.667

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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	0	0	0	0	0	1	0	0	1	0	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	5
Total	0	2	0	0	0	2	0	0	0	4	0	0	0	1	0	0	9
Grand Total	0	5	0	0	0	2	0	0	0	5	0	0	1	1	0	0	14
Apprch %	0	100	0	0	0	100	0	0	0	100	0	0	50	50	0	0	
Total %	0	35.7	0	0	0	14.3	0	0	0	35.7	0	0	7.1	7.1	0	0	

	Dean Street From North					John Scott Boulevard From East					Dean Street From South					John Scott Boulevard From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	**3**	**0**	**0**	**3**	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	**1**	**0**	**0**	**1**	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	**2**	0	0	**2**	0	1	0	0	1	0	1	0	0	1	0	**1**	0	0	**1**	**5**
Total Volume	0	2	0	0	2	0	2	0	0	2	0	4	0	0	4	0	1	0	0	1	9
% App. Total	0	100	0	0		0	100	0	0		0	100	0	0		0	100	0	0		
PHF	.000	.250	.000	.000	.250	.000	.500	.000	.000	.500	.000	.333	.000	.000	.333	.000	.250	.000	.000	.250	.450

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N/S: Dean Street
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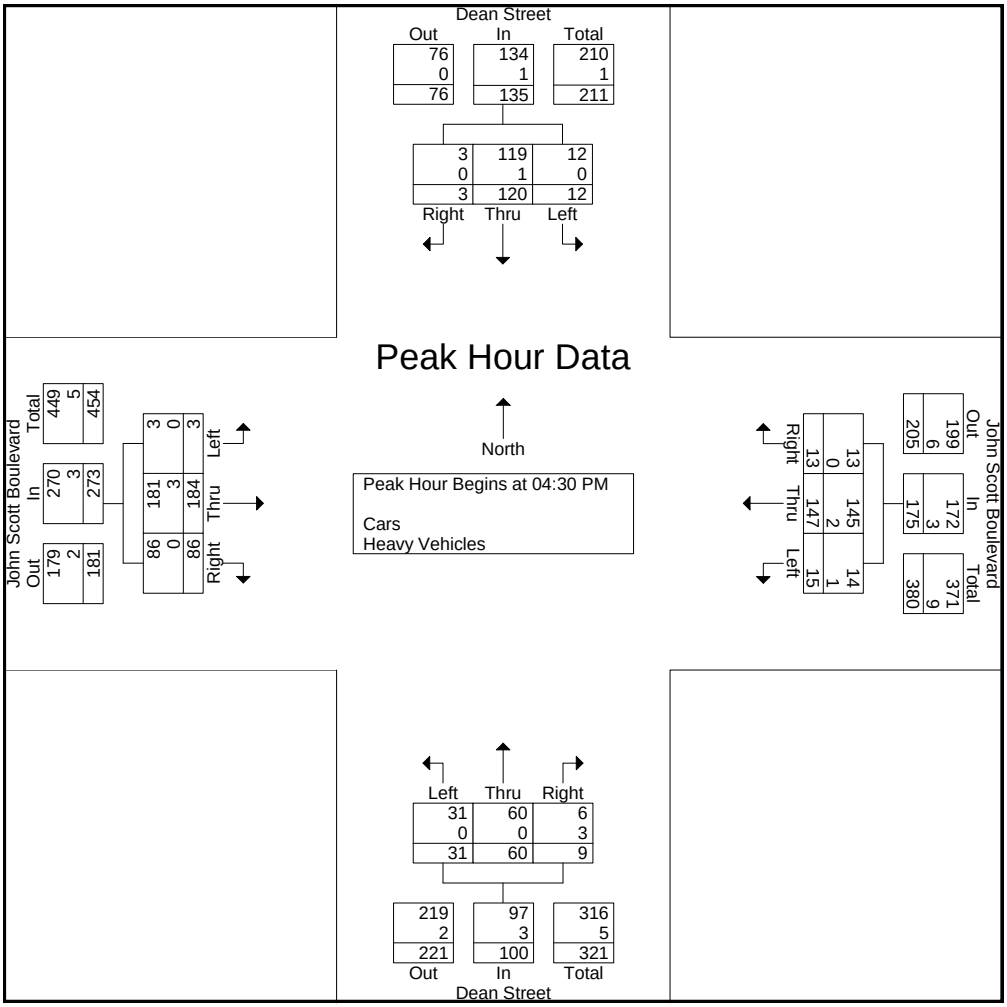
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-DDD
Site Code : 10111.31
Start Date : 9/10/2008
Page No : 1

	Dean Street From North				John Scott Boulevard From East				Dean Street From South				John Scott Boulevard From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	30	**4**	**35**	2	40	**5**	47	1	**19**	**9**	**29**	17	**60**	**2**	**79**	**190**
04:45 PM	1	**32**	1	34	**5**	29	3	37	**4**	11	7	22	**27**	45	0	72	165
05:00 PM	0	30	4	34	5	**41**	4	**50**	2	16	7	25	15	40	0	55	164
05:15 PM	1	28	3	32	1	37	3	41	2	14	8	24	27	39	1	67	164
Total Volume	3	120	12	135	13	147	15	175	9	60	31	100	86	184	3	273	683
% App. Total	2.2	88.9	8.9		7.4	84	8.6		9	60	31		31.5	67.4	1.1		
PHF	.750	.938	.750	.964	.650	.896	.750	.875	.563	.789	.861	.862	.796	.767	.375	.864	.899
Cars	3	119	12	134	13	145	14	172	6	60	31	97	86	181	3	270	673
% Cars	100	99.2	100	99.3	100	98.6	93.3	98.3	66.7	100	100	97.0	100	98.4	100	98.9	98.5
Heavy Vehicles	0	1	0	1	0	2	1	3	3	0	0	3	0	3	0	3	10
% Heavy Vehicles	0	0.8	0	0.7	0	1.4	6.7	1.7	33.3	0	0	3.0	0	1.6	0	1.1	1.5



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N/S: South Worcester Street
E: Barrows Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-E
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	South Worcester Street From North		Barrows Street From East		South Worcester Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	5	2	6	7	18	21	59
07:15 AM	8	7	32	8	14	69	138
07:30 AM	10	5	11	9	18	38	91
07:45 AM	11	14	10	9	6	36	86
Total	34	28	59	33	56	164	374
08:00 AM	12	3	26	10	19	39	109
08:15 AM	10	5	13	3	14	20	65
08:30 AM	14	1	6	2	18	28	69
08:45 AM	7	3	9	3	7	14	43
Total	43	12	54	18	58	101	286
Grand Total	77	40	113	51	114	265	660
Apprch %	65.8	34.2	68.9	31.1	30.1	69.9	
Total %	11.7	6.1	17.1	7.7	17.3	40.2	
Cars	69	39	108	47	107	254	624
% Cars	89.6	97.5	95.6	92.2	93.9	95.8	94.5
Heavy Vehicles	8	1	5	4	7	11	36
% Heavy Vehicles	10.4	2.5	4.4	7.8	6.1	4.2	5.5

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	8	7	15	**32**	8	**40**	14	**69**	**83**	**138**
07:30 AM	**10**	**5**	**15**	**11**	**9**	**20**	**18**	**38**	**56**	**91**
07:45 AM	**11**	**14**	**25**	10	9	19	6	36	42	86
08:00 AM	**12**	3	15	26	**10**	36	**19**	39	58	109
Total Volume	41	29	70	79	36	115	57	182	239	424
% App. Total	58.6	41.4		68.7	31.3		23.8	76.2		
PHF	.854	.518	.700	.617	.900	.719	.750	.659	.720	.768
Cars	38	29	67	76	33	109	53	178	231	407
% Cars	92.7	100	95.7	96.2	91.7	94.8	93.0	97.8	96.7	96.0
Heavy Vehicles	3	0	3	3	3	6	4	4	8	17
% Heavy Vehicles	7.3	0	4.3	3.8	8.3	5.2	7.0	2.2	3.3	4.0

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: South Worcester Street
E: Barrows Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-E
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Cars

	South Worcester Street From North		Barrows Street From East		South Worcester Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	4	2	6	6	18	19	55
07:15 AM	7	7	31	7	12	69	133
07:30 AM	10	5	11	9	17	36	88
07:45 AM	9	14	8	7	5	36	79
Total	30	28	56	29	52	160	355
08:00 AM	12	3	26	10	19	37	107
08:15 AM	10	5	12	3	12	18	60
08:30 AM	11	1	5	2	17	26	62
08:45 AM	6	2	9	3	7	13	40
Total	39	11	52	18	55	94	269
Grand Total	69	39	108	47	107	254	624
Apprch %	63.9	36.1	69.7	30.3	29.6	70.4	
Total %	11.1	6.2	17.3	7.5	17.1	40.7	

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	7	7	14	**31**	7	**38**	12	**69**	**81**	**133**
07:30 AM	**10**	**5**	**15**	**11**	**9**	**20**	**17**	**36**	**53**	**88**
07:45 AM	**9**	**14**	**23**	8	7	15	5	36	41	79
08:00 AM	**12**	3	15	26	**10**	36	**19**	37	56	107
Total Volume	38	29	67	76	33	109	53	178	231	407
% App. Total	56.7	43.3		69.7	30.3		22.9	77.1		
PHF	.792	.518	.728	.613	.825	.717	.697	.645	.713	.765

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Client: VHB/J. Quitter

File Name : 81676I-E
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Heavy Vehicles

	South Worcester Street From North		Barrows Street From East		South Worcester Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	1	0	0	1	0	2	4
07:15 AM	1	0	1	1	2	0	5
07:30 AM	0	0	0	0	1	2	3
07:45 AM	2	0	2	2	1	0	7
Total	4	0	3	4	4	4	19
08:00 AM	0	0	0	0	0	2	2
08:15 AM	0	0	1	0	2	2	5
08:30 AM	3	0	1	0	1	2	7
08:45 AM	1	1	0	0	0	1	3
Total	4	1	2	0	3	7	17
Grand Total	8	1	5	4	7	11	36
Apprch %	88.9	11.1	55.6	44.4	38.9	61.1	
Total %	22.2	2.8	13.9	11.1	19.4	30.6	

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	2	0	2	**2**	**2**	**4**	1	0	1	**7**
08:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	2	2
08:15 AM	0	0	0	1	0	1	**2**	2	**4**	5
08:30 AM	**3**	0	**3**	1	0	1	1	2	3	7
Total Volume	5	0	5	4	2	6	4	6	10	21
% App. Total	100	0		66.7	33.3		40	60		
PHF	.417	.000	.417	.500	.250	.375	.500	.750	.625	.750

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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-E
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Peds and Bicycles

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	3	0	0	2	0	0	0	5
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	3	1	0	2	0	0	0	6
08:00 AM	0	0	0	0	0	1	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	2
Grand Total	0	0	3	1	0	3	0	1	0	8
Apprch %	0	0	100	25	0	75	0	100	0	
Total %	0	0	37.5	12.5	0	37.5	0	12.5	0	

	South Worcester Street From North				Barrows Street From East				South Worcester Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	**3**	**3**	0	0	**2**	**2**	0	0	0	0	**5**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	**1**	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	3	3	1	0	2	3	0	0	0	0	6
% App. Total	0	0	100		33.3	0	66.7		0	0	0		
PHF	.000	.000	.250	.250	.250	.000	.250	.375	.000	.000	.000	.000	.300

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N/S: South Worcester Street
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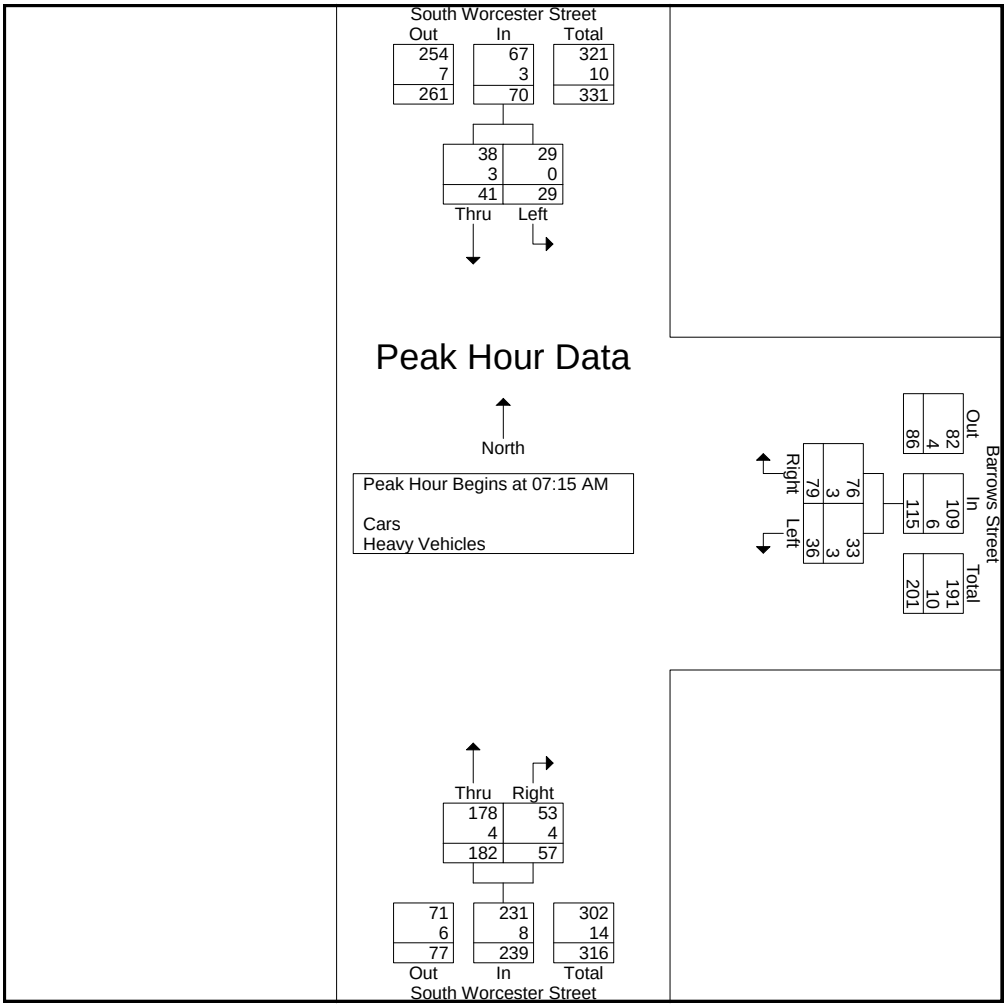
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-E
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	8	7	15	**32**	8	**40**	14	**69**	**83**	**138**
07:30 AM	**10**	**5**	**15**	**11**	**9**	**20**	**18**	**38**	**56**	**91**
07:45 AM	**11**	**14**	**25**	10	9	19	6	36	42	86
08:00 AM	**12**	3	15	26	**10**	36	**19**	39	58	109
Total Volume	41	29	70	79	36	115	57	182	239	424
% App. Total	58.6	41.4		68.7	31.3		23.8	76.2		
PHF	.854	.518	.700	.617	.900	.719	.750	.659	.720	.768
Cars	38	29	67	76	33	109	53	178	231	407
% Cars	92.7	100	95.7	96.2	91.7	94.8	93.0	97.8	96.7	96.0
Heavy Vehicles	3	0	3	3	3	6	4	4	8	17
% Heavy Vehicles	7.3	0	4.3	3.8	8.3	5.2	7.0	2.2	3.3	4.0



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N/S: South Worcester Street
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City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-EEE
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	South Worcester Street From North		Barrows Street From East		South Worcester Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	34	5	13	14	11	14	91
04:15 PM	31	7	10	14	7	18	87
04:30 PM	38	10	6	22	14	18	108
04:45 PM	24	7	11	22	12	22	98
Total	127	29	40	72	44	72	384
05:00 PM	25	11	16	27	13	29	121
05:15 PM	41	12	14	28	12	25	132
05:30 PM	37	16	7	16	17	21	114
05:45 PM	37	10	10	22	9	21	109
Total	140	49	47	93	51	96	476
Grand Total	267	78	87	165	95	168	860
Apprch %	77.4	22.6	34.5	65.5	36.1	63.9	
Total %	31	9.1	10.1	19.2	11	19.5	
Cars	264	76	85	162	92	165	844
% Cars	98.9	97.4	97.7	98.2	96.8	98.2	98.1
Heavy Vehicles	3	2	2	3	3	3	16
% Heavy Vehicles	1.1	2.6	2.3	1.8	3.2	1.8	1.9

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	25	11	36	**16**	27	**43**	13	**29**	**42**	121
05:15 PM	**41**	12	**53**	14	**28**	42	12	25	37	**132**
05:30 PM	**37**	**16**	53	7	16	23	**17**	21	38	114
05:45 PM	37	10	47	10	22	32	9	21	30	109
Total Volume	140	49	189	47	93	140	51	96	147	476
% App. Total	74.1	25.9		33.6	66.4		34.7	65.3		
PHF	.854	.766	.892	.734	.830	.814	.750	.828	.875	.902
Cars	140	49	189	45	92	137	50	95	145	471
% Cars	100	100	100	95.7	98.9	97.9	98.0	99.0	98.6	98.9
Heavy Vehicles	0	0	0	2	1	3	1	1	2	5
% Heavy Vehicles	0	0	0	4.3	1.1	2.1	2.0	1.0	1.4	1.1

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N/S: South Worcester Street
E: Barrows Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-EEE
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Cars

	South Worcester Street From North		Barrows Street From East		South Worcester Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	33	4	13	13	10	13	86
04:15 PM	29	6	10	13	6	18	82
04:30 PM	38	10	6	22	14	17	107
04:45 PM	24	7	11	22	12	22	98
Total	124	27	40	70	42	70	373
05:00 PM	25	11	14	27	13	29	119
05:15 PM	41	12	14	27	11	24	129
05:30 PM	37	16	7	16	17	21	114
05:45 PM	37	10	10	22	9	21	109
Total	140	49	45	92	50	95	471
Grand Total	264	76	85	162	92	165	844
Apprch %	77.6	22.4	34.4	65.6	35.8	64.2	
Total %	31.3	9	10.1	19.2	10.9	19.5	

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	25	11	36	**14**	**27**	**41**	13	**29**	**42**	119
05:15 PM	**41**	12	**53**	14	27	41	11	24	35	**129**
05:30 PM	**37**	**16**	53	7	16	23	**17**	21	38	114
05:45 PM	37	10	47	10	22	32	9	21	30	109
Total Volume	140	49	189	45	92	137	50	95	145	471
% App. Total	74.1	25.9		32.8	67.2		34.5	65.5		
PHF	.854	.766	.892	.804	.852	.835	.735	.819	.863	.913

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E: Barrows Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-EEE
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Heavy Vehicles

	South Worcester Street From North		Barrows Street From East		South Worcester Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	1	1	0	1	1	1	5
04:15 PM	2	1	0	1	1	0	5
04:30 PM	0	0	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0
Total	3	2	0	2	2	2	11
05:00 PM	0	0	2	0	0	0	2
05:15 PM	0	0	0	1	1	1	3
05:30 PM	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0
Total	0	0	2	1	1	1	5
Grand Total	3	2	2	3	3	3	16
Apprch %	60	40	40	60	50	50	
Total %	18.8	12.5	12.5	18.8	18.8	18.8	

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	**1**	2	0	**1**	**1**	**1**	**1**	**2**	**5**
04:15 PM	**2**	1	**3**	0	1	1	1	0	1	5
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	3	2	5	0	2	2	2	2	4	11
% App. Total	60	40		0	100		50	50		
PHF	.375	.500	.417	.000	.500	.500	.500	.500	.500	.550

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E: Barrows Street
City, State: Norton, MA
Client: VHB/J. Quitter

File Name : 81676I-EEE
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

Groups Printed- Peds and Bicycles

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	1	0	2	0	0	1	0	0	0	4
04:15 PM	0	0	0	0	0	2	0	1	1	4
04:30 PM	0	0	1	2	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	3	2	0	3	0	1	1	11
05:00 PM	0	0	0	0	0	2	0	0	0	2
05:15 PM	0	0	1	0	0	2	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	4	0	0	0	5
Grand Total	1	0	4	2	0	7	0	1	1	16
Apprch %	20	0	80	22.2	0	77.8	0	50	50	
Total %	6.2	0	25	12.5	0	43.8	0	6.2	6.2	

	South Worcester Street From North				Barrows Street From East				South Worcester Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	**1**	0	**2**	**3**	0	0	1	1	0	0	0	0	**4**
04:15 PM	0	0	0	0	0	0	**2**	**2**	0	**1**	**1**	**2**	4
04:30 PM	0	0	1	1	**2**	0	0	2	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	3	4	2	0	3	5	0	1	1	2	11
% App. Total	25	0	75		40	0	60		0	50	50		
PHF	.250	.000	.375	.333	.250	.000	.375	.625	.000	.250	.250	.250	.688

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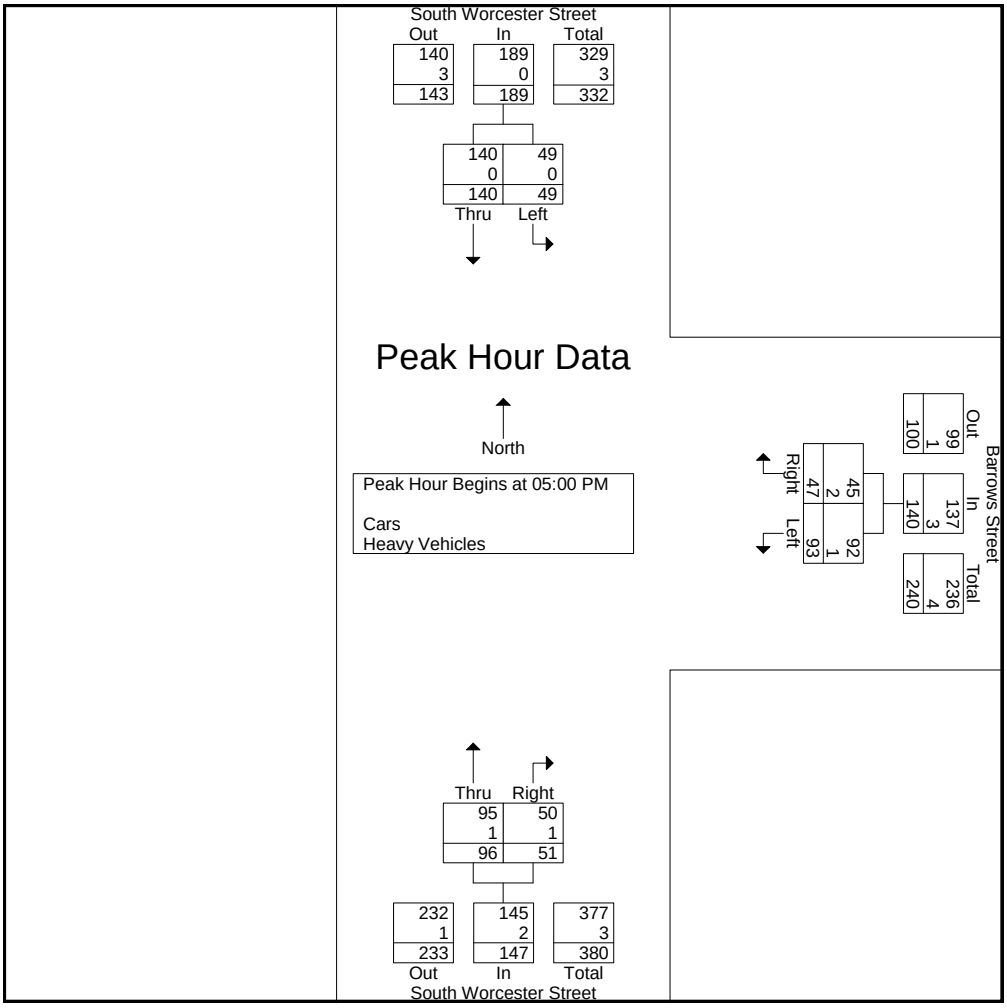
Client: VHB/J. Quitter

File Name : 81676I-EEE
Site Code : 10111.31
Start Date : 9/25/2008
Page No : 1

	South Worcester Street From North			Barrows Street From East			South Worcester Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	25	11	36	**16**	27	**43**	13	**29**	**42**	121
05:15 PM	**41**	12	**53**	14	**28**	42	12	25	37	**132**
05:30 PM	**37**	**16**	53	7	16	23	**17**	21	38	114
05:45 PM	37	10	47	10	22	32	9	21	30	109
Total Volume	140	49	189	47	93	140	51	96	147	476
% App. Total	74.1	25.9		33.6	66.4		34.7	65.3		
PHF	.854	.766	.892	.734	.830	.814	.750	.828	.875	.902
Cars	140	49	189	45	92	137	50	95	145	471
% Cars	100	100	100	95.7	98.9	97.9	98.0	99.0	98.6	98.9
Heavy Vehicles	0	0	0	2	1	3	1	1	2	5
% Heavy Vehicles	0	0	0	4.3	1.1	2.1	2.0	1.0	1.4	1.1



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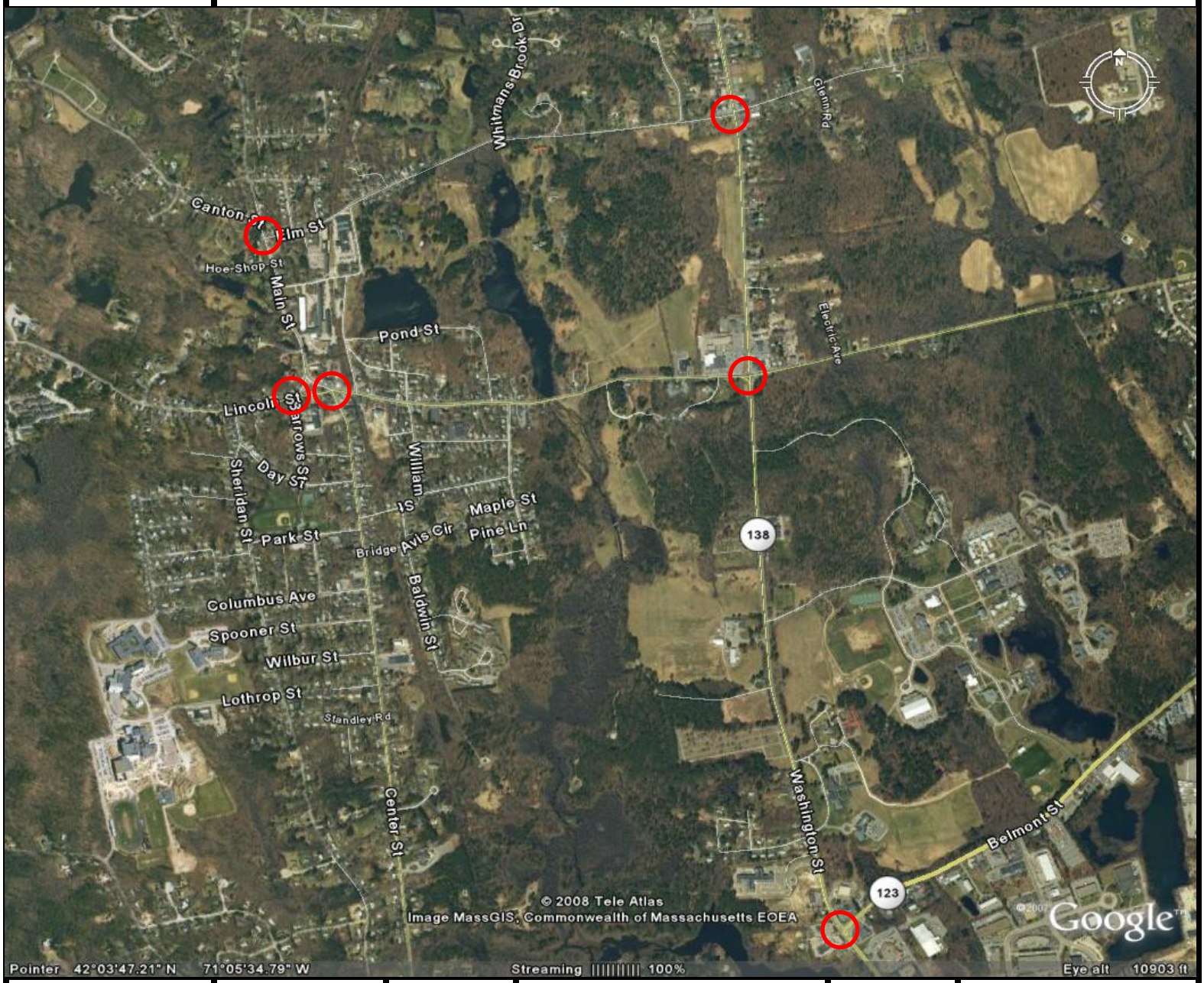
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Sat 9/13/08 and Tues 9/23/08	81676	Easton, MA

PRECISION DATA INDUSTRIES, LLC
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Email: datarequests@pdillc.com

N/S: Washington Street (Route 138)
E/W: Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-A
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Elm Street From East			Washington Street (Route 138) From South			Elm Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	124	2	2	4	7	5	213	4	11	7	22	416
07:15 AM	12	89	0	5	2	1	5	267	7	7	9	25	429
07:30 AM	9	78	0	8	2	1	7	314	7	6	7	33	472
07:45 AM	8	105	1	4	7	6	1	266	7	10	7	16	438
Total	44	396	3	19	15	15	18	1060	25	34	30	96	1755
08:00 AM	12	93	0	6	2	2	4	298	6	9	9	17	458
08:15 AM	10	127	1	4	6	0	2	199	11	8	7	26	401
08:30 AM	13	112	4	11	3	2	4	176	6	6	5	20	362
08:45 AM	27	116	4	8	2	5	10	157	16	17	8	31	401
Total	62	448	9	29	13	9	20	830	39	40	29	94	1622
Grand Total	106	844	12	48	28	24	38	1890	64	74	59	190	3377
Apprch %	11	87.7	1.2	48	28	24	1.9	94.9	3.2	22.9	18.3	58.8	
Total %	3.1	25	0.4	1.4	0.8	0.7	1.1	56	1.9	2.2	1.7	5.6	
Cars	99	802	11	46	26	24	38	1825	62	72	54	187	3246
% Cars	93.4	95	91.7	95.8	92.9	100	100	96.6	96.9	97.3	91.5	98.4	96.1
Heavy Vehicles	7	42	1	2	2	0	0	65	2	2	5	3	131
% Heavy Vehicles	6.6	5	8.3	4.2	7.1	0	0	3.4	3.1	2.7	8.5	1.6	3.9

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**12**	89	0	101	5	2	1	8	5	267	**7**	279	7	**9**	25	41	429
07:30 AM	9	78	0	87	**8**	2	1	11	**7**	**314**	7	**328**	6	7	**33**	**46**	**472**
07:45 AM	8	**105**	**1**	**114**	4	**7**	**6**	**17**	1	266	7	274	**10**	7	16	33	438
08:00 AM	12	93	0	105	6	2	2	10	4	298	6	308	9	9	17	35	458
Total Volume	41	365	1	407	23	13	10	46	17	1145	27	1189	32	32	91	155	1797
% App. Total	10.1	89.7	0.2		50	28.3	21.7		1.4	96.3	2.3		20.6	20.6	58.7		
PHF	.854	.869	.250	.893	.719	.464	.417	.676	.607	.912	.964	.906	.800	.889	.689	.842	.952
Cars	38	353	1	392	22	11	10	43	17	1109	26	1152	31	31	91	153	1740
% Cars	92.7	96.7	100	96.3	95.7	84.6	100	93.5	100	96.9	96.3	96.9	96.9	96.9	100	98.7	96.8
Heavy Vehicles	3	12	0	15	1	2	0	3	0	36	1	37	1	1	0	2	57
% Heavy Vehicles	7.3	3.3	0	3.7	4.3	15.4	0	6.5	0	3.1	3.7	3.1	3.1	3.1	0	1.3	3.2

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N/S: Washington Street (Route 138)
E/W: Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-A
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Cars

	Washington Street (Route 138) From North			Elm Street From East			Washington Street (Route 138) From South			Elm Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	115	2	2	4	7	5	211	4	11	6	22	404
07:15 AM	11	86	0	5	2	1	5	263	6	7	9	25	420
07:30 AM	9	76	0	7	2	1	7	302	7	6	7	33	457
07:45 AM	7	101	1	4	5	6	1	259	7	9	7	16	423
Total	42	378	3	18	13	15	18	1035	24	33	29	96	1704
08:00 AM	11	90	0	6	2	2	4	285	6	9	8	17	440
08:15 AM	10	117	0	4	6	0	2	189	11	8	7	26	380
08:30 AM	12	105	4	11	3	2	4	168	6	5	3	18	341
08:45 AM	24	112	4	7	2	5	10	148	15	17	7	30	381
Total	57	424	8	28	13	9	20	790	38	39	25	91	1542
Grand Total	99	802	11	46	26	24	38	1825	62	72	54	187	3246
Apprch %	10.9	87.9	1.2	47.9	27.1	25	2	94.8	3.2	23	17.3	59.7	
Total %	3	24.7	0.3	1.4	0.8	0.7	1.2	56.2	1.9	2.2	1.7	5.8	

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**11**	86	0	97	5	2	1	8	5	263	6	274	7	**9**	25	41	420
07:30 AM	9	76	0	85	**7**	2	1	10	**7**	**302**	**7**	**316**	6	7	**33**	**46**	**457**
07:45 AM	7	**101**	**1**	**109**	4	**5**	**6**	**15**	1	259	7	267	**9**	7	16	32	423
08:00 AM	11	90	0	101	6	2	2	10	4	285	6	295	9	8	17	34	440
Total Volume	38	353	1	392	22	11	10	43	17	1109	26	1152	31	31	91	153	1740
% App. Total	9.7	90.1	0.3		51.2	25.6	23.3		1.5	96.3	2.3		20.3	20.3	59.5		
PHF	.864	.874	.250	.899	.786	.550	.417	.717	.607	.918	.929	.911	.861	.861	.689	.832	.952

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City, State: Easton, MA
Client: VHB/J. Quitter

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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Elm Street From East			Washington Street (Route 138) From South			Elm Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	9	0	0	0	0	0	2	0	0	1	0	12
07:15 AM	1	3	0	0	0	0	0	4	1	0	0	0	9
07:30 AM	0	2	0	1	0	0	0	12	0	0	0	0	15
07:45 AM	1	4	0	0	2	0	0	7	0	1	0	0	15
Total	2	18	0	1	2	0	0	25	1	1	1	0	51
08:00 AM	1	3	0	0	0	0	0	13	0	0	1	0	18
08:15 AM	0	10	1	0	0	0	0	10	0	0	0	0	21
08:30 AM	1	7	0	0	0	0	0	8	0	1	2	2	21
08:45 AM	3	4	0	1	0	0	0	9	1	0	1	1	20
Total	5	24	1	1	0	0	0	40	1	1	4	3	80
Grand Total	7	42	1	2	2	0	0	65	2	2	5	3	131
Apprch %	14	84	2	50	50	0	0	97	3	20	50	30	
Total %	5.3	32.1	0.8	1.5	1.5	0	0	49.6	1.5	1.5	3.8	2.3	

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	1	3	0	4	0	0	0	0	0	**13**	0	**13**	0	1	0	1	18
08:15 AM	0	**10**	**1**	**11**	0	0	0	0	0	10	0	10	0	0	0	0	**21**
08:30 AM	1	7	0	8	0	0	0	0	0	8	0	8	**1**	**2**	**2**	**5**	21
08:45 AM	**3**	4	0	7	**1**	0	0	**1**	0	9	**1**	10	0	1	1	2	20
Total Volume	5	24	1	30	1	0	0	1	0	40	1	41	1	4	3	8	80
% App. Total	16.7	80	3.3		100	0	0		0	97.6	2.4		12.5	50	37.5		
PHF	.417	.600	.250	.682	.250	.000	.000	.250	.000	.769	.250	.788	.250	.500	.375	.400	.952

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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-A
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	4
Grand Total	0	1	0	0	0	0	0	2	0	0	0	1	0	1	0	0	5
Apprch %	0	100	0	0	0	0	0	100	0	0	0	100	0	100	0	0	
Total %	0	20	0	0	0	0	0	40	0	0	0	20	0	20	0	0	

	Washington Street (Route 138) From North					Elm Street From East					Washington Street (Route 138) From South					Elm Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	**1**	0	0	**1**	**2**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	0	0	1	1	0	0	0	1	1	0	1	0	0	1	4
% App. Total	0	100	0	0		0	0	0	100		0	0	0	100		0	100	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.000	.250	.000	.000	.250	.500

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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-A
Site Code : 10111.31
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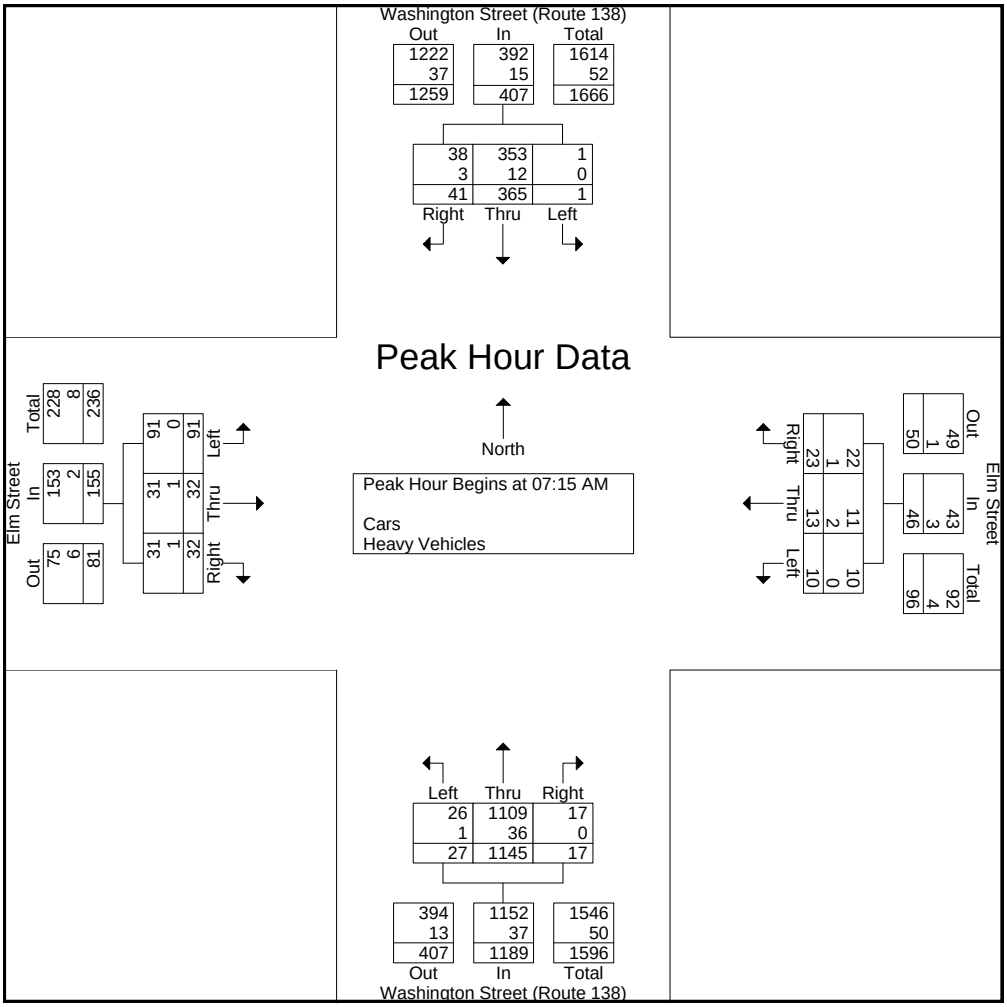
	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**12**	89	0	101	5	2	1	8	5	267	**7**	279	7	**9**	25	41	429
07:30 AM	9	78	0	87	**8**	2	1	11	**7**	**314**	7	**328**	6	7	**33**	**46**	**472**
07:45 AM	8	**105**	**1**	**114**	4	**7**	**6**	**17**	1	266	7	274	**10**	7	16	33	438
08:00 AM	12	93	0	105	6	2	2	10	4	298	6	308	9	9	17	35	458
Total Volume	41	365	1	407	23	13	10	46	17	1145	27	1189	32	32	91	155	1797
% App. Total	10.1	89.7	0.2		50	28.3	21.7		1.4	96.3	2.3		20.6	20.6	58.7		
PHF	.854	.869	.250	.893	.719	.464	.417	.676	.607	.912	.964	.906	.800	.889	.689	.842	.952
Cars	38	353	1	392	22	11	10	43	17	1109	26	1152	31	31	91	153	1740
% Cars	92.7	96.7	100	96.3	95.7	84.6	100	93.5	100	96.9	96.3	96.9	96.9	96.9	100	98.7	96.8
Heavy Vehicles	3	12	0	15	1	2	0	3	0	36	1	37	1	1	0	2	57
% Heavy Vehicles	7.3	3.3	0	3.7	4.3	15.4	0	6.5	0	3.1	3.7	3.1	3.1	3.1	0	1.3	3.2



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N/S: Washington Street (Route 138)
E/W: Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-AAA
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Elm Street From East			Washington Street (Route 138) From South			Elm Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	35	185	5	10	6	1	5	150	14	8	6	15	440
04:15 PM	31	199	4	7	5	3	5	139	11	4	7	20	435
04:30 PM	26	195	10	4	10	2	8	144	6	15	3	12	435
04:45 PM	38	212	9	8	10	3	9	128	12	6	6	12	453
Total	130	791	28	29	31	9	27	561	43	33	22	59	1763
05:00 PM	24	188	2	11	10	7	8	167	13	5	4	19	458
05:15 PM	44	217	5	7	9	6	6	157	12	11	3	9	486
05:30 PM	46	259	4	8	14	3	2	124	20	6	4	21	511
05:45 PM	29	214	5	6	7	4	12	122	11	14	2	17	443
Total	143	878	16	32	40	20	28	570	56	36	13	66	1898
Grand Total	273	1669	44	61	71	29	55	1131	99	69	35	125	3661
Apprch %	13.7	84	2.2	37.9	44.1	18	4.3	88	7.7	30.1	15.3	54.6	
Total %	7.5	45.6	1.2	1.7	1.9	0.8	1.5	30.9	2.7	1.9	1	3.4	
Cars	271	1626	43	60	71	29	54	1103	97	65	35	123	3577
% Cars	99.3	97.4	97.7	98.4	100	100	98.2	97.5	98	94.2	100	98.4	97.7
Heavy Vehicles	2	43	1	1	0	0	1	28	2	4	0	2	84
% Heavy Vehicles	0.7	2.6	2.3	1.6	0	0	1.8	2.5	2	5.8	0	1.6	2.3

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	38	212	**9**	259	8	10	3	21	**9**	128	12	149	6	**6**	12	24	453
05:00 PM	24	188	2	214	**11**	10	**7**	**28**	8	**167**	13	**188**	5	4	19	28	458
05:15 PM	44	217	5	266	7	9	6	22	6	157	12	175	**11**	3	9	23	486
05:30 PM	**46**	**259**	4	**309**	8	**14**	3	25	2	124	**20**	146	6	4	**21**	**31**	**511**
Total Volume	152	876	20	1048	34	43	19	96	25	576	57	658	28	17	61	106	1908
% App. Total	14.5	83.6	1.9		35.4	44.8	19.8		3.8	87.5	8.7		26.4	16	57.5		
PHF	.826	.846	.556	.848	.773	.768	.679	.857	.694	.862	.713	.875	.636	.708	.726	.855	.933
Cars	151	855	20	1026	33	43	19	95	24	558	56	638	27	17	60	104	1863
% Cars	99.3	97.6	100	97.9	97.1	100	100	99.0	96.0	96.9	98.2	97.0	96.4	100	98.4	98.1	97.6
Heavy Vehicles	1	21	0	22	1	0	0	1	1	18	1	20	1	0	1	2	45
% Heavy Vehicles	0.7	2.4	0	2.1	2.9	0	0	1.0	4.0	3.1	1.8	3.0	3.6	0	1.6	1.9	2.4

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Client: VHB/J. Quitter

File Name : 81676 M-AAA
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Cars

	Washington Street (Route 138) From North			Elm Street From East			Washington Street (Route 138) From South			Elm Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	35	179	5	10	6	1	5	145	13	7	6	15	427
04:15 PM	30	192	3	7	5	3	5	137	11	4	7	20	424
04:30 PM	26	190	10	4	10	2	8	143	6	13	3	11	426
04:45 PM	38	207	9	8	10	3	8	123	12	6	6	12	442
Total	129	768	27	29	31	9	26	548	42	30	22	58	1719
05:00 PM	24	182	2	10	10	7	8	162	12	5	4	18	444
05:15 PM	44	214	5	7	9	6	6	154	12	10	3	9	479
05:30 PM	45	252	4	8	14	3	2	119	20	6	4	21	498
05:45 PM	29	210	5	6	7	4	12	120	11	14	2	17	437
Total	142	858	16	31	40	20	28	555	55	35	13	65	1858
Grand Total	271	1626	43	60	71	29	54	1103	97	65	35	123	3577
Apprch %	14	83.8	2.2	37.5	44.4	18.1	4.3	88	7.7	29.1	15.7	55.2	
Total %	7.6	45.5	1.2	1.7	2	0.8	1.5	30.8	2.7	1.8	1	3.4	

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	38	207	**9**	254	8	10	3	21	**8**	123	12	143	6	**6**	12	24	442
05:00 PM	24	182	2	208	**10**	10	**7**	**27**	8	**162**	12	**182**	5	4	18	27	444
05:15 PM	44	214	5	263	7	9	6	22	6	154	12	172	**10**	3	9	22	479
05:30 PM	**45**	**252**	4	**301**	8	**14**	3	25	2	119	**20**	141	6	4	**21**	**31**	**498**
Total Volume	151	855	20	1026	33	43	19	95	24	558	56	638	27	17	60	104	1863
% App. Total	14.7	83.3	1.9		34.7	45.3	20		3.8	87.5	8.8		26	16.3	57.7		
PHF	.839	.848	.556	.852	.825	.768	.679	.880	.750	.861	.700	.876	.675	.708	.714	.839	.935

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N/S: Washington Street (Route 138)
E/W: Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-AAA
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Elm Street From East			Washington Street (Route 138) From South			Elm Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	6	0	0	0	0	0	5	1	1	0	0	13
04:15 PM	1	7	1	0	0	0	0	2	0	0	0	0	11
04:30 PM	0	5	0	0	0	0	0	1	0	2	0	1	9
04:45 PM	0	5	0	0	0	0	1	5	0	0	0	0	11
Total	1	23	1	0	0	0	1	13	1	3	0	1	44
05:00 PM	0	6	0	1	0	0	0	5	1	0	0	1	14
05:15 PM	0	3	0	0	0	0	0	3	0	1	0	0	7
05:30 PM	1	7	0	0	0	0	0	5	0	0	0	0	13
05:45 PM	0	4	0	0	0	0	0	2	0	0	0	0	6
Total	1	20	0	1	0	0	0	15	1	1	0	1	40
Grand Total	2	43	1	1	0	0	1	28	2	4	0	2	84
Apprch %	4.3	93.5	2.2	100	0	0	3.2	90.3	6.5	66.7	0	33.3	
Total %	2.4	51.2	1.2	1.2	0	0	1.2	33.3	2.4	4.8	0	2.4	

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**1**	**7**	**1**	**9**	0	0	0	0	0	2	0	2	0	0	0	0	11
04:30 PM	0	5	0	5	0	0	0	0	0	1	0	1	**2**	0	**1**	**3**	9
04:45 PM	0	5	0	5	0	0	0	0	**1**	**5**	0	**6**	0	0	0	0	11
05:00 PM	0	6	0	6	**1**	0	0	**1**	0	5	**1**	6	0	0	1	1	**14**
Total Volume	1	23	1	25	1	0	0	1	1	13	1	15	2	0	2	4	45
% App. Total	4	92	4		100	0	0		6.7	86.7	6.7		50	0	50		
PHF	.250	.821	.250	.694	.250	.000	.000	.250	.250	.650	.250	.625	.250	.000	.500	.333	.804

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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-AAA
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	2	0	1	0	1	0	3	7
Grand Total	0	1	0	0	0	0	0	0	0	2	0	1	0	1	0	3	8
Apprch %	0	100	0	0	0	0	0	0	0	66.7	0	33.3	0	25	0	75	
Total %	0	12.5	0	0	0	0	0	0	0	25	0	12.5	0	12.5	0	37.5	

	Washington Street (Route 138) From North					Elm Street From East					Washington Street (Route 138) From South					Elm Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**
05:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**
05:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	0	1	**2**	**3**
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**	**2**	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	0	1	0	3	4	7
% App. Total	0	0	0	0		0	0	0	0		0	66.7	0	33.3		0	25	0	75		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.250	.375	.000	.250	.000	.750	.500	.583

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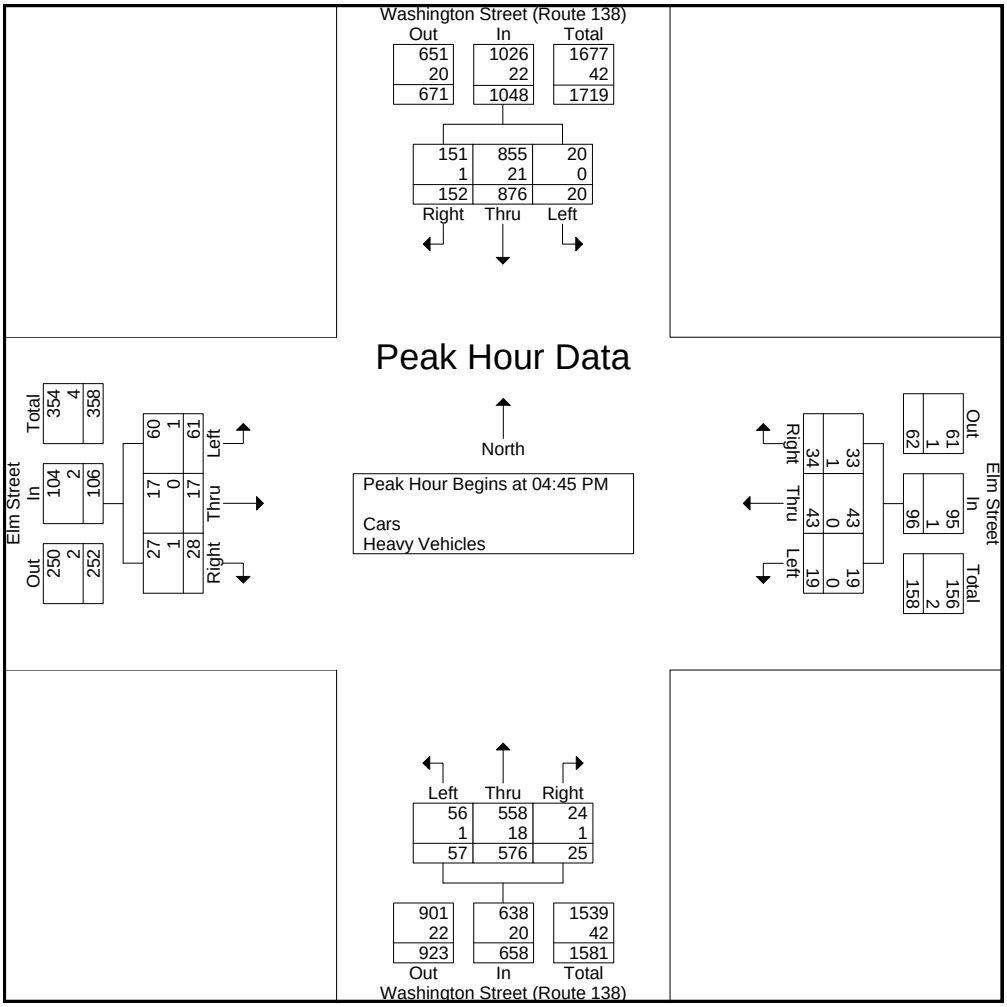
E/W: Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-AAA
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

	Washington Street (Route 138) From North				Elm Street From East				Washington Street (Route 138) From South				Elm Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	38	212	**9**	259	8	10	3	21	**9**	128	12	149	6	**6**	12	24	453
05:00 PM	24	188	2	214	**11**	10	**7**	**28**	8	**167**	13	**188**	5	4	19	28	458
05:15 PM	44	217	5	266	7	9	6	22	6	157	12	175	**11**	3	9	23	486
05:30 PM	**46**	**259**	4	**309**	8	**14**	3	25	2	124	**20**	146	6	4	**21**	**31**	**511**
Total Volume	152	876	20	1048	34	43	19	96	25	576	57	658	28	17	61	106	1908
% App. Total	14.5	83.6	1.9		35.4	44.8	19.8		3.8	87.5	8.7		26.4	16	57.5		
PHF	.826	.846	.556	.848	.773	.768	.679	.857	.694	.862	.713	.875	.636	.708	.726	.855	.933
Cars	151	855	20	1026	33	43	19	95	24	558	56	638	27	17	60	104	1863
% Cars	99.3	97.6	100	97.9	97.1	100	100	99.0	96.0	96.9	98.2	97.0	96.4	100	98.4	98.1	97.6
Heavy Vehicles	1	21	0	22	1	0	0	1	1	18	1	20	1	0	1	2	45
% Heavy Vehicles	0.7	2.4	0	2.1	2.9	0	0	1.0	4.0	3.1	1.8	3.0	3.6	0	1.6	1.9	2.4



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N/S: Washington Street (Route 138)
E/W: Belmont Street (Rte 123)/CVS Drive
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-B
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Belmont Street (Route 123) From East			Washington Street (Route 138/123) From South			CVS Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	66	39	29	2	36	95	134	2	2	2	0	408
07:15 AM	0	73	38	31	1	59	103	156	2	0	1	2	466
07:30 AM	1	59	47	59	4	68	113	173	2	1	3	2	532
07:45 AM	0	63	39	42	4	61	104	142	3	2	6	0	466
Total	2	261	163	161	11	224	415	605	9	5	12	4	1872
08:00 AM	1	70	49	47	4	48	87	175	6	1	4	4	496
08:15 AM	3	66	60	45	2	45	110	112	3	3	4	2	455
08:30 AM	4	67	44	31	3	50	118	120	7	5	1	0	450
08:45 AM	6	68	50	40	7	42	62	118	8	4	11	3	419
Total	14	271	203	163	16	185	377	525	24	13	20	9	1820
Grand Total	16	532	366	324	27	409	792	1130	33	18	32	13	3692
Apprch %	1.8	58.2	40	42.6	3.6	53.8	40.5	57.8	1.7	28.6	50.8	20.6	
Total %	0.4	14.4	9.9	8.8	0.7	11.1	21.5	30.6	0.9	0.5	0.9	0.4	
Cars	16	496	342	281	25	384	767	1085	32	18	30	12	3488
% Cars	100	93.2	93.4	86.7	92.6	93.9	96.8	96	97	100	93.8	92.3	94.5
Heavy Vehicles	0	36	24	43	2	25	25	45	1	0	2	1	204
% Heavy Vehicles	0	6.8	6.6	13.3	7.4	6.1	3.2	4	3	0	6.2	7.7	5.5

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**73**	38	111	31	1	59	91	103	156	2	261	0	1	2	3	466
07:30 AM	**1**	59	47	107	**59**	**4**	**68**	**131**	**113**	173	2	**288**	1	3	2	6	**532**
07:45 AM	0	63	39	102	42	4	61	107	104	142	3	249	**2**	**6**	0	8	466
08:00 AM	1	70	**49**	**120**	47	4	48	99	87	**175**	**6**	268	1	4	**4**	**9**	496
Total Volume	2	265	173	440	179	13	236	428	407	646	13	1066	4	14	8	26	1960
% App. Total	0.5	60.2	39.3		41.8	3	55.1		38.2	60.6	1.2		15.4	53.8	30.8		
PHF	.500	.908	.883	.917	.758	.813	.868	.817	.900	.923	.542	.925	.500	.583	.500	.722	.921
Cars	2	252	166	420	156	11	228	395	394	627	13	1034	4	13	7	24	1873
% Cars	100	95.1	96.0	95.5	87.2	84.6	96.6	92.3	96.8	97.1	100	97.0	100	92.9	87.5	92.3	95.6
Heavy Vehicles	0	13	7	20	23	2	8	33	13	19	0	32	0	1	1	2	87
% Heavy Vehicles	0	4.9	4.0	4.5	12.8	15.4	3.4	7.7	3.2	2.9	0	3.0	0	7.1	12.5	7.7	4.4

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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-B
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North			Belmont Street (Route 123) From East			Washington Street (Route 138/123) From South			CVS Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	58	34	26	2	36	94	131	2	2	2	0	388
07:15 AM	0	72	35	27	1	57	101	153	2	0	1	2	451
07:30 AM	1	55	47	48	2	65	110	167	2	1	3	1	502
07:45 AM	0	61	36	38	4	61	97	138	3	2	5	0	445
Total	2	246	152	139	9	219	402	589	9	5	11	3	1786
08:00 AM	1	64	48	43	4	45	86	169	6	1	4	4	475
08:15 AM	3	62	56	41	2	38	108	107	3	3	4	2	429
08:30 AM	4	61	39	26	3	48	113	110	7	5	1	0	417
08:45 AM	6	63	47	32	7	34	58	110	7	4	10	3	381
Total	14	250	190	142	16	165	365	496	23	13	19	9	1702
Grand Total	16	496	342	281	25	384	767	1085	32	18	30	12	3488
Apprch %	1.9	58.1	40	40.7	3.6	55.7	40.7	57.6	1.7	30	50	20	
Total %	0.5	14.2	9.8	8.1	0.7	11	22	31.1	0.9	0.5	0.9	0.3	

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**72**	35	107	27	1	57	85	101	153	2	256	0	1	2	3	451
07:30 AM	**1**	55	47	103	**48**	2	**65**	**115**	**110**	167	2	**279**	1	3	1	5	**502**
07:45 AM	0	61	36	97	38	**4**	61	103	97	138	3	238	**2**	**5**	0	7	445
08:00 AM	1	64	**48**	**113**	43	4	45	92	86	**169**	**6**	261	1	4	**4**	**9**	475
Total Volume	2	252	166	420	156	11	228	395	394	627	13	1034	4	13	7	24	1873
% App. Total	0.5	60	39.5		39.5	2.8	57.7		38.1	60.6	1.3		16.7	54.2	29.2		
PHF	.500	.875	.865	.929	.813	.688	.877	.859	.895	.928	.542	.927	.500	.650	.438	.667	.933

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File Name : 81676 M-B
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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Belmont Street (Route 123) From East			Washington Street (Route 138/123) From South			CVS Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	8	5	3	0	0	1	3	0	0	0	0	20
07:15 AM	0	1	3	4	0	2	2	3	0	0	0	0	15
07:30 AM	0	4	0	11	2	3	3	6	0	0	0	1	30
07:45 AM	0	2	3	4	0	0	7	4	0	0	1	0	21
Total	0	15	11	22	2	5	13	16	0	0	1	1	86
08:00 AM	0	6	1	4	0	3	1	6	0	0	0	0	21
08:15 AM	0	4	4	4	0	7	2	5	0	0	0	0	26
08:30 AM	0	6	5	5	0	2	5	10	0	0	0	0	33
08:45 AM	0	5	3	8	0	8	4	8	1	0	1	0	38
Total	0	21	13	21	0	20	12	29	1	0	1	0	118
Grand Total	0	36	24	43	2	25	25	45	1	0	2	1	204
Apprch %	0	60	40	61.4	2.9	35.7	35.2	63.4	1.4	0	66.7	33.3	
Total %	0	17.6	11.8	21.1	1	12.3	12.3	22.1	0.5	0	1	0.5	

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	**6**	1	7	4	0	3	7	1	6	0	7	0	0	0	0	21
08:15 AM	0	4	4	8	4	0	7	11	2	5	0	7	0	0	0	0	26
08:30 AM	0	6	**5**	**11**	5	0	2	7	**5**	**10**	0	**15**	0	0	0	0	33
08:45 AM	0	5	3	8	**8**	0	**8**	**16**	4	8	**1**	13	0	**1**	0	**1**	**38**
Total Volume	0	21	13	34	21	0	20	41	12	29	1	42	0	1	0	1	118
% App. Total	0	61.8	38.2		51.2	0	48.8		28.6	69	2.4		0	100	0		
PHF	.000	.875	.650	.773	.656	.000	.625	.641	.600	.725	.250	.700	.000	.250	.000	.250	.776

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File Name : 81676 M-B
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Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	4
Apprch %	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100	
Total %	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	75	

	Washington Street (Route 138) From North					Belmont Street (Route 123) From East					Washington Street (Route 138/123) From South					CVS Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**2**	**2**	**3**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3	3	4
% App. Total	0	0	0	0		0	0	0	100		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.333

PRECISION DATA INDUSTRIES, LLC
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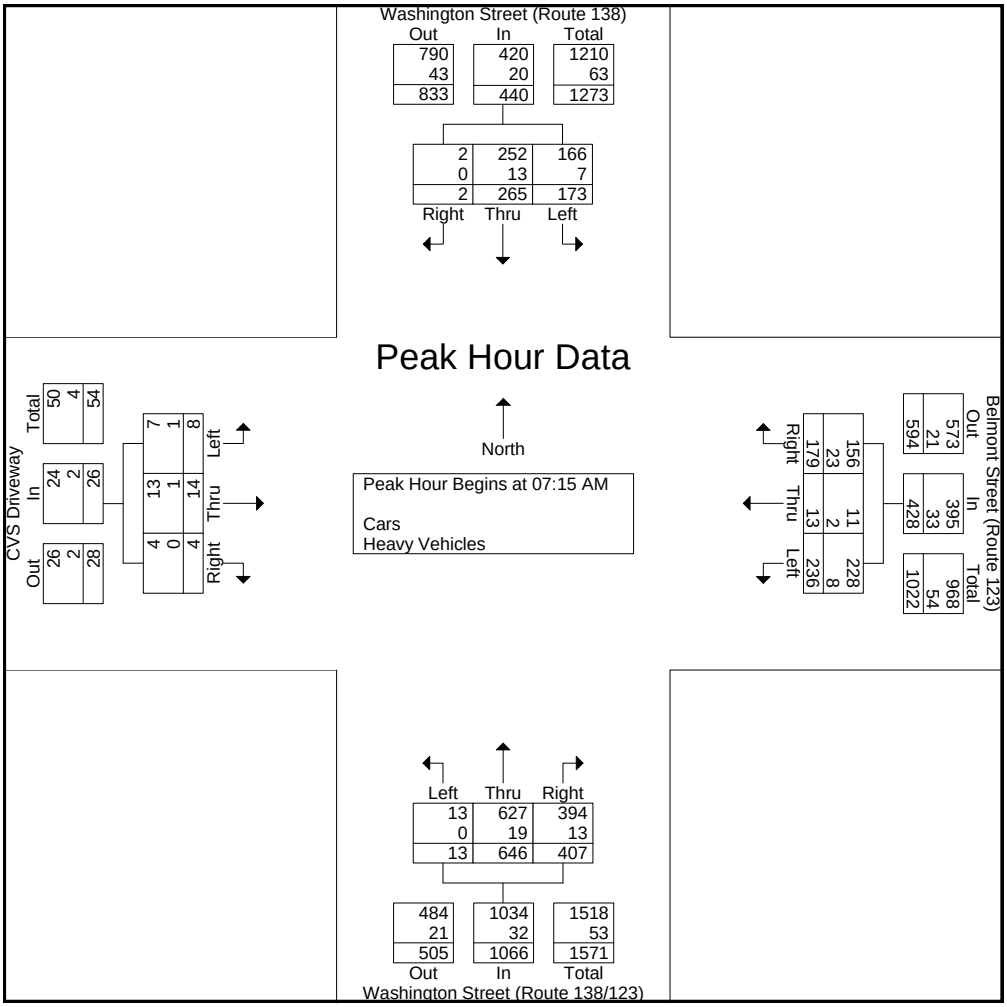
N/S: Washington Street (Route 138)
E/W: Belmont Street (Rte 123)/CVS Drive
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-B
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**73**	38	111	31	1	59	91	103	156	2	261	0	1	2	3	466
07:30 AM	**1**	59	47	107	**59**	**4**	**68**	**131**	**113**	173	2	**288**	1	3	2	6	**532**
07:45 AM	0	63	39	102	42	4	61	107	104	142	3	249	**2**	**6**	0	8	466
08:00 AM	1	70	**49**	**120**	47	4	48	99	87	**175**	**6**	268	1	4	**4**	**9**	496
Total Volume	2	265	173	440	179	13	236	428	407	646	13	1066	4	14	8	26	1960
% App. Total	0.5	60.2	39.3		41.8	3	55.1		38.2	60.6	1.2		15.4	53.8	30.8		
PHF	.500	.908	.883	.917	.758	.813	.868	.817	.900	.923	.542	.925	.500	.583	.500	.722	.921
Cars	2	252	166	420	156	11	228	395	394	627	13	1034	4	13	7	24	1873
% Cars	100	95.1	96.0	95.5	87.2	84.6	96.6	92.3	96.8	97.1	100	97.0	100	92.9	87.5	92.3	95.6
Heavy Vehicles	0	13	7	20	23	2	8	33	13	19	0	32	0	1	1	2	87
% Heavy Vehicles	0	4.9	4.0	4.5	12.8	15.4	3.4	7.7	3.2	2.9	0	3.0	0	7.1	12.5	7.7	4.4



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N/S: Washington Street (Route 138)
E/W: Belmont Street (Rte 123)/CVS Drive
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Belmont Street (Route 123) From East			Washington Street (Route 138/123) From South			CVS Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	10	142	37	47	4	129	59	103	7	16	6	1	561
04:15 PM	8	137	36	28	15	112	73	78	8	9	8	11	523
04:30 PM	5	159	35	32	14	107	63	96	3	15	4	5	538
04:45 PM	6	144	40	29	5	115	68	99	3	18	6	10	543
Total	29	582	148	136	38	463	263	376	21	58	24	27	2165
05:00 PM	7	150	53	46	9	139	78	98	5	12	1	7	605
05:15 PM	13	159	54	49	11	134	74	90	9	18	12	3	626
05:30 PM	5	129	59	39	10	99	68	77	7	20	5	9	527
05:45 PM	6	146	51	48	6	105	58	82	5	15	3	7	532
Total	31	584	217	182	36	477	278	347	26	65	21	26	2290
Grand Total	60	1166	365	318	74	940	541	723	47	123	45	53	4455
Apprch %	3.8	73.3	22.9	23.9	5.6	70.6	41.3	55.1	3.6	55.7	20.4	24	
Total %	1.3	26.2	8.2	7.1	1.7	21.1	12.1	16.2	1.1	2.8	1	1.2	
Cars	60	1135	351	310	74	925	530	700	47	123	45	53	4353
% Cars	100	97.3	96.2	97.5	100	98.4	98	96.8	100	100	100	100	97.7
Heavy Vehicles	0	31	14	8	0	15	11	23	0	0	0	0	102
% Heavy Vehicles	0	2.7	3.8	2.5	0	1.6	2	3.2	0	0	0	0	2.3

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	**159**	35	199	32	**14**	107	153	63	96	3	162	15	4	5	24	538
04:45 PM	6	144	40	190	29	5	115	149	68	**99**	3	170	**18**	6	**10**	**34**	543
05:00 PM	7	150	53	210	46	9	**139**	**194**	**78**	98	5	**181**	12	1	7	20	605
05:15 PM	**13**	159	**54**	**226**	**49**	11	134	194	74	90	**9**	173	18	**12**	3	33	**626**
Total Volume	31	612	182	825	156	39	495	690	283	383	20	686	63	23	25	111	2312
% App. Total	3.8	74.2	22.1		22.6	5.7	71.7		41.3	55.8	2.9		56.8	20.7	22.5		
PHF	.596	.962	.843	.913	.796	.696	.890	.889	.907	.967	.556	.948	.875	.479	.625	.816	.923
Cars	31	600	174	805	154	39	487	680	275	368	20	663	63	23	25	111	2259
% Cars	100	98.0	95.6	97.6	98.7	100	98.4	98.6	97.2	96.1	100	96.6	100	100	100	100	97.7
Heavy Vehicles	0	12	8	20	2	0	8	10	8	15	0	23	0	0	0	0	53
% Heavy Vehicles	0	2.0	4.4	2.4	1.3	0	1.6	1.4	2.8	3.9	0	3.4	0	0	0	0	2.3

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N/S: Washington Street (Route 138)
E/W: Belmont Street (Rte 123)/CVS Drive
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North			Belmont Street (Route 123) From East			Washington Street (Route 138/123) From South			CVS Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	10	138	36	46	4	127	56	100	7	16	6	1	547
04:15 PM	8	132	35	27	15	108	73	75	8	9	8	11	509
04:30 PM	5	156	33	32	14	106	57	93	3	15	4	5	523
04:45 PM	6	143	38	27	5	112	67	95	3	18	6	10	530
Total	29	569	142	132	38	453	253	363	21	58	24	27	2109
05:00 PM	7	147	50	46	9	137	77	94	5	12	1	7	592
05:15 PM	13	154	53	49	11	132	74	86	9	18	12	3	614
05:30 PM	5	122	55	38	10	99	68	76	7	20	5	9	514
05:45 PM	6	143	51	45	6	104	58	81	5	15	3	7	524
Total	31	566	209	178	36	472	277	337	26	65	21	26	2244
Grand Total	60	1135	351	310	74	925	530	700	47	123	45	53	4353
Apprch %	3.9	73.4	22.7	23.7	5.7	70.7	41.5	54.8	3.7	55.7	20.4	24	
Total %	1.4	26.1	8.1	7.1	1.7	21.2	12.2	16.1	1.1	2.8	1	1.2	

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	**156**	33	194	32	**14**	106	152	57	93	3	153	15	4	5	24	523
04:45 PM	6	143	38	187	27	5	112	144	67	**95**	3	165	**18**	6	**10**	**34**	530
05:00 PM	7	147	50	204	46	9	**137**	**192**	**77**	94	5	**176**	12	1	7	20	592
05:15 PM	**13**	154	**53**	**220**	**49**	11	132	192	74	86	**9**	169	18	**12**	3	33	**614**
Total Volume	31	600	174	805	154	39	487	680	275	368	20	663	63	23	25	111	2259
% App. Total	3.9	74.5	21.6		22.6	5.7	71.6		41.5	55.5	3		56.8	20.7	22.5		
PHF	.596	.962	.821	.915	.786	.696	.889	.885	.893	.968	.556	.942	.875	.479	.625	.816	.920

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E/W: Belmont Street (Rte 123)/CVS Drive
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Belmont Street (Route 123) From East			Washington Street (Route 138/123) From South			CVS Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	4	1	1	0	2	3	3	0	0	0	0	14
04:15 PM	0	5	1	1	0	4	0	3	0	0	0	0	14
04:30 PM	0	3	2	0	0	1	6	3	0	0	0	0	15
04:45 PM	0	1	2	2	0	3	1	4	0	0	0	0	13
Total	0	13	6	4	0	10	10	13	0	0	0	0	56
05:00 PM	0	3	3	0	0	2	1	4	0	0	0	0	13
05:15 PM	0	5	1	0	0	2	0	4	0	0	0	0	12
05:30 PM	0	7	4	1	0	0	0	1	0	0	0	0	13
05:45 PM	0	3	0	3	0	1	0	1	0	0	0	0	8
Total	0	18	8	4	0	5	1	10	0	0	0	0	46
Grand Total	0	31	14	8	0	15	11	23	0	0	0	0	102
Apprch %	0	68.9	31.1	34.8	0	65.2	32.4	67.6	0	0	0	0	
Total %	0	30.4	13.7	7.8	0	14.7	10.8	22.5	0	0	0	0	

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	4	1	5	1	0	2	3	3	3	0	6	0	0	0	0	14
04:15 PM	0	**5**	1	**6**	1	0	**4**	**5**	0	3	0	3	0	0	0	0	14
04:30 PM	0	3	**2**	5	0	0	1	1	**6**	3	0	**9**	0	0	0	0	**15**
04:45 PM	0	1	2	3	**2**	0	3	5	1	**4**	0	5	0	0	0	0	13
Total Volume	0	13	6	19	4	0	10	14	10	13	0	23	0	0	0	0	56
% App. Total	0	68.4	31.6		28.6	0	71.4		43.5	56.5	0		0	0	0		
PHF	.000	.650	.750	.792	.500	.000	.625	.700	.417	.813	.000	.639	.000	.000	.000	.000	.933

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E/W: Belmont Street (Rte 123)/CVS Drive
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	0	0	1	3	0	0	0	3	0	0	0	1	9
05:00 PM	0	0	0	0	0	0	0	7	0	0	0	8	0	0	0	0	15
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	7	0	1	0	8	0	0	0	3	19
Grand Total	0	1	0	0	0	0	1	10	0	1	0	11	0	0	0	4	28
Apprch %	0	100	0	0	0	0	9.1	90.9	0	8.3	0	91.7	0	0	0	100	
Total %	0	3.6	0	0	0	0	3.6	35.7	0	3.6	0	39.3	0	0	0	14.3	

	Washington Street (Route 138) From North					Belmont Street (Route 123) From East					Washington Street (Route 138/123) From South					CVS Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	3	3	0	0	0	2	2	0	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
05:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**7**	0	0	0	**8**	**8**	0	0	0	0	0	**15**
Total Volume	0	1	0	0	1	0	0	1	10	11	0	0	0	11	11	0	0	0	0	0	23
% App. Total	0	100	0	0		0	0	9.1	90.9		0	0	0	100		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.250	.357	.393	.000	.000	.000	.344	.344	.000	.000	.000	.000	.000	.383

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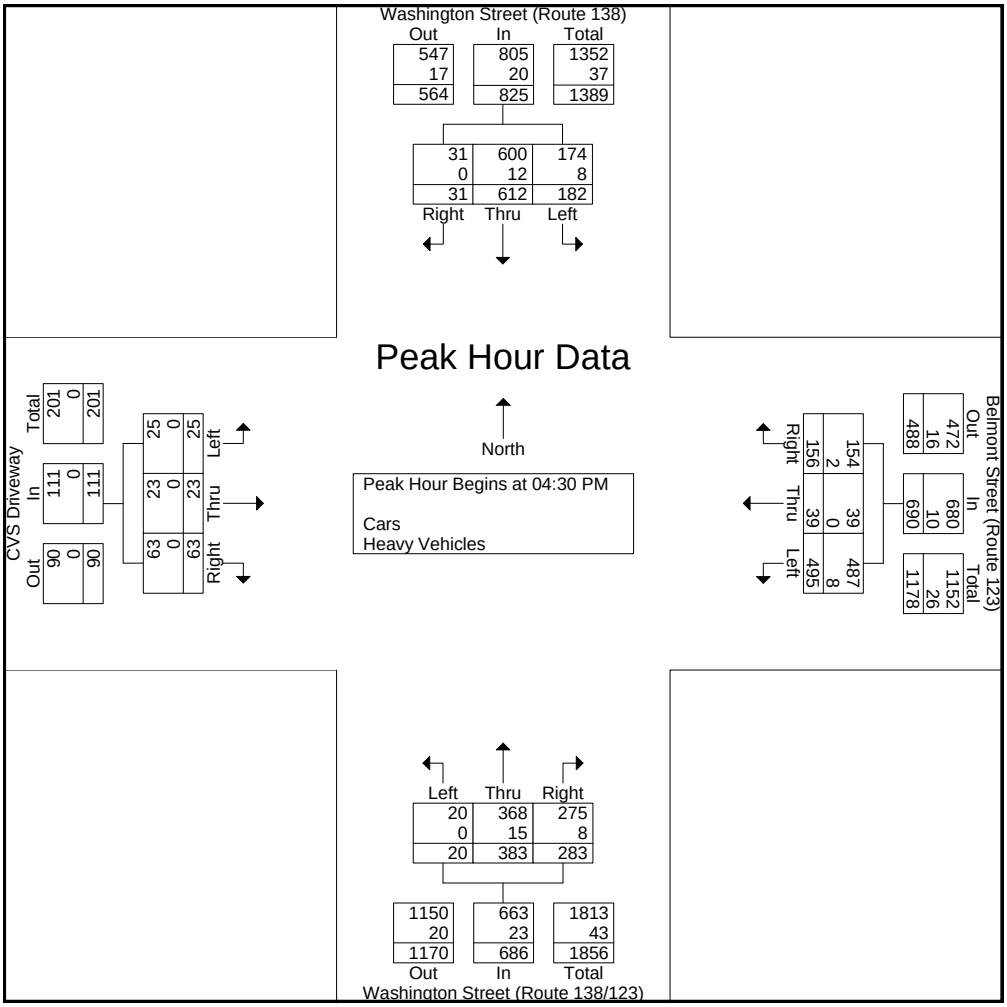
E/W: Belmont Street (Rte 123)/CVS Drive
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

	Washington Street (Route 138) From North				Belmont Street (Route 123) From East				Washington Street (Route 138/123) From South				CVS Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	**159**	35	199	32	**14**	107	153	63	96	3	162	15	4	5	24	538
04:45 PM	6	144	40	190	29	5	115	149	68	**99**	3	170	**18**	6	**10**	**34**	543
05:00 PM	7	150	53	210	46	9	**139**	**194**	**78**	98	5	**181**	12	1	7	20	605
05:15 PM	**13**	159	**54**	**226**	**49**	11	134	194	74	90	**9**	173	18	**12**	3	33	**626**
Total Volume	31	612	182	825	156	39	495	690	283	383	20	686	63	23	25	111	2312
% App. Total	3.8	74.2	22.1		22.6	5.7	71.7		41.3	55.8	2.9		56.8	20.7	22.5		
PHF	.596	.962	.843	.913	.796	.696	.890	.889	.907	.967	.556	.948	.875	.479	.625	.816	.923
Cars	31	600	174	805	154	39	487	680	275	368	20	663	63	23	25	111	2259
% Cars	100	98.0	95.6	97.6	98.7	100	98.4	98.6	97.2	96.1	100	96.6	100	100	100	100	97.7
Heavy Vehicles	0	12	8	20	2	0	8	10	8	15	0	23	0	0	0	0	53
% Heavy Vehicles	0	2.0	4.4	2.4	1.3	0	1.6	1.4	2.8	3.9	0	3.4	0	0	0	0	2.3



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N/S: Washington Street (Route 138)
E/W: Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-C
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Main Street From East			Washington Street (Route 138) From South			Main Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	53	69	6	20	32	9	13	128	25	21	63	59	498
07:15 AM	18	77	10	22	27	11	13	151	28	36	91	90	574
07:30 AM	11	55	14	25	26	5	14	175	23	41	97	97	583
07:45 AM	13	72	23	35	36	4	10	153	25	48	74	75	568
Total	95	273	53	102	121	29	50	607	101	146	325	321	2223
08:00 AM	16	82	18	28	38	10	6	185	30	46	67	79	605
08:15 AM	20	94	14	19	25	14	7	105	45	85	67	65	560
08:30 AM	23	77	28	17	27	7	9	104	34	46	60	56	488
08:45 AM	22	86	18	20	42	8	5	101	44	59	42	65	512
Total	81	339	78	84	132	39	27	495	153	236	236	265	2165
Grand Total	176	612	131	186	253	68	77	1102	254	382	561	586	4388
Apprch %	19.2	66.6	14.3	36.7	49.9	13.4	5.4	76.9	17.7	25	36.7	38.3	
Total %	4	13.9	3	4.2	5.8	1.5	1.8	25.1	5.8	8.7	12.8	13.4	
Cars	169	579	125	176	240	62	74	1047	234	364	556	573	4199
% Cars	96	94.6	95.4	94.6	94.9	91.2	96.1	95	92.1	95.3	99.1	97.8	95.7
Heavy Vehicles	7	33	6	10	13	6	3	55	20	18	5	13	189
% Heavy Vehicles	4	5.4	4.6	5.4	5.1	8.8	3.9	5	7.9	4.7	0.9	2.2	4.3

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**18**	77	10	105	22	27	**11**	60	13	151	28	192	36	91	90	217	574
07:30 AM	11	55	14	80	25	26	5	56	**14**	175	23	212	41	**97**	**97**	**235**	583
07:45 AM	13	72	**23**	108	**35**	36	4	75	10	153	25	188	**48**	74	75	197	568
08:00 AM	16	**82**	18	**116**	28	**38**	10	**76**	6	**185**	**30**	**221**	46	67	79	192	**605**
Total Volume	58	286	65	409	110	127	30	267	43	664	106	813	171	329	341	841	2330
% App. Total	14.2	69.9	15.9		41.2	47.6	11.2		5.3	81.7	13		20.3	39.1	40.5		
PHF	.806	.872	.707	.881	.786	.836	.682	.878	.768	.897	.883	.920	.891	.848	.879	.895	.963
Cars	57	276	62	395	103	119	27	249	42	630	102	774	164	326	335	825	2243
% Cars	98.3	96.5	95.4	96.6	93.6	93.7	90.0	93.3	97.7	94.9	96.2	95.2	95.9	99.1	98.2	98.1	96.3
Heavy Vehicles	1	10	3	14	7	8	3	18	1	34	4	39	7	3	6	16	87
% Heavy Vehicles	1.7	3.5	4.6	3.4	6.4	6.3	10.0	6.7	2.3	5.1	3.8	4.8	4.1	0.9	1.8	1.9	3.7

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N/S: Washington Street (Route 138)
E/W: Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-C
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Cars

	Washington Street (Route 138) From North			Main Street From East			Washington Street (Route 138) From South			Main Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	51	64	6	18	31	8	13	126	22	19	63	59	480
07:15 AM	18	75	8	20	26	9	12	148	25	34	91	88	554
07:30 AM	11	54	14	23	26	5	14	162	22	41	97	95	564
07:45 AM	12	70	22	32	34	3	10	146	25	46	72	74	546
Total	92	263	50	93	117	25	49	582	94	140	323	316	2144
08:00 AM	16	77	18	28	33	10	6	174	30	43	66	78	579
08:15 AM	19	89	12	18	23	13	6	100	42	81	67	64	534
08:30 AM	21	70	28	17	26	7	9	97	31	44	59	52	461
08:45 AM	21	80	17	20	41	7	4	94	37	56	41	63	481
Total	77	316	75	83	123	37	25	465	140	224	233	257	2055
Grand Total	169	579	125	176	240	62	74	1047	234	364	556	573	4199
Apprch %	19.4	66.3	14.3	36.8	50.2	13	5.5	77.3	17.3	24.4	37.2	38.4	
Total %	4	13.8	3	4.2	5.7	1.5	1.8	24.9	5.6	8.7	13.2	13.6	

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**18**	75	8	101	20	26	9	55	12	148	25	185	34	91	88	213	554
07:30 AM	11	54	14	79	23	26	5	54	**14**	162	22	198	41	**97**	**95**	**233**	564
07:45 AM	12	70	**22**	104	**32**	**34**	3	69	10	146	25	181	**46**	72	74	192	546
08:00 AM	16	**77**	18	**111**	28	33	**10**	**71**	6	**174**	**30**	**210**	43	66	78	187	**579**
Total Volume	57	276	62	395	103	119	27	249	42	630	102	774	164	326	335	825	2243
% App. Total	14.4	69.9	15.7		41.4	47.8	10.8		5.4	81.4	13.2		19.9	39.5	40.6		
PHF	.792	.896	.705	.890	.805	.875	.675	.877	.750	.905	.850	.921	.891	.840	.882	.885	.968

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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Main Street From East			Washington Street (Route 138) From South			Main Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	5	0	2	1	1	0	2	3	2	0	0	18
07:15 AM	0	2	2	2	1	2	1	3	3	2	0	2	20
07:30 AM	0	1	0	2	0	0	0	13	1	0	0	2	19
07:45 AM	1	2	1	3	2	1	0	7	0	2	2	1	22
Total	3	10	3	9	4	4	1	25	7	6	2	5	79
08:00 AM	0	5	0	0	5	0	0	11	0	3	1	1	26
08:15 AM	1	5	2	1	2	1	1	5	3	4	0	1	26
08:30 AM	2	7	0	0	1	0	0	7	3	2	1	4	27
08:45 AM	1	6	1	0	1	1	1	7	7	3	1	2	31
Total	4	23	3	1	9	2	2	30	13	12	3	8	110
Grand Total	7	33	6	10	13	6	3	55	20	18	5	13	189
Apprch %	15.2	71.7	13	34.5	44.8	20.7	3.8	70.5	25.6	50	13.9	36.1	
Total %	3.7	17.5	3.2	5.3	6.9	3.2	1.6	29.1	10.6	9.5	2.6	6.9	

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	5	0	5	0	**5**	0	**5**	0	**11**	0	11	3	**1**	1	5	26
08:15 AM	1	5	**2**	8	**1**	2	**1**	4	**1**	5	3	9	**4**	0	1	5	26
08:30 AM	**2**	**7**	0	**9**	0	1	0	1	0	7	3	10	2	1	**4**	**7**	27
08:45 AM	1	6	1	8	0	1	1	2	1	7	**7**	**15**	3	1	2	6	**31**
Total Volume	4	23	3	30	1	9	2	12	2	30	13	45	12	3	8	23	110
% App. Total	13.3	76.7	10		8.3	75	16.7		4.4	66.7	28.9		52.2	13	34.8		
PHF	.500	.821	.375	.833	.250	.450	.500	.600	.500	.682	.464	.750	.750	.750	.500	.821	.887

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Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	3
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	4
Grand Total	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	4
Apprch %	0	100	0	0	0	100	0	0	0	0	0	0	0	0	0	100	
Total %	0	25	0	0	0	25	0	0	0	0	0	0	0	0	0	50	

	Washington Street (Route 138) From North					Main Street From East					Washington Street (Route 138) From South					Main Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	**1**	**0**	**0**	**1**	0	0	0	0	0	0	0	0	**2**	**2**	**3**
08:30 AM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	2	2	4
% App. Total	0	100	0	0		0	100	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.250	.000	.000	.250	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.333

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File Name : 81676 M-C
Site Code : 10111.31
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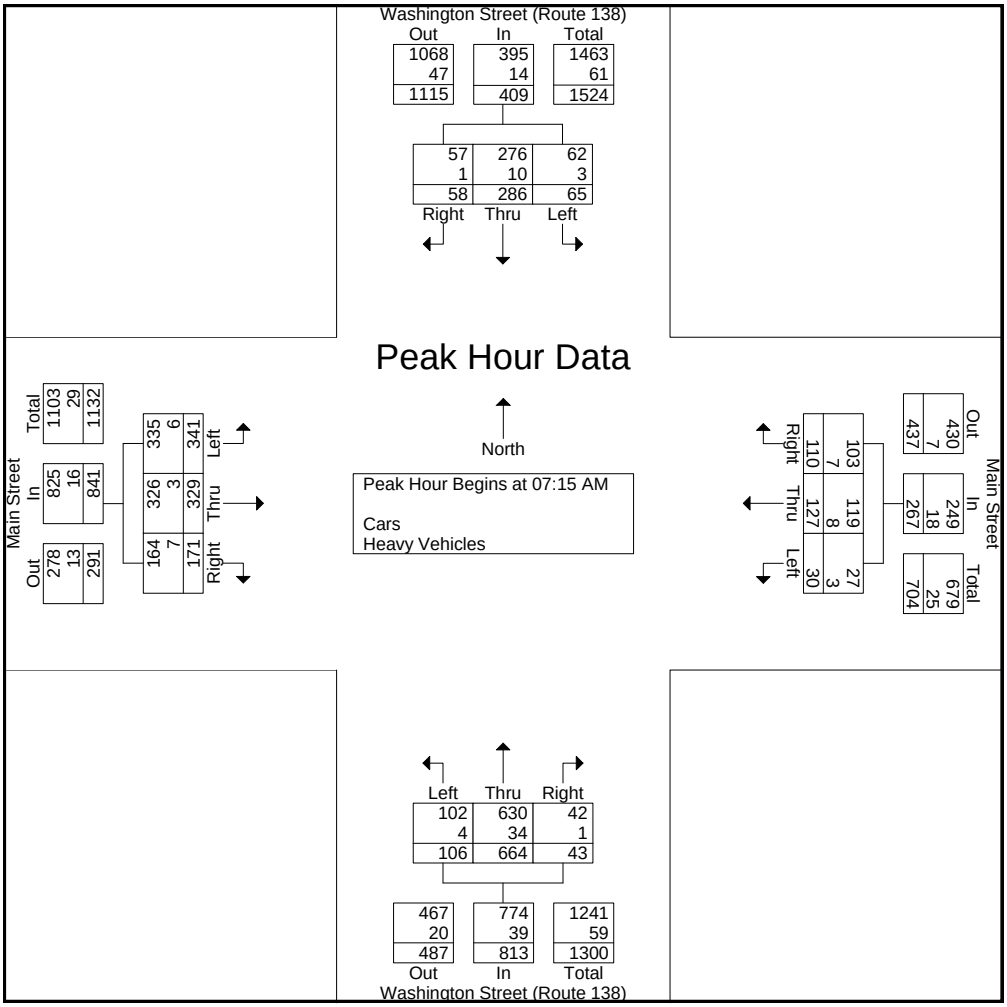
	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**18**	77	10	105	22	27	**11**	60	13	151	28	192	36	91	90	217	574
07:30 AM	11	55	14	80	25	26	5	56	**14**	175	23	212	41	**97**	**97**	**235**	583
07:45 AM	13	72	**23**	108	**35**	36	4	75	10	153	25	188	**48**	74	75	197	568
08:00 AM	16	**82**	18	**116**	28	**38**	10	**76**	6	**185**	**30**	**221**	46	67	79	192	**605**
Total Volume	58	286	65	409	110	127	30	267	43	664	106	813	171	329	341	841	2330
% App. Total	14.2	69.9	15.9		41.2	47.6	11.2		5.3	81.7	13		20.3	39.1	40.5		
PHF	.806	.872	.707	.881	.786	.836	.682	.878	.768	.897	.883	.920	.891	.848	.879	.895	.963
Cars	57	276	62	395	103	119	27	249	42	630	102	774	164	326	335	825	2243
% Cars	98.3	96.5	95.4	96.6	93.6	93.7	90.0	93.3	97.7	94.9	96.2	95.2	95.9	99.1	98.2	98.1	96.3
Heavy Vehicles	1	10	3	14	7	8	3	18	1	34	4	39	7	3	6	16	87
% Heavy Vehicles	1.7	3.5	4.6	3.4	6.4	6.3	10.0	6.7	2.3	5.1	3.8	4.8	4.1	0.9	1.8	1.9	3.7



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N/S: Washington Street (Route 138)
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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-CCC
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Main Street From East			Washington Street (Route 138) From South			Main Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	46	112	23	21	86	17	17	88	67	47	52	51	627
04:15 PM	65	126	31	16	81	12	17	81	64	40	47	41	621
04:30 PM	55	120	39	28	75	13	17	93	60	38	51	27	616
04:45 PM	61	121	28	19	92	14	15	89	41	46	46	40	612
Total	227	479	121	84	334	56	66	351	232	171	196	159	2476
05:00 PM	53	120	27	19	83	12	10	110	51	69	53	44	651
05:15 PM	65	136	32	21	87	31	9	96	52	47	35	48	659
05:30 PM	68	143	40	22	62	11	10	82	50	37	46	31	602
05:45 PM	65	150	26	16	98	14	7	89	46	42	30	37	620
Total	251	549	125	78	330	68	36	377	199	195	164	160	2532
Grand Total	478	1028	246	162	664	124	102	728	431	366	360	319	5008
Apprch %	27.3	58.7	14	17.1	69.9	13.1	8.1	57.7	34.2	35	34.4	30.5	
Total %	9.5	20.5	4.9	3.2	13.3	2.5	2	14.5	8.6	7.3	7.2	6.4	
Cars	471	992	234	160	658	122	102	704	420	356	355	312	4886
% Cars	98.5	96.5	95.1	98.8	99.1	98.4	100	96.7	97.4	97.3	98.6	97.8	97.6
Heavy Vehicles	7	36	12	2	6	2	0	24	11	10	5	7	122
% Heavy Vehicles	1.5	3.5	4.9	1.2	0.9	1.6	0	3.3	2.6	2.7	1.4	2.2	2.4

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	55	120	**39**	214	**28**	75	13	116	**17**	93	**60**	170	38	51	27	116	616
04:45 PM	61	121	28	210	19	**92**	14	125	15	89	41	145	46	46	40	132	612
05:00 PM	53	120	27	200	19	83	12	114	10	**110**	51	**171**	**69**	**53**	44	**166**	651
05:15 PM	**65**	**136**	32	**233**	21	87	**31**	**139**	9	96	52	157	47	35	**48**	130	**659**
Total Volume	234	497	126	857	87	337	70	494	51	388	204	643	200	185	159	544	2538
% App. Total	27.3	58	14.7		17.6	68.2	14.2		7.9	60.3	31.7		36.8	34	29.2		
PHF	.900	.914	.808	.920	.777	.916	.565	.888	.750	.882	.850	.940	.725	.873	.828	.819	.963
Cars	228	480	119	827	86	334	69	489	51	372	197	620	195	184	155	534	2470
% Cars	97.4	96.6	94.4	96.5	98.9	99.1	98.6	99.0	100	95.9	96.6	96.4	97.5	99.5	97.5	98.2	97.3
Heavy Vehicles	6	17	7	30	1	3	1	5	0	16	7	23	5	1	4	10	68
% Heavy Vehicles	2.6	3.4	5.6	3.5	1.1	0.9	1.4	1.0	0	4.1	3.4	3.6	2.5	0.5	2.5	1.8	2.7

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File Name : 81676 M-CCC
Site Code : 10111.31
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Groups Printed- Cars

	Washington Street (Route 138) From North			Main Street From East			Washington Street (Route 138) From South			Main Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	45	108	22	21	85	16	17	84	67	47	52	51	615
04:15 PM	65	121	29	16	80	12	17	80	61	38	45	39	603
04:30 PM	54	115	35	28	75	13	17	91	57	35	50	27	597
04:45 PM	58	118	27	19	90	13	15	84	41	45	46	37	593
Total	222	462	113	84	330	54	66	339	226	165	193	154	2408
05:00 PM	52	114	26	18	83	12	10	106	48	69	53	43	634
05:15 PM	64	133	31	21	86	31	9	91	51	46	35	48	646
05:30 PM	68	137	38	21	61	11	10	79	50	35	44	31	585
05:45 PM	65	146	26	16	98	14	7	89	45	41	30	36	613
Total	249	530	121	76	328	68	36	365	194	191	162	158	2478
Grand Total	471	992	234	160	658	122	102	704	420	356	355	312	4886
Apprch %	27.8	58.5	13.8	17	70	13	8.3	57.4	34.3	34.8	34.7	30.5	
Total %	9.6	20.3	4.8	3.3	13.5	2.5	2.1	14.4	8.6	7.3	7.3	6.4	

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	52	114	26	192	18	83	12	113	**10**	**106**	48	**164**	**69**	**53**	43	**165**	634
05:15 PM	64	133	31	228	**21**	86	**31**	**138**	9	91	**51**	151	46	35	**48**	129	**646**
05:30 PM	**68**	137	**38**	**243**	21	61	11	93	10	79	50	139	35	44	31	110	585
05:45 PM	65	**146**	26	237	16	**98**	14	128	7	89	45	141	41	30	36	107	613
Total Volume	249	530	121	900	76	328	68	472	36	365	194	595	191	162	158	511	2478
% App. Total	27.7	58.9	13.4		16.1	69.5	14.4		6.1	61.3	32.6		37.4	31.7	30.9		
PHF	.915	.908	.796	.926	.905	.837	.548	.855	.900	.861	.951	.907	.692	.764	.823	.774	.959

PRECISION DATA INDUSTRIES, LLC
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N/S: Washington Street (Route 138)
E/W: Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-CCC
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Main Street From East			Washington Street (Route 138) From South			Main Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	4	1	0	1	1	0	4	0	0	0	0	12
04:15 PM	0	5	2	0	1	0	0	1	3	2	2	2	18
04:30 PM	1	5	4	0	0	0	0	2	3	3	1	0	19
04:45 PM	3	3	1	0	2	1	0	5	0	1	0	3	19
Total	5	17	8	0	4	2	0	12	6	6	3	5	68
05:00 PM	1	6	1	1	0	0	0	4	3	0	0	1	17
05:15 PM	1	3	1	0	1	0	0	5	1	1	0	0	13
05:30 PM	0	6	2	1	1	0	0	3	0	2	2	0	17
05:45 PM	0	4	0	0	0	0	0	0	1	1	0	1	7
Total	2	19	4	2	2	0	0	12	5	4	2	2	54
Grand Total	7	36	12	2	6	2	0	24	11	10	5	7	122
Apprch %	12.7	65.5	21.8	20	60	20	0	68.6	31.4	45.5	22.7	31.8	
Total %	5.7	29.5	9.8	1.6	4.9	1.6	0	19.7	9	8.2	4.1	5.7	

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	5	2	7	0	1	0	1	0	1	**3**	4	2	**2**	2	**6**	18
04:30 PM	1	5	**4**	**10**	0	0	0	0	0	2	3	5	**3**	1	0	4	**19**
04:45 PM	**3**	3	1	7	0	**2**	**1**	**3**	0	**5**	0	5	1	0	**3**	4	19
05:00 PM	1	**6**	1	8	**1**	0	0	1	0	4	3	**7**	0	0	1	1	17
Total Volume	5	19	8	32	1	3	1	5	0	12	9	21	6	3	6	15	73
% App. Total	15.6	59.4	25		20	60	20		0	57.1	42.9		40	20	40		
PHF	.417	.792	.500	.800	.250	.375	.250	.417	.000	.600	.750	.750	.500	.375	.500	.625	.961

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Client: VHB/J. Quitter

File Name : 81676 M-CCC
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3
05:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3
Grand Total	0	0	0	2	0	0	0	0	0	1	0	0	2	1	0	0	6
Apprch %	0	0	0	100	0	0	0	0	0	100	0	0	66.7	33.3	0	0	
Total %	0	0	0	33.3	0	0	0	0	0	16.7	0	0	33.3	16.7	0	0	

	Washington Street (Route 138) From North					Main Street From East					Washington Street (Route 138) From South					Main Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**1**	0	0	**3**	**3**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	5
% App. Total	0	0	0	100		0	0	0	0		0	0	0	0		66.7	33.3	0	0		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.250	.417

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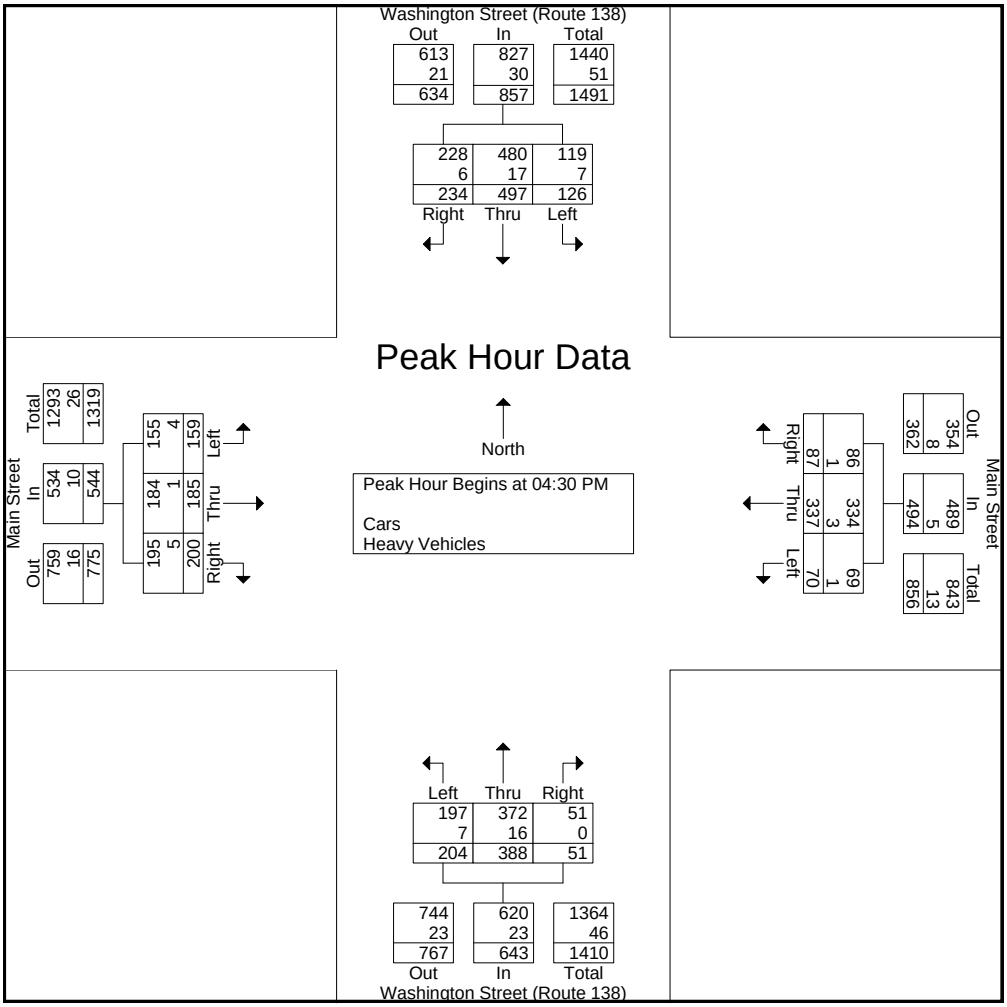
	Washington Street (Route 138) From North				Main Street From East				Washington Street (Route 138) From South				Main Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	55	120	**39**	214	**28**	75	13	116	**17**	93	**60**	170	38	51	27	116	616
04:45 PM	61	121	28	210	19	**92**	14	125	15	89	41	145	46	46	40	132	612
05:00 PM	53	120	27	200	19	83	12	114	10	**110**	51	**171**	**69**	**53**	44	**166**	651
05:15 PM	**65**	**136**	32	**233**	21	87	**31**	**139**	9	96	52	157	47	35	**48**	130	**659**
Total Volume	234	497	126	857	87	337	70	494	51	388	204	643	200	185	159	544	2538
% App. Total	27.3	58	14.7		17.6	68.2	14.2		7.9	60.3	31.7		36.8	34	29.2		
PHF	.900	.914	.808	.920	.777	.916	.565	.888	.750	.882	.850	.940	.725	.873	.828	.819	.963
Cars	228	480	119	827	86	334	69	489	51	372	197	620	195	184	155	534	2470
% Cars	97.4	96.6	94.4	96.5	98.9	99.1	98.6	99.0	100	95.9	96.6	96.4	97.5	99.5	97.5	98.2	97.3
Heavy Vehicles	6	17	7	30	1	3	1	5	0	16	7	23	5	1	4	10	68
% Heavy Vehicles	2.6	3.4	5.6	3.5	1.1	0.9	1.4	1.0	0	4.1	3.4	3.6	2.5	0.5	2.5	1.8	2.7



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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-D
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Main Street From North			Main Street From East			Center Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	13	15	12	43	78	70	10	4	3	68	1	319
07:15 AM	1	14	19	7	30	42	144	12	0	1	100	5	375
07:30 AM	0	6	22	12	18	22	111	18	3	3	119	0	334
07:45 AM	0	8	17	17	28	35	89	10	0	6	113	1	324
Total	3	41	73	48	119	177	414	50	7	13	400	7	1352
08:00 AM	2	9	24	21	26	38	98	14	3	4	91	1	331
08:15 AM	0	17	23	19	39	27	111	17	0	3	102	1	359
08:30 AM	0	15	24	18	37	41	68	11	2	7	76	2	301
08:45 AM	1	13	17	19	36	32	84	17	8	5	87	2	321
Total	3	54	88	77	138	138	361	59	13	19	356	6	1312
Grand Total	6	95	161	125	257	315	775	109	20	32	756	13	2664
Apprch %	2.3	36.3	61.5	17.9	36.9	45.2	85.7	12.1	2.2	4	94.4	1.6	
Total %	0.2	3.6	6	4.7	9.6	11.8	29.1	4.1	0.8	1.2	28.4	0.5	
Cars	6	83	156	109	242	300	760	106	18	31	745	13	2569
% Cars	100	87.4	96.9	87.2	94.2	95.2	98.1	97.2	90	96.9	98.5	100	96.4
Heavy Vehicles	0	12	5	16	15	15	15	3	2	1	11	0	95
% Heavy Vehicles	0	12.6	3.1	12.8	5.8	4.8	1.9	2.8	10	3.1	1.5	0	3.6

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**14**	19	34	7	**30**	**42**	79	**144**	12	0	**156**	1	100	**5**	106	**375**
07:30 AM	0	6	22	28	12	18	22	52	111	**18**	**3**	132	3	**119**	0	**122**	334
07:45 AM	0	8	17	25	17	28	35	80	89	10	0	99	**6**	113	1	120	324
08:00 AM	**2**	9	**24**	**35**	**21**	26	38	**85**	98	14	3	115	4	91	1	96	331
Total Volume	3	37	82	122	57	102	137	296	442	54	6	502	14	423	7	444	1364
% App. Total	2.5	30.3	67.2		19.3	34.5	46.3		88	10.8	1.2		3.2	95.3	1.6		
PHF	.375	.661	.854	.871	.679	.850	.815	.871	.767	.750	.500	.804	.583	.889	.350	.910	.909
Cars	3	31	79	113	50	98	131	279	435	53	5	493	14	416	7	437	1322
% Cars	100	83.8	96.3	92.6	87.7	96.1	95.6	94.3	98.4	98.1	83.3	98.2	100	98.3	100	98.4	96.9
Heavy Vehicles	0	6	3	9	7	4	6	17	7	1	1	9	0	7	0	7	42
% Heavy Vehicles	0	16.2	3.7	7.4	12.3	3.9	4.4	5.7	1.6	1.9	16.7	1.8	0	1.7	0	1.6	3.1

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File Name : 81676 M-D
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Main Street From North			Main Street From East			Center Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	12	15	12	41	74	70	9	4	2	67	1	309
07:15 AM	1	12	18	6	27	41	144	12	0	1	98	5	365
07:30 AM	0	5	22	10	18	22	108	18	2	3	117	0	325
07:45 AM	0	8	16	14	27	33	86	10	0	6	111	1	312
Total	3	37	71	42	113	170	408	49	6	12	393	7	1311
08:00 AM	2	6	23	20	26	35	97	13	3	4	90	1	320
08:15 AM	0	14	23	15	36	26	107	17	0	3	101	1	343
08:30 AM	0	14	23	14	33	39	66	10	1	7	74	2	283
08:45 AM	1	12	16	18	34	30	82	17	8	5	87	2	312
Total	3	46	85	67	129	130	352	57	12	19	352	6	1258
Grand Total	6	83	156	109	242	300	760	106	18	31	745	13	2569
Apprch %	2.4	33.9	63.7	16.7	37.2	46.1	86	12	2	3.9	94.4	1.6	
Total %	0.2	3.2	6.1	4.2	9.4	11.7	29.6	4.1	0.7	1.2	29	0.5	

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**12**	18	**31**	6	**27**	**41**	74	**144**	12	0	**156**	1	98	**5**	104	**365**
07:30 AM	0	5	22	27	10	18	22	50	108	**18**	2	128	3	**117**	0	**120**	325
07:45 AM	0	8	16	24	14	27	33	74	86	10	0	96	**6**	111	1	118	312
08:00 AM	**2**	6	**23**	31	**20**	26	35	**81**	97	13	**3**	113	4	90	1	95	320
Total Volume	3	31	79	113	50	98	131	279	435	53	5	493	14	416	7	437	1322
% App. Total	2.7	27.4	69.9		17.9	35.1	47		88.2	10.8	1		3.2	95.2	1.6		
PHF	.375	.646	.859	.911	.625	.907	.799	.861	.755	.736	.417	.790	.583	.889	.350	.910	.905

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Page No : 1

Groups Printed- Heavy Vehicles

	Main Street From North			Main Street From East			Center Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	1	0	0	2	4	0	1	0	1	1	0	10
07:15 AM	0	2	1	1	3	1	0	0	0	0	2	0	10
07:30 AM	0	1	0	2	0	0	3	0	1	0	2	0	9
07:45 AM	0	0	1	3	1	2	3	0	0	0	2	0	12
Total	0	4	2	6	6	7	6	1	1	1	7	0	41
08:00 AM	0	3	1	1	0	3	1	1	0	0	1	0	11
08:15 AM	0	3	0	4	3	1	4	0	0	0	1	0	16
08:30 AM	0	1	1	4	4	2	2	1	1	0	2	0	18
08:45 AM	0	1	1	1	2	2	2	0	0	0	0	0	9
Total	0	8	3	10	9	8	9	2	1	0	4	0	54
Grand Total	0	12	5	16	15	15	15	3	2	1	11	0	95
Apprch %	0	70.6	29.4	34.8	32.6	32.6	75	15	10	8.3	91.7	0	
Total %	0	12.6	5.3	16.8	15.8	15.8	15.8	3.2	2.1	1.1	11.6	0	

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	**1**	1	3	1	2	6	3	0	0	3	0	**2**	0	**2**	12
08:00 AM	0	**3**	1	**4**	1	0	**3**	4	1	**1**	0	2	0	1	0	1	11
08:15 AM	0	3	0	3	**4**	3	1	8	**4**	0	0	**4**	0	1	0	1	16
08:30 AM	0	1	1	2	4	**4**	2	**10**	2	1	**1**	4	0	2	0	2	**18**
Total Volume	0	7	3	10	12	8	8	28	10	2	1	13	0	6	0	6	57
% App. Total	0	70	30		42.9	28.6	28.6		76.9	15.4	7.7		0	100	0		
PHF	.000	.583	.750	.625	.750	.500	.667	.700	.625	.500	.250	.813	.000	.750	.000	.750	.792

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Groups Printed- Peds and Bicycles

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	3
Total	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	1	5
Grand Total	0	0	0	1	0	0	1	4	0	0	0	2	0	0	0	1	9
Apprch %	0	0	0	100	0	0	20	80	0	0	0	100	0	0	0	100	
Total %	0	0	0	11.1	0	0	11.1	44.4	0	0	0	22.2	0	0	0	11.1	

	Main Street From North					Main Street From East					Center Street From South					Lincoln Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	**1**	**1**	**3**
Total Volume	0	0	0	1	1	0	0	0	2	2	0	0	0	1	1	0	0	0	1	1	5
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.000	.000	.000	.250	.250	.417

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N/S: Main Street/Center Street
E/W: Main Street/Lincoln Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-D
Site Code : 10111.31
Start Date : 9/23/2008
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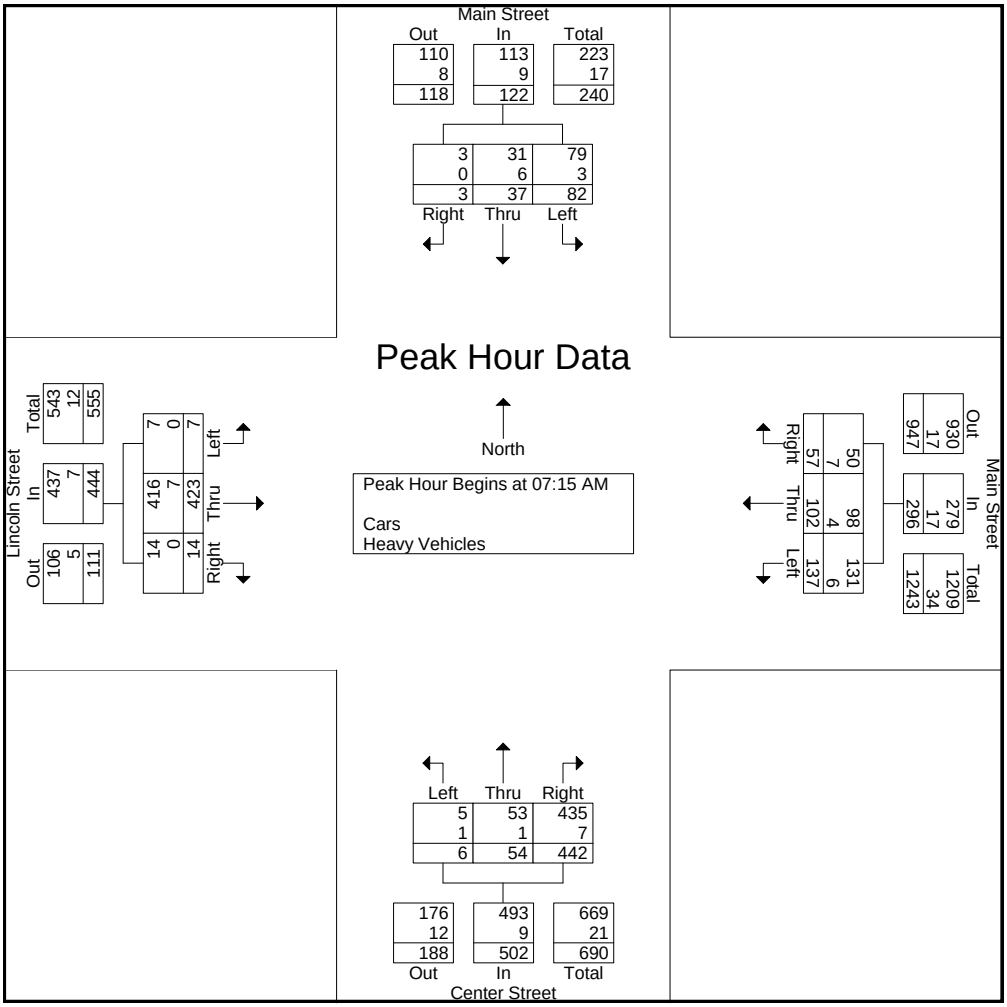
	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**14**	19	34	7	**30**	**42**	79	**144**	12	0	**156**	1	100	**5**	106	**375**
07:30 AM	0	6	22	28	12	18	22	52	111	**18**	**3**	132	3	**119**	0	**122**	334
07:45 AM	0	8	17	25	17	28	35	80	89	10	0	99	**6**	113	1	120	324
08:00 AM	**2**	9	**24**	**35**	**21**	26	38	**85**	98	14	3	115	4	91	1	96	331
Total Volume	3	37	82	122	57	102	137	296	442	54	6	502	14	423	7	444	1364
% App. Total	2.5	30.3	67.2		19.3	34.5	46.3		88	10.8	1.2		3.2	95.3	1.6		
PHF	.375	.661	.854	.871	.679	.850	.815	.871	.767	.750	.500	.804	.583	.889	.350	.910	.909
Cars	3	31	79	113	50	98	131	279	435	53	5	493	14	416	7	437	1322
% Cars	100	83.8	96.3	92.6	87.7	96.1	95.6	94.3	98.4	98.1	83.3	98.2	100	98.3	100	98.4	96.9
Heavy Vehicles	0	6	3	9	7	4	6	17	7	1	1	9	0	7	0	7	42
% Heavy Vehicles	0	16.2	3.7	7.4	12.3	3.9	4.4	5.7	1.6	1.9	16.7	1.8	0	1.7	0	1.6	3.1



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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-DDD
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Main Street From North			Main Street From East			Center Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	18	20	24	91	55	61	7	4	8	61	1	350
04:15 PM	1	15	21	17	104	87	49	8	5	7	52	2	368
04:30 PM	4	17	13	23	76	74	38	7	3	1	62	0	318
04:45 PM	2	18	19	30	98	106	54	10	2	5	54	0	398
Total	7	68	73	94	369	322	202	32	14	21	229	3	1434
05:00 PM	4	12	13	17	88	89	47	9	0	7	41	2	329
05:15 PM	3	16	19	30	83	93	45	7	3	3	37	1	340
05:30 PM	3	19	17	14	84	77	38	13	8	6	54	3	336
05:45 PM	1	17	13	26	92	87	35	19	4	4	45	2	345
Total	11	64	62	87	347	346	165	48	15	20	177	8	1350
Grand Total	18	132	135	181	716	668	367	80	29	41	406	11	2784
Apprch %	6.3	46.3	47.4	11.6	45.8	42.7	77.1	16.8	6.1	9	88.6	2.4	
Total %	0.6	4.7	4.8	6.5	25.7	24	13.2	2.9	1	1.5	14.6	0.4	
Cars	17	124	128	176	707	661	357	78	28	38	398	11	2723
% Cars	94.4	93.9	94.8	97.2	98.7	99	97.3	97.5	96.6	92.7	98	100	97.8
Heavy Vehicles	1	8	7	5	9	7	10	2	1	3	8	0	61
% Heavy Vehicles	5.6	6.1	5.2	2.8	1.3	1	2.7	2.5	3.4	7.3	2	0	2.2

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**18**	20	38	24	91	55	170	**61**	7	4	**72**	**8**	61	1	**70**	350
04:15 PM	1	15	**21**	37	17	**104**	87	208	49	8	**5**	62	7	52	**2**	61	368
04:30 PM	**4**	17	13	34	23	76	74	173	38	7	3	48	1	**62**	0	63	318
04:45 PM	2	18	19	**39**	**30**	98	**106**	**234**	54	**10**	2	66	5	54	0	59	**398**
Total Volume	7	68	73	148	94	369	322	785	202	32	14	248	21	229	3	253	1434
% App. Total	4.7	45.9	49.3		12	47	41		81.5	12.9	5.6		8.3	90.5	1.2		
PHF	.438	.944	.869	.949	.783	.887	.759	.839	.828	.800	.700	.861	.656	.923	.375	.904	.901
Cars	7	62	69	138	91	362	318	771	196	31	14	241	18	223	3	244	1394
% Cars	100	91.2	94.5	93.2	96.8	98.1	98.8	98.2	97.0	96.9	100	97.2	85.7	97.4	100	96.4	97.2
Heavy Vehicles	0	6	4	10	3	7	4	14	6	1	0	7	3	6	0	9	40
% Heavy Vehicles	0	8.8	5.5	6.8	3.2	1.9	1.2	1.8	3.0	3.1	0	2.8	14.3	2.6	0	3.6	2.8

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City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-DDD
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Main Street From North			Main Street From East			Center Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	17	20	23	90	54	59	7	4	7	60	1	342
04:15 PM	1	11	19	17	102	86	48	8	5	6	50	2	355
04:30 PM	4	17	12	21	75	73	37	7	3	0	61	0	310
04:45 PM	2	17	18	30	95	105	52	9	2	5	52	0	387
Total	7	62	69	91	362	318	196	31	14	18	223	3	1394
05:00 PM	4	12	13	17	87	88	47	9	0	7	41	2	327
05:15 PM	3	15	19	29	83	91	45	7	3	3	37	1	336
05:30 PM	3	19	14	14	84	77	34	13	7	6	53	3	327
05:45 PM	0	16	13	25	91	87	35	18	4	4	44	2	339
Total	10	62	59	85	345	343	161	47	14	20	175	8	1329
Grand Total	17	124	128	176	707	661	357	78	28	38	398	11	2723
Apprch %	6.3	46.1	47.6	11.4	45.8	42.8	77.1	16.8	6	8.5	89	2.5	
Total %	0.6	4.6	4.7	6.5	26	24.3	13.1	2.9	1	1.4	14.6	0.4	

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**17**	**20**	**37**	23	90	54	167	**59**	7	4	**70**	**7**	60	1	**68**	342
04:15 PM	1	11	19	31	17	**102**	86	205	48	8	**5**	61	6	50	**2**	58	355
04:30 PM	**4**	17	12	33	21	75	73	169	37	7	3	47	0	**61**	0	61	310
04:45 PM	2	17	18	37	**30**	95	**105**	**230**	52	**9**	2	63	5	52	0	57	**387**
Total Volume	7	62	69	138	91	362	318	771	196	31	14	241	18	223	3	244	1394
% App. Total	5.1	44.9	50		11.8	47	41.2		81.3	12.9	5.8		7.4	91.4	1.2		
PHF	.438	.912	.863	.932	.758	.887	.757	.838	.831	.861	.700	.861	.643	.914	.375	.897	.901

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Client: VHB/J. Quitter

File Name : 81676 M-DDD
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Main Street From North			Main Street From East			Center Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	0	1	1	1	2	0	0	1	1	0	8
04:15 PM	0	4	2	0	2	1	1	0	0	1	2	0	13
04:30 PM	0	0	1	2	1	1	1	0	0	1	1	0	8
04:45 PM	0	1	1	0	3	1	2	1	0	0	2	0	11
Total	0	6	4	3	7	4	6	1	0	3	6	0	40
05:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	2
05:15 PM	0	1	0	1	0	2	0	0	0	0	0	0	4
05:30 PM	0	0	3	0	0	0	4	0	1	0	1	0	9
05:45 PM	1	1	0	1	1	0	0	1	0	0	1	0	6
Total	1	2	3	2	2	3	4	1	1	0	2	0	21
Grand Total	1	8	7	5	9	7	10	2	1	3	8	0	61
Apprch %	6.2	50	43.8	23.8	42.9	33.3	76.9	15.4	7.7	27.3	72.7	0	
Total %	1.6	13.1	11.5	8.2	14.8	11.5	16.4	3.3	1.6	4.9	13.1	0	

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	0	1	1	1	**1**	3	**2**	0	0	2	**1**	1	0	2	8
04:15 PM	0	**4**	**2**	**6**	0	2	1	3	1	0	0	1	1	**2**	0	**3**	**13**
04:30 PM	0	0	1	1	**2**	1	1	**4**	1	0	0	1	1	1	0	2	8
04:45 PM	0	1	1	2	0	**3**	1	4	2	**1**	0	**3**	0	2	0	2	11
Total Volume	0	6	4	10	3	7	4	14	6	1	0	7	3	6	0	9	40
% App. Total	0	60	40		21.4	50	28.6		85.7	14.3	0		33.3	66.7	0		
PHF	.000	.375	.500	.417	.375	.583	1.000	.875	.750	.250	.000	.583	.750	.750	.000	.750	.769

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City, State: Easton, MA
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File Name : 81676 M-DDD
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Peds and Bicycles

	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	5	0	0	0	0	6
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	2	0	0	0	6	0	1	0	0	10
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Grand Total	0	0	0	0	0	1	0	2	0	0	0	6	0	2	0	0	11
Apprch %	0	0	0	0	0	33.3	0	66.7	0	0	0	100	0	100	0	0	
Total %	0	0	0	0	0	9.1	0	18.2	0	0	0	54.5	0	18.2	0	0	

	Main Street From North					Main Street From East					Center Street From South					Lincoln Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	1	1	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**5**	**5**	0	0	0	0	0	**6**
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	**1**	0	0	**1**	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	2	3	0	0	0	6	6	0	1	0	0	1	10
% App. Total	0	0	0	0		0	33.3	0	66.7		0	0	0	100		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.500	.750	.000	.000	.000	.300	.300	.000	.250	.000	.000	.250	.417

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Site Code : 10111.31
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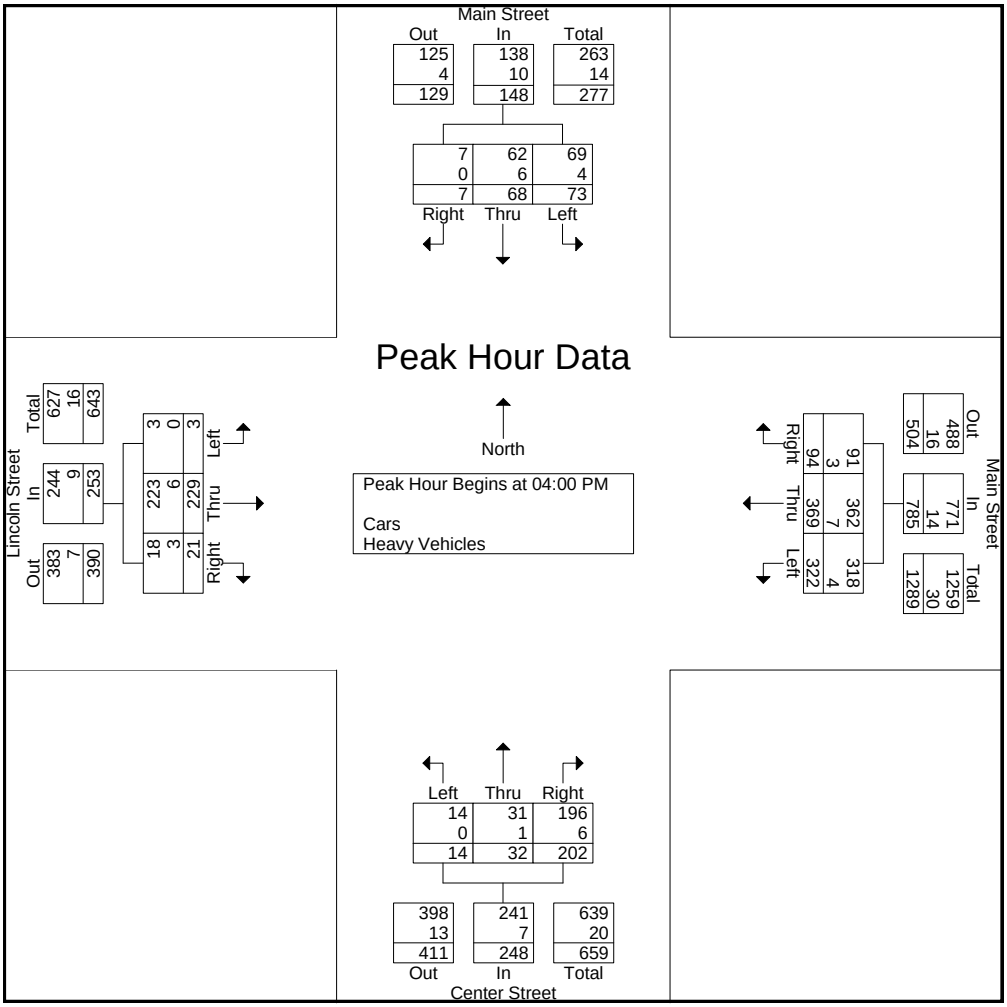
	Main Street From North				Main Street From East				Center Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**18**	20	38	24	91	55	170	**61**	7	4	**72**	**8**	61	1	**70**	350
04:15 PM	1	15	**21**	37	17	**104**	87	208	49	8	**5**	62	7	52	**2**	61	368
04:30 PM	**4**	17	13	34	23	76	74	173	38	7	3	48	1	**62**	0	63	318
04:45 PM	2	18	19	**39**	**30**	98	**106**	**234**	54	**10**	2	66	5	54	0	59	**398**
Total Volume	7	68	73	148	94	369	322	785	202	32	14	248	21	229	3	253	1434
% App. Total	4.7	45.9	49.3		12	47	41		81.5	12.9	5.6		8.3	90.5	1.2		
PHF	.438	.944	.869	.949	.783	.887	.759	.839	.828	.800	.700	.861	.656	.923	.375	.904	.901
Cars	7	62	69	138	91	362	318	771	196	31	14	241	18	223	3	244	1394
% Cars	100	91.2	94.5	93.2	96.8	98.1	98.8	98.2	97.0	96.9	100	97.2	85.7	97.4	100	96.4	97.2
Heavy Vehicles	0	6	4	10	3	7	4	14	6	1	0	7	3	6	0	9	40
% Heavy Vehicles	0	8.8	5.5	6.8	3.2	1.9	1.2	1.8	3.0	3.1	0	2.8	14.3	2.6	0	3.6	2.8



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E/W: Lincoln Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-E
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Barrows Street From North			Lincoln Street From East			Barrows Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	38	0	0	0	45	0	2	1	2	0	73	24	185
07:15 AM	29	0	0	0	30	0	1	0	0	0	105	46	211
07:30 AM	10	0	0	0	22	0	1	1	0	0	117	32	183
07:45 AM	12	0	0	0	27	0	2	0	0	0	123	22	186
Total	89	0	0	0	124	0	6	2	2	0	418	124	765
08:00 AM	16	0	1	0	26	0	1	1	0	0	100	35	180
08:15 AM	15	1	1	1	34	0	5	3	1	0	102	26	189
08:30 AM	13	0	1	1	36	0	2	1	0	0	85	20	159
08:45 AM	16	0	0	0	45	0	1	3	2	0	93	26	186
Total	60	1	3	2	141	0	9	8	3	0	380	107	714
Grand Total	149	1	3	2	265	0	15	10	5	0	798	231	1479
Apprch %	97.4	0.7	2	0.7	99.3	0	50	33.3	16.7	0	77.6	22.4	
Total %	10.1	0.1	0.2	0.1	17.9	0	1	0.7	0.3	0	54	15.6	
Cars	142	1	3	1	254	0	15	10	4	0	787	224	1441
% Cars	95.3	100	100	50	95.8	0	100	100	80	0	98.6	97	97.4
Heavy Vehicles	7	0	0	1	11	0	0	0	1	0	11	7	38
% Heavy Vehicles	4.7	0	0	50	4.2	0	0	0	20	0	1.4	3	2.6

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**38**	0	0	**38**	0	**45**	0	**45**	**2**	**1**	**2**	**5**	0	73	24	97	185
07:15 AM	29	0	0	29	0	30	0	30	1	0	0	1	0	105	**46**	**151**	**211**
07:30 AM	10	0	0	10	0	22	0	22	1	1	0	2	0	117	32	149	183
07:45 AM	12	0	0	12	0	27	0	27	2	0	0	2	0	**123**	22	145	186
Total Volume	89	0	0	89	0	124	0	124	6	2	2	10	0	418	124	542	765
% App. Total	100	0	0		0	100	0		60	20	20		0	77.1	22.9		
PHF	.586	.000	.000	.586	.000	.689	.000	.689	.750	.500	.250	.500	.000	.850	.674	.897	.906
Cars	88	0	0	88	0	117	0	117	6	2	2	10	0	412	120	532	747
% Cars	98.9	0	0	98.9	0	94.4	0	94.4	100	100	100	100	0	98.6	96.8	98.2	97.6
Heavy Vehicles	1	0	0	1	0	7	0	7	0	0	0	0	0	6	4	10	18
% Heavy Vehicles	1.1	0	0	1.1	0	5.6	0	5.6	0	0	0	0	0	1.4	3.2	1.8	2.4

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E/W: Lincoln Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-E
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Groups Printed- Cars

	Barrows Street From North			Lincoln Street From East			Barrows Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	37	0	0	0	43	0	2	1	2	0	71	22	178
07:15 AM	29	0	0	0	27	0	1	0	0	0	104	46	207
07:30 AM	10	0	0	0	21	0	1	1	0	0	116	32	181
07:45 AM	12	0	0	0	26	0	2	0	0	0	121	20	181
Total	88	0	0	0	117	0	6	2	2	0	412	120	747
08:00 AM	15	0	1	0	26	0	1	1	0	0	98	34	176
08:15 AM	14	1	1	1	34	0	5	3	1	0	101	24	185
08:30 AM	10	0	1	0	34	0	2	1	0	0	83	20	151
08:45 AM	15	0	0	0	43	0	1	3	1	0	93	26	182
Total	54	1	3	1	137	0	9	8	2	0	375	104	694
Grand Total	142	1	3	1	254	0	15	10	4	0	787	224	1441
Apprch %	97.3	0.7	2.1	0.4	99.6	0	51.7	34.5	13.8	0	77.8	22.2	
Total %	9.9	0.1	0.2	0.1	17.6	0	1	0.7	0.3	0	54.6	15.5	

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**37**	0	0	**37**	0	**43**	0	**43**	**2**	**1**	**2**	**5**	0	71	22	93	178
07:15 AM	29	0	0	29	0	27	0	27	1	0	0	1	0	104	**46**	**150**	**207**
07:30 AM	10	0	0	10	0	21	0	21	1	1	0	2	0	116	32	148	181
07:45 AM	12	0	0	12	0	26	0	26	2	0	0	2	0	**121**	20	141	181
Total Volume	88	0	0	88	0	117	0	117	6	2	2	10	0	412	120	532	747
% App. Total	100	0	0		0	100	0		60	20	20		0	77.4	22.6		
PHF	.595	.000	.000	.595	.000	.680	.000	.680	.750	.500	.250	.500	.000	.851	.652	.887	.902

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Groups Printed- Heavy Vehicles

	Barrows Street From North			Lincoln Street From East			Barrows Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	0	0	0	2	0	0	0	0	0	2	2	7
07:15 AM	0	0	0	0	3	0	0	0	0	0	1	0	4
07:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
07:45 AM	0	0	0	0	1	0	0	0	0	0	2	2	5
Total	1	0	0	0	7	0	0	0	0	0	6	4	18
08:00 AM	1	0	0	0	0	0	0	0	0	0	2	1	4
08:15 AM	1	0	0	0	0	0	0	0	0	0	1	2	4
08:30 AM	3	0	0	1	2	0	0	0	0	0	2	0	8
08:45 AM	1	0	0	0	2	0	0	0	1	0	0	0	4
Total	6	0	0	1	4	0	0	0	1	0	5	3	20
Grand Total	7	0	0	1	11	0	0	0	1	0	11	7	38
Apprch %	100	0	0	8.3	91.7	0	0	0	100	0	61.1	38.9	
Total %	18.4	0	0	2.6	28.9	0	0	0	2.6	0	28.9	18.4	

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	**2**	**4**	5
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	2	1	3	4
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	2	3	4
08:30 AM	**3**	0	0	**3**	**1**	**2**	0	**3**	0	0	0	0	0	2	0	2	**8**
Total Volume	5	0	0	5	1	3	0	4	0	0	0	0	0	7	5	12	21
% App. Total	100	0	0		25	75	0		0	0	0		0	58.3	41.7		
PHF	.417	.000	.000	.417	.250	.375	.000	.333	.000	.000	.000	.000	.000	.875	.625	.750	.656

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Groups Printed- Peds and Bicycles

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Grand Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	7
Apprch %	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	
Total %	0	0	0	14.3	0	0	0	0	0	0	0	0	0	0	0	85.7	

	Barrows Street From North					Lincoln Street From East					Barrows Street From South					Lincoln Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**	**3**
Total Volume	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	6
% App. Total	0	0	0	100		0	0	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.417	.417	.500

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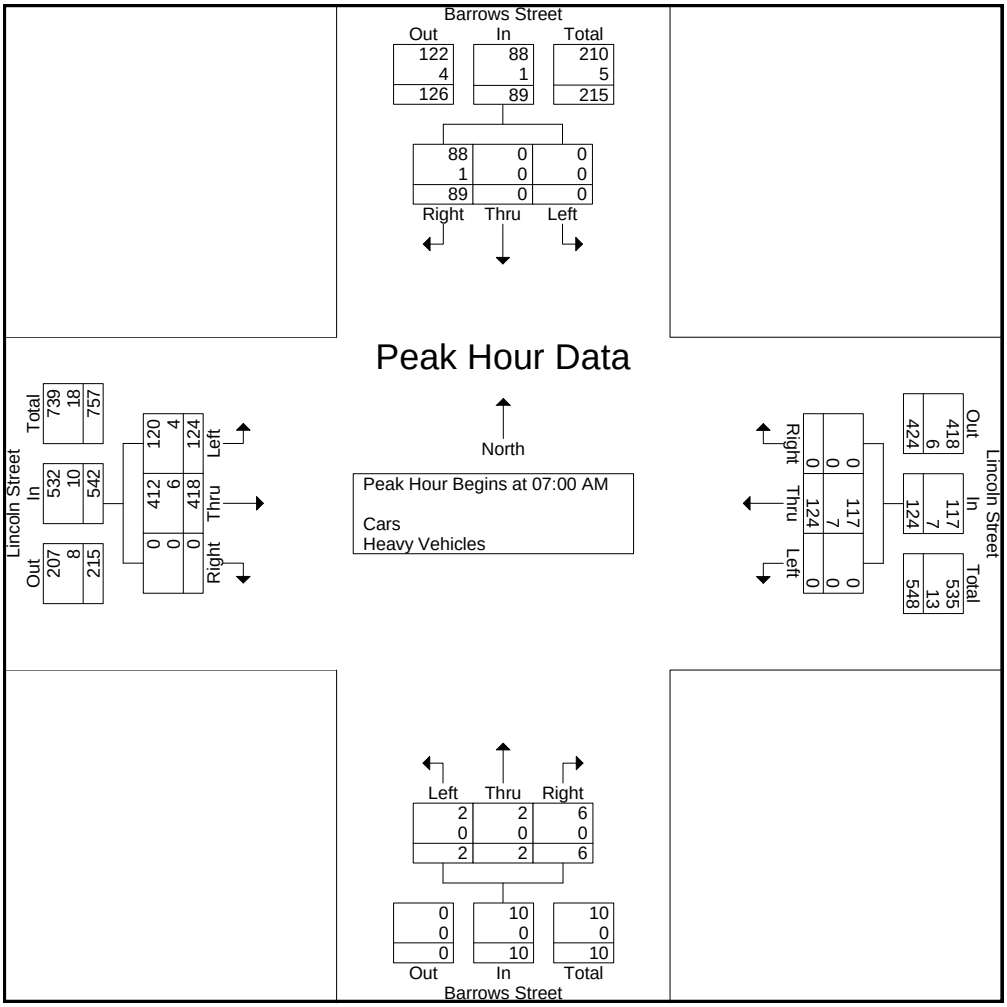
	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**38**	0	0	**38**	0	**45**	0	**45**	**2**	**1**	**2**	**5**	0	73	24	97	185
07:15 AM	29	0	0	29	0	30	0	30	1	0	0	1	0	105	**46**	**151**	**211**
07:30 AM	10	0	0	10	0	22	0	22	1	1	0	2	0	117	32	149	183
07:45 AM	12	0	0	12	0	27	0	27	2	0	0	2	0	**123**	22	145	186
Total Volume	89	0	0	89	0	124	0	124	6	2	2	10	0	418	124	542	765
% App. Total	100	0	0		0	100	0		60	20	20		0	77.1	22.9		
PHF	.586	.000	.000	.586	.000	.689	.000	.689	.750	.500	.250	.500	.000	.850	.674	.897	.906
Cars	88	0	0	88	0	117	0	117	6	2	2	10	0	412	120	532	747
% Cars	98.9	0	0	98.9	0	94.4	0	94.4	100	100	100	100	0	98.6	96.8	98.2	97.6
Heavy Vehicles	1	0	0	1	0	7	0	7	0	0	0	0	0	6	4	10	18
% Heavy Vehicles	1.1	0	0	1.1	0	5.6	0	5.6	0	0	0	0	0	1.4	3.2	1.8	2.4



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Groups Printed- Cars - Heavy Vehicles

	Barrows Street From North			Lincoln Street From East			Barrows Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	28	0	1	0	94	0	4	2	2	0	65	24	220
04:15 PM	30	0	1	0	108	0	6	0	4	0	55	20	224
04:30 PM	31	0	1	1	78	0	4	1	1	0	57	14	188
04:45 PM	40	0	2	1	96	0	4	1	2	0	52	10	208
Total	129	0	5	2	376	0	18	4	9	0	229	68	840
05:00 PM	36	0	0	2	113	0	6	1	2	0	56	14	230
05:15 PM	43	0	0	0	101	0	4	1	3	0	56	16	224
05:30 PM	47	0	0	0	96	0	2	0	3	0	64	22	234
05:45 PM	41	0	0	0	94	0	5	2	1	0	52	15	210
Total	167	0	0	2	404	0	17	4	9	0	228	67	898
Grand Total	296	0	5	4	780	0	35	8	18	0	457	135	1738
Apprch %	98.3	0	1.7	0.5	99.5	0	57.4	13.1	29.5	0	77.2	22.8	
Total %	17	0	0.3	0.2	44.9	0	2	0.5	1	0	26.3	7.8	
Cars	295	0	5	4	772	0	35	7	18	0	449	134	1719
% Cars	99.7	0	100	100	99	0	100	87.5	100	0	98.2	99.3	98.9
Heavy Vehicles	1	0	0	0	8	0	0	1	0	0	8	1	19
% Heavy Vehicles	0.3	0	0	0	1	0	0	12.5	0	0	1.8	0.7	1.1

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	36	0	0	36	**2**	**113**	0	**115**	**6**	1	2	**9**	0	56	14	70	230
05:15 PM	43	0	0	43	0	101	0	101	4	1	**3**	8	0	56	16	72	224
05:30 PM	**47**	0	0	**47**	0	96	0	96	2	0	3	5	0	**64**	**22**	**86**	**234**
05:45 PM	41	0	0	41	0	94	0	94	5	**2**	1	8	0	52	15	67	210
Total Volume	167	0	0	167	2	404	0	406	17	4	9	30	0	228	67	295	898
% App. Total	100	0	0		0.5	99.5	0		56.7	13.3	30		0	77.3	22.7		
PHF	.888	.000	.000	.888	.250	.894	.000	.883	.708	.500	.750	.833	.000	.891	.761	.858	.959
Cars	167	0	0	167	2	402	0	404	17	3	9	29	0	226	67	293	893
% Cars	100	0	0	100	100	99.5	0	99.5	100	75.0	100	96.7	0	99.1	100	99.3	99.4
Heavy Vehicles	0	0	0	0	0	2	0	2	0	1	0	1	0	2	0	2	5
% Heavy Vehicles	0	0	0	0	0	0.5	0	0.5	0	25.0	0	3.3	0	0.9	0	0.7	0.6

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Groups Printed- Cars

	Barrows Street From North			Lincoln Street From East			Barrows Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	28	0	1	0	94	0	4	2	2	0	63	24	218
04:15 PM	29	0	1	0	106	0	6	0	4	0	53	19	218
04:30 PM	31	0	1	1	77	0	4	1	1	0	55	14	185
04:45 PM	40	0	2	1	93	0	4	1	2	0	52	10	205
Total	128	0	5	2	370	0	18	4	9	0	223	67	826
05:00 PM	36	0	0	2	112	0	6	1	2	0	56	14	229
05:15 PM	43	0	0	0	101	0	4	1	3	0	56	16	224
05:30 PM	47	0	0	0	95	0	2	0	3	0	63	22	232
05:45 PM	41	0	0	0	94	0	5	1	1	0	51	15	208
Total	167	0	0	2	402	0	17	3	9	0	226	67	893
Grand Total	295	0	5	4	772	0	35	7	18	0	449	134	1719
Apprch %	98.3	0	1.7	0.5	99.5	0	58.3	11.7	30	0	77	23	
Total %	17.2	0	0.3	0.2	44.9	0	2	0.4	1	0	26.1	7.8	

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	36	0	0	36	**2**	**112**	0	**114**	**6**	**1**	2	**9**	0	56	14	70	229
05:15 PM	43	0	0	43	0	101	0	101	4	1	**3**	8	0	56	16	72	224
05:30 PM	**47**	0	0	**47**	0	95	0	95	2	0	3	5	0	**63**	**22**	**85**	**232**
05:45 PM	41	0	0	41	0	94	0	94	5	1	1	7	0	51	15	66	208
Total Volume	167	0	0	167	2	402	0	404	17	3	9	29	0	226	67	293	893
% App. Total	100	0	0		0.5	99.5	0		58.6	10.3	31		0	77.1	22.9		
PHF	.888	.000	.000	.888	.250	.897	.000	.886	.708	.750	.750	.806	.000	.897	.761	.862	.962

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Groups Printed- Heavy Vehicles

	Barrows Street From North			Lincoln Street From East			Barrows Street From South			Lincoln Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
04:15 PM	1	0	0	0	2	0	0	0	0	0	2	1	6
04:30 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
04:45 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
Total	1	0	0	0	6	0	0	0	0	0	6	1	14
05:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
Total	0	0	0	0	2	0	0	1	0	0	2	0	5
Grand Total	1	0	0	0	8	0	0	1	0	0	8	1	19
Apprch %	100	0	0	0	100	0	0	100	0	0	88.9	11.1	
Total %	5.3	0	0	0	42.1	0	0	5.3	0	0	42.1	5.3	

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	2	2
04:15 PM	**1**	0	0	**1**	0	2	0	2	0	0	0	0	0	2	**1**	**3**	**6**
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
04:45 PM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	0	0	0	3
Total Volume	1	0	0	1	0	6	0	6	0	0	0	0	0	6	1	7	14
% App. Total	100	0	0		0	100	0		0	0	0		0	85.7	14.3		
PHF	.250	.000	.000	.250	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750	.250	.583	.583

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E/W: Lincoln Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-EEE
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Peds and Bicycles

	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	1	6
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	5	0	1	0	0	7
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
Total	0	0	0	0	0	1	0	1	0	0	0	13	0	1	0	1	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	4
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	3	6
Grand Total	0	0	0	0	0	1	0	1	1	0	0	15	0	1	0	4	23
Apprch %	0	0	0	0	0	50	0	50	6.2	0	0	93.8	0	20	0	80	
Total %	0	0	0	0	0	4.3	0	4.3	4.3	0	0	65.2	0	4.3	0	17.4	

	Barrows Street From North					Lincoln Street From East					Barrows Street From South					Lincoln Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	**1**	**0**	**0**	**1**	0	0	0	4	4	0	0	0	**1**	**1**	6
04:30 PM	0	0	0	0	0	0	0	0	**1**	1	0	0	0	**5**	**5**	0	**1**	0	0	1	**7**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	4
Total Volume	0	0	0	0	0	0	1	0	1	2	0	0	0	13	13	0	1	0	1	2	17
% App. Total	0	0	0	0		0	50	0	50		0	0	0	100		0	50	0	50		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.500	.000	.000	.000	.650	.650	.000	.250	.000	.250	.500	.607

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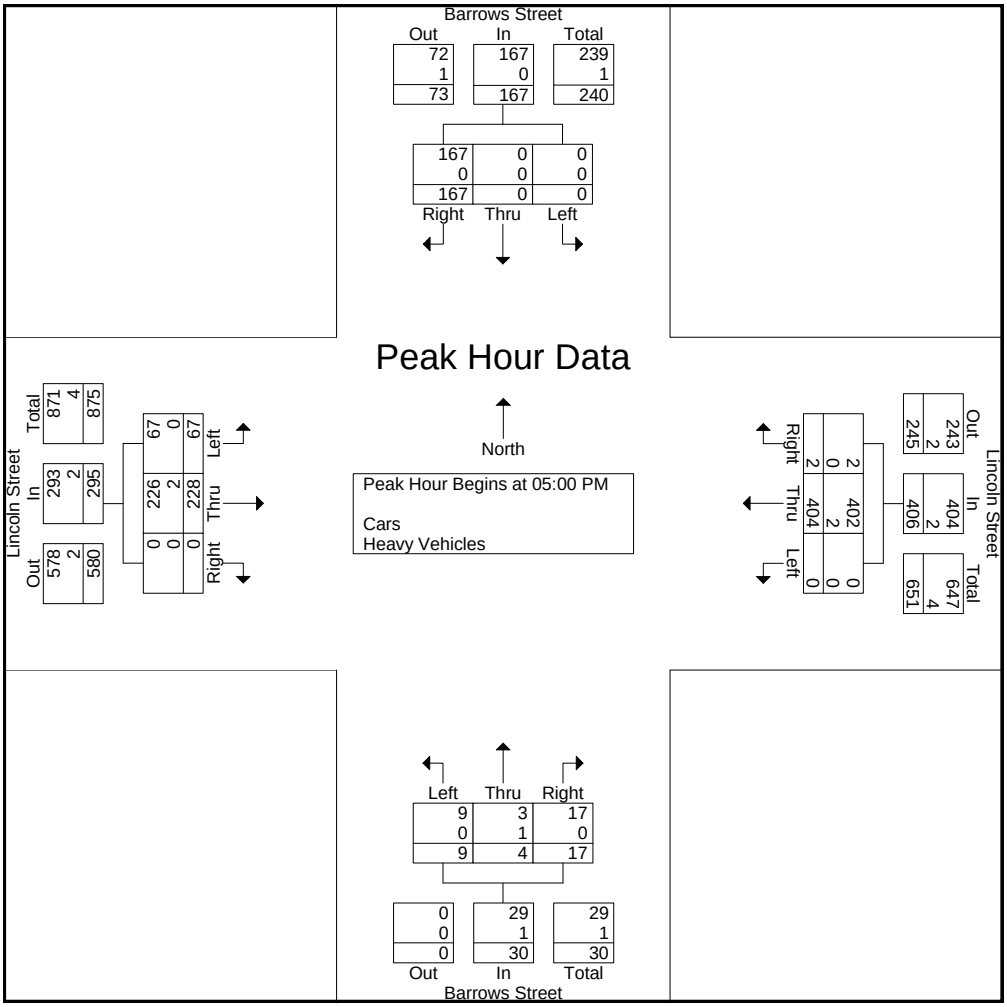
	Barrows Street From North				Lincoln Street From East				Barrows Street From South				Lincoln Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	36	0	0	36	**2**	**113**	0	**115**	**6**	1	2	**9**	0	56	14	70	230
05:15 PM	43	0	0	43	0	101	0	101	4	1	**3**	8	0	56	16	72	224
05:30 PM	**47**	0	0	**47**	0	96	0	96	2	0	3	5	0	**64**	**22**	**86**	**234**
05:45 PM	41	0	0	41	0	94	0	94	5	**2**	1	8	0	52	15	67	210
Total Volume	167	0	0	167	2	404	0	406	17	4	9	30	0	228	67	295	898
% App. Total	100	0	0		0.5	99.5	0		56.7	13.3	30		0	77.3	22.7		
PHF	.888	.000	.000	.888	.250	.894	.000	.883	.708	.500	.750	.833	.000	.891	.761	.858	.959
Cars	167	0	0	167	2	402	0	404	17	3	9	29	0	226	67	293	893
% Cars	100	0	0	100	100	99.5	0	99.5	100	75.0	100	96.7	0	99.1	100	99.3	99.4
Heavy Vehicles	0	0	0	0	0	2	0	2	0	1	0	1	0	2	0	2	5
% Heavy Vehicles	0	0	0	0	0	0.5	0	0.5	0	25.0	0	3.3	0	0.9	0	0.7	0.6



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File Name : 81676 M-F
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Main Street From North		Elm Street From East		Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	43	11	4	22	13	24	117
07:15 AM	49	14	3	12	27	40	145
07:30 AM	26	13	8	5	22	38	112
07:45 AM	26	6	4	10	13	30	89
Total	144	44	19	49	75	132	463
08:00 AM	40	10	0	11	26	34	121
08:15 AM	36	10	7	12	21	35	121
08:30 AM	39	13	4	7	20	25	108
08:45 AM	30	16	12	8	25	27	118
Total	145	49	23	38	92	121	468
Grand Total	289	93	42	87	167	253	931
Apprch %	75.7	24.3	32.6	67.4	39.8	60.2	
Total %	31	10	4.5	9.3	17.9	27.2	
Cars	273	91	39	81	156	235	875
% Cars	94.5	97.8	92.9	93.1	93.4	92.9	94
Heavy Vehicles	16	2	3	6	11	18	56
% Heavy Vehicles	5.5	2.2	7.1	6.9	6.6	7.1	6

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**40**	10	50	0	11	11	**26**	34	**60**	**121**
08:15 AM	**36**	**10**	**46**	**7**	**12**	19	21	**35**	56	121
08:30 AM	39	13	**52**	4	7	11	20	25	45	108
08:45 AM	30	**16**	46	**12**	8	**20**	25	27	52	118
Total Volume	145	49	194	23	38	61	92	121	213	468
% App. Total	74.7	25.3		37.7	62.3		43.2	56.8		
PHF	.906	.766	.933	.479	.792	.763	.885	.864	.888	.967
Cars	134	47	181	21	33	54	86	110	196	431
% Cars	92.4	95.9	93.3	91.3	86.8	88.5	93.5	90.9	92.0	92.1
Heavy Vehicles	11	2	13	2	5	7	6	11	17	37
% Heavy Vehicles	7.6	4.1	6.7	8.7	13.2	11.5	6.5	9.1	8.0	7.9

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File Name : 81676 M-F
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Cars

	Main Street From North		Elm Street From East		Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	42	11	4	22	10	23	112
07:15 AM	47	14	2	12	27	39	141
07:30 AM	25	13	8	5	20	36	107
07:45 AM	25	6	4	9	13	27	84
Total	139	44	18	48	70	125	444
08:00 AM	36	9	0	9	26	30	110
08:15 AM	32	10	7	10	21	34	114
08:30 AM	38	12	4	6	17	21	98
08:45 AM	28	16	10	8	22	25	109
Total	134	47	21	33	86	110	431
Grand Total	273	91	39	81	156	235	875
Apprch %	75	25	32.5	67.5	39.9	60.1	
Total %	31.2	10.4	4.5	9.3	17.8	26.9	

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	42	11	53	4	**22**	**26**	10	23	33	112
07:15 AM	**47**	**14**	**61**	2	12	14	**27**	**39**	**66**	**141**
07:30 AM	**25**	**13**	**38**	**8**	5	13	20	36	56	107
07:45 AM	25	6	31	4	9	13	13	27	40	84
Total Volume	139	44	183	18	48	66	70	125	195	444
% App. Total	76	24		27.3	72.7		35.9	64.1		
PHF	.739	.786	.750	.563	.545	.635	.648	.801	.739	.787

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File Name : 81676 M-F
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Groups Printed- Heavy Vehicles

	Main Street From North		Elm Street From East		Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	1	0	0	0	3	1	5
07:15 AM	2	0	1	0	0	1	4
07:30 AM	1	0	0	0	2	2	5
07:45 AM	1	0	0	1	0	3	5
Total	5	0	1	1	5	7	19
08:00 AM	4	1	0	2	0	4	11
08:15 AM	4	0	0	2	0	1	7
08:30 AM	1	1	0	1	3	4	10
08:45 AM	2	0	2	0	3	2	9
Total	11	2	2	5	6	11	37
Grand Total	16	2	3	6	11	18	56
Apprch %	88.9	11.1	33.3	66.7	37.9	62.1	
Total %	28.6	3.6	5.4	10.7	19.6	32.1	

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**4**	**1**	**5**	0	**2**	**2**	0	**4**	4	**11**
08:15 AM	**4**	**0**	**4**	**0**	**2**	**2**	**0**	**1**	**1**	**7**
08:30 AM	**1**	**1**	**2**	**0**	**1**	**1**	**3**	4	**7**	10
08:45 AM	2	0	2	**2**	0	2	3	2	5	9
Total Volume	11	2	13	2	5	7	6	11	17	37
% App. Total	84.6	15.4		28.6	71.4		35.3	64.7		
PHF	.688	.500	.650	.250	.625	.875	.500	.688	.607	.841

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File Name : 81676 M-F
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	1	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	2	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	1
08:45 AM	0	0	1	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	0	0	1	2
Grand Total	0	0	1	1	0	0	0	0	3	5
Apprch %	0	0	100	100	0	0	0	0	100	
Total %	0	0	20	20	0	0	0	0	60	

	Main Street From North				Elm Street From East				Main Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**2**
07:15 AM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	0	2	2	3
% App. Total	0	0	0		100	0	0		0	0	100		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	.375

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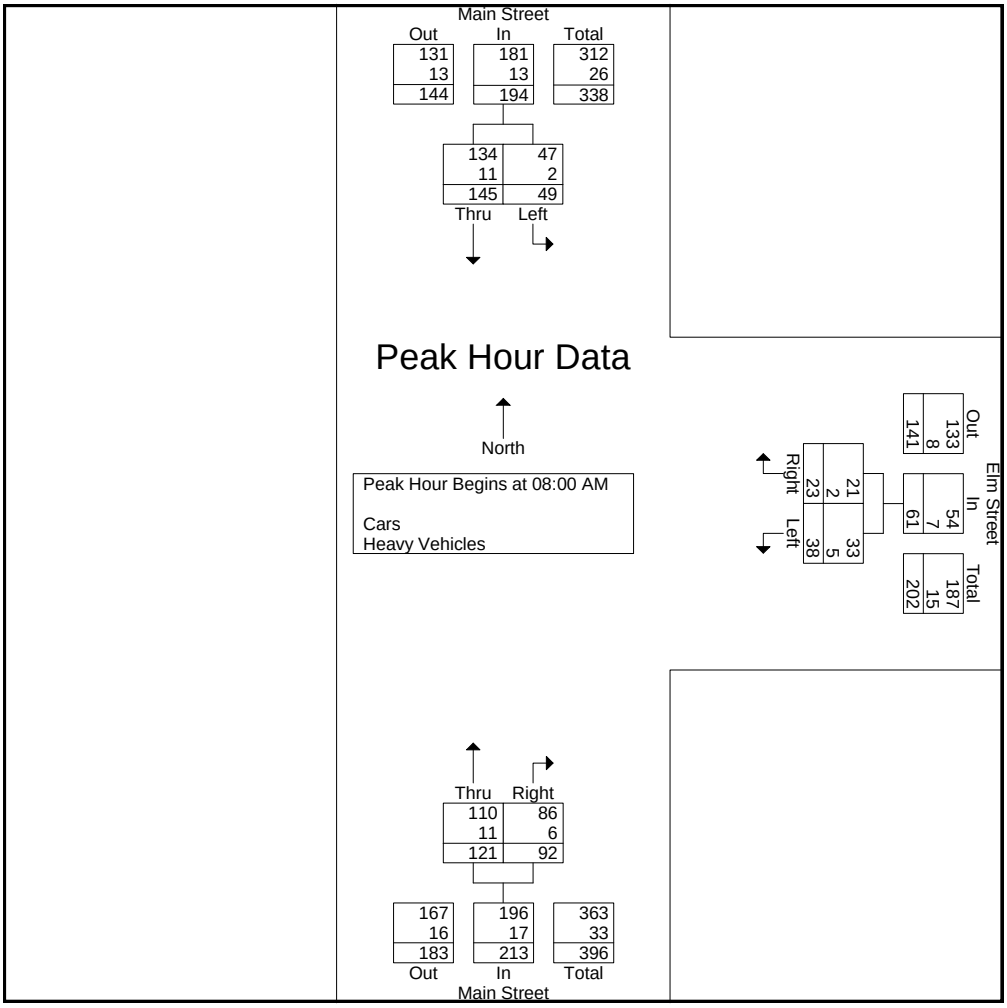
	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**40**	10	50	0	11	11	**26**	34	**60**	**121**
08:15 AM	**36**	**10**	**46**	**7**	**12**	19	21	**35**	56	121
08:30 AM	39	13	**52**	4	7	11	20	25	45	108
08:45 AM	30	**16**	46	**12**	8	**20**	25	27	52	118
Total Volume	145	49	194	23	38	61	92	121	213	468
% App. Total	74.7	25.3		37.7	62.3		43.2	56.8		
PHF	.906	.766	.933	.479	.792	.763	.885	.864	.888	.967
Cars	134	47	181	21	33	54	86	110	196	431
% Cars	92.4	95.9	93.3	91.3	86.8	88.5	93.5	90.9	92.0	92.1
Heavy Vehicles	11	2	13	2	5	7	6	11	17	37
% Heavy Vehicles	7.6	4.1	6.7	8.7	13.2	11.5	6.5	9.1	8.0	7.9



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File Name : 81676 M-FFF
Site Code : 10111.31
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Groups Printed- Cars - Heavy Vehicles

	Main Street From North		Elm Street From East		Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	38	10	15	24	16	36	139
04:15 PM	39	13	11	21	16	19	119
04:30 PM	25	6	11	29	13	29	113
04:45 PM	37	12	19	30	6	35	139
Total	139	41	56	104	51	119	510
05:00 PM	42	8	25	22	18	35	150
05:15 PM	38	5	20	35	9	46	153
05:30 PM	42	9	29	35	18	36	169
05:45 PM	35	15	10	25	19	33	137
Total	157	37	84	117	64	150	609
Grand Total	296	78	140	221	115	269	1119
Apprch %	79.1	20.9	38.8	61.2	29.9	70.1	
Total %	26.5	7	12.5	19.7	10.3	24	
Cars	282	78	138	217	111	262	1088
% Cars	95.3	100	98.6	98.2	96.5	97.4	97.2
Heavy Vehicles	14	0	2	4	4	7	31
% Heavy Vehicles	4.7	0	1.4	1.8	3.5	2.6	2.8

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	37	**12**	49	19	30	49	6	35	41	139
05:00 PM	**42**	8	50	25	22	47	**18**	35	53	150
05:15 PM	38	5	43	20	**35**	55	9	**46**	**55**	153
05:30 PM	42	9	**51**	**29**	35	**64**	18	36	54	**169**
Total Volume	**159**	**34**	**193**	**93**	**122**	**215**	**51**	**152**	**203**	**611**
% App. Total	**82.4**	**17.6**		**43.3**	**56.7**		**25.1**	**74.9**		
PHF	**.946**	**.708**	**.946**	**.802**	**.871**	**.840**	**.708**	**.826**	**.923**	**.904**
Cars	**153**	**34**	**187**	**92**	**120**	**212**	**51**	**150**	**201**	**600**
% Cars	**96.2**	**100**	**96.9**	**98.9**	**98.4**	**98.6**	**100**	**98.7**	**99.0**	**98.2**
Heavy Vehicles	**6**	**0**	**6**	**1**	**2**	**3**	**0**	**2**	**2**	**11**
% Heavy Vehicles	**3.8**	**0**	**3.1**	**1.1**	**1.6**	**1.4**	**0**	**1.3**	**1.0**	**1.8**

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N/S: Main Street
E: Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 M-FFF
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Main Street From North		Elm Street From East		Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	37	10	14	24	15	36	136
04:15 PM	33	13	11	19	14	17	107
04:30 PM	25	6	11	29	13	28	112
04:45 PM	36	12	19	30	6	34	137
Total	131	41	55	102	48	115	492
05:00 PM	41	8	25	22	18	35	149
05:15 PM	38	5	20	35	9	45	152
05:30 PM	38	9	28	33	18	36	162
05:45 PM	34	15	10	25	18	31	133
Total	151	37	83	115	63	147	596
Grand Total	282	78	138	217	111	262	1088
Apprch %	78.3	21.7	38.9	61.1	29.8	70.2	
Total %	25.9	7.2	12.7	19.9	10.2	24.1	

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	36	**12**	48	19	30	49	6	34	40	137
05:00 PM	**41**	8	**49**	25	22	47	**18**	35	53	149
05:15 PM	38	5	43	20	**35**	55	9	**45**	**54**	152
05:30 PM	38	9	47	**28**	33	**61**	18	36	54	**162**
Total Volume	**153**	**34**	**187**	**92**	**120**	**212**	**51**	**150**	**201**	**600**
% App. Total	**81.8**	**18.2**		**43.4**	**56.6**		**25.4**	**74.6**		
PHF	**.933**	**.708**	**.954**	**.821**	**.857**	**.869**	**.708**	**.833**	**.931**	**.926**

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File Name : 81676 M-FFF
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Main Street From North		Elm Street From East		Main Street From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	1	0	1	0	1	0	3
04:15 PM	6	0	0	2	2	2	12
04:30 PM	0	0	0	0	0	1	1
04:45 PM	1	0	0	0	0	1	2
Total	8	0	1	2	3	4	18
05:00 PM	1	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	1	1
05:30 PM	4	0	1	2	0	0	7
05:45 PM	1	0	0	0	1	2	4
Total	6	0	1	2	1	3	13
Grand Total	14	0	2	4	4	7	31
Apprch %	100	0	33.3	66.7	36.4	63.6	
Total %	45.2	0	6.5	12.9	12.9	22.6	

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	0	1	**1**	0	1	1	0	1	3
04:15 PM	**6**	0	**6**	0	**2**	**2**	**2**	**2**	**4**	**12**
04:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**
04:45 PM	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**2**
Total Volume	**8**	**0**	**8**	**1**	**2**	**3**	**3**	**4**	**7**	**18**
% App. Total	**100**	**0**		**33.3**	**66.7**		**42.9**	**57.1**		
PHF	**.333**	**.000**	**.333**	**.250**	**.250**	**.375**	**.375**	**.500**	**.438**	**.375**

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File Name : 81676 M-FFF
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	1	0	0	0	0	0	2	3
04:30 PM	0	0	0	0	0	0	0	0	2	2
04:45 PM	0	0	2	0	0	0	0	0	0	2
Total	0	0	3	0	0	0	0	0	5	8
05:00 PM	0	0	0	0	0	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	4	5
Grand Total	0	0	3	1	0	0	0	0	9	13
Apprch %	0	0	100	100	0	0	0	0	100	
Total %	0	0	23.1	7.7	0	0	0	0	69.2	

	Main Street From North				Elm Street From East				Main Street From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	0	0	1	1	0	0	0	0	0	0	**2**	**2**	**3**
04:30 PM	0	0	0	0	0	0	0	0	0	0	2	2	2
04:45 PM	0	0	**2**	**2**	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	2
Total Volume	0	0	3	3	0	0	0	0	0	0	6	6	9
% App. Total	0	0	100		0	0	0		0	0	100		
PHF	.000	.000	.375	.375	.000	.000	.000	.000	.000	.000	.750	.750	.750

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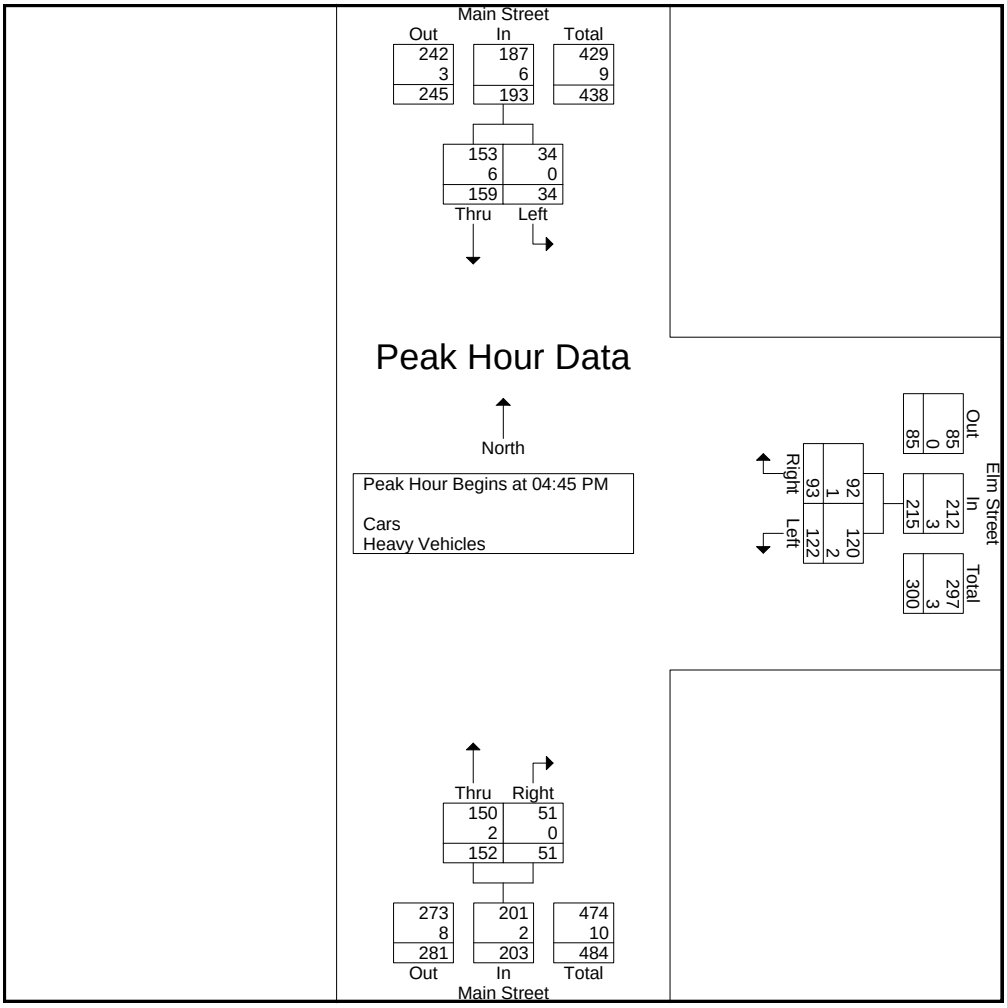
File Name : 81676 M-FFF
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

	Main Street From North			Elm Street From East			Main Street From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	37	**12**	49	19	30	49	6	35	41	139
05:00 PM	**42**	8	50	25	22	47	**18**	35	53	150
05:15 PM	38	5	43	20	**35**	55	9	**46**	**55**	153
05:30 PM	42	9	**51**	**29**	35	**64**	18	36	54	**169**
Total Volume	**159**	**34**	**193**	**93**	**122**	**215**	**51**	**152**	**203**	**611**
% App. Total	**82.4**	**17.6**		**43.3**	**56.7**		**25.1**	**74.9**		
PHF	**.946**	**.708**	**.946**	**.802**	**.871**	**.840**	**.708**	**.826**	**.923**	**.904**
Cars	**153**	**34**	**187**	**92**	**120**	**212**	**51**	**150**	**201**	**600**
% Cars	**96.2**	**100**	**96.9**	**98.9**	**98.4**	**98.6**	**100**	**98.7**	**99.0**	**98.2**
Heavy Vehicles	**6**	**0**	**6**	**1**	**2**	**3**	**0**	**2**	**2**	**11**
% Heavy Vehicles	**3.8**	**0**	**3.1**	**1.1**	**1.6**	**1.4**	**0**	**1.3**	**1.0**	**1.8**



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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/23/08 and Sat 10/4/08	81676	Easton, MA

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Washington Street (Route 138)
E: Union Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-A
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North		Union Street From East		Washington Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	108	10	16	17	48	205	404
07:15 AM	78	13	15	23	51	240	420
07:30 AM	72	15	29	10	60	288	474
07:45 AM	100	25	28	12	70	225	460
Total	358	63	88	62	229	958	1758
08:00 AM	84	16	11	16	55	255	437
08:15 AM	114	19	26	14	70	165	408
08:30 AM	97	25	22	20	60	149	373
08:45 AM	115	15	32	32	46	139	379
Total	410	75	91	82	231	708	1597
Grand Total	768	138	179	144	460	1666	3355
Apprch %	84.8	15.2	55.4	44.6	21.6	78.4	
Total %	22.9	4.1	5.3	4.3	13.7	49.7	
Cars	723	136	172	141	453	1605	3230
% Cars	94.1	98.6	96.1	97.9	98.5	96.3	96.3
Heavy Vehicles	45	2	7	3	7	61	125
% Heavy Vehicles	5.9	1.4	3.9	2.1	1.5	3.7	3.7

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	78	13	91	15	**23**	38	51	240	291	420
07:30 AM	72	15	87	**29**	10	39	60	**288**	**348**	**474**
07:45 AM	**100**	**25**	**125**	28	12	**40**	**70**	225	295	460
08:00 AM	84	16	100	11	16	27	55	255	310	437
Total Volume	334	69	403	83	61	144	236	1008	1244	1791
% App. Total	82.9	17.1		57.6	42.4		19	81		
PHF	.835	.690	.806	.716	.663	.900	.843	.875	.894	.945
Cars	317	67	384	79	61	140	232	975	1207	1731
% Cars	94.9	97.1	95.3	95.2	100	97.2	98.3	96.7	97.0	96.6
Heavy Vehicles	17	2	19	4	0	4	4	33	37	60
% Heavy Vehicles	5.1	2.9	4.7	4.8	0	2.8	1.7	3.3	3.0	3.4

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N/S: Washington Street (Route 138)
E: Union Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-A
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North		Union Street From East		Washington Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	100	10	16	16	48	203	393
07:15 AM	73	13	15	23	51	239	414
07:30 AM	71	14	29	10	59	274	457
07:45 AM	95	24	25	12	68	220	444
Total	339	61	85	61	226	936	1708
08:00 AM	78	16	10	16	54	242	416
08:15 AM	105	19	24	14	70	155	387
08:30 AM	89	25	21	20	57	143	355
08:45 AM	112	15	32	30	46	129	364
Total	384	75	87	80	227	669	1522
Grand Total	723	136	172	141	453	1605	3230
Apprch %	84.2	15.8	55	45	22	78	
Total %	22.4	4.2	5.3	4.4	14	49.7	

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	73	13	86	15	**23**	38	51	239	290	414
07:30 AM	71	14	85	**29**	10	**39**	59	**274**	**333**	**457**
07:45 AM	**95**	**24**	**119**	25	12	37	**68**	220	288	444
08:00 AM	78	16	94	10	16	26	54	242	296	416
Total Volume	317	67	384	79	61	140	232	975	1207	1731
% App. Total	82.6	17.4		56.4	43.6		19.2	80.8		
PHF	.834	.698	.807	.681	.663	.897	.853	.890	.906	.947

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E: Union Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-A
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North		Union Street From East		Washington Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	8	0	0	1	0	2	11
07:15 AM	5	0	0	0	0	1	6
07:30 AM	1	1	0	0	1	14	17
07:45 AM	5	1	3	0	2	5	16
Total	19	2	3	1	3	22	50
08:00 AM	6	0	1	0	1	13	21
08:15 AM	9	0	2	0	0	10	21
08:30 AM	8	0	1	0	3	6	18
08:45 AM	3	0	0	2	0	10	15
Total	26	0	4	2	4	39	75
Grand Total	45	2	7	3	7	61	125
Apprch %	95.7	4.3	70	30	10.3	89.7	
Total %	36	1.6	5.6	2.4	5.6	48.8	

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	5	**1**	6	**3**	0	**3**	2	5	7	16
08:00 AM	6	0	6	1	0	1	1	**13**	**14**	**21**
08:15 AM	**9**	0	**9**	2	0	2	0	10	10	21
08:30 AM	8	0	8	1	0	1	**3**	6	9	18
Total Volume	28	1	29	7	0	7	6	34	40	76
% App. Total	96.6	3.4		100	0		15	85		
PHF	.778	.250	.806	.583	.000	.583	.500	.654	.714	.905

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Client: VHB/J. Quitter

File Name : 81676 N-A
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0	0	0	1
Grand Total	1	0	0	0	0	0	0	0	0	1
Apprch %	100	0	0	0	0	0	0	0	0	
Total %	100	0	0	0	0	0	0	0	0	

	Washington Street (Route 138) From North				Union Street From East				Washington Street (Route 138) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	**1**
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% App. Total	100	0	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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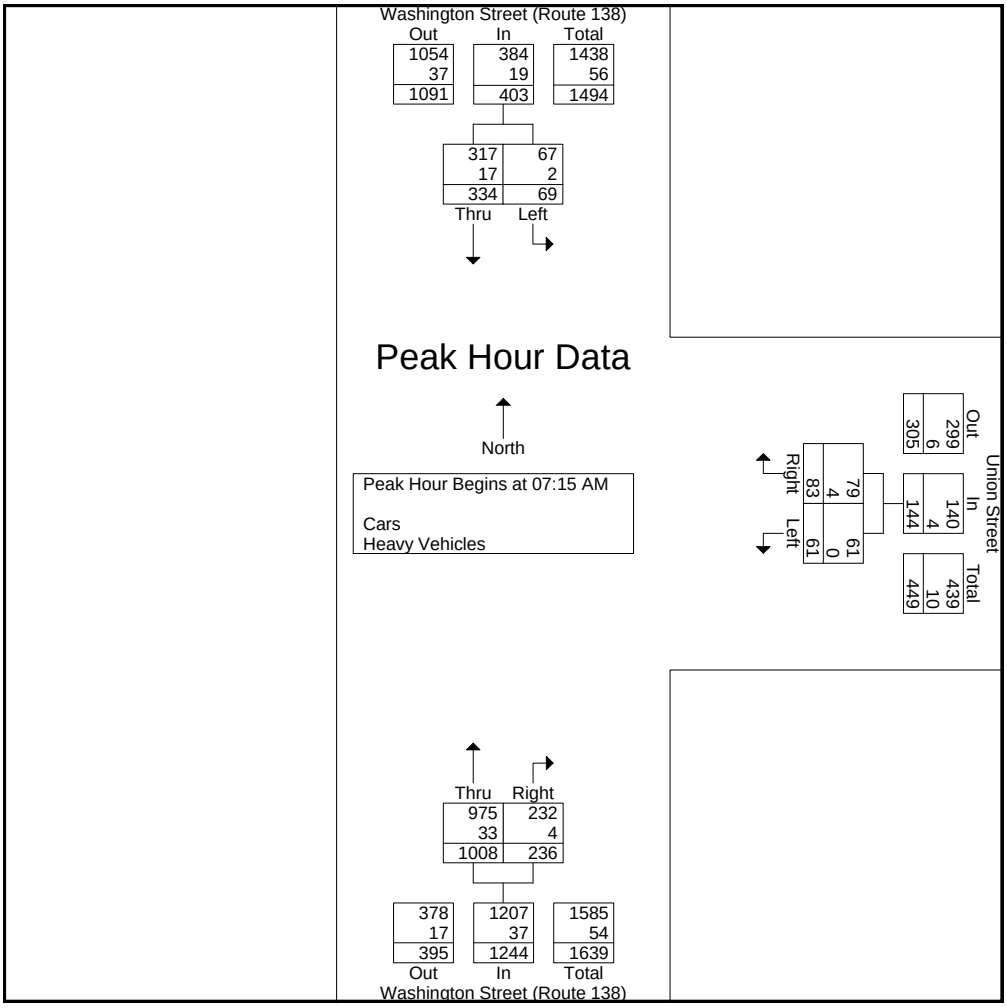
File Name : 81676 N-A
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	78	13	91	15	**23**	38	51	240	291	420
07:30 AM	72	15	87	**29**	10	39	60	**288**	**348**	**474**
07:45 AM	**100**	**25**	**125**	28	12	**40**	**70**	225	295	460
08:00 AM	84	16	100	11	16	27	55	255	310	437
Total Volume	334	69	403	83	61	144	236	1008	1244	1791
% App. Total	82.9	17.1		57.6	42.4		19	81		
PHF	.835	.690	.806	.716	.663	.900	.843	.875	.894	.945
Cars	317	67	384	79	61	140	232	975	1207	1731
% Cars	94.9	97.1	95.3	95.2	100	97.2	98.3	96.7	97.0	96.6
Heavy Vehicles	17	2	19	4	0	4	4	33	37	60
% Heavy Vehicles	5.1	2.9	4.7	4.8	0	2.8	1.7	3.3	3.0	3.4



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N/S: Washington Street (Route 138)
E: Union Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-AAA
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North		Union Street From East		Washington Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	178	32	29	39	39	126	443
04:15 PM	202	30	29	32	29	117	439
04:30 PM	185	29	16	41	35	126	432
04:45 PM	222	27	23	43	32	111	458
Total	787	118	97	155	135	480	1772
05:00 PM	192	31	33	36	46	149	487
05:15 PM	209	35	36	52	33	125	490
05:30 PM	272	27	23	34	33	120	509
05:45 PM	197	34	41	34	35	111	452
Total	870	127	133	156	147	505	1938
Grand Total	1657	245	230	311	282	985	3710
Apprch %	87.1	12.9	42.5	57.5	22.3	77.7	
Total %	44.7	6.6	6.2	8.4	7.6	26.5	
Cars	1619	243	229	308	280	963	3642
% Cars	97.7	99.2	99.6	99	99.3	97.8	98.2
Heavy Vehicles	38	2	1	3	2	22	68
% Heavy Vehicles	2.3	0.8	0.4	1	0.7	2.2	1.8

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	222	27	249	23	43	66	32	111	143	458
05:00 PM	192	31	223	33	36	69	**46**	**149**	**195**	487
05:15 PM	209	**35**	244	**36**	**52**	**88**	33	125	158	490
05:30 PM	**272**	27	**299**	23	34	57	33	120	153	**509**
Total Volume	**895**	**120**	**1015**	**115**	**165**	**280**	**144**	**505**	**649**	**1944**
% App. Total	**88.2**	**11.8**		**41.1**	**58.9**		**22.2**	**77.8**		
PHF	**.823**	**.857**	**.849**	**.799**	**.793**	**.795**	**.783**	**.847**	**.832**	**.955**
Cars	**875**	**119**	**994**	**114**	**165**	**279**	**144**	**491**	**635**	**1908**
% Cars	**97.8**	**99.2**	**97.9**	**99.1**	**100**	**99.6**	**100**	**97.2**	**97.8**	**98.1**
Heavy Vehicles	**20**	**1**	**21**	**1**	**0**	**1**	**0**	**14**	**14**	**36**
% Heavy Vehicles	**2.2**	**0.8**	**2.1**	**0.9**	**0**	**0.4**	**0**	**2.8**	**2.2**	**1.9**

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N/S: Washington Street (Route 138)
E: Union Street
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-AAA
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North		Union Street From East		Washington Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	175	32	29	37	38	122	433
04:15 PM	194	29	29	32	29	115	428
04:30 PM	181	29	16	40	35	124	425
04:45 PM	219	26	22	43	32	106	448
Total	769	116	96	152	134	467	1734
05:00 PM	186	31	33	36	46	146	478
05:15 PM	206	35	36	52	33	122	484
05:30 PM	264	27	23	34	33	117	498
05:45 PM	194	34	41	34	34	111	448
Total	850	127	133	156	146	496	1908
Grand Total	1619	243	229	308	280	963	3642
Apprch %	86.9	13.1	42.6	57.4	22.5	77.5	
Total %	44.5	6.7	6.3	8.5	7.7	26.4	

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	219	26	245	22	43	65	32	106	138	448
05:00 PM	186	31	217	33	36	69	**46**	**146**	**192**	478
05:15 PM	206	**35**	241	**36**	**52**	**88**	33	122	155	484
05:30 PM	**264**	27	**291**	23	34	57	33	117	150	**498**
Total Volume	**875**	**119**	**994**	**114**	**165**	**279**	**144**	**491**	**635**	**1908**
% App. Total	**88**	**12**		**40.9**	**59.1**		**22.7**	**77.3**		
PHF	**.829**	**.850**	**.854**	**.792**	**.793**	**.793**	**.783**	**.841**	**.827**	**.958**

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Start Date : 9/23/2008
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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North		Union Street From East		Washington Street (Route 138) From South		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	3	0	0	2	1	4	10
04:15 PM	8	1	0	0	0	2	11
04:30 PM	4	0	0	1	0	2	7
04:45 PM	3	1	1	0	0	5	10
Total	18	2	1	3	1	13	38
05:00 PM	6	0	0	0	0	3	9
05:15 PM	3	0	0	0	0	3	6
05:30 PM	8	0	0	0	0	3	11
05:45 PM	3	0	0	0	1	0	4
Total	20	0	0	0	1	9	30
Grand Total	38	2	1	3	2	22	68
Apprch %	95	5	25	75	8.3	91.7	
Total %	55.9	2.9	1.5	4.4	2.9	32.4	

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	3	0	3	0	**2**	**2**	**1**	4	**5**	10
04:15 PM	**8**	**1**	**9**	0	0	0	0	2	2	**11**
04:30 PM	**4**	**0**	**4**	**0**	**1**	**1**	**0**	**2**	**2**	**7**
04:45 PM	**3**	**1**	**4**	**1**	0	1	0	**5**	5	10
Total Volume	18	2	20	1	3	4	1	13	14	38
% App. Total	90	10		25	75		7.1	92.9		
PHF	.563	.500	.556	.250	.375	.500	.250	.650	.700	.864

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File Name : 81676 N-AAA
Site Code : 10111.31
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	2	0	2
Grand Total	0	0	0	0	0	0	0	2	0	2
Apprch %	0	0	0	0	0	0	0	100	0	
Total %	0	0	0	0	0	0	0	100	0	

	Washington Street (Route 138) From North				Union Street From East				Washington Street (Route 138) From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	**1**
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	2	0	2	2
% App. Total	0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.500

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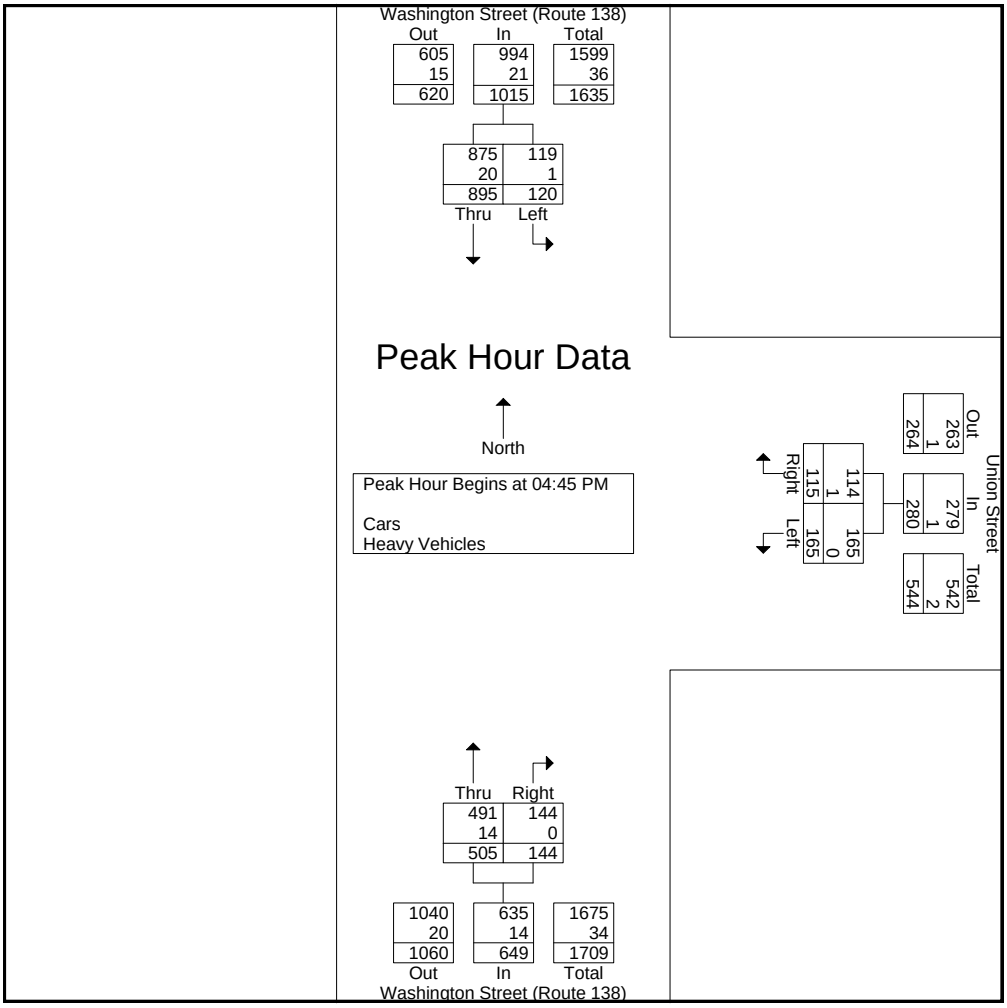
	Washington Street (Route 138) From North			Union Street From East			Washington Street (Route 138) From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	222	27	249	23	43	66	32	111	143	458
05:00 PM	192	31	223	33	36	69	**46**	**149**	**195**	487
05:15 PM	209	**35**	244	**36**	**52**	**88**	33	125	158	490
05:30 PM	**272**	27	**299**	23	34	57	33	120	153	**509**
Total Volume	**895**	**120**	**1015**	**115**	**165**	**280**	**144**	**505**	**649**	**1944**
% App. Total	**88.2**	**11.8**		**41.1**	**58.9**		**22.2**	**77.8**		
PHF	**.823**	**.857**	**.849**	**.799**	**.793**	**.795**	**.783**	**.847**	**.832**	**.955**
Cars	**875**	**119**	**994**	**114**	**165**	**279**	**144**	**491**	**635**	**1908**
% Cars	**97.8**	**99.2**	**97.9**	**99.1**	**100**	**99.6**	**100**	**97.2**	**97.8**	**98.1**
Heavy Vehicles	**20**	**1**	**21**	**1**	**0**	**1**	**0**	**14**	**14**	**36**
% Heavy Vehicles	**2.2**	**0.8**	**2.1**	**0.9**	**0**	**0.4**	**0**	**2.8**	**2.2**	**1.9**



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E/W: Stonehedge Village/Roache Brothers
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-B
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Stonehedge Village From East			Washington Street (Route 138) From South			Roache Brothers Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	20	85	0	0	0	0	1	195	33	16	0	15	365
07:15 AM	19	71	0	0	0	1	0	217	37	12	0	22	379
07:30 AM	15	83	0	1	0	0	1	286	35	10	0	18	449
07:45 AM	33	85	2	1	0	0	0	208	53	22	0	20	424
Total	87	324	2	2	0	1	2	906	158	60	0	75	1617
08:00 AM	20	69	0	1	0	1	0	205	50	18	0	15	379
08:15 AM	30	101	0	0	0	0	0	156	43	24	0	22	376
08:30 AM	24	80	0	1	0	1	0	120	48	33	0	19	326
08:45 AM	23	94	0	1	0	0	2	126	54	43	0	21	364
Total	97	344	0	3	0	2	2	607	195	118	0	77	1445
Grand Total	184	668	2	5	0	3	4	1513	353	178	0	152	3062
Apprch %	21.5	78.2	0.2	62.5	0	37.5	0.2	80.9	18.9	53.9	0	46.1	
Total %	6	21.8	0.1	0.2	0	0.1	0.1	49.4	11.5	5.8	0	5	
Cars	174	641	2	5	0	3	4	1459	336	164	0	148	2936
% Cars	94.6	96	100	100	0	100	100	96.4	95.2	92.1	0	97.4	95.9
Heavy Vehicles	10	27	0	0	0	0	0	54	17	14	0	4	126
% Heavy Vehicles	5.4	4	0	0	0	0	0	3.6	4.8	7.9	0	2.6	4.1

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:15 AM	19	71	0	90	0	0	**1**	1	0	217	37	254	12	0	**22**	34	379
07:30 AM	15	83	0	98	**1**	0	0	1	**1**	**286**	35	**322**	10	0	18	28	**449**
07:45 AM	**33**	**85**	**2**	**120**	1	0	0	1	0	208	**53**	261	**22**	0	20	**42**	424
08:00 AM	20	69	0	89	1	0	1	**2**	0	205	50	255	18	0	15	33	379
Total Volume	87	308	2	397	3	0	2	5	1	916	175	1092	62	0	75	137	1631
% App. Total	21.9	77.6	0.5		60	0	40		0.1	83.9	16		45.3	0	54.7		
PHF	.659	.906	.250	.827	.750	.000	.500	.625	.250	.801	.825	.848	.705	.000	.852	.815	.908
Cars	82	296	2	380	3	0	2	5	1	890	169	1060	58	0	72	130	1575
% Cars	94.3	96.1	100	95.7	100	0	100	100	100	97.2	96.6	97.1	93.5	0	96.0	94.9	96.6
Heavy Vehicles	5	12	0	17	0	0	0	0	0	26	6	32	4	0	3	7	56
% Heavy Vehicles	5.7	3.9	0	4.3	0	0	0	0	0	2.8	3.4	2.9	6.5	0	4.0	5.1	3.4

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N/S: Washington Street (Route 138)
E/W: Stonehedge Village/Roache Brothers
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-B
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North			Stonehedge Village From East			Washington Street (Route 138) From South			Roache Brothers Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	18	79	0	0	0	0	1	190	32	14	0	15	349
07:15 AM	16	68	0	0	0	1	0	216	37	12	0	21	371
07:30 AM	14	82	0	1	0	0	1	274	35	9	0	17	433
07:45 AM	33	81	2	1	0	0	0	202	50	20	0	20	409
Total	81	310	2	2	0	1	2	882	154	55	0	73	1562
08:00 AM	19	65	0	1	0	1	0	198	47	17	0	14	362
08:15 AM	29	95	0	0	0	0	0	149	39	23	0	22	357
08:30 AM	22	77	0	1	0	1	0	112	45	28	0	18	304
08:45 AM	23	94	0	1	0	0	2	118	51	41	0	21	351
Total	93	331	0	3	0	2	2	577	182	109	0	75	1374
Grand Total	174	641	2	5	0	3	4	1459	336	164	0	148	2936
Apprch %	21.3	78.5	0.2	62.5	0	37.5	0.2	81.1	18.7	52.6	0	47.4	
Total %	5.9	21.8	0.1	0.2	0	0.1	0.1	49.7	11.4	5.6	0	5	

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	16	68	0	84	0	0	**1**	1	0	216	37	253	12	0	**21**	33	371
07:30 AM	14	**82**	0	96	**1**	0	0	1	**1**	**274**	35	**310**	9	0	17	26	**433**
07:45 AM	**33**	81	**2**	**116**	1	0	0	1	0	202	**50**	252	**20**	0	20	**40**	409
08:00 AM	19	65	0	84	1	0	1	**2**	0	198	47	245	17	0	14	31	362
Total Volume	82	296	2	380	3	0	2	5	1	890	169	1060	58	0	72	130	1575
% App. Total	21.6	77.9	0.5		60	0	40		0.1	84	15.9		44.6	0	55.4		
PHF	.621	.902	.250	.819	.750	.000	.500	.625	.250	.812	.845	.855	.725	.000	.857	.813	.909

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File Name : 81676 N-B
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Stonehedge Village From East			Washington Street (Route 138) From South			Roache Brothers Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	6	0	0	0	0	0	5	1	2	0	0	16
07:15 AM	3	3	0	0	0	0	0	1	0	0	0	1	8
07:30 AM	1	1	0	0	0	0	0	12	0	1	0	1	16
07:45 AM	0	4	0	0	0	0	0	6	3	2	0	0	15
Total	6	14	0	0	0	0	0	24	4	5	0	2	55
08:00 AM	1	4	0	0	0	0	0	7	3	1	0	1	17
08:15 AM	1	6	0	0	0	0	0	7	4	1	0	0	19
08:30 AM	2	3	0	0	0	0	0	8	3	5	0	1	22
08:45 AM	0	0	0	0	0	0	0	8	3	2	0	0	13
Total	4	13	0	0	0	0	0	30	13	9	0	2	71
Grand Total	10	27	0	0	0	0	0	54	17	14	0	4	126
Apprch %	27	73	0	0	0	0	0	76.1	23.9	77.8	0	22.2	
Total %	7.9	21.4	0	0	0	0	0	42.9	13.5	11.1	0	3.2	

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	4	0	4	0	0	0	0	0	6	3	9	2	0	0	2	15
08:00 AM	1	4	0	5	0	0	0	0	0	7	3	10	1	0	**1**	2	17
08:15 AM	1	**6**	0	**7**	0	0	0	0	0	7	**4**	**11**	1	0	0	1	19
08:30 AM	**2**	3	0	5	0	0	0	0	0	**8**	3	11	**5**	0	1	**6**	**22**
Total Volume	4	17	0	21	0	0	0	0	0	28	13	41	9	0	2	11	73
% App. Total	19	81	0		0	0	0		0	68.3	31.7		81.8	0	18.2		
PHF	.500	.708	.000	.750	.000	.000	.000	.000	.000	.875	.813	.932	.450	.000	.500	.458	.830

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File Name : 81676 N-B
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Start Date : 9/23/2008
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
Apprch %	0	33.3	0	66.7	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	33.3	0	66.7	0	0	0	0	0	0	0	0	0	0	0	0	

	Washington Street (Route 138) From North					Stonehedge Village From East					Washington Street (Route 138) From South					Roache Brothers Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
08:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% App. Total	0	33.3	0	66.7		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.250	.000	.500	.750	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750

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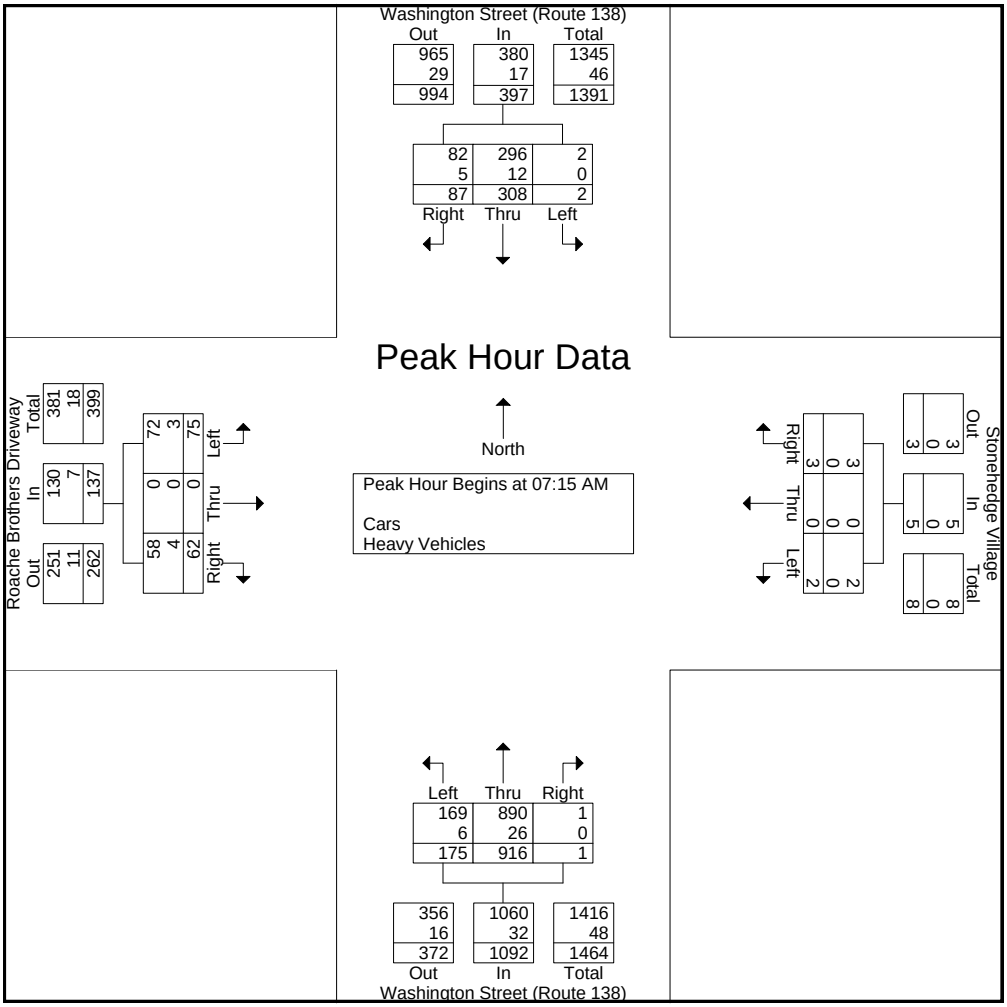
N/S: Washington Street (Route 138)
E/W: Stonehedge Village/Roache Brothers
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-B
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	19	71	0	90	0	0	**1**	1	0	217	37	254	12	0	**22**	34	379
07:30 AM	15	83	0	98	**1**	0	0	1	**1**	**286**	35	**322**	10	0	18	28	**449**
07:45 AM	**33**	**85**	**2**	**120**	1	0	0	1	0	208	**53**	261	**22**	0	20	**42**	424
08:00 AM	20	69	0	89	1	0	1	**2**	0	205	50	255	18	0	15	33	379
Total Volume	87	308	2	397	3	0	2	5	1	916	175	1092	62	0	75	137	1631
% App. Total	21.9	77.6	0.5		60	0	40		0.1	83.9	16		45.3	0	54.7		
PHF	.659	.906	.250	.827	.750	.000	.500	.625	.250	.801	.825	.848	.705	.000	.852	.815	.908
Cars	82	296	2	380	3	0	2	5	1	890	169	1060	58	0	72	130	1575
% Cars	94.3	96.1	100	95.7	100	0	100	100	100	97.2	96.6	97.1	93.5	0	96.0	94.9	96.6
Heavy Vehicles	5	12	0	17	0	0	0	0	0	26	6	32	4	0	3	7	56
% Heavy Vehicles	5.7	3.9	0	4.3	0	0	0	0	0	2.8	3.4	2.9	6.5	0	4.0	5.1	3.4



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N/S: Washington Street (Route 138)
E/W: Stonehedge Village/Roache Brothers
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Stonehedge Village From East			Washington Street (Route 138) From South			Roache Brothers Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	26	138	1	0	0	1	1	99	48	68	0	32	414
04:15 PM	25	165	0	0	0	2	0	88	51	58	0	21	410
04:30 PM	31	153	0	0	0	0	0	116	35	68	0	32	435
04:45 PM	26	192	1	0	0	0	0	85	43	66	0	19	432
Total	108	648	2	0	0	3	1	388	177	260	0	104	1691
05:00 PM	24	150	0	0	0	0	1	133	51	69	0	16	444
05:15 PM	45	175	0	0	0	0	0	119	41	73	0	25	478
05:30 PM	34	202	1	0	0	1	4	90	40	62	0	23	457
05:45 PM	32	170	2	2	0	0	0	116	49	63	0	26	460
Total	135	697	3	2	0	1	5	458	181	267	0	90	1839
Grand Total	243	1345	5	2	0	4	6	846	358	527	0	194	3530
Apprch %	15.3	84.4	0.3	33.3	0	66.7	0.5	69.9	29.6	73.1	0	26.9	
Total %	6.9	38.1	0.1	0.1	0	0.1	0.2	24	10.1	14.9	0	5.5	
Cars	240	1316	5	2	0	4	6	824	354	522	0	193	3466
% Cars	98.8	97.8	100	100	0	100	100	97.4	98.9	99.1	0	99.5	98.2
Heavy Vehicles	3	29	0	0	0	0	0	22	4	5	0	1	64
% Heavy Vehicles	1.2	2.2	0	0	0	0	0	2.6	1.1	0.9	0	0.5	1.8

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	24	150	0	174	0	0	0	0	1	**133**	**51**	**185**	69	0	16	85	444
05:15 PM	**45**	175	0	220	0	0	0	0	0	119	41	160	**73**	0	25	**98**	**478**
05:30 PM	34	**202**	1	**237**	0	0	**1**	1	**4**	90	40	134	62	0	23	85	457
05:45 PM	32	170	**2**	204	**2**	0	0	**2**	0	116	49	165	63	0	**26**	89	460
Total Volume	135	697	3	835	2	0	1	3	5	458	181	644	267	0	90	357	1839
% App. Total	16.2	83.5	0.4		66.7	0	33.3		0.8	71.1	28.1		74.8	0	25.2		
PHF	.750	.863	.375	.881	.250	.000	.250	.375	.313	.861	.887	.870	.914	.000	.865	.911	.962
Cars	133	682	3	818	2	0	1	3	5	448	180	633	264	0	90	354	1808
% Cars	98.5	97.8	100	98.0	100	0	100	100	100	97.8	99.4	98.3	98.9	0	100	99.2	98.3
Heavy Vehicles	2	15	0	17	0	0	0	0	0	10	1	11	3	0	0	3	31
% Heavy Vehicles	1.5	2.2	0	2.0	0	0	0	0	0	2.2	0.6	1.7	1.1	0	0	0.8	1.7

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N/S: Washington Street (Route 138)
E/W: Stonehedge Village/Roache Brothers
City, State: Easton, MA
Client: VHB/J. Quitter

File Name : 81676 N-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North			Stonehedge Village From East			Washington Street (Route 138) From South			Roache Brothers Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	26	135	1	0	0	1	1	96	47	68	0	32	407
04:15 PM	25	158	0	0	0	2	0	86	51	57	0	21	400
04:30 PM	30	150	0	0	0	0	0	114	34	67	0	31	426
04:45 PM	26	191	1	0	0	0	0	80	42	66	0	19	425
Total	107	634	2	0	0	3	1	376	174	258	0	103	1658
05:00 PM	23	145	0	0	0	0	1	129	50	68	0	16	432
05:15 PM	45	173	0	0	0	0	0	116	41	71	0	25	471
05:30 PM	34	197	1	0	0	1	4	87	40	62	0	23	449
05:45 PM	31	167	2	2	0	0	0	116	49	63	0	26	456
Total	133	682	3	2	0	1	5	448	180	264	0	90	1808
Grand Total	240	1316	5	2	0	4	6	824	354	522	0	193	3466
Apprch %	15.4	84.3	0.3	33.3	0	66.7	0.5	69.6	29.9	73	0	27	
Total %	6.9	38	0.1	0.1	0	0.1	0.2	23.8	10.2	15.1	0	5.6	

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	23	145	0	168	0	0	0	0	1	**129**	**50**	**180**	68	0	16	84	432
05:15 PM	**45**	173	0	218	0	0	0	0	0	116	41	157	**71**	0	25	**96**	**471**
05:30 PM	34	**197**	1	**232**	0	0	**1**	1	**4**	87	40	131	62	0	23	85	449
05:45 PM	31	167	**2**	200	**2**	0	0	**2**	0	116	49	165	63	0	**26**	89	456
Total Volume	133	682	3	818	2	0	1	3	5	448	180	633	264	0	90	354	1808
% App. Total	16.3	83.4	0.4		66.7	0	33.3		0.8	70.8	28.4		74.6	0	25.4		
PHF	.739	.865	.375	.881	.250	.000	.250	.375	.313	.868	.900	.879	.930	.000	.865	.922	.960

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Client: VHB/J. Quitter

File Name : 81676 N-BBB
Site Code : 10111.31
Start Date : 9/23/2008
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Stonehedge Village From East			Washington Street (Route 138) From South			Roache Brothers Driveway From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	3	0	0	0	0	0	3	1	0	0	0	7
04:15 PM	0	7	0	0	0	0	0	2	0	1	0	0	10
04:30 PM	1	3	0	0	0	0	0	2	1	1	0	1	9
04:45 PM	0	1	0	0	0	0	0	5	1	0	0	0	7
Total	1	14	0	0	0	0	0	12	3	2	0	1	33
05:00 PM	1	5	0	0	0	0	0	4	1	1	0	0	12
05:15 PM	0	2	0	0	0	0	0	3	0	2	0	0	7
05:30 PM	0	5	0	0	0	0	0	3	0	0	0	0	8
05:45 PM	1	3	0	0	0	0	0	0	0	0	0	0	4
Total	2	15	0	0	0	0	0	10	1	3	0	0	31
Grand Total	3	29	0	0	0	0	0	22	4	5	0	1	64
Apprch %	9.4	90.6	0	0	0	0	0	84.6	15.4	83.3	0	16.7	
Total %	4.7	45.3	0	0	0	0	0	34.4	6.2	7.8	0	1.6	

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**7**	0	**7**	0	0	0	0	0	2	0	2	**1**	0	0	1	10
04:30 PM	**1**	3	0	4	0	0	0	0	0	2	**1**	3	1	0	**1**	**2**	9
04:45 PM	0	1	0	1	0	0	0	0	0	**5**	1	**6**	0	0	0	0	7
05:00 PM	1	5	0	6	0	0	0	0	0	4	1	5	1	0	0	1	**12**
Total Volume	2	16	0	18	0	0	0	0	0	13	3	16	3	0	1	4	38
% App. Total	11.1	88.9	0		0	0	0		0	81.2	18.8		75	0	25		
PHF	.500	.571	.000	.643	.000	.000	.000	.000	.000	.650	.750	.667	.750	.000	.250	.500	.792

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Client: VHB/J. Quitter

File Name : 81676 N-BBB
Site Code : 10111.31
Start Date : 9/23/2008
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
04:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
Total	1	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Grand Total	1	0	0	0	0	0	0	2	0	2	0	2	0	0	1	0	8
Apprch %	100	0	0	0	0	0	0	100	0	50	0	50	0	0	100	0	
Total %	12.5	0	0	0	0	0	0	25	0	25	0	25	0	0	12.5	0	

	Washington Street (Route 138) From North					Stonehedge Village From East					Washington Street (Route 138) From South					Roache Brothers Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	**1**	**0**	**0**	**0**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**1**	1
04:30 PM	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	**1**	**1**	0	0	0	0	0	**2**
04:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	2
Total Volume	1	0	0	0	1	0	0	0	2	2	0	0	0	2	2	0	0	1	0	1	6
% App. Total	100	0	0	0		0	0	0	100		0	0	0	100		0	0	100	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.500	.500	.000	.000	.000	.500	.500	.000	.000	.250	.000	.250	.750

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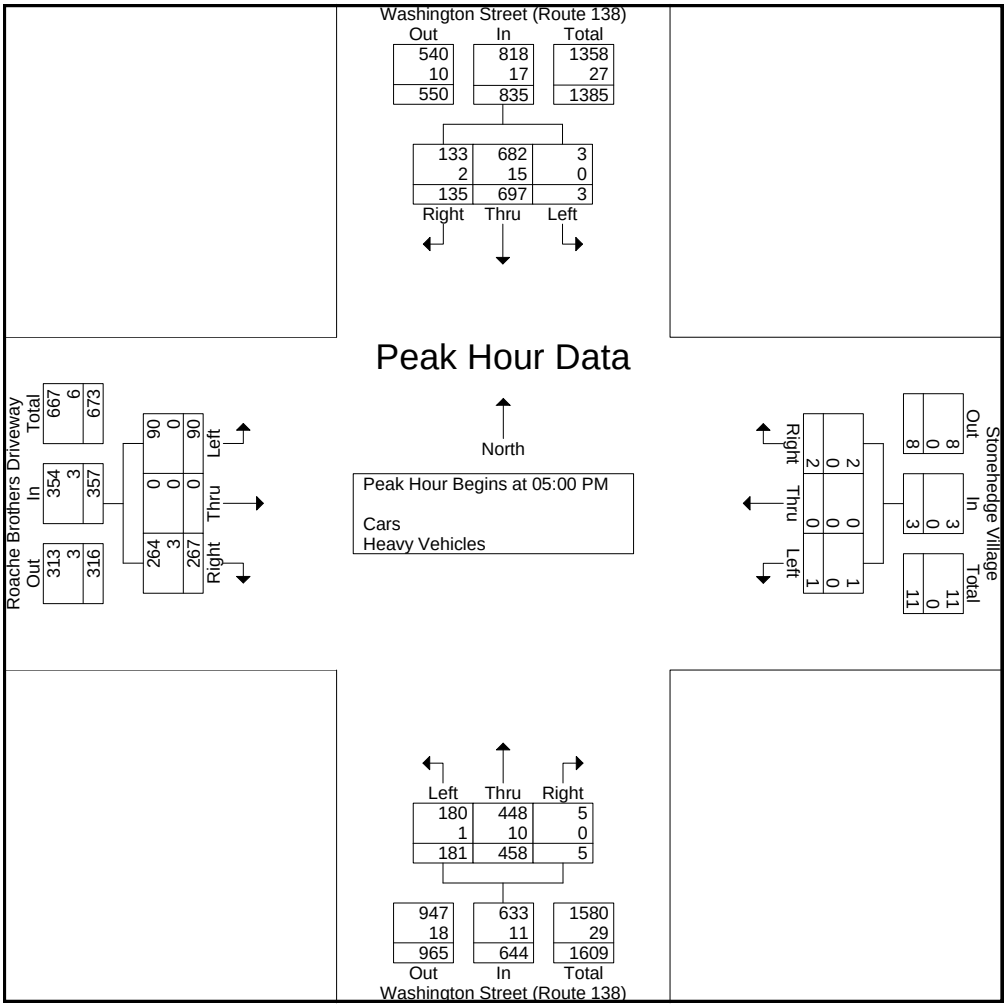
	Washington Street (Route 138) From North				Stonehedge Village From East				Washington Street (Route 138) From South				Roache Brothers Driveway From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	24	150	0	174	0	0	0	0	1	**133**	**51**	**185**	69	0	16	85	444
05:15 PM	**45**	175	0	220	0	0	0	0	0	119	41	160	**73**	0	25	**98**	**478**
05:30 PM	34	**202**	1	**237**	0	0	**1**	1	**4**	90	40	134	62	0	23	85	457
05:45 PM	32	170	**2**	204	**2**	0	0	**2**	0	116	49	165	63	0	**26**	89	460
Total Volume	135	697	3	835	2	0	1	3	5	458	181	644	267	0	90	357	1839
% App. Total	16.2	83.5	0.4		66.7	0	33.3		0.8	71.1	28.1		74.8	0	25.2		
PHF	.750	.863	.375	.881	.250	.000	.250	.375	.313	.861	.887	.870	.914	.000	.865	.911	.962
Cars	133	682	3	818	2	0	1	3	5	448	180	633	264	0	90	354	1808
% Cars	98.5	97.8	100	98.0	100	0	100	100	100	97.8	99.4	98.3	98.9	0	100	99.2	98.3
Heavy Vehicles	2	15	0	17	0	0	0	0	0	10	1	11	3	0	0	3	31
% Heavy Vehicles	1.5	2.2	0	2.0	0	0	0	0	0	2.2	0.6	1.7	1.1	0	0	0.8	1.7



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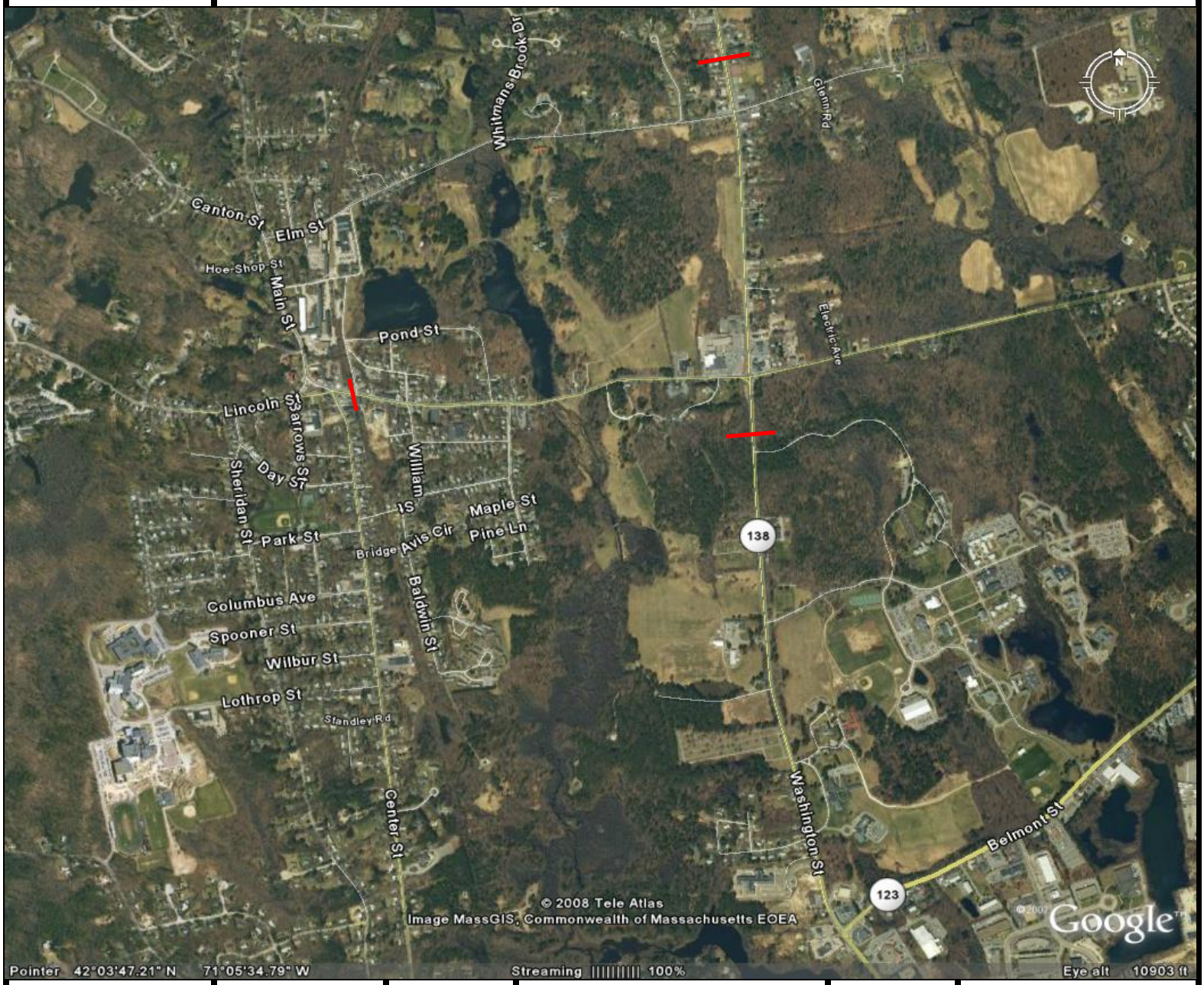
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/9/08 thru Wed 9/10/08	81676	Easton, MA

Washington Street (Route 138)
south of Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 M-A volume
Site Code: 10111.31

Start	SB				NB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	12		138		17		123		29		261		
12:15	7		130		7		124		14		254		
12:30	5		122		7		136		12		258		
12:45	10	34	147	537	7	38	144	527	17	72	291	1064	
01:00	6		129		11		129		17		258		
01:15	3		131		6		122		9		253		
01:30	0		132		4		127		4		259		
01:45	7	16	100	492	4	25	115	493	11	41	215	985	
02:00	3		123		6		104		9		227		
02:15	1		121		3		152		4		273		
02:30	0		145		7		148		7		293		
02:45	2	6	193	582	6	22	151	555	8	28	344	1137	
03:00	3		174		2		130		5		304		
03:15	4		151		3		127		7		278		
03:30	3		180		3		131		6		311		
03:45	1	11	177	682	3	11	122	510	4	22	299	1192	
04:00	3		166		4		164		7		330		
04:15	7		187		6		133		13		320		
04:30	9		218		10		149		19		367		
04:45	3	22	193	764	13	33	140	586	16	55	333	1350	
05:00	16		192		13		187		29		379		
05:15	22		167		42		158		64		325		
05:30	36		207		40		131		76		338		
05:45	42	116	179	745	54	149	145	621	96	265	324	1366	
06:00	35		160		83		128		118		288		
06:15	50		144		112		116		162		260		
06:30	78		142		139		104		217		246		
06:45	89	252	106	552	147	481	109	457	236	733	215	1009	
07:00	107		110		164		92		271		202		
07:15	105		97		197		76		302		173		
07:30	114		81		227		63		341		144		
07:45	95	421	69	357	235	823	63	294	330	1244	132	651	
08:00	120		65		246		70		366		135		
08:15	147		63		227		51		374		114		
08:30	116		66		244		51		360		117		
08:45	180	563	56	250	195	912	45	217	375	1475	101	467	
09:00	94		51		141		56		235		107		
09:15	117		43		101		45		218		88		
09:30	96		34		121		33		217		67		
09:45	137	444	33	161	126	489	31	165	263	933	64	326	
10:00	114		33		98		37		212		70		
10:15	117		21		120		20		237		41		
10:30	114		20		98		26		212		46		
10:45	105	450	15	89	125	441	26	109	230	891	41	198	
11:00	130		21		103		24		233		45		
11:15	128		20		118		23		246		43		
11:30	128		20		109		16		237		36		
11:45	121	507	10	71	118	448	12	75	239	955	22	146	
Total	2842		5282		3872		4609		6714		9891		
Percent	42.3%		53.4%		57.7%		46.6%						
Day Total		8124				8481				16605			
Peak	08:00		04:15		07:45		04:30		08:00		04:30		
Vol.	563		790		952		634		1475		1404		
P.H.F.	0.782		0.906		0.967		0.848		0.983		0.926		

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81676 M-A volume
Site Code: 10111.31

Start	SB				NB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		151		14		136		23		287		
12:15	9		131		8		119		17		250		
12:30	9		135		17		131		26		266		
12:45	5	32	135	552	6	45	117	503	11	77	252	1055	
01:00	4		131		9		135		13		266		
01:15	5		138		3		145		8		283		
01:30	3		142		7		142		10		284		
01:45	4	16	145	556	1	20	132	554	5	36	277	1110	
02:00	5		154		3		114		8		268		
02:15	4		169		7		133		11		302		
02:30	3		146		2		156		5		302		
02:45	2	14	159	628	1	13	130	533	3	27	289	1161	
03:00	0		158		1		166		1		324		
03:15	1		166		1		152		2		318		
03:30	4		139		2		154		6		293		
03:45	3	8	206	669	6	10	153	625	9	18	359	1294	
04:00	0		185		4		144		4		329		
04:15	6		211		5		122		11		333		
04:30	12		187		14		169		26		356		
04:45	3	21	185	768	6	29	165	600	9	50	350	1368	
05:00	13		187		26		187		39		374		
05:15	15		185		29		162		44		347		
05:30	27		196		43		165		70		361		
05:45	47	102	204	772	51	149	143	657	98	251	347	1429	
06:00	35		188		75		127		110		315		
06:15	40		158		122		105		162		263		
06:30	70		153		163		103		233		256		
06:45	91	236	112	611	157	517	119	454	248	753	231	1065	
07:00	108		148		205		100		313		248		
07:15	118		97		196		102		314		199		
07:30	123		82		220		114		343		196		
07:45	135	484	95	422	211	832	102	418	346	1316	197	840	
08:00	142		69		192		94		334		163		
08:15	165		61		171		73		336		134		
08:30	158		57		186		65		344		122		
08:45	146	611	50	237	135	684	69	301	281	1295	119	538	
09:00	111		51		159		55		270		106		
09:15	139		56		134		52		273		108		
09:30	100		33		122		50		222		83		
09:45	101	451	36	176	145	560	30	187	246	1011	66	363	
10:00	136		36		108		32		244		68		
10:15	116		31		106		25		222		56		
10:30	106		25		99		33		205		58		
10:45	133	491	15	107	99	412	32	122	232	903	47	229	
11:00	130		16		111		24		241		40		
11:15	136		15		121		23		257		38		
11:30	144		26		123		17		267		43		
11:45	157	567	14	71	139	494	18	82	296	1061	32	153	
Total	3033		5569		3765		5036		6798		10605		
Percent	44.6%		52.5%		55.4%		47.5%						
Day Total		8602				8801				17403			
Peak	08:00		03:45		07:00		04:30		07:45		04:45		
Vol.	611		789		832		683		1360		1432		
P.H.F.	0.926		0.935		0.945		0.913		0.983		0.957		

PRECISION
D A T A
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81676 M-A speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	0	0	1	4	8	15	3	1	1	1	0	34	50	46
01:00	0	0	0	0	1	2	7	4	1	0	0	1	0	16	48	44
02:00	0	0	0	0	0	0	3	3	0	0	0	0	0	6	46	44
03:00	0	0	0	0	0	2	6	3	0	0	0	0	0	11	45	42
04:00	0	0	0	1	2	3	10	4	2	0	0	0	0	22	47	42
05:00	0	0	0	2	9	38	49	13	5	0	0	0	0	116	45	40
06:00	0	1	0	0	13	69	126	39	3	1	0	0	0	252	45	41
07:00	1	0	5	0	23	130	192	62	4	3	1	0	0	421	45	41
08:00	1	0	13	9	45	217	222	50	3	2	0	1	0	563	44	39
09:00	0	0	1	3	19	156	195	65	5	0	0	0	0	444	45	41
10:00	0	1	0	1	13	155	201	61	13	4	0	0	1	450	45	41
11:00	0	0	0	2	39	163	238	59	6	0	0	0	0	507	44	40
12 PM	0	0	0	3	18	195	249	60	11	1	0	0	0	537	44	41
13:00	0	2	9	34	68	174	171	32	2	0	0	0	0	492	43	38
14:00	0	0	0	5	57	221	243	50	6	0	0	0	0	582	44	40
15:00	0	0	1	13	49	287	268	55	9	0	0	0	0	682	44	39
16:00	0	0	0	7	78	334	281	58	6	0	0	0	0	764	44	39
17:00	0	0	0	12	62	286	318	57	8	2	0	0	0	745	44	40
18:00	0	0	0	0	12	188	259	84	7	2	0	0	0	552	45	41
19:00	0	0	0	5	15	118	160	56	1	2	0	0	0	357	45	41
20:00	0	0	0	1	8	88	118	31	4	0	0	0	0	250	44	41
21:00	0	0	0	0	6	36	83	32	4	0	0	0	0	161	46	42
22:00	0	0	0	0	8	20	38	21	1	1	0	0	0	89	47	41
23:00	0	0	0	0	3	22	31	8	5	1	0	1	0	71	46	42
Total	2	4	29	98	549	2908	3476	922	109	20	2	4	1	8124		
%	0.0%	0.0%	0.4%	1.2%	6.8%	35.8%	42.8%	11.3%	1.3%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	06:00	08:00	08:00	08:00	08:00	11:00	09:00	10:00	10:00	00:00	00:00	10:00	08:00		
Vol.	1	1	13	9	45	217	238	65	13	4	1	1	1	563		
PM Peak		13:00	13:00	13:00	16:00	16:00	17:00	18:00	12:00	17:00		23:00		16:00		
Vol.		2	9	34	78	334	318	84	11	2		1		764		

Pecent

15th Percentile :	35 MPH
50th Percentile :	40 MPH
85th Percentile :	44 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6384
Percent in Pace :	78.6%
Number of Vehicles > 40 MPH :	3838
Percent of Vehicles > 40 MPH :	47.2%
Mean Speed(Average) :	40 MPH

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81676 M-A speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	0	1	6	13	8	4	0	0	0	0	32	48	43
01:00	0	0	0	0	0	2	8	5	1	0	0	0	0	16	48	43
02:00	0	0	0	0	1	5	4	1	3	0	0	0	0	14	50	42
03:00	0	0	0	0	1	2	3	2	0	0	0	0	0	8	45	41
04:00	0	0	0	0	2	3	8	7	0	1	0	0	0	21	47	43
05:00	0	0	0	0	6	40	44	9	2	1	0	0	0	102	44	40
06:00	0	0	0	0	11	64	119	31	10	1	0	0	0	236	45	41
07:00	0	**1**	1	8	26	169	216	46	**15**	**2**	0	0	0	484	44	40
08:00	0	0	**2**	**9**	**71**	204	**275**	46	4	0	0	0	0	**611**	44	39
09:00	0	0	0	1	18	133	223	**62**	13	1	0	0	0	451	45	41
10:00	0	0	2	6	33	**218**	191	37	3	1	0	0	0	491	44	39
11:00	0	0	0	8	51	215	226	56	10	1	0	0	0	567	44	40
12 PM	0	0	0	1	22	213	246	59	10	1	0	0	0	552	44	40
13:00	0	0	0	3	18	177	253	**88**	14	2	1	0	0	556	46	41
14:00	0	0	0	2	34	217	283	79	7	4	**2**	0	0	628	44	41
15:00	0	0	0	**11**	52	273	251	65	14	2	0	**1**	0	669	44	40
16:00	0	0	0	0	51	264	**359**	79	14	1	0	0	0	768	44	40
17:00	0	0	0	2	**60**	**312**	304	82	8	3	1	0	0	**772**	44	40
18:00	0	0	0	0	28	202	295	69	**15**	2	0	0	0	611	44	41
19:00	0	0	0	2	35	150	170	52	12	1	0	0	0	422	45	40
20:00	0	0	0	1	12	79	102	32	10	1	0	0	0	237	45	41
21:00	0	0	0	0	5	31	94	36	5	**5**	0	0	0	176	47	43
22:00	0	0	0	0	3	29	44	23	6	2	0	0	0	107	47	42
23:00	0	0	0	0	2	11	36	17	5	0	0	0	0	71	47	43
Total	0	1	5	54	543	3019	3767	991	185	32	4	1	0	8602		
%	0.0%	0.0%	0.1%	0.6%	6.3%	35.1%	43.8%	11.5%	2.2%	0.4%	0.0%	0.0%	0.0%			
AM Peak		07:00	08:00	08:00	08:00	10:00	08:00	09:00	07:00	07:00				08:00		
Vol.		1	2	9	71	218	275	62	15	2				611		
PM Peak				15:00	17:00	17:00	16:00	13:00	18:00	21:00	14:00	15:00		17:00		
Vol.				11	60	312	359	88	15	5	2	1		772		

Pecent

15th Percentile :	36 MPH
50th Percentile :	40 MPH
85th Percentile :	44 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6786
Percent in Pace :	78.9%
Number of Vehicles > 40 MPH :	4226
Percent of Vehicles > 40 MPH :	49.1%
Mean Speed(Average) :	40 MPH

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NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	0	1	0	8	14	13	2	0	0	0	0	38	47	43
01:00	0	0	0	0	0	7	9	6	2	1	0	0	0	25	48	43
02:00	0	0	0	0	2	5	9	5	1	0	0	0	0	22	47	42
03:00	0	0	0	0	0	1	2	4	2	1	**1**	0	0	11	51	48
04:00	0	0	0	0	2	7	11	8	4	1	0	0	0	33	49	43
05:00	0	0	0	0	7	25	77	34	**5**	1	0	0	0	149	47	42
06:00	0	0	1	20	50	173	**180**	**51**	4	**2**	0	0	0	481	44	39
07:00	**5**	13	34	91	177	**320**	162	20	1	0	0	0	0	823	41	35
08:00	5	**28**	**50**	**109**	**292**	307	115	5	1	0	0	0	0	**912**	39	33
09:00	0	0	1	2	63	225	161	32	5	0	0	0	0	489	43	39
10:00	1	0	2	7	66	202	144	17	2	0	0	0	0	441	43	38
11:00	0	0	0	20	62	211	138	14	2	0	0	0	**1**	448	43	38
12 PM	0	0	0	11	101	261	130	22	2	0	0	0	0	527	42	38
13:00	0	0	**1**	**32**	**153**	209	92	6	0	0	0	0	0	493	41	36
14:00	0	0	0	9	125	277	129	14	1	0	0	0	0	555	42	37
15:00	0	0	0	14	106	249	123	17	0	**1**	0	0	0	510	42	37
16:00	0	0	1	27	118	265	158	16	1	0	0	0	0	586	42	37
17:00	0	0	0	6	143	**301**	151	19	1	0	0	0	0	**621**	42	37
18:00	0	0	0	0	62	202	**162**	**27**	4	0	0	0	0	457	43	39
19:00	0	0	0	3	23	124	121	21	2	0	0	0	0	294	44	39
20:00	0	0	0	3	35	78	79	19	3	0	0	0	0	217	44	39
21:00	0	0	0	0	13	57	63	24	**7**	1	0	0	0	165	46	41
22:00	0	0	0	0	15	40	41	11	2	0	0	0	0	109	44	39
23:00	0	0	0	0	10	24	32	6	2	1	0	0	0	75	44	40
Total	11	41	90	355	1625	3578	2303	411	56	9	1	0	1	8481		
%	0.1%	0.5%	1.1%	4.2%	19.2%	42.2%	27.2%	4.8%	0.7%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	08:00	08:00	08:00	07:00	06:00	06:00	05:00	06:00	03:00		11:00	08:00		
Vol.	5	28	50	109	292	320	180	51	5	2	1		1	912		
PM Peak			13:00	13:00	13:00	17:00	18:00	18:00	21:00	15:00				17:00		
Vol.			1	32	153	301	162	27	7	1				621		

Pecent

15th Percentile :	32 MPH
50th Percentile :	37 MPH
85th Percentile :	43 MPH
95th Percentile :	45 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	5881
Percent in Pace :	69.3%
Number of Vehicles > 40 MPH :	2320
Percent of Vehicles > 40 MPH :	27.4%
Mean Speed(Average) :	37 MPH

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81676 M-A speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	0	4	12	18	7	4	0	0	0	0	45	46	41
01:00	0	0	0	0	2	7	9	2	0	0	0	0	0	20	43	40
02:00	0	0	0	0	1	6	2	1	1	1	0	**1**	0	13	54	43
03:00	0	0	0	0	1	2	3	2	2	0	0	0	0	10	49	43
04:00	0	0	0	0	0	4	9	13	3	0	0	0	0	29	49	45
05:00	0	0	0	2	10	40	58	34	4	1	0	0	0	149	47	41
06:00	0	0	0	10	47	180	**219**	**54**	**7**	0	0	0	0	517	44	40
07:00	**4**	1	9	**44**	**187**	**370**	168	43	6	0	0	0	0	**832**	42	37
08:00	1	**11**	**14**	30	156	293	157	20	2	0	0	0	0	684	42	36
09:00	0	0	0	5	80	268	170	35	2	0	0	0	0	560	43	38
10:00	0	0	0	9	78	182	121	20	0	0	**1**	1	0	412	43	38
11:00	0	0	1	7	68	216	172	24	2	**3**	0	1	0	494	43	39
12 PM	0	0	0	6	72	215	177	30	3	0	0	0	0	503	43	39
13:00	0	0	0	4	108	248	159	32	3	0	0	0	0	554	43	38
14:00	0	0	0	**26**	81	251	153	19	3	0	0	0	0	533	43	38
15:00	0	0	3	5	**116**	323	156	21	1	0	0	0	0	625	42	38
16:00	0	0	0	13	92	272	**187**	**33**	3	0	0	0	0	600	43	38
17:00	0	0	4	13	106	**353**	157	21	3	0	0	0	0	**657**	42	37
18:00	0	0	1	6	64	184	163	33	3	0	0	0	0	454	43	39
19:00	0	**1**	**6**	14	88	157	134	17	1	0	0	0	0	418	43	37
20:00	0	0	0	2	23	125	127	22	2	0	0	0	0	301	44	39
21:00	0	0	0	1	17	77	62	22	**8**	0	0	0	0	187	45	40
22:00	0	0	0	0	10	42	51	15	3	**1**	0	0	0	122	45	40
23:00	0	0	0	0	5	25	29	17	6	0	0	0	0	82	47	42
Total	5	13	38	197	1416	3852	2661	537	72	6	1	3	0	8801		
%	0.1%	0.1%	0.4%	2.2%	16.1%	43.8%	30.2%	6.1%	0.8%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	08:00	07:00	07:00	07:00	06:00	06:00	06:00	11:00	10:00	02:00		07:00		
Vol.	4	11	14	44	187	370	219	54	7	3	1	1		832		
PM Peak		19:00	19:00	14:00	15:00	17:00	16:00	16:00	21:00	22:00				17:00		
Vol.		1	6	26	116	353	187	33	8	1				657		

Pecent

15th Percentile :	33 MPH
50th Percentile :	38 MPH
85th Percentile :	43 MPH
95th Percentile :	46 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6513
Percent in Pace :	74.0%
Number of Vehicles > 40 MPH :	2747
Percent of Vehicles > 40 MPH :	31.2%
Mean Speed(Average) :	38 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Washington Street (Route 138)
south of Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-A class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	29	3	1	0	0	0	0	1	0	0	0	0	34
01:00	1	14	1	0	0	0	0	0	0	0	0	0	0	16
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	7	4	0	0	0	0	0	0	0	0	0	0	11
04:00	0	13	9	0	0	0	0	0	0	0	0	0	0	22
05:00	0	63	35	3	13	0	0	2	0	0	0	0	0	116
06:00	4	184	45	5	11	2	0	0	1	0	0	0	0	252
07:00	2	340	60	1	12	5	0	0	1	0	0	0	0	421
08:00	7	455	76	5	14	3	1	0	2	0	0	0	0	563
09:00	2	327	79	2	21	6	1	2	3	1	0	0	0	444
10:00	4	325	90	3	18	5	0	4	1	0	0	0	0	450
11:00	3	394	80	2	18	6	0	2	2	0	0	0	0	507
12 PM	3	421	84	6	16	7	0	0	0	0	0	0	0	537
13:00	4	361	89	2	20	7	0	5	4	0	0	0	0	492
14:00	0	435	108	5	23	6	1	3	1	0	0	0	0	582
15:00	0	536	113	7	18	3	0	3	1	1	0	0	0	682
16:00	3	594	137	1	26	0	0	1	1	1	0	0	0	764
17:00	5	603	119	2	12	1	0	3	0	0	0	0	0	745
18:00	1	469	73	1	7	0	0	0	1	0	0	0	0	552
19:00	0	306	40	1	6	3	0	1	0	0	0	0	0	357
20:00	0	206	38	0	6	0	0	0	0	0	0	0	0	250
21:00	1	135	24	0	1	0	0	0	0	0	0	0	0	161
22:00	0	79	9	0	1	0	0	0	0	0	0	0	0	89
23:00	0	57	13	0	1	0	0	0	0	0	0	0	0	71
Total	40	6359	1329	47	244	54	3	26	19	3	0	0	0	8124
Percent	0.5%	78.3%	16.4%	0.6%	3.0%	0.7%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	10:00	06:00	09:00	09:00	08:00	10:00	09:00	09:00				08:00
Vol.	7	455	90	5	21	6	1	4	3	1				563
PM Peak	17:00	17:00	16:00	15:00	16:00	12:00	14:00	13:00	13:00	15:00				16:00
Vol.	5	603	137	7	26	7	1	5	4	1				764

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south of Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-A class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	27	5	0	0	0	0	0	0	0	0	0	0	32
01:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16
02:00	0	12	1	0	1	0	0	0	0	0	0	0	0	14
03:00	0	4	3	1	0	0	0	0	0	0	0	0	0	8
04:00	0	14	5	0	1	1	0	0	0	0	0	0	0	21
05:00	0	57	35	0	9	0	0	0	1	0	0	0	0	102
06:00	2	169	48	3	11	1	0	0	2	0	0	0	0	236
07:00	2	388	73	4	12	3	0	1	1	0	0	0	0	484
08:00	10	474	98	3	15	7	1	1	2	0	0	0	0	611
09:00	3	348	76	2	9	5	0	4	4	0	0	0	0	451
10:00	4	359	98	5	16	5	1	1	2	0	0	0	0	491
11:00	2	435	86	4	22	6	3	6	2	1	0	0	0	567
12 PM	1	433	92	3	16	4	0	2	1	0	0	0	0	552
13:00	8	416	103	0	15	9	1	2	2	0	0	0	0	556
14:00	6	456	126	4	20	7	0	5	4	0	0	0	0	628
15:00	4	514	124	4	18	3	1	1	0	0	0	0	0	669
16:00	7	610	128	4	14	1	0	3	1	0	0	0	0	768
17:00	5	649	97	1	14	2	0	4	0	0	0	0	0	772
18:00	3	512	79	2	11	2	0	1	1	0	0	0	0	611
19:00	1	354	52	1	9	1	0	0	4	0	0	0	0	422
20:00	2	200	30	1	3	0	0	0	1	0	0	0	0	237
21:00	1	152	22	0	1	0	0	0	0	0	0	0	0	176
22:00	0	91	15	0	1	0	0	0	0	0	0	0	0	107
23:00	0	66	5	0	0	0	0	0	0	0	0	0	0	71
Total	61	6754	1403	42	218	57	7	31	28	1	0	0	0	8602
Percent	0.7%	78.5%	16.3%	0.5%	2.5%	0.7%	0.1%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	10:00	11:00	08:00	11:00	11:00	09:00	11:00				08:00
Vol.	10	474	98	5	22	7	3	6	4	1				611
PM Peak	13:00	17:00	16:00	14:00	14:00	13:00	13:00	14:00	14:00					17:00
Vol.	8	649	128	4	20	9	1	5	4					772

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Washington Street (Route 138)
south of Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-A class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	32	6	0	0	0	0	0	0	0	0	0	0	38
01:00	0	19	5	0	0	0	0	1	0	0	0	0	0	25
02:00	0	15	5	0	2	0	0	0	0	0	0	0	0	22
03:00	0	8	3	0	0	0	0	0	0	0	0	0	0	11
04:00	0	26	5	0	0	1	0	0	1	0	0	0	0	33
05:00	0	101	34	0	9	2	0	2	1	0	0	0	0	149
06:00	1	380	74	3	19	2	0	2	0	0	0	0	0	481
07:00	2	672	110	7	19	3	0	8	2	0	0	0	0	823
08:00	7	702	139	8	31	6	6	6	6	0	0	0	1	912
09:00	4	365	82	3	32	1	0	1	1	0	0	0	0	489
10:00	3	338	69	2	18	6	1	2	2	0	0	0	0	441
11:00	2	347	75	3	10	3	2	5	1	0	0	0	0	448
12 PM	2	426	70	3	18	4	0	2	2	0	0	0	0	527
13:00	0	401	69	3	12	5	0	2	1	0	0	0	0	493
14:00	2	460	77	3	7	5	0	0	1	0	0	0	0	555
15:00	2	420	66	4	13	1	0	2	1	0	1	0	0	510
16:00	5	496	71	2	8	1	0	2	1	0	0	0	0	586
17:00	0	543	69	1	5	1	0	1	1	0	0	0	0	621
18:00	3	384	64	0	5	0	0	1	0	0	0	0	0	457
19:00	1	244	42	1	6	0	0	0	0	0	0	0	0	294
20:00	0	182	29	0	6	0	0	0	0	0	0	0	0	217
21:00	0	151	11	0	3	0	0	0	0	0	0	0	0	165
22:00	1	101	7	0	0	0	0	0	0	0	0	0	0	109
23:00	0	65	8	0	1	0	0	1	0	0	0	0	0	75
Total	35	6878	1190	43	224	41	9	38	21	0	1	0	1	8481
Percent	0.4%	81.1%	14.0%	0.5%	2.6%	0.5%	0.1%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	08:00	09:00	08:00	08:00	07:00	08:00				08:00	08:00
Vol.	7	702	139	8	32	6	6	8	6				1	912
PM Peak	16:00	17:00	14:00	15:00	12:00	13:00		12:00	12:00		15:00			17:00
Vol.	5	543	77	4	18	5		2	2		1			621

PRECISION
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Washington Street (Route 138)
south of Main Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-A class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	32	11	0	2	0	0	0	0	0	0	0	0	45
01:00	0	17	1	0	2	0	0	0	0	0	0	0	0	20
02:00	0	9	1	1	2	0	0	0	0	0	0	0	0	13
03:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
04:00	0	18	9	0	2	0	0	0	0	0	0	0	0	29
05:00	1	104	33	0	7	1	0	0	3	0	0	0	0	149
06:00	4	398	94	6	11	3	0	1	0	0	0	0	0	517
07:00	4	678	108	4	22	1	5	8	2	0	0	0	0	832
08:00	3	540	103	3	23	4	0	6	2	0	0	0	0	684
09:00	2	432	85	2	26	6	1	3	3	0	0	0	0	560
10:00	0	307	73	1	19	5	1	3	3	0	0	0	0	412
11:00	3	380	78	2	21	2	3	1	4	0	0	0	0	494
12 PM	2	400	70	2	18	7	0	3	1	0	0	0	0	503
13:00	1	443	85	3	12	4	0	1	5	0	0	0	0	554
14:00	1	431	73	2	15	7	0	2	2	0	0	0	0	533
15:00	3	501	91	2	18	5	0	5	0	0	0	0	0	625
16:00	6	522	64	2	6	0	0	0	0	0	0	0	0	600
17:00	7	568	66	0	13	0	1	1	1	0	0	0	0	657
18:00	4	394	46	0	6	4	0	0	0	0	0	0	0	454
19:00	0	365	46	0	4	0	0	1	2	0	0	0	0	418
20:00	0	264	36	0	1	0	0	0	0	0	0	0	0	301
21:00	2	166	18	0	1	0	0	0	0	0	0	0	0	187
22:00	0	108	14	0	0	0	0	0	0	0	0	0	0	122
23:00	0	71	10	0	0	0	0	1	0	0	0	0	0	82
Total	43	7155	1218	30	231	49	11	36	28	0	0	0	0	8801
Percent	0.5%	81.3%	13.8%	0.3%	2.6%	0.6%	0.1%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	06:00	09:00	09:00	07:00	07:00	11:00					07:00
Vol.	4	678	108	6	26	6	5	8	4					832
PM Peak	17:00	17:00	15:00	13:00	12:00	12:00	17:00	15:00	13:00					17:00
Vol.	7	568	91	3	18	7	1	5	5					657

Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 M-B volume
Site Code: 10111.31

Start	NB				SB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	14		138		10		154		24		292		
12:15	8		130		10		153		18		283		
12:30	6		125		11		110		17		235		
12:45	5	33	148	541	6	37	143	560	11	70	291	1101	
01:00	4		137		5		137		9		274		
01:15	7		121		7		148		14		269		
01:30	2		129		1		140		3		269		
01:45	3	16	130	517	5	18	137	562	8	34	267	1079	
02:00	6		102		4		141		10		243		
02:15	3		143		2		153		5		296		
02:30	8		158		2		157		10		315		
02:45	2	19	162	565	1	9	169	620	3	28	331	1185	
03:00	4		163		3		166		7		329		
03:15	3		129		5		182		8		311		
03:30	7		132		5		190		12		322		
03:45	6	20	129	553	4	17	205	743	10	37	334	1296	
04:00	7		139		2		235		9		374		
04:15	6		155		4		244		10		399		
04:30	12		166		6		270		18		436		
04:45	25	50	142	602	4	16	276	1025	29	66	418	1627	
05:00	26		155		6		228		32		383		
05:15	39		191		20		249		59		440		
05:30	71		128		35		254		106		382		
05:45	78	214	123	597	41	102	258	989	119	316	381	1586	
06:00	108		130		30		214		138		344		
06:15	149		137		40		230		189		367		
06:30	223		111		63		212		286		323		
06:45	232	712	109	487	76	209	203	859	308	921	312	1346	
07:00	210		109		107		124		317		233		
07:15	276		82		95		130		371		212		
07:30	364		73		88		100		452		173		
07:45	296	1146	69	333	119	409	79	433	415	1555	148	766	
08:00	314		50		86		82		400		132		
08:15	343		60		103		97		446		157		
08:30	287		65		109		74		396		139		
08:45	272	1216	40	215	105	403	67	320	377	1619	107	535	
09:00	236		45		117		74		353		119		
09:15	161		43		108		67		269		110		
09:30	160		40		108		55		268		95		
09:45	151	708	26	154	114	447	39	235	265	1155	65	389	
10:00	134		24		129		42		263		66		
10:15	121		21		133		38		254		59		
10:30	118		25		135		26		253		51		
10:45	142	515	24	94	118	515	29	135	260	1030	53	229	
11:00	132		21		126		19		258		40		
11:15	119		18		114		19		233		37		
11:30	121		16		144		30		265		46		
11:45	113	485	9	64	143	527	18	86	256	1012	27	150	
Total	5134		4722		2709		6567		7843		11289		
Percent	65.5%		41.8%		34.5%		58.2%						
Day Total		9856				9276				19132			
Peak	07:30		04:30		11:00		04:00		07:30		04:30		
Vol.	1317		654		527		1025		1713		1677		
P.H.F.	0.905		0.856		0.915		0.928		0.947		0.953		

Washington Street (Route 138)
north of Elm Street
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81676 M-B volume
Site Code: 10111.31

Start	NB				SB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	7		134		10		152		17		286		
12:15	5		150		11		160		16		310		
12:30	12		132		13		137		25		269		
12:45	6	30	137	553	5	39	160	609	11	69	297	1162	
01:00	4		133		8		130		12		263		
01:15	4		122		6		140		10		262		
01:30	5		151		1		141		6		292		
01:45	3	16	137	543	6	21	164	575	9	37	301	1118	
02:00	3		142		4		159		7		301		
02:15	2		166		0		177		2		343		
02:30	6		160		2		154		8		314		
02:45	0	11	172	640	3	9	167	657	3	20	339	1297	
03:00	3		149		0		171		3		320		
03:15	0		150		4		203		4		353		
03:30	5		163		3		189		8		352		
03:45	8	16	153	615	3	10	205	768	11	26	358	1383	
04:00	7		166		1		215		8		381		
04:15	5		145		2		248		7		393		
04:30	12		159		12		258		24		417		
04:45	15	39	161	631	5	20	246	967	20	59	407	1598	
05:00	32		190		9		225		41		415		
05:15	35		164		12		244		47		408		
05:30	59		155		20		254		79		409		
05:45	73	199	127	636	30	71	247	970	103	270	374	1606	
06:00	112		150		38		192		150		342		
06:15	170		124		31		235		201		359		
06:30	207		93		62		208		269		301		
06:45	258	747	115	482	80	211	174	809	338	958	289	1291	
07:00	245		122		112		165		357		287		
07:15	311		82		103		138		414		220		
07:30	322		96		98		128		420		224		
07:45	335	1213	99	399	106	419	93	524	441	1632	192	923	
08:00	289		82		121		104		410		186		
08:15	262		85		132		81		394		166		
08:30	235		71		130		90		365		161		
08:45	225	1011	57	295	129	512	81	356	354	1523	138	651	
09:00	215		59		96		65		311		124		
09:15	181		52		101		73		282		125		
09:30	150		49		116		46		266		95		
09:45	167	713	37	197	110	423	52	236	277	1136	89	433	
10:00	157		31		107		40		264		71		
10:15	130		23		108		36		238		59		
10:30	100		34		117		29		217		63		
10:45	140	527	24	112	142	474	22	127	282	1001	46	239	
11:00	103		20		136		22		239		42		
11:15	129		24		144		28		273		52		
11:30	125		10		141		25		266		35		
11:45	104	461	12	66	138	559	20	95	242	1020	32	161	
Total	4983		5169		2768		6693		7751		11862		
Percent	64.3%		43.6%		35.7%		56.4%						
Day Total		10152				9461				19613			
Peak	07:15		04:30		10:45		04:15		07:15		04:30		
Vol.	1257		674		563		977		1685		1647		
P.H.F.	0.938		0.887		0.977		0.947		0.955		0.987		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	0	2	1	6	9	11	2	2	0	0	0	33	49	43
01:00	0	0	0	0	2	2	2	8	2	0	0	0	0	16	49	44
02:00	0	0	0	1	2	3	6	5	2	0	0	0	0	19	48	42
03:00	0	0	0	2	3	2	3	5	2	2	0	**1**	0	20	54	44
04:00	0	0	0	1	5	5	10	15	11	2	1	0	0	50	52	45
05:00	0	0	0	4	12	26	62	88	15	**4**	**3**	0	0	214	49	44
06:00	17	11	12	20	63	105	244	**203**	**33**	2	2	0	0	712	48	40
07:00	9	5	14	22	132	339	**479**	130	15	0	0	0	0	1145	44	39
08:00	**27**	**36**	**56**	**119**	**326**	**445**	175	32	1	0	0	0	0	**1217**	40	34
09:00	1	2	2	14	86	215	278	98	11	1	0	0	0	708	45	40
10:00	0	4	3	16	57	158	207	62	8	0	0	0	0	515	44	39
11:00	0	4	4	20	73	157	161	61	5	0	0	0	0	485	44	39
12 PM	1	3	5	19	88	195	178	46	6	0	0	0	0	541	44	38
13:00	0	1	4	22	98	193	147	47	5	0	0	0	0	517	44	38
14:00	2	2	5	19	88	210	181	54	3	0	0	0	0	564	44	38
15:00	1	3	3	17	66	218	177	56	**9**	**4**	0	0	0	554	44	39
16:00	**3**	**5**	3	21	**118**	200	**192**	54	6	0	0	0	0	**602**	44	38
17:00	2	0	**12**	**26**	105	**244**	162	41	5	0	0	0	0	597	43	37
18:00	1	0	0	11	69	151	184	**62**	9	0	0	0	0	487	44	39
19:00	0	0	1	7	44	90	137	48	5	1	0	0	0	333	45	40
20:00	1	0	1	3	13	49	98	42	8	0	0	0	0	215	46	41
21:00	2	1	1	3	18	26	56	40	4	3	0	0	0	154	47	41
22:00	0	0	0	4	5	6	44	29	6	0	0	0	0	94	48	43
23:00	0	0	0	3	4	4	28	21	4	0	0	0	0	64	48	43
Total	67	77	126	376	1478	3049	3220	1258	177	21	6	1	0	9856		
%	0.7%	0.8%	1.3%	3.8%	15.0%	30.9%	32.7%	12.8%	1.8%	0.2%	0.1%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	08:00	08:00	08:00	07:00	06:00	06:00	05:00	05:00	03:00		08:00		
Vol.	27	36	56	119	326	445	479	203	33	4	3	1		1217		
PM Peak	16:00	16:00	17:00	17:00	16:00	17:00	16:00	18:00	15:00	15:00				16:00		
Vol.	3	5	12	26	118	244	192	62	9	4				602		

Pecent		
	15th Percentile :	32 MPH
	50th Percentile :	39 MPH
	85th Percentile :	44 MPH
	95th Percentile :	48 MPH

Stats		
	10 MPH Pace Speed :	35-44 MPH
	Number in Pace :	6269
	Percent in Pace :	63.6%
	Number of Vehicles > 40 MPH :	4039
	Percent of Vehicles > 40 MPH :	41.0%
	Mean Speed(Average) :	39 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	1	0	6	10	8	4	1	0	0	0	30	49	43
01:00	0	0	1	2	1	1	7	3	1	0	0	0	0	16	46	39
02:00	1	0	0	1	2	1	3	2	1	0	0	0	0	11	45	36
03:00	0	0	0	2	2	3	1	3	3	2	0	0	0	16	52	43
04:00	0	0	0	2	1	2	10	13	9	1	0	**1**	0	39	52	46
05:00	0	0	0	2	14	25	57	72	18	**10**	**1**	0	0	199	49	44
06:00	2	**4**	6	14	37	181	270	**183**	**46**	2	1	0	0	746	48	42
07:00	0	1	4	8	107	**481**	**494**	108	10	1	0	0	0	**1214**	44	39
08:00	**3**	3	3	**46**	**175**	409	315	55	2	0	0	0	0	1011	43	38
09:00	1	2	3	27	108	251	240	71	9	0	0	0	**1**	713	44	39
10:00	2	0	4	12	73	165	214	52	4	0	0	0	1	527	44	39
11:00	1	1	**14**	37	86	121	148	49	3	0	0	0	0	460	44	37
12 PM	**4**	2	**15**	**43**	**120**	171	146	43	9	1	0	0	0	554	43	37
13:00	0	2	3	14	73	186	190	66	7	**2**	0	0	0	543	44	39
14:00	2	**3**	2	24	100	**251**	191	61	6	0	0	0	0	**640**	44	38
15:00	0	1	5	8	70	217	**238**	70	6	0	0	0	0	615	44	39
16:00	2	1	3	10	75	217	214	**91**	**17**	1	0	0	0	631	45	40
17:00	0	2	9	17	80	228	232	60	8	0	0	0	0	636	44	39
18:00	2	3	4	8	52	147	183	75	8	0	0	0	0	482	45	40
19:00	0	1	0	6	62	142	127	53	8	0	0	0	0	399	45	39
20:00	1	1	2	6	28	73	129	51	4	0	0	0	0	295	45	40
21:00	0	0	1	2	17	44	74	42	16	1	0	0	0	197	48	42
22:00	0	0	0	0	8	16	40	36	11	1	0	0	0	112	49	43
23:00	0	0	0	0	1	11	18	28	6	2	0	0	0	66	49	44
Total	21	27	79	292	1292	3349	3551	1295	216	25	2	1	2	10152		
%	0.2%	0.3%	0.8%	2.9%	12.7%	33.0%	35.0%	12.8%	2.1%	0.2%	0.0%	0.0%	0.0%			
AM Peak	08:00	06:00	11:00	08:00	08:00	07:00	07:00	06:00	06:00	05:00	05:00	04:00	09:00	07:00		
Vol.	3	4	14	46	175	481	494	183	46	10	1	1	1	1214		
PM Peak	12:00	14:00	12:00	12:00	12:00	14:00	15:00	16:00	16:00	13:00				14:00		
Vol.	4	3	15	43	120	251	238	91	17	2				640		

Pecent

15th Percentile :	34 MPH
50th Percentile :	40 MPH
85th Percentile :	45 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6900
Percent in Pace :	68.0%
Number of Vehicles > 40 MPH :	4381
Percent of Vehicles > 40 MPH :	43.2%
Mean Speed(Average) :	39 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	0	0	0	3	4	10	11	6	**3**	0	0	0	37	51	45
01:00	0	0	1	0	2	1	3	6	3	2	0	0	0	18	51	44
02:00	0	0	0	0	0	3	0	5	1	0	0	0	0	9	49	44
03:00	0	0	0	0	0	3	6	5	3	0	0	0	0	17	49	44
04:00	0	0	0	1	1	2	3	4	5	0	0	0	0	16	52	45
05:00	0	0	0	0	10	13	42	28	**9**	0	0	0	0	102	48	43
06:00	3	**3**	4	5	15	40	87	43	8	0	**1**	0	0	209	47	40
07:00	1	0	3	5	34	123	**185**	**52**	6	0	0	0	0	409	44	40
08:00	**6**	1	**25**	**15**	74	149	103	23	7	0	0	0	0	403	43	36
09:00	0	0	2	10	57	186	156	32	2	1	0	0	0	446	43	39
10:00	2	1	2	3	73	210	181	42	1	1	0	0	0	516	44	39
11:00	1	1	5	13	**94**	**252**	133	28	0	0	0	0	0	**527**	43	37
12 PM	5	6	10	39	135	220	132	12	0	0	0	0	0	559	42	36
13:00	2	3	6	40	135	237	116	23	1	0	0	0	0	563	42	36
14:00	5	7	21	44	120	223	**160**	37	3	0	0	0	0	620	43	36
15:00	0	3	18	71	199	295	126	28	3	0	0	0	0	743	41	36
16:00	5	5	**41**	**140**	**315**	371	135	13	0	0	0	0	0	**1025**	39	34
17:00	**9**	**9**	25	119	297	**397**	122	11	0	0	0	0	0	989	39	34
18:00	0	7	17	52	265	352	133	31	2	0	0	0	0	859	41	36
19:00	0	2	8	13	70	152	146	39	2	1	0	0	0	433	44	38
20:00	0	1	2	9	52	87	136	32	1	0	0	0	0	320	44	39
21:00	0	2	2	7	32	57	71	**58**	6	0	0	0	0	235	47	40
22:00	0	0	0	2	6	42	47	31	5	**2**	0	0	0	135	47	42
23:00	0	0	0	2	6	13	30	24	**10**	0	**1**	0	0	86	49	43
Total	39	51	192	590	1995	3432	2263	618	84	10	2	0	0	9276		
%	0.4%	0.5%	2.1%	6.4%	21.5%	37.0%	24.4%	6.7%	0.9%	0.1%	0.0%	0.0%	0.0%			
AM Peak	08:00	06:00	08:00	08:00	11:00	11:00	07:00	07:00	05:00	00:00	06:00			11:00		
Vol.	6	3	25	15	94	252	185	52	9	3	1			527		
PM Peak	17:00	17:00	16:00	16:00	16:00	17:00	14:00	21:00	23:00	22:00	23:00			16:00		
Vol.	9	9	41	140	315	397	160	58	10	2	1			1025		

Pecent

15th Percentile :	31 MPH
50th Percentile :	37 MPH
85th Percentile :	43 MPH
95th Percentile :	47 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	5695
Percent in Pace :	61.4%
Number of Vehicles > 40 MPH :	2524
Percent of Vehicles > 40 MPH :	27.2%
Mean Speed(Average) :	37 MPH

PRECISION DATA INDUSTRIES, LLC
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Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	0	0	0	1	5	6	8	8	8	**3**	0	0	0	39	52	44
01:00	0	0	0	0	1	1	6	9	3	0	**1**	0	0	21	50	46
02:00	0	0	0	1	0	1	3	2	2	0	0	0	0	9	50	43
03:00	0	0	0	0	1	1	3	3	2	0	0	0	0	10	47	44
04:00	0	0	0	0	1	1	3	6	8	1	0	0	0	20	52	48
05:00	0	0	0	0	5	9	29	20	7	1	0	0	0	71	49	43
06:00	0	1	2	4	6	43	93	49	**13**	0	0	0	0	211	47	42
07:00	0	0	1	3	36	153	164	**54**	7	1	0	0	0	419	44	40
08:00	0	0	6	22	**84**	176	**168**	51	5	0	0	0	0	512	44	38
09:00	1	0	6	**40**	75	156	118	24	3	0	0	0	0	423	43	37
10:00	1	1	4	19	66	**208**	140	33	2	0	0	0	0	474	43	38
11:00	**62**	**22**	**38**	20	65	163	156	32	1	0	0	0	0	**559**	43	33
12 PM	**23**	**20**	**33**	**79**	123	226	87	18	0	0	0	0	0	609	40	33
13:00	1	1	2	18	111	231	169	**41**	1	0	0	0	0	575	43	38
14:00	1	1	10	20	126	285	181	32	0	1	0	0	0	657	43	37
15:00	3	6	32	50	164	287	192	33	1	0	0	0	0	768	42	36
16:00	0	4	13	29	**246**	376	**260**	38	1	0	0	0	0	967	42	37
17:00	6	10	26	76	204	**390**	232	24	2	0	0	0	0	**970**	42	36
18:00	2	1	14	28	164	357	207	32	3	0	**1**	0	0	809	42	37
19:00	1	1	5	28	104	191	152	34	7	1	0	0	0	524	43	38
20:00	1	1	2	15	68	114	117	31	7	0	0	0	0	356	44	38
21:00	0	0	1	7	33	60	86	38	9	2	0	0	0	236	46	40
22:00	0	0	0	8	10	19	47	34	6	**3**	0	0	0	127	48	42
23:00	0	0	0	0	9	22	23	25	**13**	3	0	0	0	95	50	43
Total	102	69	195	468	1707	3476	2644	671	111	16	2	0	0	9461		
%	1.1%	0.7%	2.1%	4.9%	18.0%	36.7%	27.9%	7.1%	1.2%	0.2%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	09:00	08:00	10:00	08:00	07:00	06:00	00:00	01:00			11:00		
Vol.	62	22	38	40	84	208	168	54	13	3	1			559		
PM Peak	12:00	12:00	12:00	12:00	16:00	17:00	16:00	13:00	23:00	22:00	18:00			17:00		
Vol.	23	20	33	79	246	390	260	41	13	3	1			970		

Pecent

15th Percentile :	31 MPH
50th Percentile :	38 MPH
85th Percentile :	43 MPH
95th Percentile :	47 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6120
Percent in Pace :	64.7%
Number of Vehicles > 40 MPH :	2915
Percent of Vehicles > 40 MPH :	30.8%
Mean Speed(Average) :	37 MPH

PRECISION
D A T A
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Washington Street (Route 138)
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Client: VHB/J. Quitter

81676 M-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	28	5	0	0	0	0	0	0	0	0	0	0	33
01:00	0	11	3	0	1	0	0	1	0	0	0	0	0	16
02:00	0	11	6	0	2	0	0	0	0	0	0	0	0	19
03:00	0	12	7	1	0	0	0	0	0	0	0	0	0	20
04:00	0	33	13	0	3	1	0	0	0	0	0	0	0	50
05:00	2	132	56	0	17	3	0	2	2	0	0	0	0	214
06:00	3	490	174	6	32	4	0	2	1	0	0	0	0	712
07:00	2	847	243	3	40	2	0	7	1	0	0	0	0	1145
08:00	5	765	347	13	60	7	6	7	6	0	0	0	1	1217
09:00	5	446	207	3	31	6	0	6	4	0	0	0	0	708
10:00	0	324	150	4	25	6	1	3	2	0	0	0	0	515
11:00	3	319	134	2	19	3	2	2	1	0	0	0	0	485
12 PM	0	362	141	3	25	6	0	3	1	0	0	0	0	541
13:00	2	349	130	4	21	7	0	3	1	0	0	0	0	517
14:00	1	371	155	6	21	8	0	2	0	0	0	0	0	564
15:00	4	372	152	2	16	4	0	3	1	0	0	0	0	554
16:00	4	435	137	2	14	8	0	1	1	0	0	0	0	602
17:00	5	440	129	1	16	5	0	1	0	0	0	0	0	597
18:00	2	336	132	0	14	2	0	1	0	0	0	0	0	487
19:00	1	229	84	1	17	1	0	0	0	0	0	0	0	333
20:00	1	151	56	0	7	0	0	0	0	0	0	0	0	215
21:00	0	120	28	0	6	0	0	0	0	0	0	0	0	154
22:00	0	72	19	0	3	0	0	0	0	0	0	0	0	94
23:00	0	55	7	0	1	0	0	1	0	0	0	0	0	64
Total	40	6710	2515	51	391	73	9	45	21	0	0	0	1	9856
Percent	0.4%	68.1%	25.5%	0.5%	4.0%	0.7%	0.1%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	08:00	08:00	08:00	08:00	07:00	08:00				08:00	08:00
Vol.	5	847	347	13	60	7	6	7	6				1	1217
PM Peak	17:00	17:00	14:00	14:00	12:00	14:00		12:00	12:00					16:00
Vol.	5	440	155	6	25	8		3	1					602

PRECISION
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INDUSTRIES, LLC
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Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	20	8	0	2	0	0	0	0	0	0	0	0	30
01:00	0	10	4	1	1	0	0	0	0	0	0	0	0	16
02:00	0	7	2	0	1	0	0	0	1	0	0	0	0	11
03:00	0	9	6	1	0	0	0	0	0	0	0	0	0	16
04:00	0	22	14	0	3	0	0	0	0	0	0	0	0	39
05:00	4	117	56	0	21	0	0	0	1	0	0	0	0	199
06:00	4	517	186	8	28	1	0	1	1	0	0	0	0	746
07:00	7	893	254	1	43	3	4	6	3	0	0	0	0	1214
08:00	3	688	254	5	38	13	2	5	3	0	0	0	0	1011
09:00	4	460	200	5	34	7	1	2	0	0	0	0	0	713
10:00	5	330	139	3	31	8	1	4	6	0	0	0	0	527
11:00	4	288	132	1	27	2	2	3	1	0	0	0	0	460
12 PM	5	358	136	3	32	11	1	7	1	0	0	0	0	554
13:00	2	363	137	4	27	7	0	2	1	0	0	0	0	543
14:00	7	420	162	6	33	8	0	2	1	1	0	0	0	640
15:00	4	414	163	1	22	8	0	0	3	0	0	0	0	615
16:00	4	454	148	1	16	7	0	1	0	0	0	0	0	631
17:00	7	453	150	0	18	7	1	0	0	0	0	0	0	636
18:00	9	339	116	1	12	4	0	0	1	0	0	0	0	482
19:00	4	281	95	0	14	4	0	0	1	0	0	0	0	399
20:00	3	213	71	0	7	0	0	1	0	0	0	0	0	295
21:00	2	158	34	1	2	0	0	0	0	0	0	0	0	197
22:00	1	93	17	0	1	0	0	0	0	0	0	0	0	112
23:00	0	53	11	0	1	0	0	1	0	0	0	0	0	66
Total	79	6960	2495	42	414	90	12	35	24	1	0	0	0	10152
Percent	0.8%	68.6%	24.6%	0.4%	4.1%	0.9%	0.1%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	06:00	07:00	08:00	07:00	07:00	10:00					07:00
Vol.	7	893	254	8	43	13	4	6	6					1214
PM Peak	18:00	16:00	15:00	14:00	14:00	12:00	12:00	12:00	15:00	14:00				14:00
Vol.	9	454	163	6	33	11	1	7	3	1				640

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Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	29	6	1	0	0	0	0	1	0	0	0	0	37
01:00	2	13	1	0	1	0	0	1	0	0	0	0	0	18
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
03:00	0	12	4	0	0	1	0	0	0	0	0	0	0	17
04:00	0	8	7	0	1	0	0	0	0	0	0	0	0	16
05:00	0	55	30	2	13	0	0	2	0	0	0	0	0	102
06:00	8	143	41	4	10	2	0	0	1	0	0	0	0	209
07:00	3	310	76	2	9	6	0	1	2	0	0	0	0	409
08:00	4	321	57	5	9	5	0	1	1	0	0	0	0	403
09:00	5	299	99	5	27	8	0	0	3	0	0	0	0	446
10:00	5	355	120	5	21	6	0	3	1	0	0	0	0	516
11:00	2	373	117	2	21	5	0	4	3	0	0	0	0	527
12 PM	4	419	109	4	16	4	0	2	1	0	0	0	0	559
13:00	5	388	130	4	23	10	0	1	2	0	0	0	0	563
14:00	3	447	140	3	19	2	1	3	1	1	0	0	0	620
15:00	3	552	146	9	25	1	0	6	1	0	0	0	0	743
16:00	4	778	204	3	28	3	0	4	1	0	0	0	0	1025
17:00	7	769	187	2	21	2	0	1	0	0	0	0	0	989
18:00	2	697	140	2	14	2	0	1	1	0	0	0	0	859
19:00	3	341	73	1	11	1	0	3	0	0	0	0	0	433
20:00	1	266	42	0	10	0	0	1	0	0	0	0	0	320
21:00	1	194	39	0	1	0	0	0	0	0	0	0	0	235
22:00	1	116	16	0	2	0	0	0	0	0	0	0	0	135
23:00	0	61	22	0	2	0	0	1	0	0	0	0	0	86
Total	63	6954	1807	54	284	58	1	35	19	1	0	0	0	9276
Percent	0.7%	75.0%	19.5%	0.6%	3.1%	0.6%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	11:00	10:00	08:00	09:00	09:00		11:00	09:00					11:00
Vol.	8	373	120	5	27	8		4	3					527
PM Peak	17:00	16:00	16:00	15:00	16:00	13:00	14:00	15:00	13:00	14:00				16:00
Vol.	7	778	204	9	28	10	1	6	2	1				1025

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Washington Street (Route 138)
north of Elm Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	28	10	0	1	0	0	0	0	0	0	0	0	39
01:00	0	15	4	0	2	0	0	0	0	0	0	0	0	21
02:00	0	7	1	0	0	0	0	0	1	0	0	0	0	9
03:00	0	7	1	1	1	0	0	0	0	0	0	0	0	10
04:00	0	11	7	0	1	1	0	0	0	0	0	0	0	20
05:00	0	41	23	0	7	0	0	0	0	0	0	0	0	71
06:00	6	158	34	1	11	1	0	0	0	0	0	0	0	211
07:00	6	315	73	5	15	3	0	1	1	0	0	0	0	419
08:00	5	385	90	2	17	10	1	2	0	0	0	0	0	512
09:00	4	304	89	2	10	6	1	3	3	1	0	0	0	423
10:00	3	319	110	3	24	10	1	1	3	0	0	0	0	474
11:00	7	400	111	4	21	6	2	4	4	0	0	0	0	559
12 PM	3	457	112	2	23	9	0	1	2	0	0	0	0	609
13:00	6	411	122	5	23	7	1	0	0	0	0	0	0	575
14:00	9	464	144	3	25	7	0	2	3	0	0	0	0	657
15:00	5	575	140	7	30	4	0	5	2	0	0	0	0	768
16:00	7	711	206	2	33	3	0	3	2	0	0	0	0	967
17:00	6	808	126	1	25	2	0	2	0	0	0	0	0	970
18:00	3	648	133	2	19	2	0	1	1	0	0	0	0	809
19:00	3	420	83	3	11	0	0	1	3	0	0	0	0	524
20:00	2	289	55	1	7	1	0	1	0	0	0	0	0	356
21:00	1	198	29	0	7	1	0	0	0	0	0	0	0	236
22:00	1	109	17	0	0	0	0	0	0	0	0	0	0	127
23:00	0	75	18	0	1	0	0	1	0	0	0	0	0	95
Total	77	7155	1738	44	314	73	6	28	25	1	0	0	0	9461
Percent	0.8%	75.6%	18.4%	0.5%	3.3%	0.8%	0.1%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	07:00	10:00	08:00	11:00	11:00	11:00	09:00				11:00
Vol.	7	400	111	5	24	10	2	4	4	1				559
PM Peak	14:00	17:00	16:00	15:00	16:00	12:00	13:00	15:00	14:00					17:00
Vol.	9	808	206	7	33	9	1	5	3					970

Washington Street (Route 138)
north of Roache Bros. Driveway
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Client: VHB/J. Quitter

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81676 M-C volume
Site Code: 10111.31

Start	SB				NB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	10		116		11		105		21		221		
12:15	5		100		10		97		15		197		
12:30	5		92		6		95		11		187		
12:45	2	22	109	417	11	38	92	389	13	60	201	806	
01:00	2		95		5		113		7		208		
01:15	5		95		3		102		8		197		
01:30	2		107		3		110		5		217		
01:45	3	12	96	393	3	14	111	436	6	26	207	829	
02:00	5		84		3		112		8		196		
02:15	2		109		1		96		3		205		
02:30	5		117		0		113		5		230		
02:45	3	15	103	413	2	6	138	459	5	21	241	872	
03:00	3		124		3		136		6		260		
03:15	2		102		4		135		6		237		
03:30	5		101		3		159		8		260		
03:45	8	18	107	434	5	15	185	615	13	33	292	1049	
04:00	6		113		2		178		8		291		
04:15	4		104		4		202		8		306		
04:30	13		120		6		220		19		340		
04:45	21	44	111	448	3	15	222	822	24	59	333	1270	
05:00	17		126		8		203		25		329		
05:15	43		127		21		192		64		319		
05:30	56		118		30		251		86		369		
05:45	68	184	101	472	30	89	214	860	98	273	315	1332	
06:00	105		122		32		180		137		302		
06:15	129		97		49		188		178		285		
06:30	204		91		57		160		261		251		
06:45	187	625	76	386	76	214	108	636	263	839	184	1022	
07:00	185		87		82		105		267		192		
07:15	220		53		91		102		311		155		
07:30	313		64		97		60		410		124		
07:45	260	978	49	253	101	371	58	325	361	1349	107	578	
08:00	279		51		92		59		371		110		
08:15	278		42		125		70		403		112		
08:30	234		31		100		48		334		79		
08:45	236	1027	28	152	109	426	50	227	345	1453	78	379	
09:00	153		45		106		57		259		102		
09:15	100		30		89		49		189		79		
09:30	104		37		94		37		198		74		
09:45	103	460	25	137	108	397	33	176	211	857	58	313	
10:00	87		23		98		26		185		49		
10:15	93		19		93		32		186		51		
10:30	84		18		102		20		186		38		
10:45	87	351	17	77	100	393	19	97	187	744	36	174	
11:00	84		11		79		18		163		29		
11:15	88		16		85		23		173		39		
11:30	85		16		101		18		186		34		
11:45	108	365	4	47	92	357	14	73	200	722	18	120	
Total	4101		3629		2335		5115		6436		8744		
Percent	63.7%		41.5%		36.3%		58.5%						
Day Total		7730				7450				15180			
Peak	07:30		04:30		08:15		04:45		07:30		04:45		
Vol.	1130		484		440		868		1545		1350		
P.H.F.	0.903		0.953		0.880		0.865		0.942		0.915		

Washington Street (Route 138)
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81676 M-C volume
Site Code: 10111.31

Start	SB				NB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	6		99		12		107		18		206		
12:15	3		112		8		113		11		225		
12:30	9		94		9		94		18		188		
12:45	6	24	86	391	8	37	99	413	14	61	185	804	
01:00	3		98		6		96		9		194		
01:15	4		90		3		101		7		191		
01:30	5		100		3		107		8		207		
01:45	3	15	106	394	5	17	116	420	8	32	222	814	
02:00	2		101		4		97		6		198		
02:15	3		115		2		128		5		243		
02:30	4		139		1		126		5		265		
02:45	0	9	106	461	2	9	119	470	2	18	225	931	
03:00	3		117		1		148		4		265		
03:15	1		110		1		162		2		272		
03:30	4		102		3		177		7		279		
03:45	4	12	121	450	2	7	188	675	6	19	309	1125	
04:00	7		140		2		142		9		282		
04:15	5		105		4		212		9		317		
04:30	13		148		11		187		24		335		
04:45	10	35	124	517	3	20	214	755	13	55	338	1272	
05:00	26		156		7		179		33		335		
05:15	39		132		14		199		53		331		
05:30	51		125		22		229		73		354		
05:45	62	178	100	513	30	73	179	786	92	251	279	1299	
06:00	100		103		29		184		129		287		
06:15	151		96		31		162		182		258		
06:30	197		75		70		173		267		248		
06:45	215	663	89	363	85	215	125	644	300	878	214	1007	
07:00	213		90		88		134		301		224		
07:15	248		80		94		99		342		179		
07:30	272		84		98		85		370		169		
07:45	250	983	57	311	106	386	81	399	356	1369	138	710	
08:00	232		59		92		62		324		121		
08:15	202		75		116		63		318		138		
08:30	167		45		114		68		281		113		
08:45	185	786	56	235	100	422	39	232	285	1208	95	467	
09:00	149		41		75		49		224		90		
09:15	125		42		98		47		223		89		
09:30	94		34		97		43		191		77		
09:45	111	479	29	146	96	366	35	174	207	845	64	320	
10:00	96		32		96		30		192		62		
10:15	79		20		87		30		166		50		
10:30	76		23		93		20		169		43		
10:45	91	342	18	93	89	365	16	96	180	707	34	189	
11:00	72		13		107		17		179		30		
11:15	89		19		109		23		198		42		
11:30	92		9		105		18		197		27		
11:45	123	376	11	52	110	431	12	70	233	807	23	122	
Total	3902		3926		2348		5134		6250		9060		
Percent	62.4%		43.3%		37.6%		56.7%						
Day Total		7828				7482				15310			
Peak	07:15		04:30		11:00		04:45		07:15		04:45		
Vol.	1002		560		431		821		1392		1358		
P.H.F.	0.921		0.897		0.929		0.896		0.941		0.959		

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81676 M-C speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	0	0	0	2	7	7	1	3	**2**	0	0	22	56	47
01:00	0	0	0	0	0	3	2	3	3	0	1	0	0	12	51	46
02:00	0	0	0	0	1	1	5	6	2	0	0	0	0	15	49	44
03:00	0	0	0	0	0	3	3	5	5	1	0	**1**	0	18	53	48
04:00	0	0	0	0	0	6	6	16	9	4	2	1	0	44	54	48
05:00	0	0	0	1	2	18	39	81	34	**8**	1	0	0	184	52	46
06:00	0	0	0	8	44	114	221	**177**	**54**	5	2	0	0	625	49	43
07:00	0	0	**2**	32	**124**	259	359	174	27	0	0	0	0	977	46	40
08:00	**1**	0	0	**33**	117	**302**	**416**	137	16	5	1	0	0	**1028**	45	40
09:00	0	0	0	9	36	168	163	73	9	1	1	0	0	460	45	40
10:00	0	0	1	8	33	114	127	59	9	0	0	0	0	351	46	40
11:00	0	0	0	8	45	133	123	41	15	0	0	0	0	365	45	40
12 PM	0	**1**	1	3	30	**192**	136	39	14	1	0	0	0	417	44	40
13:00	0	0	2	11	**65**	158	116	38	2	0	0	**1**	0	393	44	38
14:00	**1**	0	**6**	**19**	35	151	136	52	10	**2**	0	0	0	412	45	39
15:00	0	0	2	2	64	166	145	47	9	0	0	0	0	435	44	39
16:00	1	0	3	9	58	144	153	**70**	9	1	0	0	0	448	45	40
17:00	0	0	6	1	40	162	**182**	59	**21**	1	0	0	0	**472**	45	40
18:00	0	0	3	4	35	127	145	56	15	0	**1**	0	0	386	46	40
19:00	0	0	0	1	21	96	95	34	6	0	0	0	0	253	45	40
20:00	0	0	2	1	12	36	61	32	5	2	0	0	**1**	152	47	41
21:00	0	0	0	2	14	42	52	19	6	2	0	0	0	137	46	41
22:00	0	0	0	0	5	16	27	24	5	0	0	0	0	77	48	42
23:00	0	0	0	0	0	5	20	11	9	2	0	0	0	47	51	45
Total	3	1	28	152	781	2418	2739	1260	295	38	11	3	1	7730		
%	0.0%	0.0%	0.4%	2.0%	10.1%	31.3%	35.4%	16.3%	3.8%	0.5%	0.1%	0.0%	0.0%			
AM Peak	08:00		07:00	08:00	07:00	08:00	08:00	06:00	06:00	05:00	00:00	03:00		08:00		
Vol.	1		2	33	124	302	416	177	54	8	2	1		1028		
PM Peak	14:00	12:00	14:00	14:00	13:00	12:00	17:00	16:00	17:00	14:00	18:00	13:00	20:00	17:00		
Vol.	1	1	6	19	65	192	182	70	21	2	1	1	1	472		

Pecent

15th Percentile :	35 MPH
50th Percentile :	40 MPH
85th Percentile :	46 MPH
95th Percentile :	49 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	5157
Percent in Pace :	66.7%
Number of Vehicles > 40 MPH :	3799
Percent of Vehicles > 40 MPH :	49.1%
Mean Speed(Average) :	40 MPH

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Washington Street (Route 138)
north of Roache Bros. Driveway
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-C speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	0	0	2	9	6	6	1	0	0	0	24	51	46
01:00	0	0	0	0	0	4	7	2	2	0	0	0	0	15	49	43
02:00	0	0	0	0	1	1	3	3	1	0	0	0	0	9	47	43
03:00	0	0	0	0	0	2	1	5	4	0	0	0	0	12	51	46
04:00	0	0	0	0	0	2	4	12	15	2	0	0	0	35	53	49
05:00	0	0	0	1	6	14	38	78	31	**10**	0	0	0	178	52	46
06:00	0	0	8	4	22	141	241	**189**	**43**	10	**3**	0	0	661	48	43
07:00	0	**5**	**12**	**20**	110	**299**	**350**	172	13	2	0	**1**	0	**984**	46	40
08:00	**1**	1	1	17	**118**	236	266	123	21	3	0	0	0	787	46	40
09:00	0	0	1	5	55	150	181	70	16	1	0	0	0	479	46	40
10:00	0	1	0	5	25	99	139	61	10	2	0	0	0	342	46	41
11:00	0	0	0	8	35	126	137	58	8	3	1	0	0	376	46	40
12 PM	0	0	1	10	**59**	132	130	47	10	2	0	0	0	391	44	39
13:00	**1**	0	1	9	45	133	138	57	7	2	1	0	0	394	45	40
14:00	1	0	0	4	53	171	169	51	11	1	0	0	0	461	44	40
15:00	0	**1**	1	7	57	127	170	70	15	2	0	0	0	450	46	40
16:00	1	0	**7**	**12**	49	173	**182**	**74**	**17**	1	0	0	0	**516**	45	40
17:00	1	0	1	7	52	**207**	158	69	16	2	0	**1**	0	514	45	40
18:00	0	1	0	5	42	117	131	54	10	2	0	0	0	362	46	40
19:00	1	0	0	6	36	133	91	39	6	0	0	0	0	312	44	39
20:00	0	0	0	1	15	78	84	48	6	1	**2**	0	0	235	47	41
21:00	0	0	0	2	12	28	52	34	11	**6**	1	0	0	146	49	43
22:00	0	0	0	0	1	10	40	31	11	0	0	0	0	93	49	44
23:00	0	0	0	0	0	4	13	26	8	1	0	0	0	52	50	46
Total	6	9	33	123	793	2389	2734	1379	298	54	8	2	0	7828		
%	0.1%	0.1%	0.4%	1.6%	10.1%	30.5%	34.9%	17.6%	3.8%	0.7%	0.1%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	07:00	08:00	07:00	07:00	06:00	06:00	05:00	06:00	07:00		07:00		
Vol.	1	5	12	20	118	299	350	189	43	10	3	1		984		
PM Peak	13:00	15:00	16:00	16:00	12:00	17:00	16:00	16:00	16:00	21:00	20:00	17:00		16:00		
Vol.	1	1	7	12	59	207	182	74	17	6	2	1		516		

Pecent

15th Percentile :	35 MPH
50th Percentile :	41 MPH
85th Percentile :	47 MPH
95th Percentile :	49 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	5123
Percent in Pace :	65.4%
Number of Vehicles > 40 MPH :	3928
Percent of Vehicles > 40 MPH :	50.2%
Mean Speed(Average) :	40 MPH

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Client: VHB/J. Quitter

81676 M-C speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	**1**	**2**	0	0	1	4	12	12	4	**2**	0	0	0	38	49	42
01:00	0	2	0	0	1	1	4	3	2	1	0	0	0	14	50	40
02:00	0	0	0	0	0	1	2	2	1	0	0	0	0	6	46	44
03:00	0	0	1	0	1	2	5	5	1	0	0	0	0	15	48	42
04:00	0	0	0	1	1	0	1	10	2	0	0	0	0	15	49	45
05:00	0	0	0	1	3	20	28	26	**11**	0	0	0	0	89	49	43
06:00	0	0	0	1	14	55	83	50	9	2	0	0	0	214	47	42
07:00	0	0	1	8	36	115	144	**58**	8	1	0	0	0	371	45	40
08:00	0	0	1	9	37	**171**	**154**	46	7	1	0	0	0	**426**	44	39
09:00	0	0	**3**	**13**	43	147	151	32	7	1	0	0	0	397	44	39
10:00	0	0	1	12	**66**	135	122	52	5	0	0	0	0	393	44	39
11:00	0	0	0	8	48	142	122	34	3	0	0	0	0	357	44	39
12 PM	0	0	3	10	56	161	127	25	5	**2**	0	0	0	389	43	38
13:00	1	0	6	31	80	187	102	25	4	0	0	0	0	436	43	37
14:00	0	0	2	16	85	185	134	33	3	1	0	0	0	459	43	38
15:00	1	6	11	59	105	214	176	40	2	1	0	0	0	615	43	37
16:00	4	**18**	37	65	154	**311**	183	44	5	0	0	0	0	821	42	36
17:00	**7**	18	**43**	**73**	**187**	291	**200**	40	2	0	0	0	0	**861**	42	35
18:00	1	6	22	55	100	187	194	**67**	3	1	0	0	0	636	44	37
19:00	0	1	3	16	55	107	108	31	4	0	0	0	0	325	44	38
20:00	0	0	2	11	23	73	78	34	6	0	0	0	0	227	45	40
21:00	0	0	0	1	16	35	79	32	**13**	0	0	0	0	176	47	42
22:00	0	0	0	0	5	26	34	24	6	2	0	0	0	97	48	42
23:00	0	0	0	2	1	9	24	31	4	2	0	0	0	73	49	44
Total	15	53	136	392	1118	2579	2267	756	117	17	0	0	0	7450		
%	0.2%	0.7%	1.8%	5.3%	15.0%	34.6%	30.4%	10.1%	1.6%	0.2%	0.0%	0.0%	0.0%			
AM Peak	00:00	00:00	09:00	09:00	10:00	08:00	08:00	07:00	05:00	00:00				08:00		
Vol.	1	2	3	13	66	171	154	58	11	2				426		
PM Peak	17:00	16:00	17:00	17:00	17:00	16:00	17:00	18:00	21:00	12:00				17:00		
Vol.	7	18	43	73	187	311	200	67	13	2				861		

Pecent

15th Percentile :	32 MPH
50th Percentile :	38 MPH
85th Percentile :	44 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	4846
Percent in Pace :	65.0%
Number of Vehicles > 40 MPH :	2703
Percent of Vehicles > 40 MPH :	36.3%
Mean Speed(Average) :	38 MPH

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81676 M-C speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	**2**	0	0	0	0	5	14	7	7	**2**	0	0	0	37	51	43
01:00	0	2	0	1	0	1	9	3	1	0	0	0	0	17	45	39
02:00	1	0	2	0	0	0	3	3	0	0	0	0	0	9	46	34
03:00	0	0	0	0	0	1	0	3	3	0	0	0	0	7	51	47
04:00	0	0	0	0	0	0	4	10	5	1	0	0	0	20	52	48
05:00	0	0	0	0	1	17	29	20	4	1	**1**	0	0	73	48	43
06:00	0	2	1	10	17	38	80	53	11	2	1	0	0	215	48	41
07:00	0	**3**	2	10	46	90	**167**	63	5	0	0	0	0	386	45	40
08:00	1	0	**5**	**16**	39	115	167	**67**	**12**	0	0	0	0	422	46	40
09:00	0	0	0	3	51	143	121	41	7	0	0	0	0	366	44	39
10:00	0	0	0	14	47	89	144	65	6	0	0	0	0	365	46	40
11:00	0	0	3	10	**59**	**164**	144	48	3	0	0	0	0	**431**	44	39
12 PM	1	4	1	22	62	151	128	43	1	0	0	0	0	413	44	38
13:00	0	4	3	7	53	141	154	48	8	**2**	0	0	0	420	44	39
14:00	1	0	9	28	57	151	146	**69**	**9**	0	0	0	0	470	45	39
15:00	2	**13**	16	57	132	209	200	41	3	2	0	0	0	675	43	37
16:00	1	3	10	36	139	256	**240**	61	9	0	0	0	0	755	44	38
17:00	**5**	3	**20**	**59**	**155**	**262**	225	53	4	0	0	0	0	**786**	43	37
18:00	1	3	11	31	132	199	207	56	4	0	0	0	0	644	44	38
19:00	0	2	8	24	58	159	105	41	2	0	0	0	0	399	44	38
20:00	0	0	1	10	31	77	67	40	5	0	**1**	0	0	232	46	39
21:00	0	0	1	1	17	38	74	34	7	1	1	0	0	174	47	41
22:00	0	1	0	2	6	11	29	35	9	2	1	0	0	96	49	44
23:00	0	0	0	0	0	6	25	30	7	2	0	0	0	70	49	45
Total	15	40	93	341	1102	2323	2482	934	132	15	5	0	0	7482		
%	0.2%	0.5%	1.2%	4.6%	14.7%	31.0%	33.2%	12.5%	1.8%	0.2%	0.1%	0.0%	0.0%			
AM Peak	00:00	07:00	08:00	08:00	11:00	11:00	07:00	08:00	08:00	00:00	05:00			11:00		
Vol.	2	3	5	16	59	164	167	67	12	2	1			431		
PM Peak	17:00	15:00	17:00	17:00	17:00	17:00	16:00	14:00	14:00	13:00	20:00			17:00		
Vol.	5	13	20	59	155	262	240	69	9	2	1			786		

Pecent

15th Percentile :	32 MPH
50th Percentile :	39 MPH
85th Percentile :	44 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	4805
Percent in Pace :	64.2%
Number of Vehicles > 40 MPH :	3071
Percent of Vehicles > 40 MPH :	41.0%
Mean Speed(Average) :	39 MPH

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81676 M-C class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	18	4	0	0	0	0	0	0	0	0	0	0	22
01:00	0	6	5	0	0	0	0	1	0	0	0	0	0	12
02:00	0	8	4	0	3	0	0	0	0	0	0	0	0	15
03:00	0	10	6	1	1	0	0	0	0	0	0	0	0	18
04:00	0	28	11	0	4	0	0	1	0	0	0	0	0	44
05:00	1	115	48	1	13	3	0	1	2	0	0	0	0	184
06:00	3	455	115	7	31	2	0	11	1	0	0	0	0	625
07:00	0	783	136	4	37	3	0	11	0	2	0	1	0	977
08:00	9	715	209	12	58	5	1	9	9	1	0	0	0	1028
09:00	1	291	123	3	32	4	0	4	2	0	0	0	0	460
10:00	0	233	87	4	19	3	0	4	1	0	0	0	0	351
11:00	3	263	77	3	16	1	0	1	1	0	0	0	0	365
12 PM	3	299	84	2	19	6	0	3	1	0	0	0	0	417
13:00	0	285	84	2	14	2	0	5	1	0	0	0	0	393
14:00	1	292	89	5	14	6	0	3	0	0	0	1	1	412
15:00	1	327	90	3	11	1	0	1	1	0	0	0	0	435
16:00	4	346	78	2	13	3	0	1	1	0	0	0	0	448
17:00	1	380	75	2	9	2	0	0	3	0	0	0	0	472
18:00	1	307	68	1	6	3	0	0	0	0	0	0	0	386
19:00	1	195	41	2	12	1	0	1	0	0	0	0	0	253
20:00	0	118	27	0	7	0	0	0	0	0	0	0	0	152
21:00	1	104	25	0	6	1	0	0	0	0	0	0	0	137
22:00	0	62	11	0	4	0	0	0	0	0	0	0	0	77
23:00	0	40	5	0	1	0	0	1	0	0	0	0	0	47
Total	30	5680	1502	54	330	46	1	58	23	3	0	2	1	7730
Percent	0.4%	73.5%	19.4%	0.7%	4.3%	0.6%	0.0%	0.8%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	08:00	08:00	08:00	08:00	06:00	08:00	07:00		07:00		08:00
Vol.	9	783	209	12	58	5	1	11	9	2		1		1028
PM Peak	16:00	17:00	15:00	14:00	12:00	12:00		13:00	17:00			14:00	14:00	17:00
Vol.	4	380	90	5	19	6		5	3			1	1	472

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81676 M-C class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	14	7	0	3	0	0	0	0	0	0	0	0	24
01:00	0	10	3	1	1	0	0	0	0	0	0	0	0	15
02:00	0	6	0	0	2	0	0	0	1	0	0	0	0	9
03:00	0	5	6	1	0	0	0	0	0	0	0	0	0	12
04:00	0	17	13	0	5	0	0	0	0	0	0	0	0	35
05:00	3	108	46	0	20	0	0	0	1	0	0	0	0	178
06:00	5	500	117	7	27	1	0	3	1	0	0	0	0	661
07:00	6	766	158	2	32	2	0	15	2	1	0	0	0	984
08:00	2	571	159	5	31	9	1	6	2	0	0	1	0	787
09:00	2	322	109	4	34	3	0	3	0	2	0	0	0	479
10:00	3	216	87	3	26	2	0	2	3	0	0	0	0	342
11:00	1	242	100	3	23	3	0	2	1	0	0	0	1	376
12 PM	3	276	80	3	21	6	0	0	2	0	0	0	0	391
13:00	1	281	77	4	23	4	0	1	3	0	0	0	0	394
14:00	4	324	100	4	23	3	0	2	1	0	0	0	0	461
15:00	2	329	93	1	15	6	0	2	2	0	0	0	0	450
16:00	4	394	101	1	11	1	0	3	1	0	0	0	0	516
17:00	6	399	83	0	20	3	1	0	2	0	0	0	0	514
18:00	8	291	44	1	13	3	0	2	0	0	0	0	0	362
19:00	2	246	52	0	9	1	0	1	1	0	0	0	0	312
20:00	1	180	48	0	5	1	0	0	0	0	0	0	0	235
21:00	2	126	14	1	3	0	0	0	0	0	0	0	0	146
22:00	0	74	18	0	1	0	0	0	0	0	0	0	0	93
23:00	0	42	8	0	1	0	0	1	0	0	0	0	0	52
Total	55	5739	1523	41	349	48	2	43	23	3	0	1	1	7828
Percent	0.7%	73.3%	19.5%	0.5%	4.5%	0.6%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	06:00	09:00	08:00	08:00	07:00	10:00	09:00		08:00	11:00	07:00
Vol.	6	766	159	7	34	9	1	15	3	2		1	1	984
PM Peak	18:00	17:00	16:00	13:00	13:00	12:00	17:00	16:00	13:00					16:00
Vol.	8	399	101	4	23	6	1	3	3					516

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81676 M-C class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	30	5	1	0	1	0	0	1	0	0	0	0	38
01:00	1	10	1	0	1	0	0	1	0	0	0	0	0	14
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	9	5	0	1	0	0	0	0	0	0	0	0	15
04:00	0	9	6	0	0	0	0	0	0	0	0	0	0	15
05:00	0	48	22	2	16	0	0	1	0	0	0	0	0	89
06:00	0	145	51	3	11	2	0	0	2	0	0	0	0	214
07:00	0	290	55	4	17	4	0	0	1	0	0	0	0	371
08:00	1	343	58	2	16	3	0	3	0	0	0	0	0	426
09:00	2	273	88	4	22	4	0	1	3	0	0	0	0	397
10:00	3	270	88	3	26	0	0	2	1	0	0	0	0	393
11:00	3	248	83	1	18	2	0	1	1	0	0	0	0	357
12 PM	2	272	93	4	14	1	0	1	1	0	1	0	0	389
13:00	2	316	88	3	20	4	1	1	1	0	0	0	0	436
14:00	1	322	100	5	25	1	1	3	1	0	0	0	0	459
15:00	1	454	122	6	23	3	0	5	1	0	0	0	0	615
16:00	1	609	171	2	29	2	0	6	1	0	0	0	0	821
17:00	2	657	172	2	21	3	0	4	0	0	0	0	0	861
18:00	0	529	85	2	17	1	0	0	2	0	0	0	0	636
19:00	3	258	49	1	9	2	0	3	0	0	0	0	0	325
20:00	0	189	28	1	9	0	0	0	0	0	0	0	0	227
21:00	0	145	27	0	4	0	0	0	0	0	0	0	0	176
22:00	0	80	15	0	2	0	0	0	0	0	0	0	0	97
23:00	0	52	17	0	3	0	0	1	0	0	0	0	0	73
Total	22	5564	1429	46	304	33	2	33	16	0	1	0	0	7450
Percent	0.3%	74.7%	19.2%	0.6%	4.1%	0.4%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	09:00	07:00	10:00	07:00		08:00	09:00					08:00
Vol.	3	343	88	4	26	4		3	3					426
PM Peak	19:00	17:00	17:00	15:00	16:00	13:00	13:00	16:00	18:00		12:00			17:00
Vol.	3	657	172	6	29	4	1	6	2		1			861

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Washington Street (Route 138)
north of Roache Bros. Driveway
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-C class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	28	9	0	0	0	0	0	0	0	0	0	0	37
01:00	0	13	3	0	0	1	0	0	0	0	0	0	0	17
02:00	1	7	0	0	0	1	0	0	0	0	0	0	0	9
03:00	0	4	1	1	1	0	0	0	0	0	0	0	0	7
04:00	0	13	6	0	0	1	0	0	0	0	0	0	0	20
05:00	0	39	24	0	10	0	0	0	0	0	0	0	0	73
06:00	2	155	42	2	12	0	0	1	1	0	0	0	0	215
07:00	1	303	60	2	16	2	0	0	2	0	0	0	0	386
08:00	3	312	76	3	22	3	1	1	1	0	0	0	0	422
09:00	5	262	68	3	18	3	1	1	5	0	0	0	0	366
10:00	2	248	91	1	16	2	0	2	2	1	0	0	0	365
11:00	2	294	91	5	23	6	1	5	3	1	0	0	0	431
12 PM	2	291	95	2	18	2	0	0	3	0	0	0	0	413
13:00	4	295	96	3	18	2	1	0	1	0	0	0	0	420
14:00	5	325	107	5	22	2	0	1	3	0	0	0	0	470
15:00	5	490	143	7	26	2	0	2	0	0	0	0	0	675
16:00	5	572	148	0	22	0	0	6	2	0	0	0	0	755
17:00	4	617	123	1	33	6	0	2	0	0	0	0	0	786
18:00	4	513	100	3	21	1	0	1	1	0	0	0	0	644
19:00	2	310	68	4	13	0	0	1	1	0	0	0	0	399
20:00	1	179	44	1	7	0	0	0	0	0	0	0	0	232
21:00	1	147	23	0	3	0	0	0	0	0	0	0	0	174
22:00	1	77	18	0	0	0	0	0	0	0	0	0	0	96
23:00	0	54	13	0	2	0	0	1	0	0	0	0	0	70
Total	50	5548	1449	43	303	34	4	24	25	2	0	0	0	7482
Percent	0.7%	74.2%	19.4%	0.6%	4.0%	0.5%	0.1%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	10:00	11:00	11:00	11:00	08:00	11:00	09:00	10:00				11:00
Vol.	5	312	91	5	23	6	1	5	5	1				431
PM Peak	14:00	17:00	16:00	15:00	17:00	17:00	13:00	16:00	12:00					17:00
Vol.	5	617	148	7	33	6	1	6	3					786

Main Street
east of Center Street
City, State: Easton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 M-D volume
Site Code: 10111.31

Start	WB				EB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	10		91		4		100		14		191		
12:15	7		93		8		92		15		185		
12:30	6		101		3		96		9		197		
12:45	7	30	101	386	0	15	105	393	7	45	206	779	
01:00	6		103		1		91		7		194		
01:15	6		90		2		84		8		174		
01:30	1		95		2		86		3		181		
01:45	2	15	101	389	0	5	71	332	2	20	172	721	
02:00	0		99		0		83		0		182		
02:15	1		107		0		105		1		212		
02:30	3		118		1		119		4		237		
02:45	0	4	116	440	1	2	124	431	1	6	240	871	
03:00	1		132		2		120		3		252		
03:15	0		109		0		128		0		237		
03:30	2		136		2		124		4		260		
03:45	1	4	121	498	0	4	102	474	1	8	223	972	
04:00	3		157		3		96		6		253		
04:15	5		145		5		104		10		249		
04:30	3		156		10		80		13		236		
04:45	1	12	168	626	15	33	94	374	16	45	262	1000	
05:00	4		185		11		113		15		298		
05:15	10		194		30		95		40		289		
05:30	16		152		47		103		63		255		
05:45	18	48	150	681	35	123	111	422	53	171	261	1103	
06:00	29		127		69		105		98		232		
06:15	31		128		76		89		107		217		
06:30	44		135		124		69		168		204		
06:45	68	172	160	550	144	413	68	331	212	585	228	881	
07:00	116		93		173		72		289		165		
07:15	84		89		227		57		311		146		
07:30	69		69		214		50		283		119		
07:45	75	344	73	324	194	808	48	227	269	1152	121	551	
08:00	66		68		214		44		280		112		
08:15	71		69		205		53		276		122		
08:30	76		61		165		58		241		119		
08:45	65	278	67	265	203	787	28	183	268	1065	95	448	
09:00	86		63		150		32		236		95		
09:15	71		49		118		26		189		75		
09:30	81		35		95		17		176		52		
09:45	88	326	38	185	117	480	28	103	205	806	66	288	
10:00	72		43		88		15		160		58		
10:15	93		23		88		18		181		41		
10:30	76		21		63		15		139		36		
10:45	80	321	21	108	88	327	10	58	168	648	31	166	
11:00	70		24		98		10		168		34		
11:15	99		17		92		10		191		27		
11:30	71		17		104		22		175		39		
11:45	97	337	18	76	94	388	3	45	191	725	21	121	
Total	1891		4528		3385		3373		5276		7901		
Percent	35.8%		57.3%		64.2%		42.7%						
Day Total		6419				6758				13177			
Peak	07:00		04:30		07:15		02:45		07:00		04:45		
Vol.	344		703		849		496		1152		1104		
P.H.F.	0.741		0.906		0.935		0.969		0.926		0.926		

Main Street
east of Center Street
City, State: Easton, MA
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81676 M-D volume
Site Code: 10111.31

Start	WB				EB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	11		128		6		86		17		214		
12:15	8		85		2		86		10		171		
12:30	5		90		1		99		6		189		
12:45	7	31	116	419	2	11	116	387	9	42	232	806	
01:00	6		112		1		112		7		224		
01:15	4		98		4		106		8		204		
01:30	4		90		0		95		4		185		
01:45	2	16	118	418	1	6	100	413	3	22	218	831	
02:00	2		116		1		118		3		234		
02:15	2		115		2		126		4		241		
02:30	4		130		3		121		7		251		
02:45	0	8	151	512	1	7	129	494	1	15	280	1006	
03:00	4		133		0		101		4		234		
03:15	1		138		1		113		2		251		
03:30	1		133		5		132		6		265		
03:45	1	7	128	532	3	9	137	483	4	16	265	1015	
04:00	2		137		2		117		4		254		
04:15	3		162		6		96		9		258		
04:30	4		186		7		105		11		291		
04:45	1	10	153	638	10	25	114	432	11	35	267	1070	
05:00	6		178		19		126		25		304		
05:15	20		170		26		131		46		301		
05:30	10		175		33		105		43		280		
05:45	12	48	156	679	32	110	132	494	44	158	288	1173	
06:00	25		149		70		143		95		292		
06:15	33		160		88		91		121		251		
06:30	46		146		124		99		170		245		
06:45	80	184	135	590	127	409	81	414	207	593	216	1004	
07:00	101		119		155		86		256		205		
07:15	66		106		238		72		304		178		
07:30	67		110		232		72		299		182		
07:45	67	301	97	432	218	843	77	307	285	1144	174	739	
08:00	71		91		221		42		292		133		
08:15	64		84		220		62		284		146		
08:30	70		82		173		43		243		125		
08:45	76	281	75	332	193	807	42	189	269	1088	117	521	
09:00	95		70		147		31		242		101		
09:15	66		55		121		40		187		95		
09:30	67		38		111		17		178		55		
09:45	71	299	46	209	125	504	21	109	196	803	67	318	
10:00	85		35		101		16		186		51		
10:15	71		21		84		17		155		38		
10:30	69		29		84		8		153		37		
10:45	87	312	24	109	82	351	14	55	169	663	38	164	
11:00	94		23		103		8		197		31		
11:15	82		20		100		15		182		35		
11:30	85		16		101		21		186		37		
11:45	86	347	18	77	107	411	8	52	193	758	26	129	
Total	1844		4947		3493		3829		5337		8776		
Percent	34.6%		56.4%		65.4%		43.6%						
Day Total		6791				7322				14113			
Peak	10:45		04:30		07:15		05:15		07:15		05:00		
Vol.	348		687		909		511		1180		1173		
P.H.F.	0.926		0.923		0.955		0.893		0.970		0.965		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Main Street
east of Center Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-D speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	1	1	14	11	2	**1**	0	0	0	0	0	0	30	33	29
01:00	0	0	3	7	4	1	0	0	0	0	0	0	0	15	32	28
02:00	0	2	1	0	0	1	0	0	0	0	0	0	0	4	20	22
03:00	0	0	3	1	0	0	0	0	0	0	0	0	0	4	22	22
04:00	0	0	1	3	7	1	0	0	0	0	0	0	0	12	33	30
05:00	0	1	7	14	19	**7**	0	0	0	0	0	0	0	48	34	30
06:00	3	4	33	80	**44**	7	1	0	0	0	0	0	0	172	32	27
07:00	16	21	108	**157**	42	0	0	0	0	0	0	0	0	**344**	29	25
08:00	**18**	20	103	106	31	0	0	0	0	0	0	0	0	278	29	24
09:00	13	28	148	113	20	4	0	0	0	0	0	0	0	326	28	24
10:00	10	24	143	131	13	0	0	0	0	0	0	0	0	321	28	24
11:00	16	**36**	**153**	113	19	0	0	0	0	0	0	0	0	337	28	23
12 PM	12	53	187	115	18	1	0	0	0	0	0	0	0	386	28	23
13:00	8	37	149	166	28	1	0	0	0	0	0	0	0	389	29	24
14:00	15	47	187	165	23	3	0	0	0	0	0	0	0	440	28	23
15:00	11	53	234	173	24	2	**1**	0	0	0	0	0	0	498	28	23
16:00	14	**82**	264	227	36	3	0	0	0	0	0	0	0	626	28	23
17:00	**28**	60	**280**	**289**	24	0	0	0	0	0	0	0	0	**681**	28	23
18:00	9	50	232	233	25	1	0	0	0	0	0	0	0	550	28	24
19:00	5	18	109	152	38	2	0	0	0	0	0	0	0	324	29	25
20:00	2	15	69	132	**45**	2	0	0	0	0	0	0	0	265	30	26
21:00	4	16	38	94	30	3	0	0	0	0	0	0	0	185	30	26
22:00	2	2	15	67	18	**4**	0	0	0	0	0	0	0	108	31	27
23:00	1	2	15	37	17	4	0	0	0	0	0	0	0	76	32	27
Total	187	572	2483	2589	536	49	3	0	0	0	0	0	0	6419		
%	2.9%	8.9%	38.7%	40.3%	8.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	07:00	06:00	05:00	00:00							07:00		
Vol.	18	36	153	157	44	7	1							344		
PM Peak	17:00	16:00	17:00	17:00	20:00	22:00	15:00							17:00		
Vol.	28	82	280	289	45	4	1							681		

Pecent

15th Percentile :	20 MPH
50th Percentile :	24 MPH
85th Percentile :	29 MPH
95th Percentile :	32 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	5072
Percent in Pace :	79.0%
Number of Vehicles > 25 MPH :	2659
Percent of Vehicles > 25 MPH :	41.4%
Mean Speed(Average) :	24 MPH

PRECISION
D A T A
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Main Street
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81676 M-D speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	1	18	10	2	0	0	0	0	0	0	0	31	33	29
01:00	1	2	1	5	6	1	0	0	0	0	0	0	0	16	33	27
02:00	0	1	2	2	2	0	0	**1**	0	0	0	0	0	8	31	29
03:00	0	1	2	1	0	2	**1**	0	0	0	0	0	0	7	36	28
04:00	0	0	3	3	4	0	0	0	0	0	0	0	0	10	31	28
05:00	1	1	5	16	20	5	0	0	0	0	0	0	0	48	34	29
06:00	0	4	38	81	**50**	**11**	0	0	0	0	0	0	0	184	33	28
07:00	6	13	92	137	49	4	0	0	0	0	0	0	0	301	30	26
08:00	8	15	81	146	30	1	0	0	0	0	0	0	0	281	29	25
09:00	**18**	**58**	**156**	62	5	0	0	0	0	0	0	0	0	299	26	21
10:00	9	31	136	116	16	4	0	0	0	0	0	0	0	312	28	24
11:00	9	35	115	**163**	25	0	0	0	0	0	0	0	0	**347**	29	24
12 PM	17	54	175	154	17	2	0	0	0	0	0	0	0	419	28	23
13:00	16	29	186	148	38	1	0	0	0	0	0	0	0	418	29	24
14:00	12	48	226	195	28	3	0	0	0	0	0	0	0	512	28	24
15:00	17	**66**	233	196	20	0	0	0	0	0	0	0	0	532	28	23
16:00	**18**	61	234	282	43	0	0	0	0	0	0	0	0	638	29	24
17:00	16	53	**279**	**301**	30	0	0	0	0	0	0	0	0	**679**	28	24
18:00	16	51	221	250	**51**	1	0	0	0	0	0	0	0	590	29	24
19:00	13	29	148	213	28	1	0	0	0	0	0	0	0	432	29	24
20:00	8	21	92	174	36	1	0	0	0	0	0	0	0	332	29	25
21:00	6	13	53	107	27	2	1	0	0	0	0	0	0	209	29	25
22:00	0	5	13	55	28	6	**2**	0	0	0	0	0	0	109	33	28
23:00	1	1	7	35	25	**8**	0	0	0	0	0	0	0	77	34	29
Total	192	592	2499	2860	588	55	4	1	0	0	0	0	0	6791		
%	2.8%	8.7%	36.8%	42.1%	8.7%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	09:00	11:00	06:00	06:00	03:00	02:00						11:00		
Vol.	18	58	156	163	50	11	1	1						347		
PM Peak	16:00	15:00	17:00	17:00	18:00	23:00	22:00							17:00		
Vol.	18	66	279	301	51	8	2							679		

Pecent

15th Percentile :	20 MPH
50th Percentile :	25 MPH
85th Percentile :	29 MPH
95th Percentile :	32 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	5359
Percent in Pace :	78.9%
Number of Vehicles > 25 MPH :	2936
Percent of Vehicles > 25 MPH :	43.2%
Mean Speed(Average) :	24 MPH

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81676 M-D speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	1	0	0	9	4	1	0	0	0	0	0	0	0	15	32	27
01:00	0	1	3	1	0	0	0	0	0	0	0	0	0	5	22	21
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	20	20
03:00	0	0	2	2	0	0	0	0	0	0	0	0	0	4	25	24
04:00	0	1	12	16	4	0	0	0	0	0	0	0	0	33	29	26
05:00	2	3	48	58	10	**2**	0	0	0	0	0	0	0	123	29	25
06:00	2	23	174	196	17	1	0	0	0	0	0	0	0	413	28	24
07:00	10	105	**427**	**248**	**18**	0	0	0	0	0	0	0	0	**808**	27	23
08:00	**37**	**197**	412	133	8	0	0	0	0	0	0	0	0	787	25	21
09:00	32	92	253	98	5	0	0	0	0	0	0	0	0	480	26	21
10:00	10	51	163	92	11	0	0	0	0	0	0	0	0	327	27	23
11:00	12	85	214	74	3	0	0	0	0	0	0	0	0	388	26	22
12 PM	11	**95**	231	53	3	0	0	0	0	0	0	0	0	393	24	21
13:00	19	63	160	79	11	0	0	0	0	0	0	0	0	332	27	22
14:00	16	69	248	91	7	0	0	0	0	0	0	0	0	431	26	22
15:00	18	64	**258**	123	11	0	0	0	0	0	0	0	0	**474**	27	22
16:00	13	43	188	118	11	**1**	0	0	0	0	0	0	0	374	28	23
17:00	15	55	199	**133**	**20**	0	0	0	0	0	0	0	0	422	28	23
18:00	**21**	38	173	96	3	0	0	0	0	0	0	0	0	331	27	22
19:00	12	25	115	67	8	0	0	0	0	0	0	0	0	227	27	23
20:00	2	24	101	54	2	0	0	0	0	0	0	0	0	183	27	23
21:00	2	8	46	41	6	0	0	0	0	0	0	0	0	103	28	24
22:00	1	3	26	25	2	1	0	0	0	0	0	0	0	58	28	24
23:00	0	2	15	25	3	0	0	0	0	0	0	0	0	45	29	25
Total	236	1048	3469	1832	167	6	0	0	0	0	0	0	0	6758		
%	3.5%	15.5%	51.3%	27.1%	2.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	07:00	07:00	05:00								07:00		
Vol.	37	197	427	248	18	2								808		
PM Peak	18:00	12:00	15:00	17:00	17:00	16:00								15:00		
Vol.	21	95	258	133	20	1								474		

Pecent

15th Percentile :	18 MPH
50th Percentile :	23 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	5301
Percent in Pace :	78.4%
Number of Vehicles > 25 MPH :	1638
Percent of Vehicles > 25 MPH :	24.2%
Mean Speed(Average) :	22 MPH

PRECISION DATA INDUSTRIES, LLC
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Main Street
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City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-D speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	1	0	3	6	1	0	0	0	0	0	0	0	0	11	28	24
01:00	0	1	2	2	0	**1**	0	0	0	0	0	0	0	6	26	25
02:00	0	2	0	4	1	0	0	0	0	0	0	0	0	7	28	24
03:00	0	0	6	3	0	0	0	0	0	0	0	0	0	9	26	23
04:00	0	3	13	8	1	0	0	0	0	0	0	0	0	25	27	23
05:00	1	6	36	58	8	1	0	0	0	0	0	0	0	110	29	25
06:00	5	25	155	193	**31**	0	0	0	0	0	0	0	0	409	29	25
07:00	21	104	**467**	**230**	21	0	0	0	0	0	0	0	0	**843**	27	23
08:00	16	114	457	208	12	0	0	0	0	0	0	0	0	807	27	22
09:00	**34**	**175**	263	32	0	0	0	0	0	0	0	0	0	504	24	20
10:00	13	67	194	75	2	0	0	0	0	0	0	0	0	351	26	22
11:00	12	60	218	110	11	0	0	0	0	0	0	0	0	411	27	22
12 PM	17	67	210	85	8	0	0	0	0	0	0	0	0	387	27	22
13:00	11	**69**	214	114	5	0	0	0	0	0	0	0	0	413	27	22
14:00	15	69	282	118	10	0	0	0	0	0	0	0	0	**494**	27	22
15:00	17	45	253	**148**	**18**	2	0	0	0	0	0	0	0	483	28	23
16:00	13	51	201	146	17	**4**	0	0	0	0	0	0	0	432	28	23
17:00	15	60	**289**	122	7	1	0	0	0	0	0	0	0	494	27	22
18:00	**19**	57	207	116	15	0	0	0	0	0	0	0	0	414	27	22
19:00	15	44	139	103	6	0	0	0	0	0	0	0	0	307	27	22
20:00	4	14	81	76	13	1	0	0	0	0	0	0	0	189	29	24
21:00	3	7	40	44	13	1	0	**1**	0	0	0	0	0	109	29	25
22:00	0	3	15	28	8	1	0	0	0	0	0	0	0	55	30	26
23:00	1	1	9	33	8	0	0	0	0	0	0	0	0	52	29	26
Total	233	1044	3754	2062	216	12	0	1	0	0	0	0	0	7322		
%	3.2%	14.3%	51.3%	28.2%	3.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	07:00	07:00	06:00	01:00								07:00		
Vol.	34	175	467	230	31	1								843		
PM Peak	18:00	13:00	17:00	15:00	15:00	16:00		21:00						14:00		
Vol.	19	69	289	148	18	4		1						494		

Pecent

15th Percentile :	19 MPH
50th Percentile :	23 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	5816
Percent in Pace :	79.4%
Number of Vehicles > 25 MPH :	1878
Percent of Vehicles > 25 MPH :	25.6%
Mean Speed(Average) :	23 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Main Street
east of Center Street
City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-D class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	26	3	0	1	0	0	0	0	0	0	0	0	30
01:00	0	15	0	0	0	0	0	0	0	0	0	0	0	15
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	11	0	0	1	0	0	0	0	0	0	0	0	12
05:00	1	30	15	0	2	0	0	0	0	0	0	0	0	48
06:00	2	142	24	0	3	1	0	0	0	0	0	0	0	172
07:00	3	271	44	1	16	8	0	0	1	0	0	0	0	344
08:00	2	206	58	1	6	4	0	1	0	0	0	0	0	278
09:00	3	238	57	4	20	2	0	1	1	0	0	0	0	326
10:00	4	240	59	0	13	3	0	2	0	0	0	0	0	321
11:00	3	261	61	1	7	2	0	1	1	0	0	0	0	337
12 PM	5	318	48	2	10	2	0	1	0	0	0	0	0	386
13:00	6	309	58	3	10	3	0	0	0	0	0	0	0	389
14:00	3	376	50	0	7	4	0	0	0	0	0	0	0	440
15:00	4	410	70	1	11	2	0	0	0	0	0	0	0	498
16:00	7	530	76	1	8	1	0	3	0	0	0	0	0	626
17:00	3	592	78	0	8	0	0	0	0	0	0	0	0	681
18:00	5	474	59	0	5	5	0	1	1	0	0	0	0	550
19:00	2	277	39	0	5	1	0	0	0	0	0	0	0	324
20:00	0	229	31	0	4	0	0	1	0	0	0	0	0	265
21:00	1	162	21	0	1	0	0	0	0	0	0	0	0	185
22:00	0	98	10	0	0	0	0	0	0	0	0	0	0	108
23:00	0	65	11	0	0	0	0	0	0	0	0	0	0	76
Total	54	5288	872	14	138	38	0	11	4	0	0	0	0	6419
Percent	0.8%	82.4%	13.6%	0.2%	2.1%	0.6%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	11:00	09:00	09:00	07:00		10:00	07:00					07:00
Vol.	4	271	61	4	20	8		2	1					344
PM Peak	16:00	17:00	17:00	13:00	15:00	18:00		16:00	18:00					17:00
Vol.	7	592	78	3	11	5		3	1					681

PRECISION
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Main Street
east of Center Street
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Client: VHB/J. Quitter

81676 M-D class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	27	4	0	0	0	0	0	0	0	0	0	0	31
01:00	0	13	3	0	0	0	0	0	0	0	0	0	0	16
02:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
03:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
04:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
05:00	0	35	10	1	2	0	0	0	0	0	0	0	0	48
06:00	2	157	20	1	3	1	0	0	0	0	0	0	0	184
07:00	4	243	39	2	9	3	0	1	0	0	0	0	0	301
08:00	2	205	50	3	18	3	0	0	0	0	0	0	0	281
09:00	5	234	45	2	5	7	0	0	1	0	0	0	0	299
10:00	1	246	52	0	11	0	0	2	0	0	0	0	0	312
11:00	5	272	57	0	9	1	0	2	1	0	0	0	0	347
12 PM	5	323	63	3	16	5	0	3	1	0	0	0	0	419
13:00	4	317	72	2	15	2	1	5	0	0	0	0	0	418
14:00	9	427	58	1	7	7	0	3	0	0	0	0	0	512
15:00	8	431	73	1	9	4	0	5	0	0	1	0	0	532
16:00	6	550	68	1	6	4	0	3	0	0	0	0	0	638
17:00	13	579	69	0	11	6	0	1	0	0	0	0	0	679
18:00	5	512	62	0	7	2	0	1	1	0	0	0	0	590
19:00	0	385	43	0	2	1	0	1	0	0	0	0	0	432
20:00	1	284	41	0	3	2	0	1	0	0	0	0	0	332
21:00	1	181	24	0	3	0	0	0	0	0	0	0	0	209
22:00	0	97	12	0	0	0	0	0	0	0	0	0	0	109
23:00	0	68	9	0	0	0	0	0	0	0	0	0	0	77
Total	71	5609	876	17	136	48	1	28	4	0	1	0	0	6791
Percent	1.0%	82.6%	12.9%	0.3%	2.0%	0.7%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	11:00	08:00	08:00	09:00		10:00	09:00					11:00
Vol.	5	272	57	3	18	7		2	1					347
PM Peak	17:00	17:00	15:00	12:00	12:00	14:00	13:00	13:00	12:00		15:00			17:00
Vol.	13	579	73	3	16	7	1	5	1		1			679

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City, State: Easton, MA
Client: VHB/J. Quitter

81676 M-D class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	14	1	0	0	0	0	0	0	0	0	0	0	15
01:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	26	5	0	2	0	0	0	0	0	0	0	0	33
05:00	1	84	31	0	6	0	0	1	0	0	0	0	0	123
06:00	2	342	66	0	3	0	0	0	0	0	0	0	0	413
07:00	7	705	81	0	12	1	0	2	0	0	0	0	0	808
08:00	3	665	100	3	13	2	0	1	0	0	0	0	0	787
09:00	2	401	63	2	11	0	0	0	1	0	0	0	0	480
10:00	4	275	36	1	7	3	0	1	0	0	0	0	0	327
11:00	3	312	61	0	11	1	0	0	0	0	0	0	0	388
12 PM	1	320	55	2	10	3	0	1	1	0	0	0	0	393
13:00	4	263	55	1	6	1	0	1	1	0	0	0	0	332
14:00	4	348	56	3	17	1	0	2	0	0	0	0	0	431
15:00	2	398	67	2	4	1	0	0	0	0	0	0	0	474
16:00	6	322	39	0	7	0	0	0	0	0	0	0	0	374
17:00	4	353	58	1	5	1	0	0	0	0	0	0	0	422
18:00	7	275	42	0	6	1	0	0	0	0	0	0	0	331
19:00	1	194	29	0	3	0	0	0	0	0	0	0	0	227
20:00	1	160	17	0	5	0	0	0	0	0	0	0	0	183
21:00	0	92	10	0	1	0	0	0	0	0	0	0	0	103
22:00	0	50	7	0	1	0	0	0	0	0	0	0	0	58
23:00	0	43	1	0	1	0	0	0	0	0	0	0	0	45
Total	52	5651	881	15	132	15	0	9	3	0	0	0	0	6758
Percent	0.8%	83.6%	13.0%	0.2%	2.0%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	08:00	08:00	10:00		07:00	09:00					07:00
Vol.	7	705	100	3	13	3		2	1					808
PM Peak	18:00	15:00	15:00	14:00	14:00	12:00		14:00	12:00					15:00
Vol.	7	398	67	3	17	3		2	1					474

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81676 M-D class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	10	1	0	0	0	0	0	0	0	0	0	0	11
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
03:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
04:00	0	16	8	0	1	0	0	0	0	0	0	0	0	25
05:00	0	75	29	0	5	0	0	0	1	0	0	0	0	110
06:00	3	336	62	2	4	1	0	1	0	0	0	0	0	409
07:00	5	716	107	0	10	1	0	1	2	1	0	0	0	843
08:00	5	678	106	3	11	1	0	3	0	0	0	0	0	807
09:00	11	422	59	1	10	1	0	0	0	0	0	0	0	504
10:00	5	274	57	1	12	1	0	1	0	0	0	0	0	351
11:00	3	315	76	0	11	3	0	2	1	0	0	0	0	411
12 PM	4	303	61	2	8	6	0	3	0	0	0	0	0	387
13:00	5	319	74	1	9	3	0	2	0	0	0	0	0	413
14:00	6	407	65	1	10	5	0	0	0	0	0	0	0	494
15:00	9	388	68	3	12	1	0	2	0	0	0	0	0	483
16:00	4	362	58	1	4	2	0	1	0	0	0	0	0	432
17:00	10	406	67	0	7	3	0	0	0	1	0	0	0	494
18:00	5	350	53	0	3	2	0	1	0	0	0	0	0	414
19:00	1	257	41	0	6	2	0	0	0	0	0	0	0	307
20:00	5	152	27	0	5	0	0	0	0	0	0	0	0	189
21:00	0	92	14	0	2	1	0	0	0	0	0	0	0	109
22:00	0	48	6	0	1	0	0	0	0	0	0	0	0	55
23:00	0	49	2	0	1	0	0	0	0	0	0	0	0	52
Total	81	5993	1045	15	132	33	0	17	4	2	0	0	0	7322
Percent	1.1%	81.8%	14.3%	0.2%	1.8%	0.5%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	08:00	10:00	11:00		08:00	07:00	07:00				07:00
Vol.	11	716	107	3	12	3		3	2	1				843
PM Peak	17:00	14:00	13:00	15:00	15:00	12:00		12:00		17:00				14:00
Vol.	10	407	74	3	12	6		3		1				494

PRECISION DATA INDUSTRIES, LLC
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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/9/08 thru Wed 9/10/08	81676	Fall River, MA

PRECISION DATA INDUSTRIES, LLC

Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/16/08 thru Wed 9/17/08	81676	Fall River, MA

Route 79 NB Off Ramp
north of President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 B-B volume
Site Code: 10111.31

Start Time	NB A.M.		P.M.				Tue 09-Sep-08
12:00	14		81				
12:15	12		86				
12:30	5		98				
12:45	8	39	78	343			
01:00	4		85				
01:15	3		85				
01:30	7		100				
01:45	4	18	85	355			
02:00	7		109				
02:15	0		103				
02:30	1		101				
02:45	3	11	136	449			
03:00	3		116				
03:15	5		111				
03:30	0		125				
03:45	7	15	136	488			
04:00	5		133				
04:15	4		136				
04:30	10		142				
04:45	19	38	117	528			
05:00	23		127				
05:15	34		138				
05:30	21		142				
05:45	31	109	118	525			
06:00	40		124				
06:15	62		117				
06:30	73		106				
06:45	88	263	109	456			
07:00	66		83				
07:15	96		80				
07:30	89		63				
07:45	112	363	82	308			
08:00	106		76				
08:15	92		66				
08:30	82		62				
08:45	97	377	51	255			
09:00	76		53				
09:15	75		46				
09:30	83		45				
09:45	82	316	39	183			
10:00	71		35				
10:15	66		30				
10:30	75		32				
10:45	81	293	26	123			
11:00	86		23				
11:15	86		22				
11:30	89		24				
11:45	77	338	23	92			
Total	2180		4105				
Percent			100.0%		0.0%	0.0%	
Day Total		6285					
Peak	07:15		03:45				
Vol.	403		547				
P.H.F.	0.900		0.963				

Route 79 NB Off Ramp
north of President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 B-B volume
Site Code: 10111.31

Start Time	A.M.	NB	P.M.				Wed 10-Sep-08
12:00	10		85				
12:15	15		76				
12:30	4		76				
12:45	14	43	84	321			
01:00	8		87				
01:15	4		72				
01:30	5		66				
01:45	6	23	93	318			
02:00	3		112				
02:15	2		107				
02:30	1		115				
02:45	1	7	146	480			
03:00	3		121				
03:15	2		120				
03:30	0		119				
03:45	8	13	131	491			
04:00	6		138				
04:15	4		147				
04:30	13		135				
04:45	20	43	141	561			
05:00	31		150				
05:15	28		155				
05:30	21		139				
05:45	24	104	147	591			
06:00	48		128				
06:15	47		134				
06:30	59		107				
06:45	100	254	98	467			
07:00	89		90				
07:15	92		74				
07:30	114		95				
07:45	140	435	65	324			
08:00	119		82				
08:15	90		72				
08:30	84		67				
08:45	101	394	66	287			
09:00	81		77				
09:15	78		51				
09:30	71		53				
09:45	71	301	35	216			
10:00	57		41				
10:15	80		29				
10:30	71		27				
10:45	78	286	29	126			
11:00	72		18				
11:15	75		25				
11:30	90		21				
11:45	90	327	20	84			
Total	2230		4266				
Percent			100.0%		0.0%	0.0%	
Day Total		6496					
Peak	07:15		05:00				
Vol.	465		591				
P.H.F.	0.830		0.953				

PRECISION
D A T A
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Route 79 NB Off Ramp
north of President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	0	0	0	0	4	4	13	9	5	2	2	0	39	57	50
01:00	0	0	0	1	0	1	3	6	3	4	0	0	0	18	55	48
02:00	0	0	0	0	0	0	1	4	5	1	0	0	0	11	53	50
03:00	0	0	0	**2**	1	0	0	2	6	3	0	1	0	15	56	48
04:00	0	0	0	0	0	1	9	11	8	6	2	1	0	38	56	49
05:00	**2**	0	0	0	1	6	21	34	23	12	7	1	**2**	109	56	48
06:00	0	0	0	1	0	12	58	89	57	33	**9**	**3**	1	263	55	48
07:00	0	0	0	0	3	17	86	111	**94**	**44**	4	3	1	363	54	48
08:00	0	0	0	0	5	24	**101**	**117**	79	43	5	3	0	**377**	54	47
09:00	0	0	0	0	7	21	93	95	64	28	5	3	0	316	54	47
10:00	0	0	0	1	**11**	**38**	72	93	52	18	6	1	1	293	53	46
11:00	0	0	0	0	9	38	95	96	63	31	4	2	0	338	53	46
12 PM	0	0	3	3	20	36	89	107	58	21	5	1	0	343	52	45
13:00	0	0	0	8	35	56	99	89	51	14	2	1	0	355	51	43
14:00	0	0	0	6	**38**	**94**	147	110	41	11	2	0	0	449	49	42
15:00	0	0	0	5	29	82	177	125	49	19	2	0	0	488	49	43
16:00	0	0	0	7	21	73	158	**157**	82	27	2	0	**1**	**528**	51	45
17:00	1	0	0	**13**	10	63	**184**	142	79	27	2	**4**	0	525	52	45
18:00	0	0	0	2	7	50	113	148	**83**	**44**	**6**	3	0	456	54	47
19:00	0	0	0	0	10	23	86	106	62	20	1	0	0	308	52	46
20:00	0	0	**4**	0	4	30	74	69	53	18	2	0	1	255	53	46
21:00	0	0	0	1	4	13	47	61	30	19	6	2	0	183	54	47
22:00	0	0	0	0	1	12	13	44	30	18	2	3	0	123	56	49
23:00	**2**	0	0	0	3	4	35	25	10	12	1	0	0	92	54	45
Total	5	0	7	50	219	698	1765	1854	1091	478	77	34	7	6285		
%	0.1%	0.0%	0.1%	0.8%	3.5%	11.1%	28.1%	29.5%	17.4%	7.6%	1.2%	0.5%	0.1%			
AM Peak	05:00			03:00	10:00	10:00	08:00	08:00	07:00	07:00	06:00	06:00	05:00	08:00		
Vol.	2			2	11	38	101	117	94	44	9	3	2	377		
PM Peak	23:00		20:00	17:00	14:00	14:00	17:00	16:00	18:00	18:00	18:00	17:00	16:00	16:00		
Vol.	2		4	13	38	94	184	157	83	44	6	4	1	528		

Pecent

15th Percentile :	39 MPH
50th Percentile :	46 MPH
85th Percentile :	53 MPH
95th Percentile :	57 MPH

Stats

10 MPH Pace Speed :	40-49 MPH
Number in Pace :	3619
Percent in Pace :	57.6%
Number of Vehicles > 45 MPH :	3170
Percent of Vehicles > 45 MPH :	50.4%
Mean Speed(Average) :	46 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Email: datarequests@pdillc.com

Route 79 NB Off Ramp
north of President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	0	0	0	**2**	0	3	7	9	18	4	0	0	0	43	54	48
01:00	0	0	0	0	1	2	7	4	4	3	1	1	0	23	56	48
02:00	0	0	0	0	0	0	4	0	1	0	1	1	0	7	64	49
03:00	0	0	0	0	1	0	1	4	3	3	0	1	0	13	56	50
04:00	0	0	0	0	0	2	10	9	15	5	2	0	0	43	55	49
05:00	0	0	0	0	1	5	26	36	20	15	1	0	0	104	54	48
06:00	0	0	0	2	1	26	52	95	38	33	2	4	1	254	55	47
07:00	0	0	0	0	**10**	28	81	**155**	**99**	**48**	**9**	3	**2**	**435**	54	48
08:00	0	0	0	0	4	**32**	**98**	115	83	48	8	**5**	1	394	55	48
09:00	0	0	0	0	4	27	70	97	67	29	4	2	1	301	54	47
10:00	0	0	0	0	2	22	94	99	47	17	4	1	0	286	52	46
11:00	0	0	0	0	4	23	96	110	58	33	0	3	0	327	53	47
12 PM	0	0	0	**4**	7	25	85	105	69	20	4	1	**1**	321	53	46
13:00	0	0	0	0	10	36	89	91	63	25	4	0	0	318	53	46
14:00	0	0	0	1	**21**	67	128	141	79	36	**6**	1	0	480	53	45
15:00	0	0	0	0	7	46	128	162	101	40	4	**3**	0	491	53	47
16:00	1	0	0	2	6	55	**161**	**187**	100	45	2	2	0	561	53	46
17:00	0	0	0	3	19	**81**	147	186	**102**	**48**	2	3	0	**591**	53	46
18:00	0	0	0	2	13	46	132	134	98	41	1	0	0	467	53	46
19:00	**2**	0	0	2	7	38	114	81	61	14	3	2	0	324	52	45
20:00	0	0	0	0	6	41	78	94	50	13	4	1	0	287	52	45
21:00	0	0	0	0	1	15	55	72	44	26	2	1	0	216	54	47
22:00	0	0	0	0	0	8	32	42	28	14	0	2	0	126	54	48
23:00	0	0	0	0	1	5	17	29	11	14	5	2	0	84	57	49
Total	3	0	0	18	126	633	1712	2057	1259	574	69	39	6	6496		
%	0.0%	0.0%	0.0%	0.3%	1.9%	9.7%	26.4%	31.7%	19.4%	8.8%	1.1%	0.6%	0.1%			
AM Peak				00:00	07:00	08:00	08:00	07:00	07:00	07:00	07:00	08:00	07:00	07:00		
Vol.				2	10	32	98	155	99	48	9	5	2	435		
PM Peak	19:00			12:00	14:00	17:00	16:00	16:00	17:00	17:00	14:00	15:00	12:00	17:00		
Vol.	2			4	21	81	161	187	102	48	6	3	1	591		

Pecent

15th Percentile :	40 MPH
50th Percentile :	46 MPH
85th Percentile :	53 MPH
95th Percentile :	58 MPH

Stats

10 MPH Pace Speed :	40-49 MPH
Number in Pace :	3769
Percent in Pace :	58.0%
Number of Vehicles > 45 MPH :	3592
Percent of Vehicles > 45 MPH :	55.3%
Mean Speed(Average) :	47 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 79 NB Off Ramp
north of President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	33	5	0	1	0	0	0	0	0	0	0	0	39
01:00	0	17	1	0	0	0	0	0	0	0	0	0	0	18
02:00	0	9	1	0	1	0	0	0	0	0	0	0	0	11
03:00	1	9	4	0	0	1	0	0	0	0	0	0	0	15
04:00	0	22	13	0	3	0	0	0	0	0	0	0	0	38
05:00	0	67	29	0	13	0	0	0	0	0	0	0	0	109
06:00	1	177	72	0	9	0	0	4	0	0	0	0	0	263
07:00	1	268	80	0	13	0	0	0	1	0	0	0	0	363
08:00	0	282	78	1	15	0	0	1	0	0	0	0	0	377
09:00	3	204	83	0	23	1	0	2	0	0	0	0	0	316
10:00	2	209	62	1	14	0	0	4	0	1	0	0	0	293
11:00	1	234	89	2	11	0	0	0	1	0	0	0	0	338
12 PM	3	256	72	0	7	0	0	4	1	0	0	0	0	343
13:00	2	266	72	0	14	0	0	1	0	0	0	0	0	355
14:00	2	339	83	1	21	0	0	2	1	0	0	0	0	449
15:00	1	372	100	0	12	0	0	3	0	0	0	0	0	488
16:00	1	400	112	0	14	0	0	1	0	0	0	0	0	528
17:00	0	408	104	1	11	0	0	0	1	0	0	0	0	525
18:00	0	353	88	0	13	0	0	2	0	0	0	0	0	456
19:00	0	235	65	1	5	0	0	1	0	0	1	0	0	308
20:00	1	206	43	0	4	1	0	0	0	0	0	0	0	255
21:00	0	149	32	0	2	0	0	0	0	0	0	0	0	183
22:00	0	108	13	0	2	0	0	0	0	0	0	0	0	123
23:00	0	79	11	0	2	0	0	0	0	0	0	0	0	92
Total	19	4702	1312	7	210	3	0	25	5	1	1	0	0	6285
Percent	0.3%	74.8%	20.9%	0.1%	3.3%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	11:00	11:00	09:00	03:00		06:00	07:00	10:00				08:00
Vol.	3	282	89	2	23	1		4	1	1				377
PM Peak	12:00	17:00	16:00	14:00	14:00	20:00		12:00	12:00		19:00			16:00
Vol.	3	408	112	1	21	1		4	1		1			528

PRECISION DATA INDUSTRIES, LLC
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Route 79 NB Off Ramp
north of President Avenue (Route 6)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	38	5	0	0	0	0	0	0	0	0	0	0	43
01:00	0	21	2	0	0	0	0	0	0	0	0	0	0	23
02:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
03:00	0	8	5	0	0	0	0	0	0	0	0	0	0	13
04:00	0	25	14	0	4	0	0	0	0	0	0	0	0	43
05:00	0	62	33	0	9	0	0	0	0	0	0	0	0	104
06:00	3	168	69	1	11	0	0	2	0	0	0	0	0	254
07:00	3	319	95	0	18	0	0	0	0	0	0	0	0	435
08:00	0	274	99	0	18	0	0	2	1	0	0	0	0	394
09:00	0	197	83	1	17	1	0	2	0	0	0	0	0	301
10:00	1	200	77	0	7	0	0	1	0	0	0	0	0	286
11:00	4	239	69	0	13	0	0	2	0	0	0	0	0	327
12 PM	1	236	67	0	15	0	0	2	0	0	0	0	0	321
13:00	3	244	57	1	9	0	0	2	1	1	0	0	0	318
14:00	1	357	100	0	16	0	0	5	1	0	0	0	0	480
15:00	2	355	119	0	10	0	0	5	0	0	0	0	0	491
16:00	6	419	120	0	16	0	0	0	0	0	0	0	0	561
17:00	8	458	102	0	21	0	0	2	0	0	0	0	0	591
18:00	2	353	99	0	12	0	0	1	0	0	0	0	0	467
19:00	4	230	78	0	11	0	0	1	0	0	0	0	0	324
20:00	1	237	38	0	11	0	0	0	0	0	0	0	0	287
21:00	0	172	39	0	5	0	0	0	0	0	0	0	0	216
22:00	1	103	17	0	5	0	0	0	0	0	0	0	0	126
23:00	0	71	12	0	1	0	0	0	0	0	0	0	0	84
Total	40	4791	1400	3	230	1	0	27	3	1	0	0	0	6496
Percent	0.6%	73.8%	21.6%	0.0%	3.5%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	08:00	06:00	07:00	09:00		06:00	08:00					07:00
Vol.	4	319	99	1	18	1		2	1					435
PM Peak	17:00	17:00	16:00	13:00	17:00			14:00	13:00	13:00				17:00
Vol.	8	458	120	1	21			5	1	1				591

UTurn Ramp from Davol Street SB
to Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 B-C volume
Site Code: 10111.31

Start Time	A.M.	SB UTurn to NB	P.M.				Tue 09-Sep-08
12:00	1		17				
12:15	2		13				
12:30	3		22				
12:45	1	7	16	68			
01:00	3		11				
01:15	0		11				
01:30	1		21				
01:45	0	4	20	63			
02:00	0		17				
02:15	0		23				
02:30	0		22				
02:45	0	0	13	75			
03:00	0		9				
03:15	0		20				
03:30	0		18				
03:45	1	1	24	71			
04:00	2		16				
04:15	2		14				
04:30	1		17				
04:45	2	7	22	69			
05:00	1		20				
05:15	3		23				
05:30	4		14				
05:45	2	10	13	70			
06:00	10		16				
06:15	13		18				
06:30	14		11				
06:45	12	49	13	58			
07:00	15		8				
07:15	22		12				
07:30	19		7				
07:45	37	93	6	33			
08:00	24		10				
08:15	30		7				
08:30	27		8				
08:45	20	101	5	30			
09:00	23		3				
09:15	12		4				
09:30	19		3				
09:45	14	68	2	12			
10:00	23		5				
10:15	15		5				
10:30	15		2				
10:45	18	71	4	16			
11:00	10		3				
11:15	7		4				
11:30	12		2				
11:45	19	48	0	9			
Total	459		574				
Percent			100.0%		0.0%	0.0%	
Day Total		1033					
Peak	07:45		01:45				
Vol.	118		82				
P.H.F.	0.797		0.891				

UTurn Ramp from Davol Street SB
to Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 B-C volume
Site Code: 10111.31

Start Time	A.M.	SB UTurn to NB	P.M.				Wed 10-Sep-08
12:00	0		15				
12:15	1		4				
12:30	1		19				
12:45	2	4	17	55			
01:00	0		12				
01:15	0		13				
01:30	1		19				
01:45	0	1	12	56			
02:00	1		17				
02:15	0		20				
02:30	0		18				
02:45	1	2	11	66			
03:00	0		13				
03:15	3		26				
03:30	0		13				
03:45	1	4	15	67			
04:00	1		28				
04:15	0		24				
04:30	1		19				
04:45	3	5	19	90			
05:00	2		17				
05:15	3		13				
05:30	6		12				
05:45	3	14	21	63			
06:00	13		9				
06:15	12		17				
06:30	7		14				
06:45	13	45	9	49			
07:00	15		19				
07:15	15		9				
07:30	25		8				
07:45	34	89	7	43			
08:00	29		12				
08:15	44		7				
08:30	19		5				
08:45	25	117	4	28			
09:00	15		5				
09:15	15		6				
09:30	14		5				
09:45	22	66	7	23			
10:00	14		9				
10:15	13		2				
10:30	21		3				
10:45	14	62	2	16			
11:00	11		3				
11:15	23		3				
11:30	14		4				
11:45	13	61	3	13			
Total	470		569				
Percent			100.0%		0.0%	0.0%	
Day Total		1039					
Peak	07:30		04:00				
Vol.	132		90				
P.H.F.	0.750		0.804				

PRECISION DATA INDUSTRIES, LLC
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UTurn Ramp from Davol Street SB
to Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-C speed
Site Code: 10111.31

SB UTurn to NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	5	2	0	0	0	0	0	0	0	0	0	0	7	20	18
01:00	1	3	0	0	0	0	0	0	0	0	0	0	0	4	16	16
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15	15
04:00	1	4	2	0	0	0	0	0	0	0	0	0	0	7	20	17
05:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10	18	17
06:00	2	41	6	0	0	0	0	0	0	0	0	0	0	49	19	17
07:00	5	66	**22**	0	0	0	0	0	0	0	0	0	0	93	21	18
08:00	5	**75**	20	**1**	0	0	0	0	0	0	0	0	0	**101**	21	18
09:00	1	61	6	0	0	0	0	0	0	0	0	0	0	68	19	17
10:00	**11**	45	14	1	0	0	0	0	0	0	0	0	0	71	21	17
11:00	0	37	11	0	0	0	0	0	0	0	0	0	0	48	21	18
12 PM	5	53	10	0	0	0	0	0	0	0	0	0	0	68	19	17
13:00	2	52	9	0	0	0	0	0	0	0	0	0	0	63	19	18
14:00	**7**	51	**17**	0	0	0	0	0	0	0	0	0	0	**75**	21	18
15:00	2	**58**	10	**1**	0	0	0	0	0	0	0	0	0	71	19	18
16:00	4	52	13	0	0	0	0	0	0	0	0	0	0	69	20	18
17:00	5	49	15	1	0	0	0	0	0	0	0	0	0	70	21	18
18:00	0	52	6	0	0	0	0	0	0	0	0	0	0	58	19	17
19:00	1	26	6	0	0	0	0	0	0	0	0	0	0	33	20	18
20:00	3	22	5	0	0	0	0	0	0	0	0	0	0	30	19	17
21:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12	20	18
22:00	1	13	2	0	0	0	0	0	0	0	0	0	0	16	19	17
23:00	1	7	1	0	0	0	0	0	0	0	0	0	0	9	19	17
Total	57	791	181	4	0	0	0	0	0	0	0	0	0	1033		
%	5.5%	76.6%	17.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	07:00	08:00										08:00		
Vol.	11	75	22	1										101		
PM Peak	14:00	15:00	14:00	15:00										14:00		
Vol.	7	58	17	1										75		

Pecent

15th Percentile :	15 MPH
50th Percentile :	17 MPH
85th Percentile :	20 MPH
95th Percentile :	23 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	972
Percent in Pace :	94.1%
Number of Vehicles > 20 MPH :	148
Percent of Vehicles > 20 MPH :	14.3%
Mean Speed(Average) :	17 MPH

PRECISION
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UTurn Ramp from Davol Street SB
to Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-C speed
Site Code: 10111.31

SB UTurn to NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	1	2	1	0	0	0	0	0	0	0	0	0	0	4	16	16
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15	15
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16	16
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4	17	17
04:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	18	17
05:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14	18	17
06:00	1	36	8	0	0	0	0	0	0	0	0	0	0	45	20	18
07:00	1	64	23	1	0	0	0	0	0	0	0	0	0	89	22	18
08:00	5	**83**	**28**	1	0	0	0	0	0	0	0	0	0	**117**	21	18
09:00	**7**	42	15	**2**	0	0	0	0	0	0	0	0	0	66	22	18
10:00	4	51	6	1	0	0	0	0	0	0	0	0	0	62	19	17
11:00	7	40	14	0	0	0	0	0	0	0	0	0	0	61	21	17
12 PM	1	37	16	**1**	0	0	0	0	0	0	0	0	0	55	22	18
13:00	**7**	40	9	0	0	0	0	0	0	0	0	0	0	56	20	17
14:00	3	49	14	0	0	0	0	0	0	0	0	0	0	66	21	18
15:00	4	46	17	0	0	0	0	0	0	0	0	0	0	67	21	18
16:00	1	**70**	**19**	0	0	0	0	0	0	0	0	0	0	**90**	21	18
17:00	1	46	15	1	0	0	0	0	0	0	0	0	0	63	22	18
18:00	1	45	3	0	0	0	0	0	0	0	0	0	0	49	19	17
19:00	3	26	14	0	0	0	0	0	0	0	0	0	0	43	22	18
20:00	0	25	3	0	0	0	0	0	0	0	0	0	0	28	19	17
21:00	3	13	7	0	0	0	0	0	0	0	0	0	0	23	21	18
22:00	1	11	4	0	0	0	0	0	0	0	0	0	0	16	21	18
23:00	0	9	4	0	0	0	0	0	0	0	0	0	0	13	21	18
Total	51	760	221	7	0	0	0	0	0	0	0	0	0	1039		
%	4.9%	73.1%	21.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	08:00	08:00	09:00										08:00		
Vol.	7	83	28	2										117		
PM Peak	13:00	16:00	16:00	12:00										16:00		
Vol.	7	70	19	1										90		

Pecent

15th Percentile :	15 MPH
50th Percentile :	18 MPH
85th Percentile :	21 MPH
95th Percentile :	23 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	981
Percent in Pace :	94.4%
Number of Vehicles > 20 MPH :	183
Percent of Vehicles > 20 MPH :	17.6%
Mean Speed(Average) :	18 MPH

PRECISION
D A T A
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UTurn Ramp from Davol Street SB
to Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-C class
Site Code: 10111.31

SB UTurn to NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
05:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
06:00	2	43	4	0	0	0	0	0	0	0	0	0	0	49
07:00	3	79	10	1	0	0	0	0	0	0	0	0	0	93
08:00	7	90	4	0	0	0	0	0	0	0	0	0	0	101
09:00	0	61	6	0	1	0	0	0	0	0	0	0	0	68
10:00	4	62	4	0	1	0	0	0	0	0	0	0	0	71
11:00	1	43	2	0	2	0	0	0	0	0	0	0	0	48
12 PM	2	59	6	0	0	0	0	1	0	0	0	0	0	68
13:00	2	53	7	0	0	0	0	1	0	0	0	0	0	63
14:00	4	64	7	0	0	0	0	0	0	0	0	0	0	75
15:00	2	62	5	0	1	0	0	1	0	0	0	0	0	71
16:00	1	63	5	0	0	0	0	0	0	0	0	0	0	69
17:00	8	58	4	0	0	0	0	0	0	0	0	0	0	70
18:00	1	54	3	0	0	0	0	0	0	0	0	0	0	58
19:00	0	31	2	0	0	0	0	0	0	0	0	0	0	33
20:00	0	28	2	0	0	0	0	0	0	0	0	0	0	30
21:00	1	11	0	0	0	0	0	0	0	0	0	0	0	12
22:00	0	16	0	0	0	0	0	0	0	0	0	0	0	16
23:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
Total	38	910	76	1	5	0	0	3	0	0	0	0	0	1033
Percent	3.7%	88.1%	7.4%	0.1%	0.5%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	07:00	07:00	11:00									08:00
Vol.	7	90	10	1	2									101
PM Peak	17:00	14:00	13:00		15:00			12:00						14:00
Vol.	8	64	7		1			1						75

UTurn Ramp from Davol Street SB
to Davol Street NB
City, State: Fall River, MA
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81676 B-C class
Site Code: 10111.31

SB UTurn to NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
05:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14
06:00	3	38	4	0	0	0	0	0	0	0	0	0	0	45
07:00	4	73	10	0	0	0	0	1	1	0	0	0	0	89
08:00	7	104	6	0	0	0	0	0	0	0	0	0	0	117
09:00	4	55	6	0	1	0	0	0	0	0	0	0	0	66
10:00	4	55	2	0	1	0	0	0	0	0	0	0	0	62
11:00	1	52	5	1	1	0	0	1	0	0	0	0	0	61
12 PM	4	47	4	0	0	0	0	0	0	0	0	0	0	55
13:00	0	51	5	0	0	0	0	0	0	0	0	0	0	56
14:00	0	56	8	0	2	0	0	0	0	0	0	0	0	66
15:00	2	61	3	0	1	0	0	0	0	0	0	0	0	67
16:00	0	82	7	0	0	0	0	1	0	0	0	0	0	90
17:00	1	58	4	0	0	0	0	0	0	0	0	0	0	63
18:00	1	44	2	0	2	0	0	0	0	0	0	0	0	49
19:00	1	40	2	0	0	0	0	0	0	0	0	0	0	43
20:00	0	27	1	0	0	0	0	0	0	0	0	0	0	28
21:00	0	22	1	0	0	0	0	0	0	0	0	0	0	23
22:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
23:00	0	13	0	0	0	0	0	0	0	0	0	0	0	13
Total	32	920	74	1	8	0	0	3	1	0	0	0	0	1039
Percent	3.1%	88.5%	7.1%	0.1%	0.8%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	07:00	11:00	09:00			07:00	07:00					08:00
Vol.	7	104	10	1	1			1	1					117
PM Peak	12:00	16:00	14:00		14:00			16:00						16:00
Vol.	4	82	8		2			1						90

Route 79 NB Off Ramp
south of UTurn to Davol Street (SB)
City, State: Fall River, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 B-D volume
Site Code: 10111.31

Start Time	A.M.	NB	P.M.				Tue 09-Sep-08
12:00	5		55				
12:15	11		50				
12:30	3		49				
12:45	4	23	59	213			
01:00	3		60				
01:15	2		51				
01:30	5		44				
01:45	2	12	50	205			
02:00	2		63				
02:15	2		62				
02:30	1		63				
02:45	3	8	45	233			
03:00	0		57				
03:15	1		56				
03:30	2		67				
03:45	2	5	54	234			
04:00	1		80				
04:15	5		77				
04:30	9		74				
04:45	12	27	55	286			
05:00	8		65				
05:15	13		65				
05:30	10		50				
05:45	16	47	41	221			
06:00	24		40				
06:15	35		57				
06:30	36		43				
06:45	55	150	33	173			
07:00	56		35				
07:15	58		35				
07:30	69		36				
07:45	72	255	35	141			
08:00	53		31				
08:15	68		35				
08:30	64		27				
08:45	57	242	24	117			
09:00	42		23				
09:15	49		25				
09:30	37		20				
09:45	43	171	24	92			
10:00	44		14				
10:15	60		14				
10:30	47		20				
10:45	37	188	17	65			
11:00	36		15				
11:15	51		20				
11:30	45		11				
11:45	51	183	2	48			
Total	1311		2028				
Percent			100.0%		0.0%	0.0%	
Day Total		3339					
Peak	07:30		04:00				
Vol.	262		286				
P.H.F.	0.910		0.894				

Route 79 NB Off Ramp
south of UTurn to Davol Street (SB)
City, State: Fall River, MA
Client: VHB/J. Quitter

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81676 B-D volume
Site Code: 10111.31

Start Time	NB A.M.		P.M.				Wed 10-Sep-08
12:00	3		42				
12:15	8		49				
12:30	4		44				
12:45	2	17	37	172			
01:00	6		43				
01:15	3		54				
01:30	2		47				
01:45	5	16	53	197			
02:00	1		48				
02:15	2		58				
02:30	4		66				
02:45	1	8	64	236			
03:00	1		48				
03:15	2		68				
03:30	3		59				
03:45	5	11	67	242			
04:00	2		79				
04:15	6		59				
04:30	5		81				
04:45	13	26	74	293			
05:00	9		72				
05:15	11		72				
05:30	16		53				
05:45	15	51	62	259			
06:00	23		49				
06:15	34		47				
06:30	32		53				
06:45	43	132	42	191			
07:00	57		52				
07:15	65		64				
07:30	68		33				
07:45	74	264	35	184			
08:00	73		34				
08:15	60		35				
08:30	58		49				
08:45	54	245	30	148			
09:00	63		28				
09:15	52		26				
09:30	32		15				
09:45	44	191	24	93			
10:00	51		16				
10:15	41		16				
10:30	38		20				
10:45	48	178	17	69			
11:00	50		20				
11:15	44		15				
11:30	46		10				
11:45	44	184	17	62			
Total	1323		2146				
Percent			100.0%		0.0%	0.0%	
Day Total		3469					
Peak	07:15		04:30				
Vol.	280		299				
P.H.F.	0.946		0.923				

PRECISION
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Route 79 NB Off Ramp
south of UTurn to Davol Street (SB)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	1	3	5	5	5	2	2	0	0	0	0	23	48	37
01:00	0	1	0	2	4	1	2	1	1	0	0	0	0	12	41	35
02:00	0	0	0	0	1	2	2	3	0	0	0	0	0	8	46	42
03:00	0	0	0	0	0	3	2	0	0	0	0	0	0	5	40	38
04:00	0	0	0	3	1	7	7	8	1	0	0	0	0	27	47	41
05:00	0	0	1	3	6	16	9	9	2	1	0	0	0	47	47	39
06:00	0	**3**	4	16	33	41	33	18	1	1	0	0	0	150	44	37
07:00	0	1	6	**36**	**64**	**60**	57	**27**	4	0	0	0	0	**255**	44	36
08:00	0	2	9	36	54	57	**62**	14	**5**	**3**	0	0	0	242	43	36
09:00	0	1	6	31	39	48	33	12	1	0	0	0	0	171	42	35
10:00	0	2	**10**	26	46	55	38	9	1	1	0	0	0	188	42	35
11:00	0	1	4	24	58	56	27	12	1	0	0	0	0	183	42	35
12 PM	0	0	11	35	61	53	38	11	2	**2**	0	0	0	213	42	35
13:00	**3**	**6**	**20**	33	46	53	34	4	**5**	1	0	0	0	205	41	33
14:00	0	3	17	**47**	58	59	37	10	2	0	0	0	0	233	41	34
15:00	0	0	9	34	71	59	35	22	4	0	0	0	0	234	43	35
16:00	0	3	20	39	**73**	**74**	**57**	17	2	0	0	**1**	0	**286**	42	35
17:00	0	1	4	26	51	55	55	**24**	5	0	0	0	0	221	44	37
18:00	0	1	2	17	36	48	40	22	5	1	0	1	0	173	45	38
19:00	0	0	4	13	39	46	20	15	3	1	0	0	0	141	44	37
20:00	0	0	0	10	27	35	29	12	3	1	0	0	0	117	44	38
21:00	0	0	2	12	26	32	14	3	3	0	0	0	0	92	41	36
22:00	0	1	1	7	16	19	13	5	2	1	0	0	0	65	43	37
23:00	0	0	1	3	8	17	11	8	0	0	0	0	0	48	45	38
Total	3	26	132	456	823	901	660	268	55	13	0	2	0	3339		
%	0.1%	0.8%	4.0%	13.7%	24.6%	27.0%	19.8%	8.0%	1.6%	0.4%	0.0%	0.1%	0.0%			
AM Peak		06:00	10:00	07:00	07:00	07:00	08:00	07:00	08:00	08:00				07:00		
Vol.		3	10	36	64	60	62	27	5	3				255		
PM Peak	13:00	13:00	13:00	14:00	16:00	16:00	16:00	17:00	13:00	12:00		16:00		16:00		
Vol.	3	6	20	47	73	74	57	24	5	2		1		286		

Pecent

15th Percentile :	28 MPH
50th Percentile :	36 MPH
85th Percentile :	43 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	1724
Percent in Pace :	51.6%
Number of Vehicles > 35 MPH :	1718
Percent of Vehicles > 35 MPH :	51.5%
Mean Speed(Average) :	36 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 79 NB Off Ramp
south of UTurn to Davol Street (SB)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	2	6	4	4	0	1	0	0	0	0	17	41	36
01:00	0	0	0	0	3	6	6	1	0	0	0	0	0	16	43	39
02:00	0	0	0	0	3	2	1	2	0	0	0	0	0	8	45	37
03:00	0	0	0	1	1	4	4	1	0	0	0	0	0	11	42	39
04:00	0	0	1	4	0	10	7	2	1	**1**	0	0	0	26	44	38
05:00	0	0	0	2	8	17	12	8	4	0	0	0	0	51	46	40
06:00	0	0	8	11	28	37	35	11	2	0	0	0	0	132	43	37
07:00	**1**	0	11	27	53	**83**	**62**	**23**	2	1	0	0	0	**263**	43	36
08:00	1	**2**	10	**36**	54	76	46	17	3	1	0	0	0	246	43	35
09:00	0	0	**13**	26	53	47	40	8	3	1	0	0	0	191	42	35
10:00	0	1	5	17	37	69	38	9	2	0	0	0	0	178	42	36
11:00	0	0	9	13	**56**	56	33	12	**5**	0	0	0	0	184	43	36
12 PM	0	0	8	25	37	58	30	11	2	1	0	0	0	172	42	36
13:00	0	0	6	31	57	62	33	4	3	1	0	0	0	197	41	35
14:00	0	0	6	**36**	**65**	79	37	10	3	0	0	0	0	236	41	35
15:00	1	6	9	16	53	73	57	24	2	0	0	0	0	241	44	36
16:00	**2**	4	7	29	65	**91**	**63**	26	5	1	**1**	0	0	**294**	44	36
17:00	0	3	**11**	29	57	67	52	**29**	**7**	**4**	0	0	0	259	45	37
18:00	0	**7**	9	16	42	52	39	20	3	3	0	0	0	191	44	36
19:00	0	0	5	26	34	50	48	15	5	1	0	0	0	184	44	37
20:00	0	0	3	10	46	42	34	11	1	1	0	0	0	148	43	37
21:00	0	0	1	6	22	28	22	9	5	0	0	0	0	93	44	38
22:00	0	0	1	8	15	19	19	6	1	0	0	0	0	69	43	37
23:00	0	1	1	3	17	22	14	4	0	0	0	0	0	62	42	36
Total	5	24	124	374	812	1054	736	263	60	16	1	0	0	3469		
%	0.1%	0.7%	3.6%	10.8%	23.4%	30.4%	21.2%	7.6%	1.7%	0.5%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	09:00	08:00	11:00	07:00	07:00	07:00	11:00	04:00				07:00		
Vol.	1	2	13	36	56	83	62	23	5	1				263		
PM Peak	16:00	18:00	17:00	14:00	14:00	16:00	16:00	17:00	17:00	17:00	16:00			16:00		
Vol.	2	7	11	36	65	91	63	29	7	4	1			294		

Pecent

15th Percentile :	29 MPH
50th Percentile :	36 MPH
85th Percentile :	43 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	1866
Percent in Pace :	53.8%
Number of Vehicles > 35 MPH :	1919
Percent of Vehicles > 35 MPH :	55.3%
Mean Speed(Average) :	36 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 79 NB Off Ramp
south of UTurn to Davol Street (SB)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	22	1	0	0	0	0	0	0	0	0	0	0	23
01:00	0	9	1	0	1	0	0	1	0	0	0	0	0	12
02:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
03:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
04:00	0	16	7	0	4	0	0	0	0	0	0	0	0	27
05:00	0	26	11	0	9	0	0	1	0	0	0	0	0	47
06:00	0	109	30	0	9	0	0	2	0	0	0	0	0	150
07:00	1	200	35	1	15	1	0	1	1	0	0	0	0	255
08:00	1	212	20	0	7	0	0	2	0	0	0	0	0	242
09:00	0	146	22	0	2	0	0	1	0	0	0	0	0	171
10:00	0	149	25	2	7	0	0	3	2	0	0	0	0	188
11:00	0	149	22	1	8	0	0	3	0	0	0	0	0	183
12 PM	0	172	30	1	5	1	0	3	1	0	0	0	0	213
13:00	1	163	33	0	4	0	0	4	0	0	0	0	0	205
14:00	0	190	35	1	6	0	0	1	0	0	0	0	0	233
15:00	0	187	36	0	9	0	0	2	0	0	0	0	0	234
16:00	1	224	50	1	8	1	0	0	0	1	0	0	0	286
17:00	0	195	20	0	6	0	0	0	0	0	0	0	0	221
18:00	0	144	27	1	1	0	0	0	0	0	0	0	0	173
19:00	1	114	22	0	3	0	0	1	0	0	0	0	0	141
20:00	0	103	14	0	0	0	0	0	0	0	0	0	0	117
21:00	0	86	6	0	0	0	0	0	0	0	0	0	0	92
22:00	0	60	4	0	1	0	0	0	0	0	0	0	0	65
23:00	0	41	7	0	0	0	0	0	0	0	0	0	0	48
Total	5	2726	462	8	105	3	0	25	4	1	0	0	0	3339
Percent	0.1%	81.6%	13.8%	0.2%	3.1%	0.1%	0.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	07:00	10:00	07:00	07:00		10:00	10:00					07:00
Vol.	1	212	35	2	15	1		3	2					255
PM Peak	13:00	16:00	16:00	12:00	15:00	12:00		13:00	12:00	16:00				16:00
Vol.	1	224	50	1	9	1		4	1	1				286

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Route 79 NB Off Ramp
south of UTurn to Davol Street (SB)
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 B-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	16	1	0	0	0	0	0	0	0	0	0	0	17
01:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
02:00	0	4	4	0	0	0	0	0	0	0	0	0	0	8
03:00	0	8	2	0	1	0	0	0	0	0	0	0	0	11
04:00	0	16	6	0	4	0	0	0	0	0	0	0	0	26
05:00	0	24	15	0	9	0	0	2	1	0	0	0	0	51
06:00	0	93	28	2	6	1	0	2	0	0	0	0	0	132
07:00	1	218	32	2	7	0	0	1	2	0	0	0	0	263
08:00	0	197	41	0	6	0	0	2	0	0	0	0	0	246
09:00	0	142	39	0	7	0	0	1	2	0	0	0	0	191
10:00	0	141	31	0	5	0	0	0	1	0	0	0	0	178
11:00	0	141	31	2	8	0	0	2	0	0	0	0	0	184
12 PM	0	151	15	1	4	0	0	1	0	0	0	0	0	172
13:00	0	162	24	0	7	2	0	1	1	0	0	0	0	197
14:00	0	193	29	2	6	2	0	3	1	0	0	0	0	236
15:00	0	200	36	1	1	0	0	2	0	1	0	0	0	241
16:00	0	241	40	2	9	1	0	1	0	0	0	0	0	294
17:00	1	220	30	2	5	0	0	1	0	0	0	0	0	259
18:00	2	163	23	0	3	0	0	0	0	0	0	0	0	191
19:00	0	159	21	0	3	1	0	0	0	0	0	0	0	184
20:00	5	130	12	0	1	0	0	0	0	0	0	0	0	148
21:00	1	79	10	0	3	0	0	0	0	0	0	0	0	93
22:00	0	62	6	0	1	0	0	0	0	0	0	0	0	69
23:00	0	58	3	0	1	0	0	0	0	0	0	0	0	62
Total	10	2833	480	14	97	7	0	19	8	1	0	0	0	3469
Percent	0.3%	81.7%	13.8%	0.4%	2.8%	0.2%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	06:00	05:00	06:00		05:00	07:00					07:00
Vol.	1	218	41	2	9	1		2	2					263
PM Peak	20:00	16:00	16:00	14:00	16:00	13:00		14:00	13:00	15:00				16:00
Vol.	5	241	40	2	9	2		3	1	1				294

PRECISION DATA INDUSTRIES, LLC

Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Wed 10/8/08 thru Fri 10/10/08	81676 B	Fall River, MA

PRECISION DATA INDUSTRIES, LLC

Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/9/08 thru Wed 9/10/08	81676	Fall River, MA

UTurn Ramp to Davol Street SB
from Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 A-A volume
Site Code: 10111.31

Start Time	A.M.	NB to SB UTurn	P.M.				Tue 09-Sep-08
12:00	1		13				
12:15	0		11				
12:30	0		8				
12:45	0	1	13	45			
01:00	0		8				
01:15	0		11				
01:30	0		7				
01:45	0	0	3	29			
02:00	0		12				
02:15	0		0				
02:30	1		4				
02:45	1	2	6	22			
03:00	0		5				
03:15	0		8				
03:30	0		5				
03:45	1	1	8	26			
04:00	0		10				
04:15	0		10				
04:30	2		4				
04:45	0	2	10	34			
05:00	0		1				
05:15	0		8				
05:30	2		4				
05:45	1	3	5	18			
06:00	2		7				
06:15	4		0				
06:30	5		6				
06:45	9	20	6	19			
07:00	3		4				
07:15	6		4				
07:30	4		4				
07:45	8	21	0	12			
08:00	4		3				
08:15	13		6				
08:30	14		2				
08:45	8	39	8	19			
09:00	7		0				
09:15	8		2				
09:30	7		3				
09:45	8	30	4	9			
10:00	7		1				
10:15	8		2				
10:30	8		0				
10:45	10	33	1	4			
11:00	5		0				
11:15	14		2				
11:30	5		0				
11:45	4	28	0	2			
Total	180		239				
Percent			100.0%		0.0%	0.0%	
Day Total		419					
Peak	08:15		12:00				
Vol.	42		45				
P.H.F.	0.750		0.865				

UTurn Ramp to Davol Street SB
from Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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81676 A-A volume
Site Code: 10111.31

Start Time	A.M.	NB to SB UTurn	P.M.				Wed 10-Sep-08
12:00	0		7				
12:15	1		12				
12:30	2		4				
12:45	0	3	8	31			
01:00	1		11				
01:15	1		10				
01:30	0		6				
01:45	0	2	8	35			
02:00	0		10				
02:15	0		6				
02:30	1		10				
02:45	0	1	6	32			
03:00	0		8				
03:15	0		9				
03:30	0		9				
03:45	1	1	14	40			
04:00	1		14				
04:15	4		8				
04:30	1		9				
04:45	2	8	11	42			
05:00	1		12				
05:15	4		21				
05:30	0		6				
05:45	2	7	12	51			
06:00	3		11				
06:15	3		5				
06:30	2		4				
06:45	2	10	11	31			
07:00	3		13				
07:15	7		11				
07:30	8		4				
07:45	11	29	5	33			
08:00	12		4				
08:15	11		7				
08:30	7		3				
08:45	14	44	1	15			
09:00	14		0				
09:15	12		2				
09:30	4		2				
09:45	11	41	4	8			
10:00	6		3				
10:15	13		4				
10:30	7		2				
10:45	7	33	2	11			
11:00	10		1				
11:15	7		0				
11:30	12		0				
11:45	5	34	1	2			
Total	213		331				
Percent			100.0%		0.0%	0.0%	
Day Total		544					
Peak	08:30		04:30				
Vol.	47		53				
P.H.F.	0.839		0.631				

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UTurn Ramp to Davol Street SB
from Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 A-A speed
Site Code: 10111.31

NB to SB UTurn

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15	15
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16	16
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15	15
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	20	20
05:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	17	16
06:00	6	11	3	0	0	0	0	0	0	0	0	0	0	20	19	16
07:00	2	16	3	0	0	0	0	0	0	0	0	0	0	21	19	17
08:00	4	**31**	4	0	0	0	0	0	0	0	0	0	0	**39**	19	17
09:00	2	25	3	0	0	0	0	0	0	0	0	0	0	30	19	17
10:00	**8**	19	**6**	0	0	0	0	0	0	0	0	0	0	33	20	16
11:00	4	21	3	0	0	0	0	0	0	0	0	0	0	28	19	17
12 PM	**8**	**32**	5	0	0	0	0	0	0	0	0	0	0	**45**	19	16
13:00	2	21	6	0	0	0	0	0	0	0	0	0	0	29	20	18
14:00	2	18	2	0	0	0	0	0	0	0	0	0	0	22	19	17
15:00	4	17	5	0	0	0	0	0	0	0	0	0	0	26	20	17
16:00	7	19	**8**	0	0	0	0	0	0	0	0	0	0	34	21	17
17:00	1	13	4	0	0	0	0	0	0	0	0	0	0	18	20	18
18:00	2	15	2	0	0	0	0	0	0	0	0	0	0	19	19	17
19:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12	19	17
20:00	2	12	5	0	0	0	0	0	0	0	0	0	0	19	21	18
21:00	1	4	4	0	0	0	0	0	0	0	0	0	0	9	22	19
22:00	1	3	0	0	0	0	0	0	0	0	0	0	0	4	16	16
23:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	20	20
Total	56	297	66	0	0	0	0	0	0	0	0	0	0	419		
%	13.4%	70.9%	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	10:00											08:00		
Vol.	8	31	6											39		
PM Peak	12:00	12:00	16:00											12:00		
Vol.	8	32	8											45		

Pecent

15th Percentile :	15 MPH
50th Percentile :	17 MPH
85th Percentile :	20 MPH
95th Percentile :	23 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	363
Percent in Pace :	86.6%
Number of Vehicles > 20 MPH :	52
Percent of Vehicles > 20 MPH :	12.4%
Mean Speed(Average) :	17 MPH

PRECISION DATA INDUSTRIES, LLC
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UTurn Ramp to Davol Street SB
from Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 A-A speed
Site Code: 10111.31

NB to SB UTurn

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	1	1	1	0	0	0	0	0	0	0	0	0	0	3	20	18
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16	16
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15	15
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15	15
04:00	4	2	2	0	0	0	0	0	0	0	0	0	0	8	20	11
05:00	3	3	1	0	0	0	0	0	0	0	0	0	0	7	17	15
06:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10	19	17
07:00	3	21	4	**1**	0	0	0	0	0	0	0	0	0	29	20	17
08:00	6	**31**	7	0	0	0	0	0	0	0	0	0	0	**44**	19	17
09:00	**11**	22	**8**	0	0	0	0	0	0	0	0	0	0	41	20	16
10:00	7	25	1	0	0	0	0	0	0	0	0	0	0	33	19	16
11:00	9	22	3	0	0	0	0	0	0	0	0	0	0	34	19	15
12 PM	1	24	6	0	0	0	0	0	0	0	0	0	0	31	20	18
13:00	5	25	5	0	0	0	0	0	0	0	0	0	0	35	19	17
14:00	5	21	6	0	0	0	0	0	0	0	0	0	0	32	20	17
15:00	**7**	24	9	0	0	0	0	0	0	0	0	0	0	40	21	17
16:00	6	26	**10**	0	0	0	0	0	0	0	0	0	0	42	21	17
17:00	5	**37**	9	0	0	0	0	0	0	0	0	0	0	**51**	20	17
18:00	5	20	6	0	0	0	0	0	0	0	0	0	0	31	20	17
19:00	3	24	6	0	0	0	0	0	0	0	0	0	0	33	20	17
20:00	0	11	4	0	0	0	0	0	0	0	0	0	0	15	21	18
21:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8	19	17
22:00	1	7	3	0	0	0	0	0	0	0	0	0	0	11	20	18
23:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	20	20
Total	82	366	95	1	0	0	0	0	0	0	0	0	0	544		
%	15.1%	67.3%	17.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	08:00	09:00	07:00										08:00		
Vol.	11	31	8	1										44		
PM Peak	15:00	17:00	16:00											17:00		
Vol.	7	37	10											51		

Pecent

15th Percentile :	14 MPH
50th Percentile :	17 MPH
85th Percentile :	20 MPH
95th Percentile :	23 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	461
Percent in Pace :	84.7%
Number of Vehicles > 20 MPH :	77
Percent of Vehicles > 20 MPH :	14.2%
Mean Speed(Average) :	16 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

UTurn Ramp to Davol Street SB
from Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 A-A class
Site Code: 10111.31

NB to SB UTurn

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
06:00	1	8	8	0	1	1	0	0	0	1	0	0	0	20
07:00	0	12	6	0	3	0	0	0	0	0	0	0	0	21
08:00	1	24	10	0	4	0	0	0	0	0	0	0	0	39
09:00	0	22	8	0	0	0	0	0	0	0	0	0	0	30
10:00	3	18	7	1	1	2	0	1	0	0	0	0	0	33
11:00	1	20	4	0	2	1	0	0	0	0	0	0	0	28
12 PM	1	28	10	0	6	0	0	0	0	0	0	0	0	45
13:00	1	17	7	0	4	0	0	0	0	0	0	0	0	29
14:00	0	17	3	0	2	0	0	0	0	0	0	0	0	22
15:00	0	17	5	2	2	0	0	0	0	0	0	0	0	26
16:00	4	17	10	0	2	1	0	0	0	0	0	0	0	34
17:00	0	17	1	0	0	0	0	0	0	0	0	0	0	18
18:00	0	15	2	1	1	0	0	0	0	0	0	0	0	19
19:00	0	10	1	0	0	0	0	1	0	0	0	0	0	12
20:00	0	16	3	0	0	0	0	0	0	0	0	0	0	19
21:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
22:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	12	279	88	4	28	5	0	2	0	1	0	0	0	419
Percent	2.9%	66.6%	21.0%	1.0%	6.7%	1.2%	0.0%	0.5%	0.0%	0.2%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	08:00	10:00	08:00	10:00		10:00		06:00				08:00
Vol.	3	24	10	1	4	2		1		1				39
PM Peak	16:00	12:00	12:00	15:00	12:00	16:00		19:00						12:00
Vol.	4	28	10	2	6	1		1						45

PRECISION
D A T A
INDUSTRIES, LLC
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Email: datarequests@pdillc.com

UTurn Ramp to Davol Street SB
from Davol Street NB
City, State: Fall River, MA
Client: VHB/J. Quitter

81676 A-A class
Site Code: 10111.31

NB to SB UTurn

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	5	2	0	0	1	0	0	0	0	0	0	0	8
05:00	1	3	0	0	1	1	0	0	1	0	0	0	0	7
06:00	0	5	5	0	0	0	0	0	0	0	0	0	0	10
07:00	1	22	3	0	2	1	0	0	0	0	0	0	0	29
08:00	0	27	13	0	3	0	0	1	0	0	0	0	0	44
09:00	2	29	5	0	3	2	0	0	0	0	0	0	0	41
10:00	1	24	6	1	0	1	0	0	0	0	0	0	0	33
11:00	1	23	7	0	2	1	0	0	0	0	0	0	0	34
12 PM	0	29	1	0	1	0	0	0	0	0	0	0	0	31
13:00	0	29	5	0	1	0	0	0	0	0	0	0	0	35
14:00	2	21	5	0	4	0	0	0	0	0	0	0	0	32
15:00	3	29	4	0	2	0	0	1	1	0	0	0	0	40
16:00	0	37	4	1	0	0	0	0	0	0	0	0	0	42
17:00	1	44	5	1	0	0	0	0	0	0	0	0	0	51
18:00	0	28	3	0	0	0	0	0	0	0	0	0	0	31
19:00	0	30	3	0	0	0	0	0	0	0	0	0	0	33
20:00	1	14	0	0	0	0	0	0	0	0	0	0	0	15
21:00	1	7	0	0	0	0	0	0	0	0	0	0	0	8
22:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	14	425	72	3	19	7	0	2	2	0	0	0	0	544
Percent	2.6%	78.1%	13.2%	0.6%	3.5%	1.3%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	09:00	08:00	10:00	08:00	09:00		08:00	05:00					08:00
Vol.	2	29	13	1	3	2		1	1					44
PM Peak	15:00	17:00	13:00	16:00	14:00			15:00	15:00					17:00
Vol.	3	44	5	1	4			1	1					51

PRECISION DATA INDUSTRIES, LLC

Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Sat 9/6/08 and Wed 9/10/08	81676	Freetown, MA

South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 F-A volume
Site Code: 10111.31

Start	WB				EB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	14		75		8		52		22		127		
12:15	15		64		5		45		20		109		
12:30	9		81		8		38		17		119		
12:45	8	46	94	314	7	28	52	187	15	74	146	501	
01:00	9		92		6		45		15		137		
01:15	5		78		10		54		15		132		
01:30	7		96		22		68		29		164		
01:45	10	31	76	342	23	61	55	222	33	92	131	564	
02:00	7		97		5		40		12		137		
02:15	6		86		8		60		14		146		
02:30	2		102		9		71		11		173		
02:45	8	23	149	434	8	30	84	255	16	53	233	689	
03:00	7		123		14		78		21		201		
03:15	5		101		3		75		8		176		
03:30	5		102		9		74		14		176		
03:45	14	31	134	460	7	33	79	306	21	64	213	766	
04:00	9		121		4		66		13		187		
04:15	17		122		12		68		29		190		
04:30	19		151		14		68		33		219		
04:45	29	74	149	543	23	53	84	286	52	127	233	829	
05:00	31		123		40		72		71		195		
05:15	30		108		22		68		52		176		
05:30	35		111		31		58		66		169		
05:45	54	150	85	427	23	116	43	241	77	266	128	668	
06:00	62		62		41		51		103		113		
06:15	84		86		54		46		138		132		
06:30	96		89		56		43		152		132		
06:45	117	359	58	295	62	213	34	174	179	572	92	469	
07:00	137		64		77		36		214		100		
07:15	129		58		68		28		197		86		
07:30	134		51		61		45		195		96		
07:45	168	568	55	228	41	247	29	138	209	815	84	366	
08:00	155		44		67		23		222		67		
08:15	125		55		61		18		186		73		
08:30	127		51		61		23		188		74		
08:45	131	538	39	189	52	241	19	83	183	779	58	272	
09:00	118		35		58		17		176		52		
09:15	89		36		37		25		126		61		
09:30	96		37		44		16		140		53		
09:45	76	379	34	142	46	185	16	74	122	564	50	216	
10:00	61		26		52		33		113		59		
10:15	73		30		44		20		117		50		
10:30	71		55		45		30		116		85		
10:45	71	276	28	139	39	180	23	106	110	456	51	245	
11:00	63		21		29		12		92		33		
11:15	80		15		40		11		120		26		
11:30	65		14		38		6		103		20		
11:45	84	292	16	66	42	149	14	43	126	441	30	109	
Total	2767		3579		1536		2115		4303		5694		
Percent	64.3%		62.9%		35.7%		37.1%						
Day Total		6346				3651				9997			
Peak	07:15		04:15		06:45		02:45		07:15		04:15		
Vol.	586		545		268		311		823		837		
P.H.F.	0.872		0.902		0.870		0.926		0.927		0.898		

South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 F-A volume
Site Code: 10111.31

Start	WB				EB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	8		80		12		56		20		136		
12:15	7		71		5		51		12		122		
12:30	8		92		4		59		12		151		
12:45	7	30	94	337	4	25	55	221	11	55	149	558	
01:00	5		88		4		51		9		139		
01:15	5		98		3		65		8		163		
01:30	3		90		23		89		26		179		
01:45	9	22	100	376	29	59	53	258	38	81	153	634	
02:00	0		68		16		53		16		121		
02:15	6		109		8		78		14		187		
02:30	3		87		4		64		7		151		
02:45	7	16	127	391	1	29	50	245	8	45	177	636	
03:00	3		118		4		57		7		175		
03:15	5		111		6		74		11		185		
03:30	7		99		2		61		9		160		
03:45	5	20	113	441	6	18	64	256	11	38	177	697	
04:00	11		123		4		63		15		186		
04:15	14		131		12		59		26		190		
04:30	15		127		11		74		26		201		
04:45	25	65	122	503	22	49	83	279	47	114	205	782	
05:00	29		132		28		80		57		212		
05:15	15		122		19		69		34		191		
05:30	32		132		28		70		60		202		
05:45	64	140	99	485	35	110	59	278	99	250	158	763	
06:00	70		84		40		51		110		135		
06:15	65		87		40		51		105		138		
06:30	84		94		52		49		136		143		
06:45	123	342	77	342	66	198	39	190	189	540	116	532	
07:00	137		64		69		50		206		114		
07:15	138		67		67		41		205		108		
07:30	151		65		55		43		206		108		
07:45	153	579	65	261	64	255	37	171	217	834	102	432	
08:00	125		53		67		27		192		80		
08:15	140		44		50		25		190		69		
08:30	113		58		53		27		166		85		
08:45	126	504	45	200	56	226	16	95	182	730	61	295	
09:00	114		43		58		29		172		72		
09:15	105		47		51		19		156		66		
09:30	84		34		41		12		125		46		
09:45	91	394	49	173	43	193	16	76	134	587	65	249	
10:00	77		35		27		28		104		63		
10:15	76		46		45		29		121		75		
10:30	48		61		54		30		102		91		
10:45	105	306	41	183	53	179	31	118	158	485	72	301	
11:00	81		23		50		15		131		38		
11:15	65		23		38		22		103		45		
11:30	68		18		46		13		114		31		
11:45	89	303	14	78	51	185	19	69	140	488	33	147	
Total	2721		3770		1526		2256		4247		6026		
Percent	64.1%		62.6%		35.9%		37.4%						
Day Total		6491				3782				10273			
Peak	07:00		04:15		06:45		04:30		07:00		04:45		
Vol.	579		512		257		306		834		810		
P.H.F.	0.946		0.970		0.931		0.922		0.961		0.955		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

81676 F-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	3	8	11	11	10	3	0	0	0	0	0	46	42	35
01:00	0	0	3	8	9	5	3	2	**1**	0	0	0	0	31	40	33
02:00	0	1	1	9	5	5	1	1	0	0	0	0	0	23	38	31
03:00	0	0	1	4	9	14	2	1	0	0	0	0	0	31	38	34
04:00	0	0	2	8	29	25	7	2	1	0	0	0	0	74	39	34
05:00	0	**2**	6	10	53	57	20	2	0	0	0	0	0	150	39	35
06:00	0	0	5	26	130	154	40	3	1	0	0	0	0	359	39	35
07:00	0	0	**14**	**55**	202	**232**	55	**9**	0	0	0	0	0	**567**	39	35
08:00	0	0	4	44	**207**	198	**76**	8	1	0	0	0	0	538	40	35
09:00	0	0	6	33	143	152	40	6	0	0	0	0	0	380	39	35
10:00	0	0	7	14	105	109	38	2	1	0	0	0	0	276	39	35
11:00	0	0	3	29	105	104	47	2	1	0	0	0	0	291	40	35
12 PM	0	**2**	4	26	92	133	54	3	1	0	0	0	0	315	40	35
13:00	0	1	6	43	123	109	55	5	0	0	0	0	0	342	40	35
14:00	0	1	3	41	166	154	58	9	**2**	0	0	0	0	434	40	35
15:00	**1**	1	10	**52**	174	157	57	7	1	0	0	0	0	460	39	34
16:00	0	2	**12**	52	**185**	**195**	**81**	**15**	0	0	0	0	0	**542**	40	35
17:00	0	0	2	23	167	153	71	11	1	0	0	0	0	428	41	36
18:00	1	0	5	21	86	120	49	11	2	0	0	0	0	295	41	36
19:00	0	0	4	19	77	90	32	6	0	0	0	0	0	228	40	35
20:00	1	1	6	19	46	67	40	9	0	0	0	0	0	189	42	36
21:00	0	1	7	13	37	50	27	6	0	**1**	0	0	0	142	42	35
22:00	0	0	0	11	26	58	39	5	0	0	0	0	0	139	42	37
23:00	0	2	3	9	18	21	8	5	0	0	0	0	0	66	41	34
Total	3	14	117	577	2205	2373	910	133	13	1	0	0	0	6346		
%	0.0%	0.2%	1.8%	9.1%	34.7%	37.4%	14.3%	2.1%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak		05:00	07:00	07:00	08:00	07:00	08:00	07:00	01:00					07:00		
Vol.		2	14	55	207	232	76	9	1					567		
PM Peak	15:00	12:00	16:00	15:00	16:00	16:00	16:00	16:00	14:00	21:00				16:00		
Vol.	1	2	12	52	185	195	81	15	2	1				542		

Pecent

15th Percentile :	30 MPH
50th Percentile :	35 MPH
85th Percentile :	40 MPH
95th Percentile :	44 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4578
Percent in Pace :	72.1%
Number of Vehicles > 35 MPH :	2955
Percent of Vehicles > 35 MPH :	46.6%
Mean Speed(Average) :	35 MPH

PRECISION
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South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

81676 F-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	1	3	10	10	5	0	**1**	0	0	0	0	30	40	35
01:00	0	0	2	5	6	5	2	2	0	0	0	0	0	22	43	33
02:00	0	0	0	1	6	2	6	0	1	0	0	0	0	16	43	37
03:00	0	0	4	5	5	3	2	1	0	0	0	0	0	20	37	31
04:00	0	1	5	11	19	18	8	3	0	0	0	0	0	65	40	33
05:00	0	0	5	10	49	52	17	**6**	1	0	0	0	0	140	40	35
06:00	2	1	4	43	144	117	24	6	1	0	0	0	0	342	39	34
07:00	7	0	**24**	**83**	**288**	156	19	1	0	0	0	0	0	**578**	37	32
08:00	0	0	4	74	211	**172**	39	4	0	0	0	0	0	504	39	34
09:00	1	2	8	40	166	132	**42**	3	1	0	0	0	0	395	39	34
10:00	**8**	**6**	6	44	104	103	29	5	1	0	0	0	0	306	39	33
11:00	0	1	10	48	129	92	22	1	0	0	0	0	0	303	38	33
12 PM	**7**	0	16	49	125	104	33	3	0	0	0	0	0	337	39	33
13:00	0	2	2	37	111	163	52	9	0	0	0	0	0	376	40	35
14:00	3	**3**	4	27	115	148	**79**	12	0	0	0	0	0	391	41	36
15:00	0	0	9	34	148	163	69	**14**	**4**	0	0	0	0	441	41	35
16:00	0	0	2	48	**206**	**193**	47	7	0	0	0	0	0	**503**	39	35
17:00	0	0	**25**	**57**	198	162	41	2	0	0	0	0	0	485	39	33
18:00	0	0	7	32	130	122	40	9	2	0	0	0	0	342	39	35
19:00	0	0	2	18	83	101	46	7	3	**1**	0	0	0	261	41	36
20:00	0	0	0	15	59	73	44	7	2	0	0	0	0	200	42	36
21:00	3	0	6	15	40	63	29	13	3	0	**1**	0	0	173	43	36
22:00	0	0	1	7	37	82	47	9	0	0	0	0	0	183	42	37
23:00	0	0	3	6	22	23	19	5	0	0	0	0	0	78	42	36
Total	31	16	150	712	2411	2259	761	129	20	1	1	0	0	6491		
%	0.5%	0.2%	2.3%	11.0%	37.1%	34.8%	11.7%	2.0%	0.3%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	07:00	07:00	07:00	08:00	09:00	05:00	00:00					07:00		
Vol.	8	6	24	83	288	172	42	6	1					578		
PM Peak	12:00	14:00	17:00	17:00	16:00	16:00	14:00	15:00	15:00	19:00	21:00			16:00		
Vol.	7	3	25	57	206	193	79	14	4	1	1			503		

Pecent

15th Percentile :	30 MPH
50th Percentile :	34 MPH
85th Percentile :	39 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4670
Percent in Pace :	71.9%
Number of Vehicles > 35 MPH :	2719
Percent of Vehicles > 35 MPH :	41.9%
Mean Speed(Average) :	34 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

81676 F-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	4	3	9	7	4	1	0	0	0	0	0	28	40	33
01:00	0	0	4	8	18	24	7	0	0	0	0	0	0	61	39	34
02:00	0	0	7	4	9	6	3	0	**1**	0	0	0	0	30	38	31
03:00	0	0	2	11	15	4	1	0	0	0	0	0	0	33	34	31
04:00	0	1	7	15	12	14	4	0	0	0	0	0	0	53	38	31
05:00	0	0	15	10	42	33	**14**	2	0	0	0	0	0	116	39	33
06:00	0	**6**	11	36	82	66	10	1	1	0	0	0	0	213	38	32
07:00	0	2	**17**	40	95	**78**	13	2	0	0	0	0	0	**247**	38	33
08:00	0	2	8	**44**	**102**	69	14	2	0	0	0	0	0	241	38	33
09:00	0	6	8	40	79	40	11	0	0	0	0	0	0	184	37	32
10:00	0	2	10	24	79	50	13	**3**	0	0	0	0	0	181	38	33
11:00	0	2	16	25	57	37	10	2	0	0	0	0	0	149	38	32
12 PM	0	0	5	49	69	53	11	0	0	0	0	0	0	187	38	32
13:00	0	**6**	12	**65**	89	45	5	0	0	0	0	0	0	222	36	31
14:00	0	4	**17**	48	108	62	16	0	0	0	0	0	0	255	38	32
15:00	**1**	3	15	55	**137**	76	**18**	1	0	0	0	0	0	**306**	38	32
16:00	0	2	9	52	121	**85**	16	1	0	0	0	0	0	286	38	33
17:00	0	0	6	36	100	82	16	1	0	0	0	0	0	241	38	33
18:00	0	1	7	34	64	51	17	0	0	0	0	0	0	174	39	33
19:00	0	0	4	19	41	60	13	1	0	0	0	0	0	138	39	34
20:00	1	0	3	9	27	34	9	0	0	0	0	0	0	83	39	34
21:00	0	0	7	11	22	20	9	**5**	0	0	0	0	0	74	41	34
22:00	0	1	7	13	31	38	13	3	0	0	0	0	0	106	39	34
23:00	0	0	3	4	13	13	10	0	0	0	0	0	0	43	41	35
Total	2	38	204	655	1421	1047	257	25	2	0	0	0	0	3651		
%	0.1%	1.0%	5.6%	17.9%	38.9%	28.7%	7.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak		06:00	07:00	08:00	08:00	07:00	05:00	10:00	02:00					07:00		
Vol.		6	17	44	102	78	14	3	1					247		
PM Peak	15:00	13:00	14:00	13:00	15:00	16:00	15:00	21:00						15:00		
Vol.	1	6	17	65	137	85	18	5						306		

Pecent

15th Percentile :	27 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	2468
Percent in Pace :	67.6%
Number of Vehicles > 35 MPH :	1121
Percent of Vehicles > 35 MPH :	30.7%
Mean Speed(Average) :	33 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

81676 F-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	0	0	3	8	7	5	2	0	0	0	0	0	0	25	37	31
01:00	0	0	1	13	29	12	4	0	0	0	0	0	0	59	37	32
02:00	0	0	3	10	13	2	1	0	0	0	0	0	0	29	34	30
03:00	0	0	1	11	4	1	1	0	0	0	0	0	0	18	32	29
04:00	0	1	5	5	21	14	2	1	0	0	0	0	0	49	38	32
05:00	0	1	4	9	33	51	12	0	0	0	0	0	0	110	39	35
06:00	0	0	10	28	86	**58**	**14**	2	0	0	0	0	0	198	38	33
07:00	1	**7**	**21**	46	**111**	57	11	1	0	0	0	0	0	**255**	37	31
08:00	0	3	15	**57**	86	52	12	1	0	0	0	0	0	226	37	32
09:00	0	0	10	36	80	49	14	**4**	0	0	0	0	0	193	38	33
10:00	**13**	4	13	24	68	44	12	1	0	0	0	0	0	179	38	30
11:00	0	4	14	40	85	36	5	1	0	0	0	0	0	185	36	31
12 PM	0	5	**29**	61	76	41	8	1	0	0	0	0	0	221	36	30
13:00	0	2	15	**77**	98	54	12	0	0	0	0	0	0	258	37	31
14:00	0	0	20	59	92	56	16	2	0	0	0	0	0	245	38	32
15:00	**1**	2	8	32	102	**91**	18	2	0	0	0	0	0	256	38	33
16:00	0	2	14	45	**131**	66	**20**	1	0	0	0	0	0	**279**	38	33
17:00	0	0	18	64	114	74	7	1	0	0	0	0	0	278	37	32
18:00	0	3	10	20	70	65	20	2	0	0	0	0	0	190	39	34
19:00	0	4	12	22	70	41	19	**3**	0	0	0	0	0	171	39	33
20:00	1	**9**	2	11	24	34	12	1	**1**	0	0	0	0	95	39	33
21:00	0	0	6	11	26	23	10	0	0	0	0	0	0	76	39	33
22:00	0	0	5	25	31	41	16	0	0	0	0	0	0	118	39	34
23:00	1	4	4	10	18	24	8	0	0	0	0	0	0	69	39	32
Total	17	51	243	724	1475	991	256	24	1	0	0	0	0	3782		
%	0.4%	1.3%	6.4%	19.1%	39.0%	26.2%	6.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	07:00	07:00	08:00	07:00	06:00	06:00	09:00						07:00		
Vol.	13	7	21	57	111	58	14	4						255		
PM Peak	15:00	20:00	12:00	13:00	16:00	15:00	16:00	19:00	20:00					16:00		
Vol.	1	9	29	77	131	91	20	3	1					279		

Pecent

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	2466
Percent in Pace :	65.2%
Number of Vehicles > 35 MPH :	1073
Percent of Vehicles > 35 MPH :	28.4%
Mean Speed(Average) :	32 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

81676 F-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	27	8	1	1	0	0	0	7	0	0	0	1	46
01:00	1	14	2	0	2	3	0	1	8	0	0	0	0	31
02:00	2	5	4	4	1	1	0	0	4	2	0	0	0	23
03:00	0	14	6	2	4	1	0	0	3	1	0	0	0	31
04:00	1	51	12	1	2	0	0	1	5	1	0	0	0	74
05:00	1	93	39	1	9	2	0	0	4	1	0	0	0	150
06:00	6	236	82	1	20	7	0	2	3	1	0	0	1	359
07:00	4	411	111	1	25	0	0	3	10	2	0	0	0	567
08:00	3	386	106	0	32	2	0	1	8	0	0	0	0	538
09:00	1	257	90	1	15	3	1	4	5	1	0	0	2	380
10:00	1	178	71	4	12	0	0	2	6	2	0	0	0	276
11:00	3	179	63	1	22	2	0	3	17	0	1	0	0	291
12 PM	2	204	76	2	10	3	1	4	8	4	0	0	1	315
13:00	5	203	84	0	30	4	0	1	14	1	0	0	0	342
14:00	2	304	81	3	25	2	1	2	11	1	0	0	2	434
15:00	5	291	122	7	21	5	0	2	6	0	0	0	1	460
16:00	6	383	114	0	20	6	0	2	8	3	0	0	0	542
17:00	2	311	85	1	18	3	0	0	7	1	0	0	0	428
18:00	3	206	61	1	16	1	0	2	4	0	0	0	1	295
19:00	1	153	54	1	6	0	1	0	10	1	0	0	1	228
20:00	2	126	41	0	5	2	1	1	7	3	0	0	1	189
21:00	2	97	21	0	7	2	0	0	13	0	0	0	0	142
22:00	1	102	28	0	5	1	0	0	2	0	0	0	0	139
23:00	2	50	3	0	0	4	2	0	5	0	0	0	0	66
Total	57	4281	1364	32	308	54	7	31	175	25	1	0	11	6346
Percent	0.9%	67.5%	21.5%	0.5%	4.9%	0.9%	0.1%	0.5%	2.8%	0.4%	0.0%	0.0%	0.2%	
AM Peak	06:00	07:00	07:00	02:00	08:00	06:00	09:00	09:00	11:00	02:00	11:00		09:00	07:00
Vol.	6	411	111	4	32	7	1	4	17	2	1		2	567
PM Peak	16:00	16:00	15:00	15:00	13:00	16:00	23:00	12:00	13:00	12:00			14:00	16:00
Vol.	6	383	122	7	30	6	2	4	14	4			2	542

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

81676 F-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	20	4	0	0	0	0	0	4	2	0	0	0	30
01:00	0	10	3	1	1	0	0	0	7	0	0	0	0	22
02:00	0	9	3	0	1	0	0	0	3	0	0	0	0	16
03:00	0	7	3	2	1	0	0	1	5	1	0	0	0	20
04:00	1	39	9	1	5	1	0	0	8	0	0	0	1	65
05:00	1	82	41	0	10	1	0	0	2	3	0	0	0	140
06:00	3	218	82	2	24	2	0	3	7	0	0	0	1	342
07:00	10	418	93	6	25	9	2	3	12	0	0	0	0	578
08:00	3	349	96	4	28	11	0	3	10	0	0	0	0	504
09:00	6	255	103	3	17	2	0	3	5	1	0	0	0	395
10:00	10	193	68	4	17	2	2	0	9	1	0	0	0	306
11:00	4	193	60	3	19	3	1	6	13	1	0	0	0	303
12 PM	5	224	72	5	16	3	0	2	9	1	0	0	0	337
13:00	4	254	85	3	16	3	0	4	7	0	0	0	0	376
14:00	2	274	75	2	18	2	0	1	15	2	0	0	0	391
15:00	8	302	100	5	16	4	1	1	3	1	0	0	0	441
16:00	12	353	111	1	9	8	0	1	8	0	0	0	0	503
17:00	16	332	94	0	20	6	1	0	13	2	0	0	1	485
18:00	8	248	61	2	17	2	0	0	4	0	0	0	0	342
19:00	11	176	52	0	16	1	0	1	3	1	0	0	0	261
20:00	3	143	44	0	3	2	0	0	5	0	0	0	0	200
21:00	5	124	23	0	6	1	0	1	9	3	0	0	1	173
22:00	7	144	28	0	2	0	0	1	1	0	0	0	0	183
23:00	1	56	7	1	7	0	0	0	6	0	0	0	0	78
Total	120	4423	1317	45	294	63	7	31	168	19	0	0	4	6491
Percent	1.8%	68.1%	20.3%	0.7%	4.5%	1.0%	0.1%	0.5%	2.6%	0.3%	0.0%	0.0%	0.1%	
AM Peak	07:00	07:00	09:00	07:00	08:00	08:00	07:00	11:00	11:00	05:00			04:00	07:00
Vol.	10	418	103	6	28	11	2	6	13	3			1	578
PM Peak	17:00	16:00	16:00	12:00	17:00	16:00	15:00	13:00	14:00	21:00			17:00	16:00
Vol.	16	353	111	5	20	8	1	4	15	3			1	503

South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 F-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	12	5	0	0	1	0	0	9	0	0	0	0	28
01:00	1	49	3	0	1	1	0	0	6	0	0	0	0	61
02:00	0	14	3	1	0	1	0	0	11	0	0	0	0	30
03:00	1	16	1	2	1	2	0	0	10	0	0	0	0	33
04:00	2	26	7	0	2	3	0	0	9	3	0	0	1	53
05:00	1	73	24	1	7	3	0	1	6	0	0	0	0	116
06:00	3	139	47	2	4	5	0	1	12	0	0	0	0	213
07:00	5	177	36	2	4	8	0	0	14	1	0	0	0	247
08:00	2	165	45	1	9	3	0	4	12	0	0	0	0	241
09:00	3	114	37	4	7	1	0	0	18	0	0	0	0	184
10:00	2	101	37	4	10	3	0	1	23	0	0	0	0	181
11:00	1	96	23	2	6	7	0	1	13	0	0	0	0	149
12 PM	2	134	29	3	5	2	0	0	12	0	0	0	0	187
13:00	4	134	40	0	8	9	0	6	20	1	0	0	0	222
14:00	6	170	48	2	9	6	0	0	14	0	0	0	0	255
15:00	5	196	73	2	8	8	0	0	13	1	0	0	0	306
16:00	4	210	45	3	7	4	0	0	13	0	0	0	0	286
17:00	5	188	30	2	2	3	1	2	8	0	0	0	0	241
18:00	3	135	22	0	3	3	0	0	8	0	0	0	0	174
19:00	0	105	20	1	3	1	0	2	6	0	0	0	0	138
20:00	0	62	11	0	1	0	0	0	9	0	0	0	0	83
21:00	0	48	9	0	5	0	0	0	12	0	0	0	0	74
22:00	2	80	11	0	1	2	0	1	9	0	0	0	0	106
23:00	0	32	4	0	1	0	0	0	6	0	0	0	0	43
Total	53	2476	610	32	104	76	1	19	273	6	0	0	1	3651
Percent	1.5%	67.8%	16.7%	0.9%	2.8%	2.1%	0.0%	0.5%	7.5%	0.2%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	09:00	10:00	07:00		08:00	10:00	04:00			04:00	07:00
Vol.	5	177	47	4	10	8		4	23	3			1	247
PM Peak	14:00	16:00	15:00	12:00	14:00	13:00	17:00	13:00	13:00	13:00				15:00
Vol.	6	210	73	3	9	9	1	6	20	1				306

South Main Street (Route 79) between
Route 24 NB and SB Ramps
City, State: Freetown, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 F-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	12	4	0	0	0	0	0	9	0	0	0	0	25
01:00	0	44	6	0	2	0	0	0	7	0	0	0	0	59
02:00	0	12	3	0	0	1	0	0	13	0	0	0	0	29
03:00	0	7	0	1	1	1	0	0	8	0	0	0	0	18
04:00	0	27	8	0	0	3	0	0	10	1	0	0	0	49
05:00	1	68	30	0	3	0	0	0	6	1	0	0	1	110
06:00	2	125	46	5	7	5	0	0	8	0	0	0	0	198
07:00	6	175	42	0	8	7	0	2	15	0	0	0	0	255
08:00	2	159	38	1	6	3	1	1	14	1	0	0	0	226
09:00	1	115	49	2	5	3	0	1	17	0	0	0	0	193
10:00	6	112	33	1	8	4	0	2	12	1	0	0	0	179
11:00	4	120	26	4	11	6	0	0	14	0	0	0	0	185
12 PM	4	150	42	1	3	4	0	1	15	1	0	0	0	221
13:00	4	180	37	3	9	6	0	1	17	1	0	0	0	258
14:00	2	159	45	2	7	2	0	2	26	0	0	0	0	245
15:00	4	171	52	3	10	3	0	1	11	1	0	0	0	256
16:00	4	200	49	3	7	3	1	1	11	0	0	0	0	279
17:00	6	211	45	1	3	3	0	0	9	0	0	0	0	278
18:00	8	135	32	1	4	3	0	0	7	0	0	0	0	190
19:00	7	122	20	0	5	2	1	1	13	0	0	0	0	171
20:00	5	71	9	0	2	4	0	0	4	0	0	0	0	95
21:00	2	58	6	0	0	1	0	1	8	0	0	0	0	76
22:00	3	91	11	0	0	0	0	0	13	0	0	0	0	118
23:00	3	44	8	0	4	3	0	1	6	0	0	0	0	69
Total	74	2568	641	28	105	67	3	15	273	7	0	0	1	3782
Percent	2.0%	67.9%	16.9%	0.7%	2.8%	1.8%	0.1%	0.4%	7.2%	0.2%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	09:00	06:00	11:00	07:00	08:00	07:00	09:00	04:00			05:00	07:00
Vol.	6	175	49	5	11	7	1	2	17	1			1	255
PM Peak	18:00	17:00	15:00	13:00	15:00	13:00	16:00	14:00	14:00	12:00				16:00
Vol.	8	211	52	3	10	6	1	2	26	1				279

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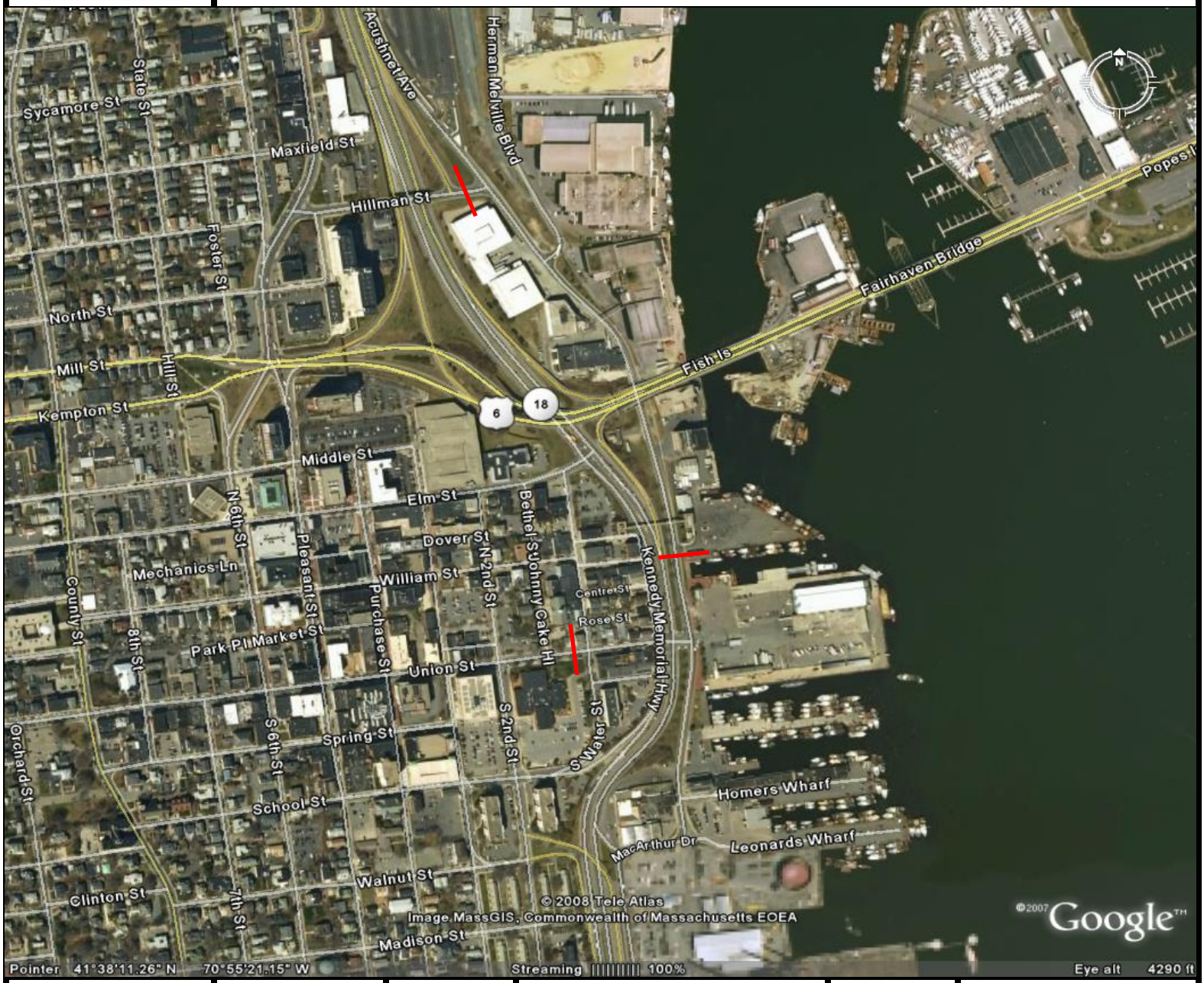
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/23/08 thru Wed 9/24/08	81676	New Bedford, MA

Hillman Street
west of Acushnet Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 C-A volume
Site Code: 10111.31

Start	WB				EB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	1		53		1		48		2		101		
12:15	2		49		2		57		4		106		
12:30	1		42		1		56		2		98		
12:45	2	6	46	190	1	5	61	222	3	11	107	412	
01:00	2		40		6		70		8		110		
01:15	2		41		1		40		3		81		
01:30	1		52		2		64		3		116		
01:45	0	5	44	177	2	11	57	231	2	16	101	408	
02:00	0		49		0		50		0		99		
02:15	0		43		3		37		3		80		
02:30	3		61		2		53		5		114		
02:45	1	4	42	195	1	6	59	199	2	10	101	394	
03:00	2		66		0		61		2		127		
03:15	0		46		1		40		1		86		
03:30	0		70		5		46		5		116		
03:45	1	3	48	230	5	11	33	180	6	14	81	410	
04:00	0		76		4		53		4		129		
04:15	1		55		7		33		8		88		
04:30	1		62		5		36		6		98		
04:45	3	5	42	235	7	23	32	154	10	28	74	389	
05:00	3		74		11		37		14		111		
05:15	1		33		6		29		7		62		
05:30	7		31		24		23		31		54		
05:45	3	14	36	174	27	68	22	111	30	82	58	285	
06:00	6		31		19		35		25		66		
06:15	8		41		16		19		24		60		
06:30	12		30		27		24		39		54		
06:45	26	52	21	123	51	113	20	98	77	165	41	221	
07:00	18		17		26		14		44		31		
07:15	19		11		52		13		71		24		
07:30	26		20		42		13		68		33		
07:45	33	96	13	61	53	173	17	57	86	269	30	118	
08:00	35		14		49		14		84		28		
08:15	38		14		55		19		93		33		
08:30	39		10		59		11		98		21		
08:45	33	145	11	49	52	215	7	51	85	360	18	100	
09:00	29		7		35		17		64		24		
09:15	33		17		48		16		81		33		
09:30	36		8		53		5		89		13		
09:45	39	137	10	42	60	196	10	48	99	333	20	90	
10:00	43		17		40		10		83		27		
10:15	46		11		62		9		108		20		
10:30	43		10		50		3		93		13		
10:45	53	185	5	43	49	201	5	27	102	386	10	70	
11:00	51		7		44		7		95		14		
11:15	33		3		45		4		78		7		
11:30	66		3		53		1		119		4		
11:45	45	195	2	15	56	198	1	13	101	393	3	28	
Total	847		1534		1220		1391		2067		2925		
Percent	41.0%		52.4%		59.0%		47.6%						
Day Total		2381				2611				4992			
Peak	10:45		03:30		07:45		00:15		10:15		02:45		
Vol.	203		249		216		244		398		430		
P.H.F.	0.769		0.819		0.915		0.871		0.921		0.846		

Hillman Street
west of Acushnet Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

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81676 C-A volume
Site Code: 10111.31

Start	WB				EB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	2		57		0		44		2		101		
12:15	0		43		0		39		0		82		
12:30	4		53		2		72		6		125		
12:45	2	8	45	198	0	2	54	209	2	10	99	407	
01:00	0		42		2		65		2		107		
01:15	0		32		0		47		0		79		
01:30	0		38		0		55		0		93		
01:45	2	2	59	171	2	4	49	216	4	6	108	387	
02:00	0		46		0		48		0		94		
02:15	3		46		0		40		3		86		
02:30	3		50		4		50		7		100		
02:45	1	7	64	206	3	7	48	186	4	14	112	392	
03:00	0		53		0		51		0		104		
03:15	2		54		0		44		2		98		
03:30	0		71		2		45		2		116		
03:45	0	2	45	223	3	5	43	183	3	7	88	406	
04:00	0		66		2		33		2		99		
04:15	1		55		2		39		3		94		
04:30	0		56		5		58		5		114		
04:45	0	1	42	219	8	17	35	165	8	18	77	384	
05:00	3		60		5		40		8		100		
05:15	3		40		4		29		7		69		
05:30	7		33		17		40		24		73		
05:45	4	17	32	165	18	44	32	141	22	61	64	306	
06:00	6		24		23		21		29		45		
06:15	15		29		21		32		36		61		
06:30	16		35		31		20		47		55		
06:45	22	59	22	110	48	123	18	91	70	182	40	201	
07:00	13		13		24		19		37		32		
07:15	27		19		47		18		74		37		
07:30	25		26		50		16		75		42		
07:45	31	96	21	79	51	172	15	68	82	268	36	147	
08:00	28		20		46		16		74		36		
08:15	43		10		57		15		100		25		
08:30	30		13		55		13		85		26		
08:45	41	142	15	58	63	221	8	52	104	363	23	110	
09:00	38		11		52		8		90		19		
09:15	31		12		53		16		84		28		
09:30	29		10		44		5		73		15		
09:45	34	132	11	44	46	195	10	39	80	327	21	83	
10:00	41		16		72		9		113		25		
10:15	51		5		30		4		81		9		
10:30	41		8		46		8		87		16		
10:45	47	180	6	35	44	192	4	25	91	372	10	60	
11:00	41		6		56		3		97		9		
11:15	38		5		34		6		72		11		
11:30	36		3		53		2		89		5		
11:45	50	165	7	21	52	195	2	13	102	360	9	34	
Total	811		1529		1177		1388		1988		2917		
Percent	40.8%		52.4%		59.2%		47.6%						
Day Total		2340				2565				4905			
Peak	10:00		02:45		08:15		00:30		08:15		02:45		
Vol.	180		242		227		238		379		430		
P.H.F.	0.882		0.852		0.901		0.826		0.911		0.927		

PRECISION
D A T A
INDUSTRIES, LLC
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Hillman Street
west of Acushnet Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	1	2	2	1	0	0	0	0	0	0	0	0	6	26	24
01:00	0	2	2	1	0	0	0	0	0	0	0	0	0	5	21	21
02:00	2	0	2	0	0	0	0	0	0	0	0	0	0	4	20	11
03:00	0	0	1	1	1	0	0	0	0	0	0	0	0	3	30	28
04:00	1	0	2	0	2	0	0	0	0	0	0	0	0	5	30	21
05:00	2	1	8	2	1	0	0	0	0	0	0	0	0	14	25	20
06:00	10	6	21	13	2	0	0	0	0	0	0	0	0	52	27	20
07:00	11	33	29	21	2	0	0	0	0	0	0	0	0	96	26	20
08:00	13	38	71	19	**4**	0	0	0	0	0	0	0	0	145	25	20
09:00	13	38	59	23	4	0	0	0	0	0	0	0	0	137	26	20
10:00	18	47	**93**	23	4	0	0	0	0	0	0	0	0	185	24	20
11:00	**24**	**54**	77	**39**	1	0	0	0	0	0	0	0	0	**195**	26	20
12 PM	22	66	81	18	3	0	0	0	0	0	0	0	0	190	24	19
13:00	20	43	73	35	6	0	0	0	0	0	0	0	0	177	26	21
14:00	14	63	74	39	5	0	0	0	0	0	0	0	0	195	26	21
15:00	8	**71**	103	**44**	3	**1**	0	0	0	0	0	0	0	230	26	21
16:00	**23**	62	**105**	36	**7**	1	0	0	0	0	0	0	0	**234**	26	20
17:00	14	55	80	22	4	0	0	0	0	0	0	0	0	175	24	20
18:00	2	38	60	20	3	0	0	0	0	0	0	0	0	123	26	21
19:00	6	18	20	17	0	0	0	0	0	0	0	0	0	61	26	21
20:00	4	14	16	14	1	0	0	0	0	0	0	0	0	49	27	21
21:00	3	8	20	10	1	0	0	0	0	0	0	0	0	42	27	22
22:00	1	9	22	10	1	0	0	0	0	0	0	0	0	43	27	22
23:00	1	1	8	3	1	0	0	0	0	0	0	0	0	14	26	22
Total	212	668	1029	412	57	2	0	0	0	0	0	0	0	2380		
%	8.9%	28.1%	43.2%	17.3%	2.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	10:00	11:00	08:00									11:00		
Vol.	24	54	93	39	4									195		
PM Peak	16:00	15:00	16:00	15:00	16:00	15:00								16:00		
Vol.	23	71	105	44	7	1								234		

Pecent

15th Percentile :	16 MPH
50th Percentile :	21 MPH
85th Percentile :	26 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	1697
Percent in Pace :	71.3%
Number of Vehicles > 25 MPH :	388
Percent of Vehicles > 25 MPH :	16.3%
Mean Speed(Average) :	20 MPH

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Hillman Street
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81676 C-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0 8	1	0	6	2	0	0	0	0	0	0	0	0	0	9	25	20
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	20	20
02:00	0	1	4	1	1	0	0	0	0	0	0	0	0	7	29	23
03:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2	30	25
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	20	20
05:00	1	3	11	1	1	0	0	0	0	0	0	0	0	17	24	22
06:00	7	14	26	10	2	0	0	0	0	0	0	0	0	59	26	21
07:00	11	29	32	21	**3**	0	0	0	0	0	0	0	0	96	27	20
08:00	8	44	54	**33**	3	0	0	0	0	0	0	0	0	142	27	21
09:00	10	45	55	20	2	0	0	0	0	0	0	0	0	132	25	20
10:00	**29**	45	**73**	31	2	0	0	0	0	0	0	0	0	**180**	25	19
11:00	12	**69**	56	25	3	0	0	0	0	0	0	0	0	165	25	20
12 PM	**20**	69	77	29	3	0	0	0	0	0	0	0	0	198	25	20
13:00	16	53	70	26	6	0	0	0	0	0	0	0	0	171	25	20
14:00	15	55	97	36	3	0	0	0	0	0	0	0	0	206	25	21
15:00	10	**76**	94	34	**8**	0	0	0	0	0	0	0	0	**222**	26	21
16:00	15	63	**98**	**37**	6	**1**	0	0	0	0	0	0	0	220	26	21
17:00	5	54	77	28	1	0	0	0	0	0	0	0	0	165	25	21
18:00	10	30	42	26	2	0	0	0	0	0	0	0	0	110	26	21
19:00	1	27	33	17	1	0	0	0	0	0	0	0	0	79	26	21
20:00	3	14	22	17	2	0	0	0	0	0	0	0	0	58	27	22
21:00	2	12	16	14	0	0	0	0	0	0	0	0	0	44	27	22
22:00	1	10	15	9	0	0	0	0	0	0	0	0	0	35	26	22
23:00	0	6	10	3	2	0	0	0	0	0	0	0	0	21	26	22
Total	177	720	971	420	52	1	0	0	0	0	0	0	0	2341		
%	7.6%	30.8%	41.5%	17.9%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	10:00	08:00	07:00									10:00		
Vol.	29	69	73	33	3									180		
PM Peak	12:00	15:00	16:00	16:00	15:00	16:00								15:00		
Vol.	20	76	98	37	8	1								222		

Pecent

15th Percentile :	16 MPH
50th Percentile :	21 MPH
85th Percentile :	26 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	1691
Percent in Pace :	72.2%
Number of Vehicles > 25 MPH :	389
Percent of Vehicles > 25 MPH :	16.6%
Mean Speed(Average) :	20 MPH

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81676 C-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	2	3	0	0	0	0	0	0	0	0	0	0	5	21	20
01:00	5	2	2	2	0	0	0	0	0	0	0	0	0	11	24	14
02:00	1	1	3	1	0	0	0	0	0	0	0	0	0	6	22	20
03:00	2	3	3	3	0	0	0	0	0	0	0	0	0	11	25	21
04:00	3	5	13	2	0	0	0	0	0	0	0	0	0	23	24	20
05:00	7	19	31	**10**	**1**	0	0	0	0	0	0	0	0	68	25	20
06:00	8	47	51	7	0	0	0	0	0	0	0	0	0	113	23	19
07:00	22	73	70	8	0	0	0	0	0	0	0	0	0	173	23	18
08:00	30	83	**91**	10	1	0	0	0	0	0	0	0	0	**215**	23	18
09:00	**33**	83	71	9	0	0	0	0	0	0	0	0	0	196	23	18
10:00	33	76	83	9	0	0	0	0	0	0	0	0	0	201	23	18
11:00	23	**86**	79	10	0	0	0	0	0	0	0	0	0	198	23	18
12 PM	**45**	81	92	4	0	0	0	0	0	0	0	0	0	222	23	17
13:00	39	79	**103**	9	**1**	0	0	0	0	0	0	0	0	**231**	23	18
14:00	24	**92**	75	7	0	0	0	0	0	0	0	0	0	198	23	18
15:00	18	58	93	**12**	0	0	0	0	0	0	0	0	0	181	24	19
16:00	9	51	85	8	1	0	0	0	0	0	0	0	0	154	24	20
17:00	7	45	51	8	0	0	0	0	0	0	0	0	0	111	24	20
18:00	3	39	51	5	0	0	0	0	0	0	0	0	0	98	23	20
19:00	0	21	33	3	0	0	0	0	0	0	0	0	0	57	23	20
20:00	0	28	19	4	0	0	0	0	0	0	0	0	0	51	23	20
21:00	5	18	22	3	0	0	0	0	0	0	0	0	0	48	23	19
22:00	2	9	13	3	0	0	0	0	0	0	0	0	0	27	24	20
23:00	0	4	7	2	0	0	0	0	0	0	0	0	0	13	24	21
Total	319	1005	1144	139	4	0	0	0	0	0	0	0	0	2611		
%	12.2%	38.5%	43.8%	5.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	08:00	05:00	05:00									08:00		
Vol.	33	86	91	10	1									215		
PM Peak	12:00	14:00	13:00	15:00	13:00									13:00		
Vol.	45	92	103	12	1									231		

Pecent

15th Percentile :	15 MPH
50th Percentile :	19 MPH
85th Percentile :	23 MPH
95th Percentile :	25 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	2149
Percent in Pace :	82.3%
Number of Vehicles > 25 MPH :	115
Percent of Vehicles > 25 MPH :	4.4%
Mean Speed(Average) :	19 MPH

PRECISION DATA INDUSTRIES, LLC
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Hillman Street
west of Acushnet Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0 8	0	1	0	1	0	0	0	0	0	0	0	0	0	2	25	20
01:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4	20	20
02:00	2	2	3	0	0	0	0	0	0	0	0	0	0	7	21	18
03:00	0	2	2	1	0	0	0	0	0	0	0	0	0	5	21	21
04:00	0	5	12	0	0	0	0	0	0	0	0	0	0	17	23	20
05:00	1	9	30	4	0	0	0	0	0	0	0	0	0	44	24	21
06:00	17	49	48	7	**1**	0	0	0	0	0	0	0	0	122	23	18
07:00	17	63	82	10	1	0	0	0	0	0	0	0	0	173	24	19
08:00	20	81	**105**	**15**	0	0	0	0	0	0	0	0	0	**221**	24	19
09:00	36	79	76	4	0	0	0	0	0	0	0	0	0	195	23	17
10:00	**37**	60	86	9	0	0	0	0	0	0	0	0	0	192	23	18
11:00	26	**85**	75	9	0	0	0	0	0	0	0	0	0	195	23	18
12 PM	29	81	88	**11**	0	0	0	0	0	0	0	0	0	209	23	18
13:00	**36**	**83**	93	4	0	0	0	0	0	0	0	0	0	**216**	23	18
14:00	21	54	**101**	9	**1**	0	0	0	0	0	0	0	0	186	24	19
15:00	24	74	79	6	0	0	0	0	0	0	0	0	0	183	23	18
16:00	17	67	76	5	0	0	0	0	0	0	0	0	0	165	23	19
17:00	13	70	54	4	0	0	0	0	0	0	0	0	0	141	23	18
18:00	3	51	35	2	0	0	0	0	0	0	0	0	0	91	23	19
19:00	3	25	38	2	0	0	0	0	0	0	0	0	0	68	23	20
20:00	2	25	24	1	0	0	0	0	0	0	0	0	0	52	23	19
21:00	0	23	13	3	0	0	0	0	0	0	0	0	0	39	23	19
22:00	1	11	12	1	0	0	0	0	0	0	0	0	0	25	23	20
23:00	1	1	11	0	0	0	0	0	0	0	0	0	0	13	23	21
Total	306	1003	1145	108	3	0	0	0	0	0	0	0	0	2565		
%	11.9%	39.1%	44.6%	4.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	08:00	08:00	06:00									08:00		
Vol.	37	85	105	15	1									221		
PM Peak	13:00	13:00	14:00	12:00	14:00									13:00		
Vol.	36	83	101	11	1									216		

Pecent

15th Percentile :	15 MPH
50th Percentile :	19 MPH
85th Percentile :	23 MPH
95th Percentile :	24 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	2148
Percent in Pace :	83.7%
Number of Vehicles > 25 MPH :	89
Percent of Vehicles > 25 MPH :	3.5%
Mean Speed(Average) :	19 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Hillman Street
west of Acushnet Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	2	3	0	1	0	0	0	0	0	0	0	0	6
01:00	0	2	3	0	0	0	0	0	0	0	0	0	0	5
02:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
03:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3
04:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
05:00	1	11	2	0	0	0	0	0	0	0	0	0	0	14
06:00	1	30	14	1	3	0	0	0	1	2	0	0	0	52
07:00	2	45	30	1	13	3	0	1	1	0	0	0	0	96
08:00	4	72	38	2	22	3	0	3	1	0	0	0	0	145
09:00	1	63	48	2	19	2	0	0	2	0	0	0	0	137
10:00	4	89	49	2	29	4	3	4	0	1	0	0	0	185
11:00	4	97	58	2	31	0	1	2	0	0	0	0	0	195
12 PM	4	99	58	4	23	0	0	1	1	0	0	0	0	190
13:00	6	87	46	2	30	3	0	1	2	0	0	0	0	177
14:00	3	97	50	4	29	5	0	4	3	0	0	0	0	195
15:00	4	123	69	1	27	5	0	0	0	0	0	1	0	230
16:00	2	137	62	0	28	3	0	2	0	0	0	0	0	234
17:00	2	110	50	3	9	1	0	0	0	0	0	0	0	175
18:00	1	70	37	0	15	0	0	0	0	0	0	0	0	123
19:00	0	41	13	1	5	1	0	0	0	0	0	0	0	61
20:00	0	33	13	0	3	0	0	0	0	0	0	0	0	49
21:00	1	26	12	0	2	1	0	0	0	0	0	0	0	42
22:00	0	26	13	0	3	1	0	0	0	0	0	0	0	43
23:00	0	11	2	0	1	0	0	0	0	0	0	0	0	14
Total	40	1278	673	25	295	32	4	18	11	3	0	1	0	2380
Percent	1.7%	53.7%	28.3%	1.1%	12.4%	1.3%	0.2%	0.8%	0.5%	0.1%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	11:00	08:00	11:00	10:00	10:00	10:00	09:00	06:00				11:00
Vol.	4	97	58	2	31	4	3	4	2	2				195
PM Peak	13:00	16:00	15:00	12:00	13:00	14:00		14:00	14:00			15:00		16:00
Vol.	6	137	69	4	30	5		4	3			1		234

PRECISION
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Hillman Street
west of Acushnet Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	5	4	0	0	0	0	0	0	0	0	0	0	9
01:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
02:00	0	3	3	0	1	0	0	0	0	0	0	0	0	7
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	1	10	5	0	1	0	0	0	0	0	0	0	0	17
06:00	3	24	19	1	8	3	0	1	0	0	0	0	0	59
07:00	1	48	22	4	19	0	0	1	1	0	0	0	0	96
08:00	1	67	48	1	22	3	0	0	0	0	0	0	0	142
09:00	3	50	45	2	24	4	0	3	1	0	0	0	0	132
10:00	5	78	62	4	26	4	0	0	0	0	0	0	1	180
11:00	1	86	56	3	11	5	1	0	2	0	0	0	0	165
12 PM	4	97	58	1	31	3	1	2	1	0	0	0	0	198
13:00	2	80	61	1	20	3	0	3	1	0	0	0	0	171
14:00	2	96	68	6	27	4	0	1	1	0	0	0	1	206
15:00	3	105	67	5	37	3	2	0	0	0	0	0	0	222
16:00	8	96	83	0	29	1	0	2	1	0	0	0	0	220
17:00	4	85	59	1	15	1	0	0	0	0	0	0	0	165
18:00	2	59	35	0	12	2	0	0	0	0	0	0	0	110
19:00	1	47	22	0	8	1	0	0	0	0	0	0	0	79
20:00	0	35	17	0	6	0	0	0	0	0	0	0	0	58
21:00	1	24	16	1	2	0	0	0	0	0	0	0	0	44
22:00	0	22	10	0	3	0	0	0	0	0	0	0	0	35
23:00	0	9	11	0	1	0	0	0	0	0	0	0	0	21
Total	42	1128	774	30	303	37	4	13	8	0	0	0	2	2341
Percent	1.8%	48.2%	33.1%	1.3%	12.9%	1.6%	0.2%	0.6%	0.3%	0.0%	0.0%	0.0%	0.1%	
AM Peak	10:00	11:00	10:00	07:00	10:00	11:00	11:00	09:00	11:00				10:00	10:00
Vol.	5	86	62	4	26	5	1	3	2				1	180
PM Peak	16:00	15:00	16:00	14:00	15:00	14:00	15:00	13:00	12:00				14:00	15:00
Vol.	8	105	83	6	37	4	2	3	1				1	222

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81676 C-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	5	0	0	0	0	0	0	0	0	0	0	0	5
01:00	3	4	1	0	1	2	0	0	0	0	0	0	0	11
02:00	0	5	0	0	0	1	0	0	0	0	0	0	0	6
03:00	1	4	4	0	1	1	0	0	0	0	0	0	0	11
04:00	2	14	6	1	0	0	0	0	0	0	0	0	0	23
05:00	5	45	14	0	1	2	0	0	1	0	0	0	0	68
06:00	1	84	25	0	2	1	0	0	0	0	0	0	0	113
07:00	4	123	35	2	5	4	0	0	0	0	0	0	0	173
08:00	6	143	47	3	11	2	0	1	2	0	0	0	0	215
09:00	6	132	39	0	10	8	0	0	1	0	0	0	0	196
10:00	6	132	44	1	11	5	0	2	0	0	0	0	0	201
11:00	7	132	45	2	7	4	0	1	0	0	0	0	0	198
12 PM	7	164	34	3	8	4	0	1	1	0	0	0	0	222
13:00	7	162	41	1	12	5	0	2	1	0	0	0	0	231
14:00	5	145	32	1	11	2	0	1	1	0	0	0	0	198
15:00	3	143	22	1	7	3	0	2	0	0	0	0	0	181
16:00	1	130	13	1	6	3	0	0	0	0	0	0	0	154
17:00	1	91	17	0	2	0	0	0	0	0	0	0	0	111
18:00	1	82	14	1	0	0	0	0	0	0	0	0	0	98
19:00	0	48	8	0	1	0	0	0	0	0	0	0	0	57
20:00	0	44	7	0	0	0	0	0	0	0	0	0	0	51
21:00	0	42	5	0	0	1	0	0	0	0	0	0	0	48
22:00	0	24	2	0	1	0	0	0	0	0	0	0	0	27
23:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
Total	66	1909	457	17	97	48	0	10	7	0	0	0	0	2611
Percent	2.5%	73.1%	17.5%	0.7%	3.7%	1.8%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	08:00	08:00	09:00		10:00	08:00					08:00
Vol.	7	143	47	3	11	8		2	2					215
PM Peak	12:00	12:00	13:00	12:00	13:00	13:00		13:00	12:00					13:00
Vol.	7	164	41	3	12	5		2	1					231

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City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	1	4	0	0	0	2	0	0	0	0	0	0	0	7
03:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
04:00	0	11	5	0	0	1	0	0	0	0	0	0	0	17
05:00	0	32	12	0	0	0	0	0	0	0	0	0	0	44
06:00	1	85	30	0	5	1	0	0	0	0	0	0	0	122
07:00	5	122	37	1	5	2	0	1	0	0	0	0	0	173
08:00	1	162	44	0	12	1	0	1	0	0	0	0	0	221
09:00	10	126	30	2	16	10	0	1	0	0	0	0	0	195
10:00	5	131	40	4	7	4	0	1	0	0	0	0	0	192
11:00	5	134	46	2	5	3	0	0	0	0	0	0	0	195
12 PM	4	148	47	1	3	6	0	0	0	0	0	0	0	209
13:00	1	159	38	2	9	3	0	4	0	0	0	0	0	216
14:00	6	134	36	0	6	2	0	0	1	0	0	0	1	186
15:00	5	143	19	1	9	5	0	1	0	0	0	0	0	183
16:00	4	134	20	0	4	2	0	0	1	0	0	0	0	165
17:00	3	125	10	0	3	0	0	0	0	0	0	0	0	141
18:00	2	70	17	0	1	0	0	1	0	0	0	0	0	91
19:00	0	63	3	0	2	0	0	0	0	0	0	0	0	68
20:00	2	46	4	0	0	0	0	0	0	0	0	0	0	52
21:00	0	37	2	0	0	0	0	0	0	0	0	0	0	39
22:00	0	22	2	0	1	0	0	0	0	0	0	0	0	25
23:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
Total	55	1905	448	13	89	42	0	10	2	0	0	0	1	2565
Percent	2.1%	74.3%	17.5%	0.5%	3.5%	1.6%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	11:00	10:00	09:00	09:00		07:00						08:00
Vol.	10	162	46	4	16	10		1						221
PM Peak	14:00	13:00	12:00	13:00	13:00	12:00		13:00	14:00				14:00	13:00
Vol.	6	159	47	2	9	6		4	1				1	216

McArthur Drive
north of Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 C-B volume
Site Code: 10111.31

Start	SB				NB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	5		81		5		69		10		150		
12:15	5		65		4		45		9		110		
12:30	3		75		1		61		4		136		
12:45	2	15	64	285	2	12	59	234	4	27	123	519	
01:00	3		73		1		60		4		133		
01:15	2		77		1		59		3		136		
01:30	5		75		1		59		6		134		
01:45	2	12	57	282	1	4	54	232	3	16	111	514	
02:00	1		89		0		63		1		152		
02:15	6		69		1		62		7		131		
02:30	2		86		1		60		3		146		
02:45	1	10	82	326	0	2	63	248	1	12	145	574	
03:00	0		92		0		83		0		175		
03:15	0		75		0		59		0		134		
03:30	2		82		1		85		3		167		
03:45	3	5	68	317	1	2	54	281	4	7	122	598	
04:00	2		107		3		80		5		187		
04:15	5		68		3		59		8		127		
04:30	11		81		4		60		15		141		
04:45	9	27	72	328	12	22	51	250	21	49	123	578	
05:00	6		61		11		77		17		138		
05:15	5		54		6		44		11		98		
05:30	24		59		12		35		36		94		
05:45	22	57	57	231	18	47	46	202	40	104	103	433	
06:00	26		50		26		29		52		79		
06:15	25		51		24		35		49		86		
06:30	32		38		35		40		67		78		
06:45	68	151	36	175	55	140	26	130	123	291	62	305	
07:00	42		28		41		24		83		52		
07:15	63		24		33		26		96		50		
07:30	48		27		37		17		85		44		
07:45	49	202	27	106	53	164	30	97	102	366	57	203	
08:00	44		28		55		20		99		48		
08:15	62		27		71		19		133		46		
08:30	71		22		60		11		131		33		
08:45	71	248	21	98	61	247	16	66	132	495	37	164	
09:00	59		16		51		19		110		35		
09:15	65		11		41		9		106		20		
09:30	65		14		40		12		105		26		
09:45	69	258	9	50	58	190	12	52	127	448	21	102	
10:00	65		24		53		13		118		37		
10:15	60		10		49		7		109		17		
10:30	74		8		72		11		146		19		
10:45	76	275	8	50	52	226	6	37	128	501	14	87	
11:00	72		9		50		8		122		17		
11:15	65		7		52		5		117		12		
11:30	70		9		61		2		131		11		
11:45	75	282	2	27	54	217	5	20	129	499	7	47	
Total	1542		2275		1273		1849		2815		4124		
Percent	54.8%		55.2%		45.2%		44.8%						
Day Total		3817				3122				6939			
Peak	10:30		02:30		08:00		02:45		10:30		02:45		
Vol.	287		335		247		290		513		621		
P.H.F.	0.944		0.910		0.870		0.853		0.878		0.887		

McArthur Drive
north of Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 C-B volume
Site Code: 10111.31

Start	SB				NB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	2		83		3		55		5		138		
12:15	2		57		4		50		6		107		
12:30	3		83		2		63		5		146		
12:45	3	10	71	294	2	11	62	230	5	21	133	524	
01:00	4		81		0		49		4		130		
01:15	2		65		0		46		2		111		
01:30	1		73		0		51		1		124		
01:45	3	10	70	289	2	2	53	199	5	12	123	488	
02:00	2		77		1		52		3		129		
02:15	2		55		0		63		2		118		
02:30	1		76		3		55		4		131		
02:45	2	7	71	279	0	4	81	251	2	11	152	530	
03:00	2		67		0		53		2		120		
03:15	1		49		0		56		1		105		
03:30	1		107		1		76		2		183		
03:45	2	6	87	310	0	1	71	256	2	7	158	566	
04:00	1		73		3		53		4		126		
04:15	4		70		4		63		8		133		
04:30	8		97		3		55		11		152		
04:45	11	24	62	302	6	16	47	218	17	40	109	520	
05:00	3		74		13		67		16		141		
05:15	2		60		6		47		8		107		
05:30	16		56		10		35		26		91		
05:45	27	48	63	253	21	50	47	196	48	98	110	449	
06:00	24		44		15		42		39		86		
06:15	35		57		32		42		67		99		
06:30	50		39		28		31		78		70		
06:45	49	158	39	179	50	125	37	152	99	283	76	331	
07:00	43		36		48		26		91		62		
07:15	55		28		44		17		99		45		
07:30	60		26		34		32		94		58		
07:45	50	208	19	109	57	183	29	104	107	391	48	213	
08:00	57		31		58		23		115		54		
08:15	64		23		64		14		128		37		
08:30	71		17		59		12		130		29		
08:45	71	263	15	86	54	235	11	60	125	498	26	146	
09:00	42		15		50		12		92		27		
09:15	71		20		56		16		127		36		
09:30	76		13		64		4		140		17		
09:45	61	250	13	61	52	222	15	47	113	472	28	108	
10:00	64		16		49		10		113		26		
10:15	51		11		57		5		108		16		
10:30	65		12		47		12		112		24		
10:45	58	238	8	47	61	214	6	33	119	452	14	80	
11:00	62		5		59		8		121		13		
11:15	51		7		60		2		111		9		
11:30	80		5		41		7		121		12		
11:45	76	269	5	22	53	213	1	18	129	482	6	40	
Total	1491		2231		1276		1764		2767		3995		
Percent	53.9%		55.8%		46.1%		44.2%						
Day Total		3722				3040				6762			
Peak	09:15		03:30		07:45		02:45		08:00		03:30		
Vol.	272		337		238		266		498		600		
P.H.F.	0.895		0.787		0.930		0.821		0.958		0.820		

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McArthur Drive
north of Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	0	1	8	5	1	0	0	0	0	0	0	15	38	34
01:00	0	0	0	1	6	3	1	1	0	0	0	0	0	12	37	35
02:00	0	0	1	1	2	4	1	1	0	0	0	0	0	10	38	36
03:00	0	0	0	1	1	3	0	0	0	0	0	0	0	5	36	34
04:00	1	1	1	1	13	7	3	0	0	0	0	0	0	27	38	33
05:00	0	0	4	9	21	16	7	0	0	0	0	0	0	57	39	33
06:00	1	3	7	42	67	27	4	0	0	0	0	0	0	151	36	31
07:00	0	3	9	49	97	27	**14**	**2**	**1**	0	0	0	0	202	37	32
08:00	3	**15**	36	71	78	40	5	0	0	0	0	0	0	248	35	29
09:00	**6**	9	**56**	79	68	32	8	0	0	0	0	0	0	258	35	28
10:00	4	12	47	**98**	85	19	8	1	0	0	0	0	0	274	34	28
11:00	2	15	34	72	**112**	**41**	6	1	0	0	0	0	0	**283**	35	30
12 PM	1	11	30	90	103	46	3	1	0	0	0	0	0	285	35	30
13:00	2	**16**	28	74	103	**53**	6	0	0	0	0	0	0	282	36	30
14:00	2	8	37	**119**	113	41	6	0	0	0	0	0	0	326	34	29
15:00	1	5	29	93	**141**	42	5	1	0	0	0	0	0	317	34	30
16:00	1	10	**46**	97	120	40	10	**4**	0	0	0	0	0	**328**	35	30
17:00	**3**	2	12	58	97	45	**13**	1	0	0	0	0	0	231	37	31
18:00	0	1	8	34	89	38	3	1	0	0	0	0	0	174	36	32
19:00	0	2	1	15	52	31	4	2	0	0	0	0	0	107	38	33
20:00	0	0	4	21	53	16	4	0	0	0	0	0	0	98	36	32
21:00	0	0	0	6	25	13	6	0	0	0	0	0	0	50	38	34
22:00	0	1	1	6	23	7	9	2	**1**	0	0	0	0	50	41	34
23:00	0	0	3	5	6	9	3	1	0	0	0	0	0	27	39	33
Total	27	114	394	1043	1483	605	130	19	2	0	0	0	0	3817		
%	0.7%	3.0%	10.3%	27.3%	38.9%	15.9%	3.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	08:00	09:00	10:00	11:00	11:00	07:00	07:00	07:00					11:00		
Vol.	6	15	56	98	112	41	14	2	1					283		
PM Peak	17:00	13:00	16:00	14:00	15:00	13:00	17:00	16:00	22:00					16:00		
Vol.	3	16	46	119	141	53	13	4	1					328		

Pecent

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	2526
Percent in Pace :	66.2%
Number of Vehicles > 30 MPH :	1942
Percent of Vehicles > 30 MPH :	50.9%
Mean Speed(Average) :	30 MPH

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McArthur Drive
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Client: VHB/J. Quitter

81676 C-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	1	2	3	1	3	0	0	0	0	0	0	10	40	34
01:00	0	0	1	5	3	1	0	0	0	0	0	0	0	10	31	29
02:00	0	0	1	1	2	2	1	0	0	0	0	0	0	7	36	33
03:00	0	0	0	2	1	2	1	0	0	0	0	0	0	6	36	33
04:00	0	0	1	2	11	7	3	0	0	0	0	0	0	24	38	34
05:00	0	0	3	11	18	13	3	0	0	0	0	0	0	48	37	32
06:00	0	3	7	36	66	34	**10**	**2**	0	0	0	0	0	158	38	32
07:00	0	3	10	60	**100**	24	9	2	0	0	0	0	0	208	35	31
08:00	0	5	24	80	92	**54**	7	1	0	0	0	0	0	263	37	31
09:00	0	6	**41**	74	93	28	7	1	0	0	0	0	0	250	34	29
10:00	**2**	**11**	24	73	85	36	6	1	0	0	0	0	0	238	35	30
11:00	1	11	36	**86**	97	31	6	1	0	0	0	0	0	**269**	34	29
12 PM	4	3	**34**	**90**	112	42	7	2	0	0	0	0	0	294	35	30
13:00	**6**	**12**	27	71	113	51	9	0	0	0	0	0	0	289	36	30
14:00	3	7	25	89	98	49	8	0	0	0	0	0	0	279	36	30
15:00	1	4	22	85	**135**	**56**	6	1	0	0	0	0	0	**310**	36	31
16:00	1	10	21	68	126	56	**16**	3	0	**1**	0	0	0	302	37	31
17:00	0	1	10	62	114	50	13	2	0	0	0	0	0	252	37	32
18:00	1	2	9	37	91	35	5	0	0	0	0	0	0	180	36	31
19:00	0	0	8	31	43	20	7	0	0	0	0	0	0	109	37	31
20:00	0	0	4	21	41	14	2	**4**	0	0	0	0	0	86	37	32
21:00	0	0	0	8	33	17	1	1	**1**	0	0	0	0	61	37	33
22:00	0	1	3	9	15	14	4	1	0	0	0	0	0	47	38	33
23:00	0	0	1	2	6	8	5	0	0	0	0	0	0	22	41	35
Total	19	79	313	1005	1498	645	139	22	1	1	0	0	0	3722		
%	0.5%	2.1%	8.4%	27.0%	40.2%	17.3%	3.7%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	09:00	11:00	07:00	08:00	06:00	06:00						11:00		
Vol.	2	11	41	86	100	54	10	2						269		
PM Peak	13:00	13:00	12:00	12:00	15:00	15:00	16:00	20:00	21:00	16:00				15:00		
Vol.	6	12	34	90	135	56	16	4	1	1				310		

Pecent

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	2503
Percent in Pace :	67.2%
Number of Vehicles > 30 MPH :	2006
Percent of Vehicles > 30 MPH :	53.9%
Mean Speed(Average) :	31 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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McArthur Drive
north of Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	2	2	3	4	1	0	0	0	0	0	0	12	37	32
01:00	0	0	0	0	1	2	1	0	0	0	0	0	0	4	36	36
02:00	0	0	0	1	0	1	0	0	0	0	0	0	0	2	35	30
03:00	0	0	0	0	0	1	0	1	0	0	0	0	0	2	45	40
04:00	0	1	0	3	9	5	3	1	0	0	0	0	0	22	40	34
05:00	1	2	0	7	20	15	2	0	0	0	0	0	0	47	38	32
06:00	0	8	10	28	55	**34**	4	1	0	0	0	0	0	140	37	31
07:00	0	8	20	45	51	31	**7**	**2**	0	0	0	0	0	164	37	30
08:00	1	11	30	**75**	**93**	30	7	0	0	0	0	0	0	**247**	34	29
09:00	2	10	44	69	46	18	1	0	0	0	0	0	0	190	33	27
10:00	**6**	**21**	**46**	65	62	21	4	1	0	0	0	0	0	226	34	27
11:00	1	12	27	71	75	26	5	0	0	0	0	0	0	217	34	29
12 PM	0	3	32	88	79	22	**10**	0	0	0	0	0	0	234	34	29
13:00	2	4	14	**98**	85	24	5	0	0	0	0	0	0	232	34	30
14:00	2	**9**	**37**	90	73	26	10	1	0	0	0	0	0	248	34	29
15:00	**8**	4	22	96	**114**	32	4	0	**1**	0	0	0	0	**281**	34	29
16:00	0	4	24	68	97	**46**	10	1	0	0	0	0	0	250	36	31
17:00	0	6	12	59	89	33	3	0	0	0	0	0	0	202	35	30
18:00	0	4	11	32	40	35	6	**2**	0	0	0	0	0	130	38	32
19:00	2	0	4	23	45	21	2	0	0	0	0	0	0	97	36	31
20:00	0	0	6	17	20	19	4	0	0	0	0	0	0	66	38	32
21:00	0	1	5	5	19	16	5	1	0	0	0	0	0	52	39	33
22:00	0	1	1	4	11	13	6	1	0	0	0	0	0	37	40	35
23:00	0	0	2	2	5	7	4	0	0	0	0	0	0	20	40	34
Total	25	109	349	948	1092	482	104	12	1	0	0	0	0	3122		
%	0.8%	3.5%	11.2%	30.4%	35.0%	15.4%	3.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	10:00	08:00	08:00	06:00	07:00	07:00						08:00		
Vol.	6	21	46	75	93	34	7	2						247		
PM Peak	15:00	14:00	14:00	13:00	15:00	16:00	12:00	18:00	15:00					15:00		
Vol.	8	9	37	98	114	46	10	2	1					281		

Pecent	15th Percentile :	24 MPH
	50th Percentile :	30 MPH
	85th Percentile :	36 MPH
	95th Percentile :	39 MPH

Stats	10 MPH Pace Speed :	25-34 MPH
	Number in Pace :	2040
	Percent in Pace :	65.3%
	Number of Vehicles > 30 MPH :	1472
	Percent of Vehicles > 30 MPH :	47.1%
	Mean Speed(Average) :	30 MPH

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81676 C-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	0	1	6	3	1	0	0	0	0	0	0	11	36	33
01:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2	26	26
02:00	0	0	0	0	1	1	2	0	0	0	0	0	0	4	40	38
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1	40	40
04:00	0	0	0	2	9	3	2	0	0	0	0	0	0	16	37	33
05:00	1	3	2	7	17	14	5	1	0	0	0	0	0	50	38	32
06:00	0	1	7	24	57	31	5	0	0	0	0	0	0	125	37	32
07:00	**7**	9	12	40	64	39	**10**	1	**1**	0	0	0	0	183	37	31
08:00	1	10	19	64	**92**	**41**	7	1	0	0	0	0	0	**235**	36	30
09:00	1	11	31	70	77	29	3	0	0	0	0	0	0	222	34	29
10:00	3	**15**	30	79	60	19	6	**2**	0	0	0	0	0	214	34	28
11:00	0	8	**39**	**82**	51	24	8	0	1	0	0	0	0	213	35	29
12 PM	0	7	16	66	**94**	39	6	**2**	0	0	0	0	0	230	36	31
13:00	0	7	24	60	71	31	3	2	0	**1**	0	0	0	199	35	30
14:00	0	2	**36**	**97**	86	25	4	1	0	0	0	0	0	251	34	29
15:00	0	**11**	24	85	82	47	6	1	0	0	0	0	0	**256**	36	30
16:00	**1**	2	18	44	87	57	8	0	**1**	0	0	0	0	218	37	32
17:00	0	3	16	27	71	**64**	**13**	2	0	0	0	0	0	196	38	33
18:00	0	5	14	43	58	27	3	1	0	0	**1**	0	0	152	36	30
19:00	0	2	7	25	42	15	12	1	0	0	0	0	0	104	38	32
20:00	0	0	3	14	30	7	6	0	0	0	0	0	0	60	36	32
21:00	0	1	2	8	20	12	3	1	0	0	0	0	0	47	38	33
22:00	0	0	1	7	11	10	4	0	0	0	0	0	0	33	39	33
23:00	0	0	0	3	6	5	3	1	0	0	0	0	0	18	40	35
Total	14	97	301	850	1092	543	121	17	3	1	1	0	0	3040		
%	0.5%	3.2%	9.9%	28.0%	35.9%	17.9%	4.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	10:00	11:00	11:00	08:00	08:00	07:00	10:00	07:00					08:00		
Vol.	7	15	39	82	92	41	10	2	1					235		
PM Peak	16:00	15:00	14:00	14:00	12:00	17:00	17:00	12:00	16:00	13:00	18:00			15:00		
Vol.	1	11	36	97	94	64	13	2	1	1	1			256		

Pecent

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1942
Percent in Pace :	63.9%
Number of Vehicles > 30 MPH :	1559
Percent of Vehicles > 30 MPH :	51.3%
Mean Speed(Average) :	30 MPH

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81676 C-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	1	13	1	0	0	0	0	0	0	0	0	0	0	15
01:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12
02:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
04:00	1	21	4	0	1	0	0	0	0	0	0	0	0	27
05:00	0	41	15	0	1	0	0	0	0	0	0	0	0	57
06:00	2	94	40	2	9	2	0	2	0	0	0	0	0	151
07:00	0	122	56	4	15	1	0	2	2	0	0	0	0	202
08:00	2	152	67	7	18	2	0	0	0	0	0	0	0	248
09:00	3	143	75	5	23	7	0	1	1	0	0	0	0	258
10:00	4	142	77	10	31	4	0	6	0	0	0	0	0	274
11:00	3	169	76	6	21	4	0	2	1	0	0	0	1	283
12 PM	3	178	77	6	15	2	0	3	1	0	0	0	0	285
13:00	5	174	64	7	24	1	0	4	3	0	0	0	0	282
14:00	8	196	80	5	32	0	0	4	1	0	0	0	0	326
15:00	5	205	81	4	16	3	0	2	1	0	0	0	0	317
16:00	6	236	67	1	15	0	0	1	1	0	0	0	1	328
17:00	0	180	47	0	4	0	0	0	0	0	0	0	0	231
18:00	1	127	42	1	3	0	0	0	0	0	0	0	0	174
19:00	0	78	22	1	6	0	0	0	0	0	0	0	0	107
20:00	1	80	15	0	1	0	0	1	0	0	0	0	0	98
21:00	0	43	7	0	0	0	0	0	0	0	0	0	0	50
22:00	1	41	6	0	2	0	0	0	0	0	0	0	0	50
23:00	0	21	5	0	1	0	0	0	0	0	0	0	0	27
Total	46	2475	931	59	239	26	0	28	11	0	0	0	2	3817
Percent	1.2%	64.8%	24.4%	1.5%	6.3%	0.7%	0.0%	0.7%	0.3%	0.0%	0.0%	0.0%	0.1%	
AM Peak	10:00	11:00	10:00	10:00	10:00	09:00		10:00	07:00				11:00	11:00
Vol.	4	169	77	10	31	7		6	2				1	283
PM Peak	14:00	16:00	15:00	13:00	14:00	15:00		13:00	13:00				16:00	16:00
Vol.	8	236	81	7	32	3		4	3				1	328

PRECISION DATA INDUSTRIES, LLC
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McArthur Drive
north of Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	10	0	0	0	0	0	0	0	0	0	0	0	10
01:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10
02:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
03:00	0	1	4	0	1	0	0	0	0	0	0	0	0	6
04:00	1	18	3	0	1	1	0	0	0	0	0	0	0	24
05:00	0	36	12	0	0	0	0	0	0	0	0	0	0	48
06:00	3	99	45	3	5	0	0	3	0	0	0	0	0	158
07:00	3	129	52	4	18	1	0	1	0	0	0	0	0	208
08:00	0	166	61	7	24	4	0	0	1	0	0	0	0	263
09:00	0	130	83	9	24	1	0	1	2	0	0	0	0	250
10:00	1	135	74	4	18	2	0	1	3	0	0	0	0	238
11:00	3	152	84	5	21	3	0	0	1	0	0	0	0	269
12 PM	3	181	76	4	27	0	0	1	2	0	0	0	0	294
13:00	3	186	80	3	13	3	0	0	1	0	0	0	0	289
14:00	4	163	79	7	19	2	0	5	0	0	0	0	0	279
15:00	5	211	52	6	28	2	0	3	2	1	0	0	0	310
16:00	3	214	64	1	14	2	0	2	2	0	0	0	0	302
17:00	3	183	55	0	9	2	0	0	0	0	0	0	0	252
18:00	4	124	44	1	6	0	0	0	1	0	0	0	0	180
19:00	0	84	22	1	2	0	0	0	0	0	0	0	0	109
20:00	1	69	13	0	3	0	0	0	0	0	0	0	0	86
21:00	0	51	9	0	1	0	0	0	0	0	0	0	0	61
22:00	1	39	6	0	1	0	0	0	0	0	0	0	0	47
23:00	0	16	5	0	1	0	0	0	0	0	0	0	0	22
Total	38	2411	925	55	237	23	0	17	15	1	0	0	0	3722
Percent	1.0%	64.8%	24.9%	1.5%	6.4%	0.6%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	11:00	09:00	08:00	08:00		06:00	10:00					11:00
Vol.	3	166	84	9	24	4		3	3					269
PM Peak	15:00	16:00	13:00	14:00	15:00	13:00		14:00	12:00	15:00				15:00
Vol.	5	214	80	7	28	3		5	2	1				310

PRECISION
D A T A
INDUSTRIES, LLC
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McArthur Drive
north of Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	6	5	0	1	0	0	0	0	0	0	0	0	12
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	19	2	1	0	0	0	0	0	0	0	0	0	22
05:00	1	34	10	0	1	1	0	0	0	0	0	0	0	47
06:00	1	103	26	1	6	1	0	0	1	0	0	0	1	140
07:00	3	86	47	4	21	1	0	1	1	0	0	0	0	164
08:00	2	149	66	3	23	2	0	1	1	0	0	0	0	247
09:00	4	106	47	3	25	2	0	1	2	0	0	0	0	190
10:00	2	124	68	5	20	4	0	1	2	0	0	0	0	226
11:00	4	121	65	1	20	3	0	2	1	0	0	0	0	217
12 PM	2	137	65	5	23	0	0	2	0	0	0	0	0	234
13:00	1	129	60	7	31	1	0	1	2	0	0	0	0	232
14:00	3	149	55	3	32	2	0	4	0	0	0	0	0	248
15:00	2	175	66	2	30	3	0	3	0	0	0	0	0	281
16:00	2	169	58	3	16	1	0	0	1	0	0	0	0	250
17:00	2	157	38	0	5	0	0	0	0	0	0	0	0	202
18:00	3	96	23	0	7	0	0	1	0	0	0	0	0	130
19:00	2	77	16	0	2	0	0	0	0	0	0	0	0	97
20:00	1	52	10	1	2	0	0	0	0	0	0	0	0	66
21:00	1	37	13	0	1	0	0	0	0	0	0	0	0	52
22:00	0	27	9	0	1	0	0	0	0	0	0	0	0	37
23:00	0	17	1	0	2	0	0	0	0	0	0	0	0	20
Total	36	1978	750	39	269	21	0	17	11	0	0	0	1	3122
Percent	1.2%	63.4%	24.0%	1.2%	8.6%	0.7%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	10:00	10:00	09:00	10:00		11:00	09:00				06:00	08:00
Vol.	4	149	68	5	25	4		2	2				1	247
PM Peak	14:00	15:00	15:00	13:00	14:00	15:00		14:00	13:00					15:00
Vol.	3	175	66	7	32	3		4	2					281

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McArthur Drive
north of Union Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	7	3	0	0	1	0	0	0	0	0	0	0	11
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	12	4	0	0	0	0	0	0	0	0	0	0	16
05:00	1	38	9	1	0	1	0	0	0	0	0	0	0	50
06:00	0	90	26	1	7	0	0	0	1	0	0	0	0	125
07:00	0	104	49	5	20	1	0	3	1	0	0	0	0	183
08:00	1	131	73	5	21	1	0	2	1	0	0	0	0	235
09:00	0	111	69	7	28	1	0	4	2	0	0	0	0	222
10:00	0	114	64	3	25	1	0	3	4	0	0	0	0	214
11:00	1	123	58	6	17	3	0	0	5	0	0	0	0	213
12 PM	2	144	57	1	24	2	0	0	0	0	0	0	0	230
13:00	1	111	51	6	22	2	0	2	3	1	0	0	0	199
14:00	2	149	66	6	20	4	0	2	2	0	0	0	0	251
15:00	1	173	48	6	22	1	1	3	0	1	0	0	0	256
16:00	1	146	55	1	15	0	0	0	0	0	0	0	0	218
17:00	3	152	38	0	3	0	0	0	0	0	0	0	0	196
18:00	4	98	39	0	7	0	0	4	0	0	0	0	0	152
19:00	2	78	20	0	4	0	0	0	0	0	0	0	0	104
20:00	0	49	8	0	2	0	0	1	0	0	0	0	0	60
21:00	0	35	8	0	4	0	0	0	0	0	0	0	0	47
22:00	0	24	5	0	4	0	0	0	0	0	0	0	0	33
23:00	0	13	5	0	0	0	0	0	0	0	0	0	0	18
Total	19	1909	755	48	245	18	1	24	19	2	0	0	0	3040
Percent	0.6%	62.8%	24.8%	1.6%	8.1%	0.6%	0.0%	0.8%	0.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	05:00	08:00	08:00	09:00	09:00	11:00		09:00	11:00					08:00
Vol.	1	131	73	7	28	3		4	5					235
PM Peak	18:00	15:00	14:00	13:00	12:00	14:00	15:00	18:00	13:00	13:00				15:00
Vol.	4	173	66	6	24	4	1	4	3	1				256

Union Street
west of JFK Highway (Route 18)
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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81676 C-C volume
Site Code: 10111.31

Start	EB				WB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	15		103		9		52		24		155		
12:15	7		91		4		56		11		147		
12:30	9		100		3		46		12		146		
12:45	3	34	107	401	0	16	64	218	3	50	171	619	
01:00	8		110		2		36		10		146		
01:15	3		84		2		50		5		134		
01:30	2		100		1		50		3		150		
01:45	2	15	86	380	2	7	56	192	4	22	142	572	
02:00	3		95		1		42		4		137		
02:15	3		102		1		59		4		161		
02:30	2		102		1		48		3		150		
02:45	3	11	109	408	1	4	37	186	4	15	146	594	
03:00	6		102		1		43		7		145		
03:15	2		103		0		52		2		155		
03:30	4		83		1		50		5		133		
03:45	1	13	106	394	2	4	48	193	3	17	154	587	
04:00	3		106		0		48		3		154		
04:15	4		108		1		41		5		149		
04:30	5		96		3		32		8		128		
04:45	10	22	78	388	1	5	44	165	11	27	122	553	
05:00	13		116		0		37		13		153		
05:15	22		110		3		48		25		158		
05:30	24		90		4		30		28		120		
05:45	23	82	105	421	7	14	35	150	30	96	140	571	
06:00	43		108		14		38		57		146		
06:15	53		91		8		51		61		142		
06:30	62		91		11		43		73		134		
06:45	51	209	83	373	20	53	40	172	71	262	123	545	
07:00	48		77		25		28		73		105		
07:15	73		74		22		22		95		96		
07:30	80		72		29		29		109		101		
07:45	83	284	66	289	47	123	24	103	130	407	90	392	
08:00	98		62		55		15		153		77		
08:15	102		58		63		20		165		78		
08:30	81		67		74		13		155		80		
08:45	94	375	33	220	69	261	16	64	163	636	49	284	
09:00	75		54		55		11		130		65		
09:15	79		50		46		9		125		59		
09:30	95		41		42		15		137		56		
09:45	96	345	35	180	52	195	9	44	148	540	44	224	
10:00	84		37		47		10		131		47		
10:15	100		29		44		13		144		42		
10:30	78		16		50		9		128		25		
10:45	83	345	15	97	52	193	9	41	135	538	24	138	
11:00	85		28		40		9		125		37		
11:15	95		20		48		6		143		26		
11:30	132		22		42		9		174		31		
11:45	113	425	8	78	42	172	2	26	155	597	10	104	
Total	2160		3629		1047		1554		3207		5183		
Percent	67.4%		70.0%		32.6%		30.0%						
Day Total		5789				2601				8390			
Peak	11:00		05:00		08:00		12:00		08:00		12:00		
Vol.	425		421		261		218		636		619		
P.H.F.	0.805		0.907		0.882		0.852		0.964		0.905		

Union Street
west of JFK Highway (Route 18)
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81676 C-C volume
Site Code: 10111.31

Start	EB				WB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	7		92		7		36		14		128		
12:15	13		91		3		50		16		141		
12:30	7		102		9		46		16		148		
12:45	4	31	112	397	2	21	53	185	6	52	165	582	
01:00	6		114		7		33		13		147		
01:15	10		94		3		50		13		144		
01:30	8		99		3		47		11		146		
01:45	9	33	100	407	6	19	49	179	15	52	149	586	
02:00	7		102		1		45		8		147		
02:15	5		93		3		43		8		136		
02:30	1		104		1		40		2		144		
02:45	10	23	119	418	2	7	48	176	12	30	167	594	
03:00	0		100		0		39		0		139		
03:15	2		110		0		45		2		155		
03:30	3		120		0		35		3		155		
03:45	1	6	111	441	1	1	49	168	2	7	160	609	
04:00	4		92		0		37		4		129		
04:15	5		100		0		47		5		147		
04:30	6		90		2		36		8		126		
04:45	11	26	91	373	3	5	44	164	14	31	135	537	
05:00	16		115		3		43		19		158		
05:15	17		115		2		43		19		158		
05:30	21		100		4		32		25		132		
05:45	27	81	119	449	14	23	41	159	41	104	160	608	
06:00	51		110		12		35		63		145		
06:15	45		90		8		36		53		126		
06:30	64		98		12		39		76		137		
06:45	68	228	98	396	18	50	41	151	86	278	139	547	
07:00	51		91		19		41		70		132		
07:15	71		58		29		23		100		81		
07:30	79		83		32		24		111		107		
07:45	91	292	61	293	46	126	25	113	137	418	86	406	
08:00	83		53		42		14		125		67		
08:15	103		50		46		19		149		69		
08:30	99		63		80		19		179		82		
08:45	82	367	47	213	86	254	15	67	168	621	62	280	
09:00	77		62		48		16		125		78		
09:15	84		41		36		12		120		53		
09:30	92		42		50		17		142		59		
09:45	80	333	30	175	40	174	20	65	120	507	50	240	
10:00	90		54		35		17		125		71		
10:15	90		36		29		14		119		50		
10:30	119		40		38		12		157		52		
10:45	94	393	28	158	48	150	14	57	142	543	42	215	
11:00	86		30		42		8		128		38		
11:15	103		21		39		10		142		31		
11:30	103		22		47		8		150		30		
11:45	105	397	17	90	50	178	8	34	155	575	25	124	
Total	2210		3810		1008		1518		3218		5328		
Percent	68.7%		71.5%		31.3%		28.5%						
Day Total		6020				2526				8546			
Peak	10:30		02:45		08:15		01:15		08:00		02:45		
Vol.	402		449		260		191		621		616		
P.H.F.	0.845		0.935		0.756		0.901		0.867		0.922		

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Union Street
west of JFK Highway (Route 18)
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	1	13	16	4	0	0	0	0	0	0	0	0	34	29	25
01:00	1	3	2	9	0	0	0	0	0	0	0	0	0	15	28	23
02:00	1	3	2	5	0	0	0	0	0	0	0	0	0	11	27	22
03:00	0	0	5	7	0	1	0	0	0	0	0	0	0	13	28	25
04:00	0	4	6	10	2	0	0	0	0	0	0	0	0	22	29	24
05:00	9	13	29	26	5	0	0	0	0	0	0	0	0	82	28	22
06:00	6	46	87	57	**11**	**2**	0	0	0	0	0	0	0	209	28	23
07:00	26	69	110	**71**	7	1	0	0	0	0	0	0	0	284	27	21
08:00	84	114	**147**	28	2	0	0	0	0	0	0	0	0	375	24	18
09:00	81	123	111	27	3	0	0	0	0	0	0	0	0	345	23	17
10:00	90	114	121	19	1	0	0	0	0	0	0	0	0	345	23	17
11:00	**163**	**132**	121	8	0	1	0	0	0	0	0	0	0	**425**	22	15
12 PM	142	120	**129**	9	1	0	0	0	0	0	0	0	0	401	23	15
13:00	104	**141**	118	14	3	0	0	0	0	0	0	0	0	380	23	16
14:00	**204**	76	122	6	0	0	0	0	0	0	0	0	0	408	22	14
15:00	162	105	121	6	0	0	0	0	0	0	0	0	0	394	22	15
16:00	148	116	118	5	0	**1**	0	0	0	0	0	0	0	388	22	15
17:00	183	104	123	10	1	0	0	0	0	0	0	0	0	**421**	22	15
18:00	127	118	117	10	1	0	0	0	0	0	0	0	0	373	23	16
19:00	31	94	124	37	3	0	0	0	0	0	0	0	0	289	24	20
20:00	20	61	102	35	2	0	0	0	0	0	0	0	0	220	25	20
21:00	10	38	81	**44**	7	0	0	0	0	0	0	0	0	180	27	22
22:00	6	17	48	22	4	0	0	0	0	0	0	0	0	97	27	22
23:00	2	6	34	28	**8**	0	0	0	0	0	0	0	0	78	29	24
Total	1600	1618	1991	509	65	6	0	0	0	0	0	0	0	5789		
%	27.6%	27.9%	34.4%	8.8%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	08:00	07:00	06:00	06:00								11:00		
Vol.	163	132	147	71	11	2								425		
PM Peak	14:00	13:00	12:00	21:00	23:00	16:00								17:00		
Vol.	204	141	129	44	8	1								421		

Pecent

15th Percentile :	8 MPH
50th Percentile :	18 MPH
85th Percentile :	24 MPH
95th Percentile :	27 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	3609
Percent in Pace :	62.3%
Number of Vehicles > 25 MPH :	478
Percent of Vehicles > 25 MPH :	8.3%
Mean Speed(Average) :	17 MPH

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Client: VHB/J. Quitter

81676 C-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	3	4	8	15	1	0	0	0	0	0	0	0	0	31	28	23
01:00	1	5	7	18	2	0	0	0	0	0	0	0	0	33	28	24
02:00	1	4	9	9	0	0	0	0	0	0	0	0	0	23	27	23
03:00	0	2	0	4	0	0	0	0	0	0	0	0	0	6	27	23
04:00	1	2	10	11	2	0	0	0	0	0	0	0	0	26	28	24
05:00	7	8	28	28	**10**	0	0	0	0	0	0	0	0	81	29	24
06:00	11	43	90	**76**	6	**2**	0	0	0	0	0	0	0	228	28	22
07:00	37	64	131	54	6	0	0	0	0	0	0	0	0	292	26	20
08:00	50	105	**160**	45	7	0	0	0	0	0	0	0	0	367	24	19
09:00	47	88	146	48	4	0	0	0	0	0	0	0	0	333	25	20
10:00	53	**151**	152	33	4	0	0	0	0	0	0	0	0	393	24	19
11:00	**110**	110	151	21	4	1	0	0	0	0	0	0	0	**397**	23	17
12 PM	98	136	128	32	3	0	0	0	0	0	0	0	0	397	23	17
13:00	84	149	**155**	17	2	0	0	0	0	0	0	0	0	407	23	17
14:00	145	134	128	11	0	0	0	0	0	0	0	0	0	418	22	15
15:00	140	139	150	11	1	0	0	0	0	0	0	0	0	441	23	16
16:00	**158**	88	114	13	0	0	0	0	0	0	0	0	0	373	23	15
17:00	141	**171**	123	13	0	0	**1**	0	0	0	0	0	0	**449**	22	16
18:00	107	138	123	27	1	0	0	0	0	0	0	0	0	396	23	17
19:00	69	74	121	28	1	0	0	0	0	0	0	0	0	293	24	18
20:00	11	53	117	30	2	0	0	0	0	0	0	0	0	213	24	21
21:00	6	41	87	**37**	**4**	0	0	0	0	0	0	0	0	175	26	22
22:00	17	35	77	25	4	0	0	0	0	0	0	0	0	158	25	20
23:00	2	20	38	25	4	**1**	0	0	0	0	0	0	0	90	28	23
Total	1299	1764	2253	631	68	4	1	0	0	0	0	0	0	6020		
%	21.6%	29.3%	37.4%	10.5%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	08:00	06:00	05:00	06:00								11:00		
Vol.	110	151	160	76	10	2								397		
PM Peak	16:00	17:00	13:00	21:00	21:00	23:00	17:00							17:00		
Vol.	158	171	155	37	4	1	1							449		

Pecent

15th Percentile :	10 MPH
50th Percentile :	19 MPH
85th Percentile :	24 MPH
95th Percentile :	28 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	4017
Percent in Pace :	66.7%
Number of Vehicles > 25 MPH :	577
Percent of Vehicles > 25 MPH :	9.6%
Mean Speed(Average) :	18 MPH

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81676 C-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0 8	0	1	2	8	5	0	0	0	0	0	0	0	0	16	32	27
01:00	0	0	4	2	1	0	0	0	0	0	0	0	0	7	26	24
02:00	0	0	0	2	2	0	0	0	0	0	0	0	0	4	30	30
03:00	0	0	1	2	1	0	0	0	0	0	0	0	0	4	26	26
04:00	0	0	1	2	2	0	0	0	0	0	0	0	0	5	30	28
05:00	2	0	6	6	0	0	0	0	0	0	0	0	0	14	27	21
06:00	2	5	19	19	7	1	0	0	0	0	0	0	0	53	29	25
07:00	6	18	36	51	**11**	1	0	0	0	0	0	0	0	123	29	24
08:00	4	**76**	**117**	**57**	4	**2**	**1**	0	0	0	0	0	0	**261**	27	22
09:00	18	44	87	36	10	0	0	0	0	0	0	0	0	195	27	21
10:00	**22**	67	68	28	7	1	0	0	0	0	0	0	0	193	26	20
11:00	22	55	74	20	1	0	0	0	0	0	0	0	0	172	24	19
12 PM	19	**85**	88	22	4	0	0	0	0	0	0	0	0	**218**	24	20
13:00	**21**	55	87	22	5	**2**	0	0	0	0	0	0	0	192	24	20
14:00	5	58	**91**	29	2	1	0	0	0	0	0	0	0	186	25	21
15:00	8	66	89	27	3	0	0	0	0	0	0	0	0	193	25	21
16:00	14	48	68	**32**	3	0	0	0	0	0	0	0	0	165	26	20
17:00	10	47	73	17	3	0	0	0	0	0	0	0	0	150	24	20
18:00	6	55	77	27	**7**	0	0	0	0	0	0	0	0	172	26	21
19:00	4	14	46	32	7	0	0	0	0	0	0	0	0	103	28	23
20:00	4	13	26	15	6	0	0	0	0	0	0	0	0	64	28	22
21:00	0	8	13	18	4	1	0	0	0	0	0	0	0	44	29	24
22:00	6	3	12	15	4	1	0	0	0	0	0	0	0	41	29	22
23:00	0	5	10	8	3	0	0	0	0	0	0	0	0	26	28	24
Total	173	723	1095	497	102	10	1	0	0	0	0	0	0	2601		
%	6.7%	27.8%	42.1%	19.1%	3.9%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	08:00	08:00	07:00	08:00	08:00							08:00		
Vol.	22	76	117	57	11	2	1							261		
PM Peak	13:00	12:00	14:00	16:00	18:00	13:00								12:00		
Vol.	21	85	91	32	7	2								218		

Pecent

15th Percentile :	16 MPH
50th Percentile :	21 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	1818
Percent in Pace :	69.9%
Number of Vehicles > 25 MPH :	510
Percent of Vehicles > 25 MPH :	19.6%
Mean Speed(Average) :	21 MPH

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81676 C-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	1	3	8	5	4	0	0	0	0	0	0	0	0	21	30	24
01:00	1	2	4	6	5	1	0	0	0	0	0	0	0	19	32	26
02:00	0	2	0	4	1	0	0	0	0	0	0	0	0	7	28	24
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	20	20
04:00	0	1	0	4	0	0	0	0	0	0	0	0	0	5	27	24
05:00	0	2	9	8	4	0	0	0	0	0	0	0	0	23	30	25
06:00	1	7	19	18	3	2	0	0	0	0	0	0	0	50	28	24
07:00	3	27	44	37	**12**	**3**	0	0	0	0	0	0	0	126	29	23
08:00	12	**64**	**120**	50	8	0	0	0	0	0	0	0	0	**254**	26	21
09:00	4	32	80	**52**	6	0	0	0	0	0	0	0	0	174	27	23
10:00	4	38	68	34	5	1	0	0	0	0	0	0	0	150	27	22
11:00	**13**	47	86	30	2	0	0	0	0	0	0	0	0	178	25	21
12 PM	11	47	**80**	**38**	6	**3**	0	0	0	0	0	0	0	**185**	27	22
13:00	**16**	44	75	36	7	1	0	0	0	0	0	0	0	179	27	21
14:00	15	**59**	80	22	0	0	0	0	0	0	0	0	0	176	24	20
15:00	9	47	66	38	8	0	0	0	0	0	0	0	0	168	27	22
16:00	4	57	71	29	3	0	0	0	0	0	0	0	0	164	26	21
17:00	9	51	72	23	4	0	0	0	0	0	0	0	0	159	25	21
18:00	3	26	80	31	**11**	0	0	0	0	0	0	0	0	151	27	23
19:00	11	20	57	20	5	0	0	0	0	0	0	0	0	113	26	21
20:00	2	20	29	12	3	1	0	0	0	0	0	0	0	67	26	22
21:00	7	15	22	15	6	0	0	0	0	0	0	0	0	65	28	22
22:00	2	6	28	17	4	0	0	0	0	0	0	0	0	57	28	23
23:00	3	10	8	9	4	0	0	0	0	0	0	0	0	34	28	22
Total	131	627	1107	538	111	12	0	0	0	0	0	0	0	2526		
%	5.2%	24.8%	43.8%	21.3%	4.4%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	08:00	08:00	09:00	07:00	07:00								08:00		
Vol.	13	64	120	52	12	3								254		
PM Peak	13:00	14:00	12:00	12:00	18:00	12:00								12:00		
Vol.	16	59	80	38	11	3								185		

Pecent

15th Percentile :	16 MPH
50th Percentile :	22 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	1734
Percent in Pace :	68.6%
Number of Vehicles > 25 MPH :	553
Percent of Vehicles > 25 MPH :	21.9%
Mean Speed(Average) :	22 MPH

PRECISION
D A T A
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Union Street
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81676 C-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	1	32	1	0	0	0	0	0	0	0	0	0	0	34
01:00	0	13	1	0	1	0	0	0	0	0	0	0	0	15
02:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
03:00	0	10	2	1	0	0	0	0	0	0	0	0	0	13
04:00	0	20	1	0	0	1	0	0	0	0	0	0	0	22
05:00	0	72	7	0	3	0	0	0	0	0	0	0	0	82
06:00	1	187	18	1	0	1	0	1	0	0	0	0	0	209
07:00	2	237	38	1	4	2	0	0	0	0	0	0	0	284
08:00	2	317	40	3	9	2	0	2	0	0	0	0	0	375
09:00	0	293	43	1	2	4	0	0	1	0	0	0	1	345
10:00	3	307	30	1	4	0	0	0	0	0	0	0	0	345
11:00	5	380	28	1	9	0	0	2	0	0	0	0	0	425
12 PM	4	361	26	0	6	0	0	3	1	0	0	0	0	401
13:00	3	335	37	0	3	1	0	1	0	0	0	0	0	380
14:00	3	370	24	1	6	1	0	2	1	0	0	0	0	408
15:00	1	353	26	1	8	0	0	4	1	0	0	0	0	394
16:00	6	351	25	0	5	0	0	1	0	0	0	0	0	388
17:00	4	386	24	0	5	0	0	2	0	0	0	0	0	421
18:00	3	347	19	1	2	0	0	0	0	1	0	0	0	373
19:00	1	269	17	0	2	0	0	0	0	0	0	0	0	289
20:00	0	206	13	0	0	0	0	1	0	0	0	0	0	220
21:00	0	173	7	0	0	0	0	0	0	0	0	0	0	180
22:00	0	90	6	0	0	0	0	1	0	0	0	0	0	97
23:00	1	72	4	0	0	1	0	0	0	0	0	0	0	78
Total	40	5192	437	12	69	13	0	20	4	1	0	0	1	5789
Percent	0.7%	89.7%	7.5%	0.2%	1.2%	0.2%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	09:00	08:00	08:00	09:00		08:00	09:00				09:00	11:00
Vol.	5	380	43	3	9	4		2	1				1	425
PM Peak	16:00	17:00	13:00	14:00	15:00	13:00		15:00	12:00	18:00				17:00
Vol.	6	386	37	1	8	1		4	1	1				421

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EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	30	1	0	0	0	0	0	0	0	0	0	0	31
01:00	0	31	1	0	0	1	0	0	0	0	0	0	0	33
02:00	0	21	1	0	1	0	0	0	0	0	0	0	0	23
03:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
04:00	1	22	3	0	0	0	0	0	0	0	0	0	0	26
05:00	0	72	6	0	1	1	1	0	0	0	0	0	0	81
06:00	0	207	19	1	0	1	0	0	0	0	0	0	0	228
07:00	1	245	35	1	7	2	0	1	0	0	0	0	0	292
08:00	0	320	32	1	10	0	0	3	0	1	0	0	0	367
09:00	3	282	40	1	6	0	0	1	0	0	0	0	0	333
10:00	3	353	32	1	2	1	0	0	1	0	0	0	0	393
11:00	5	339	41	1	7	1	0	1	2	0	0	0	0	397
12 PM	2	357	32	0	2	3	0	1	0	0	0	0	0	397
13:00	3	360	35	1	5	0	0	3	0	0	0	0	0	407
14:00	1	374	31	3	5	0	0	4	0	0	0	0	0	418
15:00	6	391	34	0	7	0	0	3	0	0	0	0	0	441
16:00	1	339	26	2	3	0	0	0	0	0	1	1	0	373
17:00	4	413	30	0	1	1	0	0	0	0	0	0	0	449
18:00	4	359	30	0	2	0	0	1	0	0	0	0	0	396
19:00	3	267	21	0	2	0	0	0	0	0	0	0	0	293
20:00	2	195	12	0	3	0	0	0	1	0	0	0	0	213
21:00	0	165	9	0	0	1	0	0	0	0	0	0	0	175
22:00	0	153	3	0	1	1	0	0	0	0	0	0	0	158
23:00	1	86	3	0	0	0	0	0	0	0	0	0	0	90
Total	40	5387	477	12	65	13	1	18	4	1	1	1	0	6020
Percent	0.7%	89.5%	7.9%	0.2%	1.1%	0.2%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	10:00	11:00	06:00	08:00	07:00	05:00	08:00	11:00	08:00				11:00
Vol.	5	353	41	1	10	2	1	3	2	1				397
PM Peak	15:00	17:00	13:00	14:00	15:00	12:00		14:00	20:00		16:00	16:00		17:00
Vol.	6	413	35	3	7	3		4	1		1	1		449

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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	13	3	0	0	0	0	0	0	0	0	0	0	16
01:00	0	6	0	0	1	0	0	0	0	0	0	0	0	7
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
05:00	0	11	2	0	0	0	0	0	1	0	0	0	0	14
06:00	0	42	7	0	4	0	0	0	0	0	0	0	0	53
07:00	0	95	23	1	4	0	0	0	0	0	0	0	0	123
08:00	0	218	35	0	7	0	0	1	0	0	0	0	0	261
09:00	0	154	32	1	7	1	0	0	0	0	0	0	0	195
10:00	2	157	33	0	1	0	0	0	0	0	0	0	0	193
11:00	0	142	25	2	3	0	0	0	0	0	0	0	0	172
12 PM	0	183	26	1	6	0	0	2	0	0	0	0	0	218
13:00	0	164	20	1	5	1	0	1	0	0	0	0	0	192
14:00	0	149	30	2	5	0	0	0	0	0	0	0	0	186
15:00	0	165	23	1	2	0	0	2	0	0	0	0	0	193
16:00	0	142	20	0	3	0	0	0	0	0	0	0	0	165
17:00	0	133	13	0	1	2	0	1	0	0	0	0	0	150
18:00	0	150	17	0	5	0	0	0	0	0	0	0	0	172
19:00	0	87	13	1	2	0	0	0	0	0	0	0	0	103
20:00	0	55	7	0	2	0	0	0	0	0	0	0	0	64
21:00	0	38	6	0	0	0	0	0	0	0	0	0	0	44
22:00	0	37	4	0	0	0	0	0	0	0	0	0	0	41
23:00	0	20	6	0	0	0	0	0	0	0	0	0	0	26
Total	2	2169	349	10	59	4	0	7	1	0	0	0	0	2601
Percent	0.1%	83.4%	13.4%	0.4%	2.3%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	08:00	11:00	08:00	09:00		08:00	05:00					08:00
Vol.	2	218	35	2	7	1		1	1					261
PM Peak		12:00	14:00	14:00	12:00	17:00		12:00						12:00
Vol.		183	30	2	6	2		2						218

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Union Street
west of JFK Highway (Route 18)
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 C-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	21	0	0	0	0	0	0	0	0	0	0	0	21
01:00	0	18	0	0	1	0	0	0	0	0	0	0	0	19
02:00	0	4	2	0	1	0	0	0	0	0	0	0	0	7
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	3	1	0	1	0	0	0	0	0	0	0	0	5
05:00	0	21	1	0	1	0	0	0	0	0	0	0	0	23
06:00	0	33	13	1	3	0	0	0	0	0	0	0	0	50
07:00	2	99	18	1	5	0	0	1	0	0	0	0	0	126
08:00	0	218	30	0	3	1	0	2	0	0	0	0	0	254
09:00	0	138	30	1	5	0	0	0	0	0	0	0	0	174
10:00	0	120	24	0	6	0	0	0	0	0	0	0	0	150
11:00	0	143	28	0	6	0	0	1	0	0	0	0	0	178
12 PM	0	159	21	0	5	0	0	0	0	0	0	0	0	185
13:00	0	152	23	0	3	0	0	1	0	0	0	0	0	179
14:00	0	138	32	1	2	0	0	3	0	0	0	0	0	176
15:00	0	140	20	0	6	0	0	2	0	0	0	0	0	168
16:00	0	140	19	1	3	1	0	0	0	0	0	0	0	164
17:00	0	139	13	0	6	1	0	0	0	0	0	0	0	159
18:00	0	128	19	0	4	0	0	0	0	0	0	0	0	151
19:00	3	97	10	0	3	0	0	0	0	0	0	0	0	113
20:00	0	56	10	0	1	0	0	0	0	0	0	0	0	67
21:00	0	54	11	0	0	0	0	0	0	0	0	0	0	65
22:00	0	51	5	0	1	0	0	0	0	0	0	0	0	57
23:00	0	27	4	0	2	0	0	1	0	0	0	0	0	34
Total	5	2099	335	5	68	3	0	11	0	0	0	0	0	2526
Percent	0.2%	83.1%	13.3%	0.2%	2.7%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	06:00	10:00	08:00		08:00						08:00
Vol.	2	218	30	1	6	1		2						254
PM Peak	19:00	12:00	14:00	14:00	15:00	16:00		14:00						12:00
Vol.	3	159	32	1	6	1		3						185

PRECISION DATA INDUSTRIES, LLC
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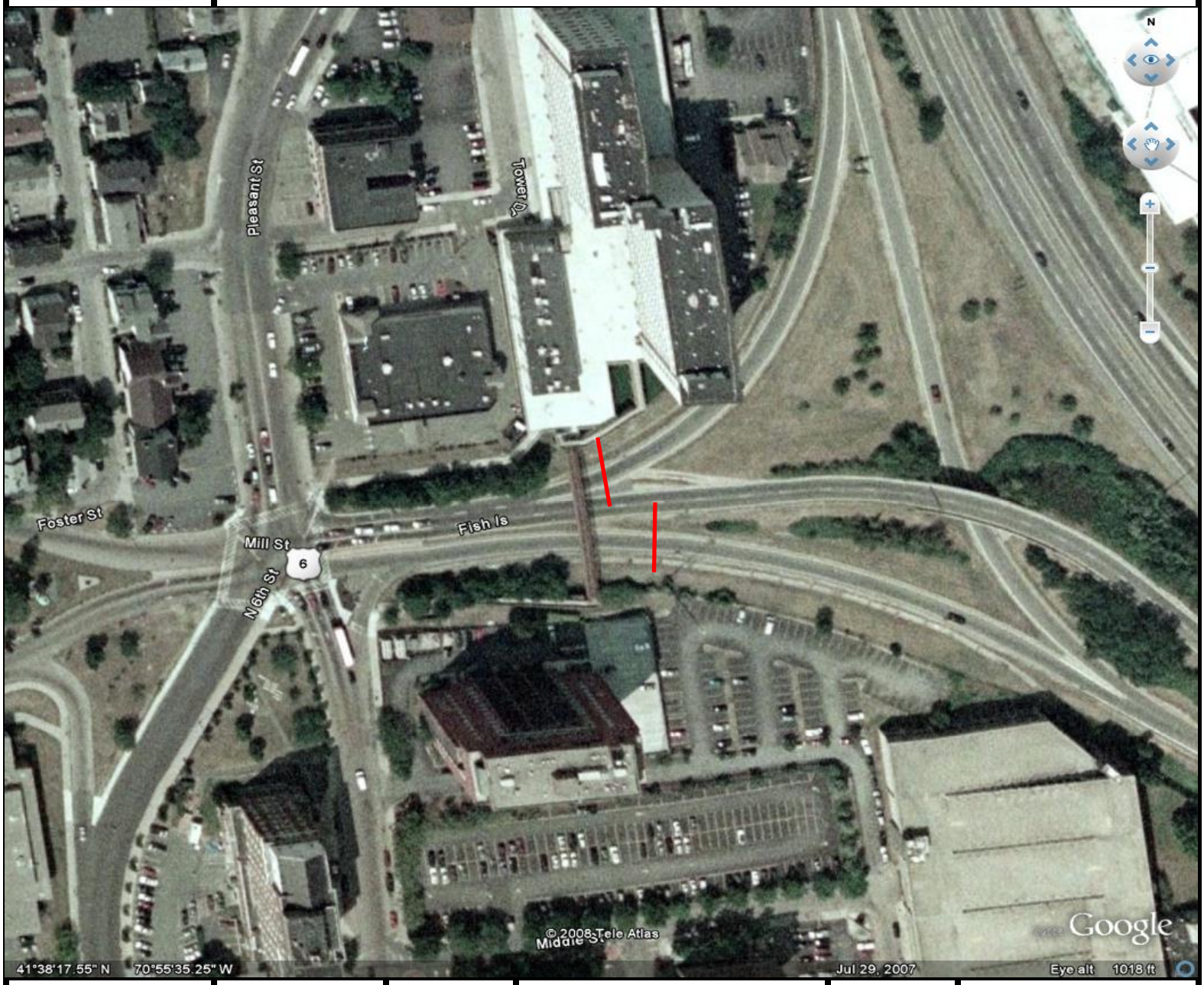
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 10/15 thru Thurs 10/16/08	81676 C-D	New Bedford, MA

Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 C-D1 volume
Site Code: 10111.31

Start	WB LL				EB Ramp				Combined				15-Oct-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		47		15		113		24		160		
12:15	6		19		5		58		11		77		
12:30	7		77		8		74		15		151		
12:45	4	26	69	212	7	35	86	331	11	61	155	543	
01:00	4		63		5		83		9		146		
01:15	1		8		5		55		6		63		
01:30	3		82		4		66		7		148		
01:45	4	12	70	223	6	20	82	286	10	32	152	509	
02:00	1		74		3		97		4		171		
02:15	1		20		4		43		5		63		
02:30	1		84		2		99		3		183		
02:45	3	6	73	251	3	12	92	331	6	18	165	582	
03:00	4		63		1		116		5		179		
03:15	2		14		6		50		8		64		
03:30	3		75		1		98		4		173		
03:45	3	12	51	203	1	9	102	366	4	21	153	569	
04:00	5		63		0		123		5		186		
04:15	1		51		3		85		4		136		
04:30	4		68		3		123		7		191		
04:45	3	13	58	240	3	9	83	414	6	22	141	654	
05:00	5		57		10		112		15		169		
05:15	12		16		11		52		23		68		
05:30	9		56		9		93		18		149		
05:45	12	38	45	174	13	43	66	323	25	81	111	497	
06:00	7		44		8		55		15		99		
06:15	15		28		14		45		29		73		
06:30	26		67		28		73		54		140		
06:45	34	82	40	179	36	86	46	219	70	168	86	398	
07:00	10		45		14		61		24		106		
07:15	38		41		47		46		85		87		
07:30	44		41		58		52		102		93		
07:45	59	151	38	165	60	179	36	195	119	330	74	360	
08:00	21		19		27		31		48		50		
08:15	52		32		81		32		133		64		
08:30	67		35		72		40		139		75		
08:45	69	209	21	107	59	239	20	123	128	448	41	230	
09:00	7		16		39		36		46		52		
09:15	53		19		66		27		119		46		
09:30	52		14		66		25		118		39		
09:45	52	164	20	69	57	228	25	113	109	392	45	182	
10:00	2		16		44		16		46		32		
10:15	51		15		66		27		117		42		
10:30	53		7		81		13		134		20		
10:45	54	160	18	56	76	267	19	75	130	427	37	131	
11:00	54		2		67		11		121		13		
11:15	1		18		48		14		49		32		
11:30	69		4		92		12		161		16		
11:45	56	180	9	33	92	299	14	51	148	479	23	84	
Total	1053		1912		1426		2827		2479		4739		
Percent	42.5%		40.3%		57.5%		59.7%						
Day Total		2965				4253				7218			
Peak	10:15		02:00		11:00		03:45		10:15		03:45		
Vol.	212		251		299		433		502		666		
P.H.F.	0.768		0.747		0.813		0.880		0.903		0.872		

Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 C-D1 volume
Site Code: 10111.31

Start	WB LL				EB Ramp				Combined				16-Oct-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	4		56		6		105		10		161		
12:15	9		11		4		55		13		66		
12:30	1		68		8		81		9		149		
12:45	0	14	68	203	7	25	94	335	7	39	162	538	
01:00	2		58		2		82		4		140		
01:15	3		18		5		55		8		73		
01:30	3		64		3		68		6		132		
01:45	6	14	71	211	5	15	76	281	11	29	147	492	
02:00	0		75		1		86		1		161		
02:15	0		25		5		55		5		80		
02:30	2		66		4		83		6		149		
02:45	7	9	58	224	1	11	97	321	8	20	155	545	
03:00	2		58		1		82		3		140		
03:15	2		15		7		54		9		69		
03:30	3		60		4		84		7		144		
03:45	2	9	87	220	2	14	105	325	4	23	192	545	
04:00	2		59		0		113		2		172		
04:15	0		46		3		109		3		155		
04:30	2		74		3		113		5		187		
04:45	2	6	53	232	2	8	96	431	4	14	149	663	
05:00	4		59		6		97		10		156		
05:15	8		7		8		47		16		54		
05:30	10		79		11		76		21		155		
05:45	4	26	60	205	12	37	80	300	16	63	140	505	
06:00	6		53		12		76		18		129		
06:15	14		27		14		48		28		75		
06:30	25		63		29		69		54		132		
06:45	36	81	48	191	51	106	53	246	87	187	101	437	
07:00	13		24		14		39		27		63		
07:15	29		49		44		42		73		91		
07:30	52		33		60		34		112		67		
07:45	70	164	31	137	71	189	32	147	141	353	63	284	
08:00	14		27		26		39		40		66		
08:15	53		35		62		48		115		83		
08:30	64		26		57		39		121		65		
08:45	57	188	28	116	59	204	25	151	116	392	53	267	
09:00	36		30		48		23		84		53		
09:15	38		27		73		26		111		53		
09:30	51		15		57		27		108		42		
09:45	51	176	20	92	72	250	21	97	123	426	41	189	
10:00	6		23		44		22		50		45		
10:15	59		23		66		24		125		47		
10:30	41		20		76		16		117		36		
10:45	6	112	8	74	51	237	17	79	57	349	25	153	
11:00	66		16		73		13		139		29		
11:15	18		10		63		13		81		23		
11:30	77		4		84		10		161		14		
11:45	57	218	7	37	87	307	11	47	144	525	18	84	
Total	1017		1942		1403		2760		2420		4702		
Percent	42.0%		41.3%		58.0%		58.7%						
Day Total		2959				4163				7122			
Peak	11:00		03:45		11:00		03:45		11:00		03:45		
Vol.	218		266		307		440		525		706		
P.H.F.	0.708		0.764		0.882		0.973		0.815		0.919		

PRECISION
D A T A
INDUSTRIES, LLC
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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D1 speed
Site Code: 10111.31

WB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	1	1	10	13	1	0	0	0	0	0	0	26	38	34
01:00	0	0	0	3	6	2	1	0	0	0	0	0	0	12	35	32
02:00	0	0	0	1	2	2	1	0	0	0	0	0	0	6	36	34
03:00	0	0	0	0	4	7	0	0	**1**	0	0	0	0	12	38	36
04:00	0	0	0	3	2	6	2	0	0	0	0	0	0	13	39	34
05:00	0	0	0	3	19	15	1	0	0	0	0	0	0	38	38	34
06:00	0	0	2	12	35	27	5	**1**	0	0	0	0	0	82	38	33
07:00	1	2	10	33	63	37	5	0	0	0	0	0	0	151	37	31
08:00	4	**20**	**18**	**54**	**75**	35	3	0	0	0	0	0	0	**209**	35	29
09:00	7	6	10	37	52	**43**	**9**	0	0	0	0	0	0	164	37	30
10:00	7	11	18	24	59	32	8	0	1	0	0	0	0	160	37	30
11:00	**14**	10	14	38	63	32	8	1	0	0	0	0	0	180	36	29
12 PM	18	19	23	46	59	41	6	0	0	0	0	0	0	212	36	28
13:00	**43**	29	30	39	48	27	6	0	0	0	0	0	0	222	34	24
14:00	30	**31**	**35**	**70**	52	26	8	0	0	0	0	0	0	**252**	34	25
15:00	23	19	34	41	50	22	11	**3**	0	0	0	0	0	203	36	26
16:00	7	14	23	48	**80**	**54**	**13**	1	0	0	0	0	0	240	37	30
17:00	21	6	16	39	49	35	8	0	0	0	0	0	0	174	37	28
18:00	15	6	15	31	47	53	12	0	0	0	0	0	0	179	38	30
19:00	0	0	4	35	79	39	6	1	0	**1**	0	0	0	165	37	32
20:00	0	1	3	23	44	25	10	1	0	0	0	0	0	107	38	33
21:00	0	0	0	9	30	25	4	1	0	0	0	0	0	69	38	34
22:00	0	0	1	15	18	20	2	0	0	0	0	0	0	56	38	33
23:00	3	3	4	3	9	6	2	3	0	0	0	0	0	33	39	30
Total	193	177	261	608	955	624	132	12	2	1	0	0	0	2965		
%	6.5%	6.0%	8.8%	20.5%	32.2%	21.0%	4.5%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	08:00	08:00	08:00	08:00	09:00	09:00	06:00	03:00					08:00		
Vol.	14	20	18	54	75	43	9	1	1					209		
PM Peak	13:00	14:00	14:00	14:00	16:00	16:00	16:00	15:00		19:00				14:00		
Vol.	43	31	35	70	80	54	13	3		1				252		

Pecent

15th Percentile :	21 MPH
50th Percentile :	31 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	1579
Percent in Pace :	53.3%
Number of Vehicles > 30 MPH :	1535
Percent of Vehicles > 30 MPH :	51.8%
Mean Speed(Average) :	29 MPH

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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D1 speed
Site Code: 10111.31

WB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	3	7	3	0	**1**	0	0	0	0	0	14	36	33
01:00	0	0	0	2	9	2	1	0	0	0	0	0	0	14	35	32
02:00	0	0	0	0	3	6	0	0	0	0	0	0	0	9	38	35
03:00	0	1	0	1	4	1	2	0	0	0	0	0	0	9	40	32
04:00	0	0	0	3	2	0	1	0	0	0	0	0	0	6	31	30
05:00	0	0	1	3	10	9	3	0	0	0	0	0	0	26	38	34
06:00	0	0	3	11	35	26	5	1	0	0	0	0	0	81	38	33
07:00	12	14	13	38	54	30	2	1	0	0	0	0	0	164	36	28
08:00	5	8	17	**45**	**69**	38	6	0	0	0	0	0	0	188	36	30
09:00	0	4	13	34	68	**47**	**10**	0	0	0	0	0	0	176	38	32
10:00	**16**	10	12	19	30	19	5	1	0	0	0	0	0	112	36	27
11:00	16	**22**	**36**	41	63	33	7	0	0	0	0	0	0	**218**	35	27
12 PM	18	17	23	49	58	33	5	0	0	0	0	0	0	203	36	27
13:00	10	9	30	**65**	61	33	2	1	0	0	0	0	0	211	35	28
14:00	18	13	**32**	51	74	31	5	0	0	0	0	0	0	224	35	27
15:00	**72**	**32**	29	34	34	16	3	0	0	0	0	0	0	220	32	20
16:00	3	9	24	56	**82**	**48**	10	0	0	0	0	0	0	**232**	37	30
17:00	16	19	15	42	73	33	7	0	0	0	0	0	0	205	36	28
18:00	11	7	20	42	73	32	4	**2**	0	0	0	0	0	191	36	29
19:00	5	5	11	33	47	33	3	0	0	0	0	0	0	137	37	30
20:00	0	0	3	21	48	33	**11**	0	0	0	0	0	0	116	38	33
21:00	0	0	0	11	37	38	6	0	0	0	0	0	0	92	38	34
22:00	0	0	1	5	34	28	6	0	0	0	0	0	0	74	38	34
23:00	0	0	0	2	19	15	1	1	0	0	0	0	0	38	38	34
Total	202	170	283	611	994	587	105	8	0	0	0	0	0	2960		
%	6.8%	5.7%	9.6%	20.6%	33.6%	19.8%	3.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	11:00	08:00	08:00	09:00	09:00	00:00						11:00		
Vol.	16	22	36	45	69	47	10	1						218		
PM Peak	15:00	15:00	14:00	13:00	16:00	16:00	20:00	18:00						16:00		
Vol.	72	32	32	65	82	48	11	2						232		

Pecent

15th Percentile :	21 MPH
50th Percentile :	31 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1605
Percent in Pace :	54.2%
Number of Vehicles > 30 MPH :	1495
Percent of Vehicles > 30 MPH :	50.5%
Mean Speed(Average) :	29 MPH

PRECISION DATA INDUSTRIES, LLC
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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D1 speed
Site Code: 10111.31

EB Ramp

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	4	11	17	3	0	0	0	0	0	0	35	39	35
01:00	0	0	0	3	6	6	4	**1**	0	0	0	0	0	20	41	35
02:00	0	0	0	0	6	4	2	0	0	0	0	0	0	12	38	35
03:00	0	0	0	1	5	2	1	0	0	0	0	0	0	9	36	33
04:00	0	0	0	1	3	5	0	0	0	0	0	0	0	9	38	35
05:00	0	0	0	3	19	17	4	0	0	0	0	0	0	43	39	34
06:00	0	0	1	5	36	39	4	1	0	0	0	0	0	86	38	34
07:00	0	0	0	12	67	93	7	0	0	0	0	0	0	179	38	35
08:00	0	0	0	10	110	96	**23**	0	0	0	0	0	0	239	39	35
09:00	0	0	**3**	12	117	82	12	1	0	0	0	0	0	227	38	34
10:00	0	0	2	15	117	117	17	0	0	0	0	0	0	268	38	34
11:00	0	0	1	**20**	**131**	**123**	23	1	0	0	0	0	0	**299**	39	34
12 PM	0	0	3	**29**	137	144	16	2	0	0	0	0	0	331	38	34
13:00	0	0	**5**	24	123	124	9	0	0	0	0	0	0	285	38	34
14:00	0	0	1	15	150	141	20	**3**	**1**	0	0	0	0	331	39	35
15:00	0	0	3	22	163	152	**25**	1	0	0	0	0	0	366	39	34
16:00	0	0	2	17	**195**	**180**	20	1	0	0	0	0	0	**415**	38	34
17:00	0	0	2	12	173	121	15	0	0	0	0	0	0	323	38	34
18:00	0	0	1	7	115	79	16	1	0	0	0	0	0	219	38	34
19:00	0	0	0	11	100	68	15	1	0	0	0	0	0	195	38	34
20:00	0	0	0	8	62	45	8	0	0	0	0	0	0	123	38	34
21:00	0	0	1	4	61	40	7	0	0	0	0	0	0	113	38	34
22:00	0	0	1	1	32	37	4	0	0	0	0	0	0	75	38	35
23:00	0	0	0	5	21	21	4	0	0	0	0	0	0	51	38	34
Total	0	0	26	241	1960	1753	259	13	1	0	0	0	0	4253		
%	0.0%	0.0%	0.6%	5.7%	46.1%	41.2%	6.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			09:00	11:00	11:00	11:00	08:00	01:00						11:00		
Vol.			3	20	131	123	23	1						299		
PM Peak			13:00	12:00	16:00	16:00	15:00	14:00	14:00					16:00		
Vol.			5	29	195	180	25	3	1					415		

Pecent

15th Percentile :	30 MPH
50th Percentile :	34 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	3713
Percent in Pace :	87.3%
Number of Vehicles > 30 MPH :	3594
Percent of Vehicles > 30 MPH :	84.5%
Mean Speed(Average) :	34 MPH

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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D1 speed
Site Code: 10111.31

EB Ramp

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	0	16	6	3	0	0	0	0	0	0	25	38	34
01:00	0	0	0	2	4	7	2	0	0	0	0	0	0	15	39	35
02:00	0	0	0	0	4	7	0	0	0	0	0	0	0	11	37	35
03:00	0	0	0	1	7	5	1	0	0	0	0	0	0	14	38	34
04:00	0	0	0	0	4	3	1	0	0	0	0	0	0	8	37	34
05:00	0	0	1	2	16	14	4	0	0	0	0	0	0	37	38	34
06:00	0	0	0	7	45	47	5	1	**1**	0	0	0	0	106	38	35
07:00	0	0	**2**	4	88	83	11	1	0	0	0	0	0	189	38	35
08:00	0	0	2	10	99	80	13	0	0	0	0	0	0	204	38	34
09:00	0	0	1	29	128	76	15	1	0	0	0	0	0	250	38	34
10:00	0	**1**	1	**40**	110	67	15	**3**	0	0	0	0	0	237	38	33
11:00	0	0	1	24	**162**	**99**	**20**	1	0	0	0	0	0	**307**	38	34
12 PM	0	1	9	**38**	184	89	14	0	0	0	0	0	0	335	37	33
13:00	0	0	0	18	149	100	12	1	0	**1**	0	0	0	281	38	34
14:00	0	0	0	19	159	134	9	0	0	0	0	0	0	321	38	34
15:00	**5**	**2**	**11**	33	154	113	6	1	0	0	0	0	0	325	38	33
16:00	0	0	0	16	**203**	**191**	**18**	**3**	0	0	0	0	0	**431**	38	35
17:00	0	0	1	20	135	125	17	2	0	0	0	0	0	300	38	34
18:00	0	0	2	15	133	86	9	1	0	0	0	0	0	246	38	34
19:00	0	0	0	7	73	58	6	3	0	0	0	0	0	147	38	34
20:00	0	0	0	2	66	68	12	2	**1**	0	0	0	0	151	39	35
21:00	0	0	0	4	37	43	13	0	0	0	0	0	0	97	39	35
22:00	0	0	0	3	38	31	7	0	0	0	0	0	0	79	39	35
23:00	0	0	0	3	8	29	7	0	0	0	0	0	0	47	39	36
Total	5	4	31	297	2022	1561	220	20	2	1	0	0	0	4163		
%	0.1%	0.1%	0.7%	7.1%	48.6%	37.5%	5.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		10:00	07:00	10:00	11:00	11:00	11:00	10:00	06:00					11:00		
Vol.		1	2	40	162	99	20	3	1					307		
PM Peak	15:00	15:00	15:00	12:00	16:00	16:00	16:00	16:00	20:00	13:00				16:00		
Vol.	5	2	11	38	203	191	18	3	1	1				431		

Pecent

15th Percentile :	30 MPH
50th Percentile :	34 MPH
85th Percentile :	38 MPH
95th Percentile :	40 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	3583
Percent in Pace :	86.1%
Number of Vehicles > 30 MPH :	3421
Percent of Vehicles > 30 MPH :	82.2%
Mean Speed(Average) :	34 MPH

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81676 C-D1 class
Site Code: 10111.31

WB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	24	2	0	0	0	0	0	0	0	0	0	0	26
01:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
02:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6
03:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12
04:00	0	9	3	0	1	0	0	0	0	0	0	0	0	13
05:00	0	35	3	0	0	0	0	0	0	0	0	0	0	38
06:00	0	65	15	0	2	0	0	0	0	0	0	0	0	82
07:00	0	122	22	1	5	0	0	0	1	0	0	0	0	151
08:00	0	186	17	1	5	0	0	0	0	0	0	0	0	209
09:00	1	137	23	0	3	0	0	0	0	0	0	0	0	164
10:00	1	119	27	0	11	1	0	1	0	0	0	0	0	160
11:00	1	152	22	1	4	0	0	0	0	0	0	0	0	180
12 PM	4	172	30	0	6	0	0	0	0	0	0	0	0	212
13:00	2	187	25	0	6	0	0	1	0	0	0	1	0	222
14:00	1	209	35	2	3	0	0	2	0	0	0	0	0	252
15:00	1	168	29	1	3	0	0	1	0	0	0	0	0	203
16:00	1	201	28	0	9	0	0	1	0	0	0	0	0	240
17:00	3	141	25	0	5	0	0	0	0	0	0	0	0	174
18:00	2	150	25	0	2	0	0	0	0	0	0	0	0	179
19:00	0	152	12	0	1	0	0	0	0	0	0	0	0	165
20:00	0	92	13	0	1	0	0	1	0	0	0	0	0	107
21:00	0	60	6	0	3	0	0	0	0	0	0	0	0	69
22:00	0	52	3	0	1	0	0	0	0	0	0	0	0	56
23:00	0	28	5	0	0	0	0	0	0	0	0	0	0	33
Total	17	2484	376	6	72	1	0	7	1	0	0	1	0	2965
Percent	0.6%	83.8%	12.7%	0.2%	2.4%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	10:00	07:00	10:00	10:00		10:00	07:00					08:00
Vol.	1	186	27	1	11	1		1	1					209
PM Peak	12:00	14:00	14:00	14:00	16:00			14:00				13:00		14:00
Vol.	4	209	35	2	9			2				1		252

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Client: VHB/R. Raveendran

81676 C-D1 class
Site Code: 10111.31

WB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	14	0	0	0	0	0	0	0	0	0	0	0	14
01:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
03:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
04:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:00	0	21	5	0	0	0	0	0	0	0	0	0	0	26
06:00	0	66	14	0	1	0	0	0	0	0	0	0	0	81
07:00	0	135	22	1	4	1	0	1	0	0	0	0	0	164
08:00	0	155	24	0	6	0	0	2	1	0	0	0	0	188
09:00	2	131	35	1	5	1	0	1	0	0	0	0	0	176
10:00	1	90	13	0	7	0	0	1	0	0	0	0	0	112
11:00	0	189	20	0	7	1	0	1	0	0	0	0	0	218
12 PM	1	174	21	0	5	1	0	1	0	0	0	0	0	203
13:00	0	186	19	0	5	0	0	0	0	1	0	0	0	211
14:00	0	186	31	0	5	0	0	1	1	0	0	0	0	224
15:00	1	191	22	1	5	0	0	0	0	0	0	0	0	220
16:00	2	193	30	1	4	0	0	2	0	0	0	0	0	232
17:00	0	188	12	1	3	0	0	1	0	0	0	0	0	205
18:00	0	168	23	0	0	0	0	0	0	0	0	0	0	191
19:00	1	125	10	0	0	0	0	1	0	0	0	0	0	137
20:00	0	99	16	0	1	0	0	0	0	0	0	0	0	116
21:00	0	78	11	0	3	0	0	0	0	0	0	0	0	92
22:00	0	69	5	0	0	0	0	0	0	0	0	0	0	74
23:00	0	33	4	0	1	0	0	0	0	0	0	0	0	38
Total	8	2526	340	5	62	4	0	12	2	1	0	0	0	2960
Percent	0.3%	85.3%	11.5%	0.2%	2.1%	0.1%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	09:00	07:00	10:00	07:00		08:00	08:00					11:00
Vol.	2	189	35	1	7	1		2	1					218
PM Peak	16:00	16:00	14:00	15:00	12:00	12:00		16:00	14:00	13:00				16:00
Vol.	2	193	31	1	5	1		2	1	1				232

PRECISION
D A T A
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Kempton Street east of
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81676 C-D1 class
Site Code: 10111.31

EB Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	27	8	0	0	0	0	0	0	0	0	0	0	35
01:00	0	18	2	0	0	0	0	0	0	0	0	0	0	20
02:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
03:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
04:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
05:00	0	35	7	0	1	0	0	0	0	0	0	0	0	43
06:00	1	71	11	0	2	0	0	1	0	0	0	0	0	86
07:00	1	141	31	2	4	0	0	0	0	0	0	0	0	179
08:00	0	189	39	1	9	0	0	1	0	0	0	0	0	239
09:00	0	174	41	1	9	0	0	1	1	0	0	0	0	227
10:00	2	217	39	1	8	0	0	1	0	0	0	0	0	268
11:00	3	238	43	0	13	0	0	2	0	0	0	0	0	299
12 PM	6	273	37	2	11	2	0	0	0	0	0	0	0	331
13:00	4	231	41	2	6	0	0	1	0	0	0	0	0	285
14:00	2	282	35	1	8	0	0	1	2	0	0	0	0	331
15:00	4	310	43	0	8	0	0	1	0	0	0	0	0	366
16:00	2	350	54	0	9	0	0	0	0	0	0	0	0	415
17:00	2	262	53	0	5	0	0	1	0	0	0	0	0	323
18:00	1	193	20	0	5	0	0	0	0	0	0	0	0	219
19:00	0	172	19	0	3	0	0	0	0	1	0	0	0	195
20:00	1	104	16	0	1	0	0	1	0	0	0	0	0	123
21:00	0	103	8	0	2	0	0	0	0	0	0	0	0	113
22:00	0	68	7	0	0	0	0	0	0	0	0	0	0	75
23:00	0	42	9	0	0	0	0	0	0	0	0	0	0	51
Total	29	3524	569	10	104	2	0	11	3	1	0	0	0	4253
Percent	0.7%	82.9%	13.4%	0.2%	2.4%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	07:00	11:00			11:00	09:00					11:00
Vol.	3	238	43	2	13			2	1					299
PM Peak	12:00	16:00	16:00	12:00	12:00	12:00		13:00	14:00	19:00				16:00
Vol.	6	350	54	2	11	2		1	2	1				415

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81676 C-D1 class
Site Code: 10111.31

EB Ramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	22	3	0	0	0	0	0	0	0	0	0	0	25
01:00	0	11	4	0	0	0	0	0	0	0	0	0	0	15
02:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
03:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
04:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
05:00	0	28	7	0	1	0	0	1	0	0	0	0	0	37
06:00	1	84	18	0	3	0	0	0	0	0	0	0	0	106
07:00	1	149	33	0	5	0	0	1	0	0	0	0	0	189
08:00	0	164	32	1	6	0	0	0	1	0	0	0	0	204
09:00	1	186	46	3	10	0	0	3	1	0	0	0	0	250
10:00	2	185	39	1	8	1	0	1	0	0	0	0	0	237
11:00	0	252	44	1	6	1	0	2	1	0	0	0	0	307
12 PM	1	284	41	3	4	0	0	2	0	0	0	0	0	335
13:00	1	245	26	1	5	1	0	1	1	0	0	0	0	281
14:00	0	273	39	2	6	0	0	1	0	0	0	0	0	321
15:00	1	287	29	0	8	0	0	0	0	0	0	0	0	325
16:00	0	370	49	0	10	1	0	1	0	0	0	0	0	431
17:00	0	271	24	1	4	0	0	0	0	0	0	0	0	300
18:00	0	211	31	1	2	1	0	0	0	0	0	0	0	246
19:00	0	129	15	0	3	0	0	0	0	0	0	0	0	147
20:00	2	132	14	0	2	0	0	1	0	0	0	0	0	151
21:00	0	91	5	0	1	0	0	0	0	0	0	0	0	97
22:00	0	75	4	0	0	0	0	0	0	0	0	0	0	79
23:00	0	40	7	0	0	0	0	0	0	0	0	0	0	47
Total	10	3520	512	14	84	5	0	14	4	0	0	0	0	4163
Percent	0.2%	84.6%	12.3%	0.3%	2.0%	0.1%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	09:00	09:00	09:00	10:00		09:00	08:00					11:00
Vol.	2	252	46	3	10	1		3	1					307
PM Peak	20:00	16:00	16:00	12:00	16:00	13:00		12:00	13:00					16:00
Vol.	2	370	49	3	10	1		2	1					431

Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 C-D2 volume
Site Code: 10111.31

Start	WB RL				Rte 18 Offramp				Combined				15-Oct-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	8		74		5		28		13		102		
12:15	5		18		4		31		9		49		
12:30	6		91		4		39		10		130		
12:45	2	21	98	281	1	14	38	136	3	35	136	417	
01:00	8		71		2		39		10		110		
01:15	5		16		2		28		7		44		
01:30	1		109		1		32		2		141		
01:45	9	23	83	279	0	5	47	146	9	28	130	425	
02:00	4		107		2		33		6		140		
02:15	1		28		0		52		1		80		
02:30	2		101		1		31		3		132		
02:45	1	8	76	312	2	5	41	157	3	13	117	469	
03:00	1		95		0		32		1		127		
03:15	2		22		0		38		2		60		
03:30	4		84		2		30		6		114		
03:45	0	7	89	290	2	4	41	141	2	11	130	431	
04:00	0		104		1		24		1		128		
04:15	5		81		0		46		5		127		
04:30	7		92		0		39		7		131		
04:45	7	19	66	343	1	2	37	146	8	21	103	489	
05:00	3		86		3		33		6		119		
05:15	9		15		4		37		13		52		
05:30	13		68		9		38		22		106		
05:45	16	41	54	223	10	26	22	130	26	67	76	353	
06:00	9		66		11		40		20		106		
06:15	24		27		15		34		39		61		
06:30	33		72		13		25		46		97		
06:45	62	128	55	220	31	70	27	126	93	198	82	346	
07:00	16		44		31		23		47		67		
07:15	65		48		32		21		97		69		
07:30	73		41		52		22		125		63		
07:45	74	228	50	183	60	175	23	89	134	403	73	272	
08:00	17		8		60		16		77		24		
08:15	79		39		54		15		133		54		
08:30	65		31		70		22		135		53		
08:45	65	226	34	112	57	241	16	69	122	467	50	181	
09:00	9		34		54		12		63		46		
09:15	73		35		41		13		114		48		
09:30	71		15		31		5		102		20		
09:45	76	229	22	106	40	166	3	33	116	395	25	139	
10:00	10		20		51		13		61		33		
10:15	73		12		42		10		115		22		
10:30	73		4		30		12		103		16		
10:45	70	226	19	55	28	151	10	45	98	377	29	100	
11:00	71		4		34		7		105		11		
11:15	16		14		35		10		51		24		
11:30	76		9		33		8		109		17		
11:45	76	239	9	36	37	139	3	28	113	378	12	64	
Total	1395		2440		998		1246		2393		3686		
Percent	58.3%		66.2%		41.7%		33.8%						
Day Total		3835				2244				6079			
Peak	10:15		03:45		07:45		01:30		07:45		03:45		
Vol.	287		366		244		164		479		516		
P.H.F.	0.908		0.880		0.871		0.788		0.887		0.985		

Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

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81676 C-D2 volume
Site Code: 10111.31

Start	WB RL				Rte 18 Offramp				Combined				16-Oct-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	2		79		5		41		7		120		
12:15	4		21		1		33		5		54		
12:30	1		84		6		28		7		112		
12:45	3	10	77	261	2	14	42	144	5	24	119	405	
01:00	5		91		4		29		9		120		
01:15	4		23		7		48		11		71		
01:30	3		92		1		31		4		123		
01:45	2	14	77	283	0	12	46	154	2	26	123	437	
02:00	1		69		0		38		1		107		
02:15	6		20		1		37		7		57		
02:30	3		106		0		34		3		140		
02:45	2	12	76	271	0	1	44	153	2	13	120	424	
03:00	3		80		0		32		3		112		
03:15	3		22		2		45		5		67		
03:30	1		56		2		36		3		92		
03:45	3	10	113	271	1	5	30	143	4	15	143	414	
04:00	2		90		1		40		3		130		
04:15	1		69		0		42		1		111		
04:30	4		97		0		39		4		136		
04:45	6	13	76	332	2	3	39	160	8	16	115	492	
05:00	2		83		4		34		6		117		
05:15	4		14		2		38		6		52		
05:30	13		95		8		22		21		117		
05:45	17	36	69	261	14	28	38	132	31	64	107	393	
06:00	19		60		10		26		29		86		
06:15	16		19		10		34		26		53		
06:30	36		91		16		33		52		124		
06:45	69	140	59	229	33	69	27	120	102	209	86	349	
07:00	6		24		38		25		44		49		
07:15	68		51		32		22		100		73		
07:30	65		41		56		11		121		52		
07:45	72	211	49	165	57	183	25	83	129	394	74	248	
08:00	14		42		62		18		76		60		
08:15	80		50		57		20		137		70		
08:30	65		19		52		15		117		34		
08:45	70	229	39	150	68	239	10	63	138	468	49	213	
09:00	57		34		51		14		108		48		
09:15	53		34		43		17		96		51		
09:30	54		22		43		12		97		34		
09:45	68	232	12	102	43	180	15	58	111	412	27	160	
10:00	19		20		36		10		55		30		
10:15	71		20		34		15		105		35		
10:30	73		15		34		10		107		25		
10:45	8	171	9	64	45	149	8	43	53	320	17	107	
11:00	77		15		27		6		104		21		
11:15	19		10		35		8		54		18		
11:30	115		6		33		8		148		14		
11:45	75	286	10	41	43	138	6	28	118	424	16	69	
Total	1364		2430		1021		1281		2385		3711		
Percent	57.2%		65.5%		42.8%		34.5%						
Day Total		3794				2302				6096			
Peak	11:00		03:45		08:00		01:15		08:15		03:45		
Vol.	286		369		239		163		500		520		
P.H.F.	0.622		0.816		0.879		0.849		0.906		0.909		

PRECISION
D A T A
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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D2 speed
Site Code: 10111.31

WB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	2	6	12	1	0	0	0	0	0	0	21	38	35
01:00	0	0	0	3	12	8	0	0	0	0	0	0	0	23	37	33
02:00	0	0	0	0	3	4	1	0	0	0	0	0	0	8	38	36
03:00	0	0	0	0	4	2	1	0	0	0	0	0	0	7	36	34
04:00	0	1	0	2	9	6	1	0	0	0	0	0	0	19	37	33
05:00	0	0	0	7	12	14	7	**1**	0	0	0	0	0	41	40	35
06:00	4	0	6	24	57	30	7	0	0	0	0	0	0	128	37	31
07:00	16	14	33	60	62	**34**	**8**	1	0	0	0	0	0	228	36	28
08:00	**33**	**36**	**52**	49	37	14	5	0	0	0	0	0	0	226	32	23
09:00	14	15	37	**66**	61	30	4	1	**1**	0	0	0	0	229	35	27
10:00	18	16	32	63	61	29	6	0	0	0	0	0	0	225	35	27
11:00	26	13	43	60	**64**	27	6	1	0	0	0	0	0	**240**	34	26
12 PM	50	27	55	67	47	31	4	0	0	0	0	0	0	281	34	24
13:00	66	33	71	53	44	11	1	0	0	0	0	0	0	279	31	21
14:00	**69**	**54**	**94**	56	26	11	2	0	0	0	0	0	0	312	29	20
15:00	52	34	88	44	47	21	2	2	0	0	0	0	0	290	32	23
16:00	32	26	48	**87**	**87**	**49**	**10**	**4**	0	0	0	0	0	**343**	36	27
17:00	21	25	44	52	55	23	3	0	0	0	0	0	0	223	34	26
18:00	23	15	37	45	66	25	5	3	**1**	0	0	0	0	220	35	27
19:00	4	5	10	41	81	33	7	1	1	0	0	0	0	183	37	31
20:00	0	2	7	28	55	16	4	0	0	0	0	0	0	112	35	31
21:00	0	0	5	28	41	22	10	0	0	0	0	0	0	106	38	32
22:00	0	0	1	13	19	19	2	1	0	0	0	0	0	55	38	33
23:00	0	1	1	11	9	11	3	0	0	0	0	0	0	36	38	32
Total	428	317	664	861	965	482	100	15	3	0	0	0	0	3835		
%	11.2%	8.3%	17.3%	22.5%	25.2%	12.6%	2.6%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	09:00	11:00	07:00	07:00	05:00	09:00					11:00		
Vol.	33	36	52	66	64	34	8	1	1					240		
PM Peak	14:00	14:00	14:00	16:00	16:00	16:00	16:00	16:00	18:00					16:00		
Vol.	69	54	94	87	87	49	10	4	1					343		

Pecent

15th Percentile :	17 MPH
50th Percentile :	27 MPH
85th Percentile :	35 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1826
Percent in Pace :	47.6%
Number of Vehicles > 30 MPH :	1372
Percent of Vehicles > 30 MPH :	35.8%
Mean Speed(Average) :	26 MPH

PRECISION
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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D2 speed
Site Code: 10111.31

WB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0 8	0	0	0	6	3	1	0	0	0	0	0	0	0	10	31	29
01:00	0	0	0	2	7	3	2	0	0	0	0	0	0	14	37	33
02:00	0	0	0	2	7	3	0	0	0	0	0	0	0	12	35	32
03:00	0	0	0	1	7	1	1	0	0	0	0	0	0	10	34	33
04:00	0	0	0	0	6	7	0	0	0	0	0	0	0	13	37	35
05:00	0	0	2	7	13	11	3	0	0	0	0	0	0	36	38	33
06:00	0	0	6	29	59	36	7	**3**	0	0	0	0	0	140	38	33
07:00	23	18	44	38	53	30	5	0	0	0	0	0	0	211	35	26
08:00	19	10	44	61	64	27	3	1	0	0	0	0	0	229	34	27
09:00	11	19	34	57	**66**	**40**	2	1	**1**	0	0	0	0	231	36	28
10:00	19	19	23	37	49	21	3	1	0	0	0	0	0	172	34	26
11:00	**44**	**27**	**65**	**62**	56	23	**8**	1	0	0	0	0	0	**286**	33	24
12 PM	40	22	63	49	60	24	2	1	0	0	0	0	0	261	33	24
13:00	42	24	68	77	55	14	3	0	0	0	0	0	0	283	32	24
14:00	42	31	63	48	67	18	2	0	0	0	0	0	0	271	33	24
15:00	**78**	40	**81**	30	35	6	1	0	0	0	0	0	0	271	30	19
16:00	28	**42**	74	**95**	58	30	4	1	0	0	0	0	0	**332**	33	25
17:00	35	32	65	46	58	22	3	0	0	0	0	0	0	261	33	24
18:00	10	19	32	65	63	**32**	**6**	**2**	0	0	0	0	0	229	35	28
19:00	7	7	20	61	39	27	4	0	0	0	0	0	0	165	35	28
20:00	0	1	1	45	**68**	30	5	0	0	0	0	0	0	150	36	32
21:00	0	0	2	20	49	25	6	0	0	0	0	0	0	102	38	33
22:00	0	0	2	12	31	15	4	0	0	0	0	0	0	64	37	33
23:00	0	0	0	5	16	17	2	1	0	0	0	0	0	41	38	34
Total	398	311	689	855	989	463	76	12	1	0	0	0	0	3794		
%	10.5%	8.2%	18.2%	22.5%	26.1%	12.2%	2.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	09:00	09:00	11:00	06:00	09:00					11:00		
Vol.	44	27	65	62	66	40	8	3	1					286		
PM Peak	15:00	16:00	15:00	16:00	20:00	18:00	18:00	18:00						16:00		
Vol.	78	42	81	95	68	32	6	2						332		

Pecent

15th Percentile :	17 MPH
50th Percentile :	27 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1844
Percent in Pace :	48.6%
Number of Vehicles > 30 MPH :	1343
Percent of Vehicles > 30 MPH :	35.4%
Mean Speed(Average) :	26 MPH

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81676 C-D2 speed
Site Code: 10111.31

Rte 18 Offramp

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	4	3	4	2	1	0	0	0	0	0	0	14	35	29
01:00	0	1	2	0	2	0	0	0	0	0	0	0	0	5	30	24
02:00	0	0	2	1	0	1	0	**1**	0	0	0	0	0	5	35	29
03:00	0	0	0	1	3	0	0	0	0	0	0	0	0	4	31	30
04:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2	26	26
05:00	0	0	5	9	10	2	0	0	0	0	0	0	0	26	33	29
06:00	2	4	14	24	22	4	0	0	0	0	0	0	0	70	33	27
07:00	24	22	43	46	**34**	5	1	0	0	0	0	0	0	175	31	23
08:00	**32**	**43**	**68**	57	31	**9**	1	0	0	0	0	0	0	**241**	30	22
09:00	12	15	47	**59**	25	7	0	1	0	0	0	0	0	166	31	25
10:00	20	14	35	48	33	1	0	0	0	0	0	0	0	151	31	23
11:00	18	17	26	45	25	5	**3**	0	0	0	0	0	0	139	32	24
12 PM	19	20	41	32	19	3	**1**	**1**	0	0	0	0	0	136	30	23
13:00	28	23	52	29	9	4	1	0	0	0	0	0	0	146	28	21
14:00	**37**	**27**	**53**	24	14	2	0	0	0	0	0	0	0	**157**	28	19
15:00	24	20	30	32	**26**	**9**	0	0	0	0	0	0	0	141	32	23
16:00	30	21	35	**46**	12	2	0	0	0	0	0	0	0	146	29	21
17:00	14	23	41	30	19	3	0	0	0	0	0	0	0	130	30	22
18:00	18	18	29	38	19	4	0	0	0	0	0	0	0	126	30	23
19:00	6	6	21	33	20	3	0	0	0	0	0	0	0	89	32	26
20:00	0	5	14	23	21	5	1	0	0	0	0	0	0	69	33	28
21:00	0	1	10	6	13	2	1	0	0	0	0	0	0	33	33	28
22:00	0	5	7	13	16	4	0	0	0	0	0	0	0	45	33	28
23:00	0	0	8	10	7	3	0	0	0	0	0	0	0	28	33	28
Total	284	285	587	611	384	80	10	3	0	0	0	0	0	2244		
%	12.7%	12.7%	26.2%	27.2%	17.1%	3.6%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	09:00	07:00	08:00	11:00	02:00						08:00		
Vol.	32	43	68	59	34	9	3	1						241		
PM Peak	14:00	14:00	14:00	16:00	15:00	15:00	12:00	12:00						14:00		
Vol.	37	27	53	46	26	9	1	1						157		

Pecent

15th Percentile :	15 MPH
50th Percentile :	24 MPH
85th Percentile :	31 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	1198
Percent in Pace :	53.4%
Number of Vehicles > 30 MPH :	400
Percent of Vehicles > 30 MPH :	17.8%
Mean Speed(Average) :	23 MPH

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Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D2 speed
Site Code: 10111.31

Rte 18 Offramp

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0 8	0	1	0	4	6	0	**2**	**1**	0	0	0	0	0	14	40	32
01:00	0	0	0	9	3	0	0	0	0	0	0	0	0	12	30	28
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	20	20
03:00	0	0	2	2	1	0	0	0	0	0	0	0	0	5	26	26
04:00	0	1	1	1	0	0	0	0	0	0	0	0	0	3	25	23
05:00	0	2	6	11	6	3	0	0	0	0	0	0	0	28	33	27
06:00	1	5	19	24	16	4	0	0	0	0	0	0	0	69	32	26
07:00	23	21	59	47	30	2	1	0	0	0	0	0	0	183	30	23
08:00	**27**	**44**	**63**	**61**	**35**	**9**	0	0	0	0	0	0	0	**239**	31	23
09:00	23	34	46	53	18	6	0	0	0	0	0	0	0	180	29	22
10:00	10	16	43	43	28	6	1	1	0	0	0	0	0	148	32	25
11:00	21	16	43	28	23	7	1	0	0	0	0	0	0	139	31	23
12 PM	19	20	44	**42**	18	1	0	0	0	0	0	0	0	144	29	22
13:00	19	27	43	42	15	**7**	0	**1**	0	0	0	0	0	154	29	23
14:00	22	**33**	42	38	16	2	0	0	0	0	0	0	0	153	29	21
15:00	27	14	46	31	21	4	0	0	0	0	0	0	0	143	30	22
16:00	**28**	33	**49**	34	11	5	0	0	0	0	0	0	0	**160**	28	21
17:00	8	21	43	37	19	3	1	0	0	0	0	0	0	132	30	24
18:00	10	19	27	31	**29**	4	0	0	0	0	0	0	0	120	32	24
19:00	0	6	15	33	22	4	**3**	0	0	0	0	0	0	83	33	28
20:00	1	6	15	21	18	2	0	0	0	0	0	0	0	63	32	26
21:00	0	5	12	21	15	3	1	1	0	0	0	0	0	58	33	27
22:00	0	1	7	19	12	3	1	0	0	0	0	0	0	43	33	28
23:00	0	1	6	11	8	0	2	0	0	0	0	0	0	28	32	28
Total	239	326	632	643	370	75	13	4	0	0	0	0	0	2302		
%	10.4%	14.2%	27.5%	27.9%	16.1%	3.3%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	08:00	08:00	08:00	00:00	00:00						08:00		
Vol.	27	44	63	61	35	9	2	1						239		
PM Peak	16:00	14:00	16:00	12:00	18:00	13:00	19:00	13:00						16:00		
Vol.	28	33	49	42	29	7	3	1						160		

Pecent

15th Percentile :	16 MPH
50th Percentile :	24 MPH
85th Percentile :	31 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	1275
Percent in Pace :	55.4%
Number of Vehicles > 30 MPH :	388
Percent of Vehicles > 30 MPH :	16.9%
Mean Speed(Average) :	23 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D2 class
Site Code: 10111.31

WB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	15	6	0	0	0	0	0	0	0	0	0	0	21
01:00	0	21	2	0	0	0	0	0	0	0	0	0	0	23
02:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
03:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
04:00	0	12	5	0	1	0	0	1	0	0	0	0	0	19
05:00	0	22	18	0	1	0	0	0	0	0	0	0	0	41
06:00	1	89	33	1	4	0	0	0	0	0	0	0	0	128
07:00	1	169	46	2	6	1	0	2	0	1	0	0	0	228
08:00	5	169	39	0	11	0	0	1	0	0	0	1	0	226
09:00	2	161	54	1	9	0	0	2	0	0	0	0	0	229
10:00	1	142	68	1	11	0	0	1	1	0	0	0	0	225
11:00	1	177	46	2	10	0	0	3	1	0	0	0	0	240
12 PM	4	210	48	0	15	2	0	2	0	0	0	0	0	281
13:00	1	216	47	1	11	1	0	2	0	0	0	0	0	279
14:00	3	240	52	1	11	1	0	4	0	0	0	0	0	312
15:00	1	222	48	1	15	0	0	1	1	1	0	0	0	290
16:00	2	239	82	2	17	0	0	1	0	0	0	0	0	343
17:00	2	181	32	1	7	0	0	0	0	0	0	0	0	223
18:00	0	171	43	0	5	1	0	0	0	0	0	0	0	220
19:00	1	140	35	0	6	0	0	1	0	0	0	0	0	183
20:00	0	90	17	0	5	0	0	0	0	0	0	0	0	112
21:00	2	92	10	0	1	0	0	1	0	0	0	0	0	106
22:00	2	42	11	0	0	0	0	0	0	0	0	0	0	55
23:00	0	29	6	0	1	0	0	0	0	0	0	0	0	36
Total	29	2861	751	13	147	6	0	22	3	2	0	1	0	3835
Percent	0.8%	74.6%	19.6%	0.3%	3.8%	0.2%	0.0%	0.6%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	10:00	07:00	08:00	07:00		11:00	10:00	07:00		08:00		11:00
Vol.	5	177	68	2	11	1		3	1	1		1		240
PM Peak	12:00	14:00	16:00	16:00	16:00	12:00		14:00	15:00	15:00				16:00
Vol.	4	240	82	2	17	2		4	1	1				343

PRECISION
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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D2 class
Site Code: 10111.31

WB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	10	0	0	0	0	0	0	0	0	0	0	0	10
01:00	0	10	4	0	0	0	0	0	0	0	0	0	0	14
02:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
03:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
04:00	0	8	4	0	1	0	0	0	0	0	0	0	0	13
05:00	0	23	8	0	3	0	0	2	0	0	0	0	0	36
06:00	1	102	32	1	4	0	0	0	0	0	0	0	0	140
07:00	0	155	43	3	8	0	0	1	1	0	0	0	0	211
08:00	0	161	57	0	9	0	0	1	1	0	0	0	0	229
09:00	1	153	63	0	12	2	0	0	0	0	0	0	0	231
10:00	2	111	42	2	13	1	0	0	1	0	0	0	0	172
11:00	0	211	59	0	10	3	0	2	1	0	0	0	0	286
12 PM	1	198	45	0	11	0	0	3	2	1	0	0	0	261
13:00	2	225	41	0	10	0	0	5	0	0	0	0	0	283
14:00	3	206	47	0	11	1	0	3	0	0	0	0	0	271
15:00	3	216	41	0	8	0	0	2	1	0	0	0	0	271
16:00	1	271	50	1	6	0	0	1	0	2	0	0	0	332
17:00	0	208	46	0	4	0	0	3	0	0	0	0	0	261
18:00	0	186	33	1	7	0	0	2	0	0	0	0	0	229
19:00	0	134	27	0	4	0	0	0	0	0	0	0	0	165
20:00	0	125	22	0	3	0	0	0	0	0	0	0	0	150
21:00	0	82	16	0	3	0	0	0	1	0	0	0	0	102
22:00	0	49	14	0	1	0	0	0	0	0	0	0	0	64
23:00	0	37	3	0	1	0	0	0	0	0	0	0	0	41
Total	14	2900	700	8	129	7	0	25	8	3	0	0	0	3794
Percent	0.4%	76.4%	18.5%	0.2%	3.4%	0.2%	0.0%	0.7%	0.2%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	09:00	07:00	10:00	11:00		05:00	07:00					11:00
Vol.	2	211	63	3	13	3		2	1					286
PM Peak	14:00	16:00	16:00	16:00	12:00	14:00		13:00	12:00	16:00				16:00
Vol.	3	271	50	1	11	1		5	2	2				332

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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D2 class
Site Code: 10111.31

Rte 18 Offramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	1	12	1	0	0	0	0	0	0	0	0	0	0	14
01:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
02:00	0	3	1	0	1	0	0	0	0	0	0	0	0	5
03:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
05:00	0	20	2	2	1	0	0	0	1	0	0	0	0	26
06:00	0	56	11	1	2	0	0	0	0	0	0	0	0	70
07:00	0	143	24	1	5	1	0	1	0	0	0	0	0	175
08:00	4	197	27	2	8	2	0	0	1	0	0	0	0	241
09:00	0	128	27	0	9	0	0	1	1	0	0	0	0	166
10:00	0	124	18	2	2	1	1	2	1	0	0	0	0	151
11:00	0	112	22	0	3	0	0	2	0	0	0	0	0	139
12 PM	3	106	17	2	3	2	1	0	2	0	0	0	0	136
13:00	2	123	11	1	5	1	1	2	0	0	0	0	0	146
14:00	3	135	16	0	2	1	0	0	0	0	0	0	0	157
15:00	4	112	22	0	2	0	0	0	1	0	0	0	0	141
16:00	0	126	18	1	1	0	0	0	0	0	0	0	0	146
17:00	1	117	9	0	1	1	0	1	0	0	0	0	0	130
18:00	1	112	8	2	2	0	0	0	1	0	0	0	0	126
19:00	2	77	10	0	0	0	0	0	0	0	0	0	0	89
20:00	1	59	7	1	0	1	0	0	0	0	0	0	0	69
21:00	0	27	4	0	2	0	0	0	0	0	0	0	0	33
22:00	1	38	4	0	1	0	0	1	0	0	0	0	0	45
23:00	0	26	2	0	0	0	0	0	0	0	0	0	0	28
Total	23	1860	263	15	52	10	3	10	8	0	0	0	0	2244
Percent	1.0%	82.9%	11.7%	0.7%	2.3%	0.4%	0.1%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	05:00	09:00	08:00	10:00	10:00	05:00					08:00
Vol.	4	197	27	2	9	2	1	2	1					241
PM Peak	15:00	14:00	15:00	12:00	13:00	12:00	12:00	13:00	12:00					14:00
Vol.	4	135	22	2	5	2	1	2	2					157

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Kempton Street east of
Pleasant Street
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 C-D2 class
Site Code: 10111.31

Rte 18 Offramp

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	11	3	0	0	0	0	0	0	0	0	0	0	14
01:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	1	0	1	1	0	0	0	0	0	0	0	0	3
05:00	0	22	2	1	0	1	0	0	1	1	0	0	0	28
06:00	0	52	13	2	0	0	0	1	1	0	0	0	0	69
07:00	1	143	27	1	5	2	0	0	3	1	0	0	0	183
08:00	2	202	24	1	7	1	0	1	1	0	0	0	0	239
09:00	0	150	24	1	2	0	0	0	2	1	0	0	0	180
10:00	1	116	20	2	4	1	0	2	2	0	0	0	0	148
11:00	3	121	10	2	1	1	0	0	1	0	0	0	0	139
12 PM	1	122	16	2	3	0	0	0	0	0	0	0	0	144
13:00	1	130	14	2	5	0	1	0	1	0	0	0	0	154
14:00	1	118	24	1	4	0	0	2	3	0	0	0	0	153
15:00	3	123	11	0	3	2	0	0	1	0	0	0	0	143
16:00	1	138	18	1	2	0	0	0	0	0	0	0	0	160
17:00	0	117	13	2	0	0	0	0	0	0	0	0	0	132
18:00	2	100	14	2	2	0	0	0	0	0	0	0	0	120
19:00	0	68	14	1	0	0	0	0	0	0	0	0	0	83
20:00	0	56	6	1	0	0	0	0	0	0	0	0	0	63
21:00	0	49	8	0	0	0	0	0	1	0	0	0	0	58
22:00	0	33	8	1	1	0	0	0	0	0	0	0	0	43
23:00	0	25	3	0	0	0	0	0	0	0	0	0	0	28
Total	16	1915	272	24	40	8	1	6	17	3	0	0	0	2302
Percent	0.7%	83.2%	11.8%	1.0%	1.7%	0.3%	0.0%	0.3%	0.7%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	07:00	06:00	08:00	07:00		10:00	07:00	05:00				08:00
Vol.	3	202	27	2	7	2		2	3	1				239
PM Peak	15:00	16:00	14:00	12:00	13:00	15:00	13:00	14:00	14:00					16:00
Vol.	3	138	24	2	5	2	1	2	3					160

PRECISION DATA INDUSTRIES, LLC

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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/23/08 thru Wed 9/24/08	81676	New Bedford, MA

Coggeshall Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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81676 D-A volume
Site Code: 10111.31

Start	EB				WB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	16		123		10		66		26		189		
12:15	11		110		14		65		25		175		
12:30	11		98		10		57		21		155		
12:45	16	54	96	427	12	46	64	252	28	100	160	679	
01:00	14		104		18		68		32		172		
01:15	12		102		4		79		16		181		
01:30	4		96		5		74		9		170		
01:45	4	34	95	397	11	38	73	294	15	72	168	691	
02:00	5		97		4		69		9		166		
02:15	2		116		5		80		7		196		
02:30	9		105		5		64		14		169		
02:45	5	21	113	431	7	21	90	303	12	42	203	734	
03:00	8		135		7		58		15		193		
03:15	1		111		6		65		7		176		
03:30	5		129		3		75		8		204		
03:45	8	22	121	496	5	21	91	289	13	43	212	785	
04:00	8		142		5		72		13		214		
04:15	10		149		4		77		14		226		
04:30	24		124		10		81		34		205		
04:45	21	63	109	524	9	28	73	303	30	91	182	827	
05:00	22		129		7		74		29		203		
05:15	29		128		10		64		39		192		
05:30	65		100		26		65		91		165		
05:45	55	171	90	447	25	68	67	270	80	239	157	717	
06:00	68		118		35		63		103		181		
06:15	89		124		37		83		126		207		
06:30	113		95		52		71		165		166		
06:45	131	401	91	428	44	168	61	278	175	569	152	706	
07:00	113		104		64		60		177		164		
07:15	91		69		64		63		155		132		
07:30	116		96		54		45		170		141		
07:45	100	420	60	329	83	265	46	214	183	685	106	543	
08:00	108		76		86		42		194		118		
08:15	123		59		86		50		209		109		
08:30	108		59		54		52		162		111		
08:45	73	412	78	272	77	303	56	200	150	715	134	472	
09:00	116		51		68		67		184		118		
09:15	85		58		66		49		151		107		
09:30	90		57		60		37		150		94		
09:45	95	386	37	203	50	244	36	189	145	630	73	392	
10:00	87		24		78		37		165		61		
10:15	82		39		85		40		167		79		
10:30	74		33		62		23		136		56		
10:45	84	327	24	120	64	289	16	116	148	616	40	236	
11:00	97		27		63		20		160		47		
11:15	101		18		60		15		161		33		
11:30	110		14		67		20		177		34		
11:45	98	406	11	70	59	249	15	70	157	655	26	140	
Total	2717		4144		1740		2778		4457		6922		
Percent	61.0%		59.9%		39.0%		40.1%						
Day Total		6861				4518				11379			
Peak	06:45		03:30		07:30		03:45		07:30		03:45		
Vol.	451		541		309		321		756		857		
P.H.F.	0.861		0.908		0.898		0.882		0.904		0.948		

Coggeshall Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

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81676 D-A volume
Site Code: 10111.31

Start	EB				WB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	12		102		16		71		28		173		
12:15	12		107		14		84		26		191		
12:30	13		73		10		82		23		155		
12:45	16	53	81	363	13	53	90	327	29	106	171	690	
01:00	6		79		13		73		19		152		
01:15	16		91		7		80		23		171		
01:30	10		90		8		62		18		152		
01:45	7	39	88	348	6	34	77	292	13	73	165	640	
02:00	16		94		12		82		28		176		
02:15	7		93		7		86		14		179		
02:30	5		121		8		67		13		188		
02:45	10	38	103	411	9	36	76	311	19	74	179	722	
03:00	4		111		6		68		10		179		
03:15	2		118		4		79		6		197		
03:30	2		121		4		95		6		216		
03:45	4	12	130	480	11	25	81	323	15	37	211	803	
04:00	6		136		4		76		10		212		
04:15	8		145		6		70		14		215		
04:30	21		103		7		81		28		184		
04:45	30	65	115	499	7	24	93	320	37	89	208	819	
05:00	31		139		11		68		42		207		
05:15	39		143		11		61		50		204		
05:30	67		111		22		89		89		200		
05:45	62	199	113	506	20	64	71	289	82	263	184	795	
06:00	78		115		31		81		109		196		
06:15	97		105		47		67		144		172		
06:30	112		107		41		71		153		178		
06:45	118	405	80	407	55	174	76	295	173	579	156	702	
07:00	90		111		50		56		140		167		
07:15	75		110		72		63		147		173		
07:30	114		91		66		56		180		147		
07:45	117	396	59	371	78	266	61	236	195	662	120	607	
08:00	119		62		73		63		192		125		
08:15	110		67		66		61		176		128		
08:30	98		64		86		48		184		112		
08:45	95	422	61	254	70	295	32	204	165	717	93	458	
09:00	80		71		66		43		146		114		
09:15	94		56		53		52		147		108		
09:30	89		61		55		25		144		86		
09:45	93	356	54	242	65	239	45	165	158	595	99	407	
10:00	82		42		54		48		136		90		
10:15	82		42		56		37		138		79		
10:30	106		37		56		26		162		63		
10:45	57	327	24	145	66	232	26	137	123	559	50	282	
11:00	93		33		65		28		158		61		
11:15	106		26		74		24		180		50		
11:30	99		15		71		17		170		32		
11:45	121	419	14	88	51	261	18	87	172	680	32	175	
Total	2731		4114		1703		2986		4434		7100		
Percent	61.6%		57.9%		38.4%		42.1%						
Day Total		6845				4689				11534			
Peak	07:30		03:30		07:45		03:15		07:45		03:30		
Vol.	460		532		303		331		747		854		
P.H.F.	0.966		0.917		0.881		0.871		0.958		0.988		

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Coggeshall Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	2	4	16	21	7	3	**1**	0	0	0	0	0	0	54	31	26
01:00	0	3	8	14	8	0	1	0	0	0	0	0	0	34	31	27
02:00	0	2	8	6	2	3	0	0	0	0	0	0	0	21	34	26
03:00	0	1	6	9	5	1	0	0	0	0	0	0	0	22	32	27
04:00	1	13	16	19	8	**6**	0	0	0	0	0	0	0	63	32	25
05:00	7	24	57	50	**27**	5	1	0	0	0	0	0	0	171	31	24
06:00	25	101	184	74	16	1	0	0	0	0	0	0	0	401	27	21
07:00	14	77	**203**	97	23	5	1	0	0	0	0	0	0	**420**	28	23
08:00	25	96	179	90	20	2	0	0	0	0	0	0	0	412	27	22
09:00	18	90	179	81	17	1	0	0	0	0	0	0	0	386	27	22
10:00	15	41	133	**107**	26	4	1	0	0	0	0	0	0	327	29	23
11:00	**36**	**119**	153	77	21	0	0	0	0	0	0	0	0	406	27	21
12 PM	60	136	176	49	5	1	0	0	0	0	0	0	0	427	24	19
13:00	62	104	182	37	10	2	0	0	0	0	0	0	0	397	24	19
14:00	51	83	197	84	13	2	1	0	0	0	0	0	0	431	27	21
15:00	70	123	232	59	12	0	0	0	0	0	0	0	0	496	24	20
16:00	90	154	208	54	16	2	0	0	0	0	0	0	0	524	24	19
17:00	62	129	177	70	8	1	0	0	0	0	0	0	0	447	25	20
18:00	64	145	157	51	11	0	0	0	0	0	0	0	0	428	24	19
19:00	19	67	145	84	10	4	0	0	0	0	0	0	0	329	27	22
20:00	10	48	117	81	13	3	0	0	0	0	0	0	0	272	28	23
21:00	6	19	59	86	24	6	3	0	0	0	0	0	0	203	30	25
22:00	1	8	34	51	23	3	0	0	0	0	0	0	0	120	31	26
23:00	0	5	24	19	20	1	1	0	0	0	0	0	0	70	32	26
Total	638	1592	2850	1370	345	56	10	0	0	0	0	0	0	6861		
%	9.3%	23.2%	41.5%	20.0%	5.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	07:00	10:00	05:00	04:00	00:00							07:00		
Vol.	36	119	203	107	27	6	1							420		
PM Peak	16:00	16:00	15:00	21:00	21:00	21:00	21:00							16:00		
Vol.	90	154	232	86	24	6	3							524		

Pecent

15th Percentile :	16 MPH
50th Percentile :	22 MPH
85th Percentile :	27 MPH
95th Percentile :	30 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	4442
Percent in Pace :	64.7%
Number of Vehicles > 25 MPH :	1507
Percent of Vehicles > 25 MPH :	22.0%
Mean Speed(Average) :	21 MPH

PRECISION
D A T A
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Coggeshall Street
west of North Front Street
City, State: New Bedford, MA
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81676 D-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	1	13	21	12	**5**	1	0	0	0	0	0	0	53	33	28
01:00	0	3	10	10	11	2	**3**	0	0	0	0	0	0	39	34	28
02:00	1	1	8	15	9	4	0	0	0	0	0	0	0	38	33	28
03:00	1	0	0	6	3	2	0	0	0	0	0	0	0	12	32	27
04:00	0	5	16	25	13	4	1	**1**	0	0	0	0	0	65	32	27
05:00	8	36	54	65	**32**	3	1	0	0	0	0	0	0	199	30	24
06:00	27	114	151	84	24	4	0	1	0	0	0	0	0	405	28	21
07:00	26	81	158	**105**	20	4	2	0	0	0	0	0	0	396	28	22
08:00	**32**	76	**184**	104	23	2	1	0	0	0	0	0	0	**422**	28	22
09:00	4	71	155	104	20	2	0	0	0	0	0	0	0	356	28	23
10:00	14	44	153	84	28	2	2	0	0	0	0	0	0	327	28	23
11:00	24	**117**	173	87	17	1	0	0	0	0	0	0	0	419	27	21
12 PM	31	95	164	61	12	0	0	0	0	0	0	0	0	363	26	21
13:00	38	79	162	59	10	0	0	0	0	0	0	0	0	348	26	20
14:00	38	95	174	**83**	21	0	0	0	0	0	0	0	0	411	27	21
15:00	**89**	112	205	61	12	1	0	0	0	0	0	0	0	480	25	19
16:00	64	121	**226**	75	12	1	0	0	0	0	0	0	0	499	25	20
17:00	63	**165**	195	74	8	1	0	0	0	0	0	0	0	**506**	25	20
18:00	89	107	154	47	10	0	0	0	0	0	0	0	0	407	24	18
19:00	32	93	172	68	6	0	0	0	0	0	0	0	0	371	26	21
20:00	9	51	121	56	16	1	0	0	0	0	0	0	0	254	28	22
21:00	8	31	89	81	**27**	**6**	0	0	0	0	0	0	0	242	29	24
22:00	4	9	42	61	22	4	**3**	0	0	0	0	0	0	145	31	26
23:00	0	0	27	39	19	2	1	0	0	0	0	0	0	88	32	27
Total	602	1507	2806	1475	387	51	15	2	0	0	0	0	0	6845		
%	8.8%	22.0%	41.0%	21.5%	5.7%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	08:00	07:00	05:00	00:00	01:00	04:00						08:00		
Vol.	32	117	184	105	32	5	3	1						422		
PM Peak	15:00	17:00	16:00	14:00	21:00	21:00	22:00							17:00		
Vol.	89	165	226	83	27	6	3							506		

Pecent

15th Percentile :	16 MPH
50th Percentile :	22 MPH
85th Percentile :	28 MPH
95th Percentile :	31 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	4313
Percent in Pace :	63.0%
Number of Vehicles > 25 MPH :	1635
Percent of Vehicles > 25 MPH :	23.9%
Mean Speed(Average) :	21 MPH

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81676 D-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	1	1	10	19	11	**3**	0	**1**	0	0	0	0	0	46	33	28
01:00	0	0	9	16	8	1	**2**	0	**2**	0	0	0	0	38	33	29
02:00	0	1	4	7	8	1	0	0	0	0	0	0	0	21	32	28
03:00	2	0	6	6	3	2	1	1	0	0	0	0	0	21	35	26
04:00	0	2	7	8	8	2	1	0	0	0	0	0	0	28	33	28
05:00	2	8	19	25	11	3	0	0	0	0	0	0	0	68	31	25
06:00	4	25	73	50	13	3	0	0	0	0	0	0	0	168	29	24
07:00	6	47	125	67	17	3	0	0	0	0	0	0	0	265	28	23
08:00	3	**58**	142	**87**	11	2	0	0	0	0	0	0	0	**303**	28	23
09:00	8	49	123	53	10	0	1	0	0	0	0	0	0	244	27	22
10:00	**12**	51	123	79	**23**	1	0	0	0	0	0	0	0	289	28	23
11:00	7	45	**144**	49	4	0	0	0	0	0	0	0	0	249	26	22
12 PM	10	70	126	40	5	1	0	0	0	0	0	0	0	252	25	21
13:00	9	69	162	43	10	1	0	0	0	0	0	0	0	294	26	22
14:00	3	55	165	**69**	8	3	0	0	0	0	0	0	0	**303**	27	23
15:00	17	67	158	41	5	1	0	0	0	0	0	0	0	289	25	21
16:00	22	61	**170**	39	10	0	**1**	0	0	0	0	0	0	303	25	21
17:00	18	64	145	35	7	1	0	0	0	0	0	0	0	270	25	21
18:00	**23**	**75**	134	39	7	0	0	0	0	0	0	0	0	278	25	20
19:00	9	61	96	36	11	1	0	0	0	0	0	0	0	214	27	21
20:00	2	30	85	66	15	2	0	0	0	0	0	0	0	200	28	24
21:00	4	35	70	53	**23**	4	0	0	0	0	0	0	0	189	29	24
22:00	2	12	41	41	15	4	1	0	0	0	0	0	0	116	30	25
23:00	2	5	17	28	12	**6**	0	0	0	0	0	0	0	70	32	26
Total	166	891	2154	996	255	45	7	2	2	0	0	0	0	4518		
%	3.7%	19.7%	47.7%	22.0%	5.6%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	11:00	08:00	10:00	00:00	01:00	00:00	01:00					08:00		
Vol.	12	58	144	87	23	3	2	1	2					303		
PM Peak	18:00	18:00	16:00	14:00	21:00	23:00	16:00							14:00		
Vol.	23	75	170	69	23	6	1							303		

Pecent

15th Percentile :	17 MPH
50th Percentile :	22 MPH
85th Percentile :	28 MPH
95th Percentile :	31 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3150
Percent in Pace :	69.7%
Number of Vehicles > 25 MPH :	1107
Percent of Vehicles > 25 MPH :	24.5%
Mean Speed(Average) :	22 MPH

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81676 D-A speed
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WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	4	7	26	10	3	**2**	**1**	0	0	0	0	0	53	33	28
01:00	0	1	5	15	11	2	0	0	0	0	0	0	0	34	33	28
02:00	0	2	7	12	12	3	0	0	0	0	0	0	0	36	33	28
03:00	0	1	6	7	7	2	1	0	**1**	0	0	0	0	25	34	29
04:00	0	5	2	11	5	1	0	0	0	0	0	0	0	24	31	26
05:00	0	7	15	23	10	**8**	1	0	0	0	0	0	0	64	34	27
06:00	3	38	76	46	10	1	0	0	0	0	0	0	0	174	28	23
07:00	2	51	126	**68**	**19**	0	0	0	0	0	0	0	0	266	28	23
08:00	**20**	**57**	**149**	60	9	0	0	0	0	0	0	0	0	**295**	27	21
09:00	4	49	112	59	13	2	0	0	0	0	0	0	0	239	28	23
10:00	1	57	109	53	12	0	0	0	0	0	0	0	0	232	27	22
11:00	8	54	138	48	13	0	0	0	0	0	0	0	0	261	27	22
12 PM	17	86	158	55	11	0	0	0	0	0	0	0	0	**327**	26	21
13:00	13	65	143	59	9	**2**	0	**1**	0	0	0	0	0	292	27	22
14:00	9	64	149	**70**	16	2	**1**	0	0	0	0	0	0	311	27	22
15:00	13	62	**175**	65	8	0	0	0	0	0	0	0	0	323	26	22
16:00	15	77	162	57	9	0	0	0	0	0	0	0	0	320	26	21
17:00	14	68	148	50	9	0	0	0	0	0	0	0	0	289	26	21
18:00	**25**	**93**	131	35	11	0	0	0	0	0	0	0	0	295	25	20
19:00	10	72	101	41	10	2	0	0	0	0	0	0	0	236	27	21
20:00	5	39	96	52	10	2	0	0	0	0	0	0	0	204	28	23
21:00	2	18	74	58	12	1	0	0	0	0	0	0	0	165	28	24
22:00	1	20	44	49	**20**	2	0	0	0	0	**1**	0	0	137	30	25
23:00	0	4	29	37	14	2	1	0	0	0	0	0	0	87	31	26
Total	162	994	2162	1056	270	35	6	2	1	0	1	0	0	4689		
%	3.5%	21.2%	46.1%	22.5%	5.8%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	07:00	07:00	05:00	00:00	00:00	03:00					08:00		
Vol.	20	57	149	68	19	8	2	1	1					295		
PM Peak	18:00	18:00	15:00	14:00	22:00	13:00	14:00	13:00			22:00			12:00		
Vol.	25	93	175	70	20	2	1	1			1			327		

Pecent

15th Percentile :	17 MPH
50th Percentile :	22 MPH
85th Percentile :	28 MPH
95th Percentile :	31 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3218
Percent in Pace :	68.6%
Number of Vehicles > 25 MPH :	1159
Percent of Vehicles > 25 MPH :	24.7%
Mean Speed(Average) :	22 MPH

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81676 D-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	2	45	7	0	0	0	0	0	0	0	0	0	0	54
01:00	1	28	4	0	1	0	0	0	0	0	0	0	0	34
02:00	0	17	0	0	3	0	0	0	1	0	0	0	0	21
03:00	0	16	3	0	2	1	0	0	0	0	0	0	0	22
04:00	1	44	14	0	4	0	0	0	0	0	0	0	0	63
05:00	2	126	34	0	5	3	0	1	0	0	0	0	0	171
06:00	5	311	50	6	19	8	0	0	2	0	0	0	0	401
07:00	3	301	88	3	14	8	0	3	0	0	0	0	0	420
08:00	1	319	66	2	17	4	0	2	1	0	0	0	0	412
09:00	5	261	94	1	19	4	0	2	0	0	0	0	0	386
10:00	4	227	72	3	14	4	0	1	2	0	0	0	0	327
11:00	13	293	71	1	20	5	0	3	0	0	0	0	0	406
12 PM	6	325	71	1	15	5	0	3	1	0	0	0	0	427
13:00	9	294	74	1	13	5	0	1	0	0	0	0	0	397
14:00	9	325	72	3	16	3	0	3	0	0	0	0	0	431
15:00	14	363	87	1	21	4	0	6	0	0	0	0	0	496
16:00	9	407	79	1	17	5	0	4	1	1	0	0	0	524
17:00	9	348	77	1	11	1	0	0	0	0	0	0	0	447
18:00	4	344	62	3	10	4	0	0	1	0	0	0	0	428
19:00	5	264	50	1	9	0	0	0	0	0	0	0	0	329
20:00	2	223	36	0	4	7	0	0	0	0	0	0	0	272
21:00	2	154	41	0	5	1	0	0	0	0	0	0	0	203
22:00	0	100	16	0	2	2	0	0	0	0	0	0	0	120
23:00	1	47	18	0	3	1	0	0	0	0	0	0	0	70
Total	107	5182	1186	28	244	75	0	29	9	1	0	0	0	6861
Percent	1.6%	75.5%	17.3%	0.4%	3.6%	1.1%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	09:00	06:00	11:00	06:00		07:00	06:00					07:00
Vol.	13	319	94	6	20	8		3	2					420
PM Peak	15:00	16:00	15:00	14:00	15:00	20:00		15:00	12:00	16:00				16:00
Vol.	14	407	87	3	21	7		6	1	1				524

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Email: datarequests@pdillc.com

Coggeshall Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	1	33	18	0	1	0	0	0	0	0	0	0	0	53
01:00	0	23	14	0	1	1	0	0	0	0	0	0	0	39
02:00	0	30	6	0	2	0	0	0	0	0	0	0	0	38
03:00	0	10	1	0	1	0	0	0	0	0	0	0	0	12
04:00	0	35	19	0	10	1	0	0	0	0	0	0	0	65
05:00	5	137	41	1	13	2	0	0	0	0	0	0	0	199
06:00	2	300	71	3	15	12	0	1	1	0	0	0	0	405
07:00	5	287	68	3	23	8	0	1	0	0	1	0	0	396
08:00	4	304	82	1	18	9	0	2	2	0	0	0	0	422
09:00	2	227	99	2	21	2	0	1	2	0	0	0	0	356
10:00	2	218	74	2	24	4	0	2	1	0	0	0	0	327
11:00	13	304	79	1	15	4	0	3	0	0	0	0	0	419
12 PM	4	265	80	1	7	4	0	2	0	0	0	0	0	363
13:00	6	274	55	1	7	2	0	1	1	1	0	0	0	348
14:00	9	308	72	3	13	2	0	4	0	0	0	0	0	411
15:00	11	361	79	2	17	6	0	3	1	0	0	0	0	480
16:00	9	389	78	0	18	2	0	3	0	0	0	0	0	499
17:00	11	404	72	0	14	1	0	2	1	1	0	0	0	506
18:00	5	327	62	2	7	3	0	1	0	0	0	0	0	407
19:00	10	289	55	1	10	4	0	1	0	0	0	0	1	371
20:00	3	194	44	2	4	7	0	0	0	0	0	0	0	254
21:00	3	190	42	0	7	0	0	0	0	0	0	0	0	242
22:00	2	118	20	1	1	2	0	1	0	0	0	0	0	145
23:00	0	68	17	0	1	2	0	0	0	0	0	0	0	88
Total	107	5095	1248	26	250	78	0	28	9	2	1	0	1	6845
Percent	1.6%	74.4%	18.2%	0.4%	3.7%	1.1%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	09:00	06:00	10:00	06:00		11:00	08:00		07:00			08:00
Vol.	13	304	99	3	24	12		3	2		1			422
PM Peak	15:00	17:00	12:00	14:00	16:00	20:00		14:00	13:00	13:00			19:00	17:00
Vol.	11	404	80	3	18	7		4	1	1			1	506

PRECISION DATA INDUSTRIES, LLC
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Coggeshall Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	1	31	11	0	3	0	0	0	0	0	0	0	0	46
01:00	1	27	9	0	1	0	0	0	0	0	0	0	0	38
02:00	0	12	8	0	1	0	0	0	0	0	0	0	0	21
03:00	0	13	6	1	1	0	0	0	0	0	0	0	0	21
04:00	0	21	4	0	2	0	0	1	0	0	0	0	0	28
05:00	0	45	15	0	6	1	0	1	0	0	0	0	0	68
06:00	0	121	37	0	9	0	0	1	0	0	0	0	0	168
07:00	1	188	48	1	24	0	0	3	0	0	0	0	0	265
08:00	1	222	57	1	19	0	0	3	0	0	0	0	0	303
09:00	0	170	54	2	17	0	0	1	0	0	0	0	0	244
10:00	2	210	54	1	19	1	0	2	0	0	0	0	0	289
11:00	2	176	56	0	14	0	0	1	0	0	0	0	0	249
12 PM	0	202	33	3	12	2	0	0	0	0	0	0	0	252
13:00	0	219	61	2	9	2	0	1	0	0	0	0	0	294
14:00	2	231	52	2	13	1	0	1	1	0	0	0	0	303
15:00	2	237	40	2	8	0	0	0	0	0	0	0	0	289
16:00	0	251	40	1	9	1	0	1	0	0	0	0	0	303
17:00	1	213	50	0	6	0	0	0	0	0	0	0	0	270
18:00	7	216	48	0	5	0	0	2	0	0	0	0	0	278
19:00	0	186	24	0	4	0	0	0	0	0	0	0	0	214
20:00	1	150	38	1	10	0	0	0	0	0	0	0	0	200
21:00	0	154	30	0	5	0	0	0	0	0	0	0	0	189
22:00	0	89	22	0	5	0	0	0	0	0	0	0	0	116
23:00	0	51	15	0	4	0	0	0	0	0	0	0	0	70
Total	21	3435	812	17	206	8	0	18	1	0	0	0	0	4518
Percent	0.5%	76.0%	18.0%	0.4%	4.6%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	08:00	09:00	07:00	05:00		07:00						08:00
Vol.	2	222	57	2	24	1		3						303
PM Peak	18:00	16:00	13:00	12:00	14:00	12:00		18:00	14:00					14:00
Vol.	7	251	61	3	13	2		2	1					303

Coggeshall Street
west of North Front Street
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81676 D-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	39	14	0	0	0	0	0	0	0	0	0	0	53
01:00	0	21	13	0	0	0	0	0	0	0	0	0	0	34
02:00	0	23	10	0	3	0	0	0	0	0	0	0	0	36
03:00	1	16	7	0	0	1	0	0	0	0	0	0	0	25
04:00	0	16	3	1	3	0	0	1	0	0	0	0	0	24
05:00	0	43	16	0	5	0	0	0	0	0	0	0	0	64
06:00	0	133	31	0	8	0	1	1	0	0	0	0	0	174
07:00	1	216	33	0	13	0	0	2	1	0	0	0	0	266
08:00	1	219	63	1	10	1	0	0	0	0	0	0	0	295
09:00	0	165	56	2	12	2	0	2	0	0	0	0	0	239
10:00	0	174	42	3	12	1	0	0	0	0	0	0	0	232
11:00	3	190	56	1	11	0	0	0	0	0	0	0	0	261
12 PM	2	248	65	0	9	1	0	0	1	0	0	1	0	327
13:00	2	199	75	1	13	0	0	2	0	0	0	0	0	292
14:00	4	230	56	3	14	2	0	2	0	0	0	0	0	311
15:00	1	254	52	1	14	0	0	1	0	0	0	0	0	323
16:00	3	249	54	1	11	2	0	0	0	0	0	0	0	320
17:00	2	234	44	0	7	0	0	2	0	0	0	0	0	289
18:00	4	240	42	0	8	0	0	1	0	0	0	0	0	295
19:00	2	188	40	1	5	0	0	0	0	0	0	0	0	236
20:00	0	158	33	1	8	1	0	3	0	0	0	0	0	204
21:00	5	125	27	1	6	0	0	0	1	0	0	0	0	165
22:00	0	109	20	0	7	0	0	1	0	0	0	0	0	137
23:00	0	67	18	0	2	0	0	0	0	0	0	0	0	87
Total	31	3556	870	17	181	11	1	18	3	0	0	1	0	4689
Percent	0.7%	75.8%	18.6%	0.4%	3.9%	0.2%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	10:00	07:00	09:00	06:00	07:00	07:00					08:00
Vol.	3	219	63	3	13	2	1	2	1					295
PM Peak	21:00	15:00	13:00	14:00	14:00	14:00		20:00	12:00			12:00		12:00
Vol.	5	254	75	3	14	2		3	1			1		327

Purchase Street
south of Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

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81676 D-B volume
Site Code: 10111.31

Start	NB				SB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	17		100		12		77		29		177		
12:15	9		116		5		70		14		186		
12:30	5		109		10		78		15		187		
12:45	10	41	98	423	6	33	78	303	16	74	176	726	
01:00	8		100		6		67		14		167		
01:15	9		90		5		76		14		166		
01:30	1		105		3		58		4		163		
01:45	5	23	89	384	4	18	73	274	9	41	162	658	
02:00	4		95		4		72		8		167		
02:15	4		109		4		62		8		171		
02:30	6		94		2		58		8		152		
02:45	4	18	106	404	4	14	77	269	8	32	183	673	
03:00	4		111		4		91		8		202		
03:15	2		106		7		79		9		185		
03:30	4		104		6		90		10		194		
03:45	6	16	116	437	4	21	86	346	10	37	202	783	
04:00	5		98		5		106		10		204		
04:15	8		98		6		87		14		185		
04:30	9		118		2		100		11		218		
04:45	17	39	92	406	11	24	104	397	28	63	196	803	
05:00	29		110		13		87		42		197		
05:15	19		74		20		99		39		173		
05:30	29		86		23		84		52		170		
05:45	30	107	77	347	17	73	67	337	47	180	144	684	
06:00	37		78		32		68		69		146		
06:15	41		81		35		68		76		149		
06:30	59		77		46		60		105		137		
06:45	48	185	93	329	47	160	76	272	95	345	169	601	
07:00	70		73		58		59		128		132		
07:15	66		78		44		51		110		129		
07:30	71		65		56		58		127		123		
07:45	89	296	56	272	71	229	36	204	160	525	92	476	
08:00	82		60		93		63		175		123		
08:15	69		51		75		47		144		98		
08:30	93		59		67		39		160		98		
08:45	68	312	47	217	68	303	31	180	136	615	78	397	
09:00	69		55		69		37		138		92		
09:15	74		43		57		30		131		73		
09:30	87		30		71		21		158		51		
09:45	88	318	33	161	74	271	27	115	162	589	60	276	
10:00	77		27		63		26		140		53		
10:15	81		24		77		25		158		49		
10:30	90		38		67		18		157		56		
10:45	82	330	28	117	68	275	19	88	150	605	47	205	
11:00	82		26		73		21		155		47		
11:15	82		23		71		24		153		47		
11:30	92		12		66		12		158		24		
11:45	126	382	20	81	69	279	7	64	195	661	27	145	
Total	2067		3578		1700		2849		3767		6427		
Percent	54.9%		55.7%		45.1%		44.3%						
Day Total		5645				4549				10194			
Peak	11:00		03:00		07:45		04:00		11:00		03:45		
Vol.	382		437		306		397		661		809		
P.H.F.	0.758		0.942		0.823		0.936		0.847		0.928		

Purchase Street
south of Logan Street
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81676 D-B volume
Site Code: 10111.31

Start	NB				SB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	11		108		11		63		22		171		
12:15	8		86		8		71		16		157		
12:30	5		113		7		50		12		163		
12:45	8	32	90	397	4	30	37	221	12	62	127	618	
01:00	10		99		6		68		16		167		
01:15	11		81		3		89		14		170		
01:30	3		83		1		88		4		171		
01:45	4	28	121	384	7	17	87	332	11	45	208	716	
02:00	6		87		6		69		12		156		
02:15	8		101		2		77		10		178		
02:30	3		107		6		64		9		171		
02:45	3	20	96	391	4	18	82	292	7	38	178	683	
03:00	0		100		6		78		6		178		
03:15	5		88		8		92		13		180		
03:30	5		90		4		97		9		187		
03:45	5	15	95	373	2	20	94	361	7	35	189	734	
04:00	13		109		4		88		17		197		
04:15	10		101		5		74		15		175		
04:30	12		116		5		95		17		211		
04:45	11	46	112	438	6	20	96	353	17	66	208	791	
05:00	19		108		10		101		29		209		
05:15	21		103		10		83		31		186		
05:30	30		93		22		82		52		175		
05:45	32	102	86	390	23	65	65	331	55	167	151	721	
06:00	39		79		16		66		55		145		
06:15	40		73		29		85		69		158		
06:30	51		66		49		75		100		141		
06:45	65	195	91	309	44	138	62	288	109	333	153	597	
07:00	68		82		41		61		109		143		
07:15	73		76		49		52		122		128		
07:30	73		77		54		52		127		129		
07:45	80	294	44	279	75	219	46	211	155	513	90	490	
08:00	97		64		68		42		165		106		
08:15	80		52		77		48		157		100		
08:30	76		77		69		49		145		126		
08:45	77	330	46	239	71	285	40	179	148	615	86	418	
09:00	82		58		76		29		158		87		
09:15	65		46		72		28		137		74		
09:30	94		36		55		42		149		78		
09:45	80	321	38	178	66	269	17	116	146	590	55	294	
10:00	78		34		58		23		136		57		
10:15	98		26		63		26		161		52		
10:30	85		30		77		22		162		52		
10:45	91	352	22	112	41	239	18	89	132	591	40	201	
11:00	79		20		63		14		142		34		
11:15	97		23		41		19		138		42		
11:30	113		14		55		9		168		23		
11:45	119	408	12	69	62	221	9	51	181	629	21	120	
Total	2143		3559		1541		2824		3684		6383		
Percent	58.2%		55.8%		41.8%		44.2%						
Day Total		5702				4365				10067			
Peak	11:00		04:30		08:15		04:30		11:00		04:30		
Vol.	408		439		293		375		629		814		
P.H.F.	0.857		0.946		0.951		0.928		0.869		0.964		

PRECISION
D A T A
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Purchase Street
south of Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	3	8	22	7	**1**	0	0	0	0	0	0	0	41	30	26
01:00	0	1	9	12	1	0	0	0	0	0	0	0	0	23	28	25
02:00	0	1	3	13	1	0	0	0	0	0	0	0	0	18	28	26
03:00	0	2	2	10	2	0	0	0	0	0	0	0	0	16	29	26
04:00	0	7	12	16	4	0	0	0	0	0	0	0	0	39	29	24
05:00	1	4	51	42	8	1	0	0	0	0	0	0	0	107	29	25
06:00	0	14	90	71	10	0	0	0	0	0	0	0	0	185	28	24
07:00	1	17	146	**117**	14	1	0	0	0	0	0	0	0	296	28	24
08:00	0	24	160	110	**18**	0	0	0	0	0	0	0	0	312	28	24
09:00	11	70	166	65	6	0	0	0	0	0	0	0	0	318	26	22
10:00	8	73	160	79	9	1	0	0	0	0	0	0	0	330	27	22
11:00	**17**	**101**	**200**	57	6	1	0	0	0	0	0	0	0	**382**	25	21
12 PM	49	**121**	201	47	5	0	0	0	0	0	0	0	0	423	24	20
13:00	29	103	200	48	4	0	0	0	0	0	0	0	0	384	24	20
14:00	**55**	94	202	51	2	0	0	0	0	0	0	0	0	404	24	20
15:00	44	104	208	76	4	1	0	0	0	0	0	0	0	**437**	25	20
16:00	21	96	**225**	58	6	0	0	0	0	0	0	0	0	406	25	21
17:00	12	42	174	**109**	10	0	0	0	0	0	0	0	0	347	28	23
18:00	9	45	168	95	10	2	0	0	0	0	0	0	0	329	28	23
19:00	1	25	129	103	**14**	0	0	0	0	0	0	0	0	272	28	24
20:00	0	12	99	97	8	1	0	0	0	0	0	0	0	217	28	24
21:00	0	7	69	74	10	1	0	0	0	0	0	0	0	161	29	25
22:00	0	4	38	64	10	1	0	0	0	0	0	0	0	117	29	26
23:00	0	5	21	38	14	**3**	0	0	0	0	0	0	0	81	31	26
Total	258	975	2741	1474	183	14	0	0	0	0	0	0	0	5645		
%	4.6%	17.3%	48.6%	26.1%	3.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	07:00	08:00	00:00								11:00		
Vol.	17	101	200	117	18	1								382		
PM Peak	14:00	12:00	16:00	17:00	19:00	23:00								15:00		
Vol.	55	121	225	109	14	3								437		

Pecent

15th Percentile :	18 MPH
50th Percentile :	22 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	4215
Percent in Pace :	74.7%
Number of Vehicles > 25 MPH :	1376
Percent of Vehicles > 25 MPH :	24.4%
Mean Speed(Average) :	22 MPH

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P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Purchase Street
south of Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	9	14	8	1	0	0	0	0	0	0	0	32	31	27
01:00	0	1	5	14	6	**2**	0	0	0	0	0	0	0	28	32	27
02:00	0	0	9	8	3	0	0	0	0	0	0	0	0	20	29	25
03:00	0	1	2	11	1	0	0	0	0	0	0	0	0	15	29	26
04:00	0	1	19	20	5	1	0	0	0	0	0	0	0	46	29	26
05:00	0	4	32	57	8	1	0	0	0	0	0	0	0	102	29	26
06:00	3	16	83	83	9	1	0	0	0	0	0	0	0	195	28	24
07:00	4	13	104	**142**	**30**	1	0	0	0	0	0	0	0	294	29	25
08:00	10	36	163	110	9	2	0	0	0	0	0	0	0	330	28	23
09:00	3	85	184	44	4	1	0	0	0	0	0	0	0	321	25	21
10:00	15	68	202	62	5	0	0	0	0	0	0	0	0	352	26	21
11:00	**41**	**103**	**217**	44	1	1	0	0	0	0	0	**1**	0	**408**	24	20
12 PM	56	**128**	187	24	2	0	0	0	0	0	0	0	0	397	24	19
13:00	16	108	200	59	1	0	0	0	0	0	0	0	0	384	25	21
14:00	18	105	205	59	3	**1**	0	0	0	0	0	0	0	391	25	21
15:00	30	90	181	66	6	0	0	0	0	0	0	0	0	373	26	21
16:00	**58**	76	**219**	82	3	0	0	0	0	0	0	0	0	**438**	26	20
17:00	11	53	206	115	4	1	0	0	0	0	0	0	0	390	27	23
18:00	2	21	146	**118**	**21**	0	0	**1**	0	0	0	0	0	309	28	24
19:00	2	27	133	103	13	1	0	0	0	0	0	0	0	279	28	24
20:00	11	31	116	73	7	1	0	0	0	0	0	0	0	239	27	23
21:00	4	19	81	64	9	1	0	0	0	0	0	0	0	178	28	24
22:00	0	7	50	51	3	0	**1**	0	0	0	0	0	0	112	28	24
23:00	0	3	18	37	10	1	0	0	0	0	0	0	0	69	30	26
Total	284	996	2771	1460	171	17	1	1	0	0	0	1	0	5702		
%	5.0%	17.5%	48.6%	25.6%	3.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	07:00	07:00	01:00						11:00		11:00		
Vol.	41	103	217	142	30	2						1		408		
PM Peak	16:00	12:00	16:00	18:00	18:00	14:00	22:00	18:00						16:00		
Vol.	58	128	219	118	21	1	1	1						438		

Pecent

15th Percentile :	17 MPH
50th Percentile :	22 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	4231
Percent in Pace :	74.2%
Number of Vehicles > 25 MPH :	1359
Percent of Vehicles > 25 MPH :	23.8%
Mean Speed(Average) :	22 MPH

PRECISION DATA INDUSTRIES, LLC
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south of Logan Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	1	1	13	17	1	0	0	0	0	0	0	0	0	33	28	24
01:00	0	1	5	9	2	1	0	0	0	0	0	0	0	18	29	26
02:00	0	1	0	12	1	0	0	0	0	0	0	0	0	14	29	26
03:00	0	0	10	8	2	1	0	0	0	0	0	0	0	21	29	25
04:00	0	2	9	10	3	0	0	0	0	0	0	0	0	24	29	25
05:00	4	6	34	22	6	1	0	0	0	0	0	0	0	73	28	24
06:00	3	8	56	77	15	1	0	0	0	0	0	0	0	160	29	25
07:00	1	16	101	81	**27**	**3**	0	0	0	0	0	0	0	229	29	25
08:00	11	43	135	**93**	21	0	0	0	0	0	0	0	0	**303**	28	23
09:00	**24**	52	138	48	8	1	0	0	0	0	0	0	0	271	26	21
10:00	8	55	**168**	39	5	0	0	0	0	0	0	0	0	275	25	22
11:00	6	**56**	158	50	8	1	0	0	0	0	0	0	0	279	26	22
12 PM	19	102	147	31	4	0	0	0	0	0	0	0	0	303	24	20
13:00	13	58	144	53	6	0	0	0	0	0	0	0	0	274	26	21
14:00	11	90	135	27	5	1	0	0	0	0	0	0	0	269	24	21
15:00	**35**	**112**	156	37	6	0	0	0	0	0	0	0	0	346	24	20
16:00	28	96	**220**	48	5	0	0	0	0	0	0	0	0	**397**	24	20
17:00	4	69	178	**75**	10	1	0	0	0	0	0	0	0	337	27	22
18:00	0	59	159	40	**11**	**3**	0	0	0	0	0	0	0	272	26	22
19:00	3	24	100	71	6	0	0	0	0	0	0	0	0	204	28	23
20:00	1	20	90	59	9	1	0	0	0	0	0	0	0	180	28	24
21:00	1	9	48	45	11	0	0	0	**1**	0	0	0	0	115	29	25
22:00	0	11	34	34	6	3	0	0	0	0	0	0	0	88	29	24
23:00	0	1	21	35	6	0	**1**	0	0	0	0	0	0	64	29	26
Total	173	892	2259	1021	184	18	1	0	1	0	0	0	0	4549		
%	3.8%	19.6%	49.7%	22.4%	4.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	10:00	08:00	07:00	07:00								08:00		
Vol.	24	56	168	93	27	3								303		
PM Peak	15:00	15:00	16:00	17:00	18:00	18:00	23:00		21:00					16:00		
Vol.	35	112	220	75	11	3	1		1					397		

Pecent

15th Percentile :	17 MPH
50th Percentile :	22 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3280
Percent in Pace :	72.1%
Number of Vehicles > 25 MPH :	1020
Percent of Vehicles > 25 MPH :	22.4%
Mean Speed(Average) :	22 MPH

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81676 D-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0 8	0	1	8	12	6	**3**	0	0	0	0	0	0	0	30	32	27
01:00	0	1	3	9	4	0	0	0	0	0	0	0	0	17	30	27
02:00	0	0	4	12	2	0	0	0	0	0	0	0	0	18	29	26
03:00	0	1	5	9	4	1	0	0	0	0	0	0	0	20	31	27
04:00	0	2	5	8	5	0	0	0	0	0	0	0	0	20	31	26
05:00	1	5	23	27	8	1	0	0	0	0	0	0	0	65	29	25
06:00	3	4	48	68	15	0	0	0	0	0	0	0	0	138	29	25
07:00	2	13	82	**102**	**18**	2	0	0	0	0	0	0	0	219	29	25
08:00	1	40	139	87	16	2	0	0	0	0	0	0	0	**285**	28	23
09:00	9	**65**	**149**	41	5	0	0	0	0	0	0	0	0	269	25	21
10:00	13	62	123	37	3	1	0	0	0	0	0	0	0	239	25	21
11:00	**15**	57	110	33	5	1	0	0	0	0	0	0	0	221	25	21
12 PM	23	72	104	20	2	0	0	0	0	0	0	0	0	221	24	19
13:00	19	97	175	39	2	0	0	0	0	0	0	0	0	332	24	20
14:00	11	85	146	44	6	0	0	0	0	0	0	0	0	292	25	21
15:00	**24**	**107**	164	61	5	0	0	0	0	0	0	0	0	**361**	25	21
16:00	20	80	**197**	51	4	1	0	0	0	0	0	0	0	353	25	21
17:00	6	62	188	66	8	1	0	0	0	0	0	0	0	331	26	22
18:00	2	26	163	**86**	10	1	0	0	0	0	0	0	0	288	28	23
19:00	5	17	116	61	**12**	0	0	0	0	0	0	0	0	211	28	23
20:00	1	38	87	48	5	0	0	0	0	0	0	0	0	179	27	22
21:00	0	7	63	43	3	0	0	0	0	0	0	0	0	116	28	24
22:00	0	8	44	33	4	0	0	0	0	0	0	0	0	89	28	24
23:00	1	6	15	20	7	**2**	0	0	0	0	0	0	0	51	30	25
Total	156	856	2161	1017	159	16	0	0	0	0	0	0	0	4365		
%	3.6%	19.6%	49.5%	23.3%	3.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	09:00	09:00	07:00	07:00	00:00								08:00		
Vol.	15	65	149	102	18	3								285		
PM Peak	15:00	15:00	16:00	18:00	19:00	23:00								15:00		
Vol.	24	107	197	86	12	2								361		

Pecent

15th Percentile :	17 MPH
50th Percentile :	22 MPH
85th Percentile :	27 MPH
95th Percentile :	29 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3178
Percent in Pace :	72.8%
Number of Vehicles > 25 MPH :	988
Percent of Vehicles > 25 MPH :	22.6%
Mean Speed(Average) :	22 MPH

PRECISION
DATA
INDUSTRIES, LLC
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City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	36	4	0	1	0	0	0	0	0	0	0	0	41
01:00	0	13	10	0	0	0	0	0	0	0	0	0	0	23
02:00	0	15	3	0	0	0	0	0	0	0	0	0	0	18
03:00	0	6	5	0	5	0	0	0	0	0	0	0	0	16
04:00	0	29	10	0	0	0	0	0	0	0	0	0	0	39
05:00	0	78	24	0	3	2	0	0	0	0	0	0	0	107
06:00	1	137	33	5	8	1	0	0	0	0	0	0	0	185
07:00	1	204	67	8	13	3	0	0	0	0	0	0	0	296
08:00	1	222	69	6	12	1	0	1	0	0	0	0	0	312
09:00	2	228	62	7	17	1	0	1	0	0	0	0	0	318
10:00	3	228	73	4	20	0	0	2	0	0	0	0	0	330
11:00	3	275	81	3	18	0	0	2	0	0	0	0	0	382
12 PM	4	315	81	4	17	2	0	0	0	0	0	0	0	423
13:00	6	271	82	7	17	0	0	1	0	0	0	0	0	384
14:00	2	297	76	6	20	1	0	2	0	0	0	0	0	404
15:00	5	314	84	9	23	0	0	2	0	0	0	0	0	437
16:00	4	301	76	4	15	3	0	3	0	0	0	0	0	406
17:00	2	265	63	5	12	0	0	0	0	0	0	0	0	347
18:00	5	251	66	0	7	0	0	0	0	0	0	0	0	329
19:00	1	206	60	0	4	0	0	1	0	0	0	0	0	272
20:00	0	175	39	0	2	0	0	1	0	0	0	0	0	217
21:00	1	120	33	0	7	0	0	0	0	0	0	0	0	161
22:00	0	88	24	0	4	1	0	0	0	0	0	0	0	117
23:00	0	70	10	0	1	0	0	0	0	0	0	0	0	81
Total	41	4144	1135	68	226	15	0	16	0	0	0	0	0	5645
Percent	0.7%	73.4%	20.1%	1.2%	4.0%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	07:00	10:00	07:00		10:00						11:00
Vol.	3	275	81	8	20	3		2						382
PM Peak	13:00	12:00	15:00	15:00	15:00	16:00		16:00						15:00
Vol.	6	315	84	9	23	3		3						437

PRECISION
D A T A
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81676 D-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	24	8	0	0	0	0	0	0	0	0	0	0	32
01:00	0	19	9	0	0	0	0	0	0	0	0	0	0	28
02:00	0	14	5	0	1	0	0	0	0	0	0	0	0	20
03:00	0	8	4	0	3	0	0	0	0	0	0	0	0	15
04:00	0	29	14	0	3	0	0	0	0	0	0	0	0	46
05:00	0	66	28	1	7	0	0	0	0	0	0	0	0	102
06:00	1	129	49	7	7	1	0	1	0	0	0	0	0	195
07:00	1	203	62	10	17	1	0	0	0	0	0	0	0	294
08:00	3	217	89	9	11	0	0	1	0	0	0	0	0	330
09:00	1	222	71	6	18	2	0	1	0	0	0	0	0	321
10:00	2	234	76	7	27	1	1	3	1	0	0	0	0	352
11:00	5	295	82	5	19	0	0	2	0	0	0	0	0	408
12 PM	1	295	77	6	16	0	0	2	0	0	0	0	0	397
13:00	1	283	79	5	13	1	0	2	0	0	0	0	0	384
14:00	6	264	89	9	18	3	1	1	0	0	0	0	0	391
15:00	2	256	84	10	20	1	0	0	0	0	0	0	0	373
16:00	2	324	87	4	19	1	0	1	0	0	0	0	0	438
17:00	3	288	82	5	12	0	0	0	0	0	0	0	0	390
18:00	2	230	64	0	12	0	0	1	0	0	0	0	0	309
19:00	2	212	57	0	8	0	0	0	0	0	0	0	0	279
20:00	2	195	39	0	3	0	0	0	0	0	0	0	0	239
21:00	2	139	31	1	5	0	0	0	0	0	0	0	0	178
22:00	2	89	18	0	3	0	0	0	0	0	0	0	0	112
23:00	0	56	10	0	3	0	0	0	0	0	0	0	0	69
Total	38	4091	1214	85	245	11	2	15	1	0	0	0	0	5702
Percent	0.7%	71.7%	21.3%	1.5%	4.3%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	08:00	07:00	10:00	09:00	10:00	10:00	10:00					11:00
Vol.	5	295	89	10	27	2	1	3	1					408
PM Peak	14:00	16:00	14:00	15:00	15:00	14:00	14:00	12:00						16:00
Vol.	6	324	89	10	20	3	1	2						438

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	27	6	0	0	0	0	0	0	0	0	0	0	33
01:00	0	14	3	0	1	0	0	0	0	0	0	0	0	18
02:00	0	12	1	0	1	0	0	0	0	0	0	0	0	14
03:00	0	13	6	0	2	0	0	0	0	0	0	0	0	21
04:00	0	17	4	0	2	1	0	0	0	0	0	0	0	24
05:00	0	56	12	0	5	0	0	0	0	0	0	0	0	73
06:00	0	118	30	3	6	1	0	2	0	0	0	0	0	160
07:00	1	158	43	8	17	1	0	0	1	0	0	0	0	229
08:00	0	253	37	3	9	0	0	1	0	0	0	0	0	303
09:00	0	191	60	3	17	0	0	0	0	0	0	0	0	271
10:00	3	205	48	6	11	0	0	1	1	0	0	0	0	275
11:00	4	213	51	3	7	1	0	0	0	0	0	0	0	279
12 PM	2	243	42	4	10	1	0	1	0	0	0	0	0	303
13:00	4	202	53	5	6	2	0	2	0	0	0	0	0	274
14:00	3	207	44	5	10	0	0	0	0	0	0	0	0	269
15:00	3	269	54	4	14	0	0	2	0	0	0	0	0	346
16:00	3	322	55	4	13	0	0	0	0	0	0	0	0	397
17:00	1	279	45	5	7	0	0	0	0	0	0	0	0	337
18:00	5	209	53	3	1	0	0	1	0	0	0	0	0	272
19:00	1	165	34	0	4	0	0	0	0	0	0	0	0	204
20:00	1	153	18	0	6	1	0	1	0	0	0	0	0	180
21:00	1	95	17	0	2	0	0	0	0	0	0	0	0	115
22:00	0	69	18	0	1	0	0	0	0	0	0	0	0	88
23:00	0	52	11	0	1	0	0	0	0	0	0	0	0	64
Total	32	3542	745	56	153	8	0	11	2	0	0	0	0	4549
Percent	0.7%	77.9%	16.4%	1.2%	3.4%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	09:00	07:00	07:00	04:00		06:00	07:00					08:00
Vol.	4	253	60	8	17	1		2	1					303
PM Peak	18:00	16:00	16:00	13:00	15:00	13:00		13:00						16:00
Vol.	5	322	55	5	14	2		2						397

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	1	19	10	0	0	0	0	0	0	0	0	0	0	30
01:00	0	12	5	0	0	0	0	0	0	0	0	0	0	17
02:00	0	11	6	0	1	0	0	0	0	0	0	0	0	18
03:00	0	13	5	0	2	0	0	0	0	0	0	0	0	20
04:00	0	13	4	0	2	1	0	0	0	0	0	0	0	20
05:00	1	37	19	0	7	0	0	1	0	0	0	0	0	65
06:00	2	87	34	7	7	0	0	1	0	0	0	0	0	138
07:00	2	155	39	5	16	2	0	0	0	0	0	0	0	219
08:00	2	221	41	2	15	1	0	3	0	0	0	0	0	285
09:00	1	196	54	5	12	0	0	1	0	0	0	0	0	269
10:00	1	173	47	6	12	0	0	0	0	0	0	0	0	239
11:00	2	173	38	5	3	0	0	0	0	0	0	0	0	221
12 PM	3	166	37	3	9	0	0	2	0	1	0	0	0	221
13:00	7	258	52	6	6	1	0	2	0	0	0	0	0	332
14:00	3	238	33	2	15	1	0	0	0	0	0	0	0	292
15:00	2	282	56	7	9	0	0	3	2	0	0	0	0	361
16:00	3	282	56	3	8	0	0	1	0	0	0	0	0	353
17:00	0	259	58	5	8	0	0	1	0	0	0	0	0	331
18:00	2	233	42	3	8	0	0	0	0	0	0	0	0	288
19:00	5	172	29	0	5	0	0	0	0	0	0	0	0	211
20:00	1	144	32	0	2	0	0	0	0	0	0	0	0	179
21:00	0	97	19	0	0	0	0	0	0	0	0	0	0	116
22:00	1	65	20	0	3	0	0	0	0	0	0	0	0	89
23:00	0	39	9	0	3	0	0	0	0	0	0	0	0	51
Total	39	3345	745	59	153	6	0	15	2	1	0	0	0	4365
Percent	0.9%	76.6%	17.1%	1.4%	3.5%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	09:00	06:00	07:00	07:00		08:00						08:00
Vol.	2	221	54	7	16	2		3						285
PM Peak	13:00	15:00	17:00	15:00	14:00	13:00		15:00	15:00	12:00				15:00
Vol.	7	282	58	7	15	1		3	2	1				361

Logan Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 D-C volume
Site Code: 10111.31

Start	WB				EB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	1		19		2		36		3		55		
12:15	0		23		0		38		0		61		
12:30	1		20		0		36		1		56		
12:45	0	2	27	89	2	4	36	146	2	6	63	235	
01:00	0		12		2		32		2		44		
01:15	2		15		0		31		2		46		
01:30	0		12		0		26		0		38		
01:45	0	2	19	58	2	4	25	114	2	6	44	172	
02:00	1		18		0		22		1		40		
02:15	1		21		2		29		3		50		
02:30	0		12		3		32		3		44		
02:45	0	2	25	76	0	5	32	115	0	7	57	191	
03:00	0		14		1		40		1		54		
03:15	0		22		0		30		0		52		
03:30	1		21		0		37		1		58		
03:45	0	1	20	77	1	2	30	137	1	3	50	214	
04:00	1		20		5		33		6		53		
04:15	0		10		5		29		5		39		
04:30	1		17		4		32		5		49		
04:45	2	4	19	66	8	22	28	122	10	26	47	188	
05:00	1		21		12		40		13		61		
05:15	3		19		9		21		12		40		
05:30	4		13		10		26		14		39		
05:45	5	13	11	64	12	43	23	110	17	56	34	174	
06:00	7		16		15		34		22		50		
06:15	7		14		21		18		28		32		
06:30	7		12		31		24		38		36		
06:45	7	28	8	50	28	95	25	101	35	123	33	151	
07:00	11		7		28		23		39		30		
07:15	16		2		27		15		43		17		
07:30	14		12		37		20		51		32		
07:45	14	55	7	28	58	150	14	72	72	205	21	100	
08:00	20		7		36		7		56		14		
08:15	19		7		42		10		61		17		
08:30	22		8		40		11		62		19		
08:45	16	77	5	27	21	139	9	37	37	216	14	64	
09:00	17		7		27		10		44		17		
09:15	14		3		30		7		44		10		
09:30	11		5		20		7		31		12		
09:45	16	58	4	19	30	107	4	28	46	165	8	47	
10:00	19		4		24		6		43		10		
10:15	9		3		16		16		25		19		
10:30	18		3		30		8		48		11		
10:45	14	60	2	12	22	92	6	36	36	152	8	48	
11:00	19		1		25		4		44		5		
11:15	9		0		26		5		35		5		
11:30	9		1		21		2		30		3		
11:45	18	55	1	3	36	108	5	16	54	163	6	19	
Total	357		569		771		1034		1128		1603		
Percent	31.6%		35.5%		68.4%		64.5%						
Day Total		926				1805				2731			
Peak	08:00		12:00		07:45		12:00		07:45		12:00		
Vol.	77		89		176		146		251		235		
P.H.F.	0.875		0.824		0.759		0.961		0.872		0.933		

Logan Street
west of North Front Street
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81676 D-C volume
Site Code: 10111.31

Start	WB				EB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	2		31		3		22		5		53		
12:15	3		19		2		31		5		50		
12:30	1		16		1		41		2		57		
12:45	0	6	17	83	1	7	45	139	1	13	62	222	
01:00	3		18		4		33		7		51		
01:15	0		13		0		27		0		40		
01:30	0		12		0		35		0		47		
01:45	1	4	12	55	1	5	38	133	2	9	50	188	
02:00	2		18		2		31		4		49		
02:15	1		18		1		25		2		43		
02:30	0		16		1		39		1		55		
02:45	0	3	14	66	0	4	36	131	0	7	50	197	
03:00	0		26		0		31		0		57		
03:15	2		22		0		30		2		52		
03:30	0		20		3		33		3		53		
03:45	0	2	20	88	2	5	32	126	2	7	52	214	
04:00	2		21		3		44		5		65		
04:15	0		24		3		39		3		63		
04:30	0		12		4		47		4		59		
04:45	3	5	24	81	6	16	32	162	9	21	56	243	
05:00	0		23		6		34		6		57		
05:15	3		29		9		30		12		59		
05:30	3		18		10		32		13		50		
05:45	7	13	15	85	15	40	29	125	22	53	44	210	
06:00	7		12		18		27		25		39		
06:15	4		18		26		23		30		41		
06:30	8		16		34		18		42		34		
06:45	8	27	8	54	33	111	29	97	41	138	37	151	
07:00	16		13		23		19		39		32		
07:15	14		7		34		16		48		23		
07:30	24		9		35		20		59		29		
07:45	15	69	7	36	44	136	13	68	59	205	20	104	
08:00	20		11		45		11		65		22		
08:15	21		6		44		13		65		19		
08:30	17		5		28		21		45		26		
08:45	10	68	8	30	24	141	10	55	34	209	18	85	
09:00	16		6		31		11		47		17		
09:15	20		2		22		9		42		11		
09:30	13		5		23		9		36		14		
09:45	20	69	9	22	30	106	9	38	50	175	18	60	
10:00	8		3		18		8		26		11		
10:15	13		3		19		6		32		9		
10:30	17		4		19		7		36		11		
10:45	18	56	3	13	27	83	11	32	45	139	14	45	
11:00	11		1		32		7		43		8		
11:15	20		2		33		3		53		5		
11:30	18		3		24		5		42		8		
11:45	24	73	2	8	36	125	4	19	60	198	6	27	
Total	395		621		779		1125		1174		1746		
Percent	33.6%		35.6%		66.4%		64.4%						
Day Total		1016				1904				2920			
Peak	07:30		04:45		07:30		03:45		07:30		04:00		
Vol.	80		94		168		162		248		243		
P.H.F.	0.833		0.810		0.933		0.862		0.954		0.935		

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Logan Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0 8	0	0	0	0	2	0	0	0	0	0	0	0	0	2	31	30
01:00	0	0	0	0	2	0	0	0	0	0	0	0	0	2	31	30
02:00	0	0	0	0	2	0	0	0	0	0	0	0	0	2	31	30
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	25	25
04:00	0	0	2	1	1	0	0	0	0	0	0	0	0	4	29	25
05:00	0	3	8	2	0	0	0	0	0	0	0	0	0	13	24	21
06:00	0	2	8	12	6	0	0	0	0	0	0	0	0	28	30	26
07:00	0	**6**	**15**	21	10	1	**1**	0	0	0	0	0	0	54	31	26
08:00	0	4	13	**41**	15	**5**	0	0	0	0	0	0	0	**78**	32	27
09:00	**1**	1	8	28	**16**	3	1	0	0	0	0	0	0	58	33	28
10:00	0	3	14	28	10	5	0	0	0	0	0	0	0	60	32	27
11:00	0	6	9	24	13	3	0	0	0	0	0	0	0	55	32	27
12 PM	**5**	**11**	**23**	37	10	3	0	0	0	0	0	0	0	**89**	29	25
13:00	2	4	16	27	7	2	0	0	0	0	0	0	0	58	29	25
14:00	4	5	20	31	14	2	0	0	0	0	0	0	0	76	31	25
15:00	1	1	16	**39**	14	**6**	0	0	0	0	0	0	0	77	32	27
16:00	1	1	12	25	**22**	5	0	0	0	0	0	0	0	66	33	28
17:00	0	0	15	29	20	0	0	0	0	0	0	0	0	64	32	27
18:00	0	2	6	26	11	5	0	0	0	0	0	0	0	50	33	28
19:00	1	1	6	11	5	4	0	0	0	0	0	0	0	28	34	27
20:00	0	0	4	16	6	1	0	0	0	0	0	0	0	27	31	28
21:00	0	0	2	7	9	1	0	0	0	0	0	0	0	19	33	29
22:00	0	0	2	6	3	1	0	0	0	0	0	0	0	12	31	28
23:00	0	0	1	0	2	0	0	0	0	0	0	0	0	3	31	27
Total	15	50	200	412	200	47	2	0	0	0	0	0	0	926		
%	1.6%	5.4%	21.6%	44.5%	21.6%	5.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	07:00	07:00	08:00	09:00	08:00	07:00							08:00		
Vol.	1	6	15	41	16	5	1							78		
PM Peak	12:00	12:00	12:00	15:00	16:00	15:00								12:00		
Vol.	5	11	23	39	22	6								89		

Pecent

15th Percentile :	21 MPH
50th Percentile :	27 MPH
85th Percentile :	32 MPH
95th Percentile :	35 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	612
Percent in Pace :	66.1%
Number of Vehicles > 25 MPH :	578
Percent of Vehicles > 25 MPH :	62.4%
Mean Speed(Average) :	27 MPH

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Logan Street
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81676 D-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	1	3	1	1	0	0	0	0	0	0	0	6	34	28
01:00	1	0	0	0	2	1	0	0	0	0	0	0	0	4	31	24
02:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3	30	24
03:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	30	30
04:00	0	1	0	1	3	0	0	0	0	0	0	0	0	5	31	27
05:00	0	1	4	5	3	0	0	0	0	0	0	0	0	13	30	26
06:00	1	2	3	12	8	1	0	0	0	0	0	0	0	27	32	27
07:00	**5**	1	16	**27**	**17**	3	0	0	0	0	0	0	0	69	32	26
08:00	4	3	**26**	24	8	3	0	0	0	0	0	0	0	68	30	24
09:00	2	2	20	26	15	**4**	0	0	0	0	0	0	0	69	32	27
10:00	1	7	18	20	8	1	**1**	0	0	0	0	0	0	56	30	25
11:00	3	**8**	25	24	13	0	0	0	0	0	0	0	0	**73**	30	24
12 PM	**17**	**19**	19	18	8	1	**1**	0	0	0	0	0	0	83	29	20
13:00	0	1	11	25	15	3	0	0	0	0	0	0	0	55	33	28
14:00	0	4	15	25	20	2	0	0	0	0	0	0	0	66	32	27
15:00	1	5	14	**38**	**28**	1	1	0	0	0	0	0	0	**88**	32	27
16:00	0	2	10	36	26	**6**	0	**1**	0	0	0	0	0	81	33	29
17:00	0	1	**20**	38	20	5	1	0	0	0	0	0	0	85	33	28
18:00	0	6	9	25	13	1	0	0	0	0	0	0	0	54	31	26
19:00	0	2	10	14	9	0	0	1	0	0	0	0	0	36	32	27
20:00	0	0	5	16	7	2	0	0	0	0	0	0	0	30	31	28
21:00	0	0	5	4	8	4	1	0	0	0	0	0	0	22	36	30
22:00	0	0	1	7	5	0	0	0	0	0	0	0	0	13	32	28
23:00	0	1	2	3	2	0	0	0	0	0	0	0	0	8	30	26
Total	35	66	236	392	241	39	5	2	0	0	0	0	0	1016		
%	3.4%	6.5%	23.2%	38.6%	23.7%	3.8%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	08:00	07:00	07:00	09:00	10:00							11:00		
Vol.	5	8	26	27	17	4	1							73		
PM Peak	12:00	12:00	17:00	15:00	15:00	16:00	12:00	16:00						15:00		
Vol.	17	19	20	38	28	6	1	1						88		

Pecent

15th Percentile :	21 MPH
50th Percentile :	27 MPH
85th Percentile :	32 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	24-33 MPH
Number in Pace :	633
Percent in Pace :	62.3%
Number of Vehicles > 25 MPH :	600
Percent of Vehicles > 25 MPH :	59.1%
Mean Speed(Average) :	26 MPH

PRECISION
D A T A
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Logan Street
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81676 D-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	1	2	0	1	0	0	0	0	0	0	0	4	26	28
01:00	0	0	0	0	4	0	0	0	0	0	0	0	0	4	32	32
02:00	0	0	0	0	3	1	1	0	0	0	0	0	0	5	39	34
03:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	30	30
04:00	1	0	3	8	7	3	0	0	0	0	0	0	0	22	34	28
05:00	0	0	3	18	16	3	**3**	0	0	0	0	0	0	43	34	30
06:00	0	5	10	41	28	9	2	0	0	0	0	0	0	95	34	29
07:00	**2**	2	**20**	54	**62**	10	0	0	0	0	0	0	0	**150**	33	29
08:00	0	3	7	**55**	54	**18**	1	0	**1**	0	0	0	0	139	34	30
09:00	0	5	6	48	39	9	0	0	0	0	0	0	0	107	33	29
10:00	0	2	13	39	29	8	1	0	0	0	0	0	0	92	33	29
11:00	0	**7**	13	51	31	6	0	0	0	0	0	0	0	108	33	28
12 PM	2	**10**	**30**	46	**50**	8	0	0	0	0	0	0	0	**146**	33	27
13:00	**3**	7	28	47	21	6	2	0	0	0	0	0	0	114	32	26
14:00	2	5	23	40	29	12	3	**1**	0	0	0	0	0	115	34	28
15:00	0	7	23	**52**	39	**15**	1	0	0	0	0	0	0	137	34	28
16:00	1	1	24	43	38	12	3	0	0	0	0	0	0	122	34	29
17:00	0	1	17	31	43	15	3	0	0	0	0	0	0	110	35	30
18:00	0	0	12	41	40	7	1	0	0	0	0	0	0	101	34	29
19:00	0	0	12	27	22	7	**4**	0	0	0	0	0	0	72	34	29
20:00	0	1	2	15	12	6	1	0	0	0	0	0	0	37	35	30
21:00	0	0	2	13	10	2	1	0	0	0	0	0	0	28	34	30
22:00	0	0	2	9	18	4	1	1	**1**	0	0	0	0	36	36	32
23:00	0	0	1	5	5	4	1	0	0	0	0	0	0	16	37	32
Total	11	56	252	686	601	166	29	2	2	0	0	0	0	1805		
%	0.6%	3.1%	14.0%	38.0%	33.3%	9.2%	1.6%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	07:00	08:00	07:00	08:00	05:00		08:00					07:00		
Vol.	2	7	20	55	62	18	3		1					150		
PM Peak	13:00	12:00	12:00	15:00	12:00	15:00	19:00	14:00	22:00					12:00		
Vol.	3	10	30	52	50	15	4	1	1					146		

Pecent

15th Percentile :	24 MPH
50th Percentile :	29 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1287
Percent in Pace :	71.3%
Number of Vehicles > 25 MPH :	1348
Percent of Vehicles > 25 MPH :	74.7%
Mean Speed(Average) :	29 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Logan Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	1	2	3	1	0	0	0	0	0	0	0	7	32	30
01:00	0	1	0	1	3	0	0	0	0	0	0	0	0	5	31	27
02:00	0	0	0	3	1	0	0	0	0	0	0	0	0	4	27	27
03:00	0	0	0	1	2	2	0	0	0	0	0	0	0	5	35	33
04:00	0	0	2	8	5	1	0	0	0	0	0	0	0	16	33	28
05:00	0	1	2	19	15	3	0	0	0	0	0	0	0	40	33	29
06:00	4	2	11	**56**	25	11	**2**	0	0	0	0	0	0	111	34	28
07:00	0	1	14	50	**50**	**19**	2	0	0	0	0	0	0	136	35	30
08:00	6	6	29	52	39	9	0	0	0	0	0	0	0	**141**	33	27
09:00	4	4	28	31	27	10	2	0	0	0	0	0	0	106	34	27
10:00	**8**	5	22	27	15	6	0	0	0	0	0	0	0	83	32	25
11:00	2	**13**	**37**	52	21	0	0	0	0	0	0	0	0	125	30	25
12 PM	**7**	**23**	**31**	51	20	7	0	0	0	0	0	0	0	139	31	25
13:00	0	7	20	54	37	13	2	0	0	0	0	0	0	133	34	28
14:00	1	2	22	50	48	7	1	0	0	0	0	0	0	131	33	28
15:00	4	5	17	45	50	5	0	0	0	0	0	0	0	126	33	28
16:00	0	4	18	**64**	**56**	**17**	**3**	0	0	0	0	0	0	**162**	34	29
17:00	1	1	13	47	44	16	1	**2**	0	0	0	0	0	125	34	30
18:00	0	7	7	39	34	7	3	0	0	0	0	0	0	97	34	29
19:00	0	1	9	21	31	5	1	0	0	0	0	0	0	68	34	29
20:00	0	1	9	25	13	5	1	0	**1**	0	0	0	0	55	34	29
21:00	0	1	5	15	11	6	0	0	0	0	0	0	0	38	34	29
22:00	0	0	2	13	11	5	1	0	0	0	0	0	0	32	35	30
23:00	0	0	2	6	8	3	0	0	0	0	0	0	0	19	34	30
Total	37	85	301	732	569	158	19	2	1	0	0	0	0	1904		
%	1.9%	4.5%	15.8%	38.4%	29.9%	8.3%	1.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	11:00	06:00	07:00	07:00	06:00							08:00		
Vol.	8	13	37	56	50	19	2							141		
PM Peak	12:00	12:00	12:00	16:00	16:00	16:00	16:00	17:00	20:00					16:00		
Vol.	7	23	31	64	56	17	3	2	1					162		

Pecent

15th Percentile :	22 MPH
50th Percentile :	28 MPH
85th Percentile :	34 MPH
95th Percentile :	37 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1301
Percent in Pace :	68.3%
Number of Vehicles > 25 MPH :	1334
Percent of Vehicles > 25 MPH :	70.1%
Mean Speed(Average) :	28 MPH

PRECISION
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Logan Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	3	0	0	0	1	0	0	0	0	0	0	0	4
05:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
06:00	0	23	5	0	0	0	0	0	0	0	0	0	0	28
07:00	1	39	9	1	4	0	0	0	0	0	0	0	0	54
08:00	1	53	19	2	3	0	0	0	0	0	0	0	0	78
09:00	0	40	16	0	1	1	0	0	0	0	0	0	0	58
10:00	0	34	21	1	3	1	0	0	0	0	0	0	0	60
11:00	0	40	8	0	7	0	0	0	0	0	0	0	0	55
12 PM	1	63	17	1	5	2	0	0	0	0	0	0	0	89
13:00	1	40	12	1	3	1	0	0	0	0	0	0	0	58
14:00	1	58	14	0	2	1	0	0	0	0	0	0	0	76
15:00	0	63	11	0	2	0	0	1	0	0	0	0	0	77
16:00	0	53	10	0	3	0	0	0	0	0	0	0	0	66
17:00	0	52	11	0	1	0	0	0	0	0	0	0	0	64
18:00	0	41	8	0	1	0	0	0	0	0	0	0	0	50
19:00	1	18	9	0	0	0	0	0	0	0	0	0	0	28
20:00	1	22	2	0	2	0	0	0	0	0	0	0	0	27
21:00	0	18	1	0	0	0	0	0	0	0	0	0	0	19
22:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total	7	690	176	6	38	8	0	1	0	0	0	0	0	926
Percent	0.8%	74.5%	19.0%	0.6%	4.1%	0.9%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	10:00	08:00	11:00	01:00								08:00
Vol.	1	53	21	2	7	1								78
PM Peak	12:00	12:00	12:00	12:00	12:00	12:00		15:00						12:00
Vol.	1	63	17	1	5	2		1						89

PRECISION
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Logan Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	6	0	0	0	0	0	0	0	0	0	0	0	6
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	4	0	0	0	1	0	0	0	0	0	0	0	5
05:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
06:00	0	24	3	0	0	0	0	0	0	0	0	0	0	27
07:00	2	47	14	1	5	0	0	0	0	0	0	0	0	69
08:00	0	44	18	2	4	0	0	0	0	0	0	0	0	68
09:00	0	47	15	0	6	1	0	0	0	0	0	0	0	69
10:00	0	33	19	0	3	1	0	0	0	0	0	0	0	56
11:00	1	52	13	2	3	1	0	1	0	0	0	0	0	73
12 PM	2	56	20	0	3	1	0	1	0	0	0	0	0	83
13:00	0	44	8	1	2	0	0	0	0	0	0	0	0	55
14:00	0	54	10	0	2	0	0	0	0	0	0	0	0	66
15:00	0	72	12	1	2	1	0	0	0	0	0	0	0	88
16:00	0	66	14	1	0	0	0	0	0	0	0	0	0	81
17:00	2	69	12	0	2	0	0	0	0	0	0	0	0	85
18:00	2	43	8	0	1	0	0	0	0	0	0	0	0	54
19:00	0	27	9	0	0	0	0	0	0	0	0	0	0	36
20:00	1	27	1	0	1	0	0	0	0	0	0	0	0	30
21:00	0	19	2	0	1	0	0	0	0	0	0	0	0	22
22:00	0	13	0	0	0	0	0	0	0	0	0	0	0	13
23:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
Total	10	773	182	8	35	6	0	2	0	0	0	0	0	1016
Percent	1.0%	76.1%	17.9%	0.8%	3.4%	0.6%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	10:00	08:00	09:00	04:00		11:00						11:00
Vol.	2	52	19	2	6	1		1						73
PM Peak	12:00	15:00	12:00	13:00	12:00	12:00		12:00						15:00
Vol.	2	72	20	1	3	1		1						88

PRECISION
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Logan Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	3	1	0	1	0	0	0	0	0	0	0	0	5
03:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
04:00	0	18	4	0	0	0	0	0	0	0	0	0	0	22
05:00	0	35	7	0	1	0	0	0	0	0	0	0	0	43
06:00	1	71	20	1	2	0	0	0	0	0	0	0	0	95
07:00	1	104	33	1	11	0	0	0	0	0	0	0	0	150
08:00	1	97	30	0	8	2	0	1	0	0	0	0	0	139
09:00	0	72	24	2	8	1	0	0	0	0	0	0	0	107
10:00	0	64	20	1	7	0	0	0	0	0	0	0	0	92
11:00	0	70	27	2	5	2	0	2	0	0	0	0	0	108
12 PM	2	103	33	2	5	0	0	1	0	0	0	0	0	146
13:00	1	85	23	1	2	1	0	1	0	0	0	0	0	114
14:00	0	86	17	2	8	1	0	1	0	0	0	0	0	115
15:00	1	90	37	2	7	0	0	0	0	0	0	0	0	137
16:00	1	89	26	0	6	0	0	0	0	0	0	0	0	122
17:00	1	80	25	0	4	0	0	0	0	0	0	0	0	110
18:00	3	77	19	0	2	0	0	0	0	0	0	0	0	101
19:00	0	53	19	0	0	0	0	0	0	0	0	0	0	72
20:00	0	30	7	0	0	0	0	0	0	0	0	0	0	37
21:00	0	24	2	0	2	0	0	0	0	0	0	0	0	28
22:00	0	29	7	0	0	0	0	0	0	0	0	0	0	36
23:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
Total	12	1303	383	14	80	7	0	6	0	0	0	0	0	1805
Percent	0.7%	72.2%	21.2%	0.8%	4.4%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	09:00	07:00	08:00		11:00						07:00
Vol.	1	104	33	2	11	2		2						150
PM Peak	18:00	12:00	15:00	12:00	14:00	13:00		12:00						12:00
Vol.	3	103	37	2	8	1		1						146

PRECISION DATA INDUSTRIES, LLC
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Logan Street
west of North Front Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	11	4	0	1	0	0	0	0	0	0	0	0	16
05:00	0	30	9	0	1	0	0	0	0	0	0	0	0	40
06:00	2	79	26	1	1	2	0	0	0	0	0	0	0	111
07:00	0	97	33	1	5	0	0	0	0	0	0	0	0	136
08:00	0	98	32	2	7	2	0	0	0	0	0	0	0	141
09:00	2	66	26	2	7	2	0	0	1	0	0	0	0	106
10:00	2	55	18	1	7	0	0	0	0	0	0	0	0	83
11:00	0	77	39	0	6	2	0	1	0	0	0	0	0	125
12 PM	1	95	36	0	7	0	0	0	0	0	0	0	0	139
13:00	0	87	30	5	7	3	0	1	0	0	0	0	0	133
14:00	0	89	35	1	6	0	0	0	0	0	0	0	0	131
15:00	1	77	35	2	8	2	0	1	0	0	0	0	0	126
16:00	0	115	39	1	7	0	0	0	0	0	0	0	0	162
17:00	1	98	21	0	5	0	0	0	0	0	0	0	0	125
18:00	1	80	15	0	1	0	0	0	0	0	0	0	0	97
19:00	0	59	8	0	1	0	0	0	0	0	0	0	0	68
20:00	0	43	11	0	1	0	0	0	0	0	0	0	0	55
21:00	0	34	4	0	0	0	0	0	0	0	0	0	0	38
22:00	0	26	6	0	0	0	0	0	0	0	0	0	0	32
23:00	0	16	3	0	0	0	0	0	0	0	0	0	0	19
Total	10	1351	432	16	78	13	0	3	1	0	0	0	0	1904
Percent	0.5%	71.0%	22.7%	0.8%	4.1%	0.7%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	11:00	08:00	08:00	06:00		11:00	09:00					08:00
Vol.	2	98	39	2	7	2		1	1					141
PM Peak	12:00	16:00	16:00	13:00	15:00	13:00		13:00						16:00
Vol.	1	115	39	5	8	3		1						162

PRECISION DATA INDUSTRIES, LLC
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Acushnet Avenue
north of Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-D volume
Site Code: 10111.31

Start	NB				SB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	2		24		0		27		2		51		
12:15	0		26		0		21		0		47		
12:30	1		25		1		17		2		42		
12:45	0	3	24	99	1	2	27	92	1	5	51	191	
01:00	3		26		1		18		4		44		
01:15	0		25		3		26		3		51		
01:30	0		19		0		15		0		34		
01:45	0	3	20	90	0	4	15	74	0	7	35	164	
02:00	0		22		0		13		0		35		
02:15	2		27		1		25		3		52		
02:30	2		32		0		24		2		56		
02:45	0	4	26	107	0	1	21	83	0	5	47	190	
03:00	0		26		0		22		0		48		
03:15	0		18		0		31		0		49		
03:30	1		22		0		18		1		40		
03:45	1	2	19	85	0	0	17	88	1	2	36	173	
04:00	0		20		1		31		1		51		
04:15	2		16		0		20		2		36		
04:30	0		16		1		25		1		41		
04:45	3	5	12	64	0	2	12	88	3	7	24	152	
05:00	0		21		1		23		1		44		
05:15	3		4		2		18		5		22		
05:30	3		7		1		14		4		21		
05:45	4	10	11	43	7	11	14	69	11	21	25	112	
06:00	7		13		2		11		9		24		
06:15	9		7		2		9		11		16		
06:30	4		5		7		10		11		15		
06:45	5	25	12	37	11	22	6	36	16	47	18	73	
07:00	11		7		6		13		17		20		
07:15	23		14		10		4		33		18		
07:30	10		5		11		9		21		14		
07:45	22	66	6	32	10	37	4	30	32	103	10	62	
08:00	20		8		8		2		28		10		
08:15	27		5		9		3		36		8		
08:30	23		2		18		4		41		6		
08:45	23	93	5	20	13	48	5	14	36	141	10	34	
09:00	14		14		13		1		27		15		
09:15	20		2		11		5		31		7		
09:30	18		1		15		1		33		2		
09:45	30	82	1	18	22	61	2	9	52	143	3	27	
10:00	24		3		21		2		45		5		
10:15	20		0		16		2		36		2		
10:30	29		4		17		7		46		11		
10:45	22	95	1	8	19	73	1	12	41	168	2	20	
11:00	14		1		18		3		32		4		
11:15	22		2		9		1		31		3		
11:30	20		0		19		2		39		2		
11:45	16	72	3	6	22	68	1	7	38	140	4	13	
Total	460		609		329		602		789		1211		
Percent	58.3%		50.3%		41.7%		49.7%						
Day Total		1069				931				2000			
Peak	09:45		02:15		09:45		02:30		09:45		02:15		
Vol.	103		111		76		98		179		203		
P.H.F.	0.858		0.867		0.864		0.790		0.861		0.906		

Acushnet Avenue
north of Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 D-D volume
Site Code: 10111.31

Start	NB				SB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	0		21		0		36		0		57		
12:15	0		20		0		24		0		44		
12:30	0		30		1		30		1		60		
12:45	0	0	24	95	0	1	20	110	0	1	44	205	
01:00	0		22		0		17		0		39		
01:15	0		28		0		21		0		49		
01:30	0		26		0		17		0		43		
01:45	0	0	18	94	0	0	29	84	0	0	47	178	
02:00	0		17		0		15		0		32		
02:15	0		20		0		17		0		37		
02:30	0		22		0		23		0		45		
02:45	0	0	18	77	0	0	16	71	0	0	34	148	
03:00	0		25		0		13		0		38		
03:15	0		18		0		22		0		40		
03:30	1		23		0		12		1		35		
03:45	0	1	18	84	0	0	18	65	0	1	36	149	
04:00	0		16		0		26		0		42		
04:15	1		17		1		12		2		29		
04:30	0		14		0		29		0		43		
04:45	3	4	11	58	1	2	15	82	4	6	26	140	
05:00	0		15		2		13		2		28		
05:15	2		13		2		14		4		27		
05:30	3		18		0		15		3		33		
05:45	4	9	12	58	9	13	8	50	13	22	20	108	
06:00	7		9		0		5		7		14		
06:15	10		11		7		2		17		13		
06:30	7		8		8		9		15		17		
06:45	10	34	14	42	5	20	8	24	15	54	22	66	
07:00	11		8		11		5		22		13		
07:15	22		8		9		5		31		13		
07:30	14		8		12		4		26		12		
07:45	12	59	8	32	17	49	4	18	29	108	12	50	
08:00	19		7		9		6		28		13		
08:15	28		2		14		4		42		6		
08:30	18		1		22		7		40		8		
08:45	20	85	6	16	19	64	4	21	39	149	10	37	
09:00	21		5		11		3		32		8		
09:15	22		3		9		4		31		7		
09:30	14		4		14		4		28		8		
09:45	24	81	3	15	15	49	3	14	39	130	6	29	
10:00	26		1		16		1		42		2		
10:15	25		1		18		1		43		2		
10:30	18		4		17		2		35		6		
10:45	17	86	2	8	28	79	2	6	45	165	4	14	
11:00	32		2		15		1		47		3		
11:15	19		0		12		1		31		1		
11:30	22		0		22		3		44		3		
11:45	18	91	2	4	26	75	3	8	44	166	5	12	
Total	450		583		352		553		802		1136		
Percent	56.1%		51.3%		43.9%		48.7%						
Day Total		1033				905				1938			
Peak	09:45		00:30		10:00		12:00		10:15		12:00		
Vol.	93		104		79		110		170		205		
P.H.F.	0.894		0.867		0.705		0.764		0.904		0.854		

PRECISION
D A T A
INDUSTRIES, LLC
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Acushnet Avenue
north of Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	0	0	0	3	0	0	0	0	0	0	0	3	37	36
01:00	2	0	0	0	0	1	0	0	0	0	0	0	0	3	35	13
02:00	0	0	0	1	1	1	0	1	0	0	0	0	0	4	35	36
03:00	0	0	1	0	0	0	1	0	0	0	0	0	0	2	40	30
04:00	0	0	0	1	1	1	2	0	0	0	0	0	0	5	40	37
05:00	0	0	2	3	2	1	2	0	0	0	0	0	0	10	39	31
06:00	0	0	0	1	5	14	3	2	0	0	0	0	0	25	40	37
07:00	0	0	0	5	20	24	12	5	0	0	0	0	0	66	42	36
08:00	0	0	0	9	31	41	9	3	0	0	0	0	0	93	39	35
09:00	0	0	1	7	31	32	8	3	0	0	0	0	0	82	39	35
10:00	0	2	5	16	36	24	10	2	0	0	0	0	0	95	39	33
11:00	1	0	1	7	22	29	10	2	0	0	0	0	0	72	40	35
12 PM	0	0	0	12	37	38	11	1	0	0	0	0	0	99	39	35
13:00	0	1	2	11	45	22	7	1	1	0	0	0	0	90	38	33
14:00	0	1	1	8	29	47	19	2	0	0	0	0	0	107	41	36
15:00	0	2	2	5	23	37	14	2	0	0	0	0	0	85	40	35
16:00	0	0	1	4	25	22	11	1	0	0	0	0	0	64	40	35
17:00	0	0	0	4	15	14	7	2	1	0	0	0	0	43	41	36
18:00	0	0	1	6	10	14	5	1	0	0	0	0	0	37	39	35
19:00	0	1	0	2	7	15	4	3	0	0	0	0	0	32	41	36
20:00	0	1	2	4	5	6	2	0	0	0	0	0	0	20	38	32
21:00	0	1	1	1	7	5	1	1	1	0	0	0	0	18	39	34
22:00	0	0	0	1	2	3	0	2	0	0	0	0	0	8	45	37
23:00	0	0	1	0	1	4	0	0	0	0	0	0	0	6	37	33
Total	3	9	21	108	355	398	138	34	3	0	0	0	0	1069		
%	0.3%	0.8%	2.0%	10.1%	33.2%	37.2%	12.9%	3.2%	0.3%	0.0%	0.0%	0.0%	0.0%			
AM Peak	01:00	10:00	10:00	10:00	10:00	08:00	07:00	07:00						10:00		
Vol.	2	2	5	16	36	41	12	5						95		
PM Peak		15:00	13:00	12:00	13:00	14:00	14:00	19:00	13:00					14:00		
Vol.		2	2	12	45	47	19	3	1					107		

Pecent

15th Percentile :	**30 MPH**
50th Percentile :	**35 MPH**
85th Percentile :	**40 MPH**
95th Percentile :	**44 MPH**

Stats

10 MPH Pace Speed :	**30-39 MPH**
Number in Pace :	**753**
Percent in Pace :	**70.4%**
Number of Vehicles > 35 MPH :	**493**
Percent of Vehicles > 35 MPH :	**46.1%**
Mean Speed(Average) :	**35 MPH**

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north of Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15	15
04:00	0	0	0	0	1	2	1	0	0	0	0	0	0	4	36	36
05:00	0	0	2	2	3	0	1	1	0	0	0	0	0	9	44	32
06:00	0	0	0	7	8	12	4	3	0	0	0	0	0	34	41	35
07:00	0	0	0	6	17	21	10	**4**	**1**	0	0	0	0	59	42	36
08:00	0	0	1	9	25	**35**	**13**	1	1	0	0	0	0	85	40	35
09:00	0	0	2	**13**	35	22	6	2	1	0	0	0	0	81	39	34
10:00	0	1	4	9	**39**	25	8	0	0	0	0	0	0	86	38	33
11:00	0	**2**	**5**	7	29	34	13	1	0	0	0	0	0	**91**	39	34
12 PM	0	0	1	**12**	**31**	**37**	11	3	0	0	0	0	0	**95**	39	35
13:00	0	0	**3**	9	29	29	**20**	**4**	0	0	0	0	0	94	42	36
14:00	0	**1**	0	8	24	26	16	2	0	0	0	0	0	77	41	35
15:00	0	1	2	5	20	36	15	4	**1**	0	0	0	0	84	42	36
16:00	0	0	0	0	17	27	12	1	1	0	0	0	0	58	41	37
17:00	0	0	0	10	15	25	5	2	1	0	0	0	0	58	39	35
18:00	0	1	0	7	15	14	5	0	0	0	0	0	0	42	39	34
19:00	0	0	0	3	12	12	5	0	0	0	0	0	0	32	39	35
20:00	0	0	0	3	5	6	2	0	0	0	0	0	0	16	39	34
21:00	**1**	1	2	2	3	5	0	1	0	0	0	0	0	15	38	31
22:00	0	0	0	0	3	4	1	0	0	0	0	0	0	8	38	36
23:00	0	0	0	1	1	1	1	0	0	0	0	0	0	4	39	36
Total	1	8	22	113	332	373	149	29	6	0	0	0	0	1033		
%	0.1%	0.8%	2.1%	10.9%	32.1%	36.1%	14.4%	2.8%	0.6%	0.0%	0.0%	0.0%	0.0%			
AM Peak		11:00	11:00	09:00	10:00	08:00	08:00	07:00	07:00					11:00		
Vol.		2	5	13	39	35	13	4	1					91		
PM Peak	21:00	14:00	13:00	12:00	12:00	12:00	13:00	13:00	15:00					12:00		
Vol.	1	1	3	12	31	37	20	4	1					95		

Pecent

15th Percentile :	30 MPH
50th Percentile :	35 MPH
85th Percentile :	40 MPH
95th Percentile :	44 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	705
Percent in Pace :	68.2%
Number of Vehicles > 35 MPH :	482
Percent of Vehicles > 35 MPH :	46.7%
Mean Speed(Average) :	35 MPH

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81676 D-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	0	1	1	0	0	0	0	0	0	0	0	2	30	30
01:00	0	0	0	0	3	0	1	0	0	0	0	0	0	4	32	33
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	25	25
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	0	0	1	0	0	0	0	0	2	45	38
05:00	0	0	1	4	2	1	2	1	0	0	0	0	0	11	40	32
06:00	0	0	2	3	7	6	3	0	**1**	0	0	0	0	22	40	34
07:00	**1**	0	0	2	12	10	8	**3**	1	0	0	0	0	37	42	36
08:00	0	0	0	4	15	**20**	7	2	0	0	0	0	0	48	40	36
09:00	0	0	**3**	7	21	17	**10**	3	0	0	0	0	0	61	41	35
10:00	0	0	3	**18**	24	17	9	2	0	0	0	0	0	**73**	39	33
11:00	0	0	3	17	**25**	15	7	1	0	0	0	0	0	68	39	33
12 PM	0	**1**	**5**	11	**36**	23	9	**6**	**1**	0	0	0	0	**92**	40	34
13:00	**1**	0	0	10	34	19	7	2	1	0	0	0	0	74	39	34
14:00	0	0	3	10	35	20	10	4	1	0	0	0	0	83	41	34
15:00	0	0	2	9	29	**40**	6	2	0	0	0	0	0	88	39	35
16:00	1	0	0	7	25	37	**14**	4	0	0	0	0	0	88	41	36
17:00	0	0	1	**12**	19	20	13	3	1	0	0	0	0	69	42	35
18:00	0	0	0	7	6	13	7	2	1	0	0	0	0	36	42	36
19:00	0	1	0	1	14	9	3	1	1	0	0	0	0	30	39	35
20:00	0	0	0	1	8	3	2	0	0	0	0	0	0	14	37	34
21:00	0	0	0	1	3	3	1	0	1	0	0	0	0	9	40	36
22:00	0	0	0	3	5	4	0	0	0	0	0	0	0	12	36	32
23:00	0	0	0	1	2	4	0	0	0	0	0	0	0	7	37	35
Total	3	2	23	130	327	281	119	37	9	0	0	0	0	931		
%	0.3%	0.2%	2.5%	14.0%	35.1%	30.2%	12.8%	4.0%	1.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00		09:00	10:00	11:00	08:00	09:00	07:00	06:00					10:00		
Vol.	1		3	18	25	20	10	3	1					73		
PM Peak	13:00	12:00	12:00	17:00	12:00	15:00	16:00	12:00	12:00					12:00		
Vol.	1	1	5	12	36	40	14	6	1					92		

Pecent

15th Percentile :	29 MPH
50th Percentile :	34 MPH
85th Percentile :	41 MPH
95th Percentile :	44 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	608
Percent in Pace :	65.3%
Number of Vehicles > 35 MPH :	389
Percent of Vehicles > 35 MPH :	41.8%
Mean Speed(Average) :	34 MPH

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81676 D-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	0	0	1	0	0	0	0	0	0	0	0	1	30	30
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	0	0	1	0	0	0	0	0	2	45	38
05:00	0	**1**	0	4	2	3	2	1	0	0	0	0	0	13	40	32
06:00	0	0	1	4	3	6	4	2	0	0	0	0	0	20	42	35
07:00	0	1	0	4	18	11	6	**6**	**3**	0	0	0	0	49	45	37
08:00	0	0	0	4	19	23	**15**	1	1	**1**	0	0	0	64	42	37
09:00	0	0	0	7	13	12	13	4	0	0	0	0	0	49	43	36
10:00	0	0	2	**20**	21	**24**	9	2	1	0	0	0	0	**79**	39	34
11:00	0	0	**6**	15	**23**	22	7	2	0	0	0	0	0	75	39	33
12 PM	0	**1**	**2**	**22**	**32**	40	10	3	0	0	0	0	0	**110**	39	34
13:00	0	0	1	15	29	23	14	2	0	0	0	0	0	84	40	34
14:00	0	0	0	6	27	23	11	3	**1**	0	0	0	0	71	41	36
15:00	0	1	1	7	13	28	10	**5**	0	0	0	0	0	65	42	36
16:00	0	0	1	6	10	**46**	**18**	0	1	0	0	0	0	82	41	37
17:00	0	0	2	3	13	19	12	1	0	0	0	0	0	50	41	36
18:00	0	1	1	2	7	8	5	0	0	0	0	0	0	24	40	35
19:00	0	0	1	0	6	9	1	1	0	0	0	0	0	18	38	35
20:00	0	0	0	1	9	6	4	0	0	**1**	0	0	0	21	41	36
21:00	0	0	2	3	4	3	1	1	0	0	0	0	0	14	37	32
22:00	0	0	0	1	3	2	0	0	0	0	0	0	0	6	35	32
23:00	0	0	0	3	2	2	1	0	0	0	0	0	0	8	36	32
Total	0	5	20	127	256	310	143	35	7	2	0	0	0	905		
%	0.0%	0.6%	2.2%	14.0%	28.3%	34.3%	15.8%	3.9%	0.8%	0.2%	0.0%	0.0%	0.0%			
AM Peak		05:00	11:00	10:00	11:00	10:00	08:00	07:00	07:00	08:00				10:00		
Vol.		1	6	20	23	24	15	6	3	1				79		
PM Peak		12:00	12:00	12:00	12:00	16:00	16:00	15:00	14:00	20:00				12:00		
Vol.		1	2	22	32	46	18	5	1	1				110		

Pecent

15th Percentile :	29 MPH
50th Percentile :	35 MPH
85th Percentile :	41 MPH
95th Percentile :	44 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	566
Percent in Pace :	62.5%
Number of Vehicles > 35 MPH :	435
Percent of Vehicles > 35 MPH :	48.1%
Mean Speed(Average) :	35 MPH

PRECISION
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81676 D-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	2	1	0	0	0	0	0	0	0	0	0	0	3
01:00	2	1	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	3	0	0	0	1	0	0	0	0	0	0	0	4
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
05:00	0	3	2	0	1	0	0	0	2	2	0	0	0	10
06:00	0	18	7	0	0	0	0	0	0	0	0	0	0	25
07:00	0	42	19	1	2	1	0	0	1	0	0	0	0	66
08:00	2	57	28	0	5	0	0	0	1	0	0	0	0	93
09:00	3	51	17	2	8	0	0	0	1	0	0	0	0	82
10:00	2	59	21	2	7	0	0	0	3	1	0	0	0	95
11:00	1	44	20	1	4	0	0	1	1	0	0	0	0	72
12 PM	1	69	22	1	4	0	0	1	1	0	0	0	0	99
13:00	0	55	24	1	8	0	0	0	2	0	0	0	0	90
14:00	2	77	17	1	7	0	0	1	2	0	0	0	0	107
15:00	3	64	14	0	2	0	0	0	2	0	0	0	0	85
16:00	0	46	14	0	3	1	0	0	0	0	0	0	0	64
17:00	1	29	12	0	1	0	0	0	0	0	0	0	0	43
18:00	3	28	5	0	1	0	0	0	0	0	0	0	0	37
19:00	0	25	6	0	1	0	0	0	0	0	0	0	0	32
20:00	0	17	2	0	0	1	0	0	0	0	0	0	0	20
21:00	0	14	4	0	0	0	0	0	0	0	0	0	0	18
22:00	1	7	0	0	0	0	0	0	0	0	0	0	0	8
23:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
Total	21	721	238	9	54	4	0	3	16	3	0	0	0	1069
Percent	2.0%	67.4%	22.3%	0.8%	5.1%	0.4%	0.0%	0.3%	1.5%	0.3%	0.0%	0.0%	0.0%	
AM Peak	09:00	10:00	08:00	09:00	09:00	02:00		11:00	10:00	05:00				10:00
Vol.	3	59	28	2	8	1		1	3	2				95
PM Peak	15:00	14:00	13:00	12:00	13:00	16:00		12:00	13:00					14:00
Vol.	3	77	24	1	8	1		1	2					107

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Acushnet Avenue
north of Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
05:00	1	3	2	0	0	1	0	0	1	1	0	0	0	9
06:00	0	20	10	0	2	1	0	0	1	0	0	0	0	34
07:00	0	41	15	0	1	0	1	0	1	0	0	0	0	59
08:00	1	57	19	0	6	0	0	0	2	0	0	0	0	85
09:00	1	51	18	1	5	1	0	0	4	0	0	0	0	81
10:00	1	54	17	6	7	0	0	0	0	1	0	0	0	86
11:00	2	53	23	1	8	1	0	0	3	0	0	0	0	91
12 PM	1	59	26	2	5	1	0	1	0	0	0	0	0	95
13:00	2	61	25	1	4	1	0	0	0	0	0	0	0	94
14:00	0	52	17	1	5	1	0	0	0	1	0	0	0	77
15:00	2	55	19	1	5	1	0	1	0	0	0	0	0	84
16:00	0	43	12	0	3	0	0	0	0	0	0	0	0	58
17:00	2	48	6	0	2	0	0	0	0	0	0	0	0	58
18:00	2	32	6	0	1	1	0	0	0	0	0	0	0	42
19:00	0	22	9	0	1	0	0	0	0	0	0	0	0	32
20:00	0	13	3	0	0	0	0	0	0	0	0	0	0	16
21:00	0	12	1	0	1	1	0	0	0	0	0	0	0	15
22:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
23:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
Total	15	688	233	13	56	10	1	2	12	3	0	0	0	1033
Percent	1.5%	66.6%	22.6%	1.3%	5.4%	1.0%	0.1%	0.2%	1.2%	0.3%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	11:00	10:00	11:00	05:00	07:00		09:00	05:00				11:00
Vol.	2	57	23	6	8	1	1		4	1				91
PM Peak	13:00	13:00	12:00	12:00	12:00	12:00		12:00		14:00				12:00
Vol.	2	61	26	2	5	1		1		1				95

PRECISION
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Acushnet Avenue
north of Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	7	2	0	0	0	0	0	2	0	0	0	0	11
06:00	0	12	5	0	1	0	0	0	1	3	0	0	0	22
07:00	1	28	7	0	1	0	0	0	0	0	0	0	0	37
08:00	1	17	19	3	5	0	0	1	2	0	0	0	0	48
09:00	2	38	15	2	4	0	0	0	0	0	0	0	0	61
10:00	0	37	23	2	7	1	0	0	2	1	0	0	0	73
11:00	1	47	15	2	2	0	0	0	1	0	0	0	0	68
12 PM	1	62	18	2	7	1	0	0	1	0	0	0	0	92
13:00	3	48	16	1	5	1	0	0	0	0	0	0	0	74
14:00	3	54	21	0	3	1	0	0	1	0	0	0	0	83
15:00	3	63	17	0	4	0	0	0	1	0	0	0	0	88
16:00	1	75	9	2	1	0	0	0	0	0	0	0	0	88
17:00	0	56	11	1	0	1	0	0	0	0	0	0	0	69
18:00	0	28	8	0	0	0	0	0	0	0	0	0	0	36
19:00	0	23	5	0	2	0	0	0	0	0	0	0	0	30
20:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
21:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
22:00	0	8	2	0	1	1	0	0	0	0	0	0	0	12
23:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
Total	16	636	198	15	43	6	0	1	12	4	0	0	0	931
Percent	1.7%	68.3%	21.3%	1.6%	4.6%	0.6%	0.0%	0.1%	1.3%	0.4%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	10:00	08:00	10:00	10:00		08:00	05:00	06:00				10:00
Vol.	2	47	23	3	7	1		1	2	3				73
PM Peak	13:00	16:00	14:00	12:00	12:00	12:00			12:00					12:00
Vol.	3	75	21	2	7	1			1					92

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Acushnet Avenue
north of Hillman Street
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 D-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	9	2	0	0	0	0	0	2	0	0	0	0	13
06:00	0	16	2	0	0	0	0	0	1	1	0	0	0	20
07:00	1	33	9	1	3	2	0	0	0	0	0	0	0	49
08:00	0	37	19	1	5	1	0	0	1	0	0	0	0	64
09:00	0	32	12	0	4	0	0	0	1	0	0	0	0	49
10:00	1	42	22	3	7	1	0	0	2	1	0	0	0	79
11:00	0	47	17	2	6	0	0	0	3	0	0	0	0	75
12 PM	0	72	29	2	3	1	0	1	2	0	0	0	0	110
13:00	0	60	20	1	0	0	0	2	1	0	0	0	0	84
14:00	1	52	13	0	3	1	0	0	1	0	0	0	0	71
15:00	0	41	20	1	2	0	0	1	0	0	0	0	0	65
16:00	1	64	16	0	1	0	0	0	0	0	0	0	0	82
17:00	1	34	15	0	0	0	0	0	0	0	0	0	0	50
18:00	1	16	6	0	0	1	0	0	0	0	0	0	0	24
19:00	0	14	4	0	0	0	0	0	0	0	0	0	0	18
20:00	0	17	4	0	0	0	0	0	0	0	0	0	0	21
21:00	0	10	3	0	1	0	0	0	0	0	0	0	0	14
22:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
23:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
Total	6	611	215	11	35	7	0	4	14	2	0	0	0	905
Percent	0.7%	67.5%	23.8%	1.2%	3.9%	0.8%	0.0%	0.4%	1.5%	0.2%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	10:00	10:00	10:00	07:00			11:00	06:00				10:00
Vol.	1	47	22	3	7	2			3	1				79
PM Peak	14:00	12:00	12:00	12:00	12:00	12:00		13:00	12:00					12:00
Vol.	1	72	29	2	3	1		2	2					110

PRECISION DATA INDUSTRIES, LLC

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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/23/08 thru Wed 9/24/08	81676	New Bedford, MA

Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 E-A1 volume
Site Code: 10111.31

Start Time	Right Lane A.M.		Right Lane P.M.		Left Lane A.M.		Left Lane P.M.		Combined A.M.		Combined P.M.		23-Sep-08 Tue
12:00	13		94		6		33		19		127		
12:15	7		113		3		55		10		168		
12:30	9		118		3		29		12		147		
12:45	7	36	121	446	3	15	40	157	10	51	161	603	
01:00	3		143		3		28		6		171		
01:15	3		98		0		37		3		135		
01:30	3		119		2		37		5		156		
01:45	5	14	98	458	3	8	35	137	8	22	133	595	
02:00	4		100		0		31		4		131		
02:15	1		119		1		36		2		155		
02:30	1		137		0		29		1		166		
02:45	5	11	150	506	2	3	33	129	7	14	183	635	
03:00	5		142		2		47		7		189		
03:15	6		135		2		42		8		177		
03:30	2		142		2		36		4		178		
03:45	3	16	136	555	2	8	37	162	5	24	173	717	
04:00	11		147		3		39		14		186		
04:15	5		117		1		34		6		151		
04:30	9		125		5		45		14		170		
04:45	22	47	130	519	4	13	30	148	26	60	160	667	
05:00	20		143		5		35		25		178		
05:15	24		123		6		30		30		153		
05:30	30		131		9		36		39		167		
05:45	36	110	138	535	9	29	40	141	45	139	178	676	
06:00	43		123		10		37		53		160		
06:15	67		105		13		35		80		140		
06:30	71		108		26		39		97		147		
06:45	87	268	109	445	19	68	28	139	106	336	137	584	
07:00	94		98		34		31		128		129		
07:15	126		99		34		27		160		126		
07:30	150		91		39		27		189		118		
07:45	136	506	76	364	27	134	24	109	163	640	100	473	
08:00	117		85		24		20		141		105		
08:15	136		68		27		21		163		89		
08:30	131		52		31		27		162		79		
08:45	105	489	49	254	33	115	13	81	138	604	62	335	
09:00	93		80		30		22		123		102		
09:15	104		69		23		18		127		87		
09:30	100		42		21		14		121		56		
09:45	104	401	36	227	32	106	13	67	136	507	49	294	
10:00	107		36		30		9		137		45		
10:15	102		29		30		12		132		41		
10:30	113		30		30		11		143		41		
10:45	104	426	11	106	37	127	5	37	141	553	16	143	
11:00	99		20		31		11		130		31		
11:15	106		24		37		10		143		34		
11:30	121		11		30		6		151		17		
11:45	111	437	17	72	32	130	2	29	143	567	19	101	
Total	2761		4487		756		1336		3517		5823		
Percent	78.5%		77.1%		21.5%		22.9%						
Day Total		7248				2092				9340			
Peak	07:30		02:45		10:30		03:00		07:30		02:45		
Vol.	539		569		135		162		656		727		
P.H.F.	0.898		0.948		0.865		0.862		0.868		0.962		

Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 E-A1 volume
Site Code: 10111.31

Start	Right Lane				Left Lane				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	8		124		2		34		10		158		
12:15	7		151		2		43		9		194		
12:30	11		126		3		40		14		166		
12:45	7	33	107	508	5	12	34	151	12	45	141	659	
01:00	13		141		7		30		20		171		
01:15	2		127		3		29		5		156		
01:30	4		126		0		31		4		157		
01:45	2	21	98	492	2	12	30	120	4	33	128	612	
02:00	1		107		0		27		1		134		
02:15	3		114		0		24		3		138		
02:30	2		144		0		41		2		185		
02:45	1	7	158	523	1	1	31	123	2	8	189	646	
03:00	5		152		1		36		6		188		
03:15	1		163		1		36		2		199		
03:30	4		131		3		35		7		166		
03:45	4	14	128	574	0	5	37	144	4	19	165	718	
04:00	7		122		2		44		9		166		
04:15	4		137		3		42		7		179		
04:30	12		126		3		38		15		164		
04:45	19	42	129	514	7	15	30	154	26	57	159	668	
05:00	25		144		7		27		32		171		
05:15	33		118		4		26		37		144		
05:30	29		147		11		38		40		185		
05:45	41	128	122	531	7	29	32	123	48	157	154	654	
06:00	44		116		11		48		55		164		
06:15	61		115		10		30		71		145		
06:30	81		118		25		38		106		156		
06:45	79	265	107	456	22	68	24	140	101	333	131	596	
07:00	111		92		22		32		133		124		
07:15	116		79		29		27		145		106		
07:30	136		69		35		34		171		103		
07:45	119	482	76	316	37	123	22	115	156	605	98	431	
08:00	134		76		32		21		166		97		
08:15	129		63		37		14		166		77		
08:30	113		64		32		15		145		79		
08:45	119	495	67	270	45	146	17	67	164	641	84	337	
09:00	108		64		26		17		134		81		
09:15	104		58		22		17		126		75		
09:30	104		51		28		24		132		75		
09:45	99	415	48	221	26	102	13	71	125	517	61	292	
10:00	107		32		30		11		137		43		
10:15	114		21		29		11		143		32		
10:30	109		28		26		5		135		33		
10:45	98	428	22	103	35	120	6	33	133	548	28	136	
11:00	87		26		30		10		117		36		
11:15	106		17		30		8		136		25		
11:30	116		14		35		4		151		18		
11:45	96	405	19	76	31	126	10	32	127	531	29	108	
Total	2735		4584		759		1273		3494		5857		
Percent	78.3%		78.3%		21.7%		21.7%						
Day Total		7319				2032				9351			
Peak	07:30		02:30		08:00		03:45		07:30		02:30		
Vol.	518		617		146		161		659		761		
P.H.F.	0.952		0.946		0.811		0.915		0.963		0.956		

PRECISION
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Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 speed
Site Code: 10111.31

Right Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	1	5	17	9	3	1	0	0	0	0	0	36	38	33
01:00	1	1	0	3	2	6	1	0	0	0	0	0	0	14	38	31
02:00	0	0	0	2	3	2	2	2	0	0	0	0	0	11	44	37
03:00	0	0	2	3	6	2	2	1	0	0	0	0	0	16	40	33
04:00	0	2	1	11	11	8	9	4	**1**	0	0	0	0	47	43	34
05:00	0	0	10	17	46	21	10	**6**	0	0	0	0	0	110	39	33
06:00	5	23	55	80	63	32	8	2	0	0	0	0	0	268	35	28
07:00	**57**	**76**	**139**	117	74	40	3	0	0	0	0	0	0	**506**	32	24
08:00	34	42	104	136	**116**	48	8	0	1	0	0	0	0	489	34	26
09:00	20	37	77	125	98	34	8	2	0	0	0	0	0	401	34	27
10:00	22	36	70	**141**	103	39	**15**	0	0	0	0	0	0	426	34	27
11:00	22	36	89	128	100	**50**	10	2	0	0	0	0	0	437	34	27
12 PM	29	53	109	123	88	33	10	1	0	0	0	0	0	446	33	25
13:00	26	48	105	119	103	**50**	5	1	0	**1**	0	0	0	458	34	26
14:00	**71**	92	158	123	45	14	3	0	0	0	0	0	0	506	29	22
15:00	56	**100**	**176**	129	77	16	0	1	0	0	0	0	0	**555**	30	23
16:00	31	71	156	124	**104**	31	2	0	0	0	0	0	0	519	32	25
17:00	53	68	168	**132**	95	16	3	0	0	0	0	0	0	535	31	24
18:00	39	52	116	129	82	21	6	0	0	0	0	0	0	445	32	24
19:00	21	31	114	129	47	18	3	1	0	0	0	0	0	364	31	25
20:00	7	24	56	92	52	19	3	1	0	0	0	0	0	254	33	27
21:00	2	9	41	77	75	16	6	1	0	0	0	0	0	227	34	28
22:00	0	1	8	24	41	23	6	**3**	0	0	0	0	0	106	38	32
23:00	0	0	2	15	26	13	**12**	3	**1**	0	0	0	0	72	41	34
Total	496	802	1757	1984	1474	561	138	32	3	1	0	0	0	7248		
%	6.8%	11.1%	24.2%	27.4%	20.3%	7.7%	1.9%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	10:00	08:00	11:00	10:00	05:00	04:00					07:00		
Vol.	57	76	139	141	116	50	15	6	1					506		
PM Peak	14:00	15:00	15:00	17:00	16:00	13:00	23:00	22:00	23:00	13:00				15:00		
Vol.	71	100	176	132	104	50	12	3	1	1				555		

Pecent

15th Percentile :	18 MPH
50th Percentile :	26 MPH
85th Percentile :	33 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3741
Percent in Pace :	51.6%
Number of Vehicles > 35 MPH :	622
Percent of Vehicles > 35 MPH :	8.6%
Mean Speed(Average) :	26 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 speed
Site Code: 10111.31

Right Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	1	7	11	9	4	1	0	0	0	0	0	33	39	34
01:00	0	0	2	9	4	3	2	1	0	0	0	0	0	21	37	31
02:00	0	0	1	3	0	1	2	0	0	0	0	0	0	7	40	32
03:00	0	0	0	2	6	3	3	0	0	0	0	0	0	14	40	35
04:00	0	1	1	8	14	5	9	3	**1**	0	0	0	0	42	43	35
05:00	0	5	10	22	46	34	7	**4**	0	0	0	0	0	128	38	32
06:00	13	14	43	71	75	35	**11**	3	0	0	0	0	0	265	36	28
07:00	**61**	**71**	**142**	107	81	15	4	1	0	0	0	0	0	482	31	23
08:00	23	29	102	**139**	**150**	43	8	0	0	0	0	0	0	**494**	34	27
09:00	12	35	86	104	126	**44**	8	1	0	0	0	0	0	416	34	27
10:00	29	49	88	118	95	39	8	2	0	0	0	0	0	428	34	26
11:00	25	43	98	115	81	36	6	1	0	0	0	0	0	405	33	26
12 PM	33	67	133	146	**96**	30	2	1	0	0	0	0	0	508	32	25
13:00	46	66	129	138	90	18	4	1	0	0	0	0	0	492	32	24
14:00	53	70	161	**147**	69	21	1	1	0	0	0	0	0	523	30	23
15:00	55	**96**	**225**	134	55	9	0	0	0	0	0	0	0	**574**	29	22
16:00	59	76	165	115	73	21	4	1	0	0	0	0	0	514	31	23
17:00	**64**	84	157	136	76	12	1	0	0	0	0	0	0	530	30	23
18:00	25	57	139	122	82	27	2	**3**	0	0	0	0	0	457	32	25
19:00	6	21	74	125	60	24	5	0	1	0	0	0	0	316	33	27
20:00	1	11	65	96	66	26	3	2	0	0	0	0	0	270	34	28
21:00	1	7	27	75	69	**36**	4	2	0	0	0	0	0	221	36	30
22:00	1	1	7	30	35	18	**8**	1	**2**	0	0	0	0	103	38	32
23:00	0	0	8	12	28	18	6	2	2	0	0	0	0	76	39	33
Total	507	803	1864	1981	1488	527	112	31	6	0	0	0	0	7319		
%	6.9%	11.0%	25.5%	27.1%	20.3%	7.2%	1.5%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	08:00	08:00	09:00	06:00	05:00	04:00					08:00		
Vol.	61	71	142	139	150	44	11	4	1					494		
PM Peak	17:00	15:00	15:00	14:00	12:00	21:00	22:00	18:00	22:00					15:00		
Vol.	64	96	225	147	96	36	8	3	2					574		

Pecent

15th Percentile :	18 MPH
50th Percentile :	26 MPH
85th Percentile :	33 MPH
95th Percentile :	37 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3845
Percent in Pace :	52.5%
Number of Vehicles > 35 MPH :	570
Percent of Vehicles > 35 MPH :	7.8%
Mean Speed(Average) :	25 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 speed
Site Code: 10111.31

Left Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	1	1	8	4	0	1	0	0	0	0	0	15	37	33
01:00	0	0	1	2	0	2	0	2	**1**	0	0	0	0	8	46	36
02:00	0	0	0	0	0	2	0	1	0	0	0	0	0	3	45	39
03:00	0	0	0	1	1	3	1	1	1	0	0	0	0	8	49	39
04:00	0	0	0	1	3	4	3	1	0	**1**	0	0	0	13	42	38
05:00	0	0	0	1	7	13	5	2	0	1	0	0	0	29	43	38
06:00	0	0	6	26	15	15	5	1	0	0	0	0	0	68	38	31
07:00	0	1	**34**	30	36	**29**	2	1	0	0	0	0	0	**133**	36	29
08:00	0	1	17	29	29	23	10	**7**	0	0	0	0	0	116	39	32
09:00	**2**	**2**	7	28	29	23	12	3	0	0	0	0	0	106	39	32
10:00	0	2	16	**43**	37	22	7	0	0	0	0	0	0	127	36	30
11:00	0	1	10	31	**43**	29	**14**	1	1	0	0	0	0	130	39	32
12 PM	0	1	19	49	**52**	**28**	6	1	**1**	0	0	0	0	157	36	31
13:00	0	2	19	38	47	21	**9**	0	1	0	0	0	0	137	37	31
14:00	0	2	**48**	40	23	9	6	0	1	0	0	0	0	129	34	27
15:00	0	2	47	**52**	38	12	8	2	1	0	0	0	0	**162**	34	28
16:00	0	1	34	37	39	28	5	**3**	1	0	0	0	0	148	37	30
17:00	0	2	40	50	30	12	4	2	1	0	0	0	0	141	34	28
18:00	0	**4**	31	41	31	24	5	3	0	0	0	0	0	139	37	29
19:00	**1**	0	17	50	26	9	4	1	0	0	**1**	0	0	109	34	29
20:00	0	1	8	22	30	13	5	0	1	0	0	0	0	80	37	31
21:00	0	1	3	20	25	15	4	0	0	0	0	0	0	68	37	32
22:00	0	0	0	2	20	9	4	2	0	0	0	0	0	37	39	35
23:00	0	1	0	2	10	13	2	0	1	0	0	0	0	29	39	35
Total	3	24	358	596	579	362	121	35	11	2	1	0	0	2092		
%	0.1%	1.1%	17.1%	28.5%	27.7%	17.3%	5.8%	1.7%	0.5%	0.1%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	07:00	10:00	11:00	07:00	11:00	08:00	01:00	04:00				07:00		
Vol.	2	2	34	43	43	29	14	7	1	1				133		
PM Peak	19:00	18:00	14:00	15:00	12:00	12:00	13:00	16:00	12:00		19:00			15:00		
Vol.	1	4	48	52	52	28	9	3	1		1			162		

Pecent

15th Percentile :	24 MPH
50th Percentile :	30 MPH
85th Percentile :	37 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1175
Percent in Pace :	56.2%
Number of Vehicles > 35 MPH :	459
Percent of Vehicles > 35 MPH :	21.9%
Mean Speed(Average) :	30 MPH

PRECISION DATA INDUSTRIES, LLC
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Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 speed
Site Code: 10111.31

Left Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	1	0	5	4	1	1	0	0	0	0	0	12	38	35
01:00	0	0	0	2	4	4	1	1	0	0	0	0	0	12	38	35
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1	40	40
03:00	0	0	0	2	1	1	0	0	1	0	0	0	0	5	35	34
04:00	0	0	0	1	2	6	4	1	1	0	0	0	0	15	43	39
05:00	0	0	1	4	9	9	4	2	0	0	0	0	0	29	41	35
06:00	0	0	7	18	20	15	2	4	**2**	0	0	0	0	68	39	33
07:00	**3**	**1**	**39**	27	35	11	5	1	0	**1**	0	0	0	123	34	28
08:00	2	1	17	29	**46**	**34**	8	**9**	0	0	0	0	0	**146**	39	32
09:00	0	0	11	26	31	22	**10**	2	0	0	0	0	0	102	39	32
10:00	0	0	15	**44**	36	13	10	2	0	0	0	0	0	120	37	30
11:00	0	0	18	42	34	23	9	0	0	0	0	0	0	126	37	30
12 PM	0	3	32	47	40	**22**	6	1	0	0	0	0	0	151	36	29
13:00	0	0	18	38	41	16	5	2	0	0	0	0	0	120	36	30
14:00	0	0	29	36	24	20	**13**	1	0	0	0	0	0	123	38	30
15:00	0	**4**	42	**52**	36	8	2	0	0	0	0	0	0	144	33	27
16:00	**1**	3	**51**	36	39	15	6	**3**	0	0	0	0	0	**154**	35	28
17:00	0	4	32	39	34	10	4	0	0	0	0	0	0	123	34	28
18:00	0	1	25	46	41	21	5	0	1	0	0	0	0	140	36	30
19:00	0	0	10	42	**45**	14	2	1	1	0	0	0	0	115	35	30
20:00	0	0	5	24	26	10	2	0	0	0	0	0	0	67	35	30
21:00	0	0	4	11	36	13	4	0	**2**	0	0	0	0	70	37	33
22:00	0	0	0	11	6	14	2	1	0	0	0	0	0	34	38	33
23:00	0	0	1	6	16	7	2	0	0	0	0	0	0	32	36	32
Total	6	17	358	583	607	312	108	32	8	1	0	0	0	2032		
%	0.3%	0.8%	17.6%	28.7%	29.9%	15.4%	5.3%	1.6%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	10:00	08:00	08:00	09:00	08:00	06:00	07:00				08:00		
Vol.	3	1	39	44	46	34	10	9	2	1				146		
PM Peak	16:00	15:00	16:00	15:00	19:00	12:00	14:00	16:00	21:00					16:00		
Vol.	1	4	51	52	45	22	13	3	2					154		

Pecent

15th Percentile :	23 MPH
50th Percentile :	30 MPH
85th Percentile :	37 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	1190
Percent in Pace :	58.6%
Number of Vehicles > 35 MPH :	398
Percent of Vehicles > 35 MPH :	19.6%
Mean Speed(Average) :	30 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 class
Site Code: 10111.31

Right Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	21	12	0	2	0	0	0	1	0	0	0	0	36
01:00	0	11	1	0	2	0	0	0	0	0	0	0	0	14
02:00	0	8	2	0	1	0	0	0	0	0	0	0	0	11
03:00	0	9	5	1	1	0	0	0	0	0	0	0	0	16
04:00	0	26	14	0	7	0	0	0	0	0	0	0	0	47
05:00	0	58	34	2	15	1	0	0	0	0	0	0	0	110
06:00	3	175	57	1	27	0	0	3	2	0	0	0	0	268
07:00	2	360	104	5	28	2	0	4	1	0	0	0	0	506
08:00	6	339	107	3	26	2	0	5	1	0	0	0	0	489
09:00	1	272	97	4	24	0	1	0	2	0	0	0	0	401
10:00	2	290	102	2	26	2	0	2	0	0	0	0	0	426
11:00	1	293	103	2	30	4	0	2	2	0	0	0	0	437
12 PM	3	314	98	2	24	3	0	1	1	0	0	0	0	446
13:00	7	319	99	2	26	1	0	4	0	0	0	0	0	458
14:00	7	359	112	2	15	3	0	7	1	0	0	0	0	506
15:00	3	385	127	4	30	0	0	6	0	0	0	0	0	555
16:00	3	381	101	1	27	1	0	4	1	0	0	0	0	519
17:00	2	379	120	2	28	0	0	3	1	0	0	0	0	535
18:00	3	321	93	3	23	0	0	2	0	0	0	0	0	445
19:00	2	266	83	0	11	1	0	1	0	0	0	0	0	364
20:00	0	184	59	0	9	0	0	1	0	1	0	0	0	254
21:00	0	161	55	1	9	0	0	1	0	0	0	0	0	227
22:00	1	75	24	0	5	0	0	0	1	0	0	0	0	106
23:00	0	63	9	0	0	0	0	0	0	0	0	0	0	72
Total	46	5069	1618	37	396	20	1	46	14	1	0	0	0	7248
Percent	0.6%	69.9%	22.3%	0.5%	5.5%	0.3%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	07:00	11:00	11:00	09:00	08:00	06:00					07:00
Vol.	6	360	107	5	30	4	1	5	2					506
PM Peak	13:00	15:00	15:00	15:00	15:00	12:00		14:00	12:00	20:00				15:00
Vol.	7	385	127	4	30	3		7	1	1				555

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 class
Site Code: 10111.31

Right Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	24	7	0	2	0	0	0	0	0	0	0	0	33
01:00	1	18	1	0	1	0	0	0	0	0	0	0	0	21
02:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
03:00	0	8	4	0	2	0	0	0	0	0	0	0	0	14
04:00	0	23	12	0	7	0	0	0	0	0	0	0	0	42
05:00	0	72	34	1	20	0	0	1	0	0	0	0	0	128
06:00	4	188	46	0	26	0	0	0	0	1	0	0	0	265
07:00	1	359	81	4	28	0	1	7	1	0	0	0	0	482
08:00	2	323	125	4	35	1	0	3	1	0	0	0	0	494
09:00	4	269	104	4	30	1	0	1	2	1	0	0	0	416
10:00	2	301	92	3	26	0	0	3	1	0	0	0	0	428
11:00	1	275	101	2	22	0	0	4	0	0	0	0	0	405
12 PM	6	353	115	3	25	2	0	2	2	0	0	0	0	508
13:00	2	363	106	1	14	1	1	3	1	0	0	0	0	492
14:00	4	366	116	5	25	0	0	5	2	0	0	0	0	523
15:00	3	434	119	1	15	0	0	2	0	0	0	0	0	574
16:00	2	369	113	2	27	0	0	0	1	0	0	0	0	514
17:00	2	378	124	1	18	0	0	7	0	0	0	0	0	530
18:00	1	319	110	1	21	0	0	4	1	0	0	0	0	457
19:00	4	219	76	0	17	0	0	0	0	0	0	0	0	316
20:00	0	188	67	0	15	0	0	0	0	0	0	0	0	270
21:00	1	176	38	1	5	0	0	0	0	0	0	0	0	221
22:00	0	61	38	1	3	0	0	0	0	0	0	0	0	103
23:00	0	57	17	0	2	0	0	0	0	0	0	0	0	76
Total	40	5148	1648	34	386	5	2	42	12	2	0	0	0	7319
Percent	0.5%	70.3%	22.5%	0.5%	5.3%	0.1%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	08:00	07:00	08:00	08:00	07:00	07:00	09:00	06:00				08:00
Vol.	4	359	125	4	35	1	1	7	2	1				494
PM Peak	12:00	15:00	17:00	14:00	16:00	12:00	13:00	17:00	12:00					15:00
Vol.	6	434	124	5	27	2	1	7	2					574

PRECISION
D A T A
INDUSTRIES, LLC
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Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 class
Site Code: 10111.31

Left Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	9	5	0	1	0	0	0	0	0	0	0	0	15
01:00	0	4	1	0	3	0	0	0	0	0	0	0	0	8
02:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
03:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
04:00	0	8	4	0	1	0	0	0	0	0	0	0	0	13
05:00	0	19	3	0	7	0	0	0	0	0	0	0	0	29
06:00	0	46	15	0	7	0	0	0	0	0	0	0	0	68
07:00	0	88	25	9	8	0	0	3	0	0	0	0	0	133
08:00	0	82	26	0	6	0	0	2	0	0	0	0	0	116
09:00	1	66	22	2	13	1	0	0	1	0	0	0	0	106
10:00	0	80	37	3	6	0	0	1	0	0	0	0	0	127
11:00	0	86	35	1	8	0	0	0	0	0	0	0	0	130
12 PM	0	109	34	3	9	0	0	2	0	0	0	0	0	157
13:00	1	97	30	1	6	1	0	1	0	0	0	0	0	137
14:00	1	95	23	0	10	0	0	0	0	0	0	0	0	129
15:00	0	115	37	3	7	0	0	0	0	0	0	0	0	162
16:00	0	112	32	1	3	0	0	0	0	0	0	0	0	148
17:00	0	109	24	0	7	0	0	1	0	0	0	0	0	141
18:00	0	105	31	0	3	0	0	0	0	0	0	0	0	139
19:00	0	77	26	0	6	0	0	0	0	0	0	0	0	109
20:00	0	57	16	0	7	0	0	0	0	0	0	0	0	80
21:00	0	54	10	0	4	0	0	0	0	0	0	0	0	68
22:00	0	30	7	0	0	0	0	0	0	0	0	0	0	37
23:00	0	25	4	0	0	0	0	0	0	0	0	0	0	29
Total	3	1481	450	23	122	2	0	10	1	0	0	0	0	2092
Percent	0.1%	70.8%	21.5%	1.1%	5.8%	0.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	10:00	07:00	09:00	09:00		07:00	09:00					07:00
Vol.	1	88	37	9	13	1		3	1					133
PM Peak	13:00	15:00	15:00	12:00	14:00	13:00		12:00						15:00
Vol.	1	115	37	3	10	1		2						162

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Kings Highway WB lanes
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A1 class
Site Code: 10111.31

Left Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	11	0	0	1	0	0	0	0	0	0	0	0	12
01:00	0	8	1	1	2	0	0	0	0	0	0	0	0	12
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
04:00	0	6	7	0	2	0	0	0	0	0	0	0	0	15
05:00	0	18	3	0	8	0	0	0	0	0	0	0	0	29
06:00	0	49	13	0	5	0	0	1	0	0	0	0	0	68
07:00	0	86	24	6	7	0	0	0	0	0	0	0	0	123
08:00	1	92	42	1	8	1	0	1	0	0	0	0	0	146
09:00	0	59	33	1	7	0	0	2	0	0	0	0	0	102
10:00	0	79	33	2	6	0	0	0	0	0	0	0	0	120
11:00	0	86	33	1	6	0	0	0	0	0	0	0	0	126
12 PM	0	95	38	4	13	1	0	0	0	0	0	0	0	151
13:00	0	79	35	1	5	0	0	0	0	0	0	0	0	120
14:00	0	85	27	1	7	1	0	2	0	0	0	0	0	123
15:00	0	114	23	3	4	0	0	0	0	0	0	0	0	144
16:00	1	111	30	1	11	0	0	0	0	0	0	0	0	154
17:00	0	89	29	0	5	0	0	0	0	0	0	0	0	123
18:00	0	97	38	0	5	0	0	0	0	0	0	0	0	140
19:00	0	87	24	0	3	0	0	1	0	0	0	0	0	115
20:00	0	53	11	0	3	0	0	0	0	0	0	0	0	67
21:00	0	55	13	0	2	0	0	0	0	0	0	0	0	70
22:00	0	24	9	0	1	0	0	0	0	0	0	0	0	34
23:00	0	28	3	0	1	0	0	0	0	0	0	0	0	32
Total	2	1414	472	22	112	3	0	7	0	0	0	0	0	2032
Percent	0.1%	69.6%	23.2%	1.1%	5.5%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	07:00	05:00	08:00		09:00						08:00
Vol.	1	92	42	6	8	1		2						146
PM Peak	16:00	15:00	12:00	12:00	12:00	12:00		14:00						16:00
Vol.	1	114	38	4	13	1		2						154

Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 E-A2 volume
Site Code: 10111.31

Start	Right Lane				Left Lane				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	15		140		8		51		23		191		
12:15	11		99		7		43		18		142		
12:30	7		105		4		60		11		165		
12:45	6	39	128	472	6	25	57	211	12	64	185	683	
01:00	3		108		3		41		6		149		
01:15	3		116		3		55		6		171		
01:30	2		101		0		53		2		154		
01:45	0	8	106	431	2	8	44	193	2	16	150	624	
02:00	2		123		2		50		4		173		
02:15	4		131		6		48		10		179		
02:30	0		135		3		60		3		195		
02:45	2	8	126	515	2	13	52	210	4	21	178	725	
03:00	2		117		4		49		6		166		
03:15	1		93		3		46		4		139		
03:30	2		142		2		51		4		193		
03:45	0	5	144	496	2	11	63	209	2	16	207	705	
04:00	3		130		1		60		4		190		
04:15	3		134		1		66		4		200		
04:30	5		133		3		53		8		186		
04:45	23	34	143	540	13	18	58	237	36	52	201	777	
05:00	10		123		9		61		19		184		
05:15	14		151		17		66		31		217		
05:30	21		138		9		64		30		202		
05:45	18	63	130	542	11	46	57	248	29	109	187	790	
06:00	39		141		10		57		49		198		
06:15	35		140		12		59		47		199		
06:30	48		130		16		52		64		182		
06:45	80	202	110	521	34	72	44	212	114	274	154	733	
07:00	92		95		32		40		124		135		
07:15	136		101		42		42		178		143		
07:30	107		80		49		29		156		109		
07:45	117	452	73	349	47	170	32	143	164	622	105	492	
08:00	94		71		44		33		138		104		
08:15	85		86		47		37		132		123		
08:30	88		57		38		34		126		91		
08:45	90	357	59	273	35	164	34	138	125	521	93	411	
09:00	79		49		29		27		108		76		
09:15	74		61		27		25		101		86		
09:30	108		48		40		20		148		68		
09:45	94	355	49	207	32	128	24	96	126	483	73	303	
10:00	99		17		31		17		130		34		
10:15	125		19		40		20		165		39		
10:30	122		17		43		13		165		30		
10:45	107	453	12	65	44	158	20	70	151	611	32	135	
11:00	132		38		37		12		169		50		
11:15	96		20		49		9		145		29		
11:30	122		24		41		19		163		43		
11:45	105	455	15	97	53	180	12	52	158	635	27	149	
Total	2431		4508		993		2019		3424		6527		
Percent	71.0%		69.1%		29.0%		30.9%						
Day Total		6939				3012				9951			
Peak	10:15		05:15		07:30		04:45		10:15		04:45		
Vol.	486		560		187		249		650		804		
P.H.F.	0.920		0.927		0.954		0.943		0.962		0.926		

Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 E-A2 volume
Site Code: 10111.31

Start Time	Right Lane A.M.		Right Lane P.M.		Left Lane A.M.		Left Lane P.M.		Combined A.M.		Combined P.M.		24-Sep-08 Wed
12:00	13		119		9		49		22		168		
12:15	8		118		13		48		21		166		
12:30	3		115		6		46		9		161		
12:45	7	31	114	466	6	34	59	202	13	65	173	668	
01:00	6		115		5		45		11		160		
01:15	1		121		3		48		4		169		
01:30	2		114		6		56		8		170		
01:45	2	11	116	466	2	16	40	189	4	27	156	655	
02:00	0		122		1		51		1		173		
02:15	3		144		4		54		7		198		
02:30	4		127		4		62		8		189		
02:45	0	7	117	510	0	9	46	213	0	16	163	723	
03:00	3		111		2		45		5		156		
03:15	1		129		2		55		3		184		
03:30	1		127		3		57		4		184		
03:45	3	8	130	497	2	9	60	217	5	17	190	714	
04:00	1		126		1		61		2		187		
04:15	2		131		0		65		2		196		
04:30	9		134		7		59		16		193		
04:45	11	23	114	505	8	16	65	250	19	39	179	755	
05:00	16		122		11		50		27		172		
05:15	17		121		8		53		25		174		
05:30	17		129		9		42		26		171		
05:45	31	81	131	503	11	39	55	200	42	120	186	703	
06:00	37		127		16		49		53		176		
06:15	30		134		14		69		44		203		
06:30	57		113		13		52		70		165		
06:45	65	189	117	491	31	74	48	218	96	263	165	709	
07:00	98		108		30		52		128		160		
07:15	137		109		48		28		185		137		
07:30	128		86		48		24		176		110		
07:45	132	495	89	392	47	173	30	134	179	668	119	526	
08:00	98		82		28		46		126		128		
08:15	89		88		35		37		124		125		
08:30	96		76		40		26		136		102		
08:45	90	373	44	290	35	138	32	141	125	511	76	431	
09:00	77		57		34		28		111		85		
09:15	83		57		39		25		122		82		
09:30	74		45		32		29		106		74		
09:45	95	329	50	209	43	148	20	102	138	477	70	311	
10:00	97		44		47		22		144		66		
10:15	93		40		41		15		134		55		
10:30	100		31		35		18		135		49		
10:45	101	391	16	131	36	159	8	63	137	550	24	194	
11:00	106		16		41		17		147		33		
11:15	117		18		46		20		163		38		
11:30	102		15		50		20		152		35		
11:45	133	458	13	62	45	182	13	70	178	640	26	132	
Total	2396		4522		997		1999		3393		6521		
Percent	70.6%		69.3%		29.4%		30.7%						
Day Total		6918				2996				9914			
Peak	07:00		03:45		11:00		04:00		07:00		03:45		
Vol.	495		521		182		250		668		766		
P.H.F.	0.903		0.972		0.910		0.962		0.903		0.977		

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Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 speed
Site Code: 10111.31

Right Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	1	3	8	13	11	3	0	0	0	0	0	0	39	38	32
01:00	0	0	0	3	2	2	1	0	0	0	0	0	0	8	36	32
02:00	0	0	0	1	1	4	1	1	0	0	0	0	0	8	44	37
03:00	0	0	1	0	1	2	1	0	0	0	0	0	0	5	36	33
04:00	0	0	1	5	14	10	4	0	0	0	0	0	0	34	39	34
05:00	0	1	4	14	21	10	**12**	1	0	0	0	0	0	63	41	33
06:00	3	10	32	61	67	**22**	2	**4**	0	0	0	0	0	201	34	29
07:00	**53**	69	110	**119**	**76**	20	6	0	0	0	0	0	0	453	32	23
08:00	22	42	103	104	59	20	6	1	0	0	0	0	0	357	32	25
09:00	30	43	92	102	65	17	6	0	0	0	0	0	0	355	32	25
10:00	51	77	135	111	61	17	1	0	0	0	0	0	0	453	30	23
11:00	53	**78**	**156**	101	50	15	1	1	0	0	0	0	0	**455**	29	22
12 PM	69	99	160	85	45	13	1	0	0	0	0	0	0	472	29	21
13:00	53	77	133	**110**	53	5	0	0	0	0	0	0	0	431	29	22
14:00	85	120	204	68	32	3	3	0	0	0	0	0	0	515	27	20
15:00	87	120	201	68	16	3	1	0	0	0	0	0	0	496	25	19
16:00	101	**128**	207	74	28	2	0	0	0	0	0	0	0	540	26	19
17:00	84	123	**218**	86	22	5	3	1	0	0	0	0	0	**542**	27	20
18:00	**102**	126	178	72	34	5	1	2	0	0	0	0	0	520	27	20
19:00	22	49	104	106	57	11	1	0	0	0	0	0	0	350	31	24
20:00	7	24	81	95	46	13	5	1	0	0	0	0	0	272	32	26
21:00	4	11	48	61	**58**	20	5	0	**1**	0	0	0	0	208	34	28
22:00	0	0	4	19	27	11	2	1	1	0	0	0	0	65	36	32
23:00	0	0	5	27	31	**22**	**8**	**3**	1	0	0	0	0	97	39	33
Total	826	1198	2180	1500	879	263	74	16	3	0	0	0	0	6939		
%	11.9%	17.3%	31.4%	21.6%	12.7%	3.8%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	11:00	07:00	07:00	06:00	05:00	06:00						11:00		
Vol.	53	78	156	119	76	22	12	4						455		
PM Peak	18:00	16:00	17:00	13:00	21:00	23:00	23:00	23:00	21:00					17:00		
Vol.	102	128	218	110	58	22	8	3	1					542		

Pecent

15th Percentile :	15 MPH
50th Percentile :	23 MPH
85th Percentile :	31 MPH
95th Percentile :	35 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3680
Percent in Pace :	53.0%
Number of Vehicles > 30 MPH :	1059
Percent of Vehicles > 30 MPH :	15.3%
Mean Speed(Average) :	23 MPH

PRECISION
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Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 speed
Site Code: 10111.31

Right Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	3	4	12	9	2	0	0	**1**	0	0	0	31	38	33
01:00	0	0	0	0	7	4	0	0	0	0	0	0	0	11	36	33
02:00	0	0	1	1	1	1	1	1	0	1	0	0	0	7	45	39
03:00	0	0	0	1	6	1	0	0	0	0	0	0	0	8	34	32
04:00	0	0	0	3	10	6	4	0	0	0	0	0	0	23	40	34
05:00	0	0	1	13	25	21	**16**	**4**	**1**	0	0	0	0	81	42	35
06:00	5	6	37	48	47	30	16	0	0	0	0	0	0	189	37	29
07:00	55	68	135	**118**	**79**	**35**	4	0	0	0	**1**	0	0	**495**	32	24
08:00	36	41	96	111	56	25	5	3	0	0	0	0	0	373	32	25
09:00	32	41	92	86	57	17	3	1	0	0	0	0	0	329	32	24
10:00	48	72	121	90	49	10	1	0	0	0	0	0	0	391	30	22
11:00	**56**	**86**	**143**	99	65	8	1	0	0	0	0	0	0	458	30	22
12 PM	69	112	172	69	36	7	0	0	0	0	0	0	0	465	27	20
13:00	86	119	155	66	34	5	1	**1**	0	0	0	0	0	467	27	20
14:00	84	111	177	87	43	7	1	0	0	0	0	0	0	**510**	28	20
15:00	80	119	182	80	25	8	2	0	0	0	0	0	0	496	27	20
16:00	**87**	**141**	199	63	13	3	0	0	0	0	0	0	0	506	25	19
17:00	85	129	**200**	76	12	1	0	0	0	0	0	0	0	503	25	19
18:00	77	96	161	104	46	6	0	0	0	0	0	0	0	490	28	21
19:00	56	55	119	**107**	43	12	1	0	0	0	0	0	0	393	29	22
20:00	21	39	85	85	49	6	5	0	0	0	0	0	0	290	31	24
21:00	4	6	37	76	**66**	17	2	1	0	0	0	0	0	209	34	28
22:00	0	3	22	43	39	**18**	**6**	0	0	0	0	0	0	131	35	29
23:00	0	1	7	14	18	15	6	0	**1**	0	0	0	0	62	39	32
Total	881	1245	2145	1444	838	272	77	11	2	2	1	0	0	6918		
%	12.7%	18.0%	31.0%	20.9%	12.1%	3.9%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	07:00	07:00	07:00	05:00	05:00	05:00	00:00	07:00			07:00		
Vol.	56	86	143	118	79	35	16	4	1	1	1			495		
PM Peak	16:00	16:00	17:00	19:00	21:00	22:00	22:00	13:00	23:00					14:00		
Vol.	87	141	200	107	66	18	6	1	1					510		

Pecent

15th Percentile :	15 MPH
50th Percentile :	23 MPH
85th Percentile :	30 MPH
95th Percentile :	35 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3589
Percent in Pace :	51.9%
Number of Vehicles > 30 MPH :	1035
Percent of Vehicles > 30 MPH :	15.0%
Mean Speed(Average) :	22 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 speed
Site Code: 10111.31

Left Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	1	7	12	5	0	0	0	0	0	0	0	25	35	31
01:00	0	0	0	1	7	0	0	0	0	0	0	0	0	8	33	31
02:00	0	0	2	4	6	0	1	0	0	0	0	0	0	13	33	30
03:00	0	0	1	2	4	4	0	0	0	0	0	0	0	11	36	32
04:00	0	0	2	3	9	4	0	0	0	0	0	0	0	18	35	31
05:00	0	1	4	12	16	10	**2**	**1**	0	0	0	0	0	46	37	31
06:00	0	1	14	30	22	3	2	0	0	0	0	0	0	72	33	28
07:00	**2**	6	47	70	32	**12**	1	0	0	0	0	0	0	170	32	27
08:00	0	7	45	67	**38**	6	1	0	0	0	0	0	0	164	32	27
09:00	0	8	36	57	20	6	1	0	0	0	0	0	0	128	31	26
10:00	2	8	66	66	15	1	0	0	0	0	0	0	0	158	29	25
11:00	0	**15**	**73**	**71**	17	4	0	0	0	0	0	0	0	**180**	29	25
12 PM	2	16	108	64	15	4	**1**	**1**	0	0	0	0	0	211	29	24
13:00	1	17	79	**72**	22	2	0	0	0	0	0	0	0	193	29	25
14:00	3	28	105	52	18	4	0	0	0	0	0	0	0	210	28	24
15:00	**4**	**29**	109	48	17	2	0	0	0	0	0	0	0	209	28	23
16:00	3	24	136	57	17	0	0	0	0	0	0	0	0	237	28	23
17:00	3	24	**138**	60	21	2	0	0	0	0	0	0	0	**248**	28	24
18:00	3	28	109	54	18	0	0	0	0	0	0	0	0	212	28	23
19:00	0	4	52	64	21	2	0	0	0	0	0	0	0	143	30	26
20:00	0	7	46	63	17	4	1	0	0	0	0	0	0	138	30	26
21:00	0	2	28	46	19	1	0	0	0	0	0	0	0	96	31	26
22:00	0	0	8	26	**28**	**7**	0	1	0	0	0	0	0	70	34	30
23:00	0	0	3	18	26	4	0	1	0	0	0	0	0	52	34	30
Total	23	225	1212	1014	437	87	10	4	0	0	0	0	0	3012		
%	0.8%	7.5%	40.2%	33.7%	14.5%	2.9%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	11:00	11:00	08:00	07:00	05:00	05:00						11:00		
Vol.	2	15	73	71	38	12	2	1						180		
PM Peak	15:00	15:00	17:00	13:00	22:00	22:00	12:00	12:00						17:00		
Vol.	4	29	138	72	28	7	1	1						248		

Pecent

15th Percentile :	20 MPH
50th Percentile :	25 MPH
85th Percentile :	30 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	2226
Percent in Pace :	73.9%
Number of Vehicles > 30 MPH :	450
Percent of Vehicles > 30 MPH :	14.9%
Mean Speed(Average) :	25 MPH

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Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 speed
Site Code: 10111.31

Left Lane

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	1	7	20	6	0	0	0	0	0	0	0	34	35	32
01:00	0	1	1	5	7	1	1	0	0	0	0	0	0	16	34	30
02:00	0	0	0	4	1	3	0	0	**1**	0	0	0	0	9	37	33
03:00	0	0	0	1	4	1	0	**3**	0	0	0	0	0	9	46	36
04:00	0	0	0	5	8	2	1	0	0	0	0	0	0	16	35	31
05:00	0	0	0	9	15	9	**6**	0	0	0	0	0	0	39	39	33
06:00	0	0	14	23	28	4	4	0	0	0	0	0	0	73	34	29
07:00	1	**11**	58	60	**31**	**10**	2	0	1	0	0	0	0	174	32	26
08:00	1	6	39	58	22	10	1	1	0	0	0	0	0	138	32	27
09:00	0	4	44	61	28	8	2	0	0	0	0	0	0	147	32	27
10:00	0	6	68	65	17	4	0	0	0	0	0	0	0	160	29	25
11:00	**3**	10	**71**	**72**	22	3	1	0	0	0	0	0	0	**182**	29	25
12 PM	3	18	97	66	17	1	0	0	0	0	0	0	0	202	29	24
13:00	4	19	87	62	16	1	0	0	0	0	0	0	0	189	29	24
14:00	4	20	113	54	16	6	0	0	0	0	0	0	0	213	28	24
15:00	5	23	126	49	13	1	0	0	0	0	0	0	0	217	27	23
16:00	5	**27**	**143**	54	16	5	0	0	0	0	0	0	0	**250**	28	23
17:00	**7**	22	112	44	13	2	0	0	0	0	0	0	0	200	28	23
18:00	2	19	88	**85**	18	5	0	0	0	0	0	0	0	217	29	25
19:00	0	4	62	52	13	4	0	0	0	0	0	0	0	135	29	25
20:00	1	7	53	50	26	4	0	0	0	0	0	0	0	141	31	26
21:00	0	2	20	48	24	**7**	1	0	0	0	0	0	0	102	33	28
22:00	0	1	6	23	**28**	4	1	0	0	0	0	0	0	63	34	29
23:00	0	2	8	23	28	5	**2**	**2**	0	0	0	0	0	70	34	30
Total	36	202	1211	980	431	106	22	6	2	0	0	0	0	2996		
%	1.2%	6.7%	40.4%	32.7%	14.4%	3.5%	0.7%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	07:00	11:00	11:00	07:00	07:00	05:00	03:00	02:00					11:00		
Vol.	3	11	71	72	31	10	6	3	1					182		
PM Peak	17:00	16:00	16:00	18:00	22:00	21:00	23:00	23:00						16:00		
Vol.	7	27	143	85	28	7	2	2						250		

Pecent

15th Percentile :	20 MPH
50th Percentile :	25 MPH
85th Percentile :	31 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	2191
Percent in Pace :	73.1%
Number of Vehicles > 30 MPH :	480
Percent of Vehicles > 30 MPH :	16.0%
Mean Speed(Average) :	25 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 class
Site Code: 10111.31

Right Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	20	19	0	0	0	0	0	0	0	0	0	0	39
01:00	0	3	5	0	0	0	0	0	0	0	0	0	0	8
02:00	0	2	4	0	2	0	0	0	0	0	0	0	0	8
03:00	0	2	1	0	2	0	0	0	0	0	0	0	0	5
04:00	0	12	15	0	7	0	0	0	0	0	0	0	0	34
05:00	0	21	27	0	15	0	0	0	0	0	0	0	0	63
06:00	2	100	75	4	19	0	0	0	1	0	0	0	0	201
07:00	2	205	181	9	45	1	0	8	1	1	0	0	0	453
08:00	1	161	155	3	27	0	0	10	0	0	0	0	0	357
09:00	1	163	156	2	26	0	1	6	0	0	0	0	0	355
10:00	2	225	178	4	34	3	0	7	0	0	0	0	0	453
11:00	2	246	176	1	23	1	0	5	0	1	0	0	0	455
12 PM	3	259	161	2	38	1	0	8	0	0	0	0	0	472
13:00	3	207	179	2	28	3	0	9	0	0	0	0	0	431
14:00	1	281	184	4	30	0	0	14	0	0	0	1	0	515
15:00	0	274	182	3	22	0	0	15	0	0	0	0	0	496
16:00	0	286	192	2	39	1	0	18	1	0	1	0	0	540
17:00	1	284	214	0	23	0	0	20	0	0	0	0	0	542
18:00	3	292	180	0	36	0	0	9	0	0	0	0	0	520
19:00	0	190	136	0	22	0	0	2	0	0	0	0	0	350
20:00	0	151	97	0	23	0	0	1	0	0	0	0	0	272
21:00	1	114	83	1	8	0	0	0	1	0	0	0	0	208
22:00	0	33	25	0	7	0	0	0	0	0	0	0	0	65
23:00	1	43	48	0	5	0	0	0	0	0	0	0	0	97
Total	23	3574	2673	37	481	10	1	132	4	2	1	1	0	6939
Percent	0.3%	51.5%	38.5%	0.5%	6.9%	0.1%	0.0%	1.9%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	11:00	07:00	07:00	07:00	10:00	09:00	08:00	06:00	07:00				11:00
Vol.	2	246	181	9	45	3	1	10	1	1				455
PM Peak	12:00	18:00	17:00	14:00	16:00	13:00		17:00	16:00		16:00	14:00		17:00
Vol.	3	292	214	4	39	3		20	1		1	1		542

PRECISION
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Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 class
Site Code: 10111.31

Right Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	12	16	0	2	1	0	0	0	0	0	0	0	31
01:00	0	5	5	1	0	0	0	0	0	0	0	0	0	11
02:00	0	1	4	0	2	0	0	0	0	0	0	0	0	7
03:00	0	4	2	0	2	0	0	0	0	0	0	0	0	8
04:00	0	7	12	0	4	0	0	0	0	0	0	0	0	23
05:00	0	31	31	0	19	0	0	0	0	0	0	0	0	81
06:00	0	79	87	1	21	0	0	0	1	0	0	0	0	189
07:00	4	261	171	10	45	0	0	4	0	0	0	0	0	495
08:00	1	156	165	2	40	1	0	8	0	0	0	0	0	373
09:00	4	162	131	1	28	1	0	2	0	0	0	0	0	329
10:00	3	188	149	2	40	0	0	8	1	0	0	0	0	391
11:00	0	237	171	5	33	1	0	9	1	1	0	0	0	458
12 PM	2	257	169	1	24	0	0	12	0	0	0	0	0	465
13:00	7	257	153	4	36	1	0	9	0	0	0	0	0	467
14:00	4	287	171	2	33	1	0	12	0	0	0	0	0	510
15:00	2	283	158	1	36	0	0	16	0	0	0	0	0	496
16:00	3	280	163	3	36	1	1	18	0	1	0	0	0	506
17:00	0	310	155	1	25	0	0	11	0	1	0	0	0	503
18:00	2	272	170	1	28	0	0	15	1	1	0	0	0	490
19:00	0	213	153	0	21	0	0	6	0	0	0	0	0	393
20:00	0	146	123	0	18	0	0	2	0	1	0	0	0	290
21:00	2	123	76	2	6	0	0	0	0	0	0	0	0	209
22:00	0	74	50	1	6	0	0	0	0	0	0	0	0	131
23:00	0	32	23	0	7	0	0	0	0	0	0	0	0	62
Total	34	3677	2508	38	512	7	1	132	4	5	0	0	0	6918
Percent	0.5%	53.2%	36.3%	0.5%	7.4%	0.1%	0.0%	1.9%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	00:00		11:00	06:00	11:00				07:00
Vol.	4	261	171	10	45	1		9	1	1				495
PM Peak	13:00	17:00	14:00	13:00	13:00	13:00	16:00	16:00	18:00	16:00				14:00
Vol.	7	310	171	4	36	1	1	18	1	1				510

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Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 class
Site Code: 10111.31

Left Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	24	1	0	0	0	0	0	0	0	0	0	0	25
01:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
02:00	0	6	1	1	4	0	0	1	0	0	0	0	0	13
03:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
04:00	0	13	3	0	2	0	0	0	0	0	0	0	0	18
05:00	1	26	14	1	2	2	0	0	0	0	0	0	0	46
06:00	0	58	9	1	4	0	0	0	0	0	0	0	0	72
07:00	1	139	23	1	5	1	0	0	0	0	0	0	0	170
08:00	0	125	27	3	7	2	0	0	0	0	0	0	0	164
09:00	0	91	23	2	9	1	0	1	1	0	0	0	0	128
10:00	1	136	14	1	5	1	0	0	0	0	0	0	0	158
11:00	0	149	23	1	5	1	0	0	1	0	0	0	0	180
12 PM	0	174	24	1	8	0	0	3	1	0	0	0	0	211
13:00	1	154	26	2	6	2	0	0	2	0	0	0	0	193
14:00	0	180	17	2	7	1	0	1	1	1	0	0	0	210
15:00	0	183	15	1	8	1	0	1	0	0	0	0	0	209
16:00	1	203	29	0	2	1	0	0	1	0	0	0	0	237
17:00	0	225	21	0	2	0	0	0	0	0	0	0	0	248
18:00	0	185	19	2	5	1	0	0	0	0	0	0	0	212
19:00	0	131	10	0	2	0	0	0	0	0	0	0	0	143
20:00	0	113	23	0	2	0	0	0	0	0	0	0	0	138
21:00	0	86	9	0	0	0	0	0	1	0	0	0	0	96
22:00	0	62	8	0	0	0	0	0	0	0	0	0	0	70
23:00	0	46	6	0	0	0	0	0	0	0	0	0	0	52
Total	5	2526	347	19	85	14	0	7	8	1	0	0	0	3012
Percent	0.2%	83.9%	11.5%	0.6%	2.8%	0.5%	0.0%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	11:00	08:00	08:00	09:00	05:00		02:00	09:00					11:00
Vol.	1	149	27	3	9	2		1	1					180
PM Peak	13:00	17:00	16:00	13:00	12:00	13:00		12:00	13:00	14:00				17:00
Vol.	1	225	29	2	8	2		3	2	1				248

PRECISION
D A T A
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Kings Highway (EB lanes)
east of Route 140 NB Ramps
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-A2 class
Site Code: 10111.31

Left Lane

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	32	2	0	0	0	0	0	0	0	0	0	0	34
01:00	0	14	1	0	1	0	0	0	0	0	0	0	0	16
02:00	0	8	0	0	1	0	0	0	0	0	0	0	0	9
03:00	0	6	2	0	1	0	0	0	0	0	0	0	0	9
04:00	0	9	7	0	0	0	0	0	0	0	0	0	0	16
05:00	0	24	12	0	3	0	0	0	0	0	0	0	0	39
06:00	0	55	13	1	4	0	0	0	0	0	0	0	0	73
07:00	0	138	26	3	4	1	0	1	1	0	0	0	0	174
08:00	0	107	21	4	4	1	0	0	1	0	0	0	0	138
09:00	0	112	25	3	6	0	0	1	0	0	0	0	0	147
10:00	0	130	21	0	7	0	0	1	1	0	0	0	0	160
11:00	2	146	25	1	5	1	0	1	1	0	0	0	0	182
12 PM	0	172	23	2	5	0	0	0	0	0	0	0	0	202
13:00	0	156	25	1	5	1	0	0	1	0	0	0	0	189
14:00	1	182	25	0	4	0	0	0	1	0	0	0	0	213
15:00	0	191	15	1	7	1	0	1	1	0	0	0	0	217
16:00	0	217	28	1	4	0	0	0	0	0	0	0	0	250
17:00	0	180	13	1	5	0	0	1	0	0	0	0	0	200
18:00	0	202	12	0	1	0	0	2	0	0	0	0	0	217
19:00	0	123	10	1	1	0	0	0	0	0	0	0	0	135
20:00	0	125	13	1	2	0	0	0	0	0	0	0	0	141
21:00	0	85	17	0	0	0	0	0	0	0	0	0	0	102
22:00	0	58	5	0	0	0	0	0	0	0	0	0	0	63
23:00	0	64	5	0	1	0	0	0	0	0	0	0	0	70
Total	3	2536	346	20	71	5	0	8	7	0	0	0	0	2996
Percent	0.1%	84.6%	11.5%	0.7%	2.4%	0.2%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	07:00	08:00	10:00	07:00		07:00	07:00					11:00
Vol.	2	146	26	4	7	1		1	1					182
PM Peak	14:00	16:00	16:00	12:00	15:00	13:00		18:00	13:00					16:00
Vol.	1	217	28	2	7	1		2	1					250

Church Street
south of Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 E-B volume
Site Code: 10111.31

Start	SB				NB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	18		87		5		108		23		195		
12:15	12		99		5		82		17		181		
12:30	4		93		5		86		9		179		
12:45	4	38	83	362	2	17	88	364	6	55	171	726	
01:00	14		101		4		73		18		174		
01:15	3		98		0		90		3		188		
01:30	0		78		7		93		7		171		
01:45	3	20	81	358	2	13	89	345	5	33	170	703	
02:00	1		87		2		113		3		200		
02:15	2		105		2		90		4		195		
02:30	1		115		0		136		1		251		
02:45	4	8	127	434	2	6	110	449	6	14	237	883	
03:00	5		119		0		115		5		234		
03:15	5		120		3		95		8		215		
03:30	5		152		4		129		9		281		
03:45	4	19	113	504	1	8	132	471	5	27	245	975	
04:00	6		140		6		140		12		280		
04:15	4		149		7		102		11		251		
04:30	3		149		12		99		15		248		
04:45	16	29	125	563	19	44	115	456	35	73	240	1019	
05:00	14		137		28		134		42		271		
05:15	8		122		49		110		57		232		
05:30	22		97		51		98		73		195		
05:45	22	66	120	476	43	171	93	435	65	237	213	911	
06:00	32		110		33		81		65		191		
06:15	32		100		55		96		87		196		
06:30	43		100		79		70		122		170		
06:45	63	170	81	391	93	260	74	321	156	430	155	712	
07:00	71		81		78		74		149		155		
07:15	94		85		119		54		213		139		
07:30	82		77		101		66		183		143		
07:45	102	349	59	302	92	390	48	242	194	739	107	544	
08:00	96		61		98		53		194		114		
08:15	61		46		106		48		167		94		
08:30	72		38		78		36		150		74		
08:45	54	283	42	187	90	372	25	162	144	655	67	349	
09:00	61		43		60		26		121		69		
09:15	62		51		66		44		128		95		
09:30	52		41		58		25		110		66		
09:45	77	252	34	169	96	280	39	134	173	532	73	303	
10:00	68		32		69		22		137		54		
10:15	85		13		63		28		148		41		
10:30	63		25		83		26		146		51		
10:45	75	291	14	84	71	286	12	88	146	577	26	172	
11:00	74		29		82		11		156		40		
11:15	83		23		80		16		163		39		
11:30	96		14		86		11		182		25		
11:45	85	338	13	79	72	320	2	40	157	658	15	119	
Total	1863		3909		2167		3507		4030		7416		
Percent	46.2%		52.7%		53.8%		47.3%						
Day Total		5772				5674				11446			
Peak	07:15		04:00		07:15		03:30		07:15		03:30		
Vol.	374		563		410		503		784		1057		
P.H.F.	0.917		0.945		0.861		0.898		0.920		0.940		

Church Street
south of Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 E-B volume
Site Code: 10111.31

Start	SB				NB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	17		115		7		102		24		217		
12:15	12		87		10		109		22		196		
12:30	14		91		1		88		15		179		
12:45	11	54	87	380	3	21	92	391	14	75	179	771	
01:00	9		89		5		86		14		175		
01:15	4		83		2		85		6		168		
01:30	3		85		1		94		4		179		
01:45	2	18	74	331	2	10	98	363	4	28	172	694	
02:00	6		87		1		105		7		192		
02:15	6		107		1		94		7		201		
02:30	1		93		1		147		2		240		
02:45	7	20	136	423	4	7	110	456	11	27	246	879	
03:00	2		117		0		133		2		250		
03:15	3		137		1		112		4		249		
03:30	1		147		6		119		7		266		
03:45	6	12	137	538	5	12	108	472	11	24	245	1010	
04:00	1		125		3		137		4		262		
04:15	6		136		7		114		13		250		
04:30	6		156		13		114		19		270		
04:45	19	32	132	549	16	39	112	477	35	71	244	1026	
05:00	11		135		26		120		37		255		
05:15	11		134		30		97		41		231		
05:30	12		147		46		103		58		250		
05:45	25	59	94	510	44	146	93	413	69	205	187	923	
06:00	30		86		30		86		60		172		
06:15	31		95		54		82		85		177		
06:30	50		86		76		88		126		174		
06:45	65	176	89	356	89	249	70	326	154	425	159	682	
07:00	71		87		97		63		168		150		
07:15	84		72		107		59		191		131		
07:30	89		73		116		57		205		130		
07:45	105	349	88	320	109	429	58	237	214	778	146	557	
08:00	92		60		96		40		188		100		
08:15	68		55		142		43		210		98		
08:30	50		45		91		39		141		84		
08:45	78	288	41	201	78	407	31	153	156	695	72	354	
09:00	68		44		66		36		134		80		
09:15	61		42		74		41		135		83		
09:30	72		36		63		40		135		76		
09:45	59	260	38	160	66	269	24	141	125	529	62	301	
10:00	75		42		75		19		150		61		
10:15	67		29		67		22		134		51		
10:30	76		24		66		16		142		40		
10:45	69	287	17	112	71	279	20	77	140	566	37	189	
11:00	76		27		76		12		152		39		
11:15	78		27		77		15		155		42		
11:30	79		9		90		4		169		13		
11:45	100	333	17	80	90	333	11	42	190	666	28	122	
Total	1888		3960		2201		3548		4089		7508		
Percent	46.2%		52.7%		53.8%		47.3%						
Day Total		5848				5749				11597			
Peak	07:15		04:15		07:30		02:30		07:30		03:45		
Vol.	370		559		463		502		817		1027		
P.H.F.	0.881		0.896		0.815		0.854		0.954		0.951		

PRECISION
D A T A
INDUSTRIES, LLC
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Church Street
south of Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	1	15	8	11	1	**2**	0	0	0	0	0	38	38	32
01:00	0	0	1	5	11	3	0	0	0	0	0	0	0	20	34	31
02:00	0	0	1	2	4	1	0	0	0	0	0	0	0	8	33	30
03:00	0	0	3	6	8	1	1	0	0	0	0	0	0	19	33	30
04:00	0	0	1	11	8	8	1	0	0	0	0	0	0	29	37	31
05:00	0	0	7	23	28	8	0	0	0	0	0	0	0	66	34	30
06:00	1	1	13	64	66	24	1	0	0	0	0	0	0	170	34	30
07:00	0	4	33	155	107	45	5	0	0	0	0	0	0	349	34	29
08:00	0	6	34	125	93	22	2	1	0	0	0	0	0	283	34	29
09:00	2	1	46	103	81	16	1	2	0	0	0	0	0	252	33	28
10:00	1	5	64	127	63	29	2	0	0	0	0	0	0	291	33	28
11:00	3	12	63	166	74	19	1	0	0	0	0	0	0	338	32	27
12 PM	2	12	64	162	102	16	4	0	0	0	0	0	0	362	33	28
13:00	0	6	61	169	98	22	1	0	0	0	0	0	0	357	33	28
14:00	1	2	89	223	97	21	1	0	0	1	0	0	0	435	32	28
15:00	1	8	101	252	115	26	1	0	0	0	0	0	0	504	32	27
16:00	6	14	98	289	138	16	1	1	0	0	0	0	0	563	32	27
17:00	1	4	59	244	127	41	0	0	0	0	0	0	0	476	33	28
18:00	0	3	69	188	110	17	3	1	0	0	0	0	0	391	33	28
19:00	1	5	47	120	99	25	5	0	0	0	0	0	0	302	34	29
20:00	0	3	31	74	57	16	6	0	0	0	0	0	0	187	34	29
21:00	0	1	23	64	61	15	5	0	0	0	0	0	0	169	34	29
22:00	1	0	11	26	33	10	3	0	0	0	0	0	0	84	34	30
23:00	0	0	7	26	30	15	1	0	0	0	0	0	0	79	36	31
Total	20	87	927	2639	1618	427	46	7	0	1	0	0	0	5772		
%	0.3%	1.5%	16.1%	45.7%	28.0%	7.4%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	10:00	11:00	07:00	07:00	07:00	00:00						07:00		
Vol.	3	12	64	166	107	45	5	2						349		
PM Peak	16:00	16:00	15:00	16:00	16:00	17:00	20:00	16:00		14:00				16:00		
Vol.	6	14	101	289	138	41	6	1		1				563		

Pecent

15th Percentile :	24 MPH
50th Percentile :	28 MPH
85th Percentile :	33 MPH
95th Percentile :	37 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	4257
Percent in Pace :	73.8%
Number of Vehicles > 30 MPH :	1775
Percent of Vehicles > 30 MPH :	30.8%
Mean Speed(Average) :	28 MPH

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81676 E-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	6	16	19	9	3	**1**	0	0	0	0	0	54	37	31
01:00	0	0	3	7	4	3	1	0	0	0	0	0	0	18	35	29
02:00	**1**	0	3	10	5	1	0	0	0	0	0	0	0	20	32	27
03:00	0	0	0	3	8	0	1	0	0	0	0	0	0	12	33	31
04:00	0	0	2	9	11	7	2	1	0	0	0	0	0	32	37	32
05:00	0	0	3	14	26	13	3	0	0	0	0	0	0	59	37	32
06:00	0	7	18	49	65	34	3	0	0	0	0	0	0	176	36	30
07:00	1	7	32	**157**	**104**	**44**	**4**	0	0	0	0	0	0	**349**	34	29
08:00	1	**10**	41	102	93	38	3	0	0	0	0	0	0	288	34	29
09:00	0	5	44	124	72	14	1	0	0	0	0	0	0	260	33	28
10:00	0	8	62	119	83	13	2	0	0	0	0	0	0	287	33	28
11:00	0	7	**70**	156	81	16	3	0	0	0	0	0	0	333	33	28
12 PM	**3**	10	86	192	72	16	1	0	0	0	0	0	0	380	32	27
13:00	3	6	68	162	74	15	3	0	0	0	0	0	0	331	32	27
14:00	1	11	71	224	98	17	1	0	0	0	0	0	0	423	32	27
15:00	3	**16**	**102**	**263**	126	26	2	0	0	0	0	0	0	538	32	27
16:00	1	9	92	260	**151**	32	3	1	0	0	0	0	0	**549**	33	28
17:00	0	10	69	249	145	**34**	0	**2**	0	0	0	0	0	509	33	28
18:00	0	2	56	159	104	34	1	0	0	0	0	0	0	356	34	29
19:00	0	1	57	139	95	27	2	0	0	0	0	0	0	321	33	28
20:00	0	1	25	84	73	13	**5**	0	0	0	0	0	0	201	34	29
21:00	0	1	19	68	49	19	4	0	0	0	0	0	0	160	34	29
22:00	0	1	16	45	31	17	2	0	0	0	0	0	0	112	35	29
23:00	0	0	12	25	25	12	4	2	0	0	0	0	0	80	36	30
Total	14	112	957	2636	1614	454	54	7	0	0	0	0	0	5848		
%	0.2%	1.9%	16.4%	45.1%	27.6%	7.8%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	02:00	08:00	11:00	07:00	07:00	07:00	07:00	00:00						07:00		
Vol.	1	10	70	157	104	44	4	1						349		
PM Peak	12:00	15:00	15:00	15:00	16:00	17:00	20:00	17:00						16:00		
Vol.	3	16	102	263	151	34	5	2						549		

Pecent

15th Percentile :	23 MPH
50th Percentile :	28 MPH
85th Percentile :	33 MPH
95th Percentile :	37 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	4250
Percent in Pace :	72.7%
Number of Vehicles > 30 MPH :	1806
Percent of Vehicles > 30 MPH :	30.9%
Mean Speed(Average) :	28 MPH

PRECISION
D A T A
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81676 E-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	1	6	6	3	0	1	0	0	0	0	0	17	35	31
01:00	0	1	3	3	3	3	0	0	0	0	0	0	0	13	35	29
02:00	0	0	1	0	2	0	3	0	0	0	0	0	0	6	41	34
03:00	0	0	1	2	4	0	1	0	0	0	0	0	0	8	33	31
04:00	0	0	2	14	14	7	5	**2**	0	0	0	0	0	44	39	32
05:00	0	0	13	55	59	37	5	2	0	0	0	0	0	171	37	31
06:00	0	0	28	68	100	50	**11**	2	0	**1**	0	0	0	260	37	31
07:00	2	**10**	**59**	**141**	108	**62**	8	0	0	0	0	0	0	**390**	35	29
08:00	2	4	52	129	**144**	33	6	1	0	0	0	0	0	371	34	29
09:00	**5**	10	38	102	83	37	5	1	0	0	0	0	0	281	35	29
10:00	4	10	54	106	72	35	5	0	0	0	0	0	0	286	34	28
11:00	4	9	59	123	90	27	6	2	0	0	0	0	0	320	34	28
12 PM	7	11	59	127	111	43	3	**2**	0	0	0	0	0	363	34	28
13:00	3	7	56	119	127	31	3	0	0	0	0	0	0	346	34	29
14:00	4	17	**92**	**197**	112	21	4	2	0	0	0	0	0	449	33	27
15:00	7	**21**	92	193	126	28	4	0	0	0	0	0	0	**471**	33	27
16:00	**11**	12	70	179	**146**	31	6	1	0	0	0	0	0	456	33	28
17:00	6	12	65	154	137	**51**	9	0	**1**	0	0	0	0	435	34	29
18:00	2	11	59	115	94	30	**10**	0	0	0	0	0	0	321	34	29
19:00	0	2	31	119	74	12	4	0	0	0	0	0	0	242	33	29
20:00	0	3	17	47	74	19	2	0	0	0	0	0	0	162	34	30
21:00	0	0	23	35	48	23	4	1	0	0	0	0	0	134	36	30
22:00	0	1	9	26	30	14	6	2	0	0	0	0	0	88	37	31
23:00	0	0	2	6	17	9	4	1	0	**1**	0	0	0	40	39	34
Total	57	141	886	2066	1781	606	114	20	1	2	0	0	0	5674		
%	1.0%	2.5%	15.6%	36.4%	31.4%	10.7%	2.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	07:00	07:00	07:00	08:00	07:00	06:00	04:00		06:00				07:00		
Vol.	5	10	59	141	144	62	11	2		1				390		
PM Peak	16:00	15:00	14:00	14:00	16:00	17:00	18:00	12:00	17:00	23:00				15:00		
Vol.	11	21	92	197	146	51	10	2	1	1				471		

Pecent

15th Percentile :	23 MPH
50th Percentile :	29 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	3847
Percent in Pace :	67.8%
Number of Vehicles > 30 MPH :	2167
Percent of Vehicles > 30 MPH :	38.2%
Mean Speed(Average) :	29 MPH

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81676 E-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	3	4	7	3	2	**1**	**1**	0	0	0	0	21	40	33
01:00	0	0	1	2	2	4	1	0	0	0	0	0	0	10	37	33
02:00	0	0	0	3	2	1	1	0	0	0	0	0	0	7	39	31
03:00	0	0	0	4	4	2	1	1	0	0	0	0	0	12	36	33
04:00	0	0	5	4	12	12	5	1	0	0	0	0	0	39	39	33
05:00	1	0	17	36	44	36	**11**	0	1	0	0	0	0	146	38	31
06:00	0	2	20	77	93	**46**	10	1	0	0	0	0	0	249	37	31
07:00	3	6	62	**171**	**152**	27	7	1	0	0	0	0	0	**429**	34	29
08:00	**10**	**14**	**76**	147	118	34	8	0	0	0	0	0	0	407	34	28
09:00	3	6	44	93	82	38	3	0	0	0	0	0	0	269	35	29
10:00	8	13	39	100	90	26	3	0	0	0	0	0	0	279	34	28
11:00	0	6	57	124	109	33	3	0	0	0	0	0	0	332	34	29
12 PM	6	10	66	152	117	38	3	0	0	0	0	0	0	392	34	28
13:00	5	17	71	141	98	30	0	**1**	0	0	0	0	0	363	33	28
14:00	**15**	**29**	**119**	167	100	23	3	0	0	0	0	0	0	456	32	26
15:00	2	14	87	**218**	124	24	3	0	0	0	0	0	0	472	33	28
16:00	13	13	96	185	133	34	3	0	0	0	0	0	0	**477**	33	27
17:00	2	9	49	147	**148**	**50**	**8**	0	0	0	0	0	0	413	34	29
18:00	1	4	38	114	126	38	5	0	0	0	0	0	0	326	34	30
19:00	0	4	25	99	83	26	0	0	0	0	0	0	0	237	34	29
20:00	1	3	17	53	55	18	5	1	0	0	0	0	0	153	35	30
21:00	0	2	13	45	51	27	3	0	0	0	0	0	0	141	36	30
22:00	0	1	11	24	19	15	7	0	0	0	0	0	0	77	38	31
23:00	0	1	3	8	9	15	3	0	**2**	**1**	0	0	0	42	39	34
Total	70	154	919	2118	1778	600	98	7	4	1	0	0	0	5749		
%	1.2%	2.7%	16.0%	36.8%	30.9%	10.4%	1.7%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	07:00	07:00	06:00	05:00	00:00	00:00					07:00		
Vol.	10	14	76	171	152	46	11	1	1					429		
PM Peak	14:00	14:00	14:00	15:00	17:00	17:00	17:00	13:00	23:00	23:00				16:00		
Vol.	15	29	119	218	148	50	8	1	2	1				477		

Pecent

15th Percentile :	23 MPH
50th Percentile :	29 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	3896
Percent in Pace :	67.8%
Number of Vehicles > 30 MPH :	2132
Percent of Vehicles > 30 MPH :	37.1%
Mean Speed(Average) :	29 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Church Street
south of Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	35	2	0	1	0	0	0	0	0	0	0	0	38
01:00	0	19	0	0	1	0	0	0	0	0	0	0	0	20
02:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
03:00	0	15	3	0	1	0	0	0	0	0	0	0	0	19
04:00	0	19	7	0	2	1	0	0	0	0	0	0	0	29
05:00	0	56	9	0	0	0	0	0	1	0	0	0	0	66
06:00	3	139	20	1	4	3	0	0	0	0	0	0	0	170
07:00	6	252	57	13	13	7	1	0	0	0	0	0	0	349
08:00	5	217	43	4	10	2	0	2	0	0	0	0	0	283
09:00	2	185	42	1	12	4	0	3	2	0	1	0	0	252
10:00	2	229	43	3	11	1	0	2	0	0	0	0	0	291
11:00	2	274	43	1	10	3	0	2	3	0	0	0	0	338
12 PM	5	292	43	3	11	2	0	6	0	0	0	0	0	362
13:00	1	294	51	0	5	4	0	1	1	0	0	0	0	357
14:00	8	344	53	8	14	2	0	5	1	0	0	0	0	435
15:00	7	419	41	9	18	6	0	3	1	0	0	0	0	504
16:00	8	463	71	2	12	1	0	6	0	0	0	0	0	563
17:00	3	413	44	1	10	2	0	3	0	0	0	0	0	476
18:00	4	330	52	0	4	0	0	1	0	0	0	0	0	391
19:00	5	264	30	0	3	0	0	0	0	0	0	0	0	302
20:00	2	166	17	0	2	0	0	0	0	0	0	0	0	187
21:00	2	154	10	0	2	1	0	0	0	0	0	0	0	169
22:00	0	69	15	0	0	0	0	0	0	0	0	0	0	84
23:00	1	72	6	0	0	0	0	0	0	0	0	0	0	79
Total	66	4727	703	46	146	39	1	34	9	0	1	0	0	5772
Percent	1.1%	81.9%	12.2%	0.8%	2.5%	0.7%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	07:00	07:00	07:00	07:00	07:00	09:00	11:00		09:00			07:00
Vol.	6	274	57	13	13	7	1	3	3		1			349
PM Peak	14:00	16:00	16:00	15:00	15:00	15:00		12:00	13:00					16:00
Vol.	8	463	71	9	18	6		6	1					563

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Church Street
south of Park Avenue
City, State: New Bedford, MA
Client: VHB/J. Quitter

81676 E-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	48	6	0	0	0	0	0	0	0	0	0	0	54
01:00	0	18	0	0	0	0	0	0	0	0	0	0	0	18
02:00	0	14	2	0	0	0	0	0	1	3	0	0	0	20
03:00	0	7	5	0	0	0	0	0	0	0	0	0	0	12
04:00	0	22	5	0	3	1	0	0	0	1	0	0	0	32
05:00	0	45	12	0	2	0	0	0	0	0	0	0	0	59
06:00	2	142	21	0	5	5	0	0	1	0	0	0	0	176
07:00	9	257	52	11	9	9	0	1	1	0	0	0	0	349
08:00	2	212	55	4	11	1	0	3	0	0	0	0	0	288
09:00	2	199	45	1	9	2	0	1	1	0	0	0	0	260
10:00	3	221	42	1	14	2	0	2	2	0	0	0	0	287
11:00	2	255	55	2	14	2	0	3	0	0	0	0	0	333
12 PM	5	297	57	2	14	2	0	2	1	0	0	0	0	380
13:00	3	271	47	0	6	3	0	1	0	0	0	0	0	331
14:00	5	345	46	6	12	5	0	4	0	0	0	0	0	423
15:00	7	440	57	5	24	0	0	4	1	0	0	0	0	538
16:00	7	451	75	1	11	2	0	1	0	1	0	0	0	549
17:00	4	440	51	0	8	5	0	0	0	1	0	0	0	509
18:00	4	306	40	1	4	1	0	0	0	0	0	0	0	356
19:00	5	283	28	0	4	0	0	1	0	0	0	0	0	321
20:00	4	172	19	1	5	0	0	0	0	0	0	0	0	201
21:00	0	145	14	0	1	0	0	0	0	0	0	0	0	160
22:00	0	103	8	0	1	0	0	0	0	0	0	0	0	112
23:00	1	70	7	0	2	0	0	0	0	0	0	0	0	80
Total	65	4763	749	35	159	40	0	23	8	6	0	0	0	5848
Percent	1.1%	81.4%	12.8%	0.6%	2.7%	0.7%	0.0%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	07:00	10:00	07:00		08:00	10:00	02:00				07:00
Vol.	9	257	55	11	14	9		3	2	3				349
PM Peak	15:00	16:00	16:00	14:00	15:00	14:00		14:00	12:00	16:00				16:00
Vol.	7	451	75	6	24	5		4	1	1				549

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Church Street
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81676 E-B class
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NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	13	3	0	1	0	0	0	0	0	0	0	0	17
01:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
04:00	0	29	15	0	0	0	0	0	0	0	0	0	0	44
05:00	0	116	41	2	8	0	0	3	1	0	0	0	0	171
06:00	1	210	32	4	10	1	0	1	0	0	0	0	1	260
07:00	6	306	53	14	8	2	0	1	0	0	0	0	0	390
08:00	2	278	71	2	15	2	0	1	0	0	0	0	0	371
09:00	0	216	42	5	14	2	0	2	0	0	0	0	0	281
10:00	3	208	59	2	6	2	1	5	0	0	0	0	0	286
11:00	2	239	62	2	9	2	0	3	1	0	0	0	0	320
12 PM	4	289	52	2	11	2	0	1	1	0	0	0	1	363
13:00	3	263	63	5	8	1	0	2	1	0	0	0	0	346
14:00	7	338	68	22	7	4	0	2	0	1	0	0	0	449
15:00	6	370	69	4	11	8	0	2	1	0	0	0	0	471
16:00	5	354	74	0	16	3	0	3	0	0	0	0	1	456
17:00	4	350	64	4	10	3	0	0	0	0	0	0	0	435
18:00	4	263	48	0	4	2	0	0	0	0	0	0	0	321
19:00	2	202	35	0	2	0	0	1	0	0	0	0	0	242
20:00	0	136	26	0	0	0	0	0	0	0	0	0	0	162
21:00	1	118	15	0	0	0	0	0	0	0	0	0	0	134
22:00	0	76	11	0	1	0	0	0	0	0	0	0	0	88
23:00	0	35	3	0	1	0	0	1	0	0	0	0	0	40
Total	50	4431	910	68	143	34	1	28	5	1	0	0	3	5674
Percent	0.9%	78.1%	16.0%	1.2%	2.5%	0.6%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.1%	
AM Peak	07:00	07:00	08:00	07:00	08:00	07:00	10:00	10:00	05:00				06:00	07:00
Vol.	6	306	71	14	15	2	1	5	1				1	390
PM Peak	14:00	15:00	16:00	14:00	16:00	15:00		16:00	12:00	14:00			12:00	15:00
Vol.	7	370	74	22	16	8		3	1	1			1	471

Church Street
south of Park Avenue
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Client: VHB/J. Quitter

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81676 E-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	18	3	0	0	0	0	0	0	0	0	0	0	21
01:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
02:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	10	2	0	0	0	0	0	0	0	0	0	0	12
04:00	1	30	8	0	0	0	0	0	0	0	0	0	0	39
05:00	0	103	34	2	3	0	0	4	0	0	0	0	0	146
06:00	3	204	30	4	7	0	1	0	0	0	0	0	0	249
07:00	5	328	69	15	8	1	0	2	1	0	0	0	0	429
08:00	2	312	73	2	9	5	0	1	2	0	1	0	0	407
09:00	3	194	53	1	13	1	0	1	3	0	0	0	0	269
10:00	4	201	51	3	12	2	0	2	3	1	0	0	0	279
11:00	0	264	49	3	11	1	1	2	0	1	0	0	0	332
12 PM	1	304	64	3	14	3	0	3	0	0	0	0	0	392
13:00	3	286	49	3	15	3	0	3	1	0	0	0	0	363
14:00	3	347	64	22	14	1	0	4	1	0	0	0	0	456
15:00	4	367	79	5	11	3	0	3	0	0	0	0	0	472
16:00	2	375	75	0	17	6	0	2	0	0	0	0	0	477
17:00	5	340	55	1	7	2	0	3	0	0	0	0	0	413
18:00	2	269	48	0	3	3	0	1	0	0	0	0	0	326
19:00	2	211	22	0	2	0	0	0	0	0	0	0	0	237
20:00	0	123	25	0	2	2	0	1	0	0	0	0	0	153
21:00	0	128	11	0	1	0	0	1	0	0	0	0	0	141
22:00	0	68	8	0	1	0	0	0	0	0	0	0	0	77
23:00	0	38	3	0	1	0	0	0	0	0	0	0	0	42
Total	40	4536	876	64	151	33	2	33	11	2	1	0	0	5749
Percent	0.7%	78.9%	15.2%	1.1%	2.6%	0.6%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	07:00	09:00	08:00	06:00	05:00	09:00	10:00	08:00			07:00
Vol.	5	328	73	15	13	5	1	4	3	1	1			429
PM Peak	17:00	16:00	15:00	14:00	16:00	16:00		14:00	13:00					16:00
Vol.	5	375	79	22	17	6		4	1					477

PRECISION DATA INDUSTRIES, LLC

Office: 508.481.3999 Fax: 508.545.1234
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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/16/08 thru Wed 9/17/08	81676	Norton, MA

South Worcester Street
north of John B. Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 I-A volume
Site Code: 10111.31

Start	SB				NB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	14		52		6		61		20		113		
12:15	2		57		3		52		5		109		
12:30	4		51		5		53		9		104		
12:45	5	25	51	211	2	16	47	213	7	41	98	424	
01:00	8		49		2		40		10		89		
01:15	5		59		3		29		8		88		
01:30	2		38		2		45		4		83		
01:45	2	17	45	191	1	8	36	150	3	25	81	341	
02:00	2		53		1		57		3		110		
02:15	3		50		8		49		11		99		
02:30	2		72		9		67		11		139		
02:45	2	9	61	236	2	20	47	220	4	29	108	456	
03:00	4		51		1		48		5		99		
03:15	5		73		6		51		11		124		
03:30	4		110		2		70		6		180		
03:45	2	15	112	346	3	12	42	211	5	27	154	557	
04:00	5		123		4		80		9		203		
04:15	4		99		10		70		14		169		
04:30	11		135		22		66		33		201		
04:45	7	27	111	468	19	55	61	277	26	82	172	745	
05:00	6		99		30		72		36		171		
05:15	20		120		33		76		53		196		
05:30	19		127		44		65		63		192		
05:45	35	80	94	440	57	164	60	273	92	244	154	713	
06:00	25		101		50		57		75		158		
06:15	29		84		72		73		101		157		
06:30	47		62		110		61		157		123		
06:45	59	160	80	327	82	314	80	271	141	474	160	598	
07:00	57		79		89		46		146		125		
07:15	69		64		101		36		170		100		
07:30	61		50		107		45		168		95		
07:45	76	263	49	242	110	407	28	155	186	670	77	397	
08:00	71		36		102		18		173		54		
08:15	50		40		89		37		139		77		
08:30	35		49		61		20		96		69		
08:45	46	202	41	166	73	325	26	101	119	527	67	267	
09:00	52		37		85		51		137		88		
09:15	61		40		50		26		111		66		
09:30	42		31		58		20		100		51		
09:45	37	192	33	141	50	243	17	114	87	435	50	255	
10:00	44		27		52		14		96		41		
10:15	48		24		49		14		97		38		
10:30	47		18		39		13		86		31		
10:45	42	181	13	82	46	186	19	60	88	367	32	142	
11:00	38		14		44		16		82		30		
11:15	35		16		39		6		74		22		
11:30	46		10		50		8		96		18		
11:45	46	165	7	47	41	174	4	34	87	339	11	81	
Total	1336		2897		1924		2079		3260		4976		
Percent	41.0%		58.2%		59.0%		41.8%						
Day Total		4233				4003				8236			
Peak	07:15		03:45		07:15		04:00		07:15		04:00		
Vol.	277		469		420		277		697		745		
P.H.F.	0.911		0.869		0.955		0.866		0.937		0.917		

South Worcester Street
north of John B. Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

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81676 I-A volume
Site Code: 10111.31

Start	SB				NB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	10		61		12		57		22		118		
12:15	7		53		4		48		11		101		
12:30	4		58		7		42		11		100		
12:45	4	25	44	216	6	29	42	189	10	54	86	405	
01:00	8		53		0		57		8		110		
01:15	5		50		2		50		7		100		
01:30	5		45		3		39		8		84		
01:45	1	19	47	195	1	6	51	197	2	25	98	392	
02:00	1		59		5		54		6		113		
02:15	2		55		10		54		12		109		
02:30	3		77		9		61		12		138		
02:45	1	7	75	266	4	28	57	226	5	35	132	492	
03:00	6		81		9		57		15		138		
03:15	6		85		2		62		8		147		
03:30	4		146		5		84		9		230		
03:45	2	18	108	420	7	23	71	274	9	41	179	694	
04:00	4		105		4		69		8		174		
04:15	8		103		13		76		21		179		
04:30	10		138		17		77		27		215		
04:45	12	34	130	476	18	52	73	295	30	86	203	771	
05:00	5		104		23		77		28		181		
05:15	17		133		28		76		45		209		
05:30	18		104		50		78		68		182		
05:45	34	74	121	462	47	148	68	299	81	222	189	761	
06:00	22		88		65		61		87		149		
06:15	31		95		78		61		109		156		
06:30	49		72		94		70		143		142		
06:45	58	160	78	333	94	331	69	261	152	491	147	594	
07:00	55		70		80		43		135		113		
07:15	50		55		93		49		143		104		
07:30	62		64		109		44		171		108		
07:45	58	225	61	250	89	371	39	175	147	596	100	425	
08:00	62		39		92		23		154		62		
08:15	49		44		90		22		139		66		
08:30	44		51		68		23		112		74		
08:45	47	202	30	164	78	328	19	87	125	530	49	251	
09:00	36		37		84		21		120		58		
09:15	52		39		57		23		109		62		
09:30	48		29		77		19		125		48		
09:45	50	186	35	140	46	264	8	71	96	450	43	211	
10:00	41		23		48		15		89		38		
10:15	39		25		33		16		72		41		
10:30	42		20		32		12		74		32		
10:45	41	163	17	85	46	159	9	52	87	322	26	137	
11:00	37		19		51		16		88		35		
11:15	39		16		52		7		91		23		
11:30	41		10		41		6		82		16		
11:45	51	168	9	54	38	182	8	37	89	350	17	91	
Total	1281		3061		1921		2163		3202		5224		
Percent	40.0%		58.6%		60.0%		41.4%						
Day Total		4342				4084				8426			
Peak	07:15		04:30		07:15		04:45		07:15		04:30		
Vol.	232		505		383		304		615		808		
P.H.F.	0.935		0.915		0.878		0.974		0.899		0.940		

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South Worcester Street
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City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-A speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	1	1	8	11	4	0	0	0	0	0	0	25	39	35
01:00	0	0	0	0	4	9	3	1	0	0	0	0	0	17	40	37
02:00	0	0	0	0	3	4	2	0	0	0	0	0	0	9	40	36
03:00	0	0	0	0	4	2	5	2	**1**	0	1	0	0	15	46	41
04:00	0	0	0	2	4	11	8	2	0	0	0	0	0	27	42	38
05:00	0	0	0	12	23	33	9	3	0	0	0	0	0	80	39	35
06:00	0	1	2	8	59	75	15	0	0	0	0	0	0	160	39	35
07:00	2	5	3	27	85	116	24	1	0	0	0	0	0	263	39	34
08:00	2	0	3	42	65	68	21	1	0	0	0	0	0	202	39	33
09:00	0	1	5	26	77	66	16	1	0	0	0	0	0	192	39	34
10:00	0	3	2	20	82	53	20	1	0	0	0	0	0	181	39	34
11:00	0	0	1	26	56	61	21	0	0	0	0	0	0	165	39	34
12 PM	0	0	3	21	90	72	22	3	0	0	0	0	0	211	39	34
13:00	1	1	1	24	67	72	22	2	1	0	0	0	0	191	39	34
14:00	0	1	8	26	79	90	31	1	0	0	0	0	0	236	39	34
15:00	2	1	11	36	134	134	25	3	0	0	0	0	0	346	39	34
16:00	1	1	9	43	189	179	45	1	0	0	0	0	0	468	39	34
17:00	0	0	2	29	184	179	44	2	0	0	0	0	0	440	39	35
18:00	0	0	0	34	151	108	32	2	0	0	0	0	0	327	39	34
19:00	1	0	4	36	106	85	8	2	0	0	0	0	0	242	38	33
20:00	0	0	5	15	78	54	13	1	0	0	0	0	0	166	38	34
21:00	1	0	4	14	57	48	16	1	0	0	0	0	0	141	39	34
22:00	0	1	2	7	32	31	6	3	0	0	0	0	0	82	39	34
23:00	0	0	1	11	11	16	6	2	0	0	0	0	0	47	40	34
Total	10	15	67	460	1648	1577	418	35	2	0	1	0	0	4233		
%	0.2%	0.4%	1.6%	10.9%	38.9%	37.3%	9.9%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	09:00	08:00	07:00	07:00	07:00	05:00	03:00		03:00			07:00		
Vol.	2	5	5	42	85	116	24	3	1		1			263		
PM Peak	15:00	13:00	15:00	16:00	16:00	16:00	16:00	12:00	13:00					16:00		
Vol.	2	1	11	43	189	179	45	3	1					468		

Pecent

15th Percentile :	30 MPH
50th Percentile :	34 MPH
85th Percentile :	39 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	3225
Percent in Pace :	76.2%
Number of Vehicles > 35 MPH :	1717
Percent of Vehicles > 35 MPH :	40.6%
Mean Speed(Average) :	34 MPH

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81676 I-A speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	1	3	7	10	3	1	0	0	0	0	0	25	39	35
01:00	0	0	0	1	8	9	1	0	0	0	0	0	0	19	38	35
02:00	0	0	0	0	3	3	0	1	0	0	0	0	0	7	37	36
03:00	0	0	0	0	3	8	7	0	0	0	0	0	0	18	41	38
04:00	0	0	0	1	6	13	13	1	0	0	0	0	0	34	42	38
05:00	0	0	1	10	33	22	6	2	0	0	0	0	0	74	39	34
06:00	0	**1**	1	3	62	73	17	**3**	0	0	0	0	0	160	39	35
07:00	0	0	2	11	59	**110**	**41**	2	0	0	0	0	0	**225**	40	36
08:00	0	1	**5**	23	49	82	37	3	**2**	0	0	0	0	202	41	35
09:00	0	0	2	**37**	56	67	23	1	0	0	0	0	0	186	39	34
10:00	0	0	4	20	**64**	55	17	2	0	0	0	0	**1**	163	39	34
11:00	0	1	1	22	53	72	18	1	0	0	0	0	0	168	39	35
12 PM	0	0	3	31	84	80	18	0	0	0	0	0	0	216	39	34
13:00	0	1	7	30	64	74	18	1	0	0	0	0	0	195	39	34
14:00	3	4	6	32	106	87	28	0	0	0	0	0	0	266	39	33
15:00	**7**	**5**	**18**	**75**	168	118	29	0	0	0	0	0	0	420	38	32
16:00	0	0	6	46	**222**	168	33	1	0	0	0	0	0	**476**	38	34
17:00	0	1	3	32	177	**209**	**37**	2	0	**1**	0	0	0	462	39	35
18:00	1	0	2	34	124	148	23	1	0	0	0	0	0	333	39	34
19:00	3	0	1	45	102	83	15	1	0	0	0	0	0	250	38	33
20:00	0	0	0	15	60	70	19	0	0	0	0	0	0	164	39	35
21:00	0	0	1	17	49	49	23	1	0	0	0	0	0	140	40	35
22:00	0	0	0	11	31	28	14	1	0	0	0	0	0	85	40	35
23:00	0	0	0	0	15	21	14	**4**	0	0	0	0	0	54	43	38
Total	14	14	64	499	1605	1659	454	29	2	1	0	0	1	4342		
%	0.3%	0.3%	1.5%	11.5%	37.0%	38.2%	10.5%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		06:00	08:00	09:00	10:00	07:00	07:00	06:00	08:00				10:00	07:00		
Vol.		1	5	37	64	110	41	3	2				1	225		
PM Peak	15:00	15:00	15:00	15:00	16:00	17:00	17:00	23:00		17:00				16:00		
Vol.	7	5	18	75	222	209	37	4		1				476		

Pecent

15th Percentile :	30 MPH
50th Percentile :	34 MPH
85th Percentile :	39 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	3264
Percent in Pace :	75.2%
Number of Vehicles > 35 MPH :	1814
Percent of Vehicles > 35 MPH :	41.8%
Mean Speed(Average) :	34 MPH

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81676 I-A speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	2	3	8	3	0	0	0	0	0	0	0	16	35	31
01:00	0	0	0	3	3	1	0	**1**	0	0	0	0	0	8	35	32
02:00	0	0	1	8	9	0	2	0	0	0	0	0	0	20	33	30
03:00	0	0	0	2	6	4	0	0	0	0	0	0	0	12	36	33
04:00	0	0	2	13	23	13	4	0	0	0	0	0	0	55	37	32
05:00	0	0	3	49	70	34	7	1	0	0	0	0	0	164	37	32
06:00	**2**	1	6	68	153	78	6	0	0	0	0	0	0	314	37	32
07:00	0	0	9	**74**	**214**	**103**	7	0	0	0	0	0	0	**407**	37	32
08:00	0	1	9	47	176	85	6	1	0	0	0	0	0	325	37	32
09:00	1	**3**	**11**	58	122	39	**8**	1	0	0	0	0	0	243	36	31
10:00	0	0	7	40	100	34	5	0	0	0	0	0	0	186	36	32
11:00	1	1	4	38	88	39	3	0	0	0	0	0	0	174	36	32
12 PM	0	**1**	**11**	45	112	40	4	0	0	0	0	0	0	213	36	31
13:00	0	1	7	33	63	41	4	**1**	0	0	0	0	0	150	37	32
14:00	0	0	1	30	136	49	3	1	0	0	0	0	0	220	36	33
15:00	0	1	3	42	89	70	6	0	0	0	0	0	0	211	38	33
16:00	0	0	5	**58**	147	64	3	0	0	0	0	0	0	**277**	36	32
17:00	**1**	1	3	43	146	72	6	1	0	0	0	0	0	273	37	33
18:00	0	0	3	39	**149**	**74**	6	0	0	0	0	0	0	271	37	33
19:00	0	0	3	22	95	31	4	0	0	0	0	0	0	155	36	32
20:00	0	1	1	24	49	24	2	0	0	0	0	0	0	101	37	32
21:00	0	0	6	26	60	13	**8**	1	0	0	0	0	0	114	36	32
22:00	0	0	1	24	26	9	0	0	0	0	0	0	0	60	34	31
23:00	0	0	1	13	16	4	0	0	0	0	0	0	0	34	34	30
Total	5	11	99	802	2060	924	94	8	0	0	0	0	0	4003		
%	0.1%	0.3%	2.5%	20.0%	51.5%	23.1%	2.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	09:00	09:00	07:00	07:00	07:00	09:00	01:00						07:00		
Vol.	2	3	11	74	214	103	8	1						407		
PM Peak	17:00	12:00	12:00	16:00	18:00	18:00	21:00	13:00						16:00		
Vol.	1	1	11	58	149	74	8	1						277		

Pecent

15th Percentile :	28 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	2984
Percent in Pace :	74.5%
Number of Vehicles > 35 MPH :	841
Percent of Vehicles > 35 MPH :	21.0%
Mean Speed(Average) :	32 MPH

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81676 I-A speed
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NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	6	16	4	3	0	0	0	0	0	0	29	37	33
01:00	0	0	0	2	3	1	0	0	0	0	0	0	0	6	32	31
02:00	0	0	0	9	16	3	0	0	0	0	0	0	0	28	34	31
03:00	0	0	0	3	12	7	1	0	0	0	0	0	0	23	37	33
04:00	0	0	4	15	24	9	0	0	0	0	0	0	0	52	35	31
05:00	0	**1**	9	46	66	21	4	**1**	0	0	0	0	0	148	35	31
06:00	0	0	2	56	179	88	6	0	0	0	0	0	0	331	37	33
07:00	**1**	1	3	**69**	**200**	89	8	0	0	0	0	0	0	**371**	37	32
08:00	0	0	5	47	161	**103**	**12**	0	0	0	0	0	0	328	38	33
09:00	1	1	**13**	53	128	61	7	0	0	0	0	0	0	264	37	32
10:00	0	0	4	35	79	36	4	1	0	0	0	0	0	159	37	32
11:00	0	1	7	43	98	30	3	0	0	0	0	0	0	182	35	31
12 PM	**1**	**2**	4	28	108	41	4	**1**	0	0	0	0	0	189	37	32
13:00	0	0	9	41	112	28	6	1	0	0	0	0	0	197	35	32
14:00	0	2	9	49	120	39	7	0	0	0	0	0	0	226	36	32
15:00	0	0	**13**	50	138	65	**8**	0	0	0	0	0	0	274	37	32
16:00	0	0	9	**51**	**168**	60	6	1	0	0	0	0	0	295	36	32
17:00	0	0	2	50	161	**80**	5	0	**1**	0	0	0	0	**299**	37	33
18:00	0	0	5	50	139	60	6	1	0	0	0	0	0	261	37	32
19:00	0	0	1	41	87	42	4	0	0	0	0	0	0	175	37	32
20:00	0	0	3	22	40	19	3	0	0	0	0	0	0	87	37	32
21:00	0	0	0	11	43	17	0	0	0	0	0	0	0	71	36	32
22:00	0	0	0	12	27	13	0	0	0	0	0	0	0	52	36	32
23:00	0	0	0	12	17	7	1	0	0	0	0	0	0	37	35	31
Total	3	8	102	801	2142	923	98	6	1	0	0	0	0	4084		
%	0.1%	0.2%	2.5%	19.6%	52.4%	22.6%	2.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	05:00	09:00	07:00	07:00	08:00	08:00	05:00						07:00		
Vol.	1	1	13	69	200	103	12	1						371		
PM Peak	12:00	12:00	15:00	16:00	16:00	17:00	15:00	12:00	17:00					17:00		
Vol.	1	2	13	51	168	80	8	1	1					299		

Pecent

15th Percentile :	28 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	3065
Percent in Pace :	75.0%
Number of Vehicles > 35 MPH :	843
Percent of Vehicles > 35 MPH :	20.6%
Mean Speed(Average) :	32 MPH

PRECISION
D A T A
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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	21	3	0	0	0	0	0	1	0	0	0	0	25
01:00	0	11	5	0	1	0	0	0	0	0	0	0	0	17
02:00	0	8	0	0	1	0	0	0	0	0	0	0	0	9
03:00	0	11	4	0	0	0	0	0	0	0	0	0	0	15
04:00	0	21	4	0	1	0	0	1	0	0	0	0	0	27
05:00	0	70	9	1	0	0	0	0	0	0	0	0	0	80
06:00	2	124	27	2	1	1	2	0	1	0	0	0	0	160
07:00	1	209	38	2	6	5	0	1	1	0	0	0	0	263
08:00	3	147	44	3	5	0	0	0	0	0	0	0	0	202
09:00	2	139	39	2	4	2	0	1	3	0	0	0	0	192
10:00	0	126	43	1	7	2	0	1	1	0	0	0	0	181
11:00	3	120	31	1	4	2	0	4	0	0	0	0	0	165
12 PM	2	157	36	2	9	2	0	3	0	0	0	0	0	211
13:00	1	139	36	1	11	1	0	2	0	0	0	0	0	191
14:00	2	181	37	3	5	0	0	8	0	0	0	0	0	236
15:00	4	280	50	5	5	0	0	2	0	0	0	0	0	346
16:00	1	414	47	0	6	0	0	0	0	0	0	0	0	468
17:00	2	365	63	0	7	1	0	2	0	0	0	0	0	440
18:00	0	274	47	0	5	0	0	1	0	0	0	0	0	327
19:00	1	213	28	0	0	0	0	0	0	0	0	0	0	242
20:00	1	138	23	0	1	1	0	1	1	0	0	0	0	166
21:00	0	132	9	0	0	0	0	0	0	0	0	0	0	141
22:00	1	71	9	1	0	0	0	0	0	0	0	0	0	82
23:00	0	40	7	0	0	0	0	0	0	0	0	0	0	47
Total	26	3411	639	24	79	17	2	27	8	0	0	0	0	4233
Percent	0.6%	80.6%	15.1%	0.6%	1.9%	0.4%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	08:00	10:00	07:00	06:00	11:00	09:00					07:00
Vol.	3	209	44	3	7	5	2	4	3					263
PM Peak	15:00	16:00	17:00	15:00	13:00	12:00		14:00	20:00					16:00
Vol.	4	414	63	5	11	2		8	1					468

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	19	6	0	0	0	0	0	0	0	0	0	0	25
01:00	0	15	4	0	0	0	0	0	0	0	0	0	0	19
02:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
03:00	0	12	6	0	0	0	0	0	0	0	0	0	0	18
04:00	0	25	7	0	1	0	0	0	1	0	0	0	0	34
05:00	0	63	9	0	1	0	0	0	1	0	0	0	0	74
06:00	3	120	34	1	2	0	0	0	0	0	0	0	0	160
07:00	3	181	32	2	4	2	0	1	0	0	0	0	0	225
08:00	4	151	35	3	3	4	0	1	1	0	0	0	0	202
09:00	4	139	30	1	6	2	0	2	2	0	0	0	0	186
10:00	2	118	31	1	6	1	0	3	1	0	0	0	0	163
11:00	1	126	31	1	4	3	0	2	0	0	0	0	0	168
12 PM	6	153	42	5	6	1	0	3	0	0	0	0	0	216
13:00	1	156	24	0	6	2	0	4	2	0	0	0	0	195
14:00	1	206	42	3	7	3	0	4	0	0	0	0	0	266
15:00	6	322	71	5	11	2	0	3	0	0	0	0	0	420
16:00	9	389	66	1	7	1	0	3	0	0	0	0	0	476
17:00	7	388	62	0	4	1	0	0	0	0	0	0	0	462
18:00	5	283	43	0	2	0	0	0	0	0	0	0	0	333
19:00	6	217	25	0	1	1	0	0	0	0	0	0	0	250
20:00	2	138	21	0	2	0	0	1	0	0	0	0	0	164
21:00	1	128	10	1	0	0	0	0	0	0	0	0	0	140
22:00	4	76	5	0	0	0	0	0	0	0	0	0	0	85
23:00	0	46	8	0	0	0	0	0	0	0	0	0	0	54
Total	65	3476	645	24	74	23	0	27	8	0	0	0	0	4342
Percent	1.5%	80.1%	14.9%	0.6%	1.7%	0.5%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	08:00	09:00	08:00		10:00	09:00					07:00
Vol.	4	181	35	3	6	4		3	2					225
PM Peak	16:00	16:00	15:00	12:00	15:00	14:00		13:00	13:00					16:00
Vol.	9	389	71	5	11	3		4	2					476

PRECISION
D A T A
INDUSTRIES, LLC
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Email: datarequests@pdillc.com

South Worcester Street
north of John B. Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-A class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	14	2	0	0	0	0	0	0	0	0	0	0	16
01:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
02:00	0	17	2	0	1	0	0	0	0	0	0	0	0	20
03:00	0	8	3	0	0	0	0	1	0	0	0	0	0	12
04:00	0	37	12	0	1	0	0	5	0	0	0	0	0	55
05:00	2	105	38	0	14	0	0	5	0	0	0	0	0	164
06:00	4	204	80	1	21	0	0	4	0	0	0	0	0	314
07:00	1	263	107	2	31	2	0	0	1	0	0	0	0	407
08:00	0	228	72	3	21	1	0	0	0	0	0	0	0	325
09:00	2	135	79	4	17	2	0	2	2	0	0	0	0	243
10:00	0	111	57	1	14	1	0	2	0	0	0	0	0	186
11:00	1	106	53	0	12	1	0	1	0	0	0	0	0	174
12 PM	3	128	66	3	12	1	0	0	0	0	0	0	0	213
13:00	1	83	48	2	14	1	0	0	1	0	0	0	0	150
14:00	1	139	62	0	16	1	0	1	0	0	0	0	0	220
15:00	0	141	56	4	9	1	0	0	0	0	0	0	0	211
16:00	0	190	68	2	17	0	0	0	0	0	0	0	0	277
17:00	1	198	62	0	11	1	0	0	0	0	0	0	0	273
18:00	1	176	81	0	12	1	0	0	0	0	0	0	0	271
19:00	0	105	44	0	6	0	0	0	0	0	0	0	0	155
20:00	0	74	21	0	6	0	0	0	0	0	0	0	0	101
21:00	1	96	15	1	1	0	0	0	0	0	0	0	0	114
22:00	0	44	15	0	1	0	0	0	0	0	0	0	0	60
23:00	0	23	10	0	1	0	0	0	0	0	0	0	0	34
Total	18	2632	1054	23	238	13	0	21	4	0	0	0	0	4003
Percent	0.4%	65.8%	26.3%	0.6%	5.9%	0.3%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	09:00	07:00	07:00		04:00	09:00					07:00
Vol.	4	263	107	4	31	2		5	2					407
PM Peak	12:00	17:00	18:00	15:00	16:00	12:00		14:00	13:00					16:00
Vol.	3	198	81	4	17	1		1	1					277

PRECISION
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South Worcester Street
north of John B. Scott Boulevard
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-A class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	25	4	0	0	0	0	0	0	0	0	0	0	29
01:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
02:00	0	27	1	0	0	0	0	0	0	0	0	0	0	28
03:00	0	15	8	0	0	0	0	0	0	0	0	0	0	23
04:00	0	33	12	0	3	0	0	4	0	0	0	0	0	52
05:00	4	81	44	1	13	0	0	5	0	0	0	0	0	148
06:00	4	226	78	1	18	1	0	3	0	0	0	0	0	331
07:00	4	251	90	3	21	0	1	1	0	0	0	0	0	371
08:00	4	228	77	2	11	5	0	1	0	0	0	0	0	328
09:00	1	159	76	11	12	2	1	2	0	0	0	0	0	264
10:00	1	98	46	1	13	0	0	0	0	0	0	0	0	159
11:00	2	111	45	3	15	4	0	2	0	0	0	0	0	182
12 PM	0	117	55	1	11	2	1	2	0	0	0	0	0	189
13:00	4	124	55	1	11	1	0	1	0	0	0	0	0	197
14:00	1	144	54	1	19	1	1	2	3	0	0	0	0	226
15:00	2	174	68	5	22	2	0	1	0	0	0	0	0	274
16:00	3	206	67	1	15	3	0	0	0	0	0	0	0	295
17:00	4	206	76	0	12	0	0	1	0	0	0	0	0	299
18:00	5	178	72	1	5	0	0	0	0	0	0	0	0	261
19:00	3	125	41	0	6	0	0	0	0	0	0	0	0	175
20:00	1	62	20	0	4	0	0	0	0	0	0	0	0	87
21:00	0	52	17	1	1	0	0	0	0	0	0	0	0	71
22:00	1	41	9	0	0	0	0	1	0	0	0	0	0	52
23:00	1	28	7	0	1	0	0	0	0	0	0	0	0	37
Total	45	2715	1024	33	213	21	4	26	3	0	0	0	0	4084
Percent	1.1%	66.5%	25.1%	0.8%	5.2%	0.5%	0.1%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	09:00	07:00	08:00	07:00	05:00						07:00
Vol.	4	251	90	11	21	5	1	5						371
PM Peak	18:00	16:00	17:00	15:00	15:00	16:00	12:00	12:00	14:00					17:00
Vol.	5	206	76	5	22	3	1	2	3					299

West Main Street (Route 123)
east of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

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81676 I-B volume
Site Code: 10111.31

Start	EB				WB				Combined				16-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	12		83		11		77		23		160		
12:15	6		87		7		88		13		175		
12:30	3		93		7		95		10		188		
12:45	8	29	70	333	8	33	93	353	16	62	163	686	
01:00	5		93		9		91		14		184		
01:15	4		81		4		81		8		162		
01:30	2		88		6		77		8		165		
01:45	3	14	91	353	1	20	90	339	4	34	181	692	
02:00	1		90		4		89		5		179		
02:15	4		91		1		109		5		200		
02:30	0		122		6		96		6		218		
02:45	1	6	113	416	4	15	105	399	5	21	218	815	
03:00	3		95		1		117		4		212		
03:15	4		83		0		140		4		223		
03:30	6		148		0		125		6		273		
03:45	2	15	114	440	2	3	134	516	4	18	248	956	
04:00	3		101		5		146		8		247		
04:15	10		114		5		124		15		238		
04:30	13		112		4		166		17		278		
04:45	21	47	130	457	13	27	127	563	34	74	257	1020	
05:00	21		123		14		146		35		269		
05:15	24		139		26		146		50		285		
05:30	39		141		28		153		67		294		
05:45	38	122	92	495	20	88	167	612	58	210	259	1107	
06:00	56		88		34		146		90		234		
06:15	67		108		53		118		120		226		
06:30	94		101		61		125		155		226		
06:45	101	318	65	362	86	234	167	556	187	552	232	918	
07:00	120		93		86		135		206		228		
07:15	171		68		69		83		240		151		
07:30	115		69		94		95		209		164		
07:45	132	538	97	327	74	323	71	384	206	861	168	711	
08:00	109		81		101		80		210		161		
08:15	99		75		106		59		205		134		
08:30	112		54		119		52		231		106		
08:45	100	420	53	263	110	436	59	250	210	856	112	513	
09:00	114		50		112		52		226		102		
09:15	89		29		85		31		174		60		
09:30	77		33		81		37		158		70		
09:45	104	384	30	142	87	365	25	145	191	749	55	287	
10:00	83		32		73		33		156		65		
10:15	91		21		89		32		180		53		
10:30	84		24		69		29		153		53		
10:45	92	350	15	92	81	312	20	114	173	662	35	206	
11:00	80		16		89		21		169		37		
11:15	87		17		75		15		162		32		
11:30	86		13		93		19		179		32		
11:45	95	348	12	58	91	348	10	65	186	696	22	123	
Total	2591		3738		2204		4296		4795		8034		
Percent	54.0%		46.5%		46.0%		53.5%						
Day Total		6329				6500				12829			
Peak	07:00		04:45		08:15		05:00		08:15		05:00		
Vol.	538		533		447		612		872		1107		
P.H.F.	0.787		0.945		0.939		0.916		0.944		0.941		

West Main Street (Route 123)
east of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 I-B volume
Site Code: 10111.31

Start	EB				WB				Combined				17-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	8		82		15		98		23		180		
12:15	7		86		3		61		10		147		
12:30	8		85		10		90		18		175		
12:45	8	31	86	339	4	32	73	322	12	63	159	661	
01:00	1		76		6		97		7		173		
01:15	2		75		4		81		6		156		
01:30	3		85		6		76		9		161		
01:45	0	6	73	309	4	20	87	341	4	26	160	650	
02:00	2		109		2		90		4		199		
02:15	3		103		0		114		3		217		
02:30	1		96		1		124		2		220		
02:45	4	10	111	419	3	6	130	458	7	16	241	877	
03:00	2		108		1		112		3		220		
03:15	7		102		4		137		11		239		
03:30	5		122		1		141		6		263		
03:45	3	17	132	464	2	8	139	529	5	25	271	993	
04:00	10		128		9		110		19		238		
04:15	10		113		7		142		17		255		
04:30	15		119		6		139		21		258		
04:45	12	47	130	490	12	34	145	536	24	81	275	1026	
05:00	21		121		12		149		33		270		
05:15	29		144		21		144		50		288		
05:30	41		115		25		167		66		282		
05:45	31	122	110	490	19	77	146	606	50	199	256	1096	
06:00	50		100		21		157		71		257		
06:15	54		89		47		141		101		230		
06:30	73		102		70		154		143		256		
06:45	111	288	95	386	73	211	139	591	184	499	234	977	
07:00	100		86		84		105		184		191		
07:15	137		81		73		88		210		169		
07:30	116		91		79		84		195		175		
07:45	123	476	81	339	86	322	79	356	209	798	160	695	
08:00	105		59		98		57		203		116		
08:15	80		52		117		67		197		119		
08:30	101		49		78		86		179		135		
08:45	97	383	45	205	99	392	54	264	196	775	99	469	
09:00	109		47		112		47		221		94		
09:15	107		34		78		46		185		80		
09:30	92		35		89		38		181		73		
09:45	99	407	40	156	83	362	35	166	182	769	75	322	
10:00	80		29		84		33		164		62		
10:15	92		19		81		35		173		54		
10:30	100		14		90		30		190		44		
10:45	81	353	17	79	75	330	28	126	156	683	45	205	
11:00	87		7		83		14		170		21		
11:15	89		6		72		21		161		27		
11:30	72		22		111		18		183		40		
11:45	92	340	8	43	82	348	14	67	174	688	22	110	
Total	2480		3719		2142		4362		4622		8081		
Percent	53.7%		46.0%		46.3%		54.0%						
Day Total		6199				6504				12703			
Peak	07:15		04:30		08:15		05:15		07:15		04:45		
Vol.	481		514		406		614		817		1115		
P.H.F.	0.878		0.892		0.868		0.919		0.973		0.968		

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east of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-B speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	0	3	9	15	1	0	**1**	0	0	0	29	44	40
01:00	0	0	0	0	1	3	5	3	2	0	0	0	0	14	47	43
02:00	0	0	0	0	1	3	2	0	0	0	0	0	0	6	40	37
03:00	0	0	0	0	2	1	8	0	3	1	0	0	0	15	51	43
04:00	0	0	1	4	4	9	19	6	4	0	0	0	0	47	46	40
05:00	0	0	0	7	23	32	46	12	2	0	0	0	0	122	44	39
06:00	0	1	1	15	62	92	125	20	1	0	1	0	0	318	43	38
07:00	2	1	21	30	119	228	116	19	2	0	0	0	0	538	42	36
08:00	0	1	10	32	111	161	94	11	0	0	0	0	0	420	42	36
09:00	0	5	36	25	85	133	84	15	1	0	0	0	0	384	42	35
10:00	2	2	9	25	69	142	89	12	0	0	0	0	0	350	42	36
11:00	3	2	10	24	60	142	99	8	0	0	0	0	0	348	42	36
12 PM	3	4	9	21	84	131	70	10	1	0	0	0	0	333	42	36
13:00	3	2	8	23	90	143	73	11	0	0	0	0	0	353	42	36
14:00	0	2	9	26	87	166	111	11	3	0	0	0	1	416	42	37
15:00	1	8	36	47	114	138	83	12	1	0	0	0	0	440	41	34
16:00	1	2	13	37	80	173	132	17	2	0	0	0	0	457	43	37
17:00	3	1	14	46	123	179	117	12	0	0	0	0	0	495	42	36
18:00	5	2	13	34	88	126	82	11	1	0	0	0	0	362	42	35
19:00	1	12	36	31	75	114	53	5	0	0	0	0	0	327	40	33
20:00	4	11	41	21	57	71	50	8	0	0	0	0	0	263	41	33
21:00	0	0	1	2	24	62	45	7	1	0	0	0	0	142	43	38
22:00	1	0	1	3	9	31	35	11	1	0	0	0	0	92	44	39
23:00	0	0	0	0	6	8	29	13	1	1	0	0	0	58	46	42
Total	29	56	269	453	1377	2297	1582	235	26	3	1	0	1	6329		
%	0.5%	0.9%	4.3%	7.2%	21.8%	36.3%	25.0%	3.7%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	09:00	09:00	08:00	07:00	07:00	06:00	06:00	04:00	00:00	06:00			07:00		
Vol.	3	5	36	32	119	228	125	20	4	1	1			538		
PM Peak	18:00	19:00	20:00	15:00	17:00	17:00	16:00	16:00	14:00	23:00			14:00	17:00		
Vol.	5	12	41	47	123	179	132	17	3	1			1	495		

Pecent

15th Percentile :	30 MPH
50th Percentile :	37 MPH
85th Percentile :	42 MPH
95th Percentile :	44 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	3879
Percent in Pace :	61.3%
Number of Vehicles > 35 MPH :	3685
Percent of Vehicles > 35 MPH :	58.2%
Mean Speed(Average) :	36 MPH

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81676 I-B speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	0	0	0	1	2	11	14	2	1	0	0	0	0	31	43	40
01:00	0	0	0	0	1	1	3	1	0	0	0	0	0	6	42	40
02:00	0	0	0	0	1	2	4	3	0	0	0	0	0	10	45	42
03:00	0	0	0	0	1	4	10	2	0	0	0	0	0	17	44	41
04:00	0	0	0	2	7	10	14	11	1	**2**	0	0	0	47	47	41
05:00	1	0	0	7	23	31	36	23	0	1	0	0	0	122	46	39
06:00	0	1	2	16	48	96	99	23	3	0	0	0	0	288	44	38
07:00	**2**	1	19	21	**92**	**164**	**141**	30	**5**	1	0	0	0	**476**	43	37
08:00	0	2	16	29	70	118	122	24	2	0	0	0	0	383	43	37
09:00	1	**7**	**35**	**47**	78	126	90	20	3	0	0	0	0	407	42	35
10:00	0	0	3	9	51	124	132	**32**	2	0	0	0	0	353	44	39
11:00	1	0	7	21	53	131	108	16	3	0	0	0	0	340	43	37
12 PM	1	5	6	24	57	123	103	18	2	0	0	0	0	339	43	37
13:00	1	1	10	19	42	108	106	19	**3**	0	0	0	0	309	43	38
14:00	0	5	15	22	71	171	120	15	0	0	0	0	0	419	42	37
15:00	2	8	40	41	102	169	85	16	1	0	0	0	0	464	41	35
16:00	3	3	22	29	89	**185**	**143**	16	0	0	0	0	0	**490**	42	36
17:00	2	1	26	**48**	**121**	147	124	**20**	1	0	0	0	0	490	42	36
18:00	4	3	19	38	98	133	83	5	1	**2**	0	0	0	386	41	35
19:00	**6**	**9**	**49**	24	78	105	67	1	0	0	0	0	0	339	41	33
20:00	1	3	10	9	33	77	66	6	0	0	0	0	0	205	43	37
21:00	1	1	0	3	16	64	58	12	0	0	0	**1**	0	156	44	39
22:00	0	0	1	3	12	21	31	9	2	0	0	0	0	79	44	39
23:00	0	0	0	0	5	13	20	5	0	0	0	0	0	43	44	40
Total	26	50	280	413	1151	2134	1779	329	30	6	0	1	0	6199		
%	0.4%	0.8%	4.5%	6.7%	18.6%	34.4%	28.7%	5.3%	0.5%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	09:00	09:00	07:00	07:00	07:00	10:00	07:00	04:00				07:00		
Vol.	2	7	35	47	92	164	141	32	5	2				476		
PM Peak	19:00	19:00	19:00	17:00	17:00	16:00	16:00	17:00	13:00	18:00		21:00		16:00		
Vol.	6	9	49	48	121	185	143	20	3	2		1		490		

Pecent

15th Percentile :	30 MPH
50th Percentile :	37 MPH
85th Percentile :	43 MPH
95th Percentile :	45 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	3913
Percent in Pace :	63.1%
Number of Vehicles > 35 MPH :	3852
Percent of Vehicles > 35 MPH :	62.1%
Mean Speed(Average) :	37 MPH

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West Main Street (Route 123)
east of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-B speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	1	0	0	6	15	10	1	0	0	0	0	0	33	42	37
01:00	1	0	0	1	3	11	3	1	0	0	0	0	0	20	40	35
02:00	0	0	0	0	1	11	3	0	0	0	0	0	0	15	40	37
03:00	0	0	0	0	0	2	1	0	0	0	0	0	0	3	40	37
04:00	0	0	1	3	1	9	10	3	0	0	0	0	0	27	44	38
05:00	1	0	1	5	13	47	18	3	0	0	0	0	0	88	41	36
06:00	1	3	9	22	66	100	30	3	0	0	0	0	0	234	39	35
07:00	6	10	23	31	86	136	27	**4**	0	0	0	0	0	323	39	33
08:00	1	18	**31**	**49**	**142**	**154**	**35**	4	**1**	0	0	0	**1**	**436**	39	33
09:00	**15**	**23**	29	46	124	103	23	2	0	0	0	0	0	365	38	31
10:00	3	5	15	26	112	129	19	2	0	**1**	0	0	0	312	38	34
11:00	0	8	21	36	128	135	19	1	0	0	0	0	0	348	38	33
12 PM	7	5	23	68	134	94	21	1	0	0	0	0	0	353	38	32
13:00	6	7	18	67	121	103	16	1	0	0	0	0	0	339	38	32
14:00	2	8	21	58	130	160	19	1	0	0	0	0	0	399	38	33
15:00	7	25	60	79	203	123	19	0	0	0	0	0	0	516	37	31
16:00	3	18	25	110	197	**186**	24	0	0	0	0	0	0	563	38	32
17:00	**15**	30	**67**	**131**	**223**	121	23	1	**1**	0	0	0	0	**612**	37	30
18:00	15	**60**	67	84	194	118	18	0	0	0	0	0	0	556	37	29
19:00	6	19	36	41	166	101	15	0	0	0	0	0	0	384	37	31
20:00	1	1	5	29	114	81	19	0	0	0	0	0	0	250	38	33
21:00	0	0	1	6	49	73	11	**5**	0	0	0	0	0	145	39	36
22:00	0	0	1	4	31	50	**28**	0	0	0	0	0	0	114	41	36
23:00	0	0	1	2	14	29	16	2	0	**1**	0	0	0	65	42	37
Total	90	241	455	898	2258	2091	427	35	2	2	0	0	1	6500		
%	1.4%	3.7%	7.0%	13.8%	34.7%	32.2%	6.6%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	08:00	08:00	08:00	08:00	08:00	07:00	08:00	10:00			08:00	08:00		
Vol.	15	23	31	49	142	154	35	4	1	1			1	436		
PM Peak	17:00	18:00	17:00	17:00	17:00	16:00	22:00	21:00	17:00	23:00				17:00		
Vol.	15	60	67	131	223	186	28	5	1	1				612		

Pecent

15th Percentile :	26 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4349
Percent in Pace :	66.9%
Number of Vehicles > 35 MPH :	2139
Percent of Vehicles > 35 MPH :	32.9%
Mean Speed(Average) :	32 MPH

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east of North Worcester Street
City, State: Norton, MA
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81676 I-B speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	0	0	0	1	10	10	7	2	**2**	0	0	0	0	32	43	38
01:00	0	0	0	1	2	12	2	2	1	0	0	0	0	20	44	38
02:00	0	0	0	0	2	1	3	0	0	0	0	0	0	6	41	37
03:00	0	0	0	0	3	2	3	0	0	0	0	0	0	8	41	37
04:00	0	0	0	0	3	19	7	**4**	1	0	0	0	0	34	44	39
05:00	0	1	2	2	13	32	25	2	0	0	0	0	0	77	42	37
06:00	0	6	6	22	49	95	30	3	0	0	0	0	0	211	40	35
07:00	3	11	21	32	64	132	**58**	1	0	0	0	0	0	322	40	34
08:00	5	11	**24**	**53**	**144**	112	41	1	0	0	0	0	**1**	**392**	39	33
09:00	**8**	**19**	22	44	117	119	31	2	0	0	0	0	0	362	39	32
10:00	0	4	13	21	104	**157**	30	1	0	0	0	0	0	330	39	34
11:00	4	8	20	38	123	129	26	0	0	0	0	0	0	348	38	33
12 PM	3	2	12	39	112	130	23	1	0	0	0	0	0	322	39	33
13:00	0	4	13	53	126	118	**25**	**2**	0	0	0	0	0	341	38	33
14:00	6	13	25	72	167	157	17	1	0	0	0	0	0	458	38	32
15:00	9	39	47	104	189	132	9	0	0	0	0	0	0	529	37	30
16:00	5	14	27	72	209	**188**	20	1	0	0	0	0	0	536	38	32
17:00	**22**	32	**60**	115	**238**	119	18	1	1	0	0	0	0	**606**	36	30
18:00	19	**46**	56	**121**	222	108	18	1	0	0	0	0	0	591	36	29
19:00	1	5	13	56	174	90	16	0	0	0	0	0	**1**	356	37	32
20:00	1	1	3	12	134	94	17	0	**2**	0	0	0	0	264	38	34
21:00	0	2	1	9	38	100	16	0	0	0	0	0	0	166	39	35
22:00	0	0	2	5	39	55	23	2	0	0	0	0	0	126	41	36
23:00	0	0	0	2	11	35	15	2	2	0	0	0	0	67	42	38
Total	86	218	367	874	2293	2146	480	29	9	0	0	0	2	6504		
%	1.3%	3.4%	5.6%	13.4%	35.3%	33.0%	7.4%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	08:00	08:00	08:00	10:00	07:00	04:00	00:00				08:00	08:00		
Vol.	8	19	24	53	144	157	58	4	2				1	392		
PM Peak	17:00	18:00	17:00	18:00	17:00	16:00	13:00	13:00	20:00				19:00	17:00		
Vol.	22	46	60	121	238	188	25	2	2				1	606		

Pecent

15th Percentile :	26 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4439
Percent in Pace :	68.3%
Number of Vehicles > 35 MPH :	2236
Percent of Vehicles > 35 MPH :	34.4%
Mean Speed(Average) :	32 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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West Main Street (Route 123)
east of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-B class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	0	24	5	0	0	0	0	0	0	0	0	0	0	29
01:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14
02:00	0	4	0	0	2	0	0	0	0	0	0	0	0	6
03:00	0	11	3	0	1	0	0	0	0	0	0	0	0	15
04:00	0	24	17	2	4	0	0	0	0	0	0	0	0	47
05:00	1	73	40	0	8	0	0	0	0	0	0	0	0	122
06:00	0	228	64	1	24	0	0	1	0	0	0	0	0	318
07:00	2	398	103	4	22	1	0	6	2	0	0	0	0	538
08:00	0	307	90	4	16	1	0	1	1	0	0	0	0	420
09:00	2	233	108	10	25	1	0	4	1	0	0	0	0	384
10:00	3	222	89	2	27	4	0	2	1	0	0	0	0	350
11:00	1	249	62	4	22	2	0	5	3	0	0	0	0	348
12 PM	4	238	65	1	18	4	0	2	1	0	0	0	0	333
13:00	3	245	83	4	14	0	0	3	1	0	0	0	0	353
14:00	2	297	87	3	23	1	0	1	2	0	0	0	0	416
15:00	1	320	91	10	15	0	0	2	1	0	0	0	0	440
16:00	3	332	91	4	25	0	0	2	0	0	0	0	0	457
17:00	4	368	106	3	13	1	0	0	0	0	0	0	0	495
18:00	9	261	70	0	21	0	0	1	0	0	0	0	0	362
19:00	3	237	72	0	15	0	0	0	0	0	0	0	0	327
20:00	1	204	55	0	3	0	0	0	0	0	0	0	0	263
21:00	0	118	20	1	3	0	0	0	0	0	0	0	0	142
22:00	0	72	16	0	4	0	0	0	0	0	0	0	0	92
23:00	0	45	11	0	2	0	0	0	0	0	0	0	0	58
Total	39	4521	1351	53	307	15	0	30	13	0	0	0	0	6329
Percent	0.6%	71.4%	21.3%	0.8%	4.9%	0.2%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	09:00	09:00	10:00	10:00		07:00	11:00					07:00
Vol.	3	398	108	10	27	4		6	3					538
PM Peak	18:00	17:00	17:00	15:00	16:00	12:00		13:00	14:00					17:00
Vol.	9	368	106	10	25	4		3	2					495

PRECISION
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81676 I-B class
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EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	0	20	10	0	1	0	0	0	0	0	0	0	0	31
01:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
02:00	0	6	1	0	3	0	0	0	0	0	0	0	0	10
03:00	0	11	4	0	2	0	0	0	0	0	0	0	0	17
04:00	1	27	14	2	2	0	0	1	0	0	0	0	0	47
05:00	1	75	39	1	5	0	0	1	0	0	0	0	0	122
06:00	2	203	64	2	14	1	0	2	0	0	0	0	0	288
07:00	3	360	86	5	17	0	0	3	2	0	0	0	0	476
08:00	0	282	82	4	13	2	0	0	0	0	0	0	0	383
09:00	2	255	110	11	23	1	0	4	1	0	0	0	0	407
10:00	0	253	77	4	16	1	0	2	0	0	0	0	0	353
11:00	1	226	85	2	25	0	0	1	0	0	0	0	0	340
12 PM	3	245	70	3	12	3	0	3	0	0	0	0	0	339
13:00	3	211	60	6	22	2	0	4	1	0	0	0	0	309
14:00	0	298	98	3	16	1	0	3	0	0	0	0	0	419
15:00	4	314	113	11	20	0	0	0	2	0	0	0	0	464
16:00	5	364	98	2	19	1	0	1	0	0	0	0	0	490
17:00	5	372	92	3	17	0	0	1	0	0	0	0	0	490
18:00	6	307	57	1	14	1	0	0	0	0	0	0	0	386
19:00	1	251	71	0	14	1	0	1	0	0	0	0	0	339
20:00	1	159	37	1	6	0	0	0	1	0	0	0	0	205
21:00	0	128	21	0	6	0	0	1	0	0	0	0	0	156
22:00	1	67	10	0	1	0	0	0	0	0	0	0	0	79
23:00	0	36	6	0	1	0	0	0	0	0	0	0	0	43
Total	39	4474	1307	61	269	14	0	28	7	0	0	0	0	6199
Percent	0.6%	72.2%	21.1%	1.0%	4.3%	0.2%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	09:00	09:00	11:00	08:00		09:00	07:00					07:00
Vol.	3	360	110	11	25	2		4	2					476
PM Peak	18:00	17:00	15:00	15:00	13:00	12:00		13:00	15:00					16:00
Vol.	6	372	113	11	22	3		4	2					490

PRECISION
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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	0	29	4	0	0	0	0	0	0	0	0	0	0	33
01:00	0	17	3	0	0	0	0	0	0	0	0	0	0	20
02:00	0	13	2	0	0	0	0	0	0	0	0	0	0	15
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	20	5	1	0	0	0	0	1	0	0	0	0	27
05:00	1	61	17	0	8	0	0	1	0	0	0	0	0	88
06:00	0	173	45	3	9	1	0	0	3	0	0	0	0	234
07:00	5	244	53	3	10	0	0	4	4	0	0	0	0	323
08:00	1	345	68	8	10	4	0	0	0	0	0	0	0	436
09:00	1	271	66	5	11	2	0	5	4	0	0	0	0	365
10:00	1	232	57	3	12	1	0	4	2	0	0	0	0	312
11:00	0	282	48	1	9	1	0	3	4	0	0	0	0	348
12 PM	3	263	64	2	16	1	0	2	1	0	1	0	0	353
13:00	2	272	51	1	5	2	0	1	5	0	0	0	0	339
14:00	3	321	52	1	15	3	0	2	2	0	0	0	0	399
15:00	3	386	94	8	21	2	0	2	0	0	0	0	0	516
16:00	1	479	60	5	12	4	0	2	0	0	0	0	0	563
17:00	5	516	73	0	12	4	0	2	0	0	0	0	0	612
18:00	4	470	69	1	9	0	0	0	2	0	1	0	0	556
19:00	2	327	49	1	4	1	0	0	0	0	0	0	0	384
20:00	5	222	21	0	1	1	0	0	0	0	0	0	0	250
21:00	1	130	13	0	1	0	0	0	0	0	0	0	0	145
22:00	1	99	11	0	3	0	0	0	0	0	0	0	0	114
23:00	1	52	10	0	2	0	0	0	0	0	0	0	0	65
Total	40	5227	935	43	170	27	0	28	28	0	2	0	0	6500
Percent	0.6%	80.4%	14.4%	0.7%	2.6%	0.4%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	08:00	10:00	08:00		09:00	07:00					08:00
Vol.	5	345	68	8	12	4		5	4					436
PM Peak	17:00	17:00	15:00	15:00	15:00	16:00		12:00	13:00		12:00			17:00
Vol.	5	516	94	8	21	4		2	5		1			612

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Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	0	27	4	0	1	0	0	0	0	0	0	0	0	32
01:00	0	18	1	0	0	0	0	0	1	0	0	0	0	20
02:00	0	1	4	0	1	0	0	0	0	0	0	0	0	6
03:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
04:00	0	26	5	1	1	0	0	1	0	0	0	0	0	34
05:00	1	48	16	0	10	1	0	1	0	0	0	0	0	77
06:00	3	156	39	3	5	2	0	1	2	0	0	0	0	211
07:00	2	257	46	4	9	0	0	3	1	0	0	0	0	322
08:00	5	299	62	5	20	1	0	0	0	0	0	0	0	392
09:00	3	269	70	5	11	3	0	1	0	0	0	0	0	362
10:00	2	247	58	3	13	2	0	2	3	0	0	0	0	330
11:00	1	264	61	5	13	1	0	0	3	0	0	0	0	348
12 PM	2	252	46	1	16	1	0	4	0	0	0	0	0	322
13:00	0	264	51	4	15	2	0	4	1	0	0	0	0	341
14:00	2	378	56	3	10	2	0	0	7	0	0	0	0	458
15:00	4	403	96	9	14	2	0	1	0	0	0	0	0	529
16:00	6	441	72	1	11	1	0	3	1	0	0	0	0	536
17:00	2	521	68	0	10	3	0	1	1	0	0	0	0	606
18:00	6	512	67	1	3	0	0	1	1	0	0	0	0	591
19:00	3	302	45	1	3	1	0	1	0	0	0	0	0	356
20:00	1	227	30	1	4	0	0	1	0	0	0	0	0	264
21:00	0	145	18	0	3	0	0	0	0	0	0	0	0	166
22:00	2	108	14	0	2	0	0	0	0	0	0	0	0	126
23:00	0	56	8	0	3	0	0	0	0	0	0	0	0	67
Total	45	5226	940	47	178	22	0	25	21	0	0	0	0	6504
Percent	0.7%	80.4%	14.5%	0.7%	2.7%	0.3%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	09:00	08:00	08:00	09:00		07:00	10:00					08:00
Vol.	5	299	70	5	20	3		3	3					392
PM Peak	16:00	17:00	15:00	15:00	12:00	17:00		12:00	14:00					17:00
Vol.	6	521	96	9	16	3		4	7					606

Old Colony Road (Route 123)
west of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 I-C volume
Site Code: 10111.31

Start	WB				EB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	15		82		9		92		24		174		
12:15	13		93		7		95		20		188		
12:30	6		80		8		113		14		193		
12:45	4	38	81	336	8	32	93	393	12	70	174	729	
01:00	7		76		7		98		14		174		
01:15	7		86		9		87		16		173		
01:30	6		95		4		79		10		174		
01:45	3	23	78	335	3	23	72	336	6	46	150	671	
02:00	2		80		3		67		5		147		
02:15	1		99		2		77		3		176		
02:30	17		94		4		89		21		183		
02:45	1	21	89	362	4	13	125	358	5	34	214	720	
03:00	1		95		5		109		6		204		
03:15	2		108		1		100		3		208		
03:30	3		119		8		113		11		232		
03:45	4	10	102	424	6	20	137	459	10	30	239	883	
04:00	8		101		5		138		13		239		
04:15	9		120		6		114		15		234		
04:30	14		111		12		124		26		235		
04:45	22	53	127	459	24	47	151	527	46	100	278	986	
05:00	25		103		12		131		37		234		
05:15	28		125		18		133		46		258		
05:30	49		117		31		157		80		274		
05:45	50	152	113	458	49	110	133	554	99	262	246	1012	
06:00	33		125		46		100		79		225		
06:15	64		102		45		110		109		212		
06:30	67		103		74		80		141		183		
06:45	96	260	92	422	113	278	107	397	209	538	199	819	
07:00	104		71		101		74		205		145		
07:15	98		81		139		91		237		172		
07:30	111		81		108		64		219		145		
07:45	114	427	66	299	138	486	72	301	252	913	138	600	
08:00	116		47		121		59		237		106		
08:15	148		45		109		44		257		89		
08:30	125		46		90		41		215		87		
08:45	122	511	38	176	94	414	42	186	216	925	80	362	
09:00	112		46		81		42		193		88		
09:15	113		42		112		56		225		98		
09:30	88		49		78		58		166		107		
09:45	98	411	27	164	98	369	51	207	196	780	78	371	
10:00	75		27		74		31		149		58		
10:15	97		31		87		22		184		53		
10:30	79		22		96		16		175		38		
10:45	76	327	19	99	82	339	18	87	158	666	37	186	
11:00	87		30		88		22		175		52		
11:15	87		23		73		23		160		46		
11:30	84		17		95		18		179		35		
11:45	79	337	6	76	89	345	11	74	168	682	17	150	
Total	2570		3610		2476		3879		5046		7489		
Percent	50.9%		48.2%		49.1%		51.8%						
Day Total		6180				6355				12535			
Peak	08:00		05:15		07:15		04:45		07:30		04:45		
Vol.	511		480		506		572		965		1044		
P.H.F.	0.863		0.960		0.910		0.911		0.939		0.939		

Old Colony Road (Route 123)
west of North Worcester Street
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81676 I-C volume
Site Code: 10111.31

Start	WB				EB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		91		8		84		17		175		
12:15	14		77		16		99		30		176		
12:30	12		97		9		99		21		196		
12:45	4	39	79	344	4	37	86	368	8	76	165	712	
01:00	3		77		4		81		7		158		
01:15	5		96		6		81		11		177		
01:30	6		85		7		116		13		201		
01:45	5	19	83	341	2	19	100	378	7	38	183	719	
02:00	2		90		3		95		5		185		
02:15	10		90		2		87		12		177		
02:30	15		111		4		118		19		229		
02:45	8	35	106	397	3	12	118	418	11	47	224	815	
03:00	5		92		4		116		9		208		
03:15	9		81		8		125		17		206		
03:30	2		125		4		135		6		260		
03:45	6	22	129	427	9	25	139	515	15	47	268	942	
04:00	8		108		3		153		11		261		
04:15	7		126		10		116		17		242		
04:30	8		129		9		141		17		270		
04:45	19	42	134	497	27	49	165	575	46	91	299	1072	
05:00	17		123		16		138		33		261		
05:15	25		122		13		151		38		273		
05:30	48		117		28		137		76		254		
05:45	51	141	131	493	57	114	125	551	108	255	256	1044	
06:00	42		111		38		100		80		211		
06:15	58		104		57		103		115		207		
06:30	73		101		68		75		141		176		
06:45	101	274	119	435	105	268	90	368	206	542	209	803	
07:00	113		83		88		93		201		176		
07:15	103		59		120		95		223		154		
07:30	104		60		121		52		225		112		
07:45	118	438	64	266	118	447	72	312	236	885	136	578	
08:00	120		68		106		69		226		137		
08:15	142		45		109		82		251		127		
08:30	125		56		114		54		239		110		
08:45	138	525	48	217	81	410	69	274	219	935	117	491	
09:00	103		37		81		42		184		79		
09:15	118		33		108		60		226		93		
09:30	85		39		78		41		163		80		
09:45	108	414	28	137	101	368	45	188	209	782	73	325	
10:00	76		25		77		31		153		56		
10:15	74		36		82		18		156		54		
10:30	78		24		67		22		145		46		
10:45	74	302	23	108	90	316	27	98	164	618	50	206	
11:00	96		15		88		12		184		27		
11:15	95		18		95		25		190		43		
11:30	107		17		77		18		184		35		
11:45	103	401	15	65	91	351	15	70	194	752	30	135	
Total	2652		3727		2416		4115		5068		7842		
Percent	52.3%		47.5%		47.7%		52.5%						
Day Total		6379				6531				12910			
Peak	08:00		04:15		07:15		04:30		07:45		04:30		
Vol.	525		512		465		595		952		1103		
P.H.F.	0.924		0.955		0.961		0.902		0.948		0.922		

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Old Colony Road (Route 123)
west of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	0	6	11	14	7	0	0	0	0	0	0	38	40	35
01:00	0	0	2	2	6	8	5	0	0	0	0	0	0	23	41	35
02:00	0	0	0	2	11	7	1	0	0	0	0	0	0	21	37	33
03:00	0	0	0	2	4	2	0	2	0	0	0	0	0	10	36	34
04:00	0	1	1	8	20	8	9	**5**	**1**	0	0	0	0	53	43	35
05:00	0	1	4	21	56	49	19	2	0	0	0	0	0	152	39	34
06:00	0	1	4	30	81	97	41	5	1	0	0	0	0	260	40	35
07:00	0	**3**	7	26	135	204	48	4	0	0	0	0	0	427	39	35
08:00	0	2	**12**	37	**179**	**229**	**49**	3	0	0	0	0	0	**511**	39	35
09:00	0	2	6	**42**	152	166	37	5	0	0	0	**1**	0	411	39	34
10:00	0	0	4	29	113	146	33	2	0	0	0	0	0	327	39	35
11:00	0	1	5	33	108	155	33	1	1	0	0	0	0	337	39	35
12 PM	0	1	6	21	132	135	40	1	0	0	0	0	0	336	39	35
13:00	0	0	3	37	122	140	32	1	0	0	0	0	0	335	39	34
14:00	0	0	4	24	123	174	32	4	**1**	0	0	0	0	362	39	35
15:00	0	**3**	**10**	**48**	157	169	33	4	0	0	0	0	0	424	39	34
16:00	0	1	8	47	**185**	183	31	4	0	0	0	0	0	**459**	39	34
17:00	0	2	4	30	169	205	**43**	**5**	0	0	0	0	0	458	39	35
18:00	0	0	2	16	149	**221**	30	4	0	0	0	0	0	422	39	35
19:00	0	0	2	20	98	148	30	1	0	0	0	0	0	299	39	35
20:00	0	0	1	12	52	88	22	1	0	0	0	0	0	176	39	35
21:00	0	0	2	17	46	74	23	2	0	0	0	0	0	164	39	35
22:00	0	0	0	14	35	28	20	2	0	0	0	0	0	99	41	35
23:00	0	0	0	10	30	29	6	1	0	0	0	0	0	76	39	34
Total	0	18	87	534	2174	2679	624	59	4	0	0	1	0	6180		
%	0.0%	0.3%	1.4%	8.6%	35.2%	43.3%	10.1%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak		07:00	08:00	09:00	08:00	08:00	08:00	04:00	04:00			09:00		08:00		
Vol.		3	12	42	179	229	49	5	1			1		511		
PM Peak		15:00	15:00	15:00	16:00	18:00	17:00	17:00	14:00					16:00		
Vol.		3	10	48	185	221	43	5	1					459		

Pecent

15th Percentile :	30 MPH
50th Percentile :	35 MPH
85th Percentile :	39 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4853
Percent in Pace :	78.5%
Number of Vehicles > 35 MPH :	2831
Percent of Vehicles > 35 MPH :	45.8%
Mean Speed(Average) :	35 MPH

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81676 I-C speed
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WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	5	14	15	5	0	0	0	0	0	0	39	39	35
01:00	0	0	0	2	6	7	3	1	0	0	0	0	0	19	40	36
02:00	0	0	0	7	17	8	3	0	0	0	0	0	0	35	37	33
03:00	0	0	0	1	10	9	1	1	0	0	0	0	0	22	38	35
04:00	0	0	1	7	14	13	6	0	**1**	0	0	0	0	42	40	34
05:00	0	0	7	26	41	42	22	3	0	0	0	0	0	141	40	34
06:00	1	0	1	35	92	106	34	5	0	0	0	0	0	274	39	35
07:00	**2**	1	**9**	28	139	210	44	4	1	0	0	0	0	438	39	35
08:00	0	1	7	27	**158**	**234**	**91**	**6**	1	0	0	0	0	**525**	40	36
09:00	0	1	9	**39**	143	178	42	2	0	0	0	0	0	414	39	35
10:00	0	**2**	6	15	99	142	34	3	1	0	0	0	0	302	39	35
11:00	1	0	4	33	124	191	44	4	0	0	0	0	0	401	39	35
12 PM	0	**3**	2	18	95	186	36	4	0	0	0	0	0	344	39	35
13:00	0	2	**9**	28	123	134	39	4	**2**	0	0	0	0	341	39	35
14:00	0	1	5	26	119	181	**59**	**6**	0	0	0	0	0	397	40	36
15:00	0	2	8	37	159	173	45	3	0	0	0	0	0	427	39	35
16:00	0	2	5	29	187	**237**	37	0	0	0	0	0	0	**497**	39	35
17:00	0	1	4	**38**	**218**	191	36	4	1	0	0	0	0	493	39	34
18:00	0	1	2	23	138	230	37	4	0	0	0	0	0	435	39	35
19:00	0	1	3	11	97	117	36	1	0	0	0	0	0	266	39	35
20:00	0	0	2	11	47	116	36	3	1	**1**	0	0	0	217	40	36
21:00	0	0	1	5	40	67	19	5	0	0	0	0	0	137	40	36
22:00	0	0	0	3	29	49	27	0	0	0	0	0	0	108	41	37
23:00	0	0	0	6	12	32	9	5	1	0	0	0	0	65	42	37
Total	4	18	85	460	2121	2868	745	68	9	1	0	0	0	6379		
%	0.1%	0.3%	1.3%	7.2%	33.2%	45.0%	11.7%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	10:00	07:00	09:00	08:00	08:00	08:00	08:00	04:00					08:00		
Vol.	2	2	9	39	158	234	91	6	1					525		
PM Peak		12:00	13:00	17:00	17:00	16:00	14:00	14:00	13:00	20:00				16:00		
Vol.		3	9	38	218	237	59	6	2	1				497		

Pecent

15th Percentile :	30 MPH
50th Percentile :	35 MPH
85th Percentile :	39 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4989
Percent in Pace :	78.2%
Number of Vehicles > 35 MPH :	3117
Percent of Vehicles > 35 MPH :	48.9%
Mean Speed(Average) :	35 MPH

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EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	0	0	2	18	9	3	0	0	0	0	0	32	43	39
01:00	0	0	0	1	9	5	4	4	0	0	0	0	0	23	45	37
02:00	0	0	0	0	3	5	5	0	0	0	0	0	0	13	42	38
03:00	0	0	0	0	4	7	6	3	0	0	0	0	0	20	44	39
04:00	0	0	0	1	6	23	10	4	**3**	0	0	0	0	47	44	39
05:00	0	0	0	1	25	51	27	6	0	0	0	0	0	110	42	38
06:00	0	0	1	**24**	45	128	75	5	0	0	0	0	0	278	42	37
07:00	0	0	0	21	105	**274**	**80**	6	0	0	0	0	0	**486**	40	36
08:00	0	0	5	8	**123**	203	66	**9**	0	0	0	0	0	414	40	36
09:00	0	2	**8**	21	97	174	65	2	0	0	0	0	0	369	40	36
10:00	0	**5**	6	7	79	171	64	7	0	0	0	0	0	339	41	36
11:00	0	0	1	15	111	151	65	2	0	0	0	0	0	345	41	36
12 PM	0	0	3	25	108	187	**65**	**5**	0	0	0	0	0	393	40	36
13:00	0	0	2	22	102	171	37	2	0	0	0	0	0	336	39	35
14:00	0	1	**9**	13	86	191	58	0	0	0	0	0	0	358	40	36
15:00	0	0	1	**30**	158	219	48	2	**1**	0	0	0	0	459	39	35
16:00	0	0	1	23	**214**	243	44	2	0	0	0	0	0	527	39	35
17:00	0	**2**	4	26	190	**263**	65	4	0	0	0	0	0	**554**	39	35
18:00	0	0	0	13	130	198	55	1	0	0	0	0	0	397	39	36
19:00	0	0	0	18	93	150	37	3	0	0	0	0	0	301	39	36
20:00	0	0	0	5	61	86	32	2	0	0	0	0	0	186	40	36
21:00	0	0	0	9	58	106	29	5	0	0	0	0	0	207	40	36
22:00	0	0	0	3	17	48	17	2	0	0	0	0	0	87	41	37
23:00	0	0	0	1	22	34	14	3	0	0	0	0	0	74	41	37
Total	0	10	41	287	1848	3106	977	82	4	0	0	0	0	6355		
%	0.0%	0.2%	0.6%	4.5%	29.1%	48.9%	15.4%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak		10:00	09:00	06:00	08:00	07:00	07:00	08:00	04:00					07:00		
Vol.		5	8	24	123	274	80	9	3					486		
PM Peak		17:00	14:00	15:00	16:00	17:00	12:00	12:00	15:00					17:00		
Vol.		2	9	30	214	263	65	5	1					554		

Pecent

15th Percentile :	31 MPH
50th Percentile :	36 MPH
85th Percentile :	40 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4954
Percent in Pace :	78.0%
Number of Vehicles > 35 MPH :	3547
Percent of Vehicles > 35 MPH :	55.8%
Mean Speed(Average) :	36 MPH

PRECISION DATA INDUSTRIES, LLC
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Old Colony Road (Route 123)
west of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	1	7	17	10	2	0	0	0	0	0	37	42	38
01:00	0	0	0	0	4	12	2	0	**1**	0	0	0	0	19	39	37
02:00	0	0	0	0	2	3	5	2	0	0	0	0	0	12	44	40
03:00	0	0	0	0	3	12	6	4	0	0	0	0	0	25	44	39
04:00	0	0	0	0	8	22	13	6	0	0	0	0	0	49	44	39
05:00	0	0	4	2	19	47	34	7	0	**1**	0	0	0	114	43	38
06:00	0	0	0	4	47	141	68	**8**	0	0	0	0	0	268	42	38
07:00	**7**	**3**	**8**	**25**	100	212	**85**	7	0	0	0	0	0	**447**	41	36
08:00	0	0	2	9	91	**223**	76	8	1	0	0	0	0	410	41	37
09:00	0	0	0	13	92	184	77	2	0	0	0	0	0	368	41	36
10:00	0	1	6	14	**104**	158	30	3	0	0	0	0	0	316	39	35
11:00	0	0	3	20	89	185	51	3	0	0	0	0	0	351	40	36
12 PM	0	1	2	19	97	192	52	5	0	0	0	0	0	368	40	36
13:00	**2**	**9**	3	25	113	168	55	3	0	0	0	0	0	378	40	35
14:00	0	2	7	**32**	104	202	65	**6**	0	0	0	0	0	418	40	36
15:00	0	1	5	23	171	269	45	1	0	0	0	0	0	515	39	35
16:00	1	1	**10**	27	**200**	267	**68**	1	0	0	0	0	0	**575**	39	35
17:00	0	0	5	32	166	**284**	61	3	0	0	0	0	0	551	39	35
18:00	2	1	5	13	77	196	68	6	0	0	0	0	0	368	41	36
19:00	0	0	2	18	100	139	50	2	**1**	0	0	0	0	312	40	36
20:00	0	0	0	11	92	140	29	2	0	0	0	0	0	274	39	36
21:00	0	0	0	3	33	114	37	1	0	0	0	0	0	188	41	37
22:00	0	0	0	3	12	50	28	5	0	0	0	0	0	98	42	38
23:00	0	0	0	0	10	41	16	3	0	0	0	0	0	70	42	38
Total	12	19	62	294	1741	3278	1031	90	3	1	0	0	0	6531		
%	0.2%	0.3%	0.9%	4.5%	26.7%	50.2%	15.8%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	10:00	08:00	07:00	06:00	01:00	05:00				07:00		
Vol.	7	3	8	25	104	223	85	8	1	1				447		
PM Peak	13:00	13:00	16:00	14:00	16:00	17:00	16:00	14:00	19:00					16:00		
Vol.	2	9	10	32	200	284	68	6	1					575		

Pecent

15th Percentile :	31 MPH
50th Percentile :	36 MPH
85th Percentile :	40 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	5019
Percent in Pace :	76.8%
Number of Vehicles > 35 MPH :	3747
Percent of Vehicles > 35 MPH :	57.4%
Mean Speed(Average) :	36 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Old Colony Road (Route 123)
west of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	35	3	0	0	0	0	0	0	0	0	0	0	38
01:00	0	19	4	0	0	0	0	0	0	0	0	0	0	23
02:00	0	19	2	0	0	0	0	0	0	0	0	0	0	21
03:00	0	6	2	0	1	0	0	1	0	0	0	0	0	10
04:00	0	42	8	1	0	0	0	2	0	0	0	0	0	53
05:00	3	101	31	0	8	1	0	8	0	0	0	0	0	152
06:00	3	198	47	1	4	2	0	3	2	0	0	0	0	260
07:00	1	334	77	4	5	3	0	2	1	0	0	0	0	427
08:00	1	396	85	2	18	8	0	0	1	0	0	0	0	511
09:00	5	301	68	3	20	4	0	6	4	0	0	0	0	411
10:00	2	231	68	1	19	3	0	2	1	0	0	0	0	327
11:00	3	248	66	0	15	2	0	3	0	0	0	0	0	337
12 PM	4	256	60	2	9	2	0	3	0	0	0	0	0	336
13:00	1	261	62	2	6	2	0	1	0	0	0	0	0	335
14:00	2	277	65	2	9	5	0	2	0	0	0	0	0	362
15:00	5	309	86	2	16	3	0	2	1	0	0	0	0	424
16:00	4	359	81	2	10	1	0	1	1	0	0	0	0	459
17:00	4	368	68	1	9	5	1	2	0	0	0	0	0	458
18:00	0	339	67	1	9	5	0	0	1	0	0	0	0	422
19:00	0	247	44	1	6	1	0	0	0	0	0	0	0	299
20:00	0	154	20	0	1	0	0	0	1	0	0	0	0	176
21:00	1	134	27	0	1	0	0	0	1	0	0	0	0	164
22:00	0	86	12	0	1	0	0	0	0	0	0	0	0	99
23:00	0	65	11	0	0	0	0	0	0	0	0	0	0	76
Total	39	4785	1064	25	167	47	1	38	14	0	0	0	0	6180
Percent	0.6%	77.4%	17.2%	0.4%	2.7%	0.8%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	07:00	09:00	08:00		05:00	09:00					08:00
Vol.	5	396	85	4	20	8		8	4					511
PM Peak	15:00	17:00	15:00	12:00	15:00	14:00	17:00	12:00	15:00					16:00
Vol.	5	368	86	2	16	5	1	3	1					459

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City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	33	5	0	1	0	0	0	0	0	0	0	0	39
01:00	0	17	1	0	0	0	0	0	1	0	0	0	0	19
02:00	0	33	2	0	0	0	0	0	0	0	0	0	0	35
03:00	0	18	3	0	1	0	0	0	0	0	0	0	0	22
04:00	0	26	11	0	0	0	0	3	2	0	0	0	0	42
05:00	2	89	31	1	10	1	0	7	0	0	0	0	0	141
06:00	4	209	50	0	4	1	0	4	2	0	0	0	0	274
07:00	4	349	72	3	6	2	0	1	1	0	0	0	0	438
08:00	4	422	82	2	12	1	0	0	2	0	0	0	0	525
09:00	6	292	81	6	20	0	0	7	2	0	0	0	0	414
10:00	2	232	51	1	13	2	0	0	1	0	0	0	0	302
11:00	8	291	78	2	18	3	0	1	0	0	0	0	0	401
12 PM	2	273	54	2	10	1	0	1	0	0	1	0	0	344
13:00	3	252	67	1	12	4	0	2	0	0	0	0	0	341
14:00	2	295	81	3	11	1	0	3	1	0	0	0	0	397
15:00	5	309	91	2	13	2	0	3	2	0	0	0	0	427
16:00	4	406	71	2	9	4	0	1	0	0	0	0	0	497
17:00	7	405	68	0	10	2	1	0	0	0	0	0	0	493
18:00	7	339	80	1	6	2	0	0	0	0	0	0	0	435
19:00	3	217	44	0	1	1	0	0	0	0	0	0	0	266
20:00	3	177	30	1	5	0	0	1	0	0	0	0	0	217
21:00	1	111	24	0	0	0	0	0	1	0	0	0	0	137
22:00	1	93	13	0	0	0	0	1	0	0	0	0	0	108
23:00	2	52	10	0	0	0	0	0	1	0	0	0	0	65
Total	70	4940	1100	27	162	27	1	35	16	0	1	0	0	6379
Percent	1.1%	77.4%	17.2%	0.4%	2.5%	0.4%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	09:00	09:00	11:00		05:00	04:00					08:00
Vol.	8	422	82	6	20	3		7	2					525
PM Peak	17:00	16:00	15:00	14:00	15:00	13:00	17:00	14:00	15:00		12:00			16:00
Vol.	7	406	91	3	13	4	1	3	2		1			497

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west of North Worcester Street
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81676 I-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	25	6	0	0	0	0	0	0	0	0	0	0	32
01:00	0	19	3	0	1	0	0	0	0	0	0	0	0	23
02:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
03:00	0	16	4	0	0	0	0	0	0	0	0	0	0	20
04:00	0	34	9	1	2	0	0	1	0	0	0	0	0	47
05:00	0	83	22	0	0	4	0	0	1	0	0	0	0	110
06:00	3	209	54	0	7	3	0	2	0	0	0	0	0	278
07:00	2	411	57	2	8	6	0	0	0	0	0	0	0	486
08:00	2	338	58	4	8	2	0	2	0	0	0	0	0	414
09:00	2	286	52	3	16	6	0	1	3	0	0	0	0	369
10:00	1	261	61	2	7	0	0	3	4	0	0	0	0	339
11:00	2	258	61	1	13	4	0	4	2	0	0	0	0	345
12 PM	2	316	59	0	7	3	0	5	1	0	0	0	0	393
13:00	1	263	47	3	14	1	0	5	2	0	0	0	0	336
14:00	0	282	60	2	5	1	0	7	1	0	0	0	0	358
15:00	1	376	65	2	8	2	0	5	0	0	0	0	0	459
16:00	0	438	67	2	14	3	0	2	1	0	0	0	0	527
17:00	1	475	63	2	6	3	0	4	0	0	0	0	0	554
18:00	2	336	46	0	10	1	0	0	2	0	0	0	0	397
19:00	1	256	38	0	5	0	0	1	0	0	0	0	0	301
20:00	0	166	16	0	2	0	0	1	1	0	0	0	0	186
21:00	1	185	20	0	1	0	0	0	0	0	0	0	0	207
22:00	0	75	12	0	0	0	0	0	0	0	0	0	0	87
23:00	1	62	9	0	1	0	0	0	1	0	0	0	0	74
Total	23	5182	890	24	135	39	0	43	19	0	0	0	0	6355
Percent	0.4%	81.5%	14.0%	0.4%	2.1%	0.6%	0.0%	0.7%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	10:00	08:00	09:00	07:00		11:00	10:00					07:00
Vol.	3	411	61	4	16	6		4	4					486
PM Peak	12:00	17:00	16:00	13:00	13:00	12:00		14:00	13:00					17:00
Vol.	2	475	67	3	14	3		7	2					554

PRECISION
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Old Colony Road (Route 123)
west of North Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	31	6	0	0	0	0	0	0	0	0	0	0	37
01:00	0	14	5	0	0	0	0	0	0	0	0	0	0	19
02:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12
03:00	0	17	7	0	0	1	0	0	0	0	0	0	0	25
04:00	0	34	9	1	2	1	0	0	2	0	0	0	0	49
05:00	1	85	22	0	4	1	0	0	0	1	0	0	0	114
06:00	2	205	52	0	6	2	0	1	0	0	0	0	0	268
07:00	4	371	56	1	11	2	0	0	2	0	0	0	0	447
08:00	6	339	47	2	11	2	0	3	0	0	0	0	0	410
09:00	3	296	48	3	14	3	0	0	0	0	0	0	1	368
10:00	3	253	46	1	8	1	0	3	1	0	0	0	0	316
11:00	3	292	43	0	8	2	0	2	1	0	0	0	0	351
12 PM	6	290	58	3	6	1	0	3	1	0	0	0	0	368
13:00	8	300	48	1	13	2	0	5	1	0	0	0	0	378
14:00	2	342	58	1	9	2	0	4	0	0	0	0	0	418
15:00	6	398	86	2	13	5	0	4	1	0	0	0	0	515
16:00	9	456	91	0	13	3	0	3	0	0	0	0	0	575
17:00	5	453	79	3	8	2	0	1	0	0	0	0	0	551
18:00	3	309	45	0	9	1	0	1	0	0	0	0	0	368
19:00	1	273	33	0	4	1	0	0	0	0	0	0	0	312
20:00	4	232	32	0	5	0	0	1	0	0	0	0	0	274
21:00	2	167	18	1	0	0	0	0	0	0	0	0	0	188
22:00	4	80	12	0	1	0	0	0	1	0	0	0	0	98
23:00	1	66	2	0	0	0	0	0	1	0	0	0	0	70
Total	73	5312	905	19	146	32	0	31	11	1	0	0	1	6531
Percent	1.1%	81.3%	13.9%	0.3%	2.2%	0.5%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	09:00	09:00	09:00		08:00	04:00	05:00			09:00	07:00
Vol.	6	371	56	3	14	3		3	2	1			1	447
PM Peak	16:00	16:00	16:00	12:00	13:00	15:00		13:00	12:00					16:00
Vol.	9	456	91	3	13	5		5	1					575

Dean Street
north of Harvey Street
City, State: Norton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 I-D volume
Site Code: 10111.31

Start	NB				SB				Combined				16-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	1		15		1		16		2		31		
12:15	1		14		2		11		3		25		
12:30	0		14		2		13		2		27		
12:45	0	2	10	53	0	5	6	46	0	7	16	99	
01:00	3		13		2		11		5		24		
01:15	1		11		2		18		3		29		
01:30	0		13		2		15		2		28		
01:45	0	4	16	53	1	7	9	53	1	11	25	106	
02:00	0		10		1		15		1		25		
02:15	0		18		2		18		2		36		
02:30	0		10		9		20		9		30		
02:45	0	0	14	52	0	12	13	66	0	12	27	118	
03:00	0		13		0		23		0		36		
03:15	0		12		0		20		0		32		
03:30	1		12		1		36		2		48		
03:45	2	3	24	61	0	1	19	98	2	4	43	159	
04:00	2		14		0		28		2		42		
04:15	1		20		0		31		1		51		
04:30	2		17		1		43		3		60		
04:45	5	10	22	73	1	2	37	139	6	12	59	212	
05:00	5		22		0		40		5		62		
05:15	8		19		1		50		9		69		
05:30	19		26		1		39		20		65		
05:45	25	57	20	87	3	5	34	163	28	62	54	250	
06:00	24		20		5		30		29		50		
06:15	23		18		1		28		24		46		
06:30	43		16		6		25		49		41		
06:45	41	131	23	77	14	26	18	101	55	157	41	178	
07:00	35		17		9		22		44		39		
07:15	54		13		12		17		66		30		
07:30	37		16		22		16		59		32		
07:45	37	163	5	51	15	58	19	74	52	221	24	125	
08:00	39		10		13		11		52		21		
08:15	28		10		9		16		37		26		
08:30	24		2		10		16		34		18		
08:45	31	122	3	25	14	46	13	56	45	168	16	81	
09:00	17		0		11		9		28		9		
09:15	20		5		8		7		28		12		
09:30	13		7		8		6		21		13		
09:45	20	70	3	15	9	36	7	29	29	106	10	44	
10:00	13		7		14		7		27		14		
10:15	12		3		13		8		25		11		
10:30	16		2		18		3		34		5		
10:45	14	55	1	13	13	58	8	26	27	113	9	39	
11:00	14		1		13		5		27		6		
11:15	15		5		7		4		22		9		
11:30	18		0		18		3		36		3		
11:45	20	67	2	8	18	56	5	17	38	123	7	25	
Total	684		568		312		868		996		1436		
Percent	68.7%		39.6%		31.3%		60.4%						
Day Total		1252				1180				2432			
Peak	06:30		04:45		07:15		04:30		07:15		04:45		
Vol.	173		89		62		170		229		255		
P.H.F.	0.801		0.856		0.705		0.850		0.867		0.924		

Dean Street
north of Harvey Street
City, State: Norton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 I-D volume
Site Code: 10111.31

Start	NB				SB				Combined				17-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	0		12		5		12		5		24		
12:15	1		15		3		12		4		27		
12:30	3		23		5		17		8		40		
12:45	1	5	20	70	1	14	17	58	2	19	37	128	
01:00	1		18		0		13		1		31		
01:15	0		13		0		6		0		19		
01:30	0		10		1		20		1		30		
01:45	0	1	14	55	0	1	9	48	0	2	23	103	
02:00	0		11		1		17		1		28		
02:15	0		19		0		14		0		33		
02:30	0		19		13		26		13		45		
02:45	0	0	15	64	1	15	18	75	1	15	33	139	
03:00	0		17		0		23		0		40		
03:15	1		11		0		21		1		32		
03:30	2		21		0		35		2		56		
03:45	2	5	23	72	0	0	23	102	2	5	46	174	
04:00	2		20		0		28		2		48		
04:15	2		15		1		33		3		48		
04:30	2		13		1		40		3		53		
04:45	5	11	30	78	1	3	29	130	6	14	59	208	
05:00	1		24		1		35		2		59		
05:15	9		22		3		49		12		71		
05:30	18		17		1		45		19		62		
05:45	22	50	19	82	4	9	36	165	26	59	55	247	
06:00	24		15		3		48		27		63		
06:15	21		20		3		39		24		59		
06:30	36		18		4		25		40		43		
06:45	32	113	11	64	13	23	25	137	45	136	36	201	
07:00	32		8		11		32		43		40		
07:15	39		12		13		23		52		35		
07:30	32		20		14		15		46		35		
07:45	29	132	8	48	11	49	18	88	40	181	26	136	
08:00	37		21		8		14		45		35		
08:15	20		6		13		8		33		14		
08:30	27		7		9		16		36		23		
08:45	27	111	7	41	9	39	12	50	36	150	19	91	
09:00	22		10		6		5		28		15		
09:15	15		7		6		9		21		16		
09:30	15		8		11		10		26		18		
09:45	11	63	1	26	9	32	5	29	20	95	6	55	
10:00	17		5		13		6		30		11		
10:15	30		5		13		10		43		15		
10:30	16		3		10		3		26		6		
10:45	12	75	2	15	8	44	3	22	20	119	5	37	
11:00	5		0		9		2		14		2		
11:15	12		2		12		2		24		4		
11:30	13		1		17		1		30		2		
11:45	12	42	2	5	13	51	3	8	25	93	5	13	
Total	608		620		280		912		888		1532		
Percent	68.5%		40.5%		31.5%		59.5%						
Day Total		1228				1192				2420			
Peak	06:30		04:45		06:45		05:15		06:45		04:45		
Vol.	139		93		51		178		186		251		
P.H.F.	0.891		0.775		0.911		0.908		0.894		0.884		

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Dean Street
north of Harvey Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	1	1	0	0	0	0	0	0	0	0	2	30	30
01:00	0	0	1	0	1	1	1	0	0	0	0	0	0	4	39	33
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	1	1	1	0	0	0	0	0	0	3	40	38
04:00	0	0	0	0	1	6	2	0	**1**	0	0	0	0	10	40	38
05:00	0	0	0	1	14	30	10	**2**	0	0	0	0	0	57	41	37
06:00	0	**1**	0	3	38	68	19	1	0	**1**	0	0	0	131	40	36
07:00	0	0	0	**8**	**43**	**87**	**23**	2	0	0	0	0	0	**163**	40	36
08:00	0	0	**7**	7	29	59	20	0	0	0	0	0	0	122	40	35
09:00	0	0	1	6	21	32	9	1	0	0	0	0	0	70	39	35
10:00	0	0	0	3	24	22	6	0	0	0	0	0	0	55	39	35
11:00	0	0	3	7	18	32	7	0	0	0	0	0	0	67	39	35
12 PM	0	**1**	1	2	15	29	5	0	0	0	0	0	0	53	39	35
13:00	0	0	0	**8**	**28**	16	1	0	0	0	0	0	0	53	37	33
14:00	0	1	0	1	16	20	**13**	1	0	0	0	0	0	52	41	36
15:00	1	0	2	3	23	26	6	0	0	0	0	0	0	61	39	34
16:00	0	0	**3**	8	22	30	10	0	0	0	0	0	0	73	39	35
17:00	**2**	1	2	5	26	**38**	9	**3**	**1**	0	0	0	0	**87**	39	35
18:00	0	0	3	3	26	32	11	2	0	0	0	0	0	77	40	35
19:00	0	0	2	5	13	23	7	1	0	0	0	0	0	51	39	35
20:00	0	0	1	2	12	9	1	0	0	0	0	0	0	25	37	33
21:00	0	0	0	2	5	7	1	0	0	0	0	0	0	15	38	34
22:00	0	0	1	0	6	2	2	1	1	0	0	0	0	13	41	36
23:00	0	0	0	2	2	3	0	1	0	0	0	0	0	8	37	35
Total	3	4	27	77	385	573	164	15	3	1	0	0	0	1252		
%	0.2%	0.3%	2.2%	6.2%	30.8%	45.8%	13.1%	1.2%	0.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak		06:00	08:00	07:00	07:00	07:00	07:00	05:00	04:00	06:00				07:00		
Vol.		1	7	8	43	87	23	2	1	1				163		
PM Peak	17:00	12:00	16:00	13:00	13:00	17:00	14:00	17:00	17:00					17:00		
Vol.	2	1	3	8	28	38	13	3	1					87		

Pecent

15th Percentile :	30 MPH
50th Percentile :	36 MPH
85th Percentile :	39 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	958
Percent in Pace :	76.5%
Number of Vehicles > 35 MPH :	641
Percent of Vehicles > 35 MPH :	51.2%
Mean Speed(Average) :	35 MPH

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Dean Street
north of Harvey Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	0	0	0	0	2	2	1	0	0	0	0	0	0	5	36	36
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	35	35
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	3	1	1	0	0	0	0	0	0	5	39	34
04:00	0	0	0	0	3	5	3	0	0	0	0	0	0	11	40	37
05:00	0	0	0	1	19	19	11	0	0	0	0	0	0	50	40	36
06:00	0	**1**	0	5	**43**	51	11	1	**1**	0	0	0	0	113	39	35
07:00	0	0	0	5	28	**70**	**29**	0	0	0	0	0	0	**132**	41	37
08:00	0	0	**3**	**6**	28	56	17	1	0	0	0	0	0	111	40	36
09:00	0	0	2	6	16	29	10	0	0	0	0	0	0	63	40	35
10:00	0	0	0	6	26	30	11	**2**	0	0	0	0	0	75	40	35
11:00	**1**	1	1	1	10	18	9	1	0	0	0	0	0	42	41	35
12 PM	0	0	1	**10**	25	25	7	**2**	0	0	0	0	0	70	39	34
13:00	0	0	0	3	18	29	4	1	0	0	0	0	0	55	39	35
14:00	0	**1**	1	5	24	25	6	2	0	0	0	0	0	64	39	35
15:00	0	1	**5**	3	21	34	8	0	0	0	0	0	0	72	39	34
16:00	0	0	1	2	21	**39**	**14**	1	0	0	0	0	0	78	40	36
17:00	0	0	2	6	**30**	33	10	1	0	0	0	0	0	**82**	39	35
18:00	0	0	0	5	25	25	8	1	0	0	0	0	0	64	39	35
19:00	0	1	1	4	17	21	4	0	0	0	0	0	0	48	39	34
20:00	0	0	0	2	11	25	2	1	0	0	0	0	0	41	39	36
21:00	0	0	0	3	5	13	4	0	**1**	0	0	0	0	26	40	36
22:00	0	0	1	1	5	3	3	2	0	0	0	0	0	15	42	36
23:00	0	0	0	0	0	2	2	0	0	**1**	0	0	0	5	41	43
Total	1	5	18	74	380	556	175	16	2	1	0	0	0	1228		
%	0.1%	0.4%	1.5%	6.0%	30.9%	45.3%	14.3%	1.3%	0.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak	11:00	06:00	08:00	08:00	06:00	07:00	07:00	10:00	06:00					07:00		
Vol.	1	1	3	6	43	70	29	2	1					132		
PM Peak		14:00	15:00	12:00	17:00	16:00	16:00	12:00	21:00	23:00				17:00		
Vol.		1	5	10	30	39	14	2	1	1				82		

Pecent

15th Percentile :	31 MPH
50th Percentile :	36 MPH
85th Percentile :	40 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	936
Percent in Pace :	76.2%
Number of Vehicles > 35 MPH :	638
Percent of Vehicles > 35 MPH :	52.0%
Mean Speed(Average) :	35 MPH

PRECISION DATA INDUSTRIES, LLC
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Dean Street
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81676 I-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	0	0	2	1	1	**1**	0	0	0	0	5	49	43
01:00	0	0	0	0	0	3	2	2	0	0	0	0	0	7	45	41
02:00	0	0	0	0	2	1	5	4	0	0	0	0	0	12	46	41
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	35	35
04:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2	45	44
05:00	0	0	**1**	0	1	1	2	0	0	0	0	0	0	5	40	35
06:00	0	0	0	0	4	10	9	3	0	0	0	0	0	26	43	39
07:00	0	0	0	1	7	**23**	16	**10**	1	0	0	0	0	**58**	45	40
08:00	**1**	0	0	**3**	14	9	14	5	0	0	0	0	0	46	43	37
09:00	0	0	0	1	11	15	7	2	0	0	0	0	0	36	41	37
10:00	0	0	0	3	13	22	**18**	2	0	0	0	0	0	58	42	37
11:00	0	0	0	2	**17**	19	17	1	0	0	0	0	0	56	42	37
12 PM	0	0	0	0	13	21	10	2	0	0	0	0	0	46	42	37
13:00	0	0	1	3	14	22	10	2	1	0	0	0	0	53	42	36
14:00	0	0	0	2	16	24	17	**7**	0	0	0	0	0	66	43	38
15:00	**1**	0	0	5	10	39	40	3	0	0	0	0	0	98	43	38
16:00	0	0	0	4	**25**	70	36	4	0	0	0	0	0	139	42	37
17:00	1	0	**2**	3	21	**75**	**53**	7	1	0	0	0	0	**163**	43	38
18:00	0	0	0	3	22	50	21	5	0	0	0	0	0	101	42	37
19:00	0	**1**	1	**8**	15	28	17	1	**2**	0	0	0	0	73	42	36
20:00	0	0	0	0	13	26	13	5	0	0	0	0	0	57	42	38
21:00	0	0	0	1	5	13	7	3	0	0	0	0	0	29	43	38
22:00	0	0	0	2	5	10	7	2	0	0	0	0	0	26	42	37
23:00	0	0	0	2	3	1	7	2	2	0	0	0	0	17	48	40
Total	3	1	5	43	231	485	330	74	8	0	0	0	0	1180		
%	0.3%	0.1%	0.4%	3.6%	19.6%	41.1%	28.0%	6.3%	0.7%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00		05:00	08:00	11:00	07:00	10:00	07:00	00:00					07:00		
Vol.	1		1	3	17	23	18	10	1					58		
PM Peak	15:00	19:00	17:00	19:00	16:00	17:00	17:00	14:00	19:00					17:00		
Vol.	1	1	2	8	25	75	53	7	2					163		

Pecent

15th Percentile :	32 MPH
50th Percentile :	38 MPH
85th Percentile :	43 MPH
95th Percentile :	46 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	815
Percent in Pace :	69.1%
Number of Vehicles > 35 MPH :	800
Percent of Vehicles > 35 MPH :	67.8%
Mean Speed(Average) :	38 MPH

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81676 I-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	0	0	0	0	1	8	2	0	**1**	**2**	0	0	0	14	54	41
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	35	35
02:00	0	0	0	0	0	3	2	**8**	1	1	0	0	0	15	49	45
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	2	0	1	0	0	0	0	3	50	44
05:00	0	**1**	**1**	1	1	4	1	0	0	0	0	0	0	9	38	32
06:00	0	1	0	0	0	14	5	2	1	0	0	0	0	23	44	38
07:00	0	0	0	0	**14**	16	15	4	0	0	0	0	0	49	43	38
08:00	0	0	0	1	4	15	**18**	1	0	0	0	0	0	39	43	39
09:00	0	0	0	2	10	11	5	3	1	0	0	0	0	32	43	37
10:00	0	1	0	3	11	17	11	1	0	0	0	0	0	44	41	36
11:00	0	0	1	**5**	10	**18**	12	4	1	0	0	0	0	**51**	43	37
12 PM	0	0	**1**	2	12	16	21	5	1	0	0	0	0	58	44	38
13:00	0	0	0	1	17	18	11	1	0	0	0	0	0	48	41	36
14:00	0	0	0	1	12	29	24	6	**3**	0	0	0	0	75	44	39
15:00	0	0	0	4	14	51	26	6	1	0	0	0	0	102	43	38
16:00	0	0	0	5	20	58	**42**	4	1	0	0	0	0	130	43	38
17:00	0	0	1	**7**	**38**	**65**	41	**10**	3	0	0	0	0	**165**	43	37
18:00	0	0	0	1	24	65	39	8	0	0	0	0	0	137	43	38
19:00	0	0	1	5	15	35	28	3	1	0	0	0	0	88	43	37
20:00	0	0	0	2	8	22	13	3	2	0	0	0	0	50	43	38
21:00	0	0	0	1	2	16	5	4	0	0	0	**1**	0	29	45	40
22:00	0	0	0	1	6	9	5	1	0	0	0	0	0	22	42	37
23:00	0	0	0	0	1	3	2	1	0	**1**	0	0	0	8	45	40
Total	0	3	5	42	220	494	330	75	18	4	0	1	0	1192		
%	0.0%	0.3%	0.4%	3.5%	18.5%	41.4%	27.7%	6.3%	1.5%	0.3%	0.0%	0.1%	0.0%			
AM Peak		05:00	05:00	11:00	07:00	11:00	08:00	02:00	00:00	00:00				11:00		
Vol.		1	1	5	14	18	18	8	1	2				51		
PM Peak			12:00	17:00	17:00	17:00	16:00	17:00	14:00	23:00		21:00		17:00		
Vol.			1	7	38	65	42	10	3	1		1		165		

Pecent

15th Percentile :	32 MPH
50th Percentile :	38 MPH
85th Percentile :	43 MPH
95th Percentile :	47 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	824
Percent in Pace :	69.1%
Number of Vehicles > 35 MPH :	823
Percent of Vehicles > 35 MPH :	69.0%
Mean Speed(Average) :	38 MPH

PRECISION
D A T A
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Dean Street
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Client: VHB/J. Quitter

81676 I-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	4	6	0	0	0	0	0	0	0	0	0	0	10
05:00	0	36	18	0	3	0	0	0	0	0	0	0	0	57
06:00	1	98	26	0	6	0	0	0	0	0	0	0	0	131
07:00	1	129	29	1	2	0	0	1	0	0	0	0	0	163
08:00	0	99	15	2	3	2	0	1	0	0	0	0	0	122
09:00	0	46	16	1	4	2	0	1	0	0	0	0	0	70
10:00	0	40	8	0	5	1	0	1	0	0	0	0	0	55
11:00	0	45	16	0	4	2	0	0	0	0	0	0	0	67
12 PM	0	36	16	0	1	0	0	0	0	0	0	0	0	53
13:00	1	30	15	0	5	1	0	1	0	0	0	0	0	53
14:00	0	35	14	1	1	0	0	1	0	0	0	0	0	52
15:00	1	49	10	0	1	0	0	0	0	0	0	0	0	61
16:00	0	53	18	1	1	0	0	0	0	0	0	0	0	73
17:00	1	74	10	0	1	0	0	1	0	0	0	0	0	87
18:00	1	55	18	0	2	0	0	1	0	0	0	0	0	77
19:00	0	43	8	0	0	0	0	0	0	0	0	0	0	51
20:00	0	19	6	0	0	0	0	0	0	0	0	0	0	25
21:00	1	12	2	0	0	0	0	0	0	0	0	0	0	15
22:00	1	9	3	0	0	0	0	0	0	0	0	0	0	13
23:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
Total	8	925	257	6	40	8	0	8	0	0	0	0	0	1252
Percent	0.6%	73.9%	20.5%	0.5%	3.2%	0.6%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	08:00	06:00	08:00		07:00						07:00
Vol.	1	129	29	2	6	2		1						163
PM Peak	13:00	17:00	16:00	14:00	13:00	13:00		13:00						17:00
Vol.	1	74	18	1	5	1		1						87

PRECISION DATA INDUSTRIES, LLC
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Dean Street
north of Harvey Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	0	5	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
04:00	0	5	6	0	0	0	0	0	0	0	0	0	0	11
05:00	0	36	12	0	2	0	0	0	0	0	0	0	0	50
06:00	0	80	27	1	5	0	0	0	0	0	0	0	0	113
07:00	1	105	23	0	3	0	0	0	0	0	0	0	0	132
08:00	0	96	10	1	3	0	0	1	0	0	0	0	0	111
09:00	0	41	17	2	2	0	0	1	0	0	0	0	0	63
10:00	0	58	14	1	2	0	0	0	0	0	0	0	0	75
11:00	0	26	12	0	4	0	0	0	0	0	0	0	0	42
12 PM	0	48	19	0	1	0	0	2	0	0	0	0	0	70
13:00	2	36	12	0	5	0	0	0	0	0	0	0	0	55
14:00	0	43	17	1	3	0	0	0	0	0	0	0	0	64
15:00	1	55	15	0	1	0	0	0	0	0	0	0	0	72
16:00	2	59	15	2	0	0	0	0	0	0	0	0	0	78
17:00	0	62	19	0	1	0	0	0	0	0	0	0	0	82
18:00	2	46	12	0	3	0	0	1	0	0	0	0	0	64
19:00	0	35	12	0	1	0	0	0	0	0	0	0	0	48
20:00	2	30	7	0	2	0	0	0	0	0	0	0	0	41
21:00	0	24	2	0	0	0	0	0	0	0	0	0	0	26
22:00	1	13	1	0	0	0	0	0	0	0	0	0	0	15
23:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
Total	11	910	256	8	38	0	0	5	0	0	0	0	0	1228
Percent	0.9%	74.1%	20.8%	0.7%	3.1%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	09:00	06:00			08:00						07:00
Vol.	1	105	27	2	5			1						132
PM Peak	13:00	17:00	12:00	16:00	13:00			12:00						17:00
Vol.	2	62	19	2	5			2						82

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Dean Street
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Client: VHB/J. Quitter

81676 I-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	0	4	1	0	0	0	0	0	0	0	0	0	0	5
01:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
02:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
05:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
06:00	0	21	2	1	2	0	0	0	0	0	0	0	0	26
07:00	0	42	14	0	1	1	0	0	0	0	0	0	0	58
08:00	1	26	12	3	3	1	0	0	0	0	0	0	0	46
09:00	0	24	9	0	2	1	0	0	0	0	0	0	0	36
10:00	1	32	21	0	3	0	0	1	0	0	0	0	0	58
11:00	0	33	17	0	6	0	0	0	0	0	0	0	0	56
12 PM	1	32	12	0	1	0	0	0	0	0	0	0	0	46
13:00	0	31	18	0	0	2	0	2	0	0	0	0	0	53
14:00	0	42	18	1	4	0	0	1	0	0	0	0	0	66
15:00	2	55	34	3	4	0	0	0	0	0	0	0	0	98
16:00	1	87	40	2	8	0	0	1	0	0	0	0	0	139
17:00	0	126	34	0	3	0	0	0	0	0	0	0	0	163
18:00	0	74	22	0	5	0	0	0	0	0	0	0	0	101
19:00	0	59	11	0	3	0	0	0	0	0	0	0	0	73
20:00	0	47	8	0	2	0	0	0	0	0	0	0	0	57
21:00	0	22	6	0	1	0	0	0	0	0	0	0	0	29
22:00	0	23	3	0	0	0	0	0	0	0	0	0	0	26
23:00	0	16	1	0	0	0	0	0	0	0	0	0	0	17
Total	6	817	288	10	49	5	0	5	0	0	0	0	0	1180
Percent	0.5%	69.2%	24.4%	0.8%	4.2%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	10:00	08:00	11:00	07:00		10:00						07:00
Vol.	1	42	21	3	6	1		1						58
PM Peak	15:00	17:00	16:00	15:00	16:00	13:00		13:00						17:00
Vol.	2	126	40	3	8	2		2						163

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Dean Street
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Client: VHB/J. Quitter

81676 I-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	0	11	3	0	0	0	0	0	0	0	0	0	0	14
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	10	4	0	1	0	0	0	0	0	0	0	0	15
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	1	0	0	0	0	0	3
05:00	0	7	1	0	0	0	0	0	1	0	0	0	0	9
06:00	1	19	2	0	1	0	0	0	0	0	0	0	0	23
07:00	0	33	14	0	2	0	0	0	0	0	0	0	0	49
08:00	1	24	9	3	1	0	0	0	0	1	0	0	0	39
09:00	0	21	8	0	2	0	0	1	0	0	0	0	0	32
10:00	1	26	16	0	1	0	0	0	0	0	0	0	0	44
11:00	0	33	13	1	4	0	0	0	0	0	0	0	0	51
12 PM	1	31	25	0	1	0	0	0	0	0	0	0	0	58
13:00	1	33	12	0	1	1	0	0	0	0	0	0	0	48
14:00	1	51	21	1	1	0	0	0	0	0	0	0	0	75
15:00	1	63	33	2	3	0	0	0	0	0	0	0	0	102
16:00	0	88	32	1	9	0	0	0	0	0	0	0	0	130
17:00	3	124	34	0	4	0	0	0	0	0	0	0	0	165
18:00	1	102	30	0	4	0	0	0	0	0	0	0	0	137
19:00	0	64	21	0	3	0	0	0	0	0	0	0	0	88
20:00	0	37	10	1	2	0	0	0	0	0	0	0	0	50
21:00	0	22	5	0	2	0	0	0	0	0	0	0	0	29
22:00	1	17	4	0	0	0	0	0	0	0	0	0	0	22
23:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
Total	12	826	298	9	42	1	0	2	1	1	0	0	0	1192
Percent	1.0%	69.3%	25.0%	0.8%	3.5%	0.1%	0.0%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	10:00	08:00	11:00			04:00	05:00	08:00				11:00
Vol.	1	33	16	3	4			1	1	1				51
PM Peak	17:00	17:00	17:00	15:00	16:00	13:00								17:00
Vol.	3	124	34	2	9	1								165

PRECISION
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Barrows Street
east of South Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-E class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	4	5	0	0	0	0	0	0	0	0	0	0	9
05:00	1	25	7	1	1	0	0	0	0	0	0	0	0	35
06:00	2	58	19	0	4	1	0	0	0	0	0	0	0	84
07:00	0	80	16	1	1	1	0	1	0	0	0	0	0	100
08:00	1	69	8	0	3	3	0	1	0	0	0	0	0	85
09:00	0	38	11	0	2	3	0	0	0	0	0	0	0	54
10:00	0	39	6	0	3	1	0	1	0	0	0	0	0	50
11:00	1	37	14	0	3	1	0	0	0	0	0	0	0	56
12 PM	1	34	19	1	3	0	0	0	0	0	0	0	0	58
13:00	2	33	18	0	3	2	0	2	0	0	0	0	0	60
14:00	2	49	14	2	1	1	0	0	0	0	0	0	0	69
15:00	3	53	10	2	2	2	0	0	0	0	0	0	0	72
16:00	1	60	16	0	2	0	0	0	0	0	0	0	0	79
17:00	2	80	18	0	2	0	0	1	0	0	0	0	0	103
18:00	2	61	21	0	0	0	0	0	0	0	0	0	0	84
19:00	0	39	17	0	3	0	0	0	0	0	0	0	0	59
20:00	0	36	12	0	1	0	0	0	0	0	0	0	0	49
21:00	1	17	1	0	0	0	0	0	0	0	0	0	0	19
22:00	3	19	4	0	0	0	0	0	0	0	0	0	0	26
23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Total	22	846	238	7	34	15	0	6	0	0	0	0	0	1168
Percent	1.9%	72.4%	20.4%	0.6%	2.9%	1.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	05:00	06:00	08:00		07:00						07:00
Vol.	2	80	19	1	4	3		1						100
PM Peak	15:00	17:00	18:00	14:00	12:00	13:00		13:00						17:00
Vol.	3	80	21	2	3	2		2						103

PRECISION
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Barrows Street
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81676 I-E class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	0	5	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
04:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
05:00	2	20	7	1	0	0	0	0	0	0	0	0	0	30
06:00	1	56	13	1	3	1	0	0	0	0	0	0	0	75
07:00	1	58	13	0	2	2	0	0	0	0	0	0	0	76
08:00	3	76	11	0	0	0	0	0	0	0	0	0	0	90
09:00	2	32	15	1	2	2	0	1	0	0	0	0	0	55
10:00	1	36	11	1	2	1	0	0	0	0	0	0	0	52
11:00	1	35	8	0	2	0	0	0	0	0	0	0	0	46
12 PM	1	43	15	1	3	0	0	2	0	0	0	0	0	65
13:00	3	47	9	0	7	0	0	0	0	0	0	0	0	66
14:00	0	52	9	1	2	1	0	1	0	0	0	0	0	66
15:00	1	67	13	2	1	0	0	1	0	0	0	0	0	85
16:00	1	53	14	0	2	0	0	0	0	0	0	0	0	70
17:00	2	68	15	0	2	0	0	0	0	0	0	0	0	87
18:00	2	72	21	0	1	0	0	0	0	0	0	0	0	96
19:00	2	47	9	0	1	0	0	0	0	0	0	0	0	59
20:00	1	28	10	0	1	0	0	0	0	0	0	0	0	40
21:00	1	22	3	0	0	0	0	0	0	0	0	0	0	26
22:00	3	27	0	0	0	0	0	0	0	0	0	0	0	30
23:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
Total	28	861	203	8	31	7	0	5	0	0	0	0	0	1143
Percent	2.4%	75.3%	17.8%	0.7%	2.7%	0.6%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	09:00	05:00	06:00	07:00		09:00						08:00
Vol.	3	76	15	1	3	2		1						90
PM Peak	13:00	18:00	18:00	15:00	13:00	14:00		12:00						18:00
Vol.	3	72	21	2	7	1		2						96

Barrows Street
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81676 I-E class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
06:00	3	35	7	0	1	0	0	0	0	0	0	0	0	46
07:00	1	78	24	3	2	1	0	0	0	0	0	0	0	109
08:00	1	54	21	2	2	1	0	0	0	0	0	0	0	81
09:00	0	33	6	1	2	2	0	0	0	0	0	0	0	44
10:00	1	41	9	0	1	1	0	1	0	0	0	0	0	54
11:00	0	46	16	0	4	0	0	0	0	0	0	0	0	66
12 PM	1	36	11	1	3	0	0	0	0	0	0	0	0	52
13:00	1	38	18	0	0	2	0	2	1	0	0	0	0	62
14:00	0	52	18	4	1	0	0	0	0	0	0	0	0	75
15:00	2	71	24	3	5	0	0	0	0	0	0	0	0	105
16:00	1	98	28	2	4	0	0	3	0	0	0	0	0	136
17:00	0	112	25	0	0	0	0	0	0	0	0	0	0	137
18:00	0	75	20	0	1	0	0	0	0	0	0	0	0	96
19:00	0	69	10	0	3	0	0	0	0	0	0	0	0	82
20:00	1	43	5	0	1	0	0	0	0	0	0	0	0	50
21:00	0	28	8	0	0	0	0	0	0	0	0	0	0	36
22:00	0	20	2	0	0	0	0	0	0	0	0	0	0	22
23:00	0	13	2	0	0	0	0	0	0	0	0	0	0	15
Total	12	962	256	16	30	7	0	6	1	0	0	0	0	1290
Percent	0.9%	74.6%	19.8%	1.2%	2.3%	0.5%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	11:00	09:00		10:00						07:00
Vol.	3	78	24	3	4	2		1						109
PM Peak	15:00	17:00	16:00	14:00	15:00	13:00		16:00	13:00					17:00
Vol.	2	112	28	4	5	2		3	1					137

Barrows Street
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Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	1	11	2	0	0	0	0	0	0	0	0	0	0	14
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
05:00	1	4	4	0	0	0	0	0	0	0	0	0	0	9
06:00	2	28	7	0	1	0	0	0	0	0	0	0	0	38
07:00	0	52	16	3	0	0	0	0	0	0	0	0	0	71
08:00	0	64	17	2	5	0	0	0	0	1	0	0	0	89
09:00	0	38	10	2	0	0	0	1	0	0	0	0	0	51
10:00	1	56	12	0	3	1	0	0	0	0	0	0	0	73
11:00	0	48	9	0	2	0	0	0	0	0	0	0	0	59
12 PM	0	44	17	0	4	1	0	0	0	0	0	0	0	66
13:00	0	46	11	0	2	1	0	0	0	0	0	0	0	60
14:00	1	62	12	4	2	0	0	0	0	0	0	0	0	81
15:00	0	68	25	5	3	1	0	0	0	0	0	0	0	102
16:00	0	96	22	0	5	0	0	0	0	0	0	0	0	123
17:00	1	118	22	0	0	0	0	0	0	0	0	0	0	141
18:00	1	88	19	0	2	0	0	0	0	0	0	0	0	110
19:00	0	57	9	0	2	0	0	0	0	0	0	0	0	68
20:00	0	39	12	0	3	0	0	0	0	0	0	0	0	54
21:00	1	23	3	0	1	0	0	0	0	0	0	0	0	28
22:00	1	20	4	0	0	0	0	0	0	0	0	0	0	25
23:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
Total	10	979	236	16	35	4	0	1	0	1	0	0	0	1282
Percent	0.8%	76.4%	18.4%	1.2%	2.7%	0.3%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	08:00	07:00	08:00	10:00		09:00		08:00				08:00
Vol.	2	64	17	3	5	1		1		1				89
PM Peak	14:00	17:00	15:00	15:00	16:00	12:00								17:00
Vol.	1	118	25	5	5	1								141

PRECISION DATA INDUSTRIES, LLC
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Barrows Street
east of South Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-E speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	2	2	0	0	0	0	0	0	0	0	4	30	30
01:00	0	0	1	1	1	1	0	0	0	0	0	0	0	4	34	30
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	3	0	0	0	0	0	0	0	0	3	32	31
04:00	0	1	1	0	7	0	0	0	0	0	0	0	0	9	33	29
05:00	0	**3**	6	3	15	8	0	0	0	0	0	0	0	35	36	30
06:00	0	3	3	**18**	46	12	0	**1**	**1**	0	0	0	0	84	35	31
07:00	0	1	2	11	51	31	4	0	0	0	0	0	0	100	38	33
08:00	1	0	11	16	46	10	1	0	0	0	0	0	0	85	34	30
09:00	1	1	1	10	30	10	1	0	0	0	0	0	0	54	36	31
10:00	2	0	2	13	27	6	0	0	0	0	0	0	0	50	34	30
11:00	0	0	2	17	25	11	1	0	0	0	0	0	0	56	36	31
12 PM	1	0	3	19	22	12	0	1	0	0	0	0	0	58	36	31
13:00	1	2	4	23	20	9	1	0	0	0	0	0	0	60	35	30
14:00	0	1	1	17	35	14	1	0	0	0	0	0	0	69	36	32
15:00	0	1	3	13	45	8	1	0	1	0	0	0	0	72	34	31
16:00	1	0	4	16	37	17	4	0	0	0	0	0	0	79	37	32
17:00	0	0	0	30	55	17	1	0	0	0	0	0	0	103	35	31
18:00	0	0	5	21	44	12	0	2	0	0	0	0	0	84	35	31
19:00	2	1	4	25	22	5	0	0	0	0	0	0	0	59	33	28
20:00	1	4	6	17	18	3	0	0	0	0	0	0	0	49	33	28
21:00	0	2	2	4	8	2	0	1	0	0	0	0	0	19	34	30
22:00	0	0	1	7	12	6	0	0	0	0	0	0	0	26	35	31
23:00	0	0	1	1	2	2	0	0	0	0	0	0	0	6	35	32
Total	10	20	63	284	573	196	15	5	2	0	0	0	0	1168		
%	0.9%	1.7%	5.4%	24.3%	49.1%	16.8%	1.3%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	05:00	08:00	06:00	07:00	07:00	07:00	06:00	06:00					07:00		
Vol.	2	3	11	18	51	31	4	1	1					100		
PM Peak	19:00	20:00	20:00	17:00	17:00	16:00	16:00	18:00	15:00					17:00		
Vol.	2	4	6	30	55	17	4	2	1					103		

Pecent

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	857
Percent in Pace :	73.4%
Number of Vehicles > 30 MPH :	676
Percent of Vehicles > 30 MPH :	57.9%
Mean Speed(Average) :	31 MPH

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Barrows Street
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City, State: Norton, MA
Client: VHB/J. Quitter

81676 I-E speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	**2**	0	0	0	1	2	0	0	0	0	0	0	0	5	35	22
01:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2	35	34
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	30	30
03:00	0	0	0	0	3	1	0	0	0	0	0	0	0	4	32	32
04:00	0	1	1	1	3	1	1	0	0	0	0	0	0	8	39	30
05:00	0	1	**4**	2	17	6	0	0	0	0	0	0	0	30	35	31
06:00	0	**3**	4	17	41	8	2	0	0	0	0	0	0	75	34	31
07:00	0	0	0	**18**	39	17	2	0	0	0	0	0	0	76	36	32
08:00	2	0	4	13	**44**	**25**	2	0	0	0	0	0	0	**90**	37	32
09:00	0	0	2	8	27	18	0	0	0	0	0	0	0	55	37	33
10:00	2	1	2	17	21	9	0	0	0	0	0	0	0	52	35	29
11:00	1	0	1	7	23	11	**3**	0	0	0	0	0	0	46	37	32
12 PM	1	1	4	23	25	8	**3**	0	0	0	0	0	0	65	35	30
13:00	0	1	**5**	16	34	7	3	0	0	0	0	0	0	66	34	31
14:00	0	0	3	21	31	10	1	0	0	0	0	0	0	66	35	31
15:00	**2**	0	5	19	43	15	1	0	0	0	0	0	0	85	35	31
16:00	0	0	3	16	35	**16**	0	0	0	0	0	0	0	70	36	32
17:00	0	0	1	25	45	14	1	0	0	0	0	0	**1**	87	35	32
18:00	0	0	4	**33**	**46**	13	0	0	0	0	0	0	0	**96**	34	31
19:00	0	1	4	19	28	7	0	0	0	0	0	0	0	59	34	30
20:00	0	0	2	13	22	3	0	0	0	0	0	0	0	40	34	30
21:00	0	0	4	8	9	4	1	0	0	0	0	0	0	26	35	30
22:00	2	**5**	5	6	7	2	2	0	0	0	0	**1**	0	30	34	28
23:00	0	1	1	3	2	2	0	0	0	0	0	0	0	9	35	29
Total	12	15	59	285	548	200	22	0	0	0	0	1	1	1143		
%	1.0%	1.3%	5.2%	24.9%	47.9%	17.5%	1.9%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%			
AM Peak	00:00	06:00	05:00	07:00	08:00	08:00	11:00							08:00		
Vol.	2	3	4	18	44	25	3							90		
PM Peak	15:00	22:00	13:00	18:00	18:00	16:00	12:00					22:00	17:00	18:00		
Vol.	2	5	5	33	46	16	3					1	1	96		

Pecent

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	833
Percent in Pace :	72.9%
Number of Vehicles > 30 MPH :	662
Percent of Vehicles > 30 MPH :	57.9%
Mean Speed(Average) :	31 MPH

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81676 I-E speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	0	2	0	0	**1**	0	0	0	0	0	3	45	35
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	35	35
02:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	30	30
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	35	35
04:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	35	35
05:00	0	**1**	2	1	7	2	1	0	0	0	0	0	0	14	35	30
06:00	0	1	1	13	17	11	3	0	0	0	0	0	0	46	37	32
07:00	0	1	**4**	10	**42**	**45**	7	0	0	0	0	0	0	**109**	38	34
08:00	1	1	2	12	30	21	**13**	1	0	0	0	0	0	81	40	34
09:00	**3**	1	0	3	24	11	2	0	0	0	0	0	0	44	37	31
10:00	0	1	1	9	21	17	5	0	0	0	0	0	0	54	38	33
11:00	0	1	3	**14**	23	22	3	0	0	0	0	0	0	66	38	32
12 PM	0	1	2	11	18	20	0	0	0	0	0	0	0	52	37	32
13:00	1	4	**4**	9	25	15	3	**1**	0	0	0	0	0	62	38	31
14:00	0	3	2	12	27	26	5	0	0	0	0	0	0	75	38	33
15:00	2	4	2	11	51	30	5	0	0	0	0	0	0	105	38	32
16:00	0	1	4	14	**70**	41	**6**	0	0	0	0	0	0	136	38	33
17:00	0	0	0	12	61	**59**	5	0	0	0	0	0	0	**137**	38	34
18:00	0	4	1	**23**	39	24	5	0	0	0	0	0	0	96	37	32
19:00	0	0	3	21	43	12	3	0	0	0	0	0	0	82	35	31
20:00	0	0	1	13	17	15	4	0	0	0	0	0	0	50	38	33
21:00	**3**	**5**	0	2	11	10	5	0	0	0	0	0	0	36	39	31
22:00	2	1	1	2	6	9	1	0	0	0	0	0	0	22	38	30
23:00	0	1	0	2	4	6	2	0	0	0	0	0	0	15	39	34
Total	12	31	33	195	539	399	78	3	0	0	0	0	0	1290		
%	0.9%	2.4%	2.6%	15.1%	41.8%	30.9%	6.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	05:00	07:00	11:00	07:00	07:00	08:00	00:00						07:00		
Vol.	3	1	4	14	42	45	13	1						109		
PM Peak	21:00	21:00	13:00	18:00	16:00	17:00	16:00	13:00						17:00		
Vol.	3	5	4	23	70	59	6	1						137		

Pecent

15th Percentile :	27 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	40 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	938
Percent in Pace :	72.7%
Number of Vehicles > 30 MPH :	911
Percent of Vehicles > 30 MPH :	70.6%
Mean Speed(Average) :	33 MPH

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81676 I-E speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	0	0	0	3	5	1	3	**2**	0	0	0	0	0	14	42	36
01:00	0	0	0	0	2	0	0	0	0	0	0	0	0	2	31	30
02:00	0	0	0	1	2	1	0	0	0	0	0	0	0	4	31	31
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	1	2	0	0	0	0	0	0	4	40	38
05:00	**1**	0	0	2	5	1	0	0	0	0	0	0	0	9	34	28
06:00	0	1	0	3	23	9	2	0	0	0	0	0	0	38	37	33
07:00	0	1	3	8	24	24	**11**	0	0	0	0	0	0	71	39	34
08:00	0	2	0	10	**37**	**35**	5	0	0	0	0	0	0	**89**	38	34
09:00	1	0	0	10	24	12	3	1	0	0	0	0	0	51	37	32
10:00	0	**3**	**4**	**17**	31	14	4	0	0	0	0	0	0	73	37	31
11:00	0	1	1	7	25	17	8	0	0	0	0	0	0	59	39	34
12 PM	0	1	1	9	28	19	**8**	0	0	0	0	0	0	66	39	34
13:00	0	1	8	8	23	12	8	0	0	0	0	0	0	60	39	32
14:00	0	2	2	19	33	19	6	0	0	0	0	0	0	81	38	32
15:00	0	**6**	1	18	42	29	6	0	0	0	0	0	0	102	38	32
16:00	**1**	2	**9**	12	46	46	7	0	0	0	0	0	0	123	38	33
17:00	0	0	1	15	**68**	**49**	8	0	0	0	0	0	0	**141**	38	34
18:00	0	1	1	**20**	54	29	5	0	0	0	0	0	0	110	37	33
19:00	0	2	1	11	33	20	1	0	0	0	0	0	0	68	37	32
20:00	0	0	4	10	20	17	3	0	0	0	0	0	0	54	38	32
21:00	0	3	1	4	13	5	1	**1**	0	0	0	0	0	28	37	31
22:00	1	3	1	4	9	5	1	1	0	0	0	0	0	25	37	30
23:00	0	2	0	1	3	3	1	0	0	0	0	0	0	10	36	31
Total	4	31	38	192	551	368	93	5	0	0	0	0	0	1282		
%	0.3%	2.4%	3.0%	15.0%	43.0%	28.7%	7.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	10:00	10:00	10:00	08:00	08:00	07:00	00:00						08:00		
Vol.	1	3	4	17	37	35	11	2						89		
PM Peak	16:00	15:00	16:00	18:00	17:00	17:00	12:00	21:00						17:00		
Vol.	1	6	9	20	68	49	8	1						141		

Pecent

15th Percentile :	28 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	919
Percent in Pace :	71.7%
Number of Vehicles > 30 MPH :	906
Percent of Vehicles > 30 MPH :	70.7%
Mean Speed(Average) :	33 MPH

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81676 I-E volume
Site Code: 10111.31

Start	EB				WB				Combined				16-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	1		15		0		10		1		25		
12:15	3		9		2		13		5		22		
12:30	0		12		1		13		1		25		
12:45	0	4	22	58	0	3	16	52	0	7	38	110	
01:00	2		15		0		18		2		33		
01:15	0		17		0		16		0		33		
01:30	0		11		1		14		1		25		
01:45	2	4	17	60	0	1	14	62	2	5	31	122	
02:00	0		14		1		25		1		39		
02:15	0		22		1		15		1		37		
02:30	0		15		0		19		0		34		
02:45	0	0	18	69	0	2	16	75	0	2	34	144	
03:00	0		12		1		22		1		34		
03:15	0		22		0		25		0		47		
03:30	2		19		0		36		2		55		
03:45	1	3	19	72	0	1	22	105	1	4	41	177	
04:00	1		19		0		34		1		53		
04:15	1		23		0		29		1		52		
04:30	1		19		0		36		1		55		
04:45	6	9	18	79	1	1	37	136	7	10	55	215	
05:00	4		26		6		39		10		65		
05:15	6		27		1		40		7		67		
05:30	11		24		3		30		14		54		
05:45	14	35	26	103	4	14	28	137	18	49	54	240	
06:00	11		19		6		24		17		43		
06:15	13		23		8		17		21		40		
06:30	34		16		11		21		45		37		
06:45	26	84	26	84	21	46	34	96	47	130	60	180	
07:00	27		14		21		24		48		38		
07:15	18		20		38		24		56		44		
07:30	36		14		29		18		65		32		
07:45	19	100	11	59	21	109	16	82	40	209	27	141	
08:00	25		21		29		14		54		35		
08:15	23		14		18		13		41		27		
08:30	17		6		14		11		31		17		
08:45	20	85	8	49	20	81	12	50	40	166	20	99	
09:00	16		2		14		9		30		11		
09:15	13		4		10		7		23		11		
09:30	18		8		6		12		24		20		
09:45	7	54	5	19	14	44	8	36	21	98	13	55	
10:00	9		11		9		6		18		17		
10:15	13		10		10		5		23		15		
10:30	15		1		18		3		33		4		
10:45	13	50	4	26	17	54	8	22	30	104	12	48	
11:00	13		0		11		7		24		7		
11:15	9		4		10		2		19		6		
11:30	17		0		21		2		38		2		
11:45	17	56	2	6	24	66	4	15	41	122	6	21	
Total	484		684		422		868		906		1552		
Percent	53.4%		44.1%		46.6%		55.9%						
Day Total		1168				1290				2458			
Peak	06:45		05:00		07:15		04:30		06:45		04:30		
Vol.	107		103		117		152		216		242		
P.H.F.	0.743		0.954		0.770		0.950		0.831		0.903		

Barrows Street
east of South Worcester Street
City, State: Norton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 I-E volume
Site Code: 10111.31

Start	EB				WB				Combined				17-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	1		14		4		17		5		31		
12:15	2		14		5		11		7		25		
12:30	2		18		4		17		6		35		
12:45	0	5	19	65	1	14	21	66	1	19	40	131	
01:00	0		12		0		19		0		31		
01:15	0		18		1		11		1		29		
01:30	0		21		1		15		1		36		
01:45	2	2	15	66	0	2	15	60	2	4	30	126	
02:00	1		9		1		18		2		27		
02:15	0		13		1		19		1		32		
02:30	0		21		1		26		1		47		
02:45	0	1	23	66	1	4	18	81	1	5	41	147	
03:00	0		21		0		26		0		47		
03:15	1		19		0		30		1		49		
03:30	2		21		0		24		2		45		
03:45	1	4	24	85	0	0	22	102	1	4	46	187	
04:00	3		15		0		31		3		46		
04:15	3		9		1		23		4		32		
04:30	0		19		0		34		0		53		
04:45	2	8	27	70	3	4	35	123	5	12	62	193	
05:00	3		26		4		33		7		59		
05:15	3		24		2		42		5		66		
05:30	11		24		1		34		12		58		
05:45	13	30	13	87	2	9	32	141	15	39	45	228	
06:00	19		19		5		26		24		45		
06:15	12		33		9		28		21		61		
06:30	22		22		9		32		31		54		
06:45	22	75	22	96	15	38	24	110	37	113	46	206	
07:00	19		16		17		27		36		43		
07:15	18		10		21		17		39		27		
07:30	22		20		13		9		35		29		
07:45	17	76	13	59	20	71	15	68	37	147	28	127	
08:00	23		16		22		7		45		23		
08:15	20		9		26		14		46		23		
08:30	19		8		23		16		42		24		
08:45	28	90	7	40	18	89	17	54	46	179	24	94	
09:00	15		10		18		8		33		18		
09:15	17		4		10		8		27		12		
09:30	11		8		7		5		18		13		
09:45	12	55	4	26	16	51	7	28	28	106	11	54	
10:00	15		16		19		10		34		26		
10:15	13		6		26		10		39		16		
10:30	13		4		15		2		28		6		
10:45	11	52	4	30	13	73	3	25	24	125	7	55	
11:00	7		0		10		5		17		5		
11:15	11		3		14		3		25		6		
11:30	16		3		21		1		37		4		
11:45	12	46	3	9	14	59	1	10	26	105	4	19	
Total	444		699		414		868		858		1567		
Percent	51.7%		44.6%		48.3%		55.4%						
Day Total		1143				1282				2425			
Peak	08:00		04:45		07:45		04:30		08:00		04:45		
Vol.	90		101		91		144		179		245		
P.H.F.	0.804		0.935		0.875		0.857		0.973		0.928		

PRECISION DATA INDUSTRIES, LLC
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/9/08 thru Wed 9/10/08	81676	Raynham, MA

Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676L-A Volume
Site Code: 10111.31

Start	NB				SB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	18		101		21		104		39		205		
12:15	6		120		19		90		25		210		
12:30	8		119		15		103		23		222		
12:45	13	45	98	438	8	63	109	406	21	108	207	844	
01:00	13		101		10		134		23		235		
01:15	14		98		10		114		24		212		
01:30	18		98		9		137		27		235		
01:45	8	53	119	416	1	30	122	507	9	83	241	923	
02:00	10		118		7		116		17		234		
02:15	2		98		10		134		12		232		
02:30	11		133		2		125		13		258		
02:45	7	30	136	485	4	23	177	552	11	53	313	1037	
03:00	9		99		7		150		16		249		
03:15	11		113		4		184		15		297		
03:30	12		105		8		164		20		269		
03:45	16	48	94	411	11	30	207	705	27	78	301	1116	
04:00	14		111		4		213		18		324		
04:15	20		115		5		233		25		348		
04:30	24		112		6		226		30		338		
04:45	50	108	137	475	10	25	262	934	60	133	399	1409	
05:00	43		121		20		259		63		380		
05:15	88		136		13		310		101		446		
05:30	84		98		27		273		111		371		
05:45	135	350	111	466	27	87	180	1022	162	437	291	1488	
06:00	163		93		26		194		189		287		
06:15	160		84		47		191		207		275		
06:30	192		91		56		170		248		261		
06:45	237	752	80	348	72	201	135	690	309	953	215	1038	
07:00	245		60		69		105		314		165		
07:15	257		62		65		126		322		188		
07:30	253		60		101		105		354		165		
07:45	285	1040	59	241	84	319	83	419	369	1359	142	660	
08:00	244		60		70		77		314		137		
08:15	235		37		78		71		313		108		
08:30	221		40		68		70		289		110		
08:45	202	902	53	190	99	315	62	280	301	1217	115	470	
09:00	146		55		96		61		242		116		
09:15	129		38		86		46		215		84		
09:30	113		35		83		51		196		86		
09:45	117	505	37	165	99	364	49	207	216	869	86	372	
10:00	100		35		75		41		175		76		
10:15	102		29		99		40		201		69		
10:30	99		23		91		40		190		63		
10:45	95	396	26	113	100	365	30	151	195	761	56	264	
11:00	87		24		85		28		172		52		
11:15	88		29		85		26		173		55		
11:30	97		19		95		28		192		47		
11:45	100	372	24	96	89	354	31	113	189	726	55	209	
Total	4601		3844		2176		5986		6777		9830		
Percent	67.9%		39.1%		32.1%		60.9%						
Day Total		8445				8162				16607			
Peak	07:00		04:30		10:15		04:45		07:00		04:45		
Vol.	1040		506		375		1104		1359		1596		
P.H.F.	0.912		0.923		0.938		0.890		0.921		0.895		

Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676L-A Volume
Site Code: 10111.31

Start	NB				SB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	14		111		15		145		29		256		
12:15	8		112		20		144		28		256		
12:30	10		104		15		125		25		229		
12:45	13	45	84	411	9	59	109	523	22	104	193	934	
01:00	11		94		6		126		17		220		
01:15	10		127		17		110		27		237		
01:30	19		110		15		110		34		220		
01:45	10	50	111	442	7	45	124	470	17	95	235	912	
02:00	7		127		4		137		11		264		
02:15	6		128		10		130		16		258		
02:30	6		134		0		134		6		268		
02:45	2	21	122	511	5	19	177	578	7	40	299	1089	
03:00	6		93		4		147		10		240		
03:15	7		124		3		200		10		324		
03:30	9		155		3		179		12		334		
03:45	13	35	134	506	6	16	236	762	19	51	370	1268	
04:00	18		115		5		204		23		319		
04:15	13		147		3		252		16		399		
04:30	26		128		9		225		35		353		
04:45	40	97	147	537	12	29	249	930	52	126	396	1467	
05:00	40		133		9		241		49		374		
05:15	75		133		20		265		95		398		
05:30	91		133		25		230		116		363		
05:45	143	349	104	503	38	92	223	959	181	441	327	1462	
06:00	168		121		44		192		212		313		
06:15	157		93		46		201		203		294		
06:30	218		99		61		159		279		258		
06:45	264	807	73	386	60	211	158	710	324	1018	231	1096	
07:00	218		82		69		112		287		194		
07:15	262		88		86		112		348		200		
07:30	299		62		105		120		404		182		
07:45	325	1104	51	283	92	352	94	438	417	1456	145	721	
08:00	299		76		88		88		387		164		
08:15	269		64		95		89		364		153		
08:30	216		42		68		77		284		119		
08:45	178	962	38	220	115	366	63	317	293	1328	101	537	
09:00	157		42		90		66		247		108		
09:15	131		48		86		57		217		105		
09:30	126		42		107		64		233		106		
09:45	126	540	35	167	88	371	52	239	214	911	87	406	
10:00	115		37		84		35		199		72		
10:15	100		21		92		55		192		76		
10:30	97		28		81		46		178		74		
10:45	102	414	25	111	91	348	32	168	193	762	57	279	
11:00	90		23		108		36		198		59		
11:15	72		22		92		37		164		59		
11:30	97		27		102		25		199		52		
11:45	88	347	24	96	136	438	30	128	224	785	54	224	
Total	4771		4173		2346		6222		7117		10395		
Percent	67.0%		40.1%		33.0%		59.9%						
Day Total		8944				8568				17512			
Peak	07:30		04:15		11:00		04:45		07:30		04:45		
Vol.	1192		555		438		985		1572		1531		
P.H.F.	0.917		0.944		0.805		0.929		0.942		0.962		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	Ave. Speed
09/09/ 08	0	0	0	0	0	7	10	15	11	2	0	0	0	45	46
01:00	0	0	1	0	1	9	9	17	14	1	0	0	1	53	46
02:00	0	0	0	0	0	1	4	10	13	2	0	0	0	30	49
03:00	1	0	0	0	0	0	5	21	14	6	1	0	0	48	48
04:00	0	0	0	0	0	2	10	47	29	16	3	1	0	108	50
05:00	1	0	0	0	1	2	43	168	112	16	6	1	0	350	49
06:00	10	0	0	0	0	26	217	397	89	12	1	0	0	752	45
07:00	29	0	0	0	1	88	464	389	64	4	1	0	0	1040	43
08:00	23	0	0	0	18	61	353	362	75	8	1	0	1	902	44
09:00	20	0	0	2	5	39	201	183	50	4	1	0	0	505	43
10:00	19	0	0	0	8	26	137	162	38	6	0	0	0	396	43
11:00	10	0	0	0	14	48	135	122	36	7	0	0	0	372	43
12 PM	16	0	0	0	1	28	164	185	37	7	0	0	0	438	44
13:00	17	0	0	0	34	80	146	105	29	3	2	0	0	416	41
14:00	21	0	0	1	14	59	208	154	28	0	0	0	0	485	42
15:00	23	0	0	1	19	50	189	102	24	3	0	0	0	411	41
16:00	49	0	0	0	9	73	166	128	45	5	0	0	0	475	40
17:00	34	0	0	0	0	35	185	168	40	2	2	0	0	466	42
18:00	26	0	0	1	10	31	124	121	25	10	0	0	0	348	42
19:00	4	0	0	0	3	33	81	91	25	4	0	0	0	241	44
20:00	5	0	0	0	1	20	71	69	19	3	1	1	0	190	44
21:00	3	0	0	0	0	21	56	61	15	8	1	0	0	165	44
22:00	1	0	0	0	0	6	29	47	24	6	0	0	0	113	46
23:00	0	0	0	0	2	11	36	33	12	2	0	0	0	96	44
Total	312	0	1	5	141	756	3043	3157	868	137	20	3	2	8445	
Percent	3.7%	0.0%	0.0%	0.1%	1.7%	9.0%	36.0%	37.4%	10.3%	1.6%	0.2%	0.0%	0.0%		

%ile Speed	15th Percentile :	40 MPH
	50th Percentile :	44 MPH
	85th Percentile :	49 MPH
	95th Percentile :	53 MPH
Stats	10 MPH Pace Speed :	40-49 MPH
	Number in Pace :	6200
	Percent in Pace :	73.4%
	Number of Vehicles > 45 MPH :	3555
	Percent of Vehicles > 45 MPH :	42.1%
	Mean Speed(Average) :	43 MPH

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Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	Ave. Speed
09/10/08	1	0	0	0	0	6	16	12	9	1	0	0	0	45	44
01:00	1	0	0	0	4	4	13	20	7	1	0	0	0	50	44
02:00	0	0	0	0	0	4	6	8	3	0	0	0	0	21	44
03:00	0	0	0	0	0	0	5	15	12	2	1	0	0	35	49
04:00	0	0	0	0	0	1	11	43	28	10	4	0	0	97	49
05:00	1	0	0	1	0	1	65	151	101	24	4	1	0	349	48
06:00	15	0	0	0	6	16	184	380	175	27	3	1	0	807	46
07:00	26	0	0	6	22	72	399	466	105	7	1	0	0	1104	44
08:00	26	0	0	0	3	42	311	457	114	9	0	0	0	962	45
09:00	12	0	0	0	0	20	149	252	98	9	0	0	0	540	45
10:00	16	0	0	0	3	43	133	161	51	6	1	0	0	414	43
11:00	10	0	0	0	5	18	124	130	49	10	1	0	0	347	44
12 PM	17	0	0	0	7	25	138	177	40	6	1	0	0	411	43
13:00	20	0	0	5	11	49	166	150	34	6	1	0	0	442	42
14:00	23	0	0	2	28	56	195	165	33	8	1	0	0	511	42
15:00	34	0	0	5	7	63	167	186	37	6	1	0	0	506	42
16:00	44	0	0	1	12	49	216	159	47	8	1	0	0	537	41
17:00	29	0	0	0	2	30	119	244	67	12	0	0	0	503	44
18:00	16	0	0	0	4	21	106	167	64	8	0	0	0	386	44
19:00	5	0	0	1	4	34	104	93	36	5	1	0	0	283	44
20:00	5	0	0	0	3	11	74	88	32	6	1	0	0	220	45
21:00	1	0	0	0	0	10	50	66	34	3	2	1	0	167	46
22:00	0	0	0	0	0	4	28	39	27	8	4	1	0	111	48
23:00	2	0	0	0	2	6	25	33	23	3	2	0	0	96	46
Total	304	0	0	21	123	585	2804	3662	1226	185	30	4	0	8944	
Percent	3.4%	0.0%	0.0%	0.2%	1.4%	6.5%	31.4%	40.9%	13.7%	2.1%	0.3%	0.0%	0.0%		

%ile Speed	15th Percentile :	40 MPH
	50th Percentile :	45 MPH
	85th Percentile :	50 MPH
	95th Percentile :	54 MPH
Stats	10 MPH Pace Speed :	40-49 MPH
	Number in Pace :	6466
	Percent in Pace :	72.3%
	Number of Vehicles > 45 MPH :	4374
	Percent of Vehicles > 45 MPH :	48.9%
	Mean Speed(Average) :	44 MPH

PRECISION
D A T A
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Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	Ave. Speed
09/09/ 08	1	0	0	0	0	0	4	27	20	9	2	0	0	63	49
01:00	0	0	0	0	0	2	6	10	8	3	1	0	0	30	48
02:00	0	0	0	0	0	0	1	11	7	1	2	1	0	23	51
03:00	1	0	0	0	0	0	5	6	8	8	1	0	1	30	50
04:00	0	0	0	0	0	1	1	9	6	5	3	0	0	25	51
05:00	1	0	0	0	0	2	13	42	21	6	2	0	0	87	48
06:00	14	0	0	0	0	3	45	100	37	2	0	0	0	201	44
07:00	33	0	0	0	3	17	71	125	64	5	1	0	0	319	42
08:00	16	0	0	0	0	18	120	118	38	5	0	0	0	315	43
09:00	22	0	0	0	4	31	109	142	49	7	0	0	0	364	43
10:00	19	0	0	0	4	13	127	159	42	1	0	0	0	365	43
11:00	8	0	0	0	9	34	140	135	22	6	0	0	0	354	43
12 PM	14	0	0	0	7	44	156	132	49	4	0	0	0	406	43
13:00	15	0	0	0	5	88	201	165	30	3	0	0	0	507	42
14:00	26	0	0	0	5	69	207	209	31	5	0	0	0	552	42
15:00	29	0	0	3	12	116	244	256	41	4	0	0	0	705	42
16:00	45	0	0	1	14	143	429	262	39	1	0	0	0	934	41
17:00	47	0	0	0	2	127	432	359	52	3	0	0	0	1022	42
18:00	24	0	0	1	18	37	238	301	68	3	0	0	0	690	43
19:00	8	0	0	0	0	23	169	159	52	8	0	0	0	419	44
20:00	4	0	0	0	0	7	67	151	42	8	1	0	0	280	46
21:00	3	0	0	0	0	10	45	95	42	9	2	1	0	207	46
22:00	1	0	0	0	1	2	24	62	48	12	0	0	1	151	48
23:00	0	0	0	0	1	6	27	50	26	3	0	0	0	113	47
Total	331	0	0	5	85	793	2881	3085	842	121	15	2	2	8162	
Percent	4.1%	0.0%	0.0%	0.1%	1.0%	9.7%	35.3%	37.8%	10.3%	1.5%	0.2%	0.0%	0.0%		

%ile Speed	15th Percentile :	40 MPH
	50th Percentile :	44 MPH
	85th Percentile :	49 MPH
	95th Percentile :	53 MPH
Stats	10 MPH Pace Speed :	40-49 MPH
	Number in Pace :	5966
	Percent in Pace :	73.1%
	Number of Vehicles > 45 MPH :	3450
	Percent of Vehicles > 45 MPH :	42.3%
	Mean Speed(Average) :	43 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	Ave. Speed
09/10/08	1	0	0	0	0	2	8	23	19	5	1	0	0	59	48
01:00	0	0	0	0	0	1	9	17	11	5	1	0	1	45	49
02:00	0	0	0	0	0	1	8	6	1	2	1	0	0	19	46
03:00	0	0	0	0	0	1	3	7	2	3	0	0	0	16	48
04:00	0	0	0	0	0	3	4	10	7	4	0	1	0	29	48
05:00	8	0	0	0	0	0	17	36	21	7	2	1	0	92	45
06:00	9	0	0	0	0	6	44	90	51	9	2	0	0	211	46
07:00	35	0	0	5	9	20	79	134	61	8	1	0	0	352	42
08:00	19	0	0	0	0	20	141	151	32	3	0	0	0	366	43
09:00	11	0	0	0	7	33	116	156	47	1	0	0	0	371	44
10:00	12	0	0	0	0	19	113	152	41	9	2	0	0	348	44
11:00	13	0	0	2	5	23	142	180	63	10	0	0	0	438	44
12 PM	22	0	0	0	3	20	167	238	60	10	1	2	0	523	44
13:00	20	0	0	0	8	51	144	182	57	4	4	0	0	470	43
14:00	35	0	0	0	0	37	176	245	81	3	1	0	0	578	43
15:00	32	0	0	3	3	45	273	312	90	4	0	0	0	762	43
16:00	50	0	0	0	6	46	295	414	109	9	1	0	0	930	43
17:00	33	0	0	0	3	68	291	417	128	17	2	0	0	959	44
18:00	33	0	1	0	0	24	226	301	107	17	1	0	0	710	44
19:00	12	0	0	0	0	21	119	183	87	12	4	0	0	438	45
20:00	7	0	0	0	0	6	51	132	99	18	4	0	0	317	47
21:00	2	0	0	0	0	4	48	101	70	10	2	2	0	239	48
22:00	0	0	0	0	0	10	21	48	67	18	4	0	0	168	49
23:00	0	0	0	0	0	0	18	47	48	10	3	1	1	128	50
Total	354	0	1	10	44	461	2513	3582	1359	198	37	7	2	8568	
Percent	4.1%	0.0%	0.0%	0.1%	0.5%	5.4%	29.3%	41.8%	15.9%	2.3%	0.4%	0.1%	0.0%		

%ile Speed

15th Percentile :	40 MPH
50th Percentile :	46 MPH
85th Percentile :	51 MPH
95th Percentile :	54 MPH

Stats

10 MPH Pace Speed :	40-49 MPH
Number in Pace :	6095
Percent in Pace :	71.1%
Number of Vehicles > 45 MPH :	4468
Percent of Vehicles > 45 MPH :	52.1%
Mean Speed(Average) :	44 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	35	3	2	0	1	0	1	3	0	0	0	0	45
01:00	0	37	10	0	2	0	0	0	4	0	0	0	0	53
02:00	0	19	4	0	4	1	0	1	0	0	1	0	0	30
03:00	0	28	9	0	4	2	0	1	4	0	0	0	0	48
04:00	1	85	10	0	6	3	0	2	1	0	0	0	0	108
05:00	3	263	66	2	4	3	0	3	3	0	2	1	0	350
06:00	3	591	131	2	12	3	0	6	3	1	0	0	0	752
07:00	0	871	127	9	15	5	0	5	7	0	0	1	0	1040
08:00	6	762	106	2	9	6	0	3	7	1	0	0	0	902
09:00	1	420	59	2	13	4	1	1	4	0	0	0	0	505
10:00	0	312	53	2	15	6	0	3	5	0	0	0	0	396
11:00	6	271	52	3	15	10	0	5	8	1	1	0	0	372
12 PM	1	347	57	3	14	6	0	2	7	0	0	0	1	438
13:00	2	328	60	3	8	7	0	2	6	0	0	0	0	416
14:00	2	377	68	5	11	6	0	5	10	0	1	0	0	485
15:00	1	322	50	5	14	6	0	6	7	0	0	0	0	411
16:00	4	410	45	2	3	2	0	7	2	0	0	0	0	475
17:00	4	397	45	5	7	2	0	4	2	0	0	0	0	466
18:00	3	299	34	3	5	1	0	2	1	0	0	0	0	348
19:00	1	200	23	0	10	4	0	2	1	0	0	0	0	241
20:00	2	154	28	0	3	1	0	2	0	0	0	0	0	190
21:00	1	135	21	0	1	1	0	2	4	0	0	0	0	165
22:00	0	99	10	0	1	0	0	0	3	0	0	0	0	113
23:00	0	80	11	0	0	1	0	2	2	0	0	0	0	96
Total	41	6842	1082	50	176	81	1	67	94	3	5	2	1	8445
Percent	0.5%	81.0%	12.8%	0.6%	2.1%	1.0%	0.0%	0.8%	1.1%	0.0%	0.1%	0.0%	0.0%	
AM Peak	08:00	07:00	06:00	07:00	07:00	11:00	09:00	06:00	11:00	06:00	05:00	05:00		07:00
Vol.	6	871	131	9	15	10	1	6	8	1	2	1		1040
PM Peak	16:00	16:00	14:00	14:00	12:00	13:00		16:00	14:00		14:00		12:00	14:00
Vol.	4	410	68	5	14	7		7	10		1		1	485

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Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	1	34	6	0	1	0	0	2	1	0	0	0	0	45
01:00	0	40	3	0	3	0	0	1	3	0	0	0	0	50
02:00	0	12	1	0	3	0	0	3	2	0	0	0	0	21
03:00	0	19	10	0	2	0	0	0	2	0	2	0	0	35
04:00	1	74	15	0	2	2	0	2	1	0	0	0	0	97
05:00	7	246	74	1	8	2	0	3	6	1	1	0	0	349
06:00	0	621	139	5	22	5	0	10	5	0	0	0	0	807
07:00	8	896	152	7	17	5	2	9	7	0	1	0	0	1104
08:00	2	791	128	3	16	11	0	6	5	0	0	0	0	962
09:00	2	439	66	1	18	7	0	5	2	0	0	0	0	540
10:00	4	334	53	1	13	4	0	2	2	1	0	0	0	414
11:00	4	271	49	2	7	3	0	5	6	0	0	0	0	347
12 PM	5	324	55	1	7	8	0	3	7	1	0	0	0	411
13:00	0	343	62	5	19	6	0	1	6	0	0	0	0	442
14:00	10	394	69	8	7	5	0	8	10	0	0	0	0	511
15:00	8	408	57	5	11	6	1	5	5	0	0	0	0	506
16:00	3	448	56	7	13	2	0	5	2	1	0	0	0	537
17:00	6	432	49	4	5	0	0	5	2	0	0	0	0	503
18:00	4	325	39	3	5	4	0	6	0	0	0	0	0	386
19:00	4	238	21	1	9	3	0	5	2	0	0	0	0	283
20:00	0	177	32	1	6	2	0	1	1	0	0	0	0	220
21:00	2	143	18	0	1	0	0	2	1	0	0	0	0	167
22:00	1	92	7	1	3	2	0	2	3	0	0	0	0	111
23:00	0	87	5	0	0	0	0	2	2	0	0	0	0	96
Total	72	7188	1166	56	198	77	3	93	83	4	4	0	0	8944
Percent	0.8%	80.4%	13.0%	0.6%	2.2%	0.9%	0.0%	1.0%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	06:00	08:00	07:00	06:00	07:00	05:00	03:00			07:00
Vol.	8	896	152	7	22	11	2	10	7	1	2			1104
PM Peak	14:00	16:00	14:00	14:00	13:00	12:00	15:00	14:00	14:00	12:00				16:00
Vol.	10	448	69	8	19	8	1	8	10	1				537

PRECISION
D A T A
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Turnpike Street (Route 138)
north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	48	5	1	2	2	0	1	3	0	0	0	0	63
01:00	0	20	2	1	0	1	0	1	4	0	1	0	0	30
02:00	2	11	3	0	1	1	0	0	5	0	0	0	0	23
03:00	0	20	3	1	2	3	0	1	0	0	0	0	0	30
04:00	0	14	2	0	1	3	0	0	5	0	0	0	0	25
05:00	0	47	21	2	9	5	0	1	2	0	0	0	0	87
06:00	1	146	33	4	6	4	0	6	1	0	0	0	0	201
07:00	3	236	47	2	15	5	0	9	2	0	0	0	0	319
08:00	2	224	43	6	20	8	0	8	3	0	0	1	0	315
09:00	2	263	56	6	20	6	0	4	7	0	0	0	0	364
10:00	2	267	53	8	13	13	0	2	7	0	0	0	0	365
11:00	2	255	65	4	10	9	1	4	3	0	0	0	1	354
12 PM	3	306	59	7	10	8	0	5	8	0	0	0	0	406
13:00	3	369	81	5	27	8	0	3	11	0	0	0	0	507
14:00	1	429	82	2	14	13	0	6	5	0	0	0	0	552
15:00	0	541	118	3	25	6	0	4	8	0	0	0	0	705
16:00	5	777	123	5	18	3	0	1	2	0	0	0	0	934
17:00	4	864	128	3	19	2	0	2	0	0	0	0	0	1022
18:00	6	581	81	5	10	1	0	2	4	0	0	0	0	690
19:00	0	343	63	3	9	0	0	1	0	0	0	0	0	419
20:00	0	245	23	2	3	1	0	1	4	0	0	1	0	280
21:00	0	183	15	0	4	1	0	1	2	0	1	0	0	207
22:00	0	126	17	0	1	1	0	3	1	0	1	1	0	151
23:00	0	93	11	1	2	0	0	4	2	0	0	0	0	113
Total	37	6408	1134	71	241	104	1	70	89	0	3	3	1	8162
Percent	0.5%	78.5%	13.9%	0.9%	3.0%	1.3%	0.0%	0.9%	1.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	10:00	11:00	10:00	08:00	10:00	11:00	07:00	09:00		01:00	08:00	11:00	10:00
Vol.	3	267	65	8	20	13	1	9	7		1	1	1	365
PM Peak	18:00	17:00	17:00	12:00	13:00	14:00		14:00	13:00		21:00	20:00		17:00
Vol.	6	864	128	7	27	13		6	11		1	1		1022

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north of Dog Track
City, State: Raynham, MA
Client: VHB/J. Quitter

81676L-A Class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	50	3	0	2	0	0	1	3	0	0	0	0	59
01:00	0	33	2	2	0	1	0	1	5	0	1	0	0	45
02:00	0	12	1	0	1	0	0	0	5	0	0	0	0	19
03:00	0	10	1	1	0	2	0	0	2	0	0	0	0	16
04:00	0	18	2	0	2	2	0	0	5	0	0	0	0	29
05:00	1	50	24	1	8	3	0	0	3	2	0	0	0	92
06:00	3	143	43	4	10	4	0	3	1	0	0	0	0	211
07:00	4	262	54	3	12	6	2	7	2	0	0	0	0	352
08:00	1	268	51	5	18	5	0	10	8	0	0	0	0	366
09:00	4	250	71	7	18	9	0	5	6	0	1	0	0	371
10:00	2	263	55	4	14	4	0	3	3	0	0	0	0	348
11:00	6	330	71	3	12	8	0	1	7	0	0	0	0	438
12 PM	2	410	69	2	21	11	1	3	4	0	0	0	0	523
13:00	4	355	74	5	14	5	0	6	7	0	0	0	0	470
14:00	5	458	83	8	11	5	1	3	3	0	1	0	0	578
15:00	4	598	113	4	22	7	0	6	8	0	0	0	0	762
16:00	10	738	147	3	24	3	0	3	2	0	0	0	0	930
17:00	13	787	130	3	14	6	0	4	1	0	0	0	1	959
18:00	5	593	90	3	8	2	0	6	3	0	0	0	0	710
19:00	4	357	60	2	13	0	0	1	1	0	0	0	0	438
20:00	1	262	41	2	4	1	0	1	4	0	1	0	0	317
21:00	1	186	35	3	8	0	0	3	3	0	0	0	0	239
22:00	1	143	18	0	3	0	0	1	1	0	1	0	0	168
23:00	1	100	17	1	1	2	0	3	3	0	0	0	0	128
Total	72	6676	1255	66	240	86	4	71	90	2	5	0	1	8568
Percent	0.8%	77.9%	14.6%	0.8%	2.8%	1.0%	0.0%	0.8%	1.1%	0.0%	0.1%	0.0%	0.0%	
AM Peak	11:00	11:00	09:00	09:00	08:00	09:00	07:00	08:00	08:00	05:00	01:00			11:00
Vol.	6	330	71	7	18	9	2	10	8	2	1			438
PM Peak	17:00	17:00	16:00	14:00	16:00	12:00	12:00	13:00	15:00		14:00		17:00	17:00
Vol.	13	787	147	8	24	11	1	6	8		1		1	959

PRECISION DATA INDUSTRIES, LLC

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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Wed 10/8/08 thru Fri 10/10/08	81676 Q	Freetown, MA

PRECISION DATA INDUSTRIES, LLC

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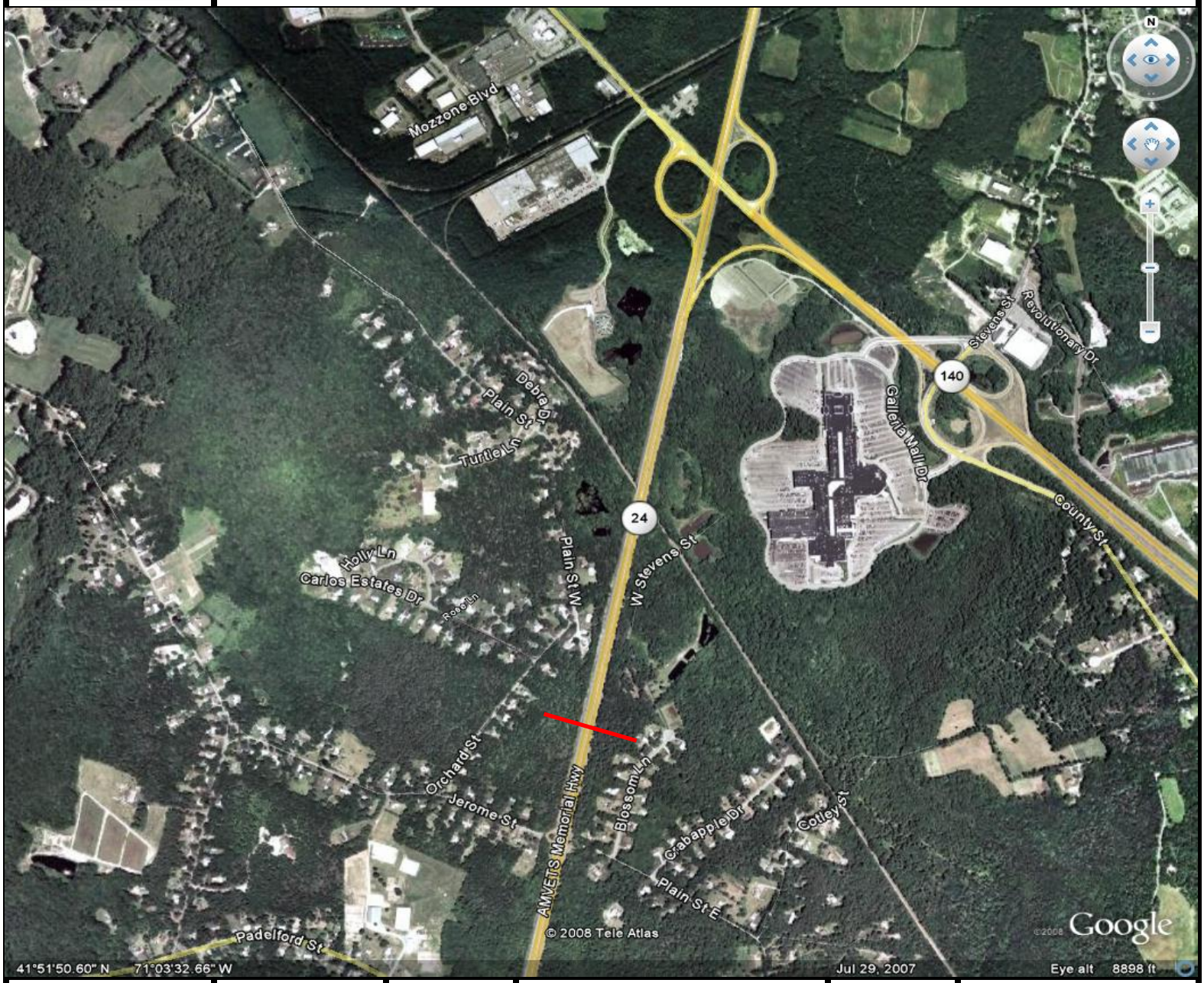
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 10/15/08 thru Thur 10/16/08	81676	Berkley, MA

PRECISION DATA INDUSTRIES, LLC
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

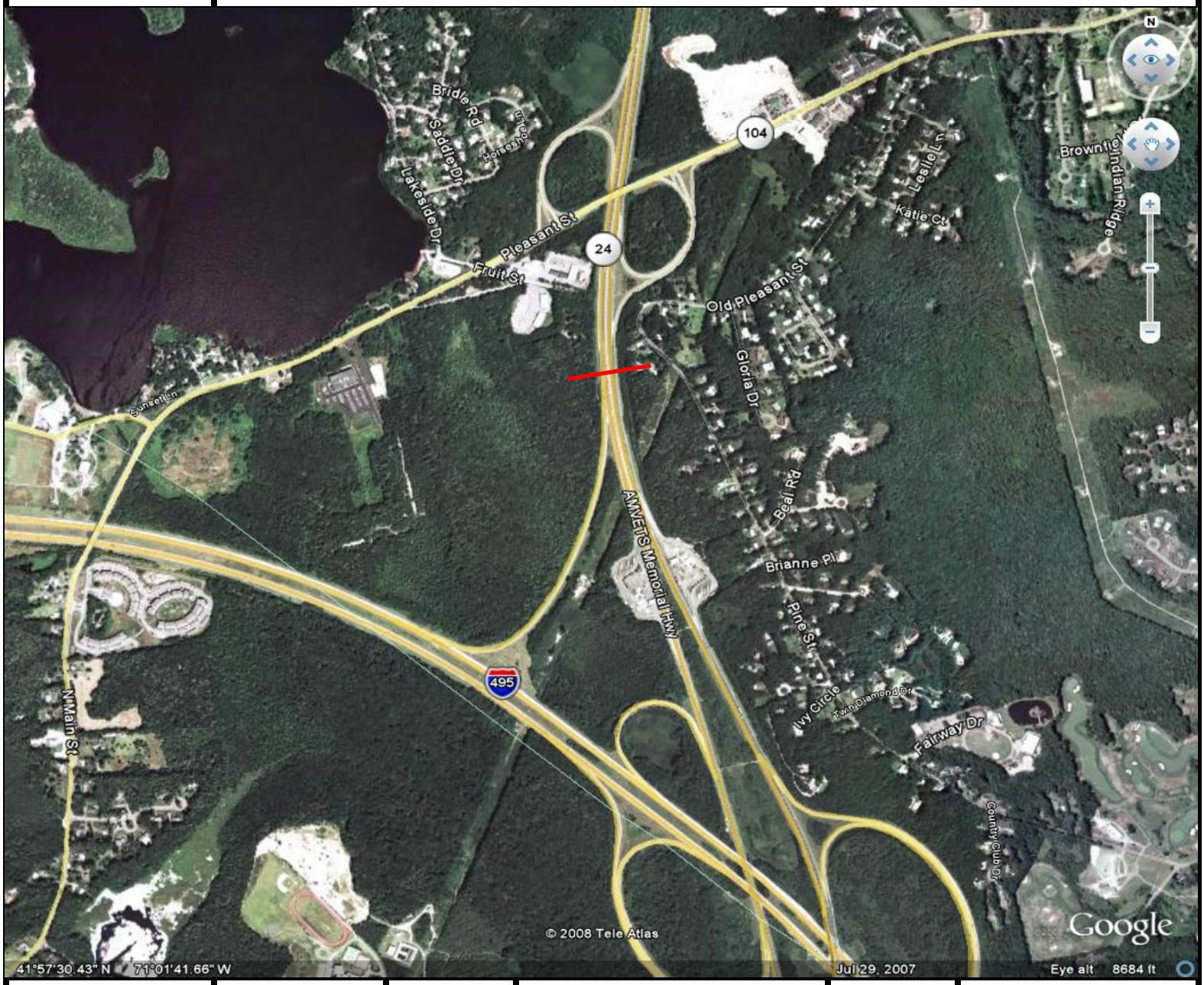
Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 10/15/08 thru Thur 10/16/08	81676	Raynham, MA

PRECISION DATA INDUSTRIES, LLC

Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

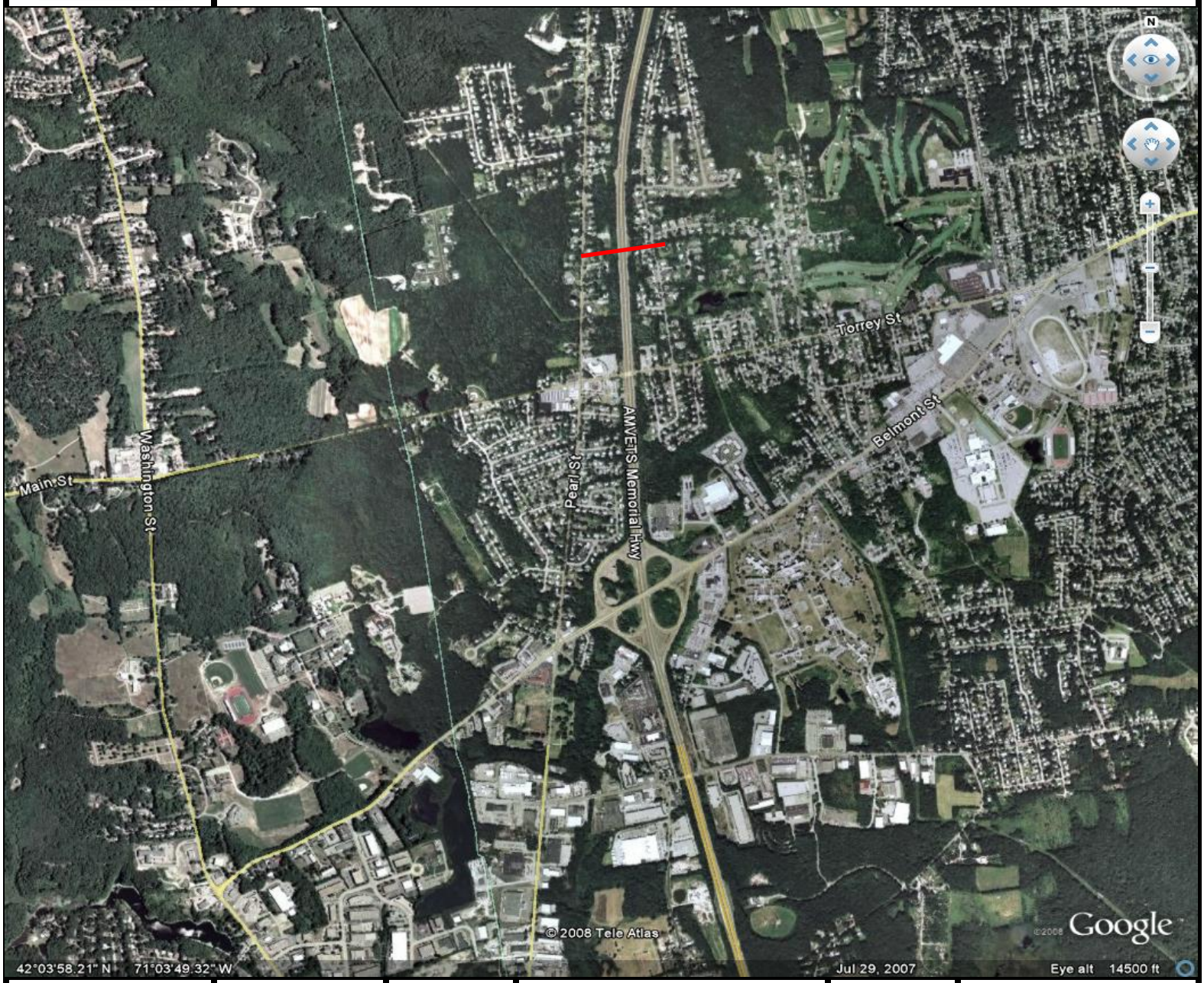
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 10/22 thru Thurs 10/23/08	81676	Bridgewater, MA

PRECISION DATA INDUSTRIES, LLC
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 10/22 thru Thurs 10/23/08	81676	Brockton,MA

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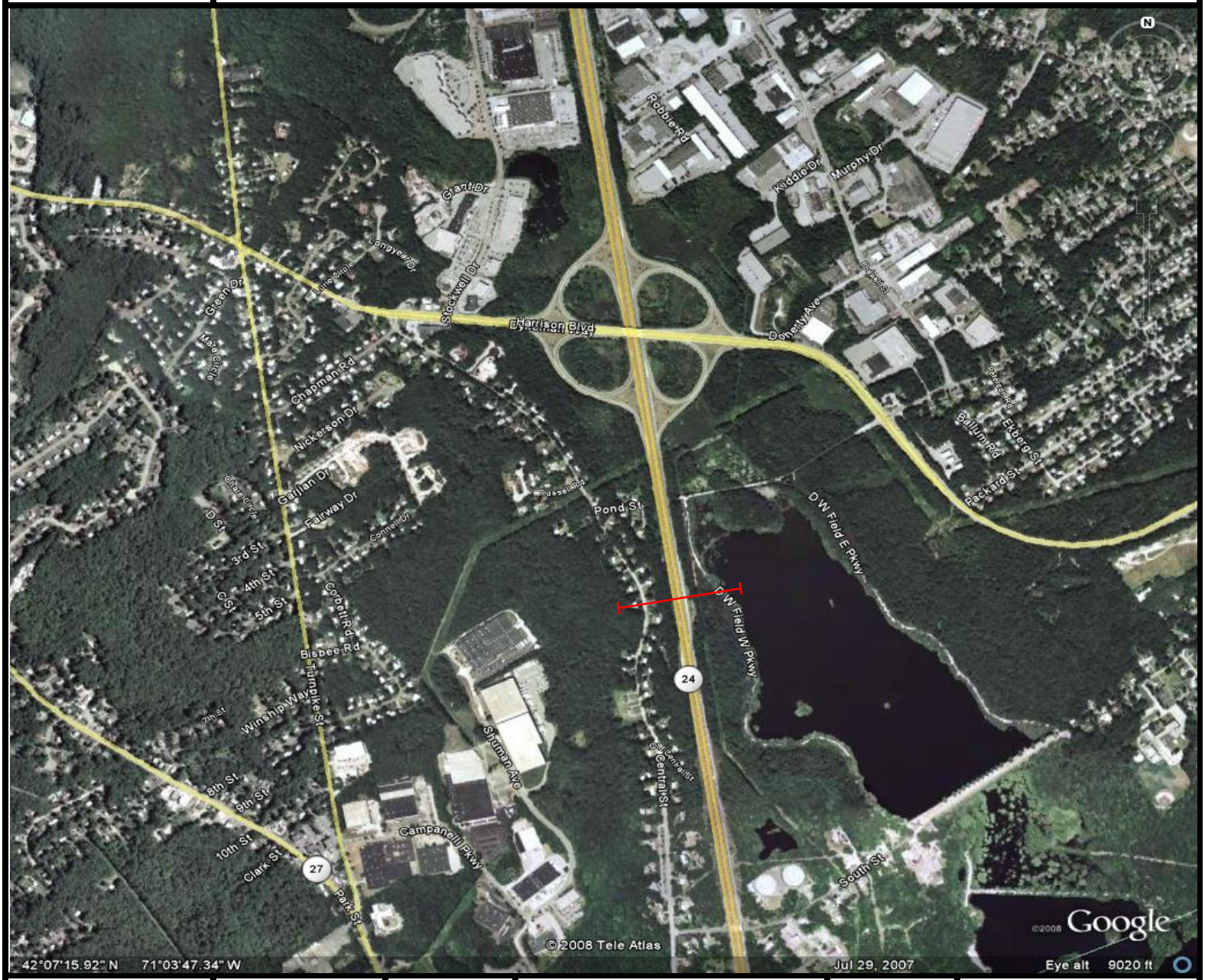
Email: datarequests@pdillc.com

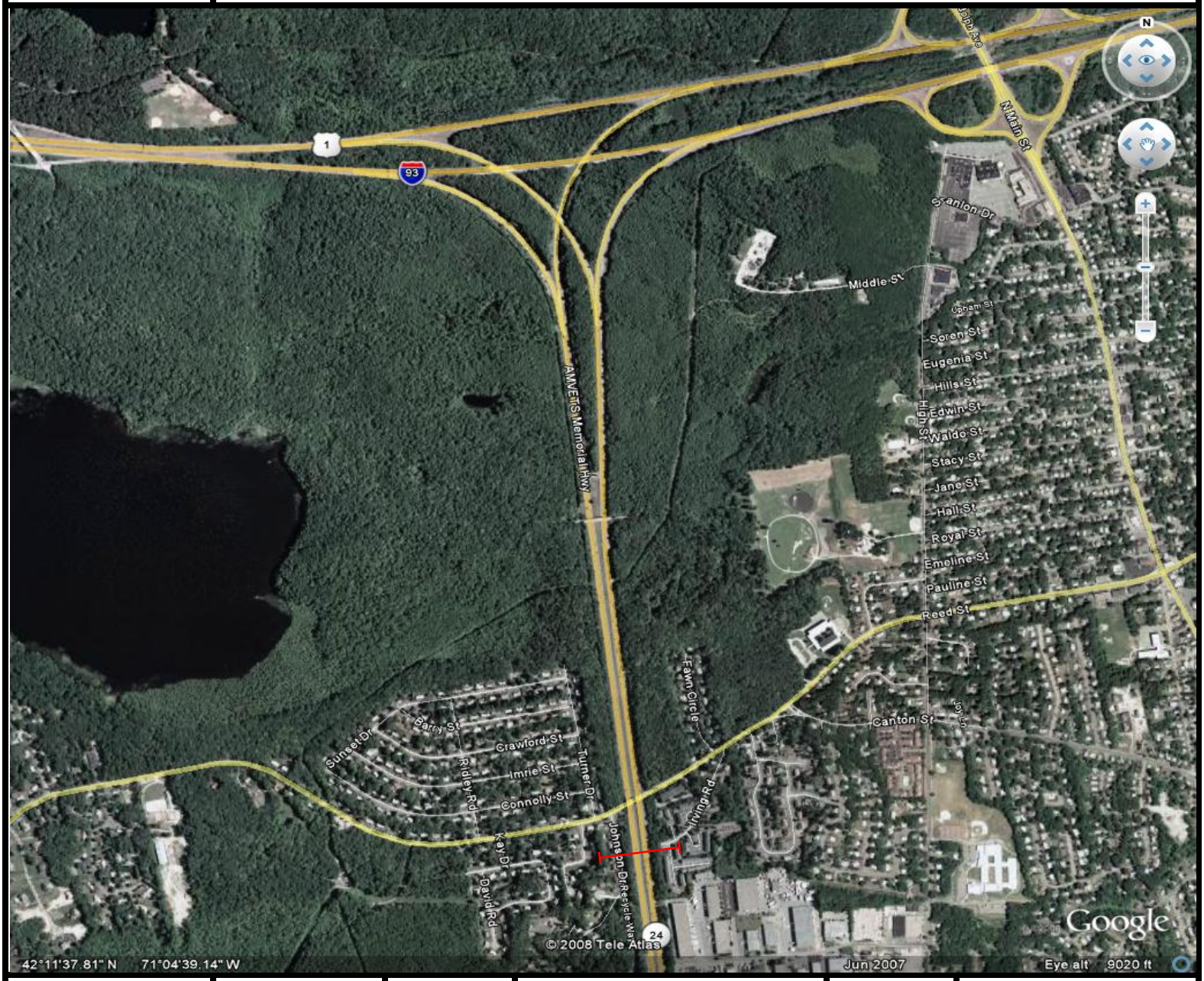
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	N. Raveendran	10111.31	Wed 11/5 thru Thurs 11/6/08	81676	Avon, MA

PRECISION DATA INDUSTRIES, LLC
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	N. Raveendran	10111.31	Wed 11/5 thru Thurs 11/6/08	81676	Randolph, MA

PRECISION DATA INDUSTRIES, LLC

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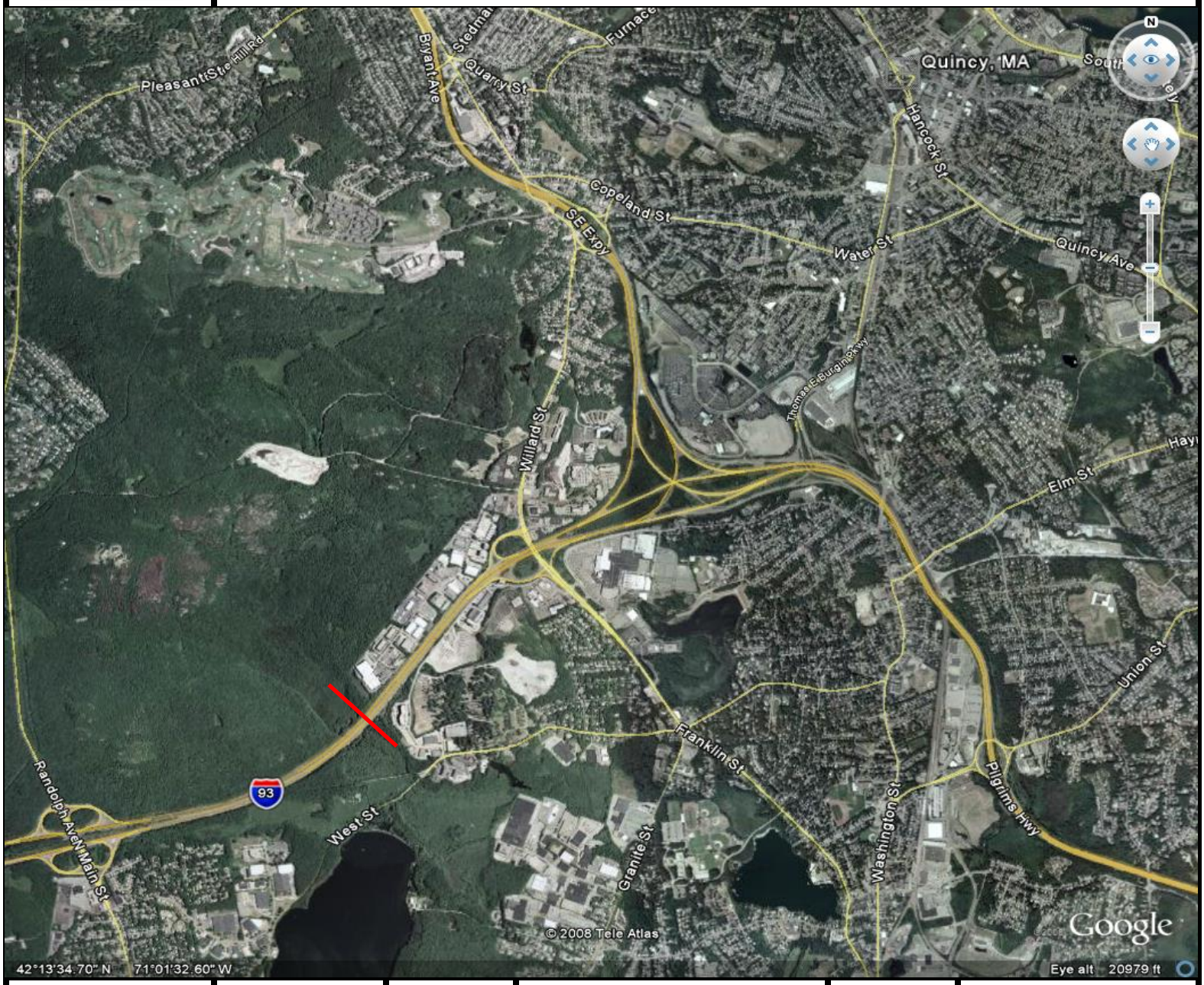
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Tues 10/28/08 thru Wed 10/29/08	81676	Braintree, MA

PRECISION DATA INDUSTRIES, LLC

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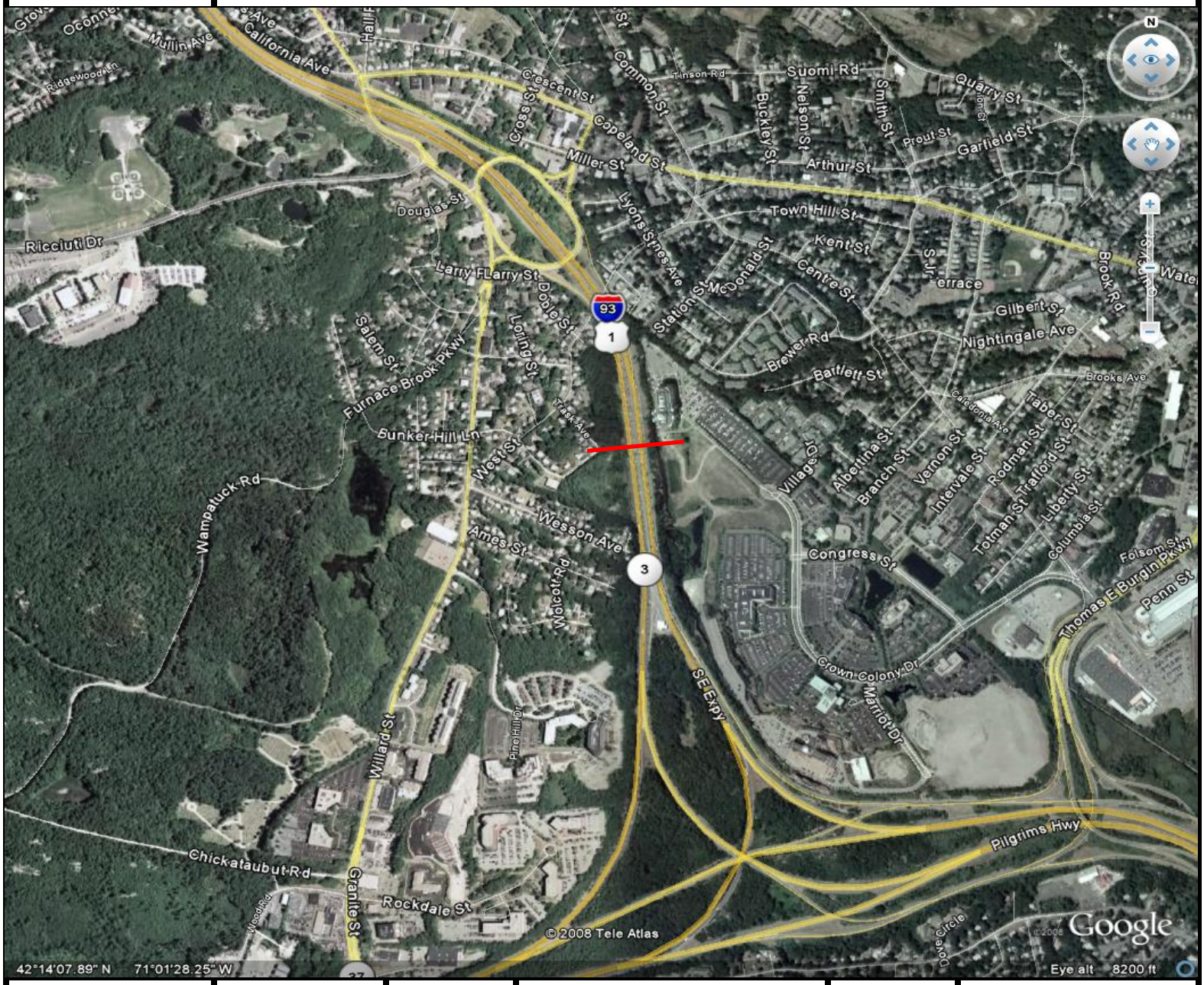
Email: datarequests@pdillc.com

Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Tues 10/28/08 thru Wed 10/29/08	81676	Quincy, MA

PRECISION DATA INDUSTRIES, LLC

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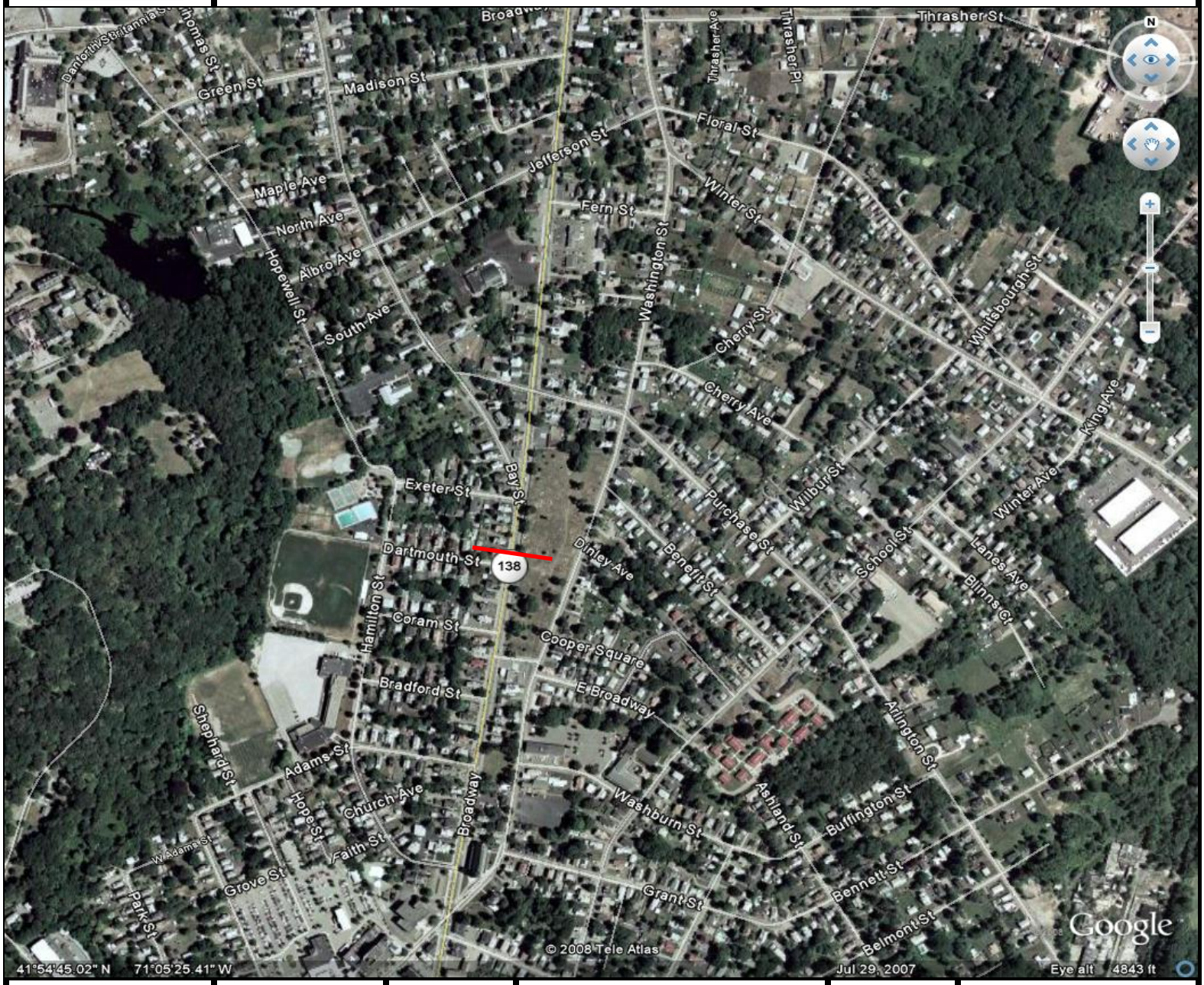
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/16/08 thru Wed 9/17/08	81676	Taunton, MA

Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 S-C volume
Site Code: 10111.31

Start	NB				SB				Combined				16-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	16		151		28		162		44		313		
12:15	17		149		24		154		41		303		
12:30	22		128		21		149		43		277		
12:45	6	61	159	587	14	87	169	634	20	148	328	1221	
01:00	8		158		18		160		26		318		
01:15	13		144		21		148		34		292		
01:30	8		158		16		168		24		326		
01:45	12	41	149	609	9	64	187	663	21	105	336	1272	
02:00	7		172		7		162		14		334		
02:15	7		137		13		197		20		334		
02:30	16		144		14		209		30		353		
02:45	6	36	115	568	11	45	195	763	17	81	310	1331	
03:00	4		154		8		189		12		343		
03:15	12		172		7		197		19		369		
03:30	19		156		13		201		32		357		
03:45	11	46	145	627	1	29	222	809	12	75	367	1436	
04:00	11		175		7		225		18		400		
04:15	19		165		9		218		28		383		
04:30	28		180		15		221		43		401		
04:45	25	83	176	696	17	48	211	875	42	131	387	1571	
05:00	57		170		21		234		78		404		
05:15	77		127		40		239		117		366		
05:30	105		120		28		236		133		356		
05:45	117	356	125	542	44	133	222	931	161	489	347	1473	
06:00	133		138		61		192		194		330		
06:15	176		135		71		191		247		326		
06:30	149		131		104		157		253		288		
06:45	156	614	117	521	105	341	168	708	261	955	285	1229	
07:00	166		125		104		157		270		282		
07:15	165		120		158		137		323		257		
07:30	208		102		175		127		383		229		
07:45	168	707	88	435	160	597	117	538	328	1304	205	973	
08:00	148		84		159		111		307		195		
08:15	132		89		175		96		307		185		
08:30	156		75		185		109		341		184		
08:45	144	580	66	314	216	735	77	393	360	1315	143	707	
09:00	158		79		152		89		310		168		
09:15	133		63		141		64		274		127		
09:30	139		59		155		79		294		138		
09:45	121	551	60	261	163	611	69	301	284	1162	129	562	
10:00	119		40		153		68		272		108		
10:15	144		50		158		50		302		100		
10:30	134		42		151		48		285		90		
10:45	149	546	42	174	160	622	54	220	309	1168	96	394	
11:00	135		32		179		49		314		81		
11:15	129		38		159		41		288		79		
11:30	163		29		170		33		333		62		
11:45	140	567	22	121	137	645	19	142	277	1212	41	263	
Total	4188		5455		3957		6977		8145		12432		
Percent	51.4%		43.9%		48.6%		56.1%						
Day Total		9643				10934				20577			
Peak	07:00		04:00		08:00		05:00		07:15		04:15		
Vol.	707		696		735		931		1341		1575		
P.H.F.	0.850		0.967		0.851		0.974		0.875		0.975		

Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 S-C volume
Site Code: 10111.31

Start	NB				SB				Combined				17-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	20		156		33		138		53		294		
12:15	20		134		29		160		49		294		
12:30	18		143		27		148		45		291		
12:45	11	69	154	587	18	107	171	617	29	176	325	1204	
01:00	15		152		13		143		28		295		
01:15	11		155		17		173		28		328		
01:30	8		139		15		171		23		310		
01:45	10	44	135	581	10	55	184	671	20	99	319	1252	
02:00	10		169		6		175		16		344		
02:15	9		154		13		175		22		329		
02:30	8		159		8		193		16		352		
02:45	5	32	145	627	10	37	211	754	15	69	356	1381	
03:00	6		156		5		184		11		340		
03:15	8		172		5		179		13		351		
03:30	13		172		7		200		20		372		
03:45	10	37	151	651	10	27	225	788	20	64	376	1439	
04:00	14		181		7		217		21		398		
04:15	21		150		10		220		31		370		
04:30	34		187		24		216		58		403		
04:45	29	98	165	683	18	59	228	881	47	157	393	1564	
05:00	42		148		17		236		59		384		
05:15	73		141		31		241		104		382		
05:30	135		131		45		226		180		357		
05:45	107	357	152	572	51	144	240	943	158	501	392	1515	
06:00	109		155		53		179		162		334		
06:15	152		150		72		181		224		331		
06:30	186		116		85		157		271		273		
06:45	170	617	109	530	108	318	171	688	278	935	280	1218	
07:00	160		134		115		171		275		305		
07:15	151		104		192		145		343		249		
07:30	188		119		165		142		353		261		
07:45	164	663	105	462	165	637	118	576	329	1300	223	1038	
08:00	170		97		156		107		326		204		
08:15	153		89		165		107		318		196		
08:30	157		87		180		109		337		196		
08:45	165	645	81	354	196	697	89	412	361	1342	170	766	
09:00	134		70		162		95		296		165		
09:15	120		60		148		92		268		152		
09:30	108		74		164		76		272		150		
09:45	112	474	57	261	147	621	79	342	259	1095	136	603	
10:00	159		56		133		62		292		118		
10:15	138		63		150		57		288		120		
10:30	148		42		144		49		292		91		
10:45	132	577	36	197	153	580	56	224	285	1157	92	421	
11:00	129		34		156		52		285		86		
11:15	124		25		150		38		274		63		
11:30	152		34		152		31		304		65		
11:45	145	550	27	120	162	620	29	150	307	1170	56	270	
Total	4163		5625		3902		7046		8065		12671		
Percent	51.6%		44.4%		48.4%		55.6%						
Day Total		9788				10948				20736			
Peak	07:30		04:00		08:15		05:00		07:15		04:00		
Vol.	675		683		703		943		1351		1564		
P.H.F.	0.898		0.913		0.897		0.978		0.957		0.970		

PRECISION DATA INDUSTRIES, LLC
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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	4	18	22	13	2	1	0	0	**1**	0	61	42	37
01:00	0	0	0	3	13	15	8	1	1	0	0	0	0	41	41	36
02:00	0	0	0	1	8	17	9	1	0	0	0	0	0	36	42	37
03:00	0	0	0	4	13	16	6	7	0	0	0	0	0	46	44	37
04:00	1	0	1	0	12	30	29	8	**2**	0	0	0	0	83	44	39
05:00	0	0	0	8	89	164	**85**	9	1	0	0	0	0	356	42	37
06:00	0	1	1	24	204	**284**	85	**14**	1	0	0	0	0	614	40	36
07:00	**6**	**9**	**24**	**149**	291	200	24	4	0	0	0	0	0	**707**	38	32
08:00	4	4	20	127	281	120	21	3	0	0	0	0	0	580	37	32
09:00	0	1	7	90	269	153	30	1	0	0	0	0	0	551	38	33
10:00	2	2	18	99	261	143	21	0	0	0	0	0	0	546	37	32
11:00	0	0	7	72	**297**	162	26	1	1	**1**	0	0	0	567	38	33
12 PM	1	3	7	97	264	**180**	31	4	0	0	0	0	0	587	38	33
13:00	2	1	4	86	318	166	29	3	0	0	0	0	0	609	38	33
14:00	1	**6**	**21**	129	245	139	25	2	0	0	0	0	0	568	37	32
15:00	2	2	10	149	308	131	22	3	0	0	0	0	0	627	37	32
16:00	0	1	18	**167**	**327**	163	19	1	0	0	0	0	0	**696**	37	32
17:00	**3**	2	14	94	264	136	26	3	0	0	0	0	0	542	38	32
18:00	0	0	3	52	259	173	30	3	**1**	0	0	0	0	521	38	34
19:00	0	1	1	42	204	143	**38**	5	0	1	0	0	0	435	39	34
20:00	0	0	4	20	141	109	38	1	0	1	0	0	0	314	39	35
21:00	1	0	1	14	112	94	31	**6**	0	**2**	0	0	0	261	39	35
22:00	0	0	0	5	61	71	29	6	1	1	0	0	0	174	41	36
23:00	0	0	0	6	28	56	25	5	0	1	0	0	0	121	42	37
Total	23	33	161	1442	4287	2887	700	93	9	7	0	1	0	9643		
%	0.2%	0.3%	1.7%	15.0%	44.5%	29.9%	7.3%	1.0%	0.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	11:00	06:00	05:00	06:00	04:00	11:00		00:00		07:00		
Vol.	6	9	24	149	297	284	85	14	2	1		1		707		
PM Peak	17:00	14:00	14:00	16:00	16:00	12:00	19:00	21:00	18:00	21:00				16:00		
Vol.	3	6	21	167	327	180	38	6	1	2				696		

Pecent

15th Percentile :	29 MPH
50th Percentile :	33 MPH
85th Percentile :	38 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	7174
Percent in Pace :	74.4%
Number of Vehicles > 35 MPH :	3119
Percent of Vehicles > 35 MPH :	32.3%
Mean Speed(Average) :	33 MPH

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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	0	0	0	3	18	34	8	4	1	**1**	0	0	0	69	41	37
01:00	0	1	1	7	11	12	7	4	1	0	0	0	0	44	42	35
02:00	1	0	0	0	6	13	8	4	0	0	0	0	0	32	43	37
03:00	0	0	0	1	4	23	5	2	**2**	0	0	0	0	37	42	38
04:00	0	0	1	2	13	41	27	11	2	1	0	0	0	98	44	39
05:00	0	0	0	8	55	168	**109**	**15**	2	0	0	0	0	357	43	38
06:00	1	1	3	39	180	**280**	104	8	1	0	0	0	0	617	40	36
07:00	**12**	**7**	**22**	76	276	236	27	6	1	0	0	0	0	**663**	38	33
08:00	0	3	1	53	**289**	228	65	6	0	0	0	0	0	645	39	34
09:00	0	1	0	35	206	184	42	6	0	0	0	0	0	474	39	35
10:00	2	0	1	70	271	191	39	3	0	0	0	0	0	577	38	34
11:00	2	3	6	**81**	272	164	21	0	1	0	0	0	0	550	38	33
12 PM	2	1	6	107	288	157	22	3	**1**	0	0	0	0	587	37	33
13:00	1	0	13	63	279	**188**	35	2	0	0	0	0	0	581	38	33
14:00	**5**	7	18	**138**	277	160	20	2	0	0	0	0	0	627	37	32
15:00	3	**9**	**26**	120	315	157	17	4	0	0	0	0	0	651	37	32
16:00	1	0	6	106	**363**	184	21	2	0	0	0	0	0	**683**	37	33
17:00	0	2	17	95	284	150	23	1	0	0	0	0	0	572	37	33
18:00	1	3	8	79	288	129	20	1	1	0	0	0	0	530	37	33
19:00	0	0	0	57	241	132	30	2	0	0	0	0	0	462	38	34
20:00	1	1	3	34	138	139	33	4	1	0	0	0	0	354	39	34
21:00	0	0	3	10	106	109	31	2	0	0	0	0	0	261	39	35
22:00	0	2	0	16	69	73	32	4	1	0	0	0	0	197	40	35
23:00	0	0	0	7	22	48	**37**	**5**	1	0	0	0	0	120	43	38
Total	32	41	135	1207	4271	3200	783	101	16	2	0	0	0	9788		
%	0.3%	0.4%	1.4%	12.3%	43.6%	32.7%	8.0%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	11:00	08:00	06:00	05:00	05:00	03:00	00:00				07:00		
Vol.	12	7	22	81	289	280	109	15	2	1				663		
PM Peak	14:00	15:00	15:00	14:00	16:00	13:00	23:00	23:00	12:00					16:00		
Vol.	5	9	26	138	363	188	37	5	1					683		

Pecent

15th Percentile :	30 MPH
50th Percentile :	34 MPH
85th Percentile :	39 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	7471
Percent in Pace :	76.3%
Number of Vehicles > 35 MPH :	3462
Percent of Vehicles > 35 MPH :	35.4%
Mean Speed(Average) :	34 MPH

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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	2	8	25	37	13	1	0	0	**1**	0	0	87	40	35
01:00	0	0	5	6	21	22	8	**2**	0	0	0	0	0	64	39	34
02:00	0	0	1	18	12	9	5	0	0	0	0	0	0	45	38	32
03:00	0	0	0	4	14	9	2	0	0	0	0	0	0	29	38	33
04:00	0	0	2	9	16	14	5	2	0	0	0	0	0	48	39	34
05:00	0	1	4	17	45	52	12	2	0	0	0	0	0	133	39	34
06:00	0	0	14	69	144	**96**	**16**	1	**1**	0	0	0	0	341	38	33
07:00	**31**	13	91	198	195	59	10	0	0	0	0	0	0	597	34	28
08:00	15	**48**	**211**	**294**	141	24	2	0	0	0	0	0	0	**735**	31	26
09:00	12	23	84	247	210	26	9	0	0	0	0	0	0	611	33	28
10:00	2	6	73	281	209	45	5	1	0	0	0	0	0	622	33	29
11:00	2	10	90	243	**242**	51	7	0	0	0	0	0	0	645	34	29
12 PM	3	9	64	255	241	53	7	2	0	0	0	0	0	634	34	29
13:00	9	17	54	253	251	65	13	1	0	0	0	0	0	663	34	29
14:00	19	**22**	**131**	338	213	36	4	0	0	0	0	0	0	763	33	27
15:00	9	6	128	337	281	40	8	0	0	0	0	0	0	809	33	28
16:00	9	6	111	345	**343**	58	2	0	1	0	0	0	0	875	33	29
17:00	**22**	17	85	**421**	321	59	6	0	0	0	0	0	0	**931**	33	28
18:00	12	11	84	254	269	69	8	0	0	**1**	0	0	0	708	34	29
19:00	3	0	27	187	235	74	10	0	1	1	0	0	0	538	35	31
20:00	3	6	19	89	164	**95**	16	1	0	0	0	0	0	393	37	32
21:00	1	1	8	57	130	76	**21**	4	**3**	0	0	0	0	301	38	33
22:00	1	0	5	32	83	76	18	3	1	0	0	**1**	0	220	39	34
23:00	0	0	5	15	53	53	11	**5**	0	0	0	0	0	142	39	34
Total	153	196	1298	3977	3858	1198	218	25	7	2	1	1	0	10934		
%	1.4%	1.8%	11.9%	36.4%	35.3%	11.0%	2.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	08:00	08:00	11:00	06:00	06:00	01:00	06:00		00:00			08:00		
Vol.	31	48	211	294	242	96	16	2	1		1			735		
PM Peak	17:00	14:00	14:00	17:00	16:00	20:00	21:00	23:00	21:00	18:00		22:00		17:00		
Vol.	22	22	131	421	343	95	21	5	3	1		1		931		

Pecent

15th Percentile :	24 MPH
50th Percentile :	29 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	7835
Percent in Pace :	71.7%
Number of Vehicles > 35 MPH :	1212
Percent of Vehicles > 35 MPH :	11.1%
Mean Speed(Average) :	29 MPH

PRECISION DATA INDUSTRIES, LLC
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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	3	1	3	14	34	39	11	1	**1**	0	0	0	0	107	39	33
01:00	2	0	1	10	23	14	3	2	0	0	0	0	0	55	38	32
02:00	0	0	0	6	10	15	3	3	0	0	0	0	0	37	39	35
03:00	0	0	0	2	8	12	4	1	0	0	0	0	0	27	40	36
04:00	0	0	6	4	11	25	11	2	0	0	0	0	0	59	41	35
05:00	0	1	4	18	40	62	13	**5**	0	0	**1**	0	0	144	39	35
06:00	0	2	6	60	120	107	**22**	1	0	0	0	0	0	318	38	33
07:00	**47**	9	**89**	160	248	76	7	1	0	0	0	0	0	637	34	28
08:00	2	2	61	182	**290**	**141**	16	3	0	0	0	0	0	**697**	36	31
09:00	1	**16**	60	189	269	74	9	3	0	0	0	0	0	621	34	30
10:00	2	1	49	191	260	70	6	1	0	0	0	0	0	580	34	30
11:00	3	7	49	**208**	279	63	7	3	1	0	0	0	0	620	34	30
12 PM	6	3	28	220	284	66	8	2	0	0	0	0	0	617	34	30
13:00	8	9	60	270	249	64	10	1	0	0	0	0	0	671	34	29
14:00	14	31	103	314	253	37	2	0	0	0	0	0	0	754	33	28
15:00	**46**	**49**	145	305	194	41	7	1	0	0	0	0	0	788	33	26
16:00	12	21	121	327	**334**	60	6	0	0	0	0	0	0	881	33	29
17:00	30	47	**161**	**374**	269	53	6	3	0	0	0	0	0	**943**	33	27
18:00	5	9	61	265	276	63	7	1	**1**	0	0	0	0	688	34	29
19:00	7	2	47	232	231	49	8	0	0	0	0	0	0	576	34	29
20:00	0	1	16	90	178	**97**	**26**	4	0	0	0	0	0	412	38	32
21:00	2	2	13	83	141	83	15	3	0	0	0	0	0	342	37	32
22:00	3	0	4	48	71	72	20	**6**	0	0	0	0	0	224	39	33
23:00	0	1	3	22	42	59	20	2	0	**1**	0	0	0	150	39	35
Total	193	214	1090	3594	4114	1442	247	49	3	1	1	0	0	10948		
%	1.8%	2.0%	10.0%	32.8%	37.6%	13.2%	2.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	07:00	11:00	08:00	08:00	06:00	05:00	00:00		05:00			08:00		
Vol.	47	16	89	208	290	141	22	5	1		1			697		
PM Peak	15:00	15:00	17:00	17:00	16:00	20:00	20:00	22:00	18:00	23:00				17:00		
Vol.	46	49	161	374	334	97	26	6	1	1				943		

Pecent

15th Percentile :	25 MPH
50th Percentile :	30 MPH
85th Percentile :	35 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	7708
Percent in Pace :	70.4%
Number of Vehicles > 35 MPH :	1454
Percent of Vehicles > 35 MPH :	13.3%
Mean Speed(Average) :	30 MPH

PRECISION
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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	0	49	9	0	3	0	0	0	0	0	0	0	0	61
01:00	0	30	10	0	1	0	0	0	0	0	0	0	0	41
02:00	0	28	7	0	1	0	0	0	0	0	0	0	0	36
03:00	0	32	7	0	6	0	0	1	0	0	0	0	0	46
04:00	2	51	27	0	2	1	0	0	0	0	0	0	0	83
05:00	5	267	70	3	10	1	0	0	0	0	0	0	0	356
06:00	5	460	120	6	15	4	0	3	1	0	0	0	0	614
07:00	2	565	103	6	18	5	0	5	2	1	0	0	0	707
08:00	3	467	79	7	16	2	0	4	2	0	0	0	0	580
09:00	2	444	85	3	7	5	0	3	2	0	0	0	0	551
10:00	1	422	99	3	15	1	0	4	1	0	0	0	0	546
11:00	3	459	73	3	19	2	0	5	3	0	0	0	0	567
12 PM	4	481	79	1	14	1	0	5	2	0	0	0	0	587
13:00	4	505	66	2	21	4	0	6	1	0	0	0	0	609
14:00	4	447	90	3	17	0	0	4	2	1	0	0	0	568
15:00	3	505	94	10	12	1	0	1	1	0	0	0	0	627
16:00	2	581	100	2	8	1	0	2	0	0	0	0	0	696
17:00	6	474	51	2	8	1	0	0	0	0	0	0	0	542
18:00	3	447	60	0	10	0	0	1	0	0	0	0	0	521
19:00	6	383	36	1	7	0	0	1	0	1	0	0	0	435
20:00	3	265	39	0	6	0	0	1	0	0	0	0	0	314
21:00	1	231	25	0	4	0	0	0	0	0	0	0	0	261
22:00	3	144	23	0	2	0	0	2	0	0	0	0	0	174
23:00	1	101	15	0	3	0	0	1	0	0	0	0	0	121
Total	63	7838	1367	52	225	29	0	49	17	3	0	0	0	9643
Percent	0.7%	81.3%	14.2%	0.5%	2.3%	0.3%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	06:00	08:00	11:00	07:00		07:00	11:00	07:00				07:00
Vol.	5	565	120	7	19	5		5	3	1				707
PM Peak	17:00	16:00	16:00	15:00	13:00	13:00		13:00	12:00	14:00				16:00
Vol.	6	581	100	10	21	4		6	2	1				696

PRECISION
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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	1	60	5	0	3	0	0	0	0	0	0	0	0	69
01:00	0	37	4	0	3	0	0	0	0	0	0	0	0	44
02:00	0	23	6	0	3	0	0	0	0	0	0	0	0	32
03:00	0	26	9	0	2	0	0	0	0	0	0	0	0	37
04:00	3	65	26	0	2	1	0	0	1	0	0	0	0	98
05:00	2	264	76	2	11	1	0	0	1	0	0	0	0	357
06:00	5	456	130	4	18	0	0	1	3	0	0	0	0	617
07:00	5	526	103	9	14	1	0	3	1	1	0	0	0	663
08:00	4	499	102	6	27	6	0	1	0	0	0	0	0	645
09:00	2	377	71	4	16	3	0	1	0	0	0	0	0	474
10:00	2	460	83	4	21	4	0	1	1	1	0	0	0	577
11:00	4	463	55	4	20	0	0	4	0	0	0	0	0	550
12 PM	4	483	70	9	16	4	0	1	0	0	0	0	0	587
13:00	7	457	84	1	25	4	0	1	2	0	0	0	0	581
14:00	1	496	93	4	21	4	0	5	2	0	0	1	0	627
15:00	1	531	94	9	15	0	0	1	0	0	0	0	0	651
16:00	3	571	81	1	19	2	0	6	0	0	0	0	0	683
17:00	7	486	64	3	10	0	0	1	1	0	0	0	0	572
18:00	11	445	62	1	9	1	0	0	1	0	0	0	0	530
19:00	4	401	49	0	6	2	0	0	0	0	0	0	0	462
20:00	11	301	35	0	4	1	0	1	1	0	0	0	0	354
21:00	3	228	28	0	2	0	0	0	0	0	0	0	0	261
22:00	4	167	26	0	0	0	0	0	0	0	0	0	0	197
23:00	1	104	15	0	0	0	0	0	0	0	0	0	0	120
Total	85	7926	1371	61	267	34	0	27	14	2	0	1	0	9788
Percent	0.9%	81.0%	14.0%	0.6%	2.7%	0.3%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	07:00	08:00	08:00		11:00	06:00	07:00				07:00
Vol.	5	526	130	9	27	6		4	3	1				663
PM Peak	18:00	16:00	15:00	12:00	13:00	12:00		16:00	13:00			14:00		16:00
Vol.	11	571	94	9	25	4		6	2			1		683

PRECISION
D A T A
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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	1	76	8	0	0	0	0	1	1	0	0	0	0	87
01:00	2	55	5	0	1	1	0	0	0	0	0	0	0	64
02:00	0	42	3	0	0	0	0	0	0	0	0	0	0	45
03:00	0	24	3	0	0	1	0	0	1	0	0	0	0	29
04:00	0	37	7	1	2	0	0	1	0	0	0	0	0	48
05:00	1	105	18	0	7	1	0	0	1	0	0	0	0	133
06:00	2	278	39	3	12	3	0	2	2	0	0	0	0	341
07:00	2	530	44	2	7	6	0	5	1	0	0	0	0	597
08:00	1	658	49	3	16	1	0	4	2	0	0	1	0	735
09:00	4	529	50	2	14	4	0	4	4	0	0	0	0	611
10:00	2	540	57	5	9	3	0	3	3	0	0	0	0	622
11:00	5	557	57	0	11	4	0	5	6	0	0	0	0	645
12 PM	1	561	51	1	11	3	0	4	2	0	0	0	0	634
13:00	1	582	60	0	13	2	0	4	1	0	0	0	0	663
14:00	1	678	52	3	16	5	0	4	4	0	0	0	0	763
15:00	2	724	55	2	10	1	0	8	7	0	0	0	0	809
16:00	2	782	72	3	11	2	0	2	1	0	0	0	0	875
17:00	8	826	84	2	9	0	0	2	0	0	0	0	0	931
18:00	5	647	43	4	7	0	0	2	0	0	0	0	0	708
19:00	5	490	38	2	2	0	0	1	0	0	0	0	0	538
20:00	3	354	30	0	4	1	0	1	0	0	0	0	0	393
21:00	2	277	17	0	3	0	0	2	0	0	0	0	0	301
22:00	1	202	15	1	0	0	0	1	0	0	0	0	0	220
23:00	1	123	14	1	2	0	0	1	0	0	0	0	0	142
Total	52	9677	871	35	167	38	0	57	36	0	0	1	0	10934
Percent	0.5%	88.5%	8.0%	0.3%	1.5%	0.3%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	10:00	10:00	08:00	07:00		07:00	11:00			08:00		08:00
Vol.	5	658	57	5	16	6		5	6			1		735
PM Peak	17:00	17:00	17:00	18:00	14:00	14:00		15:00	15:00					17:00
Vol.	8	826	84	4	16	5		8	7					931

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Broadway (Route 138)
south of Bay Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 S-C class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	1	91	10	1	3	0	0	1	0	0	0	0	0	107
01:00	1	50	3	0	0	1	0	0	0	0	0	0	0	55
02:00	1	29	5	0	2	0	0	0	0	0	0	0	0	37
03:00	0	21	2	0	4	0	0	0	0	0	0	0	0	27
04:00	0	45	9	1	4	0	0	0	0	0	0	0	0	59
05:00	1	113	22	0	5	1	0	2	0	0	0	0	0	144
06:00	0	262	42	2	8	2	0	2	0	0	0	0	0	318
07:00	0	565	49	2	13	6	0	2	0	0	0	0	0	637
08:00	2	602	61	5	16	5	0	6	0	0	0	0	0	697
09:00	4	522	63	5	18	5	1	2	1	0	0	0	0	621
10:00	3	497	53	2	16	3	0	3	3	0	0	0	0	580
11:00	3	517	71	6	11	5	0	3	4	0	0	0	0	620
12 PM	2	552	52	1	7	0	0	2	1	0	0	0	0	617
13:00	8	586	55	0	13	5	0	2	1	1	0	0	0	671
14:00	6	673	63	2	8	0	0	2	0	0	0	0	0	754
15:00	4	680	72	4	19	4	0	4	0	1	0	0	0	788
16:00	8	769	90	2	7	3	0	2	0	0	0	0	0	881
17:00	11	831	84	2	8	1	0	1	2	2	1	0	0	943
18:00	8	624	46	2	8	0	0	0	0	0	0	0	0	688
19:00	5	523	43	3	2	0	0	0	0	0	0	0	0	576
20:00	3	369	38	1	0	1	0	0	0	0	0	0	0	412
21:00	7	307	26	1	0	1	0	0	0	0	0	0	0	342
22:00	1	197	26	0	0	0	0	0	0	0	0	0	0	224
23:00	0	136	11	1	2	0	0	0	0	0	0	0	0	150
Total	79	9561	996	43	174	43	1	34	12	4	1	0	0	10948
Percent	0.7%	87.3%	9.1%	0.4%	1.6%	0.4%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	11:00	11:00	09:00	07:00	09:00	08:00	11:00					08:00
Vol.	4	602	71	6	18	6	1	6	4					697
PM Peak	17:00	17:00	16:00	15:00	15:00	13:00		15:00	17:00	17:00	17:00			17:00
Vol.	11	831	90	4	19	5		4	2	2	1			943

PRECISION DATA INDUSTRIES, LLC
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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/16/08 thru Wed 9/17/08	81676	Easton, MA

Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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81676 T-C volume
Site Code: 10111.31

Start	SB				NB				Combined				16-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	17		88		23		111		40		199		
12:15	17		113		10		93		27		206		
12:30	12		102		9		101		21		203		
12:45	5	51	109	412	11	53	106	411	16	104	215	823	
01:00	19		123		11		102		30		225		
01:15	10		114		14		110		24		224		
01:30	4		114		20		125		24		239		
01:45	6	39	125	476	10	55	133	470	16	94	258	946	
02:00	5		137		6		116		11		253		
02:15	8		135		7		117		15		252		
02:30	3		150		11		120		14		270		
02:45	5	21	156	578	11	35	125	478	16	56	281	1056	
03:00	5		186		6		104		11		290		
03:15	6		188		8		131		14		319		
03:30	9		217		12		146		21		363		
03:45	6	26	223	814	18	44	86	467	24	70	309	1281	
04:00	8		222		8		120		16		342		
04:15	7		221		26		106		33		327		
04:30	7		238		32		142		39		380		
04:45	12	34	258	939	50	116	140	508	62	150	398	1447	
05:00	15		256		56		126		71		382		
05:15	24		256		72		128		96		384		
05:30	26		276		107		107		133		383		
05:45	20	85	201	989	154	389	104	465	174	474	305	1454	
06:00	38		182		173		107		211		289		
06:15	54		151		185		92		239		243		
06:30	67		162		249		82		316		244		
06:45	54	213	134	629	279	886	96	377	333	1099	230	1006	
07:00	72		120		239		89		311		209		
07:15	84		114		265		79		349		193		
07:30	92		97		282		66		374		163		
07:45	81	329	90	421	288	1074	56	290	369	1403	146	711	
08:00	83		63		221		73		304		136		
08:15	79		73		224		55		303		128		
08:30	83		76		197		36		280		112		
08:45	102	347	58	270	217	859	37	201	319	1206	95	471	
09:00	102		54		138		50		240		104		
09:15	87		52		120		43		207		95		
09:30	86		56		122		37		208		93		
09:45	83	358	38	200	145	525	45	175	228	883	83	375	
10:00	90		52		79		35		169		87		
10:15	87		29		96		32		183		61		
10:30	97		42		102		33		199		75		
10:45	93	367	28	151	88	365	23	123	181	732	51	274	
11:00	86		30		105		20		191		50		
11:15	98		29		92		22		190		51		
11:30	103		20		123		8		226		28		
11:45	100	387	20	99	111	431	12	62	211	818	32	161	
Total	2257		5978		4832		4027		7089		10005		
Percent	31.8%		59.8%		68.2%		40.2%						
Day Total		8235				8859				17094			
Peak	11:00		04:45		07:00		04:30		07:00		04:45		
Vol.	387		1046		1074		536		1403		1547		
P.H.F.	0.939		0.947		0.932		0.944		0.938		0.972		

Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 T-C volume
Site Code: 10111.31

Start	SB				NB				Combined				17-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	23		150		20		95		43		245		
12:15	24		165		11		104		35		269		
12:30	13		114		9		93		22		207		
12:45	8	68	109	538	16	56	106	398	24	124	215	936	
01:00	10		126		9		106		19		232		
01:15	17		111		11		113		28		224		
01:30	4		127		29		105		33		232		
01:45	5	36	95	459	9	58	123	447	14	94	218	906	
02:00	13		119		4		110		17		229		
02:15	7		148		4		139		11		287		
02:30	7		165		14		124		21		289		
02:45	3	30	161	593	3	25	129	502	6	55	290	1095	
03:00	4		178		5		120		9		298		
03:15	2		179		9		142		11		321		
03:30	7		220		9		128		16		348		
03:45	4	17	207	784	22	45	158	548	26	62	365	1332	
04:00	6		227		9		149		15		376		
04:15	10		223		18		144		28		367		
04:30	6		263		38		130		44		393		
04:45	7	29	239	952	46	111	151	574	53	140	390	1526	
05:00	17		238		56		130		73		368		
05:15	29		268		72		156		101		424		
05:30	22		257		106		128		128		385		
05:45	30	98	195	958	167	401	115	529	197	499	310	1487	
06:00	42		177		136		120		178		297		
06:15	54		173		181		121		235		294		
06:30	68		147		239		76		307		223		
06:45	72	236	125	622	263	819	72	389	335	1055	197	1011	
07:00	68		155		242		74		310		229		
07:15	89		144		257		70		346		214		
07:30	103		97		280		68		383		165		
07:45	84	344	87	483	268	1047	64	276	352	1391	151	759	
08:00	90		78		233		59		323		137		
08:15	92		92		226		63		318		155		
08:30	73		91		203		62		276		153		
08:45	86	341	75	336	197	859	57	241	283	1200	132	577	
09:00	108		63		124		56		232		119		
09:15	81		54		120		44		201		98		
09:30	87		50		106		52		193		102		
09:45	87	363	52	219	115	465	40	192	202	828	92	411	
10:00	85		61		105		40		190		101		
10:15	95		38		110		36		205		74		
10:30	106		43		116		31		222		74		
10:45	86	372	44	186	103	434	25	132	189	806	69	318	
11:00	111		36		89		19		200		55		
11:15	98		26		112		23		210		49		
11:30	124		22		98		20		222		42		
11:45	106	439	25	109	98	397	20	82	204	836	45	191	
Total	2373		6239		4717		4310		7090		10549		
Percent	33.5%		59.1%		66.5%		40.9%						
Day Total		8612				9027				17639			
Peak	11:00		04:30		07:00		03:45		07:15		04:30		
Vol.	439		1008		1047		581		1404		1575		
P.H.F.	0.885		0.940		0.935		0.919		0.916		0.929		

PRECISION DATA INDUSTRIES, LLC
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Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

81676 T-C speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	0	1	5	21	15	8	1	0	0	0	51	50	45
01:00	0	0	0	1	0	6	14	15	2	1	0	0	0	39	48	44
02:00	0	0	0	0	1	4	9	6	1	0	0	0	0	21	47	42
03:00	0	0	0	0	1	6	7	5	6	1	0	0	0	26	51	44
04:00	0	0	0	0	2	9	13	8	1	0	**1**	0	0	34	47	42
05:00	0	0	0	0	1	10	36	30	7	1	0	0	0	85	49	44
06:00	**3**	**2**	2	3	6	31	97	57	10	2	0	0	0	213	48	42
07:00	0	1	**22**	**5**	**17**	61	138	69	**14**	1	1	0	0	329	47	40
08:00	1	2	7	3	17	84	162	64	7	0	0	0	0	347	46	41
09:00	0	0	0	0	15	66	175	90	12	0	0	0	0	358	47	42
10:00	0	0	0	0	16	71	178	86	14	2	0	0	0	367	47	42
11:00	1	1	0	1	11	**89**	**184**	**91**	5	**4**	0	0	0	**387**	47	42
12 PM	0	0	0	5	23	90	202	80	12	0	0	0	0	412	46	41
13:00	0	1	0	2	26	110	224	97	14	2	0	0	0	476	47	42
14:00	1	3	9	12	38	132	227	138	15	2	**1**	0	0	578	47	41
15:00	**6**	**9**	**22**	**18**	**53**	203	349	130	**23**	1	0	0	0	814	46	40
16:00	0	0	0	1	43	226	475	166	23	**5**	0	0	0	939	46	42
17:00	0	0	1	4	39	**272**	**489**	**167**	13	3	0	**1**	0	**989**	46	41
18:00	0	0	2	2	15	159	295	139	14	3	0	0	0	629	47	42
19:00	0	0	0	1	17	115	198	80	8	1	1	0	0	421	46	41
20:00	0	1	0	1	8	47	131	70	9	3	0	0	0	270	47	42
21:00	0	0	0	0	7	35	100	44	12	2	0	0	0	200	48	43
22:00	0	0	0	0	3	25	70	40	11	2	0	0	0	151	48	43
23:00	0	0	0	0	1	10	48	26	9	4	1	0	0	99	49	44
Total	12	20	65	59	361	1866	3842	1713	250	41	5	1	0	8235		
%	0.1%	0.2%	0.8%	0.7%	4.4%	22.7%	46.7%	20.8%	3.0%	0.5%	0.1%	0.0%	0.0%			
AM Peak	06:00	06:00	07:00	07:00	07:00	11:00	11:00	11:00	07:00	11:00	04:00			11:00		
Vol.	3	2	22	5	17	89	184	91	14	4	1			387		
PM Peak	15:00	15:00	15:00	15:00	15:00	17:00	17:00	17:00	15:00	16:00	14:00	17:00		17:00		
Vol.	6	9	22	18	53	272	489	167	23	5	1	1		989		

Pecent

15th Percentile :	36 MPH
50th Percentile :	42 MPH
85th Percentile :	47 MPH
95th Percentile :	49 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	5708
Percent in Pace :	69.3%
Number of Vehicles > 40 MPH :	5083
Percent of Vehicles > 40 MPH :	61.7%
Mean Speed(Average) :	41 MPH

PRECISION DATA INDUSTRIES, LLC
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Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

81676 T-C speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0 8	0	0	0	0	1	10	30	15	9	2	**1**	0	0	68	50	44
01:00	0	0	0	0	1	6	15	5	8	1	0	0	0	36	51	44
02:00	0	0	0	0	3	5	10	10	1	0	0	0	**1**	30	48	43
03:00	0	0	0	0	0	5	7	2	1	1	0	**1**	0	17	46	44
04:00	0	0	0	0	2	5	12	8	2	0	0	0	0	29	47	42
05:00	0	0	0	0	0	11	54	27	5	1	0	0	0	98	48	43
06:00	**1**	**4**	**4**	**6**	8	46	107	47	12	0	1	0	0	236	47	41
07:00	0	0	0	6	13	61	155	84	**24**	1	0	0	0	344	48	42
08:00	0	0	0	3	**23**	70	147	81	16	1	0	0	0	341	47	42
09:00	0	0	0	0	14	62	179	96	11	0	1	0	0	363	47	42
10:00	0	0	0	2	13	78	166	91	16	**5**	1	0	0	372	48	42
11:00	0	0	0	2	20	**121**	**187**	**99**	10	0	0	0	0	**439**	47	41
12 PM	0	2	3	8	29	125	256	100	9	**5**	1	0	0	538	46	41
13:00	0	1	1	7	36	142	166	94	10	2	0	0	0	459	46	41
14:00	0	0	7	9	29	158	267	103	17	2	1	0	0	593	46	41
15:00	**5**	**10**	**20**	**40**	**90**	198	293	109	18	1	0	0	0	784	45	39
16:00	0	0	0	9	54	211	470	**186**	19	3	0	0	0	952	46	41
17:00	0	0	0	20	31	**236**	**490**	153	**27**	1	0	0	0	**958**	46	41
18:00	0	1	3	4	22	127	301	142	18	2	**2**	0	0	622	47	42
19:00	0	0	1	0	13	160	209	84	12	3	0	0	**1**	483	46	41
20:00	0	0	0	0	8	90	149	78	11	0	0	0	0	336	47	42
21:00	0	0	0	0	8	44	107	52	8	0	0	0	0	219	47	42
22:00	0	0	0	0	13	29	77	53	11	3	0	0	0	186	48	43
23:00	0	0	0	1	0	18	42	38	8	1	0	**1**	0	109	49	44
Total	6	18	39	117	431	2018	3896	1757	283	35	8	2	2	8612		
%	0.1%	0.2%	0.5%	1.4%	5.0%	23.4%	45.2%	20.4%	3.3%	0.4%	0.1%	0.0%	0.0%			
AM Peak	06:00	06:00	06:00	06:00	08:00	11:00	11:00	11:00	07:00	10:00	00:00	03:00	02:00	11:00		
Vol.	1	4	4	6	23	121	187	99	24	5	1	1	1	439		
PM Peak	15:00	15:00	15:00	15:00	15:00	17:00	17:00	16:00	17:00	12:00	18:00	23:00	19:00	17:00		
Vol.	5	10	20	40	90	236	490	186	27	5	2	1	1	958		

Pecent

15th Percentile :	36 MPH
50th Percentile :	42 MPH
85th Percentile :	47 MPH
95th Percentile :	49 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	5914
Percent in Pace :	68.7%
Number of Vehicles > 40 MPH :	5203
Percent of Vehicles > 40 MPH :	60.4%
Mean Speed(Average) :	41 MPH

PRECISION DATA INDUSTRIES, LLC
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Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

81676 T-C speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/16/0																
8	0	0	0	0	1	8	19	21	4	0	0	0	0	53	48	44
01:00	0	0	0	0	1	4	26	17	4	**3**	0	0	0	55	49	44
02:00	0	0	0	1	2	3	13	12	3	1	0	0	0	35	49	43
03:00	0	0	0	0	0	2	23	12	4	1	**2**	0	0	44	49	45
04:00	0	0	0	0	2	5	48	42	15	3	1	0	0	116	50	45
05:00	0	0	0	0	4	37	167	**164**	**16**	1	0	0	0	389	48	44
06:00	0	0	4	24	58	310	381	104	4	1	0	0	0	886	44	40
07:00	**16**	**26**	**29**	**50**	**182**	**446**	289	35	1	0	0	0	0	**1074**	42	36
08:00	1	6	11	5	63	315	**405**	53	0	0	0	0	0	859	44	39
09:00	0	0	0	0	43	134	257	85	6	0	0	0	0	525	45	41
10:00	2	0	2	2	24	100	190	40	5	0	0	0	0	365	44	40
11:00	0	0	3	3	24	129	226	45	1	0	0	0	0	431	44	40
12 PM	0	0	0	7	19	122	205	55	3	0	0	0	0	411	44	41
13:00	0	0	0	2	22	148	249	45	4	0	0	0	0	470	44	40
14:00	**1**	**1**	**3**	**13**	**68**	149	202	39	2	0	0	0	0	478	44	39
15:00	0	0	3	4	24	**155**	236	44	1	0	0	0	0	467	44	40
16:00	0	0	0	0	17	142	**263**	**82**	4	0	0	0	0	**508**	45	41
17:00	0	0	0	2	14	127	256	63	3	0	0	0	0	465	44	41
18:00	0	1	0	0	5	95	212	55	8	1	0	0	0	377	45	41
19:00	0	0	0	4	20	76	135	53	2	0	0	0	0	290	45	41
20:00	0	0	0	1	9	71	94	24	1	1	0	0	0	201	44	40
21:00	1	0	0	0	5	40	92	27	**9**	1	0	0	0	175	46	42
22:00	0	0	0	0	0	17	63	32	8	**3**	0	0	0	123	48	44
23:00	0	0	0	0	0	10	35	11	5	1	0	0	0	62	48	43
Total	21	34	55	118	607	2645	4086	1160	113	17	3	0	0	8859		
%	0.2%	0.4%	0.6%	1.3%	6.9%	29.9%	46.1%	13.1%	1.3%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	08:00	05:00	05:00	01:00	03:00			07:00		
Vol.	16	26	29	50	182	446	405	164	16	3	2			1074		
PM Peak	14:00	14:00	14:00	14:00	14:00	15:00	16:00	16:00	21:00	22:00				16:00		
Vol.	1	1	3	13	68	155	263	82	9	3				508		

Pecent

15th Percentile :	35 MPH
50th Percentile :	41 MPH
85th Percentile :	44 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6731
Percent in Pace :	76.0%
Number of Vehicles > 40 MPH :	4561
Percent of Vehicles > 40 MPH :	51.5%
Mean Speed(Average) :	40 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Turnpike Street (Route 138) south of
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81676 T-C speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/17/0																
8	0	0	1	0	3	10	18	18	5	1	0	0	0	56	49	43
01:00	0	0	0	0	1	8	22	22	4	1	0	0	0	58	48	44
02:00	0	0	0	0	0	2	10	11	2	0	0	0	0	25	48	45
03:00	0	0	0	0	0	4	15	19	5	**2**	0	0	0	45	49	45
04:00	0	0	0	0	1	14	36	46	12	2	0	0	0	111	49	45
05:00	0	0	0	0	3	49	173	**152**	**22**	2	0	0	0	401	48	44
06:00	**1**	0	**2**	7	54	207	**419**	122	7	0	0	0	0	819	45	41
07:00	0	0	2	36	**139**	**421**	395	53	1	0	0	0	0	**1047**	43	38
08:00	0	**1**	0	**37**	123	307	335	56	0	0	0	0	0	859	43	38
09:00	0	0	0	5	15	121	252	67	4	1	0	0	0	465	45	41
10:00	0	0	0	0	24	103	236	69	2	0	0	0	0	434	45	41
11:00	0	0	0	8	20	109	204	54	2	0	0	0	0	397	44	41
12 PM	0	1	0	0	14	108	214	58	2	**1**	0	0	0	398	45	41
13:00	0	0	0	1	32	168	205	36	5	0	0	0	0	447	44	40
14:00	0	0	4	21	41	**207**	190	39	0	0	0	0	0	502	44	39
15:00	0	**2**	**7**	**25**	**75**	200	198	40	1	0	0	0	0	548	43	38
16:00	0	0	0	2	23	194	**283**	68	4	0	0	0	0	**574**	44	41
17:00	0	0	1	2	24	165	260	**74**	3	0	0	0	0	529	44	41
18:00	0	0	0	1	10	110	195	67	4	1	**1**	0	0	389	46	41
19:00	0	0	0	0	11	84	146	34	1	0	0	0	0	276	44	41
20:00	0	0	0	0	11	74	109	39	**7**	1	0	0	0	241	46	41
21:00	0	0	0	1	5	34	109	37	5	1	0	0	0	192	46	42
22:00	0	0	0	0	3	30	58	38	3	0	0	0	0	132	47	42
23:00	0	0	0	0	4	11	39	22	6	0	0	0	0	82	48	43
Total	1	4	17	146	636	2740	4121	1241	107	13	1	0	0	9027		
%	0.0%	0.0%	0.2%	1.6%	7.0%	30.4%	45.7%	13.7%	1.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak	06:00	08:00	06:00	08:00	07:00	07:00	06:00	05:00	05:00	03:00				07:00		
Vol.	1	1	2	37	139	421	419	152	22	2				1047		
PM Peak		15:00	15:00	15:00	15:00	14:00	16:00	17:00	20:00	12:00	18:00			16:00		
Vol.		2	7	25	75	207	283	74	7	1	1			574		

Pecent

15th Percentile :	36 MPH
50th Percentile :	41 MPH
85th Percentile :	45 MPH
95th Percentile :	48 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6861
Percent in Pace :	76.0%
Number of Vehicles > 40 MPH :	4658
Percent of Vehicles > 40 MPH :	51.6%
Mean Speed(Average) :	40 MPH

PRECISION DATA INDUSTRIES, LLC
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Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

81676 T-C class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	1	38	5	1	1	1	0	2	2	0	0	0	0	51
01:00	1	28	4	0	2	1	0	0	2	0	1	0	0	39
02:00	0	11	1	0	3	1	0	0	5	0	0	0	0	21
03:00	1	15	4	1	2	2	0	0	1	0	0	0	0	26
04:00	0	19	2	0	2	4	0	1	6	0	0	0	0	34
05:00	1	59	16	2	6	1	0	0	0	0	0	0	0	85
06:00	0	145	43	3	10	4	0	4	4	0	0	0	0	213
07:00	2	259	41	4	12	4	1	3	3	0	0	0	0	329
08:00	3	257	57	5	17	0	2	2	3	1	0	0	0	347
09:00	5	231	81	5	21	5	1	4	4	0	1	0	0	358
10:00	2	244	79	7	20	6	1	0	8	0	0	0	0	367
11:00	4	275	70	6	21	6	0	2	3	0	0	0	0	387
12 PM	5	295	70	9	15	10	0	3	5	0	0	0	0	412
13:00	2	344	83	7	17	10	2	5	6	0	0	0	0	476
14:00	8	436	83	8	26	6	4	3	4	0	0	0	0	578
15:00	6	641	126	4	21	7	1	5	3	0	0	0	0	814
16:00	12	758	128	3	24	3	0	6	5	0	0	0	0	939
17:00	12	809	138	5	14	7	1	1	2	0	0	0	0	989
18:00	9	531	62	4	15	1	0	4	3	0	0	0	0	629
19:00	4	333	68	2	9	2	0	2	1	0	0	0	0	421
20:00	0	224	38	1	1	0	0	1	4	0	1	0	0	270
21:00	0	171	23	1	2	0	0	0	1	0	1	1	0	200
22:00	1	123	21	1	0	1	0	2	2	0	0	0	0	151
23:00	1	80	11	0	2	0	0	1	4	0	0	0	0	99
Total	80	6326	1254	79	263	82	13	51	81	1	4	1	0	8235
Percent	1.0%	76.8%	15.2%	1.0%	3.2%	1.0%	0.2%	0.6%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	09:00	10:00	09:00	10:00	08:00	06:00	10:00	08:00	01:00			11:00
Vol.	5	275	81	7	21	6	2	4	8	1	1			387
PM Peak	16:00	17:00	17:00	12:00	14:00	12:00	14:00	16:00	13:00		20:00	21:00		17:00
Vol.	12	809	138	9	26	10	4	6	6		1	1		989

Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

PRECISION DATA INDUSTRIES, LLC
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Email: datarequests@pdillc.com

81676 T-C class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	3	51	7	0	2	0	0	1	4	0	0	0	0	68
01:00	0	28	0	2	1	1	0	1	1	0	1	1	0	36
02:00	1	17	4	0	3	1	0	1	3	0	0	0	0	30
03:00	0	10	3	1	0	2	1	0	0	0	0	0	0	17
04:00	0	13	6	0	4	3	0	0	3	0	0	0	0	29
05:00	0	67	20	2	6	1	0	0	2	0	0	0	0	98
06:00	0	159	43	7	11	5	0	5	6	0	0	0	0	236
07:00	2	258	65	4	7	4	0	2	2	0	0	0	0	344
08:00	1	248	58	4	18	4	1	3	4	0	0	0	0	341
09:00	2	249	61	12	25	7	0	4	3	0	0	0	0	363
10:00	3	263	56	3	29	5	2	5	4	2	0	0	0	372
11:00	1	317	81	7	16	6	0	3	8	0	0	0	0	439
12 PM	8	411	81	5	21	5	0	4	3	0	0	0	0	538
13:00	3	346	80	7	12	6	0	3	2	0	0	0	0	459
14:00	6	450	105	6	17	5	0	1	3	0	0	0	0	593
15:00	6	616	103	11	28	13	0	2	5	0	0	0	0	784
16:00	9	763	142	5	22	5	1	4	1	0	0	0	0	952
17:00	14	787	118	6	20	6	0	6	1	0	0	0	0	958
18:00	10	501	82	1	18	1	0	4	5	0	0	0	0	622
19:00	7	388	70	6	6	0	0	3	3	0	0	0	0	483
20:00	6	276	40	1	4	3	0	1	3	0	2	0	0	336
21:00	1	178	34	2	1	0	0	1	1	0	0	1	0	219
22:00	2	167	14	0	2	1	0	0	0	0	0	0	0	186
23:00	1	96	6	1	0	0	0	2	3	0	0	0	0	109
Total	86	6659	1279	93	273	84	5	56	70	2	3	2	0	8612
Percent	1.0%	77.3%	14.9%	1.1%	3.2%	1.0%	0.1%	0.7%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	00:00	11:00	11:00	09:00	10:00	09:00	10:00	06:00	11:00	10:00	01:00	01:00		11:00
Vol.	3	317	81	12	29	7	2	5	8	2	1	1		439
PM Peak	17:00	17:00	16:00	15:00	15:00	15:00	16:00	17:00	15:00		20:00	21:00		17:00
Vol.	14	787	142	11	28	13	1	6	5		2	1		958

PRECISION
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Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

81676 T-C class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/16/0														
8	1	43	3	1	1	0	0	2	2	0	0	0	0	53
01:00	0	42	3	0	5	1	0	1	3	0	0	0	0	55
02:00	1	19	4	0	5	2	0	3	1	0	0	0	0	35
03:00	1	19	8	0	5	2	0	2	5	0	2	0	0	44
04:00	3	79	20	1	6	2	0	1	4	0	0	0	0	116
05:00	9	267	94	2	14	0	0	0	2	0	0	1	0	389
06:00	10	680	153	5	16	9	0	6	6	0	1	0	0	886
07:00	6	869	157	8	20	6	0	4	3	0	1	0	0	1074
08:00	7	696	110	5	22	9	0	6	4	0	0	0	0	859
09:00	6	405	85	7	13	4	0	2	3	0	0	0	0	525
10:00	5	253	69	6	20	3	0	3	5	1	0	0	0	365
11:00	4	312	73	2	19	9	0	6	5	0	0	1	0	431
12 PM	3	308	62	4	16	8	0	5	5	0	0	0	0	411
13:00	2	362	73	3	17	4	0	3	6	0	0	0	0	470
14:00	4	352	69	7	17	12	0	6	10	1	0	0	0	478
15:00	5	369	57	6	16	8	0	4	2	0	0	0	0	467
16:00	2	410	62	4	18	8	0	3	1	0	0	0	0	508
17:00	1	399	52	3	4	2	1	2	1	0	0	0	0	465
18:00	5	315	41	2	10	2	0	1	1	0	0	0	0	377
19:00	3	235	39	2	8	1	0	1	1	0	0	0	0	290
20:00	1	166	26	0	5	2	0	0	1	0	0	0	0	201
21:00	1	145	24	0	1	0	0	1	3	0	0	0	0	175
22:00	1	97	17	0	3	4	0	1	0	0	0	0	0	123
23:00	0	49	10	0	1	0	0	0	2	0	0	0	0	62
Total	81	6891	1311	68	262	98	1	63	76	2	4	2	0	8859
Percent	0.9%	77.8%	14.8%	0.8%	3.0%	1.1%	0.0%	0.7%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	08:00	06:00		06:00	06:00	10:00	03:00	05:00		07:00
Vol.	10	869	157	8	22	9		6	6	1	2	1		1074
PM Peak	15:00	16:00	13:00	14:00	16:00	14:00	17:00	14:00	14:00	14:00				16:00
Vol.	5	410	73	7	18	12	1	6	10	1				508

PRECISION
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Turnpike Street (Route 138) south of
Foundry Street (Route 106)
City, State: Easton, MA
Client: VHB/ J. Quitter

81676 T-C class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/17/0														
8	0	43	5	1	1	0	0	4	1	0	0	1	0	56
01:00	0	44	4	0	5	0	0	1	4	0	0	0	0	58
02:00	0	10	6	0	5	0	0	3	1	0	0	0	0	25
03:00	1	22	11	0	5	1	0	0	4	0	1	0	0	45
04:00	6	73	23	0	4	0	0	3	1	0	1	0	0	111
05:00	6	275	99	2	14	3	0	1	1	0	0	0	0	401
06:00	2	640	138	4	15	8	0	4	8	0	0	0	0	819
07:00	5	828	168	10	22	7	0	5	1	1	0	0	0	1047
08:00	4	698	114	5	17	9	0	6	5	1	0	0	0	859
09:00	4	344	80	4	15	2	1	7	7	1	0	0	0	465
10:00	5	314	77	4	20	5	0	1	5	3	0	0	0	434
11:00	3	292	59	7	22	5	0	7	2	0	0	0	0	397
12 PM	3	295	63	6	18	2	0	6	5	0	0	0	0	398
13:00	5	331	66	7	23	7	0	5	3	0	0	0	0	447
14:00	2	380	81	6	17	6	0	5	5	0	0	0	0	502
15:00	2	442	65	8	15	8	0	5	3	0	0	0	0	548
16:00	6	469	64	5	15	7	0	5	2	0	0	1	0	574
17:00	5	449	57	4	5	3	0	3	3	0	0	0	0	529
18:00	9	321	40	3	12	2	0	1	1	0	0	0	0	389
19:00	1	225	40	1	5	2	0	1	1	0	0	0	0	276
20:00	2	202	30	2	3	1	0	0	1	0	0	0	0	241
21:00	4	162	23	0	1	0	0	1	1	0	0	0	0	192
22:00	0	111	12	0	3	1	0	1	3	0	1	0	0	132
23:00	0	65	13	0	3	1	0	0	0	0	0	0	0	82
Total	75	7035	1338	79	265	80	1	75	68	6	3	2	0	9027
Percent	0.8%	77.9%	14.8%	0.9%	2.9%	0.9%	0.0%	0.8%	0.8%	0.1%	0.0%	0.0%	0.0%	
AM Peak	04:00	07:00	07:00	07:00	07:00	08:00	09:00	09:00	06:00	10:00	03:00	00:00		07:00
Vol.	6	828	168	10	22	9	1	7	8	3	1	1		1047
PM Peak	18:00	16:00	14:00	15:00	13:00	15:00		12:00	12:00		22:00	16:00		16:00
Vol.	9	469	81	8	23	8		6	5		1	1		574

PRECISION DATA INDUSTRIES, LLC
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Traffic Counts with Precision

Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 10/15/08 thru Thur 10/16/08	81676	New Bedford, MA

Route 140 (NB) north of
Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION
D A T A
INDUSTRIES, LLC
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81676 Q-B1 volume
Site Code: 10111.31

Start Time	A.M.	NB	P.M.				Wed 15-Oct-08
12:00	51		287				
12:15	41		324				
12:30	27		276				
12:45	20	139	341	1228			
01:00	30		329				
01:15	18		301				
01:30	12		318				
01:45	13	73	328	1276			
02:00	20		359				
02:15	7		455				
02:30	18		414				
02:45	14	59	448	1676			
03:00	22		461				
03:15	22		495				
03:30	22		490				
03:45	31	97	461	1907			
04:00	36		500				
04:15	68		485				
04:30	112		535				
04:45	154	370	524	2044			
05:00	179		501				
05:15	264		538				
05:30	310		514				
05:45	334	1087	467	2020			
06:00	287		430				
06:15	367		401				
06:30	420		382				
06:45	473	1547	341	1554			
07:00	452		279				
07:15	554		284				
07:30	526		245				
07:45	527	2059	222	1030			
08:00	428		209				
08:15	421		233				
08:30	385		217				
08:45	388	1622	197	856			
09:00	315		210				
09:15	320		174				
09:30	261		164				
09:45	285	1181	159	707			
10:00	277		148				
10:15	275		148				
10:30	248		108				
10:45	309	1109	100	504			
11:00	304		90				
11:15	325		85				
11:30	306		84				
11:45	274	1209	57	316			
Total	10552		15118				
Percent			100.0%		0.0%	0.0%	
Day Total		25670					
Peak	07:00		04:30				
Vol.	2059		2098				
P.H.F.	0.929		0.975				

Route 140 (NB) north of
Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION
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INDUSTRIES, LLC
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81676 Q-B1 volume
Site Code: 10111.31

Start Time	A.M.	NB	P.M.				Thu 16-Oct-08
12:00	46		328				
12:15	40		347				
12:30	40		315				
12:45	31	157	335	1325			
01:00	25		346				
01:15	21		366				
01:30	28		325				
01:45	16	90	359	1396			
02:00	24		413				
02:15	20		406				
02:30	22		473				
02:45	15	81	451	1743			
03:00	11		459				
03:15	26		487				
03:30	12		467				
03:45	23	72	459	1872			
04:00	39		471				
04:15	74		470				
04:30	100		500				
04:45	145	358	471	1912			
05:00	215		531				
05:15	241		572				
05:30	272		456				
05:45	314	1042	406	1965			
06:00	271		376				
06:15	373		379				
06:30	418		324				
06:45	496	1558	312	1391			
07:00	441		313				
07:15	524		282				
07:30	491		277				
07:45	503	1959	253	1125			
08:00	476		261				
08:15	452		248				
08:30	402		229				
08:45	371	1701	188	926			
09:00	307		167				
09:15	290		185				
09:30	277		162				
09:45	283	1157	155	669			
10:00	279		133				
10:15	271		127				
10:30	287		125				
10:45	317	1154	118	503			
11:00	300		86				
11:15	313		77				
11:30	291		85				
11:45	301	1205	74	322			
Total	10534		15149				
Percent			100.0%		0.0%	0.0%	
Day Total		25683					
Peak	07:15		04:30				
Vol.	1994		2074				
P.H.F.	0.951		0.906				

PRECISION
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Route 140 (NB) north of
Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 Q-B1 speed
Site Code: 10111.31

NB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	1	3	14	37	41	21	10	9	2	1	139	76	68
01:00	0	0	0	2	1	9	11	21	18	5	4	1	1	73	75	69
02:00	0	**2**	0	0	3	7	18	7	15	3	2	2	0	59	75	66
03:00	0	0	0	2	5	13	15	33	15	8	2	3	1	97	75	67
04:00	0	1	1	3	4	26	81	98	75	53	18	8	2	370	78	69
05:00	1	0	0	1	18	67	177	288	268	190	57	13	5	1085	78	70
06:00	1	0	1	7	21	91	216	417	388	301	77	23	5	1548	78	71
07:00	3	0	**5**	4	**42**	**133**	**325**	**450**	**512**	**417**	**133**	**25**	**9**	**2058**	79	71
08:00	1	0	2	3	31	100	290	414	351	318	94	15	4	1623	78	70
09:00	**4**	0	0	**9**	26	121	265	260	250	177	58	9	2	1181	77	69
10:00	2	0	1	7	31	124	276	283	197	133	40	11	5	1110	76	68
11:00	2	1	1	2	27	96	307	322	230	164	43	12	2	1209	77	68
12 PM	**4**	0	1	5	20	103	274	327	253	175	48	13	5	1228	77	69
13:00	1	0	1	0	13	98	241	378	277	193	53	15	6	1276	77	70
14:00	1	0	0	1	27	**161**	333	464	343	242	76	20	8	1676	77	69
15:00	2	0	1	3	28	151	330	556	421	299	84	**25**	6	1906	78	70
16:00	1	0	0	2	31	95	**387**	**583**	**497**	320	104	21	4	**2045**	78	70
17:00	3	0	0	1	20	92	371	577	483	**332**	**111**	21	**9**	2020	78	70
18:00	1	0	**3**	**11**	**44**	160	351	436	311	177	46	10	3	1553	76	68
19:00	0	0	3	7	34	99	261	284	188	118	28	6	3	1031	75	68
20:00	0	0	1	10	27	96	215	232	161	81	20	9	4	856	75	67
21:00	0	0	1	4	25	80	168	198	135	60	25	7	3	706	75	68
22:00	0	0	0	4	16	45	116	145	97	54	22	5	1	505	76	68
23:00	0	0	0	3	8	30	81	89	64	27	10	4	0	316	75	68
Total	27	4	22	92	505	2011	5146	6903	5570	3857	1164	280	89	25670		
%	0.1%	0.0%	0.1%	0.4%	2.0%	7.8%	20.0%	26.9%	21.7%	15.0%	4.5%	1.1%	0.3%			
AM Peak	09:00	02:00	07:00	09:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00		
Vol.	4	2	5	9	42	133	325	450	512	417	133	25	9	2058		
PM Peak	12:00		18:00	18:00	18:00	14:00	16:00	16:00	16:00	17:00	17:00	15:00	17:00	16:00		
Vol.	4		3	11	44	161	387	583	497	332	111	25	9	2045		

Pecent

15th Percentile :	62 MPH
50th Percentile :	69 MPH
85th Percentile :	77 MPH
95th Percentile :	82 MPH

Stats

10 MPH Pace Speed :	66-75 MPH
Number in Pace :	12473
Percent in Pace :	48.6%
Number of Vehicles > 65 MPH :	17863
Percent of Vehicles > 65 MPH :	69.6%
Mean Speed(Average) :	69 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 (NB) north of
Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 Q-B1 speed
Site Code: 10111.31

NB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	1	2	6	18	41	35	30	16	4	2	2	157	75	68
01:00	0	0	0	1	3	8	23	30	13	8	4	0	0	90	74	67
02:00	1	0	0	0	4	6	20	24	15	8	3	0	0	81	75	67
03:00	0	0	0	1	2	10	19	17	12	8	2	0	1	72	75	67
04:00	0	0	0	2	11	29	79	74	84	50	21	5	2	357	78	69
05:00	**3**	1	0	3	10	62	167	257	253	196	64	17	**10**	1043	79	71
06:00	3	0	0	3	28	112	256	373	382	271	106	16	7	1557	79	70
07:00	2	0	0	4	28	117	**325**	**437**	**487**	**378**	**149**	23	10	**1960**	79	71
08:00	1	1	0	3	18	109	260	415	397	326	126	**36**	9	1701	79	71
09:00	1	0	0	0	20	75	250	303	251	170	60	21	6	1157	78	70
10:00	3	0	**3**	0	32	88	241	314	219	175	60	14	5	1154	78	69
11:00	1	**2**	1	**6**	**46**	**156**	325	327	194	107	35	2	2	1204	75	67
12 PM	4	0	0	1	22	84	268	380	285	189	67	22	4	1326	78	70
13:00	2	0	1	2	20	93	276	390	311	214	53	25	9	1396	78	70
14:00	4	**1**	0	2	22	**162**	333	470	361	278	81	24	5	1743	78	69
15:00	**9**	1	0	3	39	156	352	524	397	282	89	16	4	1872	77	69
16:00	5	0	0	0	27	90	389	**571**	415	286	**92**	25	**11**	1911	78	70
17:00	4	0	0	0	15	122	**402**	491	**472**	**339**	87	**26**	8	**1966**	78	70
18:00	0	0	1	4	30	145	348	379	246	181	47	6	3	1390	76	68
19:00	0	0	**3**	**9**	**42**	141	313	295	185	105	21	8	3	1125	75	67
20:00	1	0	0	1	28	105	246	219	187	104	26	8	2	927	76	68
21:00	0	0	2	5	24	72	182	182	107	74	14	6	1	669	75	67
22:00	0	0	1	4	32	67	121	146	74	43	8	4	3	503	74	66
23:00	1	0	1	2	5	42	86	72	66	30	10	5	2	322	75	68
Total	45	6	14	58	514	2069	5322	6725	5443	3838	1229	311	109	25683		
%	0.2%	0.0%	0.1%	0.2%	2.0%	8.1%	20.7%	26.2%	21.2%	14.9%	4.8%	1.2%	0.4%			
AM Peak	05:00	11:00	10:00	11:00	11:00	11:00	07:00	07:00	07:00	07:00	07:00	08:00	05:00	07:00		
Vol.	3	2	3	6	46	156	325	437	487	378	149	36	10	1960		
PM Peak	15:00	14:00	19:00	19:00	19:00	14:00	17:00	16:00	17:00	17:00	16:00	17:00	16:00	17:00		
Vol.	9	1	3	9	42	162	402	571	472	339	92	26	11	1966		

Pecent	15th Percentile :	62 MPH
	50th Percentile :	69 MPH
	85th Percentile :	78 MPH
	95th Percentile :	82 MPH

Stats	10 MPH Pace Speed :	66-75 MPH
	Number in Pace :	12168
	Percent in Pace :	47.4%
	Number of Vehicles > 65 MPH :	17655
	Percent of Vehicles > 65 MPH :	68.7%
	Mean Speed(Average) :	70 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Route 140 (NB) north of
Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 Q-B1 class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	103	28	1	1	1	0	1	4	0	0	0	0	139
01:00	0	52	14	1	2	1	0	1	2	0	0	0	0	73
02:00	0	41	10	0	4	0	0	2	2	0	0	0	0	59
03:00	0	63	23	2	6	0	0	2	1	0	0	0	0	97
04:00	1	222	84	8	47	3	0	4	1	0	0	0	0	370
05:00	6	631	288	9	130	4	0	10	5	1	0	1	0	1085
06:00	9	1022	359	16	109	8	0	14	8	0	1	1	1	1548
07:00	8	1387	477	26	109	4	1	22	16	6	2	0	0	2058
08:00	7	1023	420	24	95	11	2	17	22	0	1	0	1	1623
09:00	6	706	319	22	82	13	2	13	15	2	1	0	0	1181
10:00	2	680	303	23	65	11	2	12	11	1	0	0	0	1110
11:00	8	750	289	26	75	11	3	19	25	2	0	1	0	1209
12 PM	4	765	329	22	65	7	1	14	20	1	0	0	0	1228
13:00	4	806	314	26	83	14	1	14	12	1	0	1	0	1276
14:00	8	1095	398	25	88	13	1	30	16	0	1	0	1	1676
15:00	11	1254	459	17	115	9	0	27	12	0	2	0	0	1906
16:00	7	1403	454	12	127	10	0	20	4	3	1	1	3	2045
17:00	7	1382	481	8	110	5	0	19	4	3	0	1	0	2020
18:00	3	1113	336	7	70	5	0	12	5	1	1	0	0	1553
19:00	4	721	244	3	45	1	0	11	1	1	0	0	0	1031
20:00	2	604	204	2	36	1	0	6	0	0	1	0	0	856
21:00	5	540	127	2	28	0	0	4	0	0	0	0	0	706
22:00	2	388	95	2	14	1	0	2	0	1	0	0	0	505
23:00	2	228	75	1	6	0	0	4	0	0	0	0	0	316
Total	106	16979	6130	285	1512	133	13	280	186	23	11	6	6	25670
Percent	0.4%	66.1%	23.9%	1.1%	5.9%	0.5%	0.1%	1.1%	0.7%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	05:00	09:00	11:00	07:00	11:00	07:00	07:00	05:00	06:00	07:00
Vol.	9	1387	477	26	130	13	3	22	25	6	2	1	1	2058
PM Peak	15:00	16:00	17:00	13:00	16:00	13:00	12:00	14:00	12:00	16:00	15:00	13:00	16:00	16:00
Vol.	11	1403	481	26	127	14	1	30	20	3	2	1	3	2045

Route 140 (NB) north of
Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
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Email: datarequests@pdillc.com

81676 Q-B1 class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	123	23	3	5	1	0	1	0	0	0	0	0	157
01:00	0	63	16	0	5	1	0	1	4	0	0	0	0	90
02:00	2	51	15	2	8	0	0	2	1	0	0	0	0	81
03:00	0	45	17	1	5	0	0	2	2	0	0	0	0	72
04:00	0	191	105	7	45	1	0	4	3	1	0	0	0	357
05:00	5	615	282	6	121	6	0	6	1	1	0	0	0	1043
06:00	6	1025	361	14	118	7	1	18	5	1	0	0	1	1557
07:00	5	1329	441	28	110	6	0	25	10	3	3	0	0	1960
08:00	1	1103	440	20	89	11	0	17	15	2	1	1	1	1701
09:00	2	706	303	20	93	8	1	11	12	1	0	0	0	1157
10:00	7	715	274	29	80	8	0	19	19	3	0	0	0	1154
11:00	3	755	292	23	89	8	2	13	18	1	0	0	0	1204
12 PM	9	867	283	21	88	9	0	26	18	5	0	0	0	1326
13:00	2	907	329	23	82	16	0	25	11	0	0	1	0	1396
14:00	5	1108	422	36	115	12	0	31	13	1	0	0	0	1743
15:00	8	1282	419	13	99	11	1	27	11	0	1	0	0	1872
16:00	9	1280	453	11	112	8	0	29	6	1	2	0	0	1911
17:00	8	1382	444	8	90	6	0	20	3	4	1	0	0	1966
18:00	5	1016	294	8	56	1	0	8	0	1	1	0	0	1390
19:00	0	835	226	3	50	2	0	7	1	0	1	0	0	1125
20:00	1	663	216	1	41	1	0	4	0	0	0	0	0	927
21:00	0	505	133	1	24	0	0	3	3	0	0	0	0	669
22:00	0	374	112	0	16	0	0	1	0	0	0	0	0	503
23:00	0	224	86	1	10	0	0	0	1	0	0	0	0	322
Total	79	17164	5986	279	1551	123	5	300	157	25	10	2	2	25683
Percent	0.3%	66.8%	23.3%	1.1%	6.0%	0.5%	0.0%	1.2%	0.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	10:00	05:00	08:00	11:00	07:00	10:00	07:00	07:00	08:00	06:00	07:00
Vol.	7	1329	441	29	121	11	2	25	19	3	3	1	1	1960
PM Peak	12:00	17:00	16:00	14:00	14:00	13:00	15:00	14:00	12:00	12:00	16:00	13:00		17:00
Vol.	9	1382	453	36	115	16	1	31	18	5	2	1		1966

Route 140 SB
north of Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 Q-B2 volume
Site Code: 10111.31

Start Time	A.M.	SB	P.M.				Wed 15-Oct-08
12:00	99		333				
12:15	47		318				
12:30	40		349				
12:45	35	221	319	1319			
01:00	31		319				
01:15	26		304				
01:30	30		316				
01:45	16	103	339	1278			
02:00	26		371				
02:15	15		354				
02:30	15		465				
02:45	10	66	485	1675			
03:00	13		507				
03:15	15		521				
03:30	18		576				
03:45	23	69	505	2109			
04:00	25		528				
04:15	20		489				
04:30	34		584				
04:45	30	109	517	2118			
05:00	59		557				
05:15	71		538				
05:30	113		521				
05:45	123	366	469	2085			
06:00	165		507				
06:15	230		466				
06:30	309		447				
06:45	371	1075	381	1801			
07:00	422		311				
07:15	532		325				
07:30	553		271				
07:45	575	2082	261	1168			
08:00	490		227				
08:15	478		216				
08:30	452		248				
08:45	424	1844	199	890			
09:00	342		180				
09:15	331		215				
09:30	302		139				
09:45	314	1289	146	680			
10:00	290		180				
10:15	273		121				
10:30	339		107				
10:45	358	1260	121	529			
11:00	313		150				
11:15	285		100				
11:30	283		95				
11:45	315	1196	73	418			
Total	9680		16070				
Percent			100.0%		0.0%	0.0%	
Day Total		25750					
Peak	07:15		04:30				
Vol.	2150		2196				
P.H.F.	0.935		0.940				

Route 140 SB
north of Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

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81676 Q-B2 volume
Site Code: 10111.31

Start Time	A.M.	SB	P.M.				Thu 16-Oct-08
12:00	97		333				
12:15	54		322				
12:30	44		322				
12:45	37	232	281	1258			
01:00	29		333				
01:15	21		323				
01:30	37		311				
01:45	14	101	336	1303			
02:00	18		356				
02:15	19		359				
02:30	17		398				
02:45	14	68	499	1612			
03:00	14		463				
03:15	16		509				
03:30	22		588				
03:45	19	71	538	2098			
04:00	21		549				
04:15	24		547				
04:30	33		588				
04:45	58	136	504	2188			
05:00	37		587				
05:15	57		574				
05:30	99		539				
05:45	141	334	508	2208			
06:00	193		493				
06:15	251		431				
06:30	369		391				
06:45	387	1200	381	1696			
07:00	445		340				
07:15	534		277				
07:30	580		269				
07:45	571	2130	246	1132			
08:00	484		223				
08:15	464		183				
08:30	483		171				
08:45	493	1924	185	762			
09:00	380		189				
09:15	357		176				
09:30	346		169				
09:45	332	1415	156	690			
10:00	322		176				
10:15	309		144				
10:30	327		142				
10:45	307	1265	129	591			
11:00	320		124				
11:15	314		105				
11:30	300		76				
11:45	334	1268	72	377			
Total	10144		15915				
Percent			100.0%		0.0%	0.0%	
Day Total		26059					
Peak	07:15		04:30				
Vol.	2169		2253				
P.H.F.	0.935		0.958				

PRECISION
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Route 140 SB
north of Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 Q-B2 speed
Site Code: 10111.31

SB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	1	0	17	38	68	53	30	10	3	0	1	221	72	65
01:00	0	0	0	1	7	23	37	14	16	1	3	0	1	103	72	64
02:00	0	0	0	0	8	11	13	23	10	1	0	0	0	66	71	64
03:00	0	0	0	4	8	17	19	12	8	1	0	0	0	69	70	62
04:00	0	0	2	4	9	16	29	31	12	4	2	0	0	109	71	64
05:00	1	0	0	6	29	78	94	98	43	14	3	0	0	366	71	64
06:00	0	0	0	2	67	206	347	301	117	26	5	2	**2**	1075	70	64
07:00	7	1	1	20	**118**	**353**	**608**	**660**	**272**	33	7	1	1	**2082**	71	64
08:00	12	0	2	9	85	291	566	601	229	**43**	5	0	1	1844	71	65
09:00	26	2	0	12	70	239	376	362	168	23	**10**	1	0	1289	71	63
10:00	35	2	1	10	54	273	394	326	130	24	10	0	1	1260	70	63
11:00	**58**	**19**	**34**	**25**	55	219	343	284	121	24	10	**4**	0	1196	70	61
12 PM	49	0	1	11	71	250	403	333	166	30	5	0	0	1319	71	63
13:00	57	0	**3**	**15**	70	228	413	339	112	31	6	**4**	0	1278	70	62
14:00	79	**1**	2	12	103	315	505	445	173	33	5	2	0	1675	70	62
15:00	101	0	1	13	77	292	642	**698**	231	**44**	**9**	1	0	2109	70	63
16:00	85	0	1	9	**110**	**361**	**669**	616	237	25	5	0	0	**2118**	70	62
17:00	95	1	0	7	94	332	580	690	**238**	40	7	1	0	2085	70	63
18:00	**108**	0	0	10	74	317	588	487	178	31	5	1	2	1801	70	62
19:00	78	0	0	9	57	181	390	304	122	20	3	1	**3**	1168	70	61
20:00	65	0	1	4	56	166	285	213	75	23	1	0	1	890	70	60
21:00	60	0	0	6	32	137	196	163	52	28	5	1	0	680	70	60
22:00	33	0	0	5	23	85	158	133	63	20	6	2	1	529	71	62
23:00	29	1	0	5	9	76	112	127	45	13	1	0	0	418	70	61
Total	978	27	50	199	1303	4504	7835	7313	2848	542	116	21	14	25750		
%	3.8%	0.1%	0.2%	0.8%	5.1%	17.5%	30.4%	28.4%	11.1%	2.1%	0.5%	0.1%	0.1%			
AM Peak	11:00	11:00	11:00	11:00	07:00	07:00	07:00	07:00	07:00	08:00	09:00	11:00	06:00	07:00		
Vol.	58	19	34	25	118	353	608	660	272	43	10	4	2	2082		
PM Peak	18:00	14:00	13:00	13:00	16:00	16:00	16:00	15:00	17:00	15:00	15:00	13:00	19:00	16:00		
Vol.	108	1	3	15	110	361	669	698	238	44	9	4	3	2118		

Pecent	15th Percentile :	57 MPH
	50th Percentile :	64 MPH
	85th Percentile :	70 MPH
	95th Percentile :	74 MPH

Stats	10 MPH Pace Speed :	61-70 MPH
	Number in Pace :	15148
	Percent in Pace :	58.8%
	Number of Vehicles > 65 MPH :	10854
	Percent of Vehicles > 65 MPH :	42.2%
	Mean Speed(Average) :	63 MPH

PRECISION
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Office: 508.481.3999 Fax: 508.545.1234
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Route 140 SB
north of Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 Q-B2 speed
Site Code: 10111.31

SB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	15	0	1	3	15	44	57	58	29	6	2	1	**1**	232	71	61
01:00	8	0	0	2	6	26	26	21	10	2	0	0	0	101	70	59
02:00	3	0	1	0	9	5	17	27	5	1	0	0	0	68	70	61
03:00	3	0	0	6	7	18	19	14	3	1	0	0	0	71	68	59
04:00	5	0	1	6	12	33	35	23	18	3	0	0	0	136	71	60
05:00	20	0	1	2	21	58	93	93	38	6	2	0	0	334	70	61
06:00	87	0	1	8	40	201	382	340	111	24	6	0	0	1200	70	61
07:00	**137**	0	2	12	82	**356**	**656**	**622**	**230**	24	9	0	0	**2130**	70	62
08:00	120	0	4	17	**98**	323	595	520	217	25	4	0	1	1924	70	61
09:00	98	0	0	14	71	237	419	380	153	**30**	**12**	1	0	1415	70	61
10:00	111	0	**6**	**21**	83	254	361	290	107	24	8	0	0	1265	70	59
11:00	63	**2**	3	14	67	277	412	275	133	16	3	**3**	0	1268	70	61
12 PM	57	0	2	**19**	103	269	361	303	109	28	7	0	0	1258	70	61
13:00	52	**1**	2	19	61	255	435	306	136	32	4	0	0	1303	70	62
14:00	63	0	2	14	**104**	294	488	417	194	27	7	1	1	1612	70	62
15:00	57	0	**3**	13	85	**365**	**682**	620	232	31	7	3	0	2098	70	63
16:00	82	0	1	9	72	296	680	698	303	41	5	1	0	2188	71	63
17:00	**94**	0	1	10	74	316	615	**727**	**307**	**55**	7	2	0	**2208**	71	63
18:00	80	1	0	5	67	279	522	525	176	32	6	1	**2**	1696	70	63
19:00	68	0	0	4	39	177	344	308	151	30	**9**	2	0	1132	71	62
20:00	50	0	0	4	28	106	206	202	124	27	7	**6**	2	762	73	63
21:00	64	0	0	6	27	118	199	158	81	27	7	2	1	690	71	61
22:00	46	0	2	4	25	91	176	150	64	25	5	2	1	591	71	61
23:00	0	0	1	1	24	50	117	97	59	20	7	1	0	377	73	66
Total	1383	4	34	213	1220	4448	7897	7174	2990	537	124	26	9	26059		
%	5.3%	0.0%	0.1%	0.8%	4.7%	17.1%	30.3%	27.5%	11.5%	2.1%	0.5%	0.1%	0.0%			
AM Peak	07:00	11:00	10:00	10:00	08:00	07:00	07:00	07:00	07:00	09:00	09:00	11:00	00:00	07:00		
Vol.	137	2	6	21	98	356	656	622	230	30	12	3	1	2130		
PM Peak	17:00	13:00	15:00	12:00	14:00	15:00	15:00	17:00	17:00	17:00	19:00	20:00	18:00	17:00		
Vol.	94	1	3	19	104	365	682	727	307	55	9	6	2	2208		

Pecent

15th Percentile :	57 MPH
50th Percentile :	64 MPH
85th Percentile :	70 MPH
95th Percentile :	74 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	15071
Percent in Pace :	57.8%
Number of Vehicles > 65 MPH :	10860
Percent of Vehicles > 65 MPH :	41.7%
Mean Speed(Average) :	62 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 SB
north of Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

81676 Q-B2 class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	189	27	0	2	1	0	1	1	0	0	0	0	221
01:00	0	89	9	1	1	0	0	1	1	0	1	0	0	103
02:00	0	54	8	1	0	1	0	1	1	0	0	0	0	66
03:00	1	55	8	1	2	1	0	1	0	0	0	0	0	69
04:00	0	79	16	2	5	3	0	3	1	0	0	0	0	109
05:00	1	251	81	4	20	2	0	6	0	1	0	0	0	366
06:00	4	835	164	8	24	9	1	13	11	2	2	1	1	1075
07:00	12	1724	219	11	49	25	1	24	7	6	2	0	2	2082
08:00	15	1555	180	7	34	17	3	20	11	2	0	0	0	1844
09:00	14	1028	157	15	35	8	1	15	12	2	1	0	1	1289
10:00	19	1008	150	13	29	5	1	15	15	2	0	0	3	1260
11:00	11	973	132	5	33	11	0	14	11	2	1	0	3	1196
12 PM	7	1090	148	8	22	11	1	14	15	2	0	0	1	1319
13:00	12	1043	145	7	29	12	3	16	10	1	0	0	0	1278
14:00	16	1360	202	14	28	15	3	21	9	5	1	0	1	1675
15:00	21	1780	230	10	25	17	2	19	3	1	0	0	1	2109
16:00	25	1755	264	6	31	5	0	18	6	4	1	0	3	2118
17:00	14	1803	188	10	29	5	0	17	11	3	0	0	5	2085
18:00	32	1540	177	3	23	9	0	8	6	1	0	2	0	1801
19:00	14	1004	115	4	14	5	0	5	5	2	0	0	0	1168
20:00	7	775	90	2	10	1	0	3	0	0	0	0	2	890
21:00	7	606	52	2	8	4	0	0	1	0	0	0	0	680
22:00	3	476	39	1	5	1	0	1	2	1	0	0	0	529
23:00	5	363	43	1	2	2	0	1	0	1	0	0	0	418
Total	240	21435	2844	136	460	170	16	237	139	38	9	3	23	25750
Percent	0.9%	83.2%	11.0%	0.5%	1.8%	0.7%	0.1%	0.9%	0.5%	0.1%	0.0%	0.0%	0.1%	
AM Peak	10:00	07:00	07:00	09:00	07:00	07:00	08:00	07:00	10:00	07:00	06:00	06:00	10:00	07:00
Vol.	19	1724	219	15	49	25	3	24	15	6	2	1	3	2082
PM Peak	18:00	17:00	16:00	14:00	16:00	15:00	13:00	14:00	12:00	14:00	14:00	18:00	17:00	16:00
Vol.	32	1803	264	14	31	17	3	21	15	5	1	2	5	2118

Route 140 SB
north of Hathaway Road Ramps
City, State: New Bedford, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 Q-B2 class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	205	20	3	0	0	0	1	1	1	0	0	0	232
01:00	0	88	6	1	1	2	0	1	1	0	1	0	0	101
02:00	1	55	7	0	3	0	0	1	1	0	0	0	0	68
03:00	0	61	6	0	3	0	0	0	1	0	0	0	0	71
04:00	0	101	23	1	3	2	0	1	4	1	0	0	0	136
05:00	4	240	61	4	13	2	1	1	6	2	0	0	0	334
06:00	9	959	159	7	26	9	0	10	15	4	0	0	2	1200
07:00	5	1819	177	13	42	24	1	25	16	4	3	0	1	2130
08:00	11	1647	176	11	39	12	1	19	4	2	0	0	2	1924
09:00	4	1145	164	13	30	18	0	23	13	4	0	0	1	1415
10:00	16	1037	128	11	28	16	1	12	11	3	1	0	1	1265
11:00	15	1021	146	12	29	12	0	14	9	4	1	0	5	1268
12 PM	11	1030	128	7	23	14	2	19	16	4	1	0	3	1258
13:00	11	1072	144	13	23	18	0	8	9	2	1	0	2	1303
14:00	7	1355	164	16	18	17	1	18	8	6	1	0	1	1612
15:00	24	1763	215	8	23	32	0	19	7	4	1	0	2	2098
16:00	21	1813	266	3	29	20	0	22	10	1	0	1	2	2188
17:00	12	1904	214	7	22	23	0	14	8	0	1	1	2	2208
18:00	3	1488	160	3	19	6	1	11	2	2	0	0	1	1696
19:00	8	994	105	1	9	6	0	4	4	0	1	0	0	1132
20:00	4	671	76	0	5	3	0	2	1	0	0	0	0	762
21:00	1	630	50	1	5	1	0	0	2	0	0	0	0	690
22:00	0	527	48	2	8	0	0	3	2	1	0	0	0	591
23:00	1	328	39	1	3	1	0	2	2	0	0	0	0	377
Total	169	21953	2682	138	404	238	8	230	153	45	12	2	25	26059
Percent	0.6%	84.2%	10.3%	0.5%	1.6%	0.9%	0.0%	0.9%	0.6%	0.2%	0.0%	0.0%	0.1%	
AM Peak	10:00	07:00	07:00	07:00	07:00	07:00	05:00	07:00	07:00	06:00	07:00		11:00	07:00
Vol.	16	1819	177	13	42	24	1	25	16	4	3		5	2130
PM Peak	15:00	17:00	16:00	14:00	16:00	15:00	12:00	16:00	12:00	14:00	12:00	16:00	12:00	17:00
Vol.	24	1904	266	16	29	32	2	22	16	6	1	1	3	2208

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 G-C volume
Site Code: 10111.31

Start Time	A.M.	EB	P.M.				Wed 15-Oct-08
12:00	59		163				
12:15	53		182				
12:30	49		199				
12:45	24	185	213	757			
01:00	30		202				
01:15	26		220				
01:30	20		200				
01:45	23	99	205	827			
02:00	16		234				
02:15	25		258				
02:30	21		284				
02:45	8	70	305	1081			
03:00	15		307				
03:15	9		325				
03:30	13		369				
03:45	12	49	412	1413			
04:00	14		420				
04:15	14		447				
04:30	20		424				
04:45	24	72	411	1702			
05:00	26		428				
05:15	43		433				
05:30	58		385				
05:45	56	183	438	1684			
06:00	81		405				
06:15	90		337				
06:30	126		299				
06:45	157	454	285	1326			
07:00	167		211				
07:15	208		215				
07:30	213		193				
07:45	226	814	173	792			
08:00	184		162				
08:15	200		161				
08:30	166		168				
08:45	148	698	142	633			
09:00	132		146				
09:15	171		131				
09:30	166		152				
09:45	137	606	101	530			
10:00	156		93				
10:15	144		91				
10:30	178		77				
10:45	174	652	80	341			
11:00	173		51				
11:15	169		59				
11:30	170		68				
11:45	195	707	62	240			
Total	4589		11326				
Percent			100.0%		0.0%	0.0%	
Day Total		15915					
Peak	07:15		04:15				
Vol.	831		1710				
P.H.F.	0.919		0.956				

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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81676 G-C volume
Site Code: 10111.31

Start Time	A.M.	EB	P.M.				Thu 16-Oct-08
12:00	53		179				
12:15	56		198				
12:30	54		190				
12:45	32	195	228	795			
01:00	29		186				
01:15	28		200				
01:30	24		205				
01:45	19	100	219	810			
02:00	18		228				
02:15	26		288				
02:30	15		277				
02:45	14	73	307	1100			
03:00	8		336				
03:15	11		374				
03:30	14		371				
03:45	17	50	418	1499			
04:00	13		427				
04:15	14		463				
04:30	28		426				
04:45	25	80	457	1773			
05:00	20		371				
05:15	34		445				
05:30	44		400				
05:45	58	156	382	1598			
06:00	70		314				
06:15	89		326				
06:30	136		332				
06:45	141	436	271	1243			
07:00	175		190				
07:15	197		238				
07:30	212		199				
07:45	219	803	167	794			
08:00	197		153				
08:15	194		175				
08:30	188		154				
08:45	179	758	146	628			
09:00	156		139				
09:15	151		129				
09:30	147		146				
09:45	146	600	116	530			
10:00	144		95				
10:15	151		99				
10:30	151		81				
10:45	163	609	80	355			
11:00	177		60				
11:15	172		87				
11:30	178		66				
11:45	202	729	60	273			
Total	4589		11398				
Percent			100.0%		0.0%	0.0%	
Day Total		15987					
Peak	07:15		04:00				
Vol.	825		1773				
P.H.F.	0.942		0.957				

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	58	9	0	3	0	0	0	2	0	0	0	0	72
01:00	2	42	4	0	4	1	0	0	4	0	0	0	0	57
02:00	0	26	8	0	1	0	0	3	5	0	0	0	0	43
03:00	1	64	16	1	7	0	0	0	3	0	0	0	0	92
04:00	2	208	78	7	32	2	0	3	2	0	0	0	0	334
05:00	4	660	375	10	122	3	0	12	7	0	0	0	0	1193
06:00	9	984	301	10	79	8	1	12	2	0	0	0	0	1406
07:00	11	1310	200	16	49	10	8	13	3	0	0	0	0	1620
08:00	6	1121	180	14	49	6	9	12	5	0	0	0	0	1402
09:00	7	740	154	12	37	15	3	10	9	0	0	0	0	987
10:00	3	601	137	11	44	8	1	9	2	0	0	0	0	816
11:00	18	601	137	12	40	12	3	13	10	1	0	0	0	847
12 PM	13	588	107	18	44	10	4	7	13	0	0	0	0	804
13:00	6	594	128	23	40	8	0	13	5	0	0	0	0	817
14:00	4	688	166	15	54	7	5	10	3	0	0	0	0	952
15:00	5	695	151	11	44	4	5	5	11	0	0	0	0	931
16:00	1	789	141	13	29	3	4	15	2	0	0	0	0	997
17:00	6	808	132	7	20	5	2	3	3	0	0	0	0	986
18:00	14	607	87	4	25	2	0	1	3	0	0	0	0	743
19:00	3	394	82	2	12	1	0	1	2	0	0	0	0	497
20:00	1	322	45	0	8	0	0	1	1	0	0	0	0	378
21:00	1	247	38	0	3	1	0	0	2	0	0	0	0	292
22:00	0	200	15	0	1	0	0	1	1	0	0	0	0	218
23:00	1	112	13	0	0	1	0	0	0	0	0	0	0	127
Total	118	12459	2704	186	747	107	45	144	100	1	0	0	0	16611
Percent	0.7%	75.0%	16.3%	1.1%	4.5%	0.6%	0.3%	0.9%	0.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	05:00	07:00	05:00	09:00	08:00	07:00	11:00	11:00				07:00
Vol.	18	1310	375	16	122	15	9	13	10	1				1620
PM Peak	18:00	17:00	14:00	13:00	14:00	12:00	14:00	16:00	12:00					16:00
Vol.	14	808	166	23	54	10	5	15	13					997

PRECISION DATA INDUSTRIES, LLC
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Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

Direction 2

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:00	10	0	0	0	0	0	0	0	0	0	0	0	0	10	8	6
06:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
07:00	**13**	0	0	0	0	0	0	0	0	0	0	0	0	**13**	11	7
08:00	6	0	0	0	0	0	0	0	0	0	0	0	0	6	5	4
09:00	7	0	0	0	0	0	0	0	0	0	0	0	0	7	6	4
10:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
11:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
12 PM	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
13:00	4	0	0	0	0	0	0	0	0	0	0	0	0	4	3	2
14:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
15:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
16:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
17:00	**7**	0	0	0	0	0	0	0	0	0	0	0	0	**7**	6	4
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	74	0	0	0	0	0	0	0	0	0	0	0	0	74		
%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00													07:00		
Vol.	13													13		
PM Peak	17:00													17:00		
Vol.	7													7		

Pecent	15th Percentile :	4 MPH
	50th Percentile :	17 MPH
	85th Percentile :	30 MPH
	95th Percentile :	33 MPH

Stats	10 MPH Pace Speed :	1-10 MPH
	Number in Pace :	24
	Percent in Pace :	32.4%
	Number of Vehicles > 65 MPH :	0
	Percent of Vehicles > 65 MPH :	0.0%
	Mean Speed(Average) :	17 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

Direction 2

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:00	8	0	0	0	0	0	0	0	0	0	0	0	0	8	7	4
06:00	10	0	0	0	0	0	0	0	0	0	0	0	0	10	8	6
07:00	**17**	0	0	0	0	0	0	0	0	0	0	0	0	**17**	14	9
08:00	9	0	0	0	0	0	0	0	0	0	0	0	0	9	8	5
09:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
10:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
11:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
12 PM	0	0	**1**	0	0	0	0	0	0	0	0	0	0	1	41	41
13:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
14:00	**7**	0	0	0	0	0	0	0	0	0	0	0	0	**7**	6	4
15:00	4	0	0	0	0	0	0	0	0	0	0	0	0	4	3	2
16:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
17:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
18:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
19:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
20:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	81	0	1	0	0	0	0	0	0	0	0	0	0	82		
%	98.8%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00													07:00		
Vol.	17													17		
PM Peak	14:00		12:00											14:00		
Vol.	7		1											7		

Pecent	15th Percentile :	4 MPH
	50th Percentile :	15 MPH
	85th Percentile :	30 MPH
	95th Percentile :	34 MPH

Stats	10 MPH Pace Speed :	1-10 MPH
	Number in Pace :	30
	Percent in Pace :	36.6%
	Number of Vehicles > 65 MPH :	0
	Percent of Vehicles > 65 MPH :	0.0%
	Mean Speed(Average) :	17 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

WB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	0	3	9	17	16	11	4	1	0	0	61	73	66
01:00	1	0	0	2	2	3	19	19	5	2	0	0	0	53	70	64
02:00	0	0	0	0	2	5	14	18	4	2	1	0	0	46	70	66
03:00	0	0	0	3	3	10	25	25	14	5	1	2	0	88	73	66
04:00	4	0	0	1	8	28	79	87	73	23	12	0	1	316	75	67
05:00	55	0	0	0	12	81	233	283	257	183	62	6	2	1174	78	67
06:00	**63**	0	0	0	21	**125**	**272**	316	292	216	65	18	3	1391	78	67
07:00	63	0	0	2	**24**	96	272	**364**	**330**	**276**	110	12	5	**1554**	79	68
08:00	53	0	0	0	20	80	229	330	274	222	**121**	**37**	4	1370	79	69
09:00	47	0	0	3	17	77	213	243	205	117	41	14	6	983	77	67
10:00	48	0	0	**5**	21	74	151	202	177	87	46	15	5	831	77	66
11:00	49	0	0	1	11	46	191	233	128	88	35	18	**11**	811	77	66
12 PM	**51**	0	1	3	20	58	176	208	158	101	31	16	6	829	77	66
13:00	42	0	0	1	**21**	68	169	220	181	105	**59**	**17**	1	884	78	67
14:00	42	0	1	2	14	78	210	195	168	116	59	13	**7**	905	78	67
15:00	41	0	0	1	14	57	218	233	183	105	36	13	1	902	76	67
16:00	49	0	0	2	12	75	213	**288**	187	**139**	56	13	2	1036	77	67
17:00	44	0	0	0	5	87	**250**	256	**225**	137	47	7	4	**1062**	77	67
18:00	24	**1**	0	**4**	17	**101**	243	204	150	74	15	3	1	837	74	65
19:00	12	0	1	4	14	69	126	157	81	30	11	3	0	508	73	65
20:00	1	0	0	1	11	49	102	104	58	30	9	1	0	366	74	67
21:00	4	0	0	2	13	44	79	71	42	15	5	1	3	279	73	65
22:00	2	0	**2**	2	12	33	57	65	37	9	5	1	1	226	73	65
23:00	2	0	0	1	5	20	37	37	24	7	1	0	0	134	73	65
Total	697	1	5	40	302	1373	3595	4174	3264	2093	829	210	63	16646		
%	4.2%	0.0%	0.0%	0.2%	1.8%	8.2%	21.6%	25.1%	19.6%	12.6%	5.0%	1.3%	0.4%			
AM Peak	06:00			10:00	07:00	06:00	06:00	07:00	07:00	07:00	08:00	08:00	11:00	07:00		
Vol.	63			5	24	125	272	364	330	276	121	37	11	1554		
PM Peak	12:00	18:00	22:00	18:00	13:00	18:00	17:00	16:00	17:00	16:00	13:00	13:00	14:00	17:00		
Vol.	51	1	2	4	21	101	250	288	225	139	59	17	7	1062		

Pecent

15th Percentile :	61 MPH
50th Percentile :	68 MPH
85th Percentile :	77 MPH
95th Percentile :	82 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	7769
Percent in Pace :	46.7%
Number of Vehicles > 65 MPH :	10633
Percent of Vehicles > 65 MPH :	63.9%
Mean Speed(Average) :	67 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

WB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	1	0	0	1	1	17	18	20	8	2	3	1	0	72	72	65
01:00	2	0	0	3	3	6	18	19	4	1	1	0	0	57	69	62
02:00	2	0	0	3	1	7	11	11	6	1	0	1	0	43	71	62
03:00	0	0	1	3	2	15	30	26	9	5	1	0	0	92	71	65
04:00	6	0	1	1	9	35	82	99	65	25	5	4	2	334	74	66
05:00	53	0	0	6	14	73	224	300	272	186	51	12	2	1193	77	67
06:00	63	0	0	7	25	**125**	268	320	300	207	74	14	3	1406	78	67
07:00	**79**	0	0	1	24	108	**293**	320	**407**	**266**	**103**	18	1	**1620**	78	68
08:00	70	0	0	3	**28**	99	245	**331**	272	240	90	20	4	1402	78	68
09:00	53	0	1	4	23	77	207	240	196	104	55	**21**	**6**	987	77	66
10:00	43	**1**	0	3	23	77	181	208	137	96	33	10	4	816	77	66
11:00	48	0	**2**	**8**	20	73	191	222	160	76	31	14	2	847	75	65
12 PM	47	**1**	0	**8**	24	77	195	222	137	62	23	6	2	804	74	64
13:00	46	0	0	1	20	71	188	218	146	80	31	13	3	817	76	65
14:00	**55**	0	**2**	1	**27**	88	196	239	207	96	33	6	2	952	75	65
15:00	39	0	0	4	23	**108**	**237**	198	171	96	37	14	4	931	76	66
16:00	44	0	0	3	20	75	188	259	**216**	116	**56**	**15**	5	**997**	77	67
17:00	26	0	0	4	12	43	202	**276**	207	**146**	50	15	5	986	78	69
18:00	14	0	0	2	8	53	169	222	170	71	25	3	**6**	743	75	68
19:00	2	1	0	3	16	60	145	141	82	29	16	1	1	497	74	66
20:00	3	0	0	1	11	40	92	118	74	27	12	0	0	378	74	67
21:00	2	0	2	2	12	41	85	62	49	27	6	2	2	292	75	66
22:00	2	0	0	4	9	20	65	60	43	5	7	2	1	218	73	66
23:00	0	0	0	1	9	9	40	36	22	8	2	0	0	127	73	66
Total	700	3	9	77	364	1397	3570	4167	3360	1972	745	192	55	16611		
%	4.2%	0.0%	0.1%	0.5%	2.2%	8.4%	21.5%	25.1%	20.2%	11.9%	4.5%	1.2%	0.3%			
AM Peak	07:00	10:00	11:00	11:00	08:00	06:00	07:00	08:00	07:00	07:00	07:00	09:00	09:00	07:00		
Vol.	79	1	2	8	28	125	293	331	407	266	103	21	6	1620		
PM Peak	14:00	12:00	14:00	12:00	14:00	15:00	15:00	17:00	16:00	17:00	16:00	16:00	18:00	16:00		
Vol.	55	1	2	8	27	108	237	276	216	146	56	15	6	997		

Pecent

15th Percentile :	60 MPH
50th Percentile :	68 MPH
85th Percentile :	77 MPH
95th Percentile :	82 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	7737
Percent in Pace :	46.6%
Number of Vehicles > 65 MPH :	10491
Percent of Vehicles > 65 MPH :	63.2%
Mean Speed(Average) :	67 MPH

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 G-D volume
Site Code: 10111.31

Start Time	A.M.	WB	P.M.				Thu 16-Oct-08
12:00	17		207				
12:15	16		224				
12:30	13		193				
12:45	15	61	205	829			
01:00	15		193				
01:15	10		239				
01:30	15		201				
01:45	13	53	250	883			
02:00	13		199				
02:15	11		249				
02:30	5		236				
02:45	17	46	221	905			
03:00	15		201				
03:15	17		231				
03:30	33		238				
03:45	23	88	232	902			
04:00	37		232				
04:15	52		264				
04:30	104		284				
04:45	123	316	256	1036			
05:00	187		245				
05:15	285		293				
05:30	344		265				
05:45	358	1174	259	1062			
06:00	336		220				
06:15	339		218				
06:30	348		219				
06:45	368	1391	180	837			
07:00	327		159				
07:15	406		142				
07:30	420		99				
07:45	401	1554	108	508			
08:00	344		81				
08:15	339		98				
08:30	341		101				
08:45	346	1370	87	367			
09:00	260		85				
09:15	266		65				
09:30	228		70				
09:45	229	983	58	278			
10:00	189		76				
10:15	243		66				
10:30	208		47				
10:45	191	831	37	226			
11:00	215		28				
11:15	200		39				
11:30	183		37				
11:45	214	812	30	134			
Total	8679		7967				
Percent			100.0%		0.0%	0.0%	
Day Total		16646					
Peak	07:15		04:30				
Vol.	1571		1078				
P.H.F.	0.935		0.920				

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
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81676 G-D volume
Site Code: 10111.31

Start Time	A.M.	WB	P.M.				Wed 15-Oct-08
12:00	21		191				
12:15	24		211				
12:30	17		203				
12:45	10	72	199	804			
01:00	22		185				
01:15	10		199				
01:30	18		190				
01:45	7	57	243	817			
02:00	9		227				
02:15	7		258				
02:30	13		240				
02:45	14	43	227	952			
03:00	18		215				
03:15	12		232				
03:30	23		229				
03:45	39	92	255	931			
04:00	35		230				
04:15	66		225				
04:30	101		258				
04:45	132	334	284	997			
05:00	187		236				
05:15	304		251				
05:30	346		275				
05:45	357	1194	225	987			
06:00	322		191				
06:15	320		224				
06:30	365		157				
06:45	398	1405	171	743			
07:00	370		138				
07:15	434		138				
07:30	401		123				
07:45	416	1621	97	496			
08:00	369		96				
08:15	344		100				
08:30	326		94				
08:45	362	1401	88	378			
09:00	251		88				
09:15	280		74				
09:30	233		61				
09:45	223	987	69	292			
10:00	203		74				
10:15	200		57				
10:30	223		46				
10:45	190	816	41	218			
11:00	202		26				
11:15	221		37				
11:30	223		41				
11:45	201	847	23	127			
Total	8869		7742				
Percent			100.0%		0.0%	0.0%	
Day Total		16611					
Peak	07:00		04:45				
Vol.	1621		1046				
P.H.F.	0.934		0.921				

PRECISION DATA INDUSTRIES, LLC
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Email: datarequests@pdillc.com

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	173	15	1	1	3	0	1	0	0	0	0	0	195
01:00	2	86	8	0	3	1	0	0	0	0	0	0	0	100
02:00	1	63	6	0	1	2	0	0	0	0	0	0	0	73
03:00	1	40	4	0	2	1	0	0	2	0	0	0	0	50
04:00	3	60	10	0	3	3	0	0	1	0	0	0	0	80
05:00	5	121	18	0	2	5	0	1	3	1	0	0	0	156
06:00	7	338	53	2	6	14	0	6	8	1	0	0	0	435
07:00	22	657	55	1	18	27	2	10	11	1	0	0	0	804
08:00	14	633	48	5	15	31	0	7	5	0	0	0	0	758
09:00	23	466	48	3	15	30	0	2	13	0	0	0	0	600
10:00	32	458	48	3	16	40	1	4	6	0	1	0	0	609
11:00	29	554	67	4	32	29	1	7	6	0	0	0	0	729
12 PM	22	606	77	4	33	33	0	8	10	0	0	1	1	795
13:00	24	638	75	6	27	28	0	5	6	0	0	0	1	810
14:00	17	900	108	8	30	18	1	7	8	0	1	2	0	1100
15:00	17	1274	134	3	32	24	1	7	5	2	0	0	0	1499
16:00	21	1522	161	1	24	18	1	18	4	1	0	0	1	1772
17:00	16	1434	105	2	17	13	1	8	2	1	0	0	0	1599
18:00	8	1118	74	5	15	10	0	4	6	1	0	0	2	1243
19:00	1	719	61	2	4	4	1	2	0	0	0	0	0	794
20:00	6	575	37	0	2	6	0	0	2	0	0	0	0	628
21:00	6	496	20	2	1	5	0	0	0	0	0	0	0	530
22:00	2	329	19	0	1	3	0	1	0	0	0	0	0	355
23:00	2	241	25	1	1	1	0	0	2	0	0	0	0	273
Total	282	13501	1276	53	301	349	9	98	100	8	2	3	5	15987
Percent	1.8%	84.4%	8.0%	0.3%	1.9%	2.2%	0.1%	0.6%	0.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	11:00	08:00	11:00	10:00	07:00	07:00	09:00	05:00	10:00			07:00
Vol.	32	657	67	5	32	40	2	10	13	1	1			804
PM Peak	13:00	16:00	16:00	14:00	12:00	12:00	14:00	16:00	12:00	15:00	14:00	14:00	18:00	16:00
Vol.	24	1522	161	8	33	33	1	18	10	2	1	2	2	1772

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	1	156	21	0	4	1	0	1	1	0	0	0	0	185
01:00	3	79	7	1	2	4	0	0	1	1	1	0	0	99
02:00	1	54	10	0	1	1	0	0	3	0	0	0	0	70
03:00	0	40	5	1	2	0	0	0	1	0	0	0	0	49
04:00	2	47	11	0	3	3	0	3	3	0	0	0	0	72
05:00	4	123	33	1	5	5	0	9	3	0	0	0	0	183
06:00	4	311	80	5	22	8	0	7	13	2	0	0	0	452
07:00	12	600	113	12	33	22	1	9	14	0	0	0	0	816
08:00	9	521	94	13	24	19	1	6	11	0	0	0	0	698
09:00	13	414	100	14	29	16	0	6	13	1	0	0	0	606
10:00	12	436	108	15	31	20	0	11	19	0	0	0	0	652
11:00	16	487	101	15	32	28	2	11	14	0	0	0	1	707
12 PM	14	551	113	10	33	11	0	15	9	0	0	0	1	757
13:00	19	608	115	9	20	28	1	9	16	0	1	0	0	826
14:00	16	873	113	9	20	29	1	15	6	0	0	0	0	1082
15:00	14	1144	180	4	21	27	1	12	9	0	0	0	0	1412
16:00	22	1431	173	4	29	21	2	12	8	0	0	0	1	1703
17:00	24	1490	116	5	22	16	0	7	4	0	0	0	0	1684
18:00	17	1184	84	3	17	12	1	6	1	1	0	0	0	1326
19:00	10	699	69	4	4	5	0	1	0	0	0	0	0	792
20:00	1	586	31	1	3	5	0	4	2	0	0	0	0	633
21:00	4	483	30	3	3	4	0	2	1	0	0	0	0	530
22:00	3	319	8	1	3	4	0	2	1	0	0	0	0	341
23:00	3	221	10	1	1	3	0	0	1	0	0	0	0	240
Total	224	12857	1725	131	364	292	10	148	154	5	2	0	3	15915
Percent	1.4%	80.8%	10.8%	0.8%	2.3%	1.8%	0.1%	0.9%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	10:00	07:00	11:00	11:00	10:00	10:00	06:00	01:00		11:00	07:00
Vol.	16	600	113	15	33	28	2	11	19	2	1		1	816
PM Peak	17:00	17:00	15:00	12:00	12:00	14:00	16:00	12:00	13:00	18:00	13:00		12:00	16:00
Vol.	24	1490	180	10	33	29	2	15	16	1	1		1	1703

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C speed
Site Code: 10111.31

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	6	14	20	48	59	35	10	2	0	1	195	73	66
01:00	0	0	0	4	2	16	45	18	13	2	0	0	0	100	70	64
02:00	0	0	0	1	7	9	26	20	8	1	1	0	0	73	70	64
03:00	0	0	0	0	2	14	22	11	0	0	0	0	1	50	67	63
04:00	0	0	0	2	8	17	22	15	10	5	1	0	0	80	72	64
05:00	0	0	0	2	12	36	41	41	17	3	1	**2**	1	156	71	64
06:00	1	0	0	7	28	92	141	113	39	12	2	0	0	435	70	64
07:00	1	0	2	**15**	**59**	**173**	**265**	184	**85**	17	2	1	0	**804**	70	63
08:00	1	0	0	9	46	159	250	**204**	69	**18**	2	0	0	758	70	64
09:00	1	0	1	12	56	145	204	116	46	15	2	2	0	600	69	63
10:00	**2**	0	**3**	11	48	143	205	133	39	17	**4**	2	**2**	609	69	63
11:00	0	0	0	12	50	146	246	170	85	16	3	0	1	729	70	64
12 PM	1	0	0	**17**	**74**	153	261	190	75	21	3	0	0	795	70	63
13:00	**2**	0	2	7	40	163	262	217	91	23	2	1	0	810	70	64
14:00	0	0	**4**	10	44	184	381	302	138	**32**	5	0	0	1100	71	65
15:00	2	0	1	15	67	**257**	533	452	148	22	2	0	0	1499	70	64
16:00	2	0	1	10	61	233	**626**	**630**	174	29	6	0	0	**1772**	70	65
17:00	2	0	0	9	52	255	485	548	**223**	22	3	0	0	1599	71	65
18:00	0	0	0	4	40	200	403	389	174	28	4	1	0	1243	71	65
19:00	0	0	0	2	36	148	251	232	102	20	3	0	0	794	71	65
20:00	0	0	0	3	19	115	206	185	80	15	4	1	0	628	71	65
21:00	0	0	1	2	30	96	168	144	70	12	6	1	0	530	71	65
22:00	0	0	0	1	11	66	115	98	50	9	3	1	**1**	355	72	65
23:00	0	0	0	1	8	20	76	91	52	14	**8**	**3**	0	273	74	67
Total	15	0	15	162	814	2860	5282	4562	1823	363	69	15	7	15987		
%	0.1%	0.0%	0.1%	1.0%	5.1%	17.9%	33.0%	28.5%	11.4%	2.3%	0.4%	0.1%	0.0%			
AM Peak	10:00		10:00	07:00	07:00	07:00	07:00	08:00	07:00	08:00	10:00	05:00	10:00	07:00		
Vol.	2		3	15	59	173	265	204	85	18	4	2	2	804		
PM Peak	13:00		14:00	12:00	12:00	15:00	16:00	16:00	17:00	14:00	23:00	23:00	22:00	16:00		
Vol.	2		4	17	74	257	626	630	223	32	8	3	1	1772		

Pecent

15th Percentile :	58 MPH
50th Percentile :	64 MPH
85th Percentile :	70 MPH
95th Percentile :	75 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	9844
Percent in Pace :	61.6%
Number of Vehicles > 65 MPH :	6839
Percent of Vehicles > 65 MPH :	42.8%
Mean Speed(Average) :	64 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C speed
Site Code: 10111.31

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	3	7	22	52	47	43	9	1	1	0	185	73	66
01:00	0	0	0	0	10	21	38	19	9	1	0	1	0	99	69	63
02:00	0	0	0	1	4	11	29	15	6	2	2	0	0	70	70	64
03:00	0	0	0	0	0	8	18	12	5	3	1	1	1	49	74	67
04:00	0	0	0	1	2	11	26	19	8	4	1	0	0	72	71	65
05:00	0	0	0	3	11	31	42	57	25	11	1	1	1	183	73	66
06:00	0	0	0	8	18	59	120	125	78	30	9	3	2	452	74	66
07:00	0	**2**	0	3	26	84	**199**	**231**	**160**	79	**27**	2	**3**	**816**	75	68
08:00	0	0	0	8	16	89	175	168	133	**83**	18	**7**	1	698	76	68
09:00	0	0	0	3	24	82	185	140	112	51	6	2	1	606	74	66
10:00	0	0	**3**	**10**	**41**	103	180	178	92	39	5	1	0	652	73	65
11:00	0	0	1	9	30	**117**	195	175	127	39	12	1	1	707	73	66
12 PM	1	0	1	8	46	112	230	210	99	36	8	**6**	0	757	72	65
13:00	**2**	**1**	**3**	**19**	**71**	182	215	208	93	22	8	2	0	826	71	63
14:00	0	0	0	5	48	161	342	305	157	51	8	4	**1**	1082	72	66
15:00	0	0	0	12	44	215	427	407	242	**62**	3	0	0	1412	72	66
16:00	2	0	0	4	44	228	548	**577**	**248**	46	4	2	0	**1703**	71	66
17:00	1	0	0	3	47	**246**	**549**	576	219	39	3	1	0	1684	71	65
18:00	1	0	0	1	43	234	434	393	183	34	3	0	0	1326	71	65
19:00	0	0	1	2	34	141	279	221	89	21	4	0	0	792	70	65
20:00	0	0	0	5	42	113	231	166	66	9	1	0	0	633	70	64
21:00	0	0	2	6	18	94	197	123	69	12	**9**	0	0	530	71	65
22:00	0	0	0	6	14	44	114	104	42	11	2	3	1	341	71	65
23:00	1	0	0	2	9	34	91	72	23	6	0	2	0	240	70	65
Total	8	3	11	122	649	2442	4916	4548	2328	700	136	40	12	15915		
%	0.1%	0.0%	0.1%	0.8%	4.1%	15.3%	30.9%	28.6%	14.6%	4.4%	0.9%	0.3%	0.1%			
AM Peak		07:00	10:00	10:00	10:00	11:00	07:00	07:00	07:00	08:00	07:00	08:00	07:00	07:00		
Vol.		2	3	10	41	117	199	231	160	83	27	7	3	816		
PM Peak	13:00	13:00	13:00	13:00	13:00	17:00	17:00	16:00	16:00	15:00	21:00	12:00	14:00	16:00		
Vol.	2	1	3	19	71	246	549	577	248	62	9	6	1	1703		

Pecent

15th Percentile :	59 MPH
50th Percentile :	65 MPH
85th Percentile :	72 MPH
95th Percentile :	76 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	9464
Percent in Pace :	59.5%
Number of Vehicles > 65 MPH :	7764
Percent of Vehicles > 65 MPH :	48.8%
Mean Speed(Average) :	66 MPH

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 G-D class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	48	8	0	1	0	0	2	1	0	0	0	0	61
01:00	0	40	5	2	1	1	0	1	3	0	0	0	0	53
02:00	1	33	10	0	0	1	0	1	0	0	0	0	0	46
03:00	0	58	16	1	9	0	0	0	4	0	0	0	0	88
04:00	0	188	82	9	30	3	0	2	2	0	0	0	0	316
05:00	5	672	349	8	118	9	0	12	1	0	0	0	0	1174
06:00	6	974	316	8	61	10	0	10	6	0	0	0	0	1391
07:00	12	1227	227	12	40	14	0	14	8	0	0	0	0	1554
08:00	4	1095	176	11	52	8	0	16	8	0	0	0	0	1370
09:00	4	743	161	14	45	9	0	3	4	0	0	0	0	983
10:00	2	619	134	11	44	6	0	8	6	1	0	0	0	831
11:00	7	573	139	14	53	7	0	13	4	1	0	0	0	811
12 PM	7	595	128	20	48	6	2	13	10	0	0	0	0	829
13:00	8	633	155	22	45	5	0	11	5	0	0	0	0	884
14:00	6	649	160	20	44	9	0	16	1	0	0	0	0	905
15:00	3	696	146	10	39	3	0	4	1	0	0	0	0	902
16:00	6	814	147	8	47	6	0	8	0	0	0	0	0	1036
17:00	2	859	154	8	30	2	0	6	1	0	0	0	0	1062
18:00	2	682	115	4	28	4	0	2	0	0	0	0	0	837
19:00	0	420	67	3	15	0	0	3	0	0	0	0	0	508
20:00	1	310	43	0	9	1	0	1	1	0	0	0	0	366
21:00	0	226	47	0	5	0	0	0	1	0	0	0	0	279
22:00	0	197	26	0	1	0	0	1	1	0	0	0	0	226
23:00	0	115	16	1	1	0	0	0	1	0	0	0	0	134
Total	77	12466	2827	186	766	104	2	147	69	2	0	0	0	16646
Percent	0.5%	74.9%	17.0%	1.1%	4.6%	0.6%	0.0%	0.9%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	05:00	09:00	05:00	07:00		08:00	07:00	10:00				07:00
Vol.	12	1227	349	14	118	14		16	8	1				1554
PM Peak	13:00	17:00	14:00	13:00	12:00	14:00	12:00	14:00	12:00					17:00
Vol.	8	859	160	22	48	9	2	16	10					1062

PRECISION DATA INDUSTRIES, LLC

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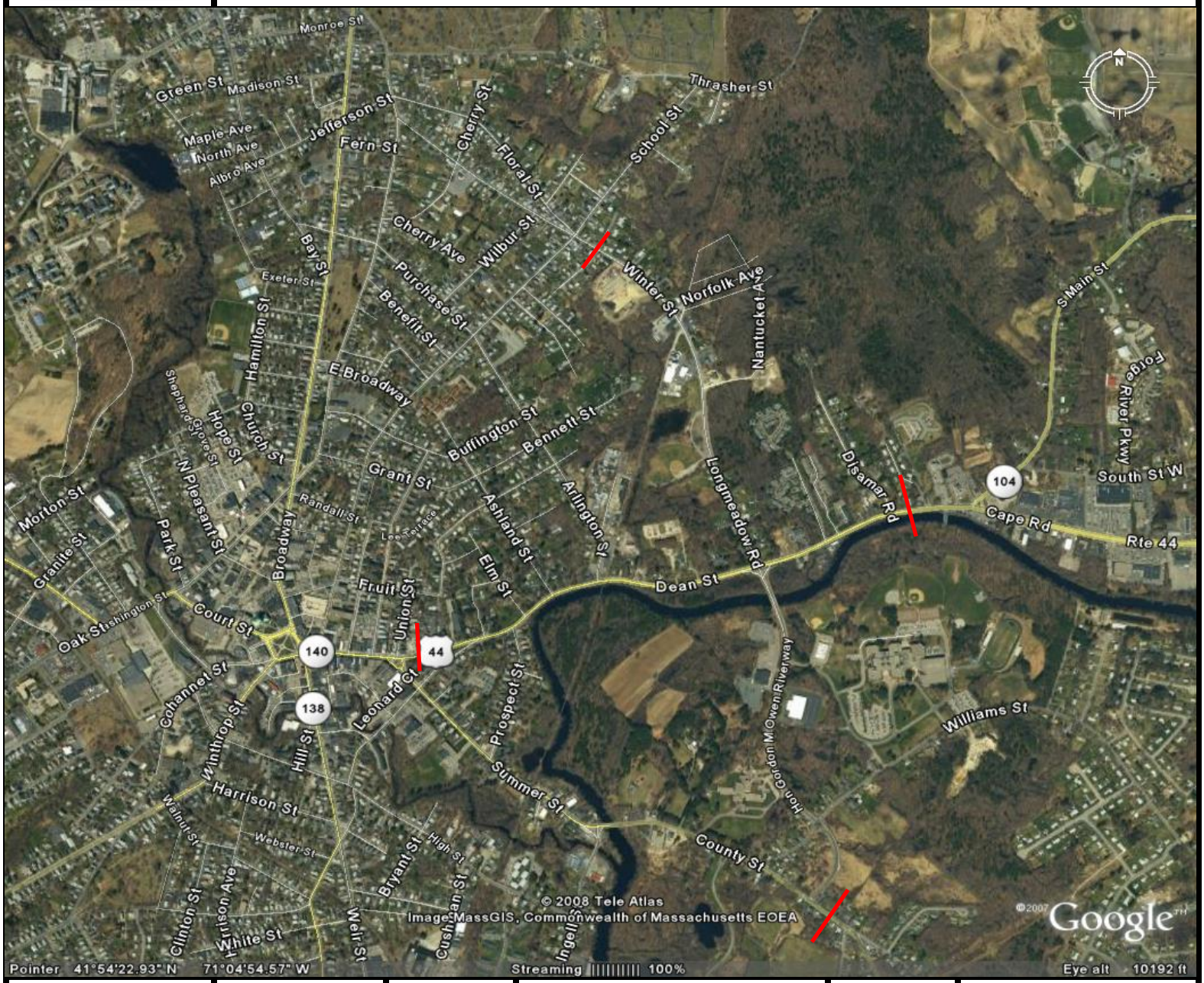
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/9/08 thru Wed 9/10/08	81676	Taunton, MA

Dean Street (Route 44)
west of River Road
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 K-A volume
Site Code: 10111.31

Start	WB				EB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	42		214		25		234		67		448		
12:15	40		235		15		233		55		468		
12:30	20		268		11		232		31		500		
12:45	28	130	223	940	13	64	248	947	41	194	471	1887	
01:00	23		242		16		239		39		481		
01:15	16		242		16		220		32		462		
01:30	13		239		9		209		22		448		
01:45	14	66	252	975	8	49	211	879	22	115	463	1854	
02:00	9		259		14		245		23		504		
02:15	12		227		11		237		23		464		
02:30	6		263		7		254		13		517		
02:45	9	36	241	990	9	41	271	1007	18	77	512	1997	
03:00	7		217		8		211		15		428		
03:15	16		239		11		199		27		438		
03:30	5		256		15		219		20		475		
03:45	8	36	262	974	21	55	246	875	29	91	508	1849	
04:00	14		263		17		242		31		505		
04:15	14		264		28		257		42		521		
04:30	14		217		52		192		66		409		
04:45	14	56	225	969	58	155	215	906	72	211	440	1875	
05:00	15		195		72		195		87		390		
05:15	36		210		104		116		140		326		
05:30	37		289		136		223		173		512		
05:45	52	140	281	975	134	446	236	770	186	586	517	1745	
06:00	57		255		152		222		209		477		
06:15	102		290		207		184		309		474		
06:30	125		277		204		198		329		475		
06:45	137	421	263	1085	223	786	176	780	360	1207	439	1865	
07:00	151		249		255		156		406		405		
07:15	200		232		255		170		455		402		
07:30	205		242		255		156		460		398		
07:45	175	731	209	932	261	1026	154	636	436	1757	363	1568	
08:00	167		187		203		115		370		302		
08:15	224		163		262		106		486		269		
08:30	230		167		222		97		452		264		
08:45	242	863	129	646	259	946	92	410	501	1809	221	1056	
09:00	192		147		241		123		433		270		
09:15	206		135		236		87		442		222		
09:30	190		123		226		79		416		202		
09:45	210	798	97	502	224	927	75	364	434	1725	172	866	
10:00	206		95		226		78		432		173		
10:15	226		72		227		63		453		135		
10:30	210		90		225		61		435		151		
10:45	232	874	70	327	211	889	42	244	443	1763	112	571	
11:00	211		92		216		54		427		146		
11:15	223		70		230		25		453		95		
11:30	233		43		249		35		482		78		
11:45	211	878	44	249	244	939	20	134	455	1817	64	383	
Total	5029		9564		6323		7952		11352		17516		
Percent	44.3%		54.6%		55.7%		45.4%						
Day Total		14593				14275				28868			
Peak	10:45		05:30		07:00		02:00		08:15		03:30		
Vol.	899		1115		1026		1007		1872		2009		
P.H.F.	0.929		0.961		0.983		0.929		0.934		0.964		

Dean Street (Route 44)
west of River Road
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 K-A volume
Site Code: 10111.31

Start	WB				EB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	40		226		16		241		56		467		
12:15	36		250		10		205		46		455		
12:30	35		248		14		247		49		495		
12:45	16	127	233	957	13	53	245	938	29	180	478	1895	
01:00	19		245		4		206		23		451		
01:15	17		236		14		226		31		462		
01:30	9		242		14		229		23		471		
01:45	15	60	219	942	6	38	211	872	21	98	430	1814	
02:00	13		230		14		198		27		428		
02:15	13		196		8		196		21		392		
02:30	8		179		8		155		16		334		
02:45	8	42	183	788	13	43	177	726	21	85	360	1514	
03:00	8		155		11		174		19		329		
03:15	13		175		13		182		26		357		
03:30	7		227		15		193		22		420		
03:45	5	33	247	804	15	54	166	715	20	87	413	1519	
04:00	11		244		13		220		24		464		
04:15	12		256		25		203		37		459		
04:30	14		249		42		201		56		450		
04:45	16	53	229	978	60	140	202	826	76	193	431	1804	
05:00	16		206		68		183		84		389		
05:15	28		216		98		129		126		345		
05:30	45		289		131		181		176		470		
05:45	47	136	258	969	164	461	231	724	211	597	489	1693	
06:00	51		273		152		243		203		516		
06:15	83		277		204		217		287		494		
06:30	129		259		213		211		342		470		
06:45	135	398	274	1083	247	816	198	869	382	1214	472	1952	
07:00	168		267		251		198		419		465		
07:15	203		228		233		168		436		396		
07:30	198		278		285		162		483		440		
07:45	179	748	238	1011	287	1056	144	672	466	1804	382	1683	
08:00	191		246		232		130		423		376		
08:15	212		261		225		135		437		396		
08:30	193		225		270		143		463		368		
08:45	207	803	208	940	279	1006	144	552	486	1809	352	1492	
09:00	192		206		246		157		438		363		
09:15	175		162		230		106		405		268		
09:30	212		145		227		92		439		237		
09:45	200	779	119	632	235	938	78	433	435	1717	197	1065	
10:00	184		132		240		81		424		213		
10:15	196		97		239		57		435		154		
10:30	206		97		233		84		439		181		
10:45	214	800	86	412	214	926	56	278	428	1726	142	690	
11:00	214		80		209		52		423		132		
11:15	203		82		228		38		431		120		
11:30	203		57		261		31		464		88		
11:45	215	835	45	264	227	925	28	149	442	1760	73	413	
Total	4814		9780		6456		7754		11270		17534		
Percent	42.7%		55.8%		57.3%		44.2%						
Day Total		14594				14210				28804			
Peak	10:30		05:30		07:00		12:00		08:15		05:30		
Vol.	837		1097		1056		938		1824		1969		
P.H.F.	0.978		0.949		0.920		0.949		0.938		0.954		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Dean Street (Route 44)
west of River Road
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 K-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	0	4	2	16	59	39	6	3	**1**	0	0	0	130	43	38
01:00	0	0	0	2	6	22	25	8	3	0	0	0	0	66	45	40
02:00	0	0	0	0	5	13	13	4	1	0	0	0	0	36	44	40
03:00	0	1	0	2	7	12	10	3	1	0	0	0	0	36	44	37
04:00	0	0	0	1	3	19	25	7	0	1	0	0	0	56	44	40
05:00	0	0	2	2	14	53	42	24	3	0	0	0	0	140	46	40
06:00	0	1	4	11	57	178	127	42	1	0	0	0	0	421	44	38
07:00	4	8	28	103	215	226	126	17	4	0	0	0	0	731	41	34
08:00	8	9	49	154	296	251	85	10	1	0	0	0	0	863	39	33
09:00	0	2	37	148	306	233	57	13	2	0	0	0	0	798	38	33
10:00	0	6	63	207	367	183	42	6	0	0	0	0	0	874	37	32
11:00	1	2	51	233	346	199	42	3	1	0	0	0	0	878	37	32
12 PM	0	10	127	289	342	148	21	3	0	0	0	0	0	940	36	30
13:00	4	41	203	356	254	96	16	4	0	0	0	0	1	975	34	28
14:00	3	17	165	362	291	138	12	2	0	0	0	0	0	990	35	29
15:00	23	67	304	291	190	81	18	0	0	0	0	0	0	974	33	26
16:00	28	71	229	299	220	98	23	1	0	0	0	0	0	969	34	27
17:00	33	134	236	215	247	89	17	3	1	0	0	0	0	975	34	26
18:00	0	10	99	303	367	244	57	5	0	0	0	0	0	1085	37	31
19:00	0	3	43	182	370	271	54	7	2	0	0	0	0	932	38	33
20:00	0	0	3	49	236	261	79	17	1	0	0	0	0	646	39	35
21:00	0	0	0	21	117	236	106	19	2	1	0	0	0	502	42	37
22:00	0	0	0	3	53	141	108	18	2	2	0	0	0	327	43	39
23:00	0	1	2	3	39	116	67	20	0	1	0	0	0	249	43	38
Total	104	383	1649	3238	4364	3367	1211	242	28	6	0	0	1	14593		
%	0.7%	2.6%	11.3%	22.2%	29.9%	23.1%	8.3%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	10:00	11:00	10:00	08:00	06:00	06:00	07:00	00:00				11:00		
Vol.	8	9	63	233	367	251	127	42	4	1				878		
PM Peak	17:00	17:00	15:00	14:00	19:00	19:00	22:00	23:00	19:00	22:00			13:00	18:00		
Vol.	33	134	304	362	370	271	108	20	2	2			1	1085		

Pecent

15th Percentile :	25 MPH
50th Percentile :	32 MPH
85th Percentile :	38 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	7731
Percent in Pace :	53.0%
Number of Vehicles > 35 MPH :	4181
Percent of Vehicles > 35 MPH :	28.7%
Mean Speed(Average) :	31 MPH

PRECISION DATA INDUSTRIES, LLC
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Dean Street (Route 44)
west of River Road
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 K-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	1	1	1	13	57	36	16	2	0	0	0	0	127	44	39
01:00	0	0	1	5	10	24	16	4	0	0	0	0	0	60	43	37
02:00	0	0	0	2	2	18	13	5	1	**1**	0	0	0	42	45	40
03:00	0	1	0	4	5	10	9	4	0	0	0	0	0	33	43	37
04:00	0	0	0	2	8	19	18	5	1	0	0	0	0	53	44	39
05:00	0	1	1	2	28	44	45	13	2	0	0	0	0	136	44	38
06:00	0	1	7	22	54	178	98	**32**	**5**	1	0	0	0	398	43	38
07:00	0	2	24	93	210	265	**132**	20	1	1	0	0	0	748	41	35
08:00	**4**	**7**	**59**	137	274	208	93	19	2	0	0	0	0	803	39	33
09:00	0	7	21	102	287	**270**	74	17	0	1	0	0	0	779	39	34
10:00	0	3	41	155	290	238	68	5	0	0	0	0	0	800	38	33
11:00	0	4	50	**167**	**339**	224	43	7	1	0	0	0	0	**835**	38	32
12 PM	2	9	83	274	334	206	44	4	1	0	0	0	0	957	37	31
13:00	10	35	207	347	215	105	22	1	0	0	0	0	0	942	34	28
14:00	35	96	**363**	208	74	11	1	0	0	0	0	0	0	788	29	23
15:00	34	79	358	249	63	19	2	0	0	0	0	0	0	804	29	24
16:00	30	81	266	291	201	93	15	1	0	0	0	0	0	978	34	26
17:00	**66**	**132**	305	255	161	45	5	0	0	0	0	0	0	969	32	24
18:00	1	7	102	**356**	**411**	173	27	5	0	**1**	0	0	0	**1083**	36	30
19:00	0	12	82	202	395	252	62	6	0	0	0	0	0	1011	38	32
20:00	0	7	18	156	326	**323**	99	10	1	0	0	0	0	940	39	34
21:00	0	2	11	65	213	248	78	11	**3**	1	0	0	0	632	39	35
22:00	0	0	0	8	64	190	**117**	**29**	3	1	0	0	0	412	43	38
23:00	0	0	6	13	49	107	71	13	3	1	**1**	0	0	264	43	37
Total	182	487	2006	3116	4026	3327	1188	227	26	8	1	0	0	14594		
%	1.2%	3.3%	13.7%	21.4%	27.6%	22.8%	8.1%	1.6%	0.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	11:00	11:00	09:00	07:00	06:00	06:00	02:00				11:00		
Vol.	4	7	59	167	339	270	132	32	5	1				835		
PM Peak	17:00	17:00	14:00	18:00	18:00	20:00	22:00	22:00	21:00	18:00	23:00			18:00		
Vol.	66	132	363	356	411	323	117	29	3	1	1			1083		

Pecent

15th Percentile :	23 MPH
50th Percentile :	31 MPH
85th Percentile :	38 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	7353
Percent in Pace :	50.4%
Number of Vehicles > 35 MPH :	4111
Percent of Vehicles > 35 MPH :	28.2%
Mean Speed(Average) :	31 MPH

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Dean Street (Route 44)
west of River Road
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 K-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	0	1	7	35	18	3	0	0	0	0	0	64	42	38
01:00	0	0	1	3	15	20	9	0	**1**	0	0	0	0	49	41	36
02:00	0	0	0	1	6	24	7	3	0	0	0	0	0	41	41	38
03:00	0	0	2	0	10	23	17	3	0	0	0	0	0	55	43	37
04:00	1	2	0	2	31	66	45	7	1	0	0	0	0	155	43	37
05:00	0	1	5	7	75	210	**129**	**18**	1	0	0	0	0	446	43	38
06:00	0	1	3	76	311	**325**	66	4	0	0	0	0	0	786	39	34
07:00	**7**	**19**	66	217	**457**	230	30	0	0	0	0	0	0	**1026**	37	31
08:00	1	7	**73**	236	402	197	27	3	0	0	0	0	0	946	37	31
09:00	0	9	47	231	446	178	15	1	0	0	0	0	0	927	36	31
10:00	5	5	57	264	388	154	14	2	0	0	0	0	0	889	36	31
11:00	1	5	72	**320**	406	119	16	0	0	0	0	0	0	939	34	30
12 PM	5	16	77	358	**380**	99	11	1	0	0	0	0	0	947	34	30
13:00	3	21	104	358	316	71	6	0	0	0	0	0	0	879	34	29
14:00	4	17	112	**418**	368	83	4	1	0	0	0	0	0	**1007**	34	29
15:00	**15**	**46**	190	322	242	56	3	1	0	0	0	0	0	875	33	27
16:00	4	20	**201**	327	279	69	6	0	0	0	0	0	0	906	33	28
17:00	5	25	186	212	223	109	9	1	0	0	0	0	0	770	35	28
18:00	0	1	22	180	344	**212**	19	2	0	0	0	0	0	780	37	32
19:00	0	0	1	119	319	169	26	1	1	0	0	0	0	636	37	33
20:00	0	0	1	20	181	168	**37**	3	0	0	0	0	0	410	39	35
21:00	0	1	1	31	128	164	36	3	0	0	0	0	0	364	39	35
22:00	0	0	4	5	73	122	35	**4**	1	0	0	0	0	244	40	36
23:00	0	0	1	1	31	78	20	1	**2**	0	0	0	0	134	40	37
Total	51	196	1226	3709	5438	2981	605	62	7	0	0	0	0	14275		
%	0.4%	1.4%	8.6%	26.0%	38.1%	20.9%	4.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	08:00	11:00	07:00	06:00	05:00	05:00	01:00					07:00		
Vol.	7	19	73	320	457	325	129	18	1					1026		
PM Peak	15:00	15:00	16:00	14:00	12:00	18:00	20:00	22:00	23:00					14:00		
Vol.	15	46	201	418	380	212	37	4	2					1007		

Pecent

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	9147
Percent in Pace :	64.1%
Number of Vehicles > 35 MPH :	3058
Percent of Vehicles > 35 MPH :	21.4%
Mean Speed(Average) :	31 MPH

PRECISION DATA INDUSTRIES, LLC
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81676 K-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	1	0	1	15	25	10	0	1	0	0	0	0	53	41	36
01:00	0	0	0	1	17	14	5	1	0	0	0	0	0	38	39	35
02:00	0	0	0	3	8	11	14	6	1	0	0	0	0	43	45	39
03:00	0	0	1	1	12	29	8	3	0	0	0	0	0	54	41	37
04:00	0	0	0	6	16	61	41	**15**	1	0	0	0	0	140	44	39
05:00	0	0	2	8	57	240	**139**	12	**2**	**1**	0	0	0	461	43	38
06:00	2	4	21	119	276	**300**	92	2	0	0	0	0	0	816	39	34
07:00	0	17	38	199	**488**	267	43	4	0	0	0	0	0	**1056**	37	32
08:00	0	6	53	199	438	269	40	0	1	0	0	0	0	1006	37	32
09:00	0	5	44	190	450	227	21	1	0	0	0	0	0	938	37	32
10:00	8	14	59	213	442	168	22	0	0	0	0	0	0	926	36	31
11:00	**9**	**19**	**70**	**294**	399	122	11	1	0	0	0	0	0	925	34	30
12 PM	1	21	75	265	**408**	157	11	0	0	0	0	0	0	**938**	35	30
13:00	7	34	292	**322**	188	27	2	0	0	0	0	0	0	872	32	26
14:00	**24**	**96**	**359**	168	66	13	0	0	0	0	0	0	0	726	29	23
15:00	22	64	299	208	98	22	2	0	0	0	0	0	0	715	30	24
16:00	8	23	140	257	307	81	10	0	0	0	0	0	0	826	34	29
17:00	3	26	190	221	210	68	6	0	0	0	0	0	0	724	34	28
18:00	2	10	31	204	395	186	37	4	0	0	0	0	0	869	37	32
19:00	0	5	16	88	366	176	20	1	0	0	0	0	0	672	37	33
20:00	1	0	11	48	272	192	23	5	0	0	0	0	0	552	38	34
21:00	0	0	2	23	174	**195**	35	4	0	0	0	0	0	433	39	35
22:00	0	1	2	16	61	148	**40**	**9**	**1**	0	0	0	0	278	40	36
23:00	0	0	1	0	39	75	31	2	1	0	0	0	0	149	41	37
Total	87	346	1706	3054	5202	3073	663	70	8	1	0	0	0	14210		
%	0.6%	2.4%	12.0%	21.5%	36.6%	21.6%	4.7%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	07:00	06:00	05:00	04:00	05:00	05:00				07:00		
Vol.	9	19	70	294	488	300	139	15	2	1				1056		
PM Peak	14:00	14:00	14:00	13:00	12:00	21:00	22:00	22:00	22:00					12:00		
Vol.	24	96	359	322	408	195	40	9	1					938		

Pecent

15th Percentile :	24 MPH
50th Percentile :	31 MPH
85th Percentile :	37 MPH
95th Percentile :	40 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	8275
Percent in Pace :	58.2%
Number of Vehicles > 35 MPH :	3200
Percent of Vehicles > 35 MPH :	22.5%
Mean Speed(Average) :	31 MPH

PRECISION
D A T A
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Dean Street (Route 44)
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City, State: Taunton, MA
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81676 K-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	108	18	0	2	0	0	1	1	0	0	0	0	130
01:00	0	59	4	0	2	0	0	0	1	0	0	0	0	66
02:00	0	29	4	0	1	1	0	0	1	0	0	0	0	36
03:00	1	25	6	0	3	0	0	0	1	0	0	0	0	36
04:00	0	42	12	0	2	0	0	0	0	0	0	0	0	56
05:00	2	87	37	0	8	2	0	1	3	0	0	0	0	140
06:00	4	299	81	4	15	8	0	3	6	1	0	0	0	421
07:00	8	564	118	3	20	10	1	5	1	1	0	0	0	731
08:00	3	689	145	2	17	3	0	3	1	0	0	0	0	863
09:00	4	602	145	3	22	13	1	6	2	0	0	0	0	798
10:00	6	656	158	4	26	13	1	6	4	0	0	0	0	874
11:00	15	653	155	2	23	14	0	10	6	0	0	0	0	878
12 PM	15	744	131	5	26	9	1	6	3	0	0	0	0	940
13:00	16	728	168	4	29	17	0	9	4	0	0	0	0	975
14:00	9	771	163	2	19	18	0	7	1	0	0	0	0	990
15:00	17	760	157	2	19	12	0	6	0	1	0	0	0	974
16:00	19	783	130	0	16	13	0	6	2	0	0	0	0	969
17:00	16	820	107	0	16	10	0	4	2	0	0	0	0	975
18:00	8	914	136	0	15	5	0	5	2	0	0	0	0	1085
19:00	3	775	126	0	18	9	0	0	1	0	0	0	0	932
20:00	4	539	86	1	8	3	0	4	1	0	0	0	0	646
21:00	0	435	62	0	3	1	0	1	0	0	0	0	0	502
22:00	0	284	40	0	3	0	0	0	0	0	0	0	0	327
23:00	1	207	30	7	1	1	0	0	2	0	0	0	0	249
Total	151	11573	2219	39	314	162	4	83	45	3	0	0	0	14593
Percent	1.0%	79.3%	15.2%	0.3%	2.2%	1.1%	0.0%	0.6%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	10:00	06:00	10:00	11:00	07:00	11:00	06:00	06:00				11:00
Vol.	15	689	158	4	26	14	1	10	6	1				878
PM Peak	16:00	18:00	13:00	23:00	13:00	14:00	12:00	13:00	13:00	15:00				18:00
Vol.	19	914	168	7	29	18	1	9	4	1				1085

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west of River Road
City, State: Taunton, MA
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81676 K-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	105	22	0	0	0	0	0	0	0	0	0	0	127
01:00	0	47	11	0	1	0	0	0	1	0	0	0	0	60
02:00	0	35	4	0	1	0	0	1	1	0	0	0	0	42
03:00	0	20	11	0	1	0	0	0	1	0	0	0	0	33
04:00	0	40	4	0	2	2	0	0	4	1	0	0	0	53
05:00	2	85	36	2	6	2	0	2	1	0	0	0	0	136
06:00	6	279	90	3	13	4	0	1	2	0	0	0	0	398
07:00	10	572	126	5	16	10	1	5	3	0	0	0	0	748
08:00	10	619	130	3	23	10	0	5	2	1	0	0	0	803
09:00	5	583	149	5	24	6	1	4	2	0	0	0	0	779
10:00	9	609	145	5	18	8	0	2	4	0	0	0	0	800
11:00	9	650	143	0	18	9	0	2	4	0	0	0	0	835
12 PM	10	747	163	2	18	8	0	6	3	0	0	0	0	957
13:00	14	747	133	4	22	11	0	5	5	0	0	0	1	942
14:00	14	655	90	3	10	9	0	5	1	0	1	0	0	788
15:00	13	636	118	3	15	11	0	7	1	0	0	0	0	804
16:00	18	785	137	1	17	15	0	5	0	0	0	0	0	978
17:00	20	832	95	0	7	7	0	6	2	0	0	0	0	969
18:00	29	892	137	1	13	8	0	3	0	0	0	0	0	1083
19:00	7	836	140	3	17	5	0	3	0	0	0	0	0	1011
20:00	10	777	126	2	10	3	0	6	6	0	0	0	0	940
21:00	6	530	83	0	10	2	0	1	0	0	0	0	0	632
22:00	2	342	57	1	6	2	0	2	0	0	0	0	0	412
23:00	1	229	29	0	3	1	0	0	1	0	0	0	0	264
Total	195	11652	2179	43	271	133	2	71	44	2	1	0	1	14594
Percent	1.3%	79.8%	14.9%	0.3%	1.9%	0.9%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	09:00	07:00	09:00	07:00	07:00	07:00	04:00	04:00				11:00
Vol.	10	650	149	5	24	10	1	5	4	1				835
PM Peak	18:00	18:00	12:00	13:00	13:00	16:00		15:00	20:00		14:00		13:00	18:00
Vol.	29	892	163	4	22	15		7	6		1		1	1083

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Dean Street (Route 44)
west of River Road
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 K-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	49	9	0	4	0	0	0	1	0	0	0	0	64
01:00	0	41	3	0	2	0	0	1	2	0	0	0	0	49
02:00	0	31	3	0	2	1	0	0	3	1	0	0	0	41
03:00	0	47	3	0	2	2	0	0	1	0	0	0	0	55
04:00	0	115	32	0	6	1	0	1	0	0	0	0	0	155
05:00	2	332	93	2	13	0	0	0	4	0	0	0	0	446
06:00	2	589	139	4	24	8	0	1	19	0	0	0	0	786
07:00	3	862	118	4	17	11	0	6	5	0	0	0	0	1026
08:00	5	802	98	2	24	5	0	2	7	0	1	0	0	946
09:00	2	766	116	4	20	10	0	3	6	0	0	0	0	927
10:00	9	739	104	2	18	8	0	4	5	0	0	0	0	889
11:00	13	784	103	1	22	10	0	4	2	0	0	0	0	939
12 PM	8	800	95	5	25	8	0	4	2	0	0	0	0	947
13:00	11	752	84	3	15	5	1	5	3	0	0	0	0	879
14:00	19	844	103	3	19	7	1	7	4	0	0	0	0	1007
15:00	11	738	95	2	20	3	0	4	2	0	0	0	0	875
16:00	17	781	82	2	15	2	0	5	2	0	0	0	0	906
17:00	19	679	59	2	11	0	0	0	0	0	0	0	0	770
18:00	6	686	70	0	14	3	0	0	0	1	0	0	0	780
19:00	9	546	66	0	11	0	0	3	1	0	0	0	0	636
20:00	2	372	31	0	3	2	0	0	0	0	0	0	0	410
21:00	3	313	39	0	3	1	0	4	1	0	0	0	0	364
22:00	2	215	23	0	4	0	0	0	0	0	0	0	0	244
23:00	0	118	12	1	1	0	0	1	1	0	0	0	0	134
Total	144	12001	1580	37	295	87	2	55	71	2	1	0	0	14275
Percent	1.0%	84.1%	11.1%	0.3%	2.1%	0.6%	0.0%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	06:00	06:00	06:00	07:00		07:00	06:00	02:00	08:00			07:00
Vol.	13	862	139	4	24	11		6	19	1	1			1026
PM Peak	14:00	14:00	14:00	12:00	12:00	12:00	13:00	14:00	14:00	18:00				14:00
Vol.	19	844	103	5	25	8	1	7	4	1				1007

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Dean Street (Route 44)
west of River Road
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 K-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	49	3	0	0	1	0	0	0	0	0	0	0	53
01:00	0	31	5	0	0	0	0	1	1	0	0	0	0	38
02:00	2	30	3	0	2	1	0	0	3	2	0	0	0	43
03:00	0	44	8	0	0	0	0	1	0	1	0	0	0	54
04:00	2	102	30	1	1	2	0	0	2	0	0	0	0	140
05:00	4	346	93	1	12	1	0	1	3	0	0	0	0	461
06:00	6	633	137	1	12	9	0	3	15	0	0	0	0	816
07:00	11	872	132	7	21	5	0	3	5	0	0	0	0	1056
08:00	13	833	123	6	14	4	0	9	4	0	0	0	0	1006
09:00	6	788	119	1	13	8	0	0	3	0	0	0	0	938
10:00	5	769	120	1	14	11	2	1	3	0	0	0	0	926
11:00	15	785	81	5	17	5	1	10	6	0	0	0	0	925
12 PM	15	787	103	4	15	8	0	4	2	0	0	0	0	938
13:00	13	721	101	2	12	9	0	4	8	1	0	0	1	872
14:00	16	637	52	5	7	6	0	3	0	0	0	0	0	726
15:00	14	611	69	0	13	1	0	5	2	0	0	0	0	715
16:00	15	723	70	0	11	3	0	2	1	0	1	0	0	826
17:00	13	652	41	0	13	2	0	3	0	0	0	0	0	724
18:00	11	774	68	0	12	3	0	1	0	0	0	0	0	869
19:00	8	581	69	0	11	3	0	0	0	0	0	0	0	672
20:00	8	482	51	1	7	1	0	2	0	0	0	0	0	552
21:00	4	378	39	0	6	3	0	1	2	0	0	0	0	433
22:00	2	244	25	0	4	2	0	1	0	0	0	0	0	278
23:00	2	129	13	1	3	0	0	0	1	0	0	0	0	149
Total	185	12001	1555	36	220	88	3	55	61	4	1	0	1	14210
Percent	1.3%	84.5%	10.9%	0.3%	1.5%	0.6%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	06:00	07:00	07:00	10:00	10:00	11:00	06:00	02:00				07:00
Vol.	15	872	137	7	21	11	2	10	15	2				1056
PM Peak	14:00	12:00	12:00	14:00	12:00	13:00		15:00	13:00	13:00	16:00		13:00	12:00
Vol.	16	787	103	5	15	9		5	8	1	1		1	938

Winter Street
just south of King Avenue
City, State: Taunton, MA
Client: VHB/ J. Quitter

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81676 K-B volume
Site Code: 10111.31

Start	SB				NB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	8		54		8		81		16		135		
12:15	9		51		7		89		16		140		
12:30	5		55		7		96		12		151		
12:45	2	24	56	216	6	28	83	349	8	52	139	565	
01:00	5		57		6		78		11		135		
01:15	2		50		9		77		11		127		
01:30	7		58		5		95		12		153		
01:45	1	15	79	244	7	27	77	327	8	42	156	571	
02:00	5		69		3		119		8		188		
02:15	5		96		6		127		11		223		
02:30	2		89		4		116		6		205		
02:45	3	15	81	335	3	16	143	505	6	31	224	840	
03:00	4		91		3		116		7		207		
03:15	1		83		5		117		6		200		
03:30	4		129		2		108		6		237		
03:45	3	12	110	413	4	14	141	482	7	26	251	895	
04:00	2		129		7		129		9		258		
04:15	7		106		5		118		12		224		
04:30	21		124		11		125		32		249		
04:45	18	48	148	507	10	33	130	502	28	81	278	1009	
05:00	9		124		10		123		19		247		
05:15	12		121		27		138		39		259		
05:30	24		142		26		108		50		250		
05:45	37	82	122	509	36	99	91	460	73	181	213	969	
06:00	36		98		37		99		73		197		
06:15	50		102		48		97		98		199		
06:30	82		77		77		83		159		160		
06:45	85	253	78	355	57	219	90	369	142	472	168	724	
07:00	114		68		88		80		202		148		
07:15	122		62		118		69		240		131		
07:30	84		71		140		62		224		133		
07:45	98	418	61	262	86	432	72	283	184	850	133	545	
08:00	73		48		98		69		171		117		
08:15	66		50		100		75		166		125		
08:30	59		34		85		56		144		90		
08:45	74	272	33	165	80	363	49	249	154	635	82	414	
09:00	43		49		68		61		111		110		
09:15	49		41		61		42		110		83		
09:30	45		25		74		39		119		64		
09:45	53	190	25	140	64	267	34	176	117	457	59	316	
10:00	52		16		57		39		109		55		
10:15	61		20		60		34		121		54		
10:30	48		20		61		34		109		54		
10:45	54	215	21	77	84	262	25	132	138	477	46	209	
11:00	55		20		66		21		121		41		
11:15	61		9		65		17		126		26		
11:30	64		12		75		14		139		26		
11:45	52	232	11	52	72	278	11	63	124	510	22	115	
Total	1776		3275		2038		3897		3814		7172		
Percent	46.6%		45.7%		53.4%		54.3%						
Day Total		5051				5935				10986			
Peak	07:00		04:45		07:15		04:30		07:00		04:45		
Vol.	418		535		442		516		850		1034		
P.H.F.	0.857		0.904		0.789		0.935		0.885		0.930		

Winter Street
just south of King Avenue
City, State: Taunton, MA
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81676 K-B volume
Site Code: 10111.31

Start	SB				NB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		61		8		65		17		126		
12:15	8		68		12		93		20		161		
12:30	6		58		9		81		15		139		
12:45	8	31	66	253	5	34	68	307	13	65	134	560	
01:00	6		81		5		75		11		156		
01:15	7		75		5		79		12		154		
01:30	4		84		4		98		8		182		
01:45	1	18	85	325	6	20	83	335	7	38	168	660	
02:00	4		73		4		112		8		185		
02:15	1		82		5		136		6		218		
02:30	2		109		3		125		5		234		
02:45	2	9	96	360	1	13	127	500	3	22	223	860	
03:00	3		90		4		122		7		212		
03:15	5		99		2		130		7		229		
03:30	6		112		1		127		7		239		
03:45	5	19	103	404	3	10	140	519	8	29	243	923	
04:00	1		106		1		147		2		253		
04:15	5		113		10		124		15		237		
04:30	18		156		7		130		25		286		
04:45	17	41	146	521	8	26	134	535	25	67	280	1056	
05:00	14		154		15		127		29		281		
05:15	14		154		23		114		37		268		
05:30	19		145		37		110		56		255		
05:45	36	83	156	609	39	114	121	472	75	197	277	1081	
06:00	32		135		31		124		63		259		
06:15	55		118		48		109		103		227		
06:30	77		111		76		99		153		210		
06:45	90	254	99	463	61	216	99	431	151	470	198	894	
07:00	112		87		88		112		200		199		
07:15	93		71		123		106		216		177		
07:30	62		83		146		89		208		172		
07:45	86	353	74	315	94	451	76	383	180	804	150	698	
08:00	69		50		109		103		178		153		
08:15	60		43		110		91		170		134		
08:30	59		59		77		64		136		123		
08:45	62	250	65	217	84	380	73	331	146	630	138	548	
09:00	56		47		82		81		138		128		
09:15	49		37		69		61		118		98		
09:30	45		49		81		43		126		92		
09:45	66	216	31	164	66	298	43	228	132	514	74	392	
10:00	69		27		68		43		137		70		
10:15	52		29		76		37		128		66		
10:30	51		24		76		34		127		58		
10:45	60	232	28	108	68	288	28	142	128	520	56	250	
11:00	57		21		72		24		129		45		
11:15	57		17		80		22		137		39		
11:30	52		10		90		25		142		35		
11:45	78	244	11	59	81	323	12	83	159	567	23	142	
Total	1750		3798		2173		4266		3923		8064		
Percent	44.6%		47.1%		55.4%		52.9%						
Day Total		5548				6439				11987			
Peak	06:30		04:30		07:15		03:15		07:00		04:30		
Vol.	372		610		472		544		804		1115		
P.H.F.	0.830		0.978		0.808		0.925		0.931		0.975		

PRECISION
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Winter Street
just south of King Avenue
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	1	2	7	8	4	**2**	0	0	0	0	0	24	41	36
01:00	1	0	0	1	6	5	2	0	0	0	0	0	0	15	39	32
02:00	0	1	1	1	7	4	0	1	0	0	0	0	0	15	37	32
03:00	0	1	0	2	4	4	0	1	0	0	0	0	0	12	37	33
04:00	0	0	1	7	15	21	3	1	0	0	0	0	0	48	39	34
05:00	0	3	5	10	41	19	4	0	0	0	0	0	0	82	37	32
06:00	0	3	8	34	120	73	14	1	0	0	0	0	0	253	38	33
07:00	15	9	25	86	206	74	2	1	0	0	0	0	0	418	35	30
08:00	4	7	25	89	108	38	1	0	0	0	0	0	0	272	34	29
09:00	2	5	18	44	95	25	1	0	0	0	0	0	0	190	34	30
10:00	1	3	24	67	87	32	1	0	0	0	0	0	0	215	35	30
11:00	0	1	19	84	103	22	1	1	0	0	0	0	0	231	34	30
12 PM	1	2	11	64	116	18	5	0	0	0	0	0	0	217	34	30
13:00	0	3	12	75	108	40	3	1	0	0	0	0	0	242	35	31
14:00	1	1	13	78	162	75	7	0	0	0	0	0	0	337	37	32
15:00	1	1	20	86	222	75	6	2	0	0	0	0	0	413	36	32
16:00	1	4	14	95	282	105	6	0	0	0	0	0	0	507	36	32
17:00	0	4	4	93	265	135	8	0	0	0	0	0	0	509	37	32
18:00	1	1	8	49	197	92	4	3	0	0	0	0	0	355	37	33
19:00	1	1	0	32	148	75	5	0	0	0	0	0	0	262	37	33
20:00	1	1	1	31	84	40	6	1	0	0	0	0	0	165	37	32
21:00	0	1	3	26	65	41	3	0	1	0	0	0	0	140	37	33
22:00	1	0	3	8	26	29	9	1	0	0	0	0	0	77	39	34
23:00	0	0	2	8	17	21	2	2	0	0	0	0	0	52	38	34
Total	31	52	218	1072	2491	1071	97	18	1	0	0	0	0	5051		
%	0.6%	1.0%	4.3%	21.2%	49.3%	21.2%	1.9%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	08:00	07:00	07:00	06:00	00:00						07:00		
Vol.	15	9	25	89	206	74	14	2						418		
PM Peak	12:00	16:00	15:00	16:00	16:00	17:00	22:00	18:00	21:00					17:00		
Vol.	1	4	20	95	282	135	9	3	1					509		

Pecent

15th Percentile :	27 MPH
50th Percentile :	32 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	26-35 MPH
Number in Pace :	3564
Percent in Pace :	70.6%
Number of Vehicles > 30 MPH :	3179
Percent of Vehicles > 30 MPH :	62.9%
Mean Speed(Average) :	32 MPH

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81676 K-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	3	1	3	16	4	4	0	0	0	0	0	0	31	38	32
01:00	0	0	0	4	3	6	3	**2**	0	0	0	0	0	18	41	36
02:00	0	0	1	1	4	1	1	1	0	0	0	0	0	9	44	34
03:00	0	2	1	4	3	7	1	1	0	0	0	0	0	19	38	32
04:00	0	1	0	3	15	13	8	1	0	0	0	0	0	41	41	35
05:00	0	3	7	12	34	24	1	2	0	0	0	0	0	83	37	32
06:00	0	3	4	20	118	**92**	**16**	1	0	0	0	0	0	254	38	34
07:00	**9**	**6**	**39**	69	**163**	60	7	0	0	0	0	0	0	**353**	36	30
08:00	0	2	19	69	113	43	4	0	0	0	0	0	0	250	35	31
09:00	1	6	15	71	110	13	0	0	0	0	0	0	0	216	34	29
10:00	0	6	9	**86**	100	28	3	0	0	0	0	0	0	232	34	30
11:00	1	1	8	56	135	40	2	0	0	0	0	0	0	243	35	31
12 PM	1	1	11	75	117	41	7	1	0	0	0	0	0	254	36	31
13:00	0	0	6	66	165	76	10	1	**1**	0	0	0	0	325	37	32
14:00	1	**8**	**23**	71	157	90	8	1	0	0	0	0	0	359	37	32
15:00	**2**	4	22	84	207	76	8	1	0	0	0	0	0	404	36	31
16:00	1	4	17	**101**	282	108	9	0	0	0	0	0	0	522	36	32
17:00	1	1	10	62	**336**	**178**	**18**	**3**	0	0	0	0	0	**609**	37	33
18:00	0	5	7	67	268	106	9	1	0	0	0	0	0	463	37	32
19:00	1	1	10	59	171	63	10	0	0	0	0	0	0	315	36	32
20:00	0	5	4	35	110	54	9	0	0	0	0	0	0	217	37	32
21:00	0	2	6	28	78	41	7	2	0	0	0	0	0	164	37	32
22:00	0	1	1	14	51	37	4	0	0	0	0	0	0	108	38	33
23:00	0	2	0	2	24	23	7	1	0	0	0	0	0	59	39	35
Total	18	67	221	1062	2780	1224	156	19	1	0	0	0	0	5548		
%	0.3%	1.2%	4.0%	19.1%	50.1%	22.1%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	10:00	07:00	06:00	06:00	01:00						07:00		
Vol.	9	6	39	86	163	92	16	2						353		
PM Peak	15:00	14:00	14:00	16:00	17:00	17:00	17:00	17:00	13:00					17:00		
Vol.	2	8	23	101	336	178	18	3	1					609		

Pecent

15th Percentile :	27 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4004
Percent in Pace :	72.2%
Number of Vehicles > 30 MPH :	3624
Percent of Vehicles > 30 MPH :	65.3%
Mean Speed(Average) :	32 MPH

PRECISION DATA INDUSTRIES, LLC
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Winter Street
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City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	0	0	1	6	11	8	2	0	0	0	0	0	28	42	38
01:00	0	0	0	0	9	11	5	2	0	0	0	0	0	27	42	37
02:00	1	0	1	2	3	6	3	0	0	0	0	0	0	16	40	33
03:00	0	0	0	1	5	5	3	0	0	0	0	0	0	14	40	36
04:00	0	0	0	1	4	17	11	0	0	0	0	0	0	33	42	38
05:00	1	1	0	7	24	44	15	**6**	**1**	0	0	0	0	99	42	36
06:00	0	0	3	18	87	**90**	**20**	1	0	0	0	0	0	219	39	35
07:00	2	7	31	123	**178**	74	17	0	0	0	0	0	0	**432**	36	31
08:00	**8**	**27**	**54**	**136**	115	19	3	0	0	0	0	0	0	362	33	27
09:00	1	8	27	100	97	33	2	0	0	0	0	0	0	268	34	29
10:00	3	13	27	91	110	17	0	0	0	0	0	0	0	261	33	29
11:00	1	10	31	84	116	33	4	0	0	0	0	0	0	279	34	30
12 PM	4	19	42	116	134	30	3	0	0	0	0	0	0	348	34	29
13:00	3	2	32	93	148	44	6	0	0	0	0	0	0	328	35	30
14:00	**7**	**24**	**65**	123	196	73	16	0	0	0	0	0	0	**504**	35	30
15:00	7	21	61	121	181	81	11	0	0	0	0	0	0	483	36	30
16:00	3	17	43	**142**	201	82	13	1	0	0	0	0	0	502	36	30
17:00	3	4	31	104	**227**	79	10	1	**1**	0	0	0	0	460	36	31
18:00	0	9	16	67	176	**86**	11	**2**	1	0	0	0	0	368	37	32
19:00	0	2	3	44	151	71	13	0	0	0	0	0	0	284	37	33
20:00	1	1	9	26	103	82	**25**	2	0	0	0	0	0	249	39	34
21:00	0	1	6	18	79	59	12	1	0	0	0	0	0	176	38	33
22:00	0	0	6	6	41	56	21	2	0	0	0	0	0	132	40	35
23:00	0	0	0	4	26	21	9	2	1	0	0	0	0	63	41	35
Total	45	166	488	1428	2417	1124	241	22	4	0	0	0	0	5935		
%	0.8%	2.8%	8.2%	24.1%	40.7%	18.9%	4.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	08:00	07:00	06:00	06:00	05:00	05:00					07:00		
Vol.	8	27	54	136	178	90	20	6	1					432		
PM Peak	14:00	14:00	14:00	16:00	17:00	18:00	20:00	18:00	17:00					14:00		
Vol.	7	24	65	142	227	86	25	2	1					504		

Pecent

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	3845
Percent in Pace :	64.8%
Number of Vehicles > 30 MPH :	3324
Percent of Vehicles > 30 MPH :	56.0%
Mean Speed(Average) :	31 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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Winter Street
just south of King Avenue
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	1	5	12	12	3	0	**1**	0	0	0	0	34	39	34
01:00	0	0	0	0	6	12	2	0	0	0	0	0	0	20	39	36
02:00	0	0	0	1	2	5	4	1	0	0	0	0	0	13	42	38
03:00	0	0	0	1	4	1	4	0	0	0	0	0	0	10	41	36
04:00	0	0	0	0	1	10	13	1	1	0	0	0	0	26	43	40
05:00	1	5	1	9	33	41	21	2	1	0	0	0	0	114	41	35
06:00	0	1	3	21	81	**73**	**26**	**9**	1	**1**	0	0	0	216	40	35
07:00	**32**	**24**	**47**	116	165	62	5	0	0	0	0	0	0	**451**	34	28
08:00	0	15	23	118	**175**	45	4	0	0	0	0	0	0	380	34	30
09:00	1	4	23	97	134	34	5	0	0	0	0	0	0	298	34	30
10:00	5	6	31	109	99	35	2	1	0	0	0	0	0	288	34	29
11:00	5	5	38	**121**	119	33	2	0	0	0	0	0	0	323	34	29
12 PM	1	9	35	93	130	32	7	0	0	0	0	0	0	307	34	30
13:00	2	6	30	70	136	75	15	1	0	0	0	0	0	335	37	31
14:00	**14**	**30**	37	102	236	75	5	1	0	0	0	0	0	500	35	30
15:00	10	9	**54**	136	220	81	9	0	0	0	0	0	0	519	35	30
16:00	1	7	48	**150**	**242**	78	7	2	0	0	0	0	0	**535**	35	30
17:00	3	13	24	109	190	**114**	16	3	0	0	0	0	0	472	37	31
18:00	6	11	27	97	169	92	**28**	1	0	0	0	0	0	431	37	31
19:00	0	0	36	70	173	93	11	0	0	0	0	0	0	383	37	32
20:00	1	3	11	41	142	105	25	3	0	0	0	0	0	331	38	33
21:00	0	0	5	24	88	87	20	3	**1**	0	0	0	0	228	39	34
22:00	0	0	1	6	42	64	26	2	1	0	0	0	0	142	41	36
23:00	0	0	0	4	27	32	16	**4**	0	0	0	0	0	83	42	36
Total	82	148	475	1500	2626	1291	276	34	6	1	0	0	0	6439		
%	1.3%	2.3%	7.4%	23.3%	40.8%	20.0%	4.3%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	11:00	08:00	06:00	06:00	06:00	00:00	06:00				07:00		
Vol.	32	24	47	121	175	73	26	9	1	1				451		
PM Peak	14:00	14:00	15:00	16:00	16:00	17:00	18:00	23:00	21:00					16:00		
Vol.	14	30	54	150	242	114	28	4	1					535		

Pecent

15th Percentile :	25 MPH
50th Percentile :	31 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	4126
Percent in Pace :	64.1%
Number of Vehicles > 30 MPH :	3708
Percent of Vehicles > 30 MPH :	57.6%
Mean Speed(Average) :	31 MPH

PRECISION
D A T A
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Winter Street
just south of King Avenue
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	21	2	0	0	0	0	0	0	0	0	0	0	24
01:00	0	12	1	0	2	0	0	0	0	0	0	0	0	15
02:00	1	12	0	0	2	0	0	0	0	0	0	0	0	15
03:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
04:00	0	37	11	0	0	0	0	0	0	0	0	0	0	48
05:00	0	61	18	0	3	0	0	0	0	0	0	0	0	82
06:00	2	176	61	0	11	1	0	2	0	0	0	0	0	253
07:00	5	311	65	10	16	5	1	2	3	0	0	0	0	418
08:00	2	206	50	0	10	2	0	2	0	0	0	0	0	272
09:00	1	145	27	1	11	2	0	2	1	0	0	0	0	190
10:00	0	157	43	0	12	1	0	2	0	0	0	0	0	215
11:00	1	168	45	1	10	2	0	1	3	0	0	0	0	231
12 PM	1	182	24	2	5	2	0	0	1	0	0	0	0	217
13:00	1	176	49	6	7	2	0	0	1	0	0	0	0	242
14:00	4	238	69	9	14	2	0	1	0	0	0	0	0	337
15:00	2	324	71	0	14	1	0	1	0	0	0	0	0	413
16:00	5	409	82	0	9	2	0	0	0	0	0	0	0	507
17:00	3	420	77	0	8	1	0	0	0	0	0	0	0	509
18:00	2	297	48	0	6	1	0	1	0	0	0	0	0	355
19:00	1	223	34	0	3	0	0	1	0	0	0	0	0	262
20:00	1	147	16	0	1	0	0	0	0	0	0	0	0	165
21:00	0	125	13	0	2	0	0	0	0	0	0	0	0	140
22:00	0	68	9	0	0	0	0	0	0	0	0	0	0	77
23:00	0	46	5	0	1	0	0	0	0	0	0	0	0	52
Total	33	3972	821	29	147	24	1	15	9	0	0	0	0	5051
Percent	0.7%	78.6%	16.3%	0.6%	2.9%	0.5%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	07:00	06:00	07:00					07:00
Vol.	5	311	65	10	16	5	1	2	3					418
PM Peak	16:00	17:00	16:00	14:00	14:00	12:00		14:00	12:00					17:00
Vol.	5	420	82	9	14	2		1	1					509

PRECISION
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Winter Street
just south of King Avenue
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Client: VHB/ J. Quitter

81676 K-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	26	4	0	1	0	0	0	0	0	0	0	0	31
01:00	0	16	2	0	0	0	0	0	0	0	0	0	0	18
02:00	1	7	0	0	1	0	0	0	0	0	0	0	0	9
03:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
04:00	0	32	8	0	0	0	0	1	0	0	0	0	0	41
05:00	1	60	17	1	2	0	0	1	1	0	0	0	0	83
06:00	2	187	57	0	7	1	0	0	0	0	0	0	0	254
07:00	3	274	54	11	6	1	1	2	1	0	0	0	0	353
08:00	4	195	36	2	10	2	0	0	1	0	0	0	0	250
09:00	1	165	44	0	4	1	0	0	1	0	0	0	0	216
10:00	0	183	36	0	9	3	0	1	0	0	0	0	0	232
11:00	2	181	51	1	7	1	0	0	0	0	0	0	0	243
12 PM	1	191	50	2	7	2	0	0	1	0	0	0	0	254
13:00	1	247	51	5	13	6	0	2	0	0	0	0	0	325
14:00	0	290	45	12	10	2	0	0	0	0	0	0	0	359
15:00	5	305	77	0	14	1	0	1	1	0	0	0	0	404
16:00	6	423	77	2	10	2	0	2	0	0	0	0	0	522
17:00	6	501	88	1	11	1	0	1	0	0	0	0	0	609
18:00	6	390	60	0	6	1	0	0	0	0	0	0	0	463
19:00	1	260	52	0	1	1	0	0	0	0	0	0	0	315
20:00	1	186	23	0	5	2	0	0	0	0	0	0	0	217
21:00	1	140	20	0	2	0	0	1	0	0	0	0	0	164
22:00	1	95	12	0	0	0	0	0	0	0	0	0	0	108
23:00	0	56	3	0	0	0	0	0	0	0	0	0	0	59
Total	43	4427	869	37	126	27	1	12	6	0	0	0	0	5548
Percent	0.8%	79.8%	15.7%	0.7%	2.3%	0.5%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	06:00	07:00	08:00	10:00	07:00	07:00	05:00					07:00
Vol.	4	274	57	11	10	3	1	2	1					353
PM Peak	16:00	17:00	17:00	14:00	15:00	13:00		13:00	12:00					17:00
Vol.	6	501	88	12	14	6		2	1					609

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81676 K-B class
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NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	23	4	0	1	0	0	0	0	0	0	0	0	28
01:00	1	19	6	0	1	0	0	0	0	0	0	0	0	27
02:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16
03:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
04:00	0	22	9	0	2	0	0	0	0	0	0	0	0	33
05:00	0	68	25	0	2	0	0	2	2	0	0	0	0	99
06:00	1	162	45	2	4	2	0	0	3	0	0	0	0	219
07:00	5	327	73	7	16	3	0	0	1	0	0	0	0	432
08:00	0	269	66	7	13	2	0	3	2	0	0	0	0	362
09:00	1	188	52	3	16	2	0	2	3	1	0	0	0	268
10:00	0	193	50	2	12	0	0	3	1	0	0	0	0	261
11:00	1	213	44	1	17	1	0	1	1	0	0	0	0	279
12 PM	1	276	53	3	11	3	0	1	0	0	0	0	0	348
13:00	0	251	58	0	13	0	0	4	2	0	0	0	0	328
14:00	3	398	84	6	12	0	0	1	0	0	0	0	0	504
15:00	0	369	94	4	13	3	0	0	0	0	0	0	0	483
16:00	1	396	89	2	9	2	0	3	0	0	0	0	0	502
17:00	2	389	57	0	12	0	0	0	0	0	0	0	0	460
18:00	1	317	45	0	3	0	0	2	0	0	0	0	0	368
19:00	0	242	38	0	4	0	0	0	0	0	0	0	0	284
20:00	0	209	37	0	3	0	0	0	0	0	0	0	0	249
21:00	0	147	28	0	1	0	0	0	0	0	0	0	0	176
22:00	0	111	20	0	1	0	0	0	0	0	0	0	0	132
23:00	0	56	7	0	0	0	0	0	0	0	0	0	0	63
Total	17	4671	988	37	166	18	0	22	15	1	0	0	0	5935
Percent	0.3%	78.7%	16.6%	0.6%	2.8%	0.3%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	11:00	07:00		08:00	06:00	09:00				07:00
Vol.	5	327	73	7	17	3		3	3	1				432
PM Peak	14:00	14:00	15:00	14:00	13:00	12:00		13:00	13:00					14:00
Vol.	3	398	94	6	13	3		4	2					504

PRECISION
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81676 K-B class
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NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	31	2	0	1	0	0	0	0	0	0	0	0	34
01:00	0	17	3	0	0	0	0	0	0	0	0	0	0	20
02:00	0	10	3	0	0	0	0	0	0	0	0	0	0	13
03:00	0	5	5	0	0	0	0	0	0	0	0	0	0	10
04:00	0	20	5	0	1	0	0	0	0	0	0	0	0	26
05:00	0	77	29	0	4	2	0	0	2	0	0	0	0	114
06:00	2	166	38	0	10	0	0	0	0	0	0	0	0	216
07:00	2	347	85	5	9	1	1	0	1	0	0	0	0	451
08:00	0	272	77	7	19	3	0	2	0	0	0	0	0	380
09:00	1	229	53	2	9	2	0	2	0	0	0	0	0	298
10:00	0	220	55	0	8	1	0	1	3	0	0	0	0	288
11:00	1	251	53	2	12	2	0	2	0	0	0	0	0	323
12 PM	0	254	39	1	7	3	0	1	2	0	0	0	0	307
13:00	0	260	57	5	9	2	0	0	1	0	0	0	1	335
14:00	0	401	74	9	9	2	0	3	2	0	0	0	0	500
15:00	2	408	89	5	11	3	0	1	0	0	0	0	0	519
16:00	1	419	97	1	12	2	0	2	1	0	0	0	0	535
17:00	1	379	81	0	10	0	0	1	0	0	0	0	0	472
18:00	3	344	73	3	7	0	0	1	0	0	0	0	0	431
19:00	0	309	68	0	4	1	0	1	0	0	0	0	0	383
20:00	0	275	49	0	5	1	0	1	0	0	0	0	0	331
21:00	0	176	51	0	1	0	0	0	0	0	0	0	0	228
22:00	0	119	19	0	3	1	0	0	0	0	0	0	0	142
23:00	0	65	16	0	2	0	0	0	0	0	0	0	0	83
Total	13	5054	1121	40	153	26	1	18	12	0	0	0	1	6439
Percent	0.2%	78.5%	17.4%	0.6%	2.4%	0.4%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	08:00	08:00	08:00	07:00	08:00	10:00					07:00
Vol.	2	347	85	7	19	3	1	2	3					451
PM Peak	18:00	16:00	16:00	14:00	16:00	12:00		14:00	12:00				13:00	16:00
Vol.	3	419	97	9	12	3		3	2				1	535

Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 K-C volume
Site Code: 10111.31

Start	EB				WB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	21		169		29		158		50		327		
12:15	11		153		26		166		37		319		
12:30	6		156		20		186		26		342		
12:45	9	47	175	653	14	89	164	674	23	136	339	1327	
01:00	10		164		14		172		24		336		
01:15	12		141		11		153		23		294		
01:30	7		144		10		157		17		301		
01:45	7	36	131	580	10	45	161	643	17	81	292	1223	
02:00	9		166		7		174		16		340		
02:15	7		147		5		173		12		320		
02:30	2		143		5		187		7		330		
02:45	7	25	162	618	5	22	162	696	12	47	324	1314	
03:00	5		163		3		183		8		346		
03:15	10		145		16		176		26		321		
03:30	12		147		3		168		15		315		
03:45	10	37	168	623	6	28	199	726	16	65	367	1349	
04:00	13		155		4		172		17		327		
04:15	17		143		14		183		31		326		
04:30	31		163		8		156		39		319		
04:45	32	93	166	627	11	37	178	689	43	130	344	1316	
05:00	44		159		13		169		57		328		
05:15	69		154		26		195		95		349		
05:30	73		142		29		190		102		332		
05:45	79	265	139	594	45	113	176	730	124	378	315	1324	
06:00	76		143		44		174		120		317		
06:15	118		98		67		194		185		292		
06:30	111		128		85		139		196		267		
06:45	138	443	83	452	92	288	168	675	230	731	251	1127	
07:00	203		94		101		159		304		253		
07:15	174		105		129		137		303		242		
07:30	137		99		170		121		307		220		
07:45	185	699	88	386	165	565	140	557	350	1264	228	943	
08:00	134		65		146		113		280		178		
08:15	151		73		159		93		310		166		
08:30	139		50		183		114		322		164		
08:45	166	590	66	254	196	684	78	398	362	1274	144	652	
09:00	135		69		161		94		296		163		
09:15	162		53		154		85		316		138		
09:30	142		55		144		64		286		119		
09:45	145	584	50	227	141	600	63	306	286	1184	113	533	
10:00	143		56		133		54		276		110		
10:15	159		32		151		41		310		73		
10:30	143		43		155		46		298		89		
10:45	128	573	27	158	153	592	52	193	281	1165	79	351	
11:00	133		41		165		51		298		92		
11:15	160		22		139		62		299		84		
11:30	138		29		148		36		286		65		
11:45	183	614	19	111	159	611	29	178	342	1225	48	289	
Total	4006		5283		3674		6465		7680		11748		
Percent	52.2%		45.0%		47.8%		55.0%						
Day Total		9289				10139				19428			
Peak	07:00		12:00		08:15		05:15		08:30		04:45		
Vol.	699		653		699		735		1296		1353		
P.H.F.	0.861		0.933		0.892		0.942		0.895		0.922		

Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

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81676 K-C volume
Site Code: 10111.31

Start	EB				WB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	11		178		31		152		42		330		
12:15	11		150		17		151		28		301		
12:30	10		138		19		136		29		274		
12:45	8	40	137	603	21	88	118	557	29	128	255	1160	
01:00	4		130		10		131		14		261		
01:15	11		132		13		154		24		286		
01:30	11		133		7		180		18		313		
01:45	5	31	157	552	11	41	163	628	16	72	320	1180	
02:00	7		155		10		168		17		323		
02:15	6		155		9		192		15		347		
02:30	3		153		5		170		8		323		
02:45	8	24	148	611	4	28	194	724	12	52	342	1335	
03:00	9		177		8		182		17		359		
03:15	7		155		12		159		19		314		
03:30	4		150		4		204		8		354		
03:45	9	29	151	633	2	26	198	743	11	55	349	1376	
04:00	10		162		8		199		18		361		
04:15	13		150		11		178		24		328		
04:30	30		177		10		180		40		357		
04:45	30	83	165	654	13	42	188	745	43	125	353	1399	
05:00	36		189		7		151		43		340		
05:15	67		137		21		180		88		317		
05:30	83		149		40		184		123		333		
05:45	90	276	160	635	37	105	182	697	127	381	342	1332	
06:00	93		156		32		174		125		330		
06:15	107		139		51		144		158		283		
06:30	130		125		82		146		212		271		
06:45	149	479	116	536	98	263	189	653	247	742	305	1189	
07:00	169		117		98		154		267		271		
07:15	200		91		115		128		315		219		
07:30	159		84		152		150		311		234		
07:45	157	685	81	373	152	517	151	583	309	1202	232	956	
08:00	132		89		147		112		279		201		
08:15	138		92		143		140		281		232		
08:30	164		72		155		149		319		221		
08:45	161	595	81	334	163	608	122	523	324	1203	203	857	
09:00	152		75		145		126		297		201		
09:15	147		65		130		109		277		174		
09:30	157		68		132		86		289		154		
09:45	139	595	45	253	146	553	78	399	285	1148	123	652	
10:00	146		54		143		76		289		130		
10:15	154		39		127		77		281		116		
10:30	167		55		137		50		304		105		
10:45	144	611	30	178	130	537	64	267	274	1148	94	445	
11:00	166		39		152		56		318		95		
11:15	150		32		147		57		297		89		
11:30	160		28		150		43		310		71		
11:45	163	639	18	117	150	599	34	190	313	1238	52	307	
Total	4087		5479		3407		6709		7494		12188		
Percent	54.5%		45.0%		45.5%		55.0%						
Day Total		9566				10116				19682			
Peak	07:00		04:15		08:00		03:30		11:00		04:00		
Vol.	685		681		608		779		1238		1399		
P.H.F.	0.856		0.901		0.933		0.955		0.955		0.969		

PRECISION
D A T A
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Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	4	9	18	13	3	0	0	0	0	0	0	47	37	32
01:00	0	0	2	12	14	8	0	0	0	0	0	0	0	36	36	31
02:00	0	0	1	1	12	11	0	0	0	0	0	0	0	25	37	34
03:00	0	0	3	9	11	13	1	0	0	0	0	0	0	37	37	32
04:00	0	0	2	24	30	31	6	0	0	0	0	0	0	93	38	33
05:00	0	0	7	48	128	65	**17**	0	0	0	0	0	0	265	38	33
06:00	0	0	5	98	213	**113**	13	0	0	0	0	0	**1**	443	37	32
07:00	**1**	3	**72**	248	**318**	54	3	0	0	0	0	0	0	**699**	34	30
08:00	1	6	43	185	277	73	5	0	0	0	0	0	0	590	34	30
09:00	0	3	67	200	253	61	0	0	0	0	0	0	0	584	34	30
10:00	1	2	44	**279**	202	37	8	0	0	0	0	0	0	573	33	29
11:00	1	**8**	60	231	271	40	3	0	0	0	0	0	0	614	34	29
12 PM	1	2	44	262	**308**	33	3	0	0	0	0	0	0	**653**	33	30
13:00	0	3	45	257	253	19	3	0	0	0	0	0	0	580	33	29
14:00	**14**	**11**	**56**	**305**	204	28	0	0	0	0	0	0	0	618	33	28
15:00	1	10	45	282	257	24	4	0	0	0	0	0	0	623	33	29
16:00	0	2	42	239	306	34	4	0	0	0	0	0	0	627	34	30
17:00	0	1	21	208	299	**60**	5	0	0	0	0	0	0	594	34	30
18:00	0	0	12	136	242	58	4	0	0	0	0	0	0	452	34	31
19:00	0	0	23	163	165	28	**7**	0	0	0	0	0	0	386	34	30
20:00	0	0	7	84	120	37	6	0	0	0	0	0	0	254	35	31
21:00	0	0	10	61	112	39	5	0	0	0	0	0	0	227	36	31
22:00	0	0	6	29	76	42	5	0	0	0	0	0	0	158	37	32
23:00	0	1	6	18	53	31	2	0	0	0	0	0	0	111	37	32
Total	20	52	627	3388	4142	952	107	0	0	0	0	0	1	9289		
%	0.2%	0.6%	6.7%	36.5%	44.6%	10.2%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	07:00	10:00	07:00	06:00	05:00						06:00	07:00		
Vol.	1	8	72	279	318	113	17						1	699		
PM Peak	14:00	14:00	14:00	14:00	12:00	17:00	19:00							12:00		
Vol.	14	11	56	305	308	60	7							653		

Pecent

15th Percentile :	26 MPH
50th Percentile :	30 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	7530
Percent in Pace :	81.1%
Number of Vehicles > 30 MPH :	4373
Percent of Vehicles > 30 MPH :	47.1%
Mean Speed(Average) :	30 MPH

PRECISION
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Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	0	0	1	10	20	6	3	0	0	0	0	0	0	40	36	32
01:00	0	0	0	14	13	3	1	0	0	0	0	0	0	31	34	30
02:00	0	0	2	2	11	7	2	0	0	0	0	0	0	24	37	33
03:00	0	0	1	4	13	8	3	0	0	0	0	0	0	29	38	33
04:00	0	0	4	13	35	25	4	**2**	0	0	0	0	0	83	38	33
05:00	1	2	4	65	114	71	**18**	1	0	0	0	0	0	276	38	32
06:00	1	0	3	116	254	**93**	10	1	**1**	0	0	0	0	479	36	32
07:00	**12**	8	42	211	**339**	71	2	0	0	0	0	0	0	**685**	34	30
08:00	4	7	54	237	254	35	3	1	0	0	0	0	0	595	33	29
09:00	1	**13**	75	272	214	20	0	0	0	0	0	0	0	595	33	28
10:00	1	7	**89**	299	189	25	1	0	0	0	0	0	0	611	33	28
11:00	2	1	55	**311**	244	25	1	0	0	0	0	0	0	639	33	29
12 PM	**92**	20	**103**	203	156	28	1	0	0	0	0	0	0	603	33	25
13:00	33	**27**	89	220	167	15	1	0	0	0	0	0	0	552	32	26
14:00	2	9	77	286	206	30	1	0	0	0	0	0	0	611	33	28
15:00	2	10	81	**306**	204	29	1	0	0	0	0	0	0	633	33	28
16:00	5	4	33	201	**321**	84	6	0	0	0	0	0	0	**654**	34	30
17:00	1	0	33	205	305	**86**	5	0	0	0	0	0	0	635	34	31
18:00	1	2	18	178	251	74	**11**	1	0	0	0	0	0	536	35	31
19:00	0	0	10	123	199	38	3	0	0	0	0	0	0	373	34	31
20:00	0	0	15	90	181	40	7	1	0	0	0	0	0	334	34	31
21:00	1	0	11	70	130	37	3	1	0	0	0	0	0	253	35	31
22:00	0	0	3	46	74	46	7	**2**	0	0	0	0	0	178	37	32
23:00	0	0	6	19	59	30	2	1	0	0	0	0	0	117	37	32
Total	159	110	809	3501	3953	926	96	11	1	0	0	0	0	9566		
%	1.7%	1.1%	8.5%	36.6%	41.3%	9.7%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	10:00	11:00	07:00	06:00	05:00	04:00	06:00					07:00		
Vol.	12	13	89	311	339	93	18	2	1					685		
PM Peak	12:00	13:00	12:00	15:00	16:00	17:00	18:00	22:00						16:00		
Vol.	92	27	103	306	321	86	11	2						654		

Pecent

15th Percentile :	25 MPH
50th Percentile :	30 MPH
85th Percentile :	34 MPH
95th Percentile :	37 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	7454
Percent in Pace :	77.9%
Number of Vehicles > 30 MPH :	4196
Percent of Vehicles > 30 MPH :	43.9%
Mean Speed(Average) :	29 MPH

PRECISION
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Dean Street (Route 44) between
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81676 K-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	0	0	13	43	27	3	**3**	0	0	0	0	0	89	38	34
01:00	0	0	1	5	15	20	3	1	0	0	0	0	0	45	39	34
02:00	0	0	0	1	10	9	0	2	0	0	0	0	0	22	38	35
03:00	0	3	0	2	12	7	4	0	0	0	0	0	0	28	39	32
04:00	0	0	0	3	13	16	4	1	0	0	0	0	0	37	39	35
05:00	0	0	5	13	45	45	5	0	0	0	0	0	0	113	38	33
06:00	**1**	1	2	15	153	**98**	**16**	0	**2**	0	0	0	0	288	38	34
07:00	1	1	27	165	295	72	4	0	0	0	0	0	0	565	34	31
08:00	0	1	**32**	213	**381**	56	0	1	0	0	0	0	0	**684**	34	30
09:00	1	**8**	24	251	242	70	4	0	0	0	0	0	0	600	34	30
10:00	1	3	31	**263**	254	40	0	0	0	0	0	0	0	592	34	29
11:00	0	3	18	205	316	65	3	1	0	0	0	0	0	611	34	31
12 PM	1	0	28	266	321	52	6	0	0	0	0	0	0	674	34	30
13:00	1	**22**	**74**	284	228	34	0	0	0	0	0	0	0	643	33	28
14:00	**2**	6	60	**356**	241	29	2	0	0	0	0	0	0	696	33	29
15:00	1	13	27	288	355	39	3	0	0	0	0	0	0	726	34	30
16:00	2	9	37	219	364	56	2	0	0	0	0	0	0	689	34	30
17:00	0	2	23	241	392	67	5	0	0	0	0	0	0	**730**	34	31
18:00	0	3	13	174	**398**	84	2	0	**1**	0	0	0	0	675	34	31
19:00	1	0	9	145	321	72	9	0	0	0	0	0	0	557	34	31
20:00	0	1	11	95	204	77	9	**1**	0	0	0	0	0	398	36	32
21:00	0	1	4	35	163	**90**	**13**	0	0	0	0	0	0	306	38	33
22:00	0	0	1	24	101	56	10	1	0	0	0	0	0	193	38	33
23:00	0	0	1	20	92	56	8	1	0	0	0	0	0	178	38	33
Total	12	77	428	3296	4959	1237	115	12	3	0	0	0	0	10139		
%	0.1%	0.8%	4.2%	32.5%	48.9%	12.2%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	09:00	08:00	10:00	08:00	06:00	06:00	00:00	06:00					08:00		
Vol.	1	8	32	263	381	98	16	3	2					684		
PM Peak	14:00	13:00	13:00	14:00	18:00	21:00	21:00	20:00	18:00					17:00		
Vol.	2	22	74	356	398	90	13	1	1					730		

Pecent

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	8255
Percent in Pace :	81.4%
Number of Vehicles > 30 MPH :	5334
Percent of Vehicles > 30 MPH :	52.6%
Mean Speed(Average) :	31 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	0	8	39	32	8	**1**	0	0	0	0	0	88	39	34
01:00	0	0	0	10	18	10	3	0	0	0	0	0	0	41	38	33
02:00	0	0	2	2	8	11	4	1	0	0	0	0	0	28	40	35
03:00	0	1	1	2	11	9	1	0	**1**	0	0	0	0	26	38	34
04:00	0	0	0	12	12	13	4	0	1	0	0	0	0	42	39	34
05:00	**1**	0	6	17	38	34	8	1	0	0	0	0	0	105	38	33
06:00	0	0	1	31	149	**72**	**9**	1	0	0	0	0	0	263	37	33
07:00	0	2	**27**	147	277	62	2	0	0	0	0	0	0	517	34	31
08:00	0	3	21	**198**	315	69	1	1	0	0	0	0	0	**608**	34	31
09:00	0	2	12	187	296	55	0	1	0	0	0	0	0	553	34	31
10:00	1	1	26	180	281	45	3	0	0	0	0	0	0	537	34	30
11:00	0	**6**	20	195	**321**	53	3	0	0	**1**	0	0	0	599	34	30
12 PM	2	10	62	199	240	43	1	0	0	0	0	0	0	557	34	29
13:00	0	3	47	248	274	52	4	0	0	0	0	0	0	628	34	30
14:00	3	8	51	**310**	296	53	3	0	0	0	0	0	0	724	34	29
15:00	**30**	**22**	**91**	279	266	53	2	0	0	0	0	0	0	743	33	28
16:00	0	4	33	283	363	54	8	0	0	0	0	0	0	**745**	34	30
17:00	0	4	22	175	**387**	**104**	5	0	0	0	0	0	0	697	35	31
18:00	1	2	19	210	337	77	6	1	0	0	0	0	0	653	34	31
19:00	0	1	8	162	324	80	8	0	0	0	0	0	0	583	35	31
20:00	0	1	12	136	275	83	**16**	0	0	0	0	0	0	523	36	32
21:00	1	2	7	76	226	78	8	1	0	0	0	0	0	399	36	32
22:00	0	2	4	37	126	91	6	1	0	0	0	0	0	267	38	33
23:00	0	2	2	22	90	56	14	**3**	**1**	0	0	0	0	190	38	34
Total	39	76	474	3126	4969	1289	127	12	3	1	0	0	0	10116		
%	0.4%	0.8%	4.7%	30.9%	49.1%	12.7%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	11:00	07:00	08:00	11:00	06:00	06:00	00:00	03:00	11:00				08:00		
Vol.	1	6	27	198	321	72	9	1	1	1				608		
PM Peak	15:00	15:00	15:00	14:00	17:00	17:00	20:00	23:00	23:00					16:00		
Vol.	30	22	91	310	387	104	16	3	1					745		

Pecent

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	8095
Percent in Pace :	80.0%
Number of Vehicles > 30 MPH :	5407
Percent of Vehicles > 30 MPH :	53.4%
Mean Speed(Average) :	31 MPH

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	33	9	0	3	0	0	0	1	0	0	0	0	47
01:00	0	25	5	1	3	0	0	1	1	0	0	0	0	36
02:00	1	15	4	0	1	1	0	0	3	0	0	0	0	25
03:00	0	23	10	0	1	2	0	0	1	0	0	0	0	37
04:00	2	54	27	1	8	0	0	1	0	0	0	0	0	93
05:00	0	168	64	3	27	0	0	0	2	0	0	0	1	265
06:00	2	285	102	5	22	5	0	4	17	0	0	0	1	443
07:00	6	534	106	5	28	10	0	7	3	0	0	0	0	699
08:00	3	455	94	6	23	4	0	2	3	0	0	0	0	590
09:00	2	423	122	4	16	5	0	5	6	1	0	0	0	584
10:00	5	413	106	2	27	8	1	8	3	0	0	0	0	573
11:00	9	453	112	0	28	7	0	4	1	0	0	0	0	614
12 PM	4	485	110	8	35	7	0	4	0	0	0	0	0	653
13:00	6	412	117	5	28	5	0	4	3	0	0	0	0	580
14:00	3	452	116	7	26	6	0	4	4	0	0	0	0	618
15:00	6	469	107	5	27	4	0	3	2	0	0	0	0	623
16:00	3	494	98	4	20	4	0	3	1	0	0	0	0	627
17:00	6	466	96	1	18	5	0	2	0	0	0	0	0	594
18:00	0	367	62	0	18	5	0	0	0	0	0	0	0	452
19:00	4	282	77	0	19	0	0	3	1	0	0	0	0	386
20:00	0	209	37	0	6	1	0	1	0	0	0	0	0	254
21:00	1	168	47	0	4	1	0	3	3	0	0	0	0	227
22:00	0	121	28	0	9	0	0	0	0	0	0	0	0	158
23:00	0	87	20	1	1	0	0	1	1	0	0	0	0	111
Total	64	6893	1676	58	398	80	1	60	56	1	0	0	2	9289
Percent	0.7%	74.2%	18.0%	0.6%	4.3%	0.9%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	09:00	08:00	07:00	07:00	10:00	10:00	06:00	09:00			05:00	07:00
Vol.	9	534	122	6	28	10	1	8	17	1			1	699
PM Peak	13:00	16:00	13:00	12:00	12:00	12:00		12:00	14:00					12:00
Vol.	6	494	117	8	35	7		4	4					653

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Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	37	1	0	2	0	0	0	0	0	0	0	0	40
01:00	0	22	7	1	0	0	0	1	0	0	0	0	0	31
02:00	0	14	3	0	1	0	0	0	4	2	0	0	0	24
03:00	0	20	7	0	0	0	0	1	1	0	0	0	0	29
04:00	1	52	19	2	6	1	0	0	2	0	0	0	0	83
05:00	1	165	77	1	27	2	0	0	3	0	0	0	0	276
06:00	6	313	111	1	23	7	0	1	17	0	0	0	0	479
07:00	4	510	129	6	23	6	0	5	2	0	0	0	0	685
08:00	2	438	120	6	14	4	0	6	5	0	0	0	0	595
09:00	12	427	117	3	24	8	0	2	2	0	0	0	0	595
10:00	5	462	111	4	18	7	0	3	1	0	0	0	0	611
11:00	6	469	129	5	18	3	1	4	4	0	0	0	0	639
12 PM	6	464	102	1	16	5	0	4	4	0	0	0	1	603
13:00	10	405	91	2	25	9	0	2	8	0	0	0	0	552
14:00	8	463	105	5	15	10	0	2	3	0	0	0	0	611
15:00	11	457	122	3	27	2	1	7	3	0	0	0	0	633
16:00	7	493	117	1	24	5	0	4	3	0	0	0	0	654
17:00	4	504	103	1	18	2	0	1	2	0	0	0	0	635
18:00	5	404	101	1	17	2	0	4	2	0	0	0	0	536
19:00	3	292	57	0	18	3	0	0	0	0	0	0	0	373
20:00	4	263	50	0	15	0	0	2	0	0	0	0	0	334
21:00	5	204	34	1	6	1	0	1	1	0	0	0	0	253
22:00	1	143	25	0	5	1	0	1	2	0	0	0	0	178
23:00	1	91	20	1	3	0	0	0	1	0	0	0	0	117
Total	102	7112	1758	45	345	78	2	51	70	2	0	0	1	9566
Percent	1.1%	74.3%	18.4%	0.5%	3.6%	0.8%	0.0%	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	07:00	05:00	09:00	11:00	08:00	06:00	02:00				07:00
Vol.	12	510	129	6	27	8	1	6	17	2				685
PM Peak	15:00	17:00	15:00	14:00	15:00	14:00	15:00	15:00	13:00				12:00	16:00
Vol.	11	504	122	5	27	10	1	7	8				1	654

PRECISION
D A T A
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Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	67	18	0	1	0	0	1	1	0	0	0	0	89
01:00	1	37	4	0	2	0	0	0	1	0	0	0	0	45
02:00	0	17	2	0	1	1	0	0	1	0	0	0	0	22
03:00	0	18	7	0	2	0	0	0	1	0	0	0	0	28
04:00	0	24	11	0	2	0	0	0	0	0	0	0	0	37
05:00	0	67	27	1	13	2	0	0	3	0	0	0	0	113
06:00	10	199	55	3	13	4	1	2	1	0	0	0	0	288
07:00	10	423	84	3	28	9	2	3	2	1	0	0	0	565
08:00	9	528	108	2	20	11	2	3	1	0	0	0	0	684
09:00	10	431	109	2	29	7	3	1	8	0	0	0	0	600
10:00	11	431	103	7	18	8	1	9	1	1	0	1	1	592
11:00	5	439	122	3	19	10	1	5	5	1	0	0	1	611
12 PM	5	514	113	6	20	9	0	5	1	0	0	0	1	674
13:00	15	452	113	2	32	13	3	7	2	3	0	0	1	643
14:00	16	519	118	2	22	11	1	4	3	0	0	0	0	696
15:00	7	551	126	3	20	12	1	5	1	0	0	0	0	726
16:00	4	545	108	0	16	9	0	1	5	1	0	0	0	689
17:00	9	585	104	0	15	9	1	4	2	1	0	0	0	730
18:00	13	528	106	0	15	10	0	2	1	0	0	0	0	675
19:00	5	440	84	0	19	7	0	0	1	0	0	0	1	557
20:00	2	324	55	1	11	3	0	2	0	0	0	0	0	398
21:00	1	251	50	0	1	2	0	0	1	0	0	0	0	306
22:00	0	165	22	0	5	1	0	0	0	0	0	0	0	193
23:00	0	145	21	6	3	2	0	0	1	0	0	0	0	178
Total	134	7700	1670	41	327	140	16	54	43	8	0	1	5	10139
Percent	1.3%	75.9%	16.5%	0.4%	3.2%	1.4%	0.2%	0.5%	0.4%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	11:00	10:00	09:00	08:00	09:00	10:00	09:00	07:00		10:00	10:00	08:00
Vol.	11	528	122	7	29	11	3	9	8	1		1	1	684
PM Peak	14:00	17:00	15:00	12:00	13:00	13:00	13:00	13:00	16:00	13:00			12:00	17:00
Vol.	16	585	126	6	32	13	3	7	5	3			1	730

PRECISION
D A T A
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Dean Street (Route 44) between
Prospect Street and Church Green Street
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	68	17	1	1	1	0	0	0	0	0	0	0	88
01:00	0	35	5	0	0	0	0	1	0	0	0	0	0	41
02:00	0	24	2	0	0	0	0	1	1	0	0	0	0	28
03:00	1	18	4	0	2	0	0	0	0	0	0	0	1	26
04:00	1	30	2	0	2	1	1	0	2	1	0	0	2	42
05:00	3	62	30	1	6	2	0	1	0	0	0	0	0	105
06:00	3	191	44	1	17	5	1	0	1	0	0	0	0	263
07:00	12	384	87	9	16	5	0	1	2	1	0	0	0	517
08:00	6	468	98	1	18	9	2	2	3	0	0	0	1	608
09:00	11	401	100	3	20	8	1	7	1	1	0	0	0	553
10:00	11	392	103	4	16	3	0	5	3	0	0	0	0	537
11:00	6	434	120	2	22	9	1	2	3	0	0	0	0	599
12 PM	15	422	87	3	18	5	0	4	1	0	0	0	2	557
13:00	13	460	121	5	16	3	3	5	2	0	0	0	0	628
14:00	9	554	133	2	11	9	1	2	1	2	0	0	0	724
15:00	25	560	127	3	21	3	0	3	0	0	0	0	1	743
16:00	10	561	128	4	27	11	0	4	0	0	0	0	0	745
17:00	11	540	122	0	13	6	0	4	1	0	0	0	0	697
18:00	22	505	96	1	15	9	0	3	1	0	0	0	1	653
19:00	11	461	86	2	15	7	0	1	0	0	0	0	0	583
20:00	5	408	85	3	13	5	0	1	1	2	0	0	0	523
21:00	4	312	71	0	9	3	0	0	0	0	0	0	0	399
22:00	6	216	37	1	2	4	0	1	0	0	0	0	0	267
23:00	4	148	32	0	4	0	0	0	2	0	0	0	0	190
Total	189	7654	1737	46	284	108	10	48	25	7	0	0	8	10116
Percent	1.9%	75.7%	17.2%	0.5%	2.8%	1.1%	0.1%	0.5%	0.2%	0.1%	0.0%	0.0%	0.1%	
AM Peak	07:00	08:00	11:00	07:00	11:00	08:00	08:00	09:00	08:00	04:00			04:00	08:00
Vol.	12	468	120	9	22	9	2	7	3	1			2	608
PM Peak	15:00	16:00	14:00	13:00	16:00	16:00	13:00	13:00	13:00	14:00			12:00	16:00
Vol.	25	561	133	5	27	11	3	5	2	2			2	745

County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 K-D volume
Site Code: 10111.31

Start	SB				NB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	21		156		19		152		40		308		
12:15	15		158		13		137		28		295		
12:30	14		153		12		169		26		322		
12:45	21	71	175	642	9	53	169	627	30	124	344	1269	
01:00	3		147		9		153		12		300		
01:15	7		165		8		175		15		340		
01:30	11		140		10		184		21		324		
01:45	8	29	136	588	12	39	164	676	20	68	300	1264	
02:00	8		182		8		169		16		351		
02:15	8		182		11		183		19		365		
02:30	2		157		7		230		9		387		
02:45	10	28	159	680	7	33	172	754	17	61	331	1434	
03:00	2		178		12		194		14		372		
03:15	4		187		9		189		13		376		
03:30	6		199		7		183		13		382		
03:45	12	24	212	776	11	39	177	743	23	63	389	1519	
04:00	8		215		14		176		22		391		
04:15	7		209		11		178		18		387		
04:30	27		230		20		167		47		397		
04:45	25	67	231	885	22	67	161	682	47	134	392	1567	
05:00	23		252		35		166		58		418		
05:15	24		232		38		171		62		403		
05:30	44		225		66		173		110		398		
05:45	41	132	196	905	67	206	174	684	108	338	370	1589	
06:00	58		170		81		151		139		321		
06:15	68		160		120		167		188		327		
06:30	100		159		165		147		265		306		
06:45	107	333	149	638	173	539	146	611	280	872	295	1249	
07:00	124		121		192		131		316		252		
07:15	135		160		214		117		349		277		
07:30	158		149		210		120		368		269		
07:45	128	545	136	566	223	839	108	476	351	1384	244	1042	
08:00	112		104		198		88		310		192		
08:15	144		110		184		123		328		233		
08:30	127		79		196		96		323		175		
08:45	128	511	63	356	176	754	88	395	304	1265	151	751	
09:00	114		114		159		84		273		198		
09:15	122		81		156		81		278		162		
09:30	116		62		131		91		247		153		
09:45	122	474	53	310	151	597	66	322	273	1071	119	632	
10:00	136		55		143		66		279		121		
10:15	151		42		131		57		282		99		
10:30	120		41		131		55		251		96		
10:45	138	545	26	164	141	546	42	220	279	1091	68	384	
11:00	163		48		135		41		298		89		
11:15	161		37		158		30		319		67		
11:30	149		42		170		26		319		68		
11:45	164	637	22	149	152	615	21	118	316	1252	43	267	
Total	3396		6659		4327		6308		7723		12967		
Percent	44.0%		51.4%		56.0%		48.6%						
Day Total		10055				10635				20690			
Peak	11:00		04:30		07:15		02:30		07:00		04:45		
Vol.	637		945		845		785		1384		1611		
P.H.F.	0.971		0.938		0.947		0.853		0.940		0.964		

County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 K-D volume
Site Code: 10111.31

Start	SB				NB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	24		169		16		151		40		320		
12:15	16		173		11		185		27		358		
12:30	13		171		9		165		22		336		
12:45	12	65	161	674	11	47	187	688	23	112	348	1362	
01:00	6		174		12		161		18		335		
01:15	7		161		11		181		18		342		
01:30	7		143		8		196		15		339		
01:45	7	27	175	653	11	42	174	712	18	69	349	1365	
02:00	6		178		13		190		19		368		
02:15	6		202		5		168		11		370		
02:30	3		160		5		220		8		380		
02:45	4	19	148	688	4	27	193	771	8	46	341	1459	
03:00	8		219		12		198		20		417		
03:15	9		219		10		196		19		415		
03:30	10		192		9		195		19		387		
03:45	9	36	217	847	10	41	198	787	19	77	415	1634	
04:00	7		204		7		188		14		392		
04:15	6		231		15		176		21		407		
04:30	26		241		16		170		42		411		
04:45	23	62	218	894	33	71	173	707	56	133	391	1601	
05:00	24		251		28		172		52		423		
05:15	25		235		47		207		72		442		
05:30	42		249		69		160		111		409		
05:45	51	142	256	991	71	215	172	711	122	357	428	1702	
06:00	56		221		74		182		130		403		
06:15	66		210		136		167		202		377		
06:30	98		171		154		178		252		349		
06:45	120	340	164	766	184	548	206	733	304	888	370	1499	
07:00	100		166		200		135		300		301		
07:15	156		153		189		126		345		279		
07:30	158		148		208		160		366		308		
07:45	129	543	136	603	224	821	135	556	353	1364	271	1159	
08:00	124		134		211		122		335		256		
08:15	132		131		198		129		330		260		
08:30	130		143		171		111		301		254		
08:45	120	506	131	539	227	807	113	475	347	1313	244	1014	
09:00	131		126		143		82		274		208		
09:15	123		102		156		87		279		189		
09:30	126		83		158		78		284		161		
09:45	158	538	60	371	170	627	76	323	328	1165	136	694	
10:00	138		51		127		68		265		119		
10:15	151		69		137		53		288		122		
10:30	165		54		156		56		321		110		
10:45	133	587	35	209	167	587	44	221	300	1174	79	430	
11:00	128		48		153		35		281		83		
11:15	142		38		133		28		275		66		
11:30	146		54		168		31		314		85		
11:45	183	599	23	163	140	594	23	117	323	1193	46	280	
Total	3464		7398		4427		6801		7891		14199		
Percent	43.9%		52.1%		56.1%		47.9%						
Day Total		10862				11228				22090			
Peak	09:45		05:00		07:30		02:30		07:15		05:00		
Vol.	612		991		841		807		1399		1702		
P.H.F.	0.927		0.968		0.939		0.917		0.956		0.963		

PRECISION
D A T A
INDUSTRIES, LLC
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County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	2	3	16	36	10	4	0	0	0	0	0	0	71	36	31
01:00	0	2	1	5	12	9	0	0	0	0	0	0	0	29	37	31
02:00	0	1	1	5	11	7	3	0	0	0	0	0	0	28	38	32
03:00	0	0	1	5	12	5	0	**1**	0	0	0	0	0	24	36	32
04:00	0	3	1	16	28	12	**6**	1	0	0	0	0	0	67	38	32
05:00	0	2	5	46	60	15	4	0	0	0	0	0	0	132	34	31
06:00	0	4	20	109	155	**44**	1	0	0	0	0	0	0	333	34	30
07:00	**9**	**24**	90	245	163	14	0	0	0	0	0	0	0	545	32	27
08:00	1	12	72	246	161	17	2	0	0	0	0	0	0	511	33	28
09:00	6	16	50	209	173	19	0	1	0	0	0	0	0	474	33	28
10:00	0	16	75	255	**178**	21	0	0	0	0	0	0	0	545	33	28
11:00	3	20	**116**	**324**	162	11	1	0	0	0	0	0	0	**637**	32	27
12 PM	1	20	146	304	156	15	0	0	0	0	0	0	0	642	32	27
13:00	5	22	115	305	126	14	1	0	0	0	0	0	0	588	32	27
14:00	5	28	180	365	96	5	1	0	0	0	0	0	0	680	29	26
15:00	4	27	163	438	143	1	0	0	0	0	0	0	0	776	30	26
16:00	10	38	**236**	**456**	135	10	0	0	0	0	0	0	0	885	30	26
17:00	**17**	**62**	221	445	157	3	0	0	0	0	0	0	0	**905**	30	26
18:00	1	45	94	309	**160**	**29**	0	0	0	0	0	0	0	638	32	27
19:00	1	31	81	289	145	18	1	0	0	0	0	0	0	566	32	27
20:00	0	23	49	147	117	20	0	0	0	0	0	0	0	356	33	28
21:00	0	19	28	132	107	24	0	0	0	0	0	0	0	310	33	28
22:00	1	6	15	57	63	21	1	0	0	0	0	0	0	164	34	29
23:00	0	9	7	35	75	20	**3**	0	0	0	0	0	0	149	35	30
Total	64	432	1770	4763	2631	364	28	3	0	0	0	0	0	10055		
%	0.6%	4.3%	17.6%	47.4%	26.2%	3.6%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	11:00	11:00	10:00	06:00	04:00	03:00						11:00		
Vol.	9	24	116	324	178	44	6	1						637		
PM Peak	17:00	17:00	16:00	16:00	18:00	18:00	23:00							17:00		
Vol.	17	62	236	456	160	29	3							905		

Pecent

15th Percentile :	22 MPH
50th Percentile :	27 MPH
85th Percentile :	32 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	7394
Percent in Pace :	73.5%
Number of Vehicles > 30 MPH :	2499
Percent of Vehicles > 30 MPH :	24.9%
Mean Speed(Average) :	27 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	5	6	22	22	9	1	0	0	0	0	0	0	65	34	29
01:00	0	0	0	10	10	5	2	0	0	0	0	0	0	27	37	32
02:00	0	0	1	2	8	5	3	0	0	0	0	0	0	19	39	34
03:00	0	1	2	6	16	11	0	0	0	0	0	0	0	36	37	32
04:00	0	2	3	11	29	13	**4**	0	0	0	0	0	0	62	37	32
05:00	0	4	6	42	67	20	3	0	0	0	0	0	0	142	35	31
06:00	0	4	23	109	167	**34**	3	0	0	0	0	0	0	340	34	30
07:00	**2**	20	88	213	**198**	18	4	0	0	0	0	0	0	543	33	28
08:00	2	9	35	251	185	22	2	0	0	0	0	0	0	506	33	29
09:00	0	9	77	245	189	16	2	0	0	0	0	0	0	538	33	28
10:00	0	9	66	**301**	193	18	0	0	0	0	0	0	0	587	33	28
11:00	0	**22**	**117**	297	155	8	0	0	0	0	0	0	0	**599**	32	27
12 PM	2	23	128	335	170	16	0	0	0	0	0	0	0	674	32	27
13:00	3	22	90	336	**181**	19	2	0	0	0	0	0	0	653	32	28
14:00	11	31	197	342	101	6	0	0	0	0	0	0	0	688	30	26
15:00	**14**	44	**221**	443	121	4	0	0	0	0	0	0	0	847	29	26
16:00	7	26	180	491	179	10	0	0	**1**	0	0	0	0	894	31	27
17:00	8	**60**	206	**579**	134	4	0	0	0	0	0	0	0	**991**	29	26
18:00	3	36	136	403	175	13	0	0	0	0	0	0	0	766	32	27
19:00	4	36	101	298	152	9	**3**	0	0	0	0	0	0	603	32	27
20:00	0	30	88	261	150	7	3	0	0	0	0	0	0	539	32	27
21:00	1	23	55	184	94	14	0	0	0	0	0	0	0	371	32	27
22:00	0	8	27	76	81	14	3	0	0	0	0	0	0	209	34	29
23:00	0	11	10	42	72	**25**	3	0	0	0	0	0	0	163	35	30
Total	57	435	1863	5299	2849	320	38	0	1	0	0	0	0	10862		
%	0.5%	4.0%	17.2%	48.8%	26.2%	2.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	11:00	10:00	07:00	06:00	04:00							11:00		
Vol.	2	22	117	301	198	34	4							599		
PM Peak	15:00	17:00	15:00	17:00	13:00	23:00	19:00		16:00					17:00		
Vol.	14	60	221	579	181	25	3		1					991		

Pecent

15th Percentile :	23 MPH
50th Percentile :	27 MPH
85th Percentile :	32 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	8148
Percent in Pace :	75.0%
Number of Vehicles > 30 MPH :	2638
Percent of Vehicles > 30 MPH :	24.3%
Mean Speed(Average) :	27 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	2	3	5	20	19	4	0	0	0	0	0	53	43	38
01:00	0	0	2	3	3	17	9	4	**1**	0	0	0	0	39	43	38
02:00	0	0	0	0	9	9	13	2	0	0	0	0	0	33	43	38
03:00	0	1	1	0	5	19	10	3	0	0	0	0	0	39	43	37
04:00	0	4	2	3	7	22	24	4	1	0	0	0	0	67	43	37
05:00	0	0	12	19	42	85	41	**7**	0	0	0	0	0	206	41	36
06:00	0	2	23	65	146	**211**	**85**	7	0	0	0	0	0	539	40	35
07:00	0	11	**100**	**192**	**323**	185	25	2	1	0	0	0	0	**839**	37	31
08:00	**6**	**12**	53	161	301	181	36	4	0	0	0	0	0	754	37	32
09:00	1	5	26	82	242	184	53	3	1	0	0	0	0	597	39	33
10:00	2	6	16	88	192	183	55	3	1	0	0	0	0	546	39	33
11:00	1	6	33	102	265	168	35	5	0	0	0	0	0	615	38	33
12 PM	1	7	33	124	248	180	32	2	0	0	0	0	0	627	38	32
13:00	0	8	62	185	248	149	20	4	0	0	0	0	0	676	37	31
14:00	4	9	**94**	**256**	271	112	8	0	0	0	0	0	0	**754**	35	30
15:00	**8**	9	70	209	**294**	135	18	0	0	0	0	0	0	743	36	30
16:00	5	**10**	72	182	247	136	30	0	0	0	0	0	0	682	37	31
17:00	2	7	59	139	285	160	32	0	0	0	0	0	0	684	37	32
18:00	0	6	41	108	189	**214**	**51**	2	0	0	0	0	0	611	39	33
19:00	0	4	17	79	203	135	35	3	0	0	0	0	0	476	38	33
20:00	0	2	18	50	156	150	16	3	0	0	0	0	0	395	38	33
21:00	0	0	11	29	124	118	36	4	0	0	0	0	0	322	39	34
22:00	0	1	10	14	46	94	44	**11**	0	0	0	0	0	220	42	36
23:00	0	0	4	8	23	59	20	3	0	0	0	**1**	0	118	41	36
Total	30	110	761	2101	3874	2926	747	80	5	0	0	1	0	10635		
%	0.3%	1.0%	7.2%	19.8%	36.4%	27.5%	7.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	07:00	07:00	06:00	06:00	05:00	01:00					07:00		
Vol.	6	12	100	192	323	211	85	7	1					839		
PM Peak	15:00	16:00	14:00	14:00	15:00	18:00	18:00	22:00				23:00		14:00		
Vol.	8	10	94	256	294	214	51	11				1		754		

Pecent

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	38 MPH
95th Percentile :	42 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	6800
Percent in Pace :	63.9%
Number of Vehicles > 30 MPH :	6858
Percent of Vehicles > 30 MPH :	64.5%
Mean Speed(Average) :	32 MPH

PRECISION
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County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	1	4	7	19	12	4	0	0	0	0	0	47	43	37
01:00	0	0	1	2	11	16	9	2	1	0	0	0	0	42	42	37
02:00	0	0	1	0	1	10	12	2	1	0	0	0	0	27	44	39
03:00	0	0	0	0	6	19	15	1	0	0	0	0	0	41	43	38
04:00	0	3	2	2	12	24	17	**11**	0	0	0	0	0	71	44	37
05:00	0	2	12	18	49	90	33	8	**3**	0	0	0	0	215	41	35
06:00	1	2	31	47	178	212	**70**	7	0	0	0	0	0	548	39	34
07:00	**10**	**19**	**92**	**176**	278	213	29	4	0	0	0	0	0	**821**	37	31
08:00	3	10	62	138	**315**	217	58	4	0	0	0	0	0	807	38	32
09:00	2	5	24	91	226	**221**	55	3	0	0	0	0	0	627	39	33
10:00	0	2	23	73	244	186	55	3	1	0	0	0	0	587	39	34
11:00	0	5	24	121	219	191	30	3	0	**1**	0	0	0	594	38	33
12 PM	**5**	14	42	132	258	**205**	31	1	0	0	0	0	0	688	38	32
13:00	2	15	41	146	**302**	177	29	0	0	0	0	0	0	712	37	32
14:00	5	**16**	**107**	222	268	130	21	2	0	0	0	0	0	771	36	30
15:00	5	9	98	**255**	294	116	8	2	0	0	0	0	0	**787**	35	30
16:00	5	5	56	149	268	188	34	2	0	0	0	0	0	707	38	32
17:00	4	7	76	192	262	149	18	3	0	0	0	0	0	711	37	31
18:00	0	4	30	168	298	195	36	1	1	0	0	0	0	733	38	32
19:00	0	8	39	98	236	149	26	0	0	0	0	0	0	556	38	32
20:00	0	1	26	90	209	127	21	1	0	0	0	0	0	475	38	32
21:00	0	1	7	30	108	136	39	2	0	0	0	0	0	323	39	35
22:00	0	1	5	19	59	87	**41**	**7**	**2**	0	0	0	0	221	41	36
23:00	0	1	1	5	24	50	29	7	0	0	0	0	0	117	42	37
Total	42	130	801	2178	4132	3127	728	80	9	1	0	0	0	11228		
%	0.4%	1.2%	7.1%	19.4%	36.8%	27.9%	6.5%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	08:00	09:00	06:00	04:00	05:00	11:00				07:00		
Vol.	10	19	92	176	315	221	70	11	3	1				821		
PM Peak	12:00	14:00	14:00	15:00	13:00	12:00	22:00	22:00	22:00					15:00		
Vol.	5	16	107	255	302	205	41	7	2					787		

Pecent

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	7259
Percent in Pace :	64.7%
Number of Vehicles > 30 MPH :	7250
Percent of Vehicles > 30 MPH :	64.6%
Mean Speed(Average) :	32 MPH

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County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	3	61	6	0	1	0	0	0	0	0	0	0	0	71
01:00	0	27	2	0	0	0	0	0	0	0	0	0	0	29
02:00	1	25	1	0	0	0	0	0	1	0	0	0	0	28
03:00	0	19	3	0	2	0	0	0	0	0	0	0	0	24
04:00	0	53	10	1	3	0	0	0	0	0	0	0	0	67
05:00	2	97	22	2	5	2	0	0	1	1	0	0	0	132
06:00	6	243	63	3	8	2	0	3	5	0	0	0	0	333
07:00	9	444	57	8	17	6	0	0	3	1	0	0	0	545
08:00	11	398	71	2	19	7	0	3	0	0	0	0	0	511
09:00	4	370	71	3	16	7	0	1	2	0	0	0	0	474
10:00	3	441	70	4	14	7	0	1	5	0	0	0	0	545
11:00	5	522	82	2	15	6	0	3	2	0	0	0	0	637
12 PM	11	511	81	2	21	10	0	3	3	0	0	0	0	642
13:00	6	490	65	0	14	8	0	2	3	0	0	0	0	588
14:00	3	557	92	7	8	6	0	3	4	0	0	0	0	680
15:00	5	667	84	1	11	4	0	2	2	0	0	0	0	776
16:00	12	758	96	1	10	7	0	0	1	0	0	0	0	885
17:00	9	788	86	1	10	8	0	3	0	0	0	0	0	905
18:00	3	565	65	0	4	1	0	0	0	0	0	0	0	638
19:00	3	504	50	0	8	0	0	1	0	0	0	0	0	566
20:00	1	312	37	1	3	2	0	0	0	0	0	0	0	356
21:00	3	276	26	0	4	0	0	1	0	0	0	0	0	310
22:00	1	138	18	0	3	2	0	2	0	0	0	0	0	164
23:00	0	136	10	0	3	0	0	0	0	0	0	0	0	149
Total	101	8402	1168	38	199	85	0	28	32	2	0	0	0	10055
Percent	1.0%	83.6%	11.6%	0.4%	2.0%	0.8%	0.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	11:00	07:00	08:00	08:00		06:00	06:00	05:00				11:00
Vol.	11	522	82	8	19	7		3	5	1				637
PM Peak	16:00	17:00	16:00	14:00	12:00	12:00		12:00	14:00					17:00
Vol.	12	788	96	7	21	10		3	4					905

County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 K-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	54	11	0	0	0	0	0	0	0	0	0	0	65
01:00	0	22	4	0	0	1	0	0	0	0	0	0	0	27
02:00	0	18	0	0	1	0	0	0	0	0	0	0	0	19
03:00	0	28	8	0	0	0	0	0	0	0	0	0	0	36
04:00	1	49	5	2	3	0	0	2	0	0	0	0	0	62
05:00	0	109	25	1	2	1	0	1	3	0	0	0	0	142
06:00	3	256	58	2	8	7	0	4	2	0	0	0	0	340
07:00	6	448	59	11	9	5	0	3	2	0	0	0	0	543
08:00	12	415	54	3	10	9	0	2	1	0	0	0	0	506
09:00	7	436	69	3	14	4	0	2	3	0	0	0	0	538
10:00	8	479	79	3	10	5	0	0	3	0	0	0	0	587
11:00	9	513	58	0	12	5	0	2	0	0	0	0	0	599
12 PM	13	560	72	3	15	6	0	3	2	0	0	0	0	674
13:00	6	543	72	3	16	5	0	5	3	0	0	0	0	653
14:00	12	578	70	7	11	7	0	2	1	0	0	0	0	688
15:00	14	708	103	0	10	10	0	2	0	0	0	0	0	847
16:00	7	781	87	0	12	7	0	0	0	0	0	0	0	894
17:00	16	865	91	2	6	10	0	0	0	0	0	1	0	991
18:00	13	668	71	1	9	3	0	0	1	0	0	0	0	766
19:00	2	528	58	0	8	5	0	2	0	0	0	0	0	603
20:00	4	478	49	0	6	2	0	0	0	0	0	0	0	539
21:00	3	328	31	1	3	1	0	3	1	0	0	0	0	371
22:00	2	189	18	0	0	0	0	0	0	0	0	0	0	209
23:00	1	152	8	1	1	0	0	0	0	0	0	0	0	163
Total	139	9205	1160	43	166	93	0	33	22	0	0	1	0	10862
Percent	1.3%	84.7%	10.7%	0.4%	1.5%	0.9%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	10:00	07:00	09:00	08:00		06:00	05:00					11:00
Vol.	12	513	79	11	14	9		4	3					599
PM Peak	17:00	17:00	15:00	14:00	13:00	15:00		13:00	13:00			17:00		17:00
Vol.	16	865	103	7	16	10		5	3			1		991

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County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

81676 K-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	27	19	0	6	0	0	0	0	0	0	0	0	53
01:00	0	23	13	0	3	0	0	0	0	0	0	0	0	39
02:00	0	14	15	1	2	0	0	0	1	0	0	0	0	33
03:00	0	14	18	1	5	1	0	0	0	0	0	0	0	39
04:00	2	28	25	0	12	0	0	0	0	0	0	0	0	67
05:00	0	91	85	0	30	0	0	0	0	0	0	0	0	206
06:00	5	256	191	2	75	6	0	2	2	0	0	0	0	539
07:00	4	484	258	17	61	7	0	7	0	0	1	0	0	839
08:00	5	404	258	7	66	7	0	5	2	0	0	0	0	754
09:00	1	297	214	6	70	1	0	6	1	1	0	0	0	597
10:00	1	257	215	6	60	3	0	2	1	1	0	0	0	546
11:00	1	318	214	5	61	8	0	3	5	0	0	0	0	615
12 PM	4	330	218	5	60	5	0	4	1	0	0	0	0	627
13:00	3	348	246	4	66	2	0	4	3	0	0	0	0	676
14:00	4	407	245	8	72	9	0	6	1	1	0	1	0	754
15:00	4	442	220	2	61	10	0	3	1	0	0	0	0	743
16:00	4	414	206	6	46	3	0	3	0	0	0	0	0	682
17:00	4	442	198	2	34	2	0	2	0	0	0	0	0	684
18:00	4	330	225	1	48	3	0	0	0	0	0	0	0	611
19:00	2	283	155	0	32	4	0	0	0	0	0	0	0	476
20:00	1	199	166	2	26	1	0	0	0	0	0	0	0	395
21:00	0	176	129	0	15	2	0	0	0	0	0	0	0	322
22:00	0	133	67	0	20	0	0	0	0	0	0	0	0	220
23:00	1	56	55	0	6	0	0	0	0	0	0	0	0	118
Total	51	5773	3655	75	937	74	0	47	18	3	1	1	0	10635
Percent	0.5%	54.3%	34.4%	0.7%	8.8%	0.7%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	06:00	11:00		07:00	11:00	09:00	07:00			07:00
Vol.	5	484	258	17	75	8		7	5	1	1			839
PM Peak	12:00	15:00	13:00	14:00	14:00	15:00		14:00	13:00	14:00		14:00		14:00
Vol.	4	442	246	8	72	10		6	3	1		1		754

County Street (Route 140)
between Linden Street and Owen Riverway
City, State: Taunton, MA
Client: VHB/ J. Quitter

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81676 K-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	23	22	0	2	0	0	0	0	0	0	0	0	47
01:00	0	26	12	1	3	0	0	0	0	0	0	0	0	42
02:00	0	10	14	1	2	0	0	0	0	0	0	0	0	27
03:00	0	23	8	1	9	0	0	0	0	0	0	0	0	41
04:00	1	30	31	0	8	1	0	0	0	0	0	0	0	71
05:00	3	113	68	3	23	2	0	3	0	0	0	0	0	215
06:00	4	292	174	2	67	6	0	2	1	0	0	0	0	548
07:00	2	477	268	10	56	3	0	4	1	0	0	0	0	821
08:00	4	442	252	10	84	6	1	6	2	0	0	0	0	807
09:00	3	305	243	8	59	3	0	3	3	0	0	0	0	627
10:00	2	296	227	4	48	3	0	5	2	0	0	0	0	587
11:00	3	318	200	5	56	5	0	5	2	0	0	0	0	594
12 PM	5	384	227	4	60	1	0	5	2	0	0	0	0	688
13:00	2	386	249	7	57	6	0	5	0	0	0	0	0	712
14:00	8	440	247	8	52	5	0	7	3	1	0	0	0	771
15:00	4	483	223	7	62	3	0	5	0	0	0	0	0	787
16:00	3	419	210	5	59	5	0	6	0	0	0	0	0	707
17:00	7	443	215	1	38	5	0	2	0	0	0	0	0	711
18:00	7	425	253	2	40	4	0	2	0	0	0	0	0	733
19:00	6	317	197	0	31	1	0	3	1	0	0	0	0	556
20:00	3	258	181	0	30	1	0	2	0	0	0	0	0	475
21:00	3	193	115	0	11	1	0	0	0	0	0	0	0	323
22:00	0	142	69	0	10	0	0	0	0	0	0	0	0	221
23:00	0	65	44	1	7	0	0	0	0	0	0	0	0	117
Total	70	6310	3749	80	874	61	1	65	17	1	0	0	0	11228
Percent	0.6%	56.2%	33.4%	0.7%	7.8%	0.5%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	08:00	06:00	08:00	08:00	09:00					07:00
Vol.	4	477	268	10	84	6	1	6	3					821
PM Peak	14:00	15:00	18:00	14:00	15:00	13:00		14:00	14:00	14:00				15:00
Vol.	8	483	253	8	62	6		7	3	1				787

PRECISION DATA INDUSTRIES, LLC

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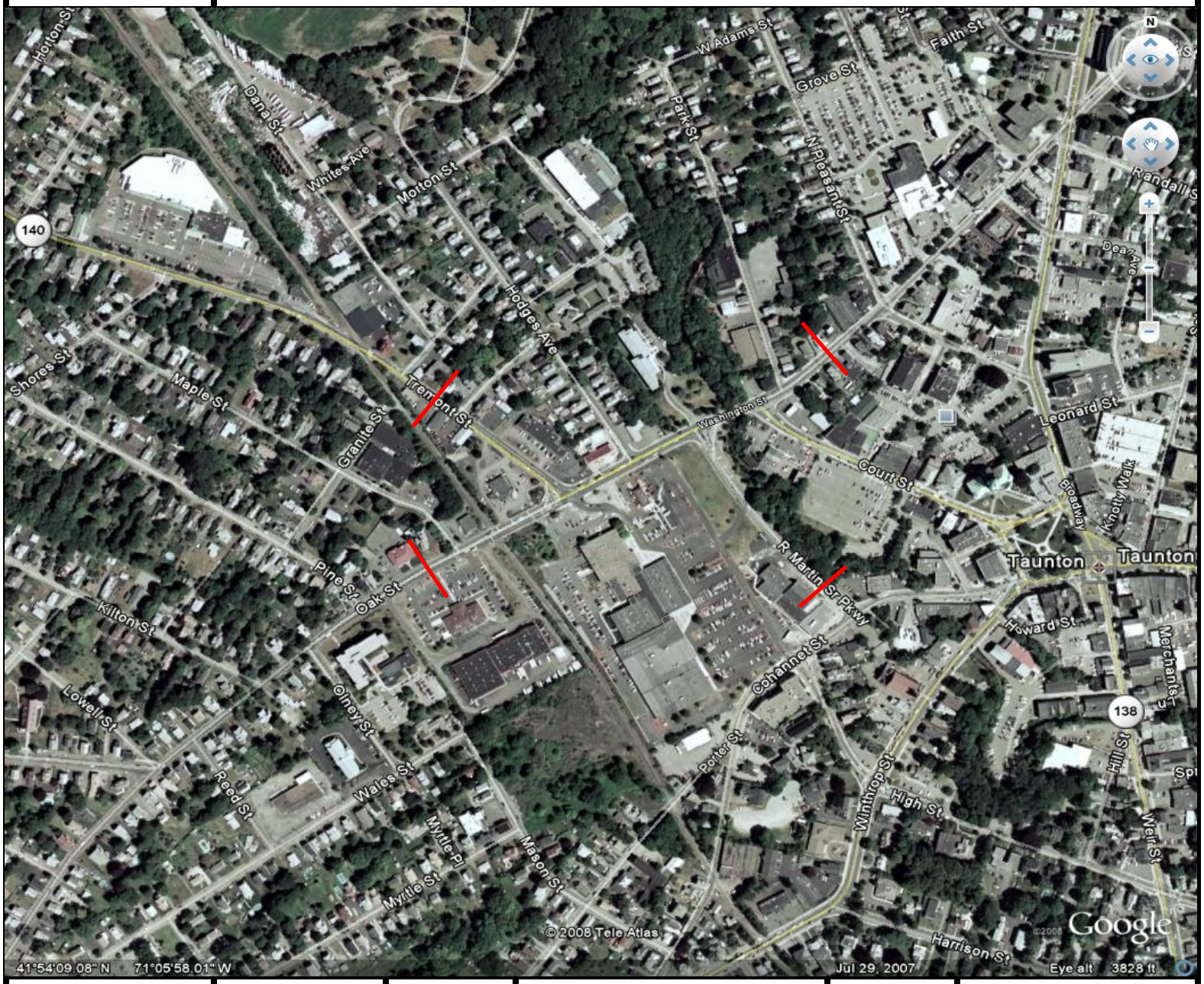
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	J. Quitter	10111.31	Tues 9/9/08 thru Wed 9/10/08	81676	Taunton, MA

Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 H-A volume
Site Code: 10111.31

Start	WB				EB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	11		82		2		65		13		147		
12:15	10		73		15		87		25		160		
12:30	6		65		3		94		9		159		
12:45	7	34	66	286	6	26	88	334	13	60	154	620	
01:00	2		81		8		87		10		168		
01:15	12		88		6		91		18		179		
01:30	3		92		10		84		13		176		
01:45	4	21	70	331	4	28	81	343	8	49	151	674	
02:00	7		73		6		88		13		161		
02:15	4		95		8		91		12		186		
02:30	5		85		8		100		13		185		
02:45	2	18	91	344	4	26	99	378	6	44	190	722	
03:00	3		107		3		92		6		199		
03:15	1		93		5		98		6		191		
03:30	5		77		3		102		8		179		
03:45	4	13	81	358	6	17	118	410	10	30	199	768	
04:00	5		100		5		82		10		182		
04:15	1		119		9		84		10		203		
04:30	4		118		13		98		17		216		
04:45	9	19	112	449	11	38	86	350	20	57	198	799	
05:00	5		130		31		105		36		235		
05:15	10		109		19		69		29		178		
05:30	7		104		41		88		48		192		
05:45	14	36	109	452	53	144	81	343	67	180	190	795	
06:00	17		93		65		68		82		161		
06:15	28		78		73		65		101		143		
06:30	34		97		89		78		123		175		
06:45	32	111	72	340	102	329	69	280	134	440	141	620	
07:00	39		61		116		63		155		124		
07:15	57		70		144		75		201		145		
07:30	66		64		123		61		189		125		
07:45	60	222	53	248	109	492	52	251	169	714	105	499	
08:00	70		54		128		49		198		103		
08:15	72		59		104		41		176		100		
08:30	68		46		111		38		179		84		
08:45	73	283	47	206	106	449	32	160	179	732	79	366	
09:00	59		49		85		34		144		83		
09:15	70		55		82		32		152		87		
09:30	72		39		85		30		157		69		
09:45	78	279	29	172	89	341	23	119	167	620	52	291	
10:00	74		38		84		29		158		67		
10:15	61		34		74		23		135		57		
10:30	68		32		94		27		162		59		
10:45	77	280	25	129	86	338	37	116	163	618	62	245	
11:00	65		34		102		24		167		58		
11:15	66		21		111		23		177		44		
11:30	65		25		89		16		154		41		
11:45	71	267	15	95	82	384	9	72	153	651	24	167	
Total	1583		3410		2612		3156		4195		6566		
Percent	37.7%		51.9%		62.3%		48.1%						
Day Total		4993				5768				10761			
Peak	09:15		04:15		07:15		03:00		07:15		04:15		
Vol.	294		479		504		410		757		852		
P.H.F.	0.942		0.921		0.875		0.869		0.942		0.906		

Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

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81676 H-A volume
Site Code: 10111.31

Start	WB				EB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		93		11		95		20		188		
12:15	14		93		5		94		19		187		
12:30	12		98		8		110		20		208		
12:45	7	42	89	373	3	27	89	388	10	69	178	761	
01:00	12		96		7		70		19		166		
01:15	4		88		4		88		8		176		
01:30	3		65		5		82		8		147		
01:45	5	24	82	331	9	25	100	340	14	49	182	671	
02:00	5		84		4		102		9		186		
02:15	4		99		6		89		10		188		
02:30	6		84		2		108		8		192		
02:45	4	19	103	370	2	14	119	418	6	33	222	788	
03:00	2		98		4		113		6		211		
03:15	4		122		3		100		7		222		
03:30	2		102		6		87		8		189		
03:45	4	12	109	431	1	14	95	395	5	26	204	826	
04:00	1		118		4		83		5		201		
04:15	4		125		13		81		17		206		
04:30	1		115		13		107		14		222		
04:45	4	10	111	469	9	39	100	371	13	49	211	840	
05:00	4		99		27		81		31		180		
05:15	11		135		23		108		34		243		
05:30	6		119		37		119		43		238		
05:45	12	33	106	459	56	143	100	408	68	176	206	867	
06:00	23		112		81		87		104		199		
06:15	27		87		61		74		88		161		
06:30	36		95		95		90		131		185		
06:45	32	118	88	382	121	358	66	317	153	476	154	699	
07:00	55		92		109		67		164		159		
07:15	54		82		132		67		186		149		
07:30	60		72		126		69		186		141		
07:45	82	251	90	336	105	472	60	263	187	723	150	599	
08:00	85		70		135		45		220		115		
08:15	70		60		108		49		178		109		
08:30	65		78		110		49		175		127		
08:45	54	274	62	270	102	455	41	184	156	729	103	454	
09:00	78		49		101		32		179		81		
09:15	63		43		86		31		149		74		
09:30	70		50		100		31		170		81		
09:45	82	293	36	178	94	381	29	123	176	674	65	301	
10:00	56		43		95		32		151		75		
10:15	72		27		78		24		150		51		
10:30	78		23		103		25		181		48		
10:45	64	270	23	116	86	362	28	109	150	632	51	225	
11:00	81		24		87		13		168		37		
11:15	65		29		81		13		146		42		
11:30	68		17		85		7		153		24		
11:45	69	283	18	88	84	337	9	42	153	620	27	130	
Total	1629		3803		2627		3358		4256		7161		
Percent	38.3%		53.1%		61.7%		46.9%						
Day Total		5432				5985				11417			
Peak	07:45		05:15		07:15		02:30		07:15		05:15		
Vol.	302		472		498		440		779		886		
P.H.F.	0.888		0.874		0.922		0.924		0.885		0.912		

PRECISION
D A T A
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Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	0	0	4	14	12	4	0	0	0	0	0	0	34	39	34
01:00	0	0	0	3	6	8	2	**2**	0	0	0	0	0	21	43	36
02:00	1	1	2	4	6	3	0	1	0	0	0	0	0	18	35	30
03:00	0	0	0	4	4	3	2	0	0	0	0	0	0	13	37	33
04:00	0	2	0	2	7	7	1	0	0	0	0	0	0	19	37	32
05:00	0	3	0	8	15	8	2	0	0	0	0	0	0	36	37	31
06:00	2	6	3	20	52	27	1	0	0	0	0	0	0	111	36	31
07:00	**7**	**15**	14	67	87	26	6	0	0	0	0	0	0	222	34	29
08:00	2	7	**19**	78	**132**	**41**	3	1	0	0	0	0	0	**283**	35	30
09:00	2	4	16	97	123	31	5	1	0	0	0	0	0	279	34	30
10:00	4	11	18	**106**	101	34	6	0	0	0	0	0	0	280	34	29
11:00	4	6	15	93	107	31	**11**	0	0	0	0	0	0	267	35	30
12 PM	2	4	21	95	133	30	1	0	0	0	0	0	0	286	34	30
13:00	7	13	25	120	117	42	7	0	0	0	0	0	0	331	34	29
14:00	7	10	15	133	127	48	4	0	0	0	0	0	0	344	34	30
15:00	2	6	13	123	166	45	3	0	0	0	0	0	0	358	34	30
16:00	4	10	32	176	165	53	8	0	0	0	0	0	0	448	34	30
17:00	5	12	39	160	180	49	7	1	0	0	0	0	0	453	34	29
18:00	5	17	13	104	135	59	7	0	0	0	0	0	0	340	36	30
19:00	9	8	21	65	109	29	7	0	0	0	0	0	0	248	34	29
20:00	1	5	5	59	94	35	6	0	0	1	0	0	0	206	36	31
21:00	4	2	4	40	82	36	3	1	0	0	0	0	0	172	36	31
22:00	0	1	6	34	55	29	3	1	0	0	0	0	0	129	37	32
23:00	0	0	4	18	39	26	8	0	0	0	0	0	0	95	38	33
Total	68	143	285	1613	2056	712	107	8	0	1	0	0	0	4993		
%	1.4%	2.9%	5.7%	32.3%	41.2%	14.3%	2.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	08:00	10:00	08:00	08:00	11:00	01:00						08:00		
Vol.	7	15	19	106	132	41	11	2						283		
PM Peak	19:00	18:00	17:00	16:00	17:00	18:00	16:00	17:00		20:00				17:00		
Vol.	9	17	39	176	180	59	8	1		1				453		

Pecent

15th Percentile :	25 MPH
50th Percentile :	30 MPH
85th Percentile :	35 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	3669
Percent in Pace :	73.5%
Number of Vehicles > 30 MPH :	2472
Percent of Vehicles > 30 MPH :	49.5%
Mean Speed(Average) :	30 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	1	8	15	15	3	0	0	0	0	0	0	42	38	33
01:00	0	0	0	3	9	9	2	1	0	0	0	0	0	24	38	35
02:00	0	0	2	4	8	5	0	0	0	0	0	0	0	19	36	31
03:00	0	0	2	4	3	1	2	0	0	0	0	0	0	12	39	30
04:00	0	1	0	2	2	3	1	1	0	0	0	0	0	10	37	34
05:00	2	3	2	8	12	5	1	0	0	0	0	0	0	33	35	29
06:00	**4**	**8**	0	21	66	16	3	0	0	0	0	0	0	118	35	30
07:00	1	4	10	71	112	44	8	1	0	0	0	0	0	251	36	31
08:00	1	5	6	82	118	**53**	**9**	0	0	0	0	0	0	274	36	31
09:00	2	5	10	92	**133**	46	5	0	0	0	0	0	0	**293**	35	31
10:00	4	8	9	77	125	44	3	0	0	0	0	0	0	270	35	30
11:00	3	7	**19**	**109**	108	31	4	**2**	0	0	0	0	0	283	34	30
12 PM	**13**	15	21	126	151	39	7	1	0	0	0	0	0	373	34	29
13:00	4	7	23	95	137	60	3	1	**1**	0	0	0	0	331	36	30
14:00	2	9	27	127	148	54	3	0	0	0	0	0	0	370	35	30
15:00	6	9	31	144	184	48	**9**	0	0	0	0	0	0	431	34	30
16:00	0	**16**	**36**	**160**	196	56	4	1	0	0	0	0	0	**469**	34	30
17:00	3	8	16	142	**201**	**83**	6	0	0	0	0	0	0	459	36	31
18:00	6	11	25	115	168	54	2	1	0	0	0	0	0	382	34	30
19:00	6	6	23	110	144	38	7	**2**	0	0	0	0	0	336	34	30
20:00	0	4	15	97	105	43	4	0	1	**1**	0	0	0	270	35	31
21:00	0	2	3	26	106	33	7	0	0	1	0	0	0	178	36	32
22:00	0	1	3	27	55	24	6	0	0	0	0	0	0	116	37	32
23:00	0	0	3	10	37	30	8	0	0	0	0	0	0	88	39	34
Total	57	129	287	1660	2343	834	107	11	2	2	0	0	0	5432		
%	1.0%	2.4%	5.3%	30.6%	43.1%	15.4%	2.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	06:00	11:00	11:00	09:00	08:00	08:00	11:00						09:00		
Vol.	4	8	19	109	133	53	9	2						293		
PM Peak	12:00	16:00	16:00	16:00	17:00	17:00	15:00	19:00	13:00	20:00				16:00		
Vol.	13	16	36	160	201	83	9	2	1	1				469		

Pecent

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	35 MPH
95th Percentile :	39 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	4003
Percent in Pace :	73.7%
Number of Vehicles > 30 MPH :	2830
Percent of Vehicles > 30 MPH :	52.1%
Mean Speed(Average) :	30 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	1	8	10	3	3	**1**	0	0	0	0	0	26	39	32
01:00	0	0	1	9	13	5	0	0	0	0	0	0	0	28	35	31
02:00	0	2	2	8	9	5	0	0	0	0	0	0	0	26	35	30
03:00	0	0	2	2	10	3	0	0	0	0	0	0	0	17	34	31
04:00	0	0	5	11	12	8	2	0	0	0	0	0	0	38	36	31
05:00	2	8	16	25	55	25	**12**	0	0	0	0	0	0	143	38	31
06:00	2	8	16	59	166	**71**	7	1	0	0	0	0	0	330	36	31
07:00	2	8	**43**	128	**243**	67	1	0	0	0	0	0	0	**492**	34	30
08:00	**6**	**15**	31	149	194	51	3	0	0	0	0	0	0	449	34	30
09:00	1	5	31	124	151	25	4	0	0	0	0	0	0	341	34	29
10:00	6	10	28	117	142	32	3	0	0	0	0	0	0	338	34	29
11:00	1	9	34	**151**	165	22	2	0	0	0	0	0	0	384	33	29
12 PM	2	8	25	102	**170**	23	4	0	0	0	0	0	0	334	34	30
13:00	3	13	32	126	124	36	**7**	**1**	0	0	0	0	0	342	34	29
14:00	2	11	39	129	143	50	5	0	0	0	0	0	0	379	34	30
15:00	1	**18**	**46**	**148**	162	34	1	0	0	0	0	0	0	**410**	34	29
16:00	2	14	20	99	154	**54**	7	0	0	0	0	0	0	350	35	30
17:00	6	11	33	113	149	29	0	1	0	0	0	0	0	342	34	29
18:00	4	9	13	76	127	43	7	0	**1**	0	0	0	0	280	35	30
19:00	6	7	16	69	113	39	2	0	0	0	0	0	0	252	35	30
20:00	6	4	15	45	63	24	3	0	0	0	0	0	0	160	35	29
21:00	4	5	5	21	64	19	1	0	0	0	0	0	0	119	35	30
22:00	6	3	9	25	53	19	1	0	0	0	0	0	0	116	35	29
23:00	**7**	2	4	20	29	9	1	0	0	0	0	0	0	72	34	28
Total	69	170	467	1764	2521	696	76	4	1	0	0	0	0	5768		
%	1.2%	2.9%	8.1%	30.6%	43.7%	12.1%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	11:00	07:00	06:00	05:00	00:00						07:00		
Vol.	6	15	43	151	243	71	12	1						492		
PM Peak	23:00	15:00	15:00	15:00	12:00	16:00	13:00	13:00	18:00					15:00		
Vol.	7	18	46	148	170	54	7	1	1					410		

Pecent

15th Percentile :	25 MPH
50th Percentile :	30 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	4285
Percent in Pace :	74.3%
Number of Vehicles > 30 MPH :	2793
Percent of Vehicles > 30 MPH :	48.4%
Mean Speed(Average) :	30 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	1	10	8	5	3	0	0	0	0	0	0	27	38	32
01:00	2	0	2	4	10	6	0	**1**	0	0	0	0	0	25	36	30
02:00	0	0	1	3	6	2	2	0	0	0	0	0	0	14	39	33
03:00	0	0	1	4	6	2	1	0	0	0	0	0	0	14	35	31
04:00	1	0	5	10	12	9	2	0	0	0	0	0	0	39	37	30
05:00	0	2	13	20	57	43	**7**	1	0	0	0	0	0	143	38	32
06:00	0	11	27	78	185	53	4	0	0	0	0	0	0	358	35	31
07:00	**11**	**15**	31	126	212	**73**	4	0	0	0	0	0	0	**472**	35	30
08:00	7	10	30	116	**225**	64	2	0	0	0	0	0	0	454	34	30
09:00	7	12	39	120	155	45	4	0	0	0	0	0	0	382	34	29
10:00	3	10	29	124	167	28	1	0	0	0	0	0	0	362	34	29
11:00	1	11	**40**	**134**	118	30	3	0	0	0	0	0	0	337	34	29
12 PM	5	10	**52**	116	150	45	**9**	0	0	0	0	0	0	387	34	29
13:00	1	6	25	121	153	29	4	**1**	0	0	0	0	0	340	34	30
14:00	**7**	**14**	49	143	173	32	1	0	0	0	0	0	0	**419**	34	29
15:00	5	13	29	**150**	157	37	3	0	0	**1**	0	0	0	395	34	29
16:00	1	11	41	114	159	45	0	0	0	0	0	0	0	371	34	29
17:00	6	13	33	122	**176**	**52**	6	0	0	0	0	0	0	408	34	30
18:00	6	8	24	86	147	43	3	0	0	0	0	0	0	317	34	30
19:00	7	7	13	105	104	23	4	0	0	0	0	0	0	263	34	29
20:00	4	7	16	52	76	23	5	1	0	0	0	0	0	184	35	30
21:00	1	4	12	36	40	26	3	0	**1**	0	0	0	0	123	37	30
22:00	1	3	4	31	50	15	5	0	0	0	0	0	0	109	36	31
23:00	0	0	1	8	19	13	1	0	0	0	0	0	0	42	37	33
Total	76	167	518	1833	2565	743	77	4	1	1	0	0	0	5985		
%	1.3%	2.8%	8.7%	30.6%	42.9%	12.4%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	11:00	11:00	08:00	07:00	05:00	01:00						07:00		
Vol.	11	15	40	134	225	73	7	1						472		
PM Peak	14:00	14:00	12:00	15:00	17:00	17:00	12:00	13:00	21:00	15:00				14:00		
Vol.	7	14	52	150	176	52	9	1	1	1				419		

Pecent

15th Percentile :	25 MPH
50th Percentile :	30 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	4398
Percent in Pace :	73.5%
Number of Vehicles > 30 MPH :	2878
Percent of Vehicles > 30 MPH :	48.1%
Mean Speed(Average) :	30 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	26	4	0	2	0	0	1	0	0	0	0	0	34
01:00	0	19	1	0	1	0	0	0	0	0	0	0	0	21
02:00	0	16	1	0	0	1	0	0	0	0	0	0	0	18
03:00	0	10	1	0	2	0	0	0	0	0	0	0	0	13
04:00	0	10	9	0	0	0	0	0	0	0	0	0	0	19
05:00	0	24	10	0	1	1	0	0	0	0	0	0	0	36
06:00	0	79	24	0	7	1	0	0	0	0	0	0	0	111
07:00	0	145	59	4	7	4	0	2	1	0	0	0	0	222
08:00	1	209	56	2	9	4	1	1	0	0	0	0	0	283
09:00	0	203	58	0	11	5	0	2	0	0	0	0	0	279
10:00	3	212	51	1	10	2	0	1	0	0	0	0	0	280
11:00	1	207	45	0	10	3	0	1	0	0	0	0	0	267
12 PM	0	222	57	0	6	1	0	0	0	0	0	0	0	286
13:00	3	252	63	3	9	0	0	1	0	0	0	0	0	331
14:00	1	257	73	2	9	1	0	1	0	0	0	0	0	344
15:00	3	262	81	1	9	1	0	1	0	0	0	0	0	358
16:00	3	351	79	0	11	4	0	0	0	0	0	0	0	448
17:00	5	346	89	0	8	4	0	0	1	0	0	0	0	453
18:00	2	272	55	0	9	1	0	1	0	0	0	0	0	340
19:00	1	215	30	0	2	0	0	0	0	0	0	0	0	248
20:00	0	159	38	0	9	0	0	0	0	0	0	0	0	206
21:00	0	139	30	0	2	0	0	1	0	0	0	0	0	172
22:00	0	108	20	0	1	0	0	0	0	0	0	0	0	129
23:00	0	78	15	0	2	0	0	0	0	0	0	0	0	95
Total	24	3821	949	13	137	33	1	13	2	0	0	0	0	4993
Percent	0.5%	76.5%	19.0%	0.3%	2.7%	0.7%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	10:00	07:00	07:00	09:00	09:00	08:00	07:00	07:00					08:00
Vol.	3	212	59	4	11	5	1	2	1					283
PM Peak	17:00	16:00	17:00	13:00	16:00	16:00		13:00	17:00					17:00
Vol.	5	351	89	3	11	4		1	1					453

PRECISION
D A T A
INDUSTRIES, LLC
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Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	33	9	0	0	0	0	0	0	0	0	0	0	42
01:00	1	19	3	0	1	0	0	0	0	0	0	0	0	24
02:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
03:00	0	8	2	0	2	0	0	0	0	0	0	0	0	12
04:00	0	6	4	0	0	0	0	0	0	0	0	0	0	10
05:00	0	18	9	0	5	1	0	0	0	0	0	0	0	33
06:00	0	89	21	0	5	3	0	0	0	0	0	0	0	118
07:00	2	179	56	4	8	1	0	1	0	0	0	0	0	251
08:00	1	203	54	3	8	3	2	0	0	0	0	0	0	274
09:00	1	218	64	0	5	4	0	1	0	0	0	0	0	293
10:00	3	203	52	0	10	1	0	1	0	0	0	0	0	270
11:00	3	219	49	2	8	2	0	0	0	0	0	0	0	283
12 PM	2	294	58	0	11	7	0	1	0	0	0	0	0	373
13:00	1	256	49	2	20	3	0	0	0	0	0	0	0	331
14:00	2	292	61	1	8	3	0	3	0	0	0	0	0	370
15:00	2	326	88	2	9	2	1	1	0	0	0	0	0	431
16:00	3	349	96	1	14	3	0	0	3	0	0	0	0	469
17:00	7	358	82	0	10	0	0	2	0	0	0	0	0	459
18:00	3	312	58	0	6	2	0	1	0	0	0	0	0	382
19:00	3	275	44	2	11	1	0	0	0	0	0	0	0	336
20:00	3	227	37	0	3	0	0	0	0	0	0	0	0	270
21:00	4	142	26	0	5	0	0	1	0	0	0	0	0	178
22:00	0	95	16	0	4	1	0	0	0	0	0	0	0	116
23:00	0	74	13	0	1	0	0	0	0	0	0	0	0	88
Total	41	4212	953	17	154	37	3	12	3	0	0	0	0	5432
Percent	0.8%	77.5%	17.5%	0.3%	2.8%	0.7%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	09:00	07:00	10:00	09:00	08:00	07:00						09:00
Vol.	3	219	64	4	10	4	2	1						293
PM Peak	17:00	17:00	16:00	13:00	13:00	12:00	15:00	14:00	16:00					16:00
Vol.	7	358	96	2	20	7	1	3	3					469

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	22	2	2	0	0	0	0	0	0	0	0	0	26
01:00	0	22	3	0	3	0	0	0	0	0	0	0	0	28
02:00	0	24	1	0	1	0	0	0	0	0	0	0	0	26
03:00	0	12	2	0	3	0	0	0	0	0	0	0	0	17
04:00	0	35	3	0	0	0	0	0	0	0	0	0	0	38
05:00	1	104	24	2	11	0	0	1	0	0	0	0	0	143
06:00	2	240	64	4	20	0	0	0	0	0	0	0	0	330
07:00	1	395	74	6	14	1	0	0	1	0	0	0	0	492
08:00	2	362	58	2	23	2	0	0	0	0	0	0	0	449
09:00	0	275	49	5	11	1	0	0	0	0	0	0	0	341
10:00	1	259	54	3	16	3	0	2	0	0	0	0	0	338
11:00	1	317	49	2	15	0	0	0	0	0	0	0	0	384
12 PM	0	276	43	1	14	0	0	0	0	0	0	0	0	334
13:00	2	275	45	3	15	1	0	1	0	0	0	0	0	342
14:00	0	297	66	5	7	3	0	1	0	0	0	0	0	379
15:00	1	327	59	4	15	3	0	1	0	0	0	0	0	410
16:00	3	278	48	3	16	0	0	2	0	0	0	0	0	350
17:00	7	289	38	0	7	1	0	0	0	0	0	0	0	342
18:00	1	238	30	2	9	0	0	0	0	0	0	0	0	280
19:00	2	208	39	0	3	0	0	0	0	0	0	0	0	252
20:00	0	135	20	1	4	0	0	0	0	0	0	0	0	160
21:00	1	111	7	0	0	0	0	0	0	0	0	0	0	119
22:00	1	96	19	0	0	0	0	0	0	0	0	0	0	116
23:00	2	62	5	0	2	1	0	0	0	0	0	0	0	72
Total	28	4659	802	45	209	16	0	8	1	0	0	0	0	5768
Percent	0.5%	80.8%	13.9%	0.8%	3.6%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	08:00	10:00		10:00	07:00					07:00
Vol.	2	395	74	6	23	3		2	1					492
PM Peak	17:00	15:00	14:00	14:00	16:00	14:00		16:00						15:00
Vol.	7	327	66	5	16	3		2						410

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Oak Street west of
Maple Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-A class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	22	5	0	0	0	0	0	0	0	0	0	0	27
01:00	0	21	3	0	1	0	0	0	0	0	0	0	0	25
02:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14
03:00	0	12	0	0	2	0	0	0	0	0	0	0	0	14
04:00	0	33	5	0	1	0	0	0	0	0	0	0	0	39
05:00	1	108	25	1	8	0	0	0	0	0	0	0	0	143
06:00	1	265	68	5	17	1	0	1	0	0	0	0	0	358
07:00	3	371	76	6	13	3	0	0	0	0	0	0	0	472
08:00	2	359	70	2	17	1	0	3	0	0	0	0	0	454
09:00	4	309	47	2	19	1	0	0	0	0	0	0	0	382
10:00	4	299	45	1	12	1	0	0	0	0	0	0	0	362
11:00	0	263	52	2	16	1	0	3	0	0	0	0	0	337
12 PM	2	309	56	1	16	1	0	2	0	0	0	0	0	387
13:00	1	270	50	2	16	1	0	0	0	0	0	0	0	340
14:00	2	349	52	3	11	0	0	2	0	0	0	0	0	419
15:00	2	324	50	4	15	0	0	0	0	0	0	0	0	395
16:00	2	298	53	1	15	1	0	1	0	0	0	0	0	371
17:00	5	331	48	5	16	3	0	0	0	0	0	0	0	408
18:00	2	273	28	0	13	0	0	1	0	0	0	0	0	317
19:00	3	222	32	0	6	0	0	0	0	0	0	0	0	263
20:00	0	157	23	1	3	0	0	0	0	0	0	0	0	184
21:00	1	105	11	0	5	0	0	0	1	0	0	0	0	123
22:00	1	95	11	0	1	1	0	0	0	0	0	0	0	109
23:00	0	39	2	0	1	0	0	0	0	0	0	0	0	42
Total	36	4848	812	36	224	15	0	13	1	0	0	0	0	5985
Percent	0.6%	81.0%	13.6%	0.6%	3.7%	0.3%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	07:00	09:00	07:00		08:00						07:00
Vol.	4	371	76	6	19	3		3						472
PM Peak	17:00	14:00	12:00	17:00	12:00	17:00		12:00	21:00					14:00
Vol.	5	349	56	5	16	3		2	1					419

Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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81676 H-B volume
Site Code: 10111.31

Start	SB				NB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	11		109		22		115		33		224		
12:15	15		118		14		122		29		240		
12:30	8		130		12		121		20		251		
12:45	11	45	116	473	10	58	125	483	21	103	241	956	
01:00	4		126		10		137		14		263		
01:15	6		138		6		130		12		268		
01:30	3		129		3		144		6		273		
01:45	5	18	124	517	11	30	125	536	16	48	249	1053	
02:00	3		127		2		148		5		275		
02:15	8		139		9		156		17		295		
02:30	1		139		3		136		4		275		
02:45	5	17	170	575	8	22	128	568	13	39	298	1143	
03:00	4		137		9		137		13		274		
03:15	8		129		13		125		21		254		
03:30	7		142		11		133		18		275		
03:45	5	24	132	540	13	46	150	545	18	70	282	1085	
04:00	9		125		13		160		22		285		
04:15	4		153		17		163		21		316		
04:30	21		164		19		166		40		330		
04:45	25	59	181	623	14	63	183	672	39	122	364	1295	
05:00	32		144		34		177		66		321		
05:15	27		152		37		186		64		338		
05:30	38		165		57		133		95		298		
05:45	47	144	153	614	57	185	129	625	104	329	282	1239	
06:00	40		126		57		110		97		236		
06:15	70		121		89		124		159		245		
06:30	96		108		108		112		204		220		
06:45	116	322	101	456	110	364	134	480	226	686	235	936	
07:00	130		108		124		124		254		232		
07:15	179		102		122		95		301		197		
07:30	174		77		143		105		317		182		
07:45	158	641	105	392	148	537	112	436	306	1178	217	828	
08:00	148		58		97		92		245		150		
08:15	157		53		93		87		250		140		
08:30	171		52		105		87		276		139		
08:45	151	627	42	205	104	399	60	326	255	1026	102	531	
09:00	123		74		100		72		223		146		
09:15	122		46		124		40		246		86		
09:30	120		31		99		50		219		81		
09:45	142	507	31	182	103	426	50	212	245	933	81	394	
10:00	109		44		102		39		211		83		
10:15	110		20		97		29		207		49		
10:30	113		23		108		37		221		60		
10:45	123	455	23	110	114	421	35	140	237	876	58	250	
11:00	124		26		109		23		233		49		
11:15	119		24		132		27		251		51		
11:30	97		22		127		29		224		51		
11:45	112	452	12	84	143	511	18	97	255	963	30	181	
Total	3311		4771		3062		5120		6373		9891		
Percent	52.0%		48.2%		48.0%		51.8%						
Day Total		8082				8182				16264			
Peak	07:15		04:15		07:00		04:30		07:00		04:30		
Vol.	659		642		537		712		1178		1353		
P.H.F.	0.920		0.887		0.907		0.957		0.929		0.929		

Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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81676 H-B volume
Site Code: 10111.31

Start	SB				NB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		140		14		151		23		291		
12:15	13		108		12		144		25		252		
12:30	6		107		10		127		16		234		
12:45	8	36	124	479	9	45	130	552	17	81	254	1031	
01:00	2		129		2		160		4		289		
01:15	8		139		9		133		17		272		
01:30	5		141		6		107		11		248		
01:45	4	19	132	541	5	22	149	549	9	41	281	1090	
02:00	3		141		5		144		8		285		
02:15	6		148		8		132		14		280		
02:30	4		140		6		131		10		271		
02:45	9	22	161	590	4	23	140	547	13	45	301	1137	
03:00	7		157		7		139		14		296		
03:15	16		130		10		144		26		274		
03:30	8		146		13		155		21		301		
03:45	8	39	135	568	13	43	142	580	21	82	277	1148	
04:00	7		179		16		156		23		335		
04:15	9		172		13		170		22		342		
04:30	11		165		11		163		22		328		
04:45	21	48	167	683	27	67	169	658	48	115	336	1341	
05:00	25		162		30		188		55		350		
05:15	27		172		41		175		68		347		
05:30	37		178		55		142		92		320		
05:45	64	153	184	696	68	194	164	669	132	347	348	1365	
06:00	51		177		65		146		116		323		
06:15	69		163		74		126		143		289		
06:30	90		121		115		141		205		262		
06:45	125	335	144	605	103	357	124	537	228	692	268	1142	
07:00	148		120		111		142		259		262		
07:15	151		137		151		116		302		253		
07:30	188		91		136		124		324		215		
07:45	155	642	74	422	168	566	144	526	323	1208	218	948	
08:00	164		81		105		87		269		168		
08:15	169		92		93		87		262		179		
08:30	152		65		105		102		257		167		
08:45	150	635	58	296	143	446	78	354	293	1081	136	650	
09:00	141		68		117		71		258		139		
09:15	119		51		119		66		238		117		
09:30	127		53		99		63		226		116		
09:45	125	512	32	204	116	451	54	254	241	963	86	458	
10:00	120		52		120		65		240		117		
10:15	131		37		111		41		242		78		
10:30	116		34		115		31		231		65		
10:45	135	502	24	147	125	471	39	176	260	973	63	323	
11:00	143		25		122		23		265		48		
11:15	115		26		124		26		239		52		
11:30	98		19		132		28		230		47		
11:45	125	481	20	90	126	504	24	101	251	985	44	191	
Total	3424		5321		3189		5503		6613		10824		
Percent	51.8%		49.2%		48.2%		50.8%						
Day Total		8745				8692				17437			
Peak	07:30		05:15		07:00		04:30		07:15		05:00		
Vol.	676		711		566		695		1218		1365		
P.H.F.	0.899		0.966		0.842		0.924		0.940		0.975		

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Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	5	9	12	12	5	**2**	0	0	0	0	0	45	39	33
01:00	0	0	1	3	8	4	2	0	0	0	0	0	0	18	37	33
02:00	0	0	0	0	6	7	4	0	0	0	0	0	0	17	40	36
03:00	1	1	1	3	8	7	2	1	0	0	0	0	0	24	38	32
04:00	0	0	1	12	19	20	5	2	0	0	0	0	0	59	39	34
05:00	0	0	7	29	61	43	4	0	0	0	0	0	0	144	37	32
06:00	0	2	19	93	131	**64**	**11**	2	0	0	0	0	0	322	37	31
07:00	9	25	121	**271**	161	50	3	1	0	0	0	0	0	**641**	33	28
08:00	**20**	**29**	**134**	233	**172**	38	1	0	0	0	0	0	0	627	33	27
09:00	0	3	67	241	161	31	4	0	0	0	0	0	0	507	33	29
10:00	2	15	83	169	138	43	5	0	0	0	0	0	0	455	34	28
11:00	7	23	70	193	122	30	7	0	0	0	0	0	0	452	33	28
12 PM	3	39	103	172	126	30	0	0	0	0	0	0	0	473	33	27
13:00	2	10	87	251	142	23	2	0	0	0	0	0	0	517	33	28
14:00	3	17	115	**303**	123	12	2	0	0	0	0	0	0	575	32	27
15:00	4	15	121	276	105	19	0	0	0	0	0	0	0	540	32	27
16:00	**10**	**48**	**129**	254	157	22	2	**1**	0	0	0	0	0	**623**	32	27
17:00	4	12	68	259	**208**	**60**	3	0	0	0	0	0	0	614	34	29
18:00	1	2	30	176	179	53	**14**	1	0	0	0	0	0	456	34	30
19:00	0	4	37	150	155	44	2	0	0	0	0	0	0	392	34	30
20:00	0	1	9	60	84	42	9	0	0	0	0	0	0	205	37	31
21:00	0	2	11	56	71	35	6	1	0	0	0	0	0	182	37	31
22:00	0	1	3	23	45	33	4	0	**1**	0	0	0	0	110	37	33
23:00	0	2	3	12	37	26	4	0	0	0	0	0	0	84	38	33
Total	66	251	1225	3248	2431	748	101	11	1	0	0	0	0	8082		
%	0.8%	3.1%	15.2%	40.2%	30.1%	9.3%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	07:00	08:00	06:00	06:00	00:00						07:00		
Vol.	20	29	134	271	172	64	11	2						641		
PM Peak	16:00	16:00	16:00	14:00	17:00	17:00	18:00	16:00	22:00					16:00		
Vol.	10	48	129	303	208	60	14	1	1					623		

Pecent

15th Percentile :	23 MPH
50th Percentile :	28 MPH
85th Percentile :	34 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	5679
Percent in Pace :	70.3%
Number of Vehicles > 30 MPH :	2805
Percent of Vehicles > 30 MPH :	34.7%
Mean Speed(Average) :	28 MPH

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north of Washington Street
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81676 H-B speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	0	0	3	10	11	9	3	0	0	0	0	0	0	36	38	32
01:00	0	0	0	8	5	5	1	0	0	0	0	0	0	19	37	31
02:00	1	1	1	1	8	9	1	0	0	0	0	0	0	22	38	33
03:00	0	2	0	6	12	13	4	**2**	0	0	0	0	0	39	39	34
04:00	0	1	2	5	23	14	3	0	0	0	0	0	0	48	38	33
05:00	0	1	10	28	73	31	8	1	0	0	**1**	0	0	153	37	32
06:00	0	2	20	90	145	**67**	**11**	0	0	0	0	0	0	335	36	31
07:00	10	16	**123**	**268**	189	33	3	0	0	0	0	0	0	**642**	33	28
08:00	**11**	26	103	220	**225**	44	6	0	0	0	0	0	0	635	33	28
09:00	0	23	49	228	180	30	2	0	0	0	0	0	0	512	33	28
10:00	0	**27**	97	217	132	22	7	0	0	0	0	0	0	502	33	27
11:00	2	7	62	191	175	38	4	2	0	0	0	0	0	481	34	29
12 PM	3	10	67	225	147	26	1	0	0	0	0	0	0	479	33	28
13:00	5	14	83	231	166	36	6	0	0	0	0	0	0	541	33	28
14:00	9	33	129	279	119	20	1	0	0	0	0	0	0	590	32	26
15:00	**13**	**39**	87	242	148	36	2	1	0	0	0	0	0	568	33	27
16:00	3	25	**149**	274	190	38	4	0	0	0	0	0	0	683	33	28
17:00	4	21	121	**294**	205	**49**	2	0	0	0	0	0	0	**696**	33	28
18:00	1	11	87	253	**216**	35	1	1	0	0	0	0	0	605	33	28
19:00	0	1	34	205	149	30	1	1	0	0	**1**	0	0	422	33	29
20:00	0	6	22	98	114	47	7	**2**	0	0	0	0	0	296	36	30
21:00	1	0	17	39	103	41	3	0	0	0	0	0	0	204	36	31
22:00	0	0	5	38	68	32	4	0	0	0	0	0	0	147	36	32
23:00	0	1	4	15	33	27	**10**	0	0	0	0	0	0	90	39	33
Total	63	267	1275	3465	2836	732	95	10	0	0	2	0	0	8745		
%	0.7%	3.1%	14.6%	39.6%	32.4%	8.4%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	07:00	07:00	08:00	06:00	06:00	03:00			05:00			07:00		
Vol.	11	27	123	268	225	67	11	2			1			642		
PM Peak	15:00	15:00	16:00	17:00	18:00	17:00	23:00	20:00			19:00			17:00		
Vol.	13	39	149	294	216	49	10	2			1			696		

Pecent

15th Percentile :	23 MPH
50th Percentile :	28 MPH
85th Percentile :	34 MPH
95th Percentile :	37 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	6301
Percent in Pace :	72.1%
Number of Vehicles > 30 MPH :	3107
Percent of Vehicles > 30 MPH :	35.5%
Mean Speed(Average) :	28 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	1	9	21	18	6	**3**	0	0	0	0	0	58	39	34
01:00	0	1	2	5	15	5	1	1	0	0	0	0	0	30	36	32
02:00	0	0	2	2	5	12	1	0	0	0	0	0	0	22	38	34
03:00	0	1	2	4	17	17	5	0	0	0	0	0	0	46	39	34
04:00	0	0	3	10	29	19	2	0	0	0	0	0	0	63	37	32
05:00	3	4	14	24	87	44	8	1	0	0	0	0	0	185	37	32
06:00	3	2	6	85	**187**	**69**	**10**	2	0	0	0	0	0	364	36	32
07:00	7	**32**	**87**	208	167	34	2	0	0	0	0	0	0	**537**	33	28
08:00	**8**	10	68	165	117	27	3	1	0	0	0	0	0	399	33	28
09:00	5	20	51	199	127	22	2	0	0	0	0	0	0	426	33	28
10:00	3	12	74	188	112	30	2	0	0	0	0	0	0	421	33	28
11:00	0	7	86	**248**	148	20	2	0	0	0	0	0	0	511	33	28
12 PM	12	17	86	216	132	18	2	0	0	0	0	0	0	483	32	27
13:00	5	13	100	274	129	13	0	**1**	0	0	0	0	0	535	32	27
14:00	12	11	92	299	141	13	1	0	0	0	0	0	0	569	32	27
15:00	**16**	**26**	118	242	122	19	1	1	0	0	0	0	0	545	32	26
16:00	8	20	**139**	305	169	28	3	0	0	0	0	0	0	**672**	32	27
17:00	7	6	69	**313**	192	35	3	0	0	0	0	0	0	625	33	28
18:00	0	5	45	181	**201**	**46**	2	0	0	0	0	0	0	480	34	30
19:00	0	4	50	207	149	23	3	0	0	0	0	0	0	436	33	29
20:00	0	2	19	120	140	41	4	0	0	0	0	0	0	326	34	30
21:00	1	4	10	80	88	22	**6**	1	0	0	0	0	0	212	34	30
22:00	3	4	6	34	68	21	4	0	0	0	0	0	0	140	35	31
23:00	0	0	6	24	47	15	5	0	0	0	0	0	0	97	36	31
Total	93	201	1136	3442	2610	611	78	11	0	0	0	0	0	8182		
%	1.1%	2.5%	13.9%	42.1%	31.9%	7.5%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	11:00	06:00	06:00	06:00	00:00						07:00		
Vol.	8	32	87	248	187	69	10	3						537		
PM Peak	15:00	15:00	16:00	17:00	18:00	18:00	21:00	13:00						16:00		
Vol.	16	26	139	313	201	46	6	1						672		

Pecent

15th Percentile :	24 MPH
50th Percentile :	28 MPH
85th Percentile :	33 MPH
95th Percentile :	37 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	6052
Percent in Pace :	74.0%
Number of Vehicles > 30 MPH :	2788
Percent of Vehicles > 30 MPH :	34.1%
Mean Speed(Average) :	28 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-B speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	2	11	13	16	3	0	0	0	0	0	0	45	38	33
01:00	0	1	2	4	8	4	2	1	0	0	0	0	0	22	38	32
02:00	0	0	0	6	9	5	3	0	0	0	0	0	0	23	39	33
03:00	0	0	3	8	16	13	2	1	0	0	0	0	0	43	38	33
04:00	0	0	3	19	27	16	1	1	0	0	0	0	0	67	37	32
05:00	1	5	8	54	84	36	4	2	0	0	0	0	0	194	36	31
06:00	0	2	14	86	**185**	**58**	**9**	**3**	0	0	0	0	0	357	36	32
07:00	**11**	**29**	95	236	162	32	1	0	0	0	0	0	0	**566**	33	27
08:00	9	24	77	174	133	26	3	0	0	0	0	0	0	446	33	27
09:00	2	23	70	219	121	12	3	1	0	0	0	0	0	451	32	27
10:00	7	9	**102**	221	111	20	1	0	0	0	0	0	0	471	32	27
11:00	2	6	71	**251**	151	21	2	0	0	0	0	0	0	504	33	28
12 PM	6	20	89	277	133	25	2	0	0	0	0	0	0	552	32	27
13:00	2	9	122	265	136	13	2	0	0	0	0	0	0	549	32	27
14:00	9	**38**	113	247	118	19	**3**	0	0	0	0	0	0	547	32	26
15:00	6	27	121	272	135	18	1	0	0	0	0	0	0	580	32	27
16:00	**11**	24	**155**	301	154	12	0	0	0	0	0	0	0	657	32	27
17:00	2	24	81	**344**	**192**	24	2	0	0	0	0	0	0	**669**	33	28
18:00	4	12	76	224	192	27	3	0	0	0	0	0	0	538	33	28
19:00	0	9	85	224	175	30	2	0	0	0	0	0	0	525	33	28
20:00	0	0	31	148	133	**38**	3	**2**	0	0	0	0	0	355	34	30
21:00	5	3	14	89	120	22	1	0	0	0	0	0	0	254	34	29
22:00	0	4	5	52	81	33	1	0	0	0	0	0	0	176	36	31
23:00	0	0	4	22	45	24	3	2	**1**	0	0	0	0	101	37	32
Total	77	269	1343	3754	2634	544	57	13	1	0	0	0	0	8692		
%	0.9%	3.1%	15.5%	43.2%	30.3%	6.3%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	10:00	11:00	06:00	06:00	06:00	06:00						07:00		
Vol.	11	29	102	251	185	58	9	3						566		
PM Peak	16:00	14:00	16:00	17:00	17:00	20:00	14:00	20:00	23:00					17:00		
Vol.	11	38	155	344	192	38	3	2	1					669		

Pecent

15th Percentile :	23 MPH
50th Percentile :	28 MPH
85th Percentile :	33 MPH
95th Percentile :	36 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	6388
Percent in Pace :	73.5%
Number of Vehicles > 30 MPH :	2722
Percent of Vehicles > 30 MPH :	31.3%
Mean Speed(Average) :	28 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	36	7	0	2	0	0	0	0	0	0	0	0	45
01:00	0	17	1	0	0	0	0	0	0	0	0	0	0	18
02:00	0	15	2	0	0	0	0	0	0	0	0	0	0	17
03:00	0	11	10	0	3	0	0	0	0	0	0	0	0	24
04:00	0	44	13	0	1	1	0	0	0	0	0	0	0	59
05:00	1	93	39	5	6	0	0	0	0	0	0	0	0	144
06:00	1	221	70	4	17	4	0	4	1	0	0	0	0	322
07:00	8	473	128	15	10	4	0	2	1	0	0	0	0	641
08:00	1	471	120	3	20	3	0	5	3	0	1	0	0	627
09:00	2	371	111	3	15	4	0	0	1	0	0	0	0	507
10:00	7	330	89	1	19	5	0	3	1	0	0	0	0	455
11:00	4	317	96	2	21	7	0	3	1	1	0	0	0	452
12 PM	4	357	76	4	19	8	0	4	1	0	0	0	0	473
13:00	4	384	89	7	25	2	0	6	0	0	0	0	0	517
14:00	9	411	115	8	17	10	1	3	1	0	0	0	0	575
15:00	4	404	111	2	19	0	0	0	0	0	0	0	0	540
16:00	2	481	120	0	11	6	0	3	0	0	0	0	0	623
17:00	4	486	107	1	12	2	1	1	0	0	0	0	0	614
18:00	2	360	76	2	14	1	0	1	0	0	0	0	0	456
19:00	1	315	67	0	7	1	0	1	0	0	0	0	0	392
20:00	1	164	33	0	4	2	0	1	0	0	0	0	0	205
21:00	3	139	35	0	4	1	0	0	0	0	0	0	0	182
22:00	0	87	21	0	0	1	0	0	1	0	0	0	0	110
23:00	0	67	14	1	2	0	0	0	0	0	0	0	0	84
Total	58	6054	1550	58	248	62	2	37	11	1	1	0	0	8082
Percent	0.7%	74.9%	19.2%	0.7%	3.1%	0.8%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	11:00	11:00		08:00	08:00	11:00	08:00			07:00
Vol.	8	473	128	15	21	7		5	3	1	1			641
PM Peak	14:00	17:00	16:00	14:00	13:00	14:00	14:00	13:00	12:00					16:00
Vol.	9	486	120	8	25	10	1	6	1					623

PRECISION
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Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-B class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	30	5	0	0	1	0	0	0	0	0	0	0	36
01:00	0	13	5	0	0	0	0	0	1	0	0	0	0	19
02:00	0	18	4	0	0	0	0	0	0	0	0	0	0	22
03:00	0	22	13	0	4	0	0	0	0	0	0	0	0	39
04:00	0	34	13	0	1	0	0	0	0	0	0	0	0	48
05:00	0	113	31	2	4	1	0	1	1	0	0	0	0	153
06:00	2	241	71	5	10	2	0	1	3	0	0	0	0	335
07:00	9	474	121	13	15	5	0	4	1	0	0	0	0	642
08:00	5	470	120	5	27	7	0	0	1	0	0	0	0	635
09:00	3	382	106	3	11	4	0	2	1	0	0	0	0	512
10:00	1	374	108	2	12	3	0	1	1	0	0	0	0	502
11:00	5	370	79	2	14	9	0	1	1	0	0	0	0	481
12 PM	5	361	86	2	12	9	0	3	1	0	0	0	0	479
13:00	3	404	90	5	28	9	0	0	2	0	0	0	0	541
14:00	6	433	118	13	11	5	0	2	2	0	0	0	0	590
15:00	11	419	109	2	18	7	0	2	0	0	0	0	0	568
16:00	12	528	114	0	19	6	0	4	0	0	0	0	0	683
17:00	11	535	133	0	11	2	0	4	0	0	0	0	0	696
18:00	6	480	102	0	10	2	0	4	0	0	0	1	0	605
19:00	4	338	69	0	11	0	0	0	0	0	0	0	0	422
20:00	2	240	43	0	7	1	0	2	1	0	0	0	0	296
21:00	6	164	30	1	3	0	0	0	0	0	0	0	0	204
22:00	0	130	16	0	1	0	0	0	0	0	0	0	0	147
23:00	0	75	11	0	2	0	0	1	1	0	0	0	0	90
Total	91	6648	1597	55	231	73	0	32	17	0	0	1	0	8745
Percent	1.0%	76.0%	18.3%	0.6%	2.6%	0.8%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	08:00	11:00		07:00	06:00					07:00
Vol.	9	474	121	13	27	9		4	3					642
PM Peak	16:00	17:00	17:00	14:00	13:00	12:00		16:00	13:00			18:00		17:00
Vol.	12	535	133	13	28	9		4	2			1		696

PRECISION
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Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	1	47	10	0	0	0	0	0	0	0	0	0	0	58
01:00	0	28	1	0	1	0	0	0	0	0	0	0	0	30
02:00	0	16	4	1	1	0	0	0	0	0	0	0	0	22
03:00	0	33	13	0	0	0	0	0	0	0	0	0	0	46
04:00	1	40	22	0	0	0	0	0	0	0	0	0	0	63
05:00	0	113	54	0	13	3	0	1	1	0	0	0	0	185
06:00	3	268	76	2	11	3	0	1	0	0	0	0	0	364
07:00	4	393	104	10	18	6	1	1	0	0	0	0	0	537
08:00	5	278	80	14	15	4	0	2	1	0	0	0	0	399
09:00	2	288	93	16	19	5	0	3	0	0	0	0	0	426
10:00	1	314	83	0	15	4	0	2	2	0	0	0	0	421
11:00	5	386	103	3	11	3	0	0	0	0	0	0	0	511
12 PM	2	371	79	4	14	8	0	5	0	0	0	0	0	483
13:00	2	410	93	2	20	4	0	3	1	0	0	0	0	535
14:00	10	420	110	4	13	8	0	3	1	0	0	0	0	569
15:00	2	410	99	8	19	3	0	3	1	0	0	0	0	545
16:00	9	520	124	9	10	0	0	0	0	0	0	0	0	672
17:00	8	517	80	2	16	2	0	0	0	0	0	0	0	625
18:00	2	397	72	0	8	1	0	0	0	0	0	0	0	480
19:00	1	353	79	0	3	0	0	0	0	0	0	0	0	436
20:00	0	272	49	0	4	1	0	0	0	0	0	0	0	326
21:00	1	182	28	0	1	0	0	0	0	0	0	0	0	212
22:00	0	121	17	0	2	0	0	0	0	0	0	0	0	140
23:00	1	81	14	0	1	0	0	0	0	0	0	0	0	97
Total	60	6258	1487	75	215	55	1	24	7	0	0	0	0	8182
Percent	0.7%	76.5%	18.2%	0.9%	2.6%	0.7%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	09:00	09:00	07:00	07:00	09:00	10:00					07:00
Vol.	5	393	104	16	19	6	1	3	2					537
PM Peak	14:00	16:00	16:00	16:00	13:00	12:00		12:00	13:00					16:00
Vol.	10	520	124	9	20	8		5	1					672

PRECISION
D A T A
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Tremont Street (Route 140)
north of Washington Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-B class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	36	9	0	0	0	0	0	0	0	0	0	0	45
01:00	0	18	3	0	1	0	0	0	0	0	0	0	0	22
02:00	0	19	4	0	0	0	0	0	0	0	0	0	0	23
03:00	0	30	12	0	1	0	0	0	0	0	0	0	0	43
04:00	0	40	24	0	2	0	0	0	1	0	0	0	0	67
05:00	3	126	49	1	11	3	0	1	0	0	0	0	0	194
06:00	6	261	76	1	8	3	0	2	0	0	0	0	0	357
07:00	5	415	108	14	15	4	1	3	1	0	0	0	0	566
08:00	3	301	99	10	21	7	0	3	2	0	0	0	0	446
09:00	3	333	79	7	18	6	0	5	0	0	0	0	0	451
10:00	4	346	96	5	16	2	0	1	1	0	0	0	0	471
11:00	9	375	102	1	14	2	0	1	0	0	0	0	0	504
12 PM	4	443	77	4	17	2	1	3	1	0	0	0	0	552
13:00	9	390	120	2	18	5	0	2	3	0	0	0	0	549
14:00	2	437	86	3	12	4	0	3	0	0	0	0	0	547
15:00	5	437	110	11	12	3	0	1	1	0	0	0	0	580
16:00	7	520	100	7	16	5	0	0	2	0	0	0	0	657
17:00	6	535	111	2	12	1	0	2	0	0	0	0	0	669
18:00	10	420	97	1	6	4	0	0	0	0	0	0	0	538
19:00	4	425	86	0	7	1	0	1	1	0	0	0	0	525
20:00	3	283	65	0	4	0	0	0	0	0	0	0	0	355
21:00	1	208	42	0	3	0	0	0	0	0	0	0	0	254
22:00	1	154	21	0	0	0	0	0	0	0	0	0	0	176
23:00	1	82	15	0	3	0	0	0	0	0	0	0	0	101
Total	86	6634	1591	69	217	52	2	28	13	0	0	0	0	8692
Percent	1.0%	76.3%	18.3%	0.8%	2.5%	0.6%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	07:00	08:00	08:00	07:00	09:00	08:00					07:00
Vol.	9	415	108	14	21	7	1	5	2					566
PM Peak	18:00	17:00	13:00	15:00	13:00	13:00	12:00	12:00	13:00					17:00
Vol.	10	535	120	11	18	5	1	3	3					669

Washington Street
east of Park Street
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 H-C volume
Site Code: 10111.31

Start	WB				EB				Combined				09-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	17		104		9		117		26		221		
12:15	11		104		7		93		18		197		
12:30	11		103		8		110		19		213		
12:45	11	50	103	414	5	29	128	448	16	79	231	862	
01:00	10		116		11		110		21		226		
01:15	11		111		6		113		17		224		
01:30	7		131		5		112		12		243		
01:45	2	30	115	473	2	24	101	436	4	54	216	909	
02:00	10		154		6		110		16		264		
02:15	5		150		5		100		10		250		
02:30	5		115		9		136		14		251		
02:45	4	24	109	528	4	24	120	466	8	48	229	994	
03:00	8		151		2		104		10		255		
03:15	7		159		7		108		14		267		
03:30	10		149		5		106		15		255		
03:45	6	31	143	602	6	20	112	430	12	51	255	1032	
04:00	10		157		10		96		20		253		
04:15	8		142		7		114		15		256		
04:30	11		145		8		118		19		263		
04:45	14	43	170	614	11	36	90	418	25	79	260	1032	
05:00	12		158		28		99		40		257		
05:15	15		172		30		84		45		256		
05:30	32		138		51		97		83		235		
05:45	21	80	129	597	60	169	111	391	81	249	240	988	
06:00	27		112		59		110		86		222		
06:15	42		129		78		81		120		210		
06:30	48		108		98		77		146		185		
06:45	35	152	104	453	126	361	66	334	161	513	170	787	
07:00	50		93		139		71		189		164		
07:15	68		86		163		76		231		162		
07:30	106		93		149		58		255		151		
07:45	88	312	100	372	149	600	56	261	237	912	156	633	
08:00	89		75		115		39		204		114		
08:15	80		64		122		49		202		113		
08:30	100		52		143		34		243		86		
08:45	130	399	46	237	121	501	32	154	251	900	78	391	
09:00	98		61		106		43		204		104		
09:15	97		40		103		39		200		79		
09:30	105		40		96		31		201		71		
09:45	110	410	39	180	119	424	22	135	229	834	61	315	
10:00	99		27		118		30		217		57		
10:15	93		39		94		24		187		63		
10:30	119		33		115		25		234		58		
10:45	107	418	31	130	115	442	40	119	222	860	71	249	
11:00	91		35		124		29		215		64		
11:15	114		29		115		20		229		49		
11:30	114		32		108		17		222		49		
11:45	98	417	13	109	126	473	11	77	224	890	24	186	
Total	2366		4709		3103		3669		5469		8378		
Percent	43.3%		56.2%		56.7%		43.8%						
Day Total		7075				6772				13847			
Peak	10:30		04:30		07:00		02:30		07:15		04:15		
Vol.	431		645		600		468		927		1036		
P.H.F.	0.905		0.938		0.920		0.860		0.909		0.970		

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81676 H-C volume
Site Code: 10111.31

Start	WB				EB				Combined				10-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	22		121		11		123		33		244		
12:15	16		123		8		111		24		234		
12:30	13		120		1		108		14		228		
12:45	7	58	133	497	7	27	114	456	14	85	247	953	
01:00	4		132		7		91		11		223		
01:15	8		116		6		116		14		232		
01:30	1		99		4		100		5		199		
01:45	9	22	117	464	7	24	97	404	16	46	214	868	
02:00	4		154		2		116		6		270		
02:15	5		131		6		103		11		234		
02:30	3		118		7		116		10		234		
02:45	4	16	118	521	4	19	137	472	8	35	255	993	
03:00	6		144		3		110		9		254		
03:15	8		156		7		128		15		284		
03:30	9		173		3		113		12		286		
03:45	3	26	151	624	7	20	117	468	10	46	268	1092	
04:00	8		179		6		95		14		274		
04:15	4		160		11		112		15		272		
04:30	11		172		12		100		23		272		
04:45	14	37	150	661	6	35	112	419	20	72	262	1080	
05:00	8		158		26		97		34		255		
05:15	8		163		26		91		34		254		
05:30	23		148		39		133		62		281		
05:45	29	68	171	640	58	149	96	417	87	217	267	1057	
06:00	29		142		68		130		97		272		
06:15	40		115		84		78		124		193		
06:30	58		107		109		108		167		215		
06:45	55	182	118	482	132	393	87	403	187	575	205	885	
07:00	66		111		120		81		186		192		
07:15	64		105		156		89		220		194		
07:30	100		107		171		81		271		188		
07:45	105	335	99	422	141	588	50	301	246	923	149	723	
08:00	89		82		129		56		218		138		
08:15	94		69		125		45		219		114		
08:30	103		65		126		50		229		115		
08:45	99	385	82	298	107	487	39	190	206	872	121	488	
09:00	91		52		118		32		209		84		
09:15	101		61		129		38		230		99		
09:30	116		59		109		36		225		95		
09:45	104	412	51	223	106	462	35	141	210	874	86	364	
10:00	101		43		108		40		209		83		
10:15	102		34		117		27		219		61		
10:30	98		29		114		28		212		57		
10:45	105	406	36	142	116	455	26	121	221	861	62	263	
11:00	103		32		114		20		217		52		
11:15	101		27		107		21		208		48		
11:30	111		33		114		11		225		44		
11:45	97	412	28	120	114	449	16	68	211	861	44	188	
Total	2359		5094		3108		3860		5467		8954		
Percent	43.1%		56.9%		56.9%		43.1%						
Day Total		7453				6968				14421			
Peak	09:30		03:30		07:15		02:30		07:15		03:15		
Vol.	423		663		597		491		955		1112		
P.H.F.	0.912		0.926		0.873		0.896		0.881		0.972		

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Client: VHB/J. Quitter

81676 H-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0 8	0	0	5	17	21	5	**2**	0	0	0	0	0	0	50	34	30
01:00	0	1	2	8	11	6	1	**1**	0	0	0	0	0	30	36	31
02:00	1	0	4	4	12	1	1	1	0	0	0	0	0	24	34	30
03:00	0	1	6	8	11	4	1	0	0	0	0	0	0	31	34	29
04:00	0	1	9	16	10	7	0	0	0	0	0	0	0	43	35	28
05:00	0	1	11	29	21	**17**	1	0	0	0	0	0	0	80	36	30
06:00	1	1	22	54	65	9	0	0	0	0	0	0	0	152	33	29
07:00	0	5	71	154	71	11	0	0	0	0	0	0	0	312	32	27
08:00	**4**	**26**	96	175	**86**	11	1	0	0	0	0	0	0	399	32	26
09:00	4	22	119	182	74	9	0	0	0	0	0	0	0	410	31	26
10:00	1	20	126	**187**	83	1	0	0	0	0	0	0	0	**418**	31	26
11:00	4	23	**173**	173	42	2	0	0	0	0	0	0	0	417	29	25
12 PM	2	23	148	183	53	5	0	0	0	0	0	0	0	414	29	25
13:00	6	39	173	196	55	3	0	0	0	0	0	0	0	472	29	25
14:00	26	49	226	170	54	4	0	0	0	0	0	0	0	529	29	24
15:00	25	61	**253**	**214**	47	2	0	0	0	0	0	0	0	602	29	24
16:00	**54**	**76**	221	192	65	5	0	0	0	0	0	0	0	**613**	29	23
17:00	52	70	178	214	78	6	0	0	0	0	0	0	0	598	29	23
18:00	13	15	108	203	**100**	11	3	0	0	0	0	0	0	453	32	26
19:00	6	11	85	173	82	14	1	0	0	0	0	0	0	372	32	27
20:00	2	2	35	103	71	**21**	3	0	0	0	0	0	0	237	34	29
21:00	1	5	21	76	57	18	2	0	0	0	0	0	0	180	34	29
22:00	0	1	13	44	53	17	1	**1**	0	0	0	0	0	130	34	30
23:00	0	0	13	39	39	13	**5**	0	0	0	0	0	0	109	35	30
Total	202	453	2118	2814	1261	202	22	3	0	0	0	0	0	7075		
%	2.9%	6.4%	29.9%	39.8%	17.8%	2.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	11:00	10:00	08:00	05:00	00:00	01:00						10:00		
Vol.	4	26	173	187	86	17	2	1						418		
PM Peak	16:00	16:00	15:00	15:00	18:00	20:00	23:00	22:00						16:00		
Vol.	54	76	253	214	100	21	5	1						613		

Pecent

15th Percentile :	20 MPH
50th Percentile :	26 MPH
85th Percentile :	31 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	4932
Percent in Pace :	69.7%
Number of Vehicles > 25 MPH :	3739
Percent of Vehicles > 25 MPH :	52.8%
Mean Speed(Average) :	26 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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81676 H-C speed
Site Code: 10111.31

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0																
8	0	0	3	22	25	7	1	0	0	0	0	0	0	58	34	30
01:00	0	0	1	6	6	7	2	0	0	0	0	0	0	22	38	33
02:00	0	0	2	7	5	2	0	0	0	0	0	0	0	16	34	29
03:00	0	1	0	12	8	4	1	0	0	0	0	0	0	26	35	30
04:00	0	1	6	11	11	8	0	0	0	0	0	0	0	37	35	30
05:00	0	1	9	15	28	14	0	**1**	0	0	0	0	0	68	36	31
06:00	0	1	21	67	72	**18**	**3**	0	0	0	0	0	0	182	34	30
07:00	1	15	62	161	77	18	1	0	0	0	0	0	0	335	32	27
08:00	**9**	**22**	**114**	169	62	8	1	0	0	0	0	0	0	385	30	26
09:00	3	19	95	203	**81**	11	0	0	0	0	0	0	0	**412**	31	27
10:00	4	21	106	199	68	7	1	0	0	0	0	0	0	406	31	26
11:00	3	15	88	**214**	80	11	0	1	0	0	0	0	0	412	31	27
12 PM	4	21	148	**238**	76	10	0	0	0	0	0	0	0	497	30	26
13:00	4	23	117	213	92	14	1	0	0	0	0	0	0	464	31	26
14:00	17	42	179	210	66	5	2	0	0	0	0	0	0	521	29	25
15:00	31	70	238	228	49	8	0	0	0	0	0	0	0	624	29	24
16:00	66	106	**308**	142	37	2	0	0	0	0	0	0	0	**661**	27	21
17:00	**69**	**108**	202	181	71	9	0	0	0	0	0	0	0	640	29	22
18:00	9	18	128	198	**113**	15	1	0	0	0	0	0	0	482	32	26
19:00	1	15	99	196	98	11	2	0	0	0	0	0	0	422	32	27
20:00	1	9	39	127	99	18	3	**1**	**1**	0	0	0	0	298	33	29
21:00	1	3	28	91	81	18	1	0	0	0	0	0	0	223	34	29
22:00	0	4	6	62	50	**19**	1	0	0	0	0	0	0	142	34	30
23:00	0	1	13	38	50	13	**4**	1	0	0	0	0	0	120	34	30
Total	223	516	2012	3010	1405	257	25	4	1	0	0	0	0	7453		
%	3.0%	6.9%	27.0%	40.4%	18.9%	3.4%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	11:00	09:00	06:00	06:00	05:00						09:00		
Vol.	9	22	114	214	81	18	3	1						412		
PM Peak	17:00	17:00	16:00	12:00	18:00	22:00	23:00	20:00	20:00					16:00		
Vol.	69	108	308	238	113	19	4	1	1					661		

Pecent

15th Percentile :	20 MPH
50th Percentile :	26 MPH
85th Percentile :	32 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	5022
Percent in Pace :	67.4%
Number of Vehicles > 25 MPH :	4100
Percent of Vehicles > 25 MPH :	55.0%
Mean Speed(Average) :	26 MPH

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81676 H-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/09/0																
8	0	0	2	11	10	4	0	**2**	0	0	0	0	0	29	36	31
01:00	0	0	4	8	8	4	0	0	0	0	0	0	0	24	34	30
02:00	0	0	4	13	5	0	1	1	0	0	0	0	0	24	32	29
03:00	0	0	4	9	4	2	1	0	0	0	0	0	0	20	33	28
04:00	0	2	5	12	10	7	0	0	0	0	0	0	0	36	35	29
05:00	2	2	22	75	58	8	**2**	0	0	0	0	0	0	169	33	28
06:00	4	11	78	167	**89**	**11**	0	0	0	0	0	0	0	360	32	27
07:00	15	69	**220**	**226**	68	2	0	0	0	0	0	0	0	**600**	29	24
08:00	14	67	180	211	25	5	0	0	0	0	0	0	0	502	28	24
09:00	9	40	177	157	36	4	1	0	0	0	0	0	0	424	29	24
10:00	20	68	181	140	31	2	0	0	0	0	0	0	0	442	28	23
11:00	**27**	**103**	214	106	19	4	0	0	0	0	0	0	0	473	27	22
12 PM	8	66	194	158	19	2	0	0	0	0	0	0	0	447	28	23
13:00	12	58	173	**167**	24	3	0	0	0	0	0	0	0	437	28	24
14:00	**36**	**75**	**216**	121	17	1	0	0	0	0	0	0	0	**466**	27	22
15:00	16	64	187	139	23	1	0	0	0	0	0	0	0	430	28	23
16:00	13	31	186	164	19	5	0	0	0	0	0	0	0	418	28	24
17:00	15	34	155	149	35	2	**1**	0	0	0	0	0	0	391	29	24
18:00	4	12	105	164	**43**	6	0	0	0	0	0	0	0	334	29	26
19:00	0	16	73	128	37	7	0	0	0	0	0	0	0	261	30	26
20:00	2	9	41	69	28	5	0	0	0	0	0	0	0	154	31	26
21:00	1	5	21	63	38	6	1	0	0	0	0	0	0	135	33	28
22:00	0	0	11	73	32	3	0	0	0	0	0	0	0	119	32	28
23:00	0	2	10	34	21	**10**	0	0	0	0	0	0	0	77	34	29
Total	198	734	2463	2564	699	104	7	3	0	0	0	0	0	6772		
%	2.9%	10.8%	36.4%	37.9%	10.3%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	07:00	07:00	06:00	06:00	05:00	00:00						07:00		
Vol.	27	103	220	226	89	11	2	2						600		
PM Peak	14:00	14:00	14:00	13:00	18:00	23:00	17:00							14:00		
Vol.	36	75	216	167	43	10	1							466		

Pecent

15th Percentile :	20 MPH
50th Percentile :	24 MPH
85th Percentile :	29 MPH
95th Percentile :	33 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	5027
Percent in Pace :	74.2%
Number of Vehicles > 25 MPH :	2864
Percent of Vehicles > 25 MPH :	42.3%
Mean Speed(Average) :	24 MPH

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81676 H-C speed
Site Code: 10111.31

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/10/0 8	0	0	4	10	11	2	0	0	0	0	0	0	0	27	33	29
01:00	0	0	3	10	5	4	**2**	0	0	0	0	0	0	24	36	30
02:00	0	0	5	7	4	1	2	0	0	0	0	0	0	19	33	29
03:00	0	0	4	6	7	3	0	0	0	0	0	0	0	20	34	29
04:00	0	0	3	14	13	5	0	0	0	0	0	0	0	35	34	30
05:00	0	0	27	53	46	**21**	1	**1**	0	0	0	0	0	149	35	29
06:00	1	8	116	171	**81**	14	1	0	0	0	0	0	0	392	32	27
07:00	**34**	62	**200**	**226**	60	7	0	0	0	0	0	0	0	**589**	29	24
08:00	20	**66**	192	157	46	6	0	0	0	0	0	0	0	487	29	24
09:00	19	26	189	177	49	2	0	0	0	0	0	0	0	462	29	24
10:00	11	54	182	162	43	3	0	0	0	0	0	0	0	455	29	24
11:00	12	39	140	216	38	4	0	0	0	0	0	0	0	449	29	25
12 PM	10	**67**	**226**	133	19	1	0	0	0	0	0	0	0	456	28	23
13:00	5	27	139	**189**	41	3	0	0	0	0	0	0	0	404	29	25
14:00	**21**	54	221	149	26	1	0	0	0	0	0	0	0	**472**	28	23
15:00	18	50	214	150	31	5	0	0	0	0	0	0	0	468	28	23
16:00	15	36	212	130	26	0	0	0	0	0	0	0	0	419	28	23
17:00	7	38	179	151	35	7	0	0	0	0	0	0	0	417	29	24
18:00	12	27	163	156	43	2	0	0	0	0	0	0	0	403	29	24
19:00	1	34	91	128	41	6	0	0	0	0	0	0	0	301	30	25
20:00	0	6	50	80	**45**	**8**	**1**	0	0	0	0	0	0	190	32	27
21:00	0	8	26	60	42	5	0	0	0	0	0	0	0	141	32	27
22:00	0	1	20	66	27	7	0	0	0	0	0	0	0	121	32	28
23:00	0	1	9	35	18	4	1	0	0	0	0	0	0	68	33	28
Total	186	604	2615	2636	797	121	8	1	0	0	0	0	0	6968		
%	2.7%	8.7%	37.5%	37.8%	11.4%	1.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	07:00	07:00	06:00	05:00	01:00	05:00						07:00		
Vol.	34	66	200	226	81	21	2	1						589		
PM Peak	14:00	12:00	12:00	13:00	20:00	20:00	20:00							14:00		
Vol.	21	67	226	189	45	8	1							472		

Pecent

15th Percentile :	20 MPH
50th Percentile :	25 MPH
85th Percentile :	29 MPH
95th Percentile :	33 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	5251
Percent in Pace :	75.4%
Number of Vehicles > 25 MPH :	3035
Percent of Vehicles > 25 MPH :	43.6%
Mean Speed(Average) :	25 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Washington Street
east of Park Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	38	11	0	0	0	0	1	0	0	0	0	0	50
01:00	0	23	5	0	2	0	0	0	0	0	0	0	0	30
02:00	0	16	7	0	1	0	0	0	0	0	0	0	0	24
03:00	0	23	6	0	2	0	0	0	0	0	0	0	0	31
04:00	0	29	11	0	3	0	0	0	0	0	0	0	0	43
05:00	1	48	25	1	3	0	0	1	1	0	0	0	0	80
06:00	2	98	43	1	7	1	0	0	0	0	0	0	0	152
07:00	0	222	71	2	10	5	1	0	1	0	0	0	0	312
08:00	2	285	75	12	17	6	0	2	0	0	0	0	0	399
09:00	2	306	74	4	22	2	0	0	0	0	0	0	0	410
10:00	5	319	72	0	19	3	0	0	0	0	0	0	0	418
11:00	5	311	82	1	13	4	0	0	1	0	0	0	0	417
12 PM	4	310	86	1	10	2	0	1	0	0	0	0	0	414
13:00	3	355	88	2	17	4	0	2	1	0	0	0	0	472
14:00	4	405	98	2	17	3	0	0	0	0	0	0	0	529
15:00	6	449	115	5	22	2	0	2	0	0	1	0	0	602
16:00	4	488	99	0	17	2	0	2	1	0	0	0	0	613
17:00	3	481	96	1	16	0	0	1	0	0	0	0	0	598
18:00	3	361	69	4	13	3	0	0	0	0	0	0	0	453
19:00	1	312	51	2	6	0	0	0	0	0	0	0	0	372
20:00	1	186	39	2	9	0	0	0	0	0	0	0	0	237
21:00	0	151	28	0	1	0	0	0	0	0	0	0	0	180
22:00	1	101	25	0	2	1	0	0	0	0	0	0	0	130
23:00	0	90	18	0	1	0	0	0	0	0	0	0	0	109
Total	47	5407	1294	40	230	38	1	12	5	0	1	0	0	7075
Percent	0.7%	76.4%	18.3%	0.6%	3.3%	0.5%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	10:00	11:00	08:00	09:00	08:00	07:00	08:00	05:00					10:00
Vol.	5	319	82	12	22	6	1	2	1					418
PM Peak	15:00	16:00	15:00	15:00	15:00	13:00		13:00	13:00		15:00			16:00
Vol.	6	488	115	5	22	4		2	1		1			613

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Washington Street
east of Park Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-C class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	45	12	0	1	0	0	0	0	0	0	0	0	58
01:00	1	16	3	1	1	0	0	0	0	0	0	0	0	22
02:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
03:00	0	19	7	0	0	0	0	0	0	0	0	0	0	26
04:00	0	22	13	0	2	0	0	0	0	0	0	0	0	37
05:00	1	36	23	1	6	0	0	1	0	0	0	0	0	68
06:00	3	128	39	1	7	2	0	1	1	0	0	0	0	182
07:00	5	241	73	1	12	1	0	2	0	0	0	0	0	335
08:00	2	290	60	11	17	5	0	0	0	0	0	0	0	385
09:00	2	303	79	3	17	4	0	4	0	0	0	0	0	412
10:00	1	295	82	5	19	3	0	0	1	0	0	0	0	406
11:00	4	310	86	1	10	1	0	0	0	0	0	0	0	412
12 PM	4	381	86	1	20	4	0	1	0	0	0	0	0	497
13:00	3	357	79	5	14	4	0	1	1	0	0	0	0	464
14:00	4	405	86	2	21	1	0	1	1	0	0	0	0	521
15:00	5	473	111	8	18	7	2	0	0	0	0	0	0	624
16:00	2	533	102	0	14	3	0	5	1	0	1	0	0	661
17:00	9	497	112	2	13	5	0	2	0	0	0	0	0	640
18:00	5	394	70	1	11	1	0	0	0	0	0	0	0	482
19:00	2	336	66	3	14	1	0	0	0	0	0	0	0	422
20:00	1	245	41	3	8	0	0	0	0	0	0	0	0	298
21:00	2	182	33	0	5	0	0	1	0	0	0	0	0	223
22:00	0	113	21	1	7	0	0	0	0	0	0	0	0	142
23:00	0	103	16	0	1	0	0	0	0	0	0	0	0	120
Total	56	5739	1301	50	238	42	2	19	5	0	1	0	0	7453
Percent	0.8%	77.0%	17.5%	0.7%	3.2%	0.6%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	11:00	08:00	10:00	08:00		09:00	06:00					09:00
Vol.	5	310	86	11	19	5		4	1					412
PM Peak	17:00	16:00	17:00	15:00	14:00	15:00	15:00	16:00	13:00		16:00			16:00
Vol.	9	533	112	8	21	7	2	5	1		1			661

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Washington Street
east of Park Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/09/0														
8	0	24	3	0	2	0	0	0	0	0	0	0	0	29
01:00	0	19	2	0	3	0	0	0	0	0	0	0	0	24
02:00	1	20	3	0	0	0	0	0	0	0	0	0	0	24
03:00	0	15	3	0	1	1	0	0	0	0	0	0	0	20
04:00	0	33	3	0	0	0	0	0	0	0	0	0	0	36
05:00	0	120	41	2	6	0	0	0	0	0	0	0	0	169
06:00	2	279	68	3	6	1	0	1	0	0	0	0	0	360
07:00	1	505	72	5	12	3	0	1	1	0	0	0	0	600
08:00	4	413	68	2	12	1	0	2	0	0	0	0	0	502
09:00	3	358	50	1	9	1	0	2	0	0	0	0	0	424
10:00	3	370	56	1	8	1	0	3	0	0	0	0	0	442
11:00	3	401	54	1	9	1	0	3	0	0	0	1	0	473
12 PM	5	369	55	2	9	4	0	3	0	0	0	0	0	447
13:00	1	364	53	2	15	2	0	0	0	0	0	0	0	437
14:00	2	392	57	0	11	2	0	1	1	0	0	0	0	466
15:00	1	343	68	1	15	1	0	1	0	0	0	0	0	430
16:00	4	350	52	1	9	2	0	0	0	0	0	0	0	418
17:00	0	349	34	2	4	2	0	0	0	0	0	0	0	391
18:00	1	286	37	2	7	1	0	0	0	0	0	0	0	334
19:00	0	232	25	0	4	0	0	0	0	0	0	0	0	261
20:00	0	132	16	0	4	1	0	1	0	0	0	0	0	154
21:00	0	121	10	0	3	0	0	1	0	0	0	0	0	135
22:00	1	104	13	0	1	0	0	0	0	0	0	0	0	119
23:00	1	69	6	0	1	0	0	0	0	0	0	0	0	77
Total	33	5668	849	25	151	24	0	19	2	0	0	1	0	6772
Percent	0.5%	83.7%	12.5%	0.4%	2.2%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	07:00	07:00	07:00		10:00	07:00			11:00		07:00
Vol.	4	505	72	5	12	3		3	1			1		600
PM Peak	12:00	14:00	15:00	12:00	13:00	12:00		12:00	14:00					14:00
Vol.	5	392	68	2	15	4		3	1					466

PRECISION
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Washington Street
east of Park Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/10/0														
8	0	25	2	0	0	0	0	0	0	0	0	0	0	27
01:00	0	20	4	0	0	0	0	0	0	0	0	0	0	24
02:00	0	15	4	0	0	0	0	0	0	0	0	0	0	19
03:00	0	17	3	0	0	0	0	0	0	0	0	0	0	20
04:00	0	27	7	0	1	0	0	0	0	0	0	0	0	35
05:00	0	112	33	1	2	0	0	1	0	0	0	0	0	149
06:00	2	314	59	5	9	1	0	2	0	0	0	0	0	392
07:00	5	500	65	5	9	3	0	2	0	0	0	0	0	589
08:00	1	404	65	1	10	3	0	3	0	0	0	0	0	487
09:00	0	398	52	3	7	2	0	0	0	0	0	0	0	462
10:00	0	388	58	0	6	1	0	2	0	0	0	0	0	455
11:00	2	365	62	5	11	2	0	2	0	0	0	0	0	449
12 PM	1	395	44	1	7	4	0	4	0	0	0	0	0	456
13:00	1	352	39	1	9	1	0	1	0	0	0	0	0	404
14:00	4	406	49	2	7	2	0	2	0	0	0	0	0	472
15:00	2	391	59	2	10	1	0	3	0	0	0	0	0	468
16:00	2	372	38	0	4	0	0	3	0	0	0	0	0	419
17:00	5	364	40	0	8	0	0	0	0	0	0	0	0	417
18:00	1	345	45	1	8	2	0	1	0	0	0	0	0	403
19:00	1	260	33	0	6	1	0	0	0	0	0	0	0	301
20:00	0	170	19	0	1	0	0	0	0	0	0	0	0	190
21:00	0	125	12	0	4	0	0	0	0	0	0	0	0	141
22:00	0	110	8	1	2	0	0	0	0	0	0	0	0	121
23:00	0	61	3	0	3	1	0	0	0	0	0	0	0	68
Total	27	5936	803	28	124	24	0	26	0	0	0	0	0	6968
Percent	0.4%	85.2%	11.5%	0.4%	1.8%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	06:00	11:00	07:00		08:00						07:00
Vol.	5	500	65	5	11	3		3						589
PM Peak	17:00	14:00	15:00	14:00	15:00	12:00		12:00						14:00
Vol.	5	406	59	2	10	4		4						472

Frederick Martin Sr. Parkway
north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

PRECISION DATA INDUSTRIES, LLC
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81676 H-D volume
Site Code: 10111.31

Start	SB				NB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	9		84		5		47		14		131		
12:15	5		82		7		41		12		123		
12:30	8		60		1		50		9		110		
12:45	4	26	62	288	3	16	53	191	7	42	115	479	
01:00	9		77		4		48		13		125		
01:15	6		69		4		41		10		110		
01:30	5		70		0		57		5		127		
01:45	3	23	73	289	4	12	47	193	7	35	120	482	
02:00	3		99		1		45		4		144		
02:15	2		99		5		56		7		155		
02:30	3		100		5		60		8		160		
02:45	2	10	92	390	5	16	55	216	7	26	147	606	
03:00	1		130		1		46		2		176		
03:15	4		126		5		47		9		173		
03:30	8		120		3		68		11		188		
03:45	5	18	120	496	3	12	62	223	8	30	182	719	
04:00	2		112		7		56		9		168		
04:15	2		109		3		43		5		152		
04:30	10		97		6		66		16		163		
04:45	7	21	133	451	8	24	59	224	15	45	192	675	
05:00	8		119		15		53		23		172		
05:15	11		106		20		43		31		149		
05:30	8		110		26		45		34		155		
05:45	22	49	112	447	30	91	45	186	52	140	157	633	
06:00	21		82		23		38		44		120		
06:15	27		78		35		31		62		109		
06:30	35		72		51		50		86		122		
06:45	44	127	69	301	58	167	32	151	102	294	101	452	
07:00	63		60		36		39		99		99		
07:15	60		54		44		28		104		82		
07:30	63		64		63		36		126		100		
07:45	75	261	59	237	70	213	23	126	145	474	82	363	
08:00	64		53		53		26		117		79		
08:15	84		35		63		28		147		63		
08:30	81		28		52		22		133		50		
08:45	77	306	37	153	58	226	22	98	135	532	59	251	
09:00	62		32		74		24		136		56		
09:15	67		25		57		17		124		42		
09:30	62		22		41		25		103		47		
09:45	96	287	23	102	39	211	17	83	135	498	40	185	
10:00	74		20		40		22		114		42		
10:15	64		21		57		7		121		28		
10:30	62		21		46		19		108		40		
10:45	66	266	17	79	50	193	14	62	116	459	31	141	
11:00	82		27		46		14		128		41		
11:15	86		19		45		14		131		33		
11:30	74		13		55		4		129		17		
11:45	81	323	10	69	43	189	5	37	124	512	15	106	
Total	1717		3302		1370		1790		3087		5092		
Percent	55.6%		64.8%		44.4%		35.2%						
Day Total		5019				3160				8179			
Peak	11:00		03:00		07:30		03:15		08:15		03:00		
Vol.	323		496		249		233		551		719		
P.H.F.	0.939		0.954		0.889		0.857		0.937		0.956		

Frederick Martin Sr. Parkway
north of Cohannet Street
City, State: Taunton, MA
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81676 H-D volume
Site Code: 10111.31

Start	SB				NB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		72		11		40		20		112		
12:15	9		52		9		58		18		110		
12:30	8		82		5		58		13		140		
12:45	8	34	77	283	7	32	61	217	15	66	138	500	
01:00	6		67		5		52		11		119		
01:15	7		62		7		36		14		98		
01:30	4		65		2		54		6		119		
01:45	7	24	81	275	2	16	38	180	9	40	119	455	
02:00	3		98		2		54		5		152		
02:15	2		96		1		42		3		138		
02:30	0		93		4		47		4		140		
02:45	5	10	109	396	6	13	93	236	11	23	202	632	
03:00	4		124		2		56		6		180		
03:15	5		123		2		59		7		182		
03:30	7		112		3		61		10		173		
03:45	6	22	111	470	4	11	68	244	10	33	179	714	
04:00	2		110		3		65		5		175		
04:15	2		95		2		53		4		148		
04:30	9		128		6		54		15		182		
04:45	9	22	125	458	17	28	39	211	26	50	164	669	
05:00	10		105		7		58		17		163		
05:15	11		118		24		55		35		173		
05:30	13		110		20		56		33		166		
05:45	24	58	111	444	25	76	43	212	49	134	154	656	
06:00	20		92		26		27		46		119		
06:15	19		71		31		48		50		119		
06:30	26		77		44		39		70		116		
06:45	46	111	68	308	36	137	53	167	82	248	121	475	
07:00	61		66		42		48		103		114		
07:15	60		66		44		36		104		102		
07:30	65		56		65		34		130		90		
07:45	75	261	62	250	65	216	43	161	140	477	105	411	
08:00	70		49		48		37		118		86		
08:15	85		42		44		30		129		72		
08:30	75		48		42		28		117		76		
08:45	64	294	35	174	65	199	20	115	129	493	55	289	
09:00	79		28		75		25		154		53		
09:15	66		22		48		34		114		56		
09:30	76		35		43		24		119		59		
09:45	100	321	30	115	41	207	18	101	141	528	48	216	
10:00	74		23		48		16		122		39		
10:15	59		22		39		16		98		38		
10:30	68		16		38		19		106		35		
10:45	67	268	15	76	41	166	21	72	108	434	36	148	
11:00	70		25		67		10		137		35		
11:15	74		16		54		12		128		28		
11:30	69		13		48		7		117		20		
11:45	74	287	15	69	44	213	13	42	118	500	28	111	
Total	1712		3318		1314		1958		3026		5276		
Percent	56.6%		62.9%		43.4%		37.1%						
Day Total		5030				3272				8302			
Peak	09:00		04:30		08:45		02:45		08:15		02:45		
Vol.	321		476		231		269		529		737		
P.H.F.	0.803		0.930		0.770		0.723		0.859		0.912		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Frederick Martin Sr. Parkway
north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	4	12	6	3	**1**	0	0	0	0	0	0	26	34	29
01:00	0	1	3	13	6	0	0	0	0	0	0	0	0	23	31	27
02:00	0	0	3	3	4	0	0	0	0	0	0	0	0	10	31	28
03:00	1	0	1	12	4	0	0	0	0	0	0	0	0	18	30	26
04:00	0	0	3	8	9	1	0	0	0	0	0	0	0	21	33	29
05:00	0	1	9	24	14	1	0	0	0	0	0	0	0	49	32	27
06:00	0	4	16	64	41	2	0	0	0	0	0	0	0	127	32	28
07:00	3	12	40	124	**74**	8	0	0	0	0	0	0	0	261	32	27
08:00	8	14	61	153	61	**9**	0	0	0	0	0	0	0	306	31	26
09:00	**24**	12	74	114	59	4	0	0	0	0	0	0	0	287	31	25
10:00	1	**19**	75	127	40	4	0	0	0	0	0	0	0	266	30	26
11:00	2	9	**86**	**173**	48	5	0	0	0	0	0	0	0	**323**	30	26
12 PM	5	**25**	57	133	64	3	1	0	0	0	0	0	0	288	31	26
13:00	3	12	63	131	66	**14**	0	0	0	0	0	0	0	289	32	27
14:00	9	19	80	201	76	5	0	0	0	0	0	0	0	390	31	26
15:00	**21**	18	**129**	**248**	76	4	0	0	0	0	0	0	0	**496**	30	25
16:00	12	19	99	219	**93**	9	0	0	0	0	0	0	0	451	31	26
17:00	7	25	112	213	81	9	0	0	0	0	0	0	0	447	31	26
18:00	1	4	39	167	82	7	1	0	0	0	0	0	0	301	32	28
19:00	0	11	54	126	41	3	**2**	0	0	0	0	0	0	237	31	26
20:00	0	2	22	90	35	4	0	0	0	0	0	0	0	153	32	28
21:00	0	1	7	58	34	2	0	0	0	0	0	0	0	102	32	28
22:00	0	0	6	42	26	5	0	0	0	0	0	0	0	79	33	29
23:00	0	0	11	32	22	2	2	0	0	0	0	0	0	69	33	28
Total	97	208	1054	2487	1062	104	7	0	0	0	0	0	0	5019		
%	1.9%	4.1%	21.0%	49.6%	21.2%	2.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	11:00	11:00	07:00	08:00	00:00							11:00		
Vol.	24	19	86	173	74	9	1							323		
PM Peak	15:00	12:00	15:00	15:00	16:00	13:00	19:00							15:00		
Vol.	21	25	129	248	93	14	2							496		

Pecent

15th Percentile :	22 MPH
50th Percentile :	27 MPH
85th Percentile :	31 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	3549
Percent in Pace :	70.7%
Number of Vehicles > 30 MPH :	960
Percent of Vehicles > 30 MPH :	19.1%
Mean Speed(Average) :	26 MPH

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north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-D speed
Site Code: 10111.31

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0																
8	0	0	6	18	8	2	0	0	0	0	0	0	0	34	32	28
01:00	0	0	3	9	12	0	0	0	0	0	0	0	0	24	32	29
02:00	0	0	0	7	2	1	0	0	0	0	0	0	0	10	30	28
03:00	0	0	1	17	3	1	0	0	0	0	0	0	0	22	30	28
04:00	0	0	8	8	5	0	**1**	0	0	0	0	0	0	22	32	27
05:00	0	2	19	18	19	0	0	0	0	0	0	0	0	58	32	27
06:00	0	0	17	57	34	2	1	0	0	0	0	0	0	111	32	28
07:00	2	5	44	140	60	**10**	0	0	0	0	0	0	0	261	32	27
08:00	5	11	74	135	**62**	6	1	0	0	0	0	0	0	294	31	26
09:00	**16**	**22**	**85**	140	49	9	0	0	0	0	0	0	0	**321**	30	25
10:00	2	19	81	124	41	1	0	0	0	0	0	0	0	268	30	25
11:00	1	14	74	**158**	39	1	0	0	0	0	0	0	0	287	29	26
12 PM	2	15	65	142	57	2	0	0	0	0	0	0	0	283	31	26
13:00	2	7	62	139	62	3	0	0	0	0	0	0	0	275	31	27
14:00	4	24	93	196	74	5	0	0	0	0	0	0	0	396	31	26
15:00	9	18	**130**	**217**	87	**8**	**1**	0	0	0	0	0	0	**470**	31	26
16:00	**14**	**44**	120	199	79	2	0	0	0	0	0	0	0	458	30	25
17:00	7	31	108	196	**94**	7	1	0	0	0	0	0	0	444	31	26
18:00	3	2	52	164	83	4	0	0	0	0	0	0	0	308	32	27
19:00	0	6	51	137	51	5	0	0	0	0	0	0	0	250	31	27
20:00	0	1	44	96	31	2	0	0	0	0	0	0	0	174	30	27
21:00	0	0	9	69	34	3	0	0	0	0	0	0	0	115	32	28
22:00	0	0	7	37	26	6	0	0	0	0	0	0	0	76	33	29
23:00	0	0	4	33	25	7	0	0	0	0	0	0	0	69	34	29
Total	67	221	1157	2456	1037	87	5	0	0	0	0	0	0	5030		
%	1.3%	4.4%	23.0%	48.8%	20.6%	1.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	09:00	11:00	08:00	07:00	04:00							09:00		
Vol.	16	22	85	158	62	10	1							321		
PM Peak	16:00	16:00	15:00	15:00	17:00	15:00	15:00							15:00		
Vol.	14	44	130	217	94	8	1							470		

Pecent

15th Percentile :	22 MPH
50th Percentile :	27 MPH
85th Percentile :	31 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	20-29 MPH
Number in Pace :	3613
Percent in Pace :	71.8%
Number of Vehicles > 30 MPH :	921
Percent of Vehicles > 30 MPH :	18.3%
Mean Speed(Average) :	26 MPH

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Frederick Martin Sr. Parkway
north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/23/0																
8	0	0	3	6	4	0	**2**	**1**	0	0	0	0	0	16	40	30
01:00	0	0	4	5	3	0	0	0	0	0	0	0	0	12	30	26
02:00	0	2	1	10	3	0	0	0	0	0	0	0	0	16	30	26
03:00	1	1	3	4	3	0	0	0	0	0	0	0	0	12	30	25
04:00	0	1	4	14	4	1	0	0	0	0	0	0	0	24	30	27
05:00	0	2	16	51	19	3	0	0	0	0	0	0	0	91	31	27
06:00	0	2	14	121	28	1	1	0	0	0	0	0	0	167	30	27
07:00	0	3	19	121	**63**	**7**	0	0	0	0	0	0	0	213	32	28
08:00	**2**	1	22	**132**	62	7	0	0	0	0	0	0	0	**226**	32	28
09:00	2	**15**	**64**	92	35	2	1	0	0	0	0	0	0	211	30	26
10:00	0	3	62	101	25	2	0	0	0	0	0	0	0	193	29	26
11:00	0	1	36	92	55	5	0	0	0	0	0	0	0	189	32	28
12 PM	**1**	**7**	36	101	42	4	0	0	0	0	0	0	0	191	31	27
13:00	1	2	43	104	38	5	0	0	0	0	0	0	0	193	31	27
14:00	0	5	**46**	112	48	5	0	0	0	0	0	0	0	216	32	27
15:00	1	0	41	**120**	52	**9**	0	0	0	0	0	0	0	223	32	28
16:00	0	2	45	117	**57**	3	0	0	0	0	0	0	0	**224**	32	27
17:00	0	0	21	105	55	5	0	0	0	0	0	0	0	186	32	28
18:00	0	4	24	79	38	6	0	0	0	0	0	0	0	151	32	28
19:00	0	5	26	72	19	3	**1**	0	0	0	0	0	0	126	30	27
20:00	0	1	15	48	28	6	0	0	0	0	0	0	0	98	33	28
21:00	0	1	13	44	24	1	0	0	0	0	0	0	0	83	32	28
22:00	1	1	10	39	9	0	1	0	**1**	0	0	0	0	62	30	27
23:00	0	1	4	22	10	0	0	0	0	0	0	0	0	37	31	28
Total	9	60	572	1712	724	75	6	1	1	0	0	0	0	3160		
%	0.3%	1.9%	18.1%	54.2%	22.9%	2.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	09:00	09:00	08:00	07:00	07:00	00:00	00:00						08:00		
Vol.	2	15	64	132	63	7	2	1						226		
PM Peak	12:00	12:00	14:00	15:00	16:00	15:00	19:00		22:00					16:00		
Vol.	1	7	46	120	57	9	1		1					224		

Pecent

15th Percentile :	23 MPH
50th Percentile :	27 MPH
85th Percentile :	32 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	2436
Percent in Pace :	77.1%
Number of Vehicles > 30 MPH :	662
Percent of Vehicles > 30 MPH :	20.9%
Mean Speed(Average) :	27 MPH

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Frederick Martin Sr. Parkway
north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-D speed
Site Code: 10111.31

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
09/24/0 8	0	0	6	19	6	1	0	0	0	0	0	0	0	32	30	27
01:00	0	0	1	10	5	0	0	0	0	0	0	0	0	16	32	28
02:00	0	1	2	7	3	0	0	0	0	0	0	0	0	13	30	27
03:00	0	0	3	2	6	0	0	0	0	0	0	0	0	11	32	28
04:00	0	1	6	16	5	0	0	0	0	0	0	0	0	28	30	27
05:00	0	5	18	35	18	0	0	0	0	0	0	0	0	76	31	26
06:00	0	0	19	78	38	2	0	0	0	0	0	0	0	137	32	28
07:00	0	3	14	**139**	50	**9**	**1**	0	0	0	0	0	0	**216**	32	28
08:00	0	2	29	112	**52**	4	0	0	0	0	0	0	0	199	32	28
09:00	0	5	47	106	43	6	0	0	0	0	0	0	0	207	31	27
10:00	**1**	7	46	77	31	4	0	0	0	0	0	0	0	166	31	26
11:00	1	**13**	**57**	120	21	1	0	0	0	0	0	0	0	213	29	26
12 PM	**1**	4	**45**	123	38	6	0	0	0	0	0	0	0	217	31	27
13:00	0	4	38	100	35	3	0	0	0	0	0	0	0	180	31	27
14:00	0	1	37	**143**	47	**8**	0	0	0	0	0	0	0	236	31	27
15:00	1	**8**	35	139	**59**	2	0	0	0	0	0	0	0	**244**	31	27
16:00	1	3	28	119	53	6	**1**	0	0	0	0	0	0	211	32	28
17:00	0	2	31	123	48	7	1	0	0	0	0	0	0	212	32	28
18:00	1	1	25	100	36	4	0	0	0	0	0	0	0	167	31	27
19:00	0	3	36	92	26	4	0	0	0	0	0	0	0	161	30	27
20:00	0	1	24	66	22	1	1	0	0	0	0	0	0	115	31	27
21:00	0	4	21	54	22	0	0	0	0	0	0	0	0	101	31	27
22:00	0	0	5	47	20	0	0	0	0	0	0	0	0	72	32	28
23:00	0	1	5	24	6	6	0	0	0	0	0	0	0	42	34	28
Total	6	69	578	1851	690	74	4	0	0	0	0	0	0	3272		
%	0.2%	2.1%	17.7%	56.6%	21.1%	2.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	11:00	07:00	08:00	07:00	07:00							07:00		
Vol.	1	13	57	139	52	9	1							216		
PM Peak	12:00	15:00	12:00	14:00	15:00	14:00	16:00							15:00		
Vol.	1	8	45	143	59	8	1							244		

Pecent

15th Percentile :	23 MPH
50th Percentile :	27 MPH
85th Percentile :	32 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	25-34 MPH
Number in Pace :	2541
Percent in Pace :	77.7%
Number of Vehicles > 30 MPH :	630
Percent of Vehicles > 30 MPH :	19.3%
Mean Speed(Average) :	27 MPH

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81676 H-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	23	3	0	0	0	0	0	0	0	0	0	0	26
01:00	0	22	1	0	0	0	0	0	0	0	0	0	0	23
02:00	0	7	2	0	1	0	0	0	0	0	0	0	0	10
03:00	0	13	5	0	0	0	0	0	0	0	0	0	0	18
04:00	0	17	4	0	0	0	0	0	0	0	0	0	0	21
05:00	0	39	7	1	1	1	0	0	0	0	0	0	0	49
06:00	3	85	32	2	4	0	0	0	1	0	0	0	0	127
07:00	2	194	34	14	13	1	0	2	1	0	0	0	0	261
08:00	1	227	55	5	11	2	0	2	3	0	0	0	0	306
09:00	0	223	40	4	13	3	0	2	2	0	0	0	0	287
10:00	0	210	36	3	7	3	0	3	4	0	0	0	0	266
11:00	1	252	51	3	8	3	0	3	2	0	0	0	0	323
12 PM	1	242	31	0	7	3	0	3	1	0	0	0	0	288
13:00	1	226	48	3	9	1	0	0	1	0	0	0	0	289
14:00	2	302	53	13	16	3	0	1	0	0	0	0	0	390
15:00	3	405	68	5	9	1	0	5	0	0	0	0	0	496
16:00	0	375	66	1	7	1	0	1	0	0	0	0	0	451
17:00	7	364	62	0	10	2	0	2	0	0	0	0	0	447
18:00	2	252	42	0	5	0	0	0	0	0	0	0	0	301
19:00	1	198	33	0	3	0	0	1	1	0	0	0	0	237
20:00	0	130	21	1	1	0	0	0	0	0	0	0	0	153
21:00	0	98	4	0	0	0	0	0	0	0	0	0	0	102
22:00	0	71	7	0	1	0	0	0	0	0	0	0	0	79
23:00	0	65	4	0	0	0	0	0	0	0	0	0	0	69
Total	24	4040	709	55	126	24	0	25	16	0	0	0	0	5019
Percent	0.5%	80.5%	14.1%	1.1%	2.5%	0.5%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	11:00	08:00	07:00	07:00	09:00		10:00	10:00					11:00
Vol.	3	252	55	14	13	3		3	4					323
PM Peak	17:00	15:00	15:00	14:00	14:00	12:00		15:00	12:00					15:00
Vol.	7	405	68	13	16	3		5	1					496

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north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-D class
Site Code: 10111.31

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	30	3	0	1	0	0	0	0	0	0	0	0	34
01:00	0	19	5	0	0	0	0	0	0	0	0	0	0	24
02:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	16	6	0	0	0	0	0	0	0	0	0	0	22
04:00	0	18	3	0	1	0	0	0	0	0	0	0	0	22
05:00	1	48	7	1	0	0	0	0	0	0	0	0	1	58
06:00	0	78	27	2	2	0	0	1	1	0	0	0	0	111
07:00	2	198	40	13	7	1	0	0	0	0	0	0	0	261
08:00	1	226	42	5	12	3	0	2	3	0	0	0	0	294
09:00	4	249	46	4	10	5	0	2	1	0	0	0	0	321
10:00	3	216	32	0	7	3	0	3	4	0	0	0	0	268
11:00	3	219	45	2	11	2	0	3	1	0	1	0	0	287
12 PM	0	229	41	0	7	4	0	1	1	0	0	0	0	283
13:00	2	221	35	3	10	1	0	2	1	0	0	0	0	275
14:00	3	317	48	12	11	1	0	3	0	1	0	0	0	396
15:00	3	385	62	6	9	4	1	0	0	0	0	0	0	470
16:00	4	369	68	1	8	5	0	2	0	1	0	0	0	458
17:00	5	369	56	0	11	1	0	2	0	0	0	0	0	444
18:00	5	256	43	1	3	0	0	0	0	0	0	0	0	308
19:00	2	211	31	0	4	1	0	1	0	0	0	0	0	250
20:00	4	143	23	0	1	0	0	1	2	0	0	0	0	174
21:00	0	100	14	0	1	0	0	0	0	0	0	0	0	115
22:00	0	71	4	0	1	0	0	0	0	0	0	0	0	76
23:00	1	60	8	0	0	0	0	0	0	0	0	0	0	69
Total	43	4057	690	50	117	31	1	23	14	2	1	0	1	5030
Percent	0.9%	80.7%	13.7%	1.0%	2.3%	0.6%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	09:00	09:00	07:00	08:00	09:00		10:00	10:00		11:00		05:00	09:00
Vol.	4	249	46	13	12	5		3	4		1		1	321
PM Peak	17:00	15:00	16:00	14:00	14:00	16:00	15:00	14:00	20:00	14:00				15:00
Vol.	5	385	68	12	11	5	1	3	2	1				470

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Frederick Martin Sr. Parkway
north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	1	11	3	0	0	1	0	0	0	0	0	0	0	16
01:00	0	10	2	0	0	0	0	0	0	0	0	0	0	12
02:00	0	11	3	1	0	1	0	0	0	0	0	0	0	16
03:00	3	4	4	0	0	1	0	0	0	0	0	0	0	12
04:00	3	16	5	0	0	0	0	0	0	0	0	0	0	24
05:00	2	62	18	0	4	5	0	0	0	0	0	0	0	91
06:00	12	118	32	1	1	2	0	1	0	0	0	0	0	167
07:00	4	169	31	4	3	2	0	0	0	0	0	0	0	213
08:00	10	179	30	3	2	2	0	0	0	0	0	0	0	226
09:00	6	160	34	5	1	4	0	1	0	0	0	0	0	211
10:00	5	162	20	0	3	2	0	0	1	0	0	0	0	193
11:00	4	147	28	0	8	1	0	1	0	0	0	0	0	189
12 PM	2	162	22	0	3	0	1	0	1	0	0	0	0	191
13:00	4	156	26	1	2	1	1	1	0	0	0	1	0	193
14:00	7	168	35	1	2	3	0	0	0	0	0	0	0	216
15:00	3	176	35	3	4	1	0	1	0	0	0	0	0	223
16:00	8	177	32	3	2	2	0	0	0	0	0	0	0	224
17:00	5	161	19	0	0	1	0	0	0	0	0	0	0	186
18:00	4	127	17	0	1	1	0	1	0	0	0	0	0	151
19:00	4	105	15	0	0	2	0	0	0	0	0	0	0	126
20:00	2	89	7	0	0	0	0	0	0	0	0	0	0	98
21:00	1	73	8	0	1	0	0	0	0	0	0	0	0	83
22:00	3	53	5	0	0	0	0	1	0	0	0	0	0	62
23:00	1	34	2	0	0	0	0	0	0	0	0	0	0	37
Total	94	2530	433	22	37	32	2	7	2	0	0	1	0	3160
Percent	3.0%	80.1%	13.7%	0.7%	1.2%	1.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	09:00	09:00	11:00	05:00		06:00	10:00					08:00
Vol.	12	179	34	5	8	5		1	1					226
PM Peak	16:00	16:00	14:00	15:00	15:00	14:00	12:00	13:00	12:00			13:00		16:00
Vol.	8	177	35	3	4	3	1	1	1			1		224

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Frederick Martin Sr. Parkway
north of Cohannet Street
City, State: Taunton, MA
Client: VHB/J. Quitter

81676 H-D class
Site Code: 10111.31

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	28	4	0	0	0	0	0	0	0	0	0	0	32
01:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
02:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
03:00	0	8	3	0	0	0	0	0	0	0	0	0	0	11
04:00	0	21	7	0	0	0	0	0	0	0	0	0	0	28
05:00	4	51	16	0	2	3	0	0	0	0	0	0	0	76
06:00	5	108	20	0	1	2	0	0	1	0	0	0	0	137
07:00	10	169	20	6	5	3	0	2	1	0	0	0	0	216
08:00	6	153	35	2	1	1	0	1	0	0	0	0	0	199
09:00	8	161	28	3	4	2	0	0	1	0	0	0	0	207
10:00	6	142	12	0	3	2	0	1	0	0	0	0	0	166
11:00	2	178	23	1	4	5	0	0	0	0	0	0	0	213
12 PM	3	183	22	0	6	1	0	1	0	0	0	0	1	217
13:00	2	152	20	1	2	2	0	1	0	0	0	0	0	180
14:00	6	194	24	2	7	3	0	0	0	0	0	0	0	236
15:00	5	187	38	2	8	2	2	0	0	0	0	0	0	244
16:00	8	166	30	3	2	2	0	0	0	0	0	0	0	211
17:00	5	187	17	2	1	0	0	0	0	0	0	0	0	212
18:00	5	133	25	0	1	3	0	0	0	0	0	0	0	167
19:00	2	131	24	0	3	0	0	1	0	0	0	0	0	161
20:00	1	94	11	0	7	2	0	0	0	0	0	0	0	115
21:00	3	76	19	0	0	3	0	0	0	0	0	0	0	101
22:00	2	61	6	0	1	2	0	0	0	0	0	0	0	72
23:00	2	32	8	0	0	0	0	0	0	0	0	0	0	42
Total	85	2640	415	22	59	38	2	7	3	0	0	0	1	3272
Percent	2.6%	80.7%	12.7%	0.7%	1.8%	1.2%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	08:00	07:00	07:00	11:00		07:00	06:00					07:00
Vol.	10	178	35	6	5	5		2	1					216
PM Peak	16:00	14:00	15:00	16:00	15:00	14:00	15:00	12:00					12:00	15:00
Vol.	8	194	38	3	8	3	2	1					1	244

PRECISION DATA INDUSTRIES, LLC

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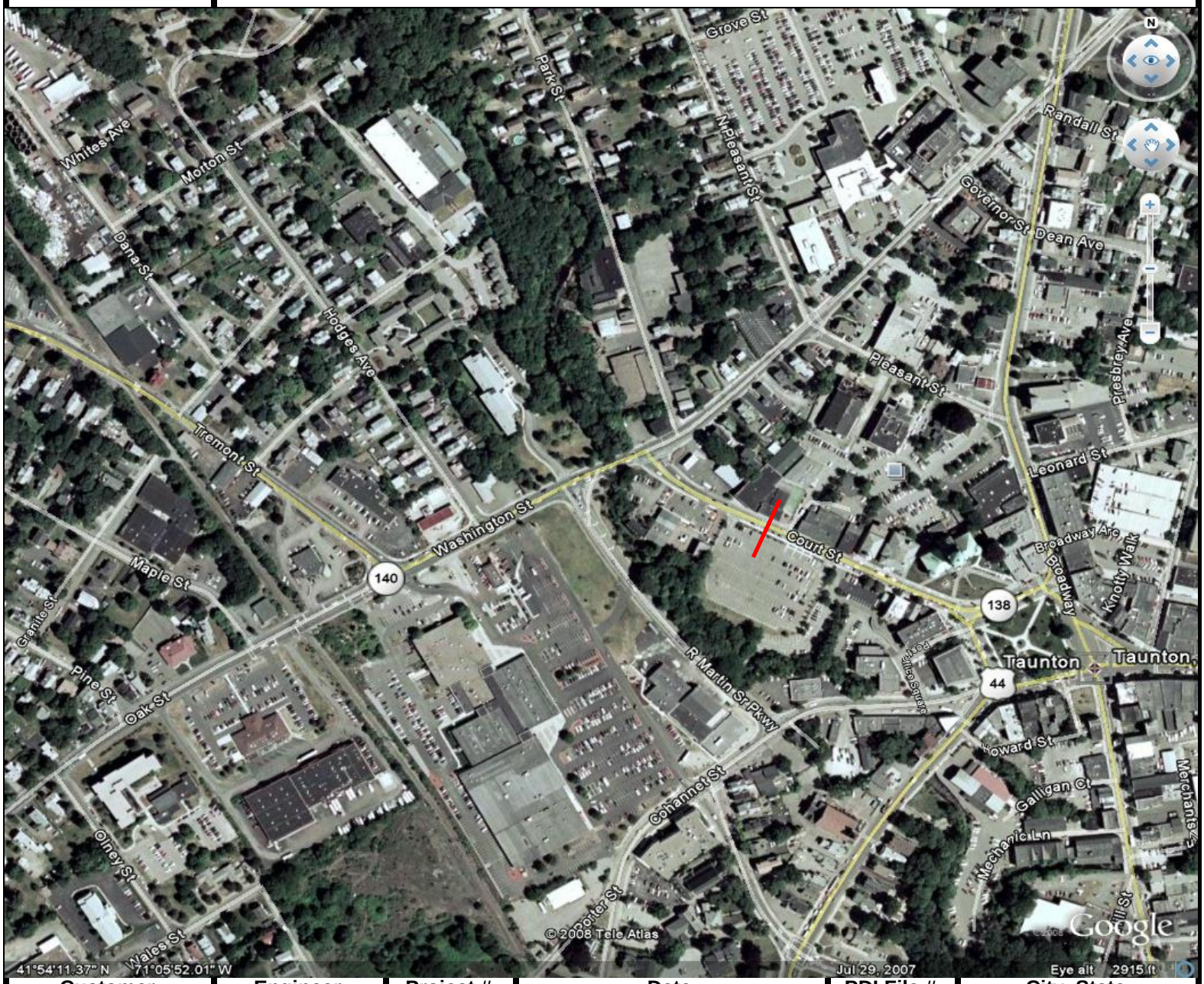
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	M. Pompili	TBA	Tues 9/23/08 thru Wed 9/24/08	81705	Taunton, MA

Court Street (Route 140)
south of Washington Street
City, State: Taunton, MA
Client: VHB/M. Pompili

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81705 BB volume
Site Code: TBA

Start	NB				SB				Combined				23-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	12		84		4		43		16		127		
12:15	24		77		6		52		30		129		
12:30	8		67		8		39		16		106		
12:45	4	48	80	308	2	20	42	176	6	68	122	484	
01:00	10		65		1		48		11		113		
01:15	2		64		3		61		5		125		
01:30	5		65		2		57		7		122		
01:45	5	22	66	260	2	8	56	222	7	30	122	482	
02:00	3		81		0		63		3		144		
02:15	3		86		4		71		7		157		
02:30	2		89		0		56		2		145		
02:45	3	11	96	352	1	5	70	260	4	16	166	612	
03:00	1		86		3		69		4		155		
03:15	6		79		3		69		9		148		
03:30	3		91		4		51		7		142		
03:45	6	16	78	334	4	14	66	255	10	30	144	589	
04:00	4		90		4		54		8		144		
04:15	2		87		6		56		8		143		
04:30	9		95		10		48		19		143		
04:45	3	18	78	350	11	31	60	218	14	49	138	568	
05:00	11		83		16		72		27		155		
05:15	5		106		11		70		16		176		
05:30	18		81		12		60		30		141		
05:45	23	57	80	350	32	71	78	280	55	128	158	630	
06:00	21		68		30		80		51		148		
06:15	38		74		25		62		63		136		
06:30	55		73		34		44		89		117		
06:45	63	177	91	306	48	137	55	241	111	314	146	547	
07:00	75		77		55		43		130		120		
07:15	74		93		80		47		154		140		
07:30	66		74		65		59		131		133		
07:45	89	304	73	317	71	271	42	191	160	575	115	508	
08:00	96		76		84		35		180		111		
08:15	61		72		61		40		122		112		
08:30	31		56		78		22		109		78		
08:45	88	276	46	250	73	296	33	130	161	572	79	380	
09:00	74		45		71		26		145		71		
09:15	76		48		68		21		144		69		
09:30	69		33		65		19		134		52		
09:45	68	287	30	156	68	272	24	90	136	559	54	246	
10:00	76		29		70		19		146		48		
10:15	67		36		61		15		128		51		
10:30	74		26		55		13		129		39		
10:45	84	301	26	117	43	229	8	55	127	530	34	172	
11:00	74		23		59		5		133		28		
11:15	75		19		56		24		131		43		
11:30	79		21		58		14		137		35		
11:45	73	301	11	74	55	228	5	48	128	529	16	122	
Total	1818		3174		1582		2166		3400		5340		
Percent	53.5%		59.4%		46.5%		40.6%						
Day Total		4992				3748				8740			
Peak	07:15		04:30		07:15		05:15		07:15		05:00		
Vol.	325		362		300		288		625		630		
P.H.F.	0.846		0.854		0.893		0.900		0.868		0.895		

Court Street (Route 140)
south of Washington Street
City, State: Taunton, MA
Client: VHB/M. Pompili

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81705 BB volume
Site Code: TBA

Start	NB				SB				Combined				24-Sep-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	16		86		5		56		21		142		
12:15	9		79		8		51		17		130		
12:30	14		87		5		51		19		138		
12:45	7	46	89	341	4	22	49	207	11	68	138	548	
01:00	9		75		1		64		10		139		
01:15	7		76		4		44		11		120		
01:30	4		74		1		55		5		129		
01:45	3	23	87	312	5	11	56	219	8	34	143	531	
02:00	4		83		4		53		8		136		
02:15	2		69		1		54		3		123		
02:30	3		80		1		68		4		148		
02:45	2	11	88	320	4	10	69	244	6	21	157	564	
03:00	3		68		1		54		4		122		
03:15	7		92		2		82		9		174		
03:30	5		85		2		57		7		142		
03:45	6	21	87	332	7	12	52	245	13	33	139	577	
04:00	2		85		2		59		4		144		
04:15	7		95		3		69		10		164		
04:30	6		82		9		58		15		140		
04:45	7	22	88	350	7	21	61	247	14	43	149	597	
05:00	7		87		8		47		15		134		
05:15	4		86		18		62		22		148		
05:30	19		92		13		73		32		165		
05:45	27	57	74	339	27	66	64	246	54	123	138	585	
06:00	27		95		28		61		55		156		
06:15	24		79		34		71		58		150		
06:30	53		69		29		55		82		124		
06:45	56	160	89	332	47	138	65	252	103	298	154	584	
07:00	73		89		63		55		136		144		
07:15	72		94		73		52		145		146		
07:30	102		80		72		43		174		123		
07:45	87	334	71	334	58	266	64	214	145	600	135	548	
08:00	94		61		73		41		167		102		
08:15	88		61		61		48		149		109		
08:30	69		37		64		39		133		76		
08:45	67	318	50	209	74	272	27	155	141	590	77	364	
09:00	83		49		70		27		153		76		
09:15	83		55		64		28		147		83		
09:30	81		58		52		22		133		80		
09:45	61	308	38	200	64	250	19	96	125	558	57	296	
10:00	85		32		49		20		134		52		
10:15	65		46		59		14		124		60		
10:30	87		29		43		13		130		42		
10:45	89	326	31	138	61	212	17	64	150	538	48	202	
11:00	75		24		60		14		135		38		
11:15	79		18		56		18		135		36		
11:30	67		19		55		16		122		35		
11:45	90	311	8	69	43	214	8	56	133	525	16	125	
Total	1937		3276		1494		2245		3431		5521		
Percent	56.5%		59.3%		43.5%		40.7%						
Day Total		5213				3739				8952			
Peak	07:30		04:45		07:15		02:30		07:30		05:30		
Vol.	371		353		276		273		635		609		
P.H.F.	0.909		0.929		0.945		0.832		0.912		0.923		

PRECISION
D A T A
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Court Street (Route 140)
south of Washington Street
City, State: Taunton, MA
Client: VHB/M. Pompili

81705 BB class
Site Code: TBA

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	36	11	0	1	0	0	0	0	0	0	0	0	48
01:00	0	19	3	0	0	0	0	0	0	0	0	0	0	22
02:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
03:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16
04:00	0	12	6	0	0	0	0	0	0	0	0	0	0	18
05:00	0	36	13	0	4	2	0	2	0	0	0	0	0	57
06:00	2	123	43	0	3	3	0	2	1	0	0	0	0	177
07:00	1	231	48	6	11	4	0	1	2	0	0	0	0	304
08:00	0	212	38	4	11	5	3	0	3	0	0	0	0	276
09:00	2	201	54	9	13	5	1	1	1	0	0	0	0	287
10:00	0	243	37	2	9	4	2	2	2	0	0	0	0	301
11:00	0	226	48	2	19	3	0	2	1	0	0	0	0	301
12 PM	2	229	56	1	15	2	0	3	0	0	0	0	0	308
13:00	2	204	41	0	8	2	0	2	1	0	0	0	0	260
14:00	4	259	66	2	12	5	0	3	1	0	0	0	0	352
15:00	2	257	62	0	9	2	0	2	0	0	0	0	0	334
16:00	2	288	47	4	6	1	0	0	2	0	0	0	0	350
17:00	4	288	48	2	6	1	0	0	0	0	0	0	1	350
18:00	2	260	31	1	8	2	0	1	0	0	0	0	0	305
19:00	2	261	48	3	3	0	0	1	0	0	0	0	0	318
20:00	2	213	32	0	2	0	0	1	0	0	0	0	0	250
21:00	0	136	19	0	1	0	0	0	0	0	0	0	0	156
22:00	0	103	13	0	1	0	0	0	0	0	0	0	0	117
23:00	0	69	4	0	1	0	0	0	0	0	0	0	0	74
Total	27	3930	771	36	143	41	6	23	14	0	0	0	1	4992
Percent	0.5%	78.7%	15.4%	0.7%	2.9%	0.8%	0.1%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	10:00	09:00	09:00	11:00	08:00	08:00	05:00	08:00					07:00
Vol.	2	243	54	9	19	5	3	2	3					304
PM Peak	14:00	16:00	14:00	16:00	12:00	14:00		12:00	16:00				17:00	14:00
Vol.	4	288	66	4	15	5		3	2				1	352

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Court Street (Route 140)
south of Washington Street
City, State: Taunton, MA
Client: VHB/M. Pompili

81705 BB class
Site Code: TBA

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	40	6	0	0	0	0	0	0	0	0	0	0	46
01:00	0	18	5	0	0	0	0	0	0	0	0	0	0	23
02:00	0	7	3	0	1	0	0	0	0	0	0	0	0	11
03:00	0	16	5	0	0	0	0	0	0	0	0	0	0	21
04:00	0	15	2	0	4	0	0	0	1	0	0	0	0	22
05:00	1	37	16	0	3	0	0	0	0	0	0	0	0	57
06:00	3	120	28	1	2	4	0	2	0	0	0	0	0	160
07:00	2	248	50	4	14	5	0	4	6	0	0	1	0	334
08:00	1	252	44	3	10	3	1	1	2	0	0	1	0	318
09:00	1	232	50	8	11	3	1	1	1	0	0	0	0	308
10:00	0	245	55	2	13	1	3	4	3	0	0	0	0	326
11:00	1	241	49	1	15	1	1	0	2	0	0	0	0	311
12 PM	0	260	60	0	11	4	0	4	2	0	0	0	0	341
13:00	3	249	42	4	10	2	0	1	0	1	0	0	0	312
14:00	4	248	50	2	11	4	0	1	0	0	0	0	0	320
15:00	6	263	49	0	7	4	0	3	0	0	0	0	0	332
16:00	5	293	40	1	6	3	0	2	0	0	0	0	0	350
17:00	6	287	29	3	10	1	0	2	1	0	0	0	0	339
18:00	2	285	34	0	7	2	0	1	0	0	0	0	1	332
19:00	2	284	39	0	6	0	0	2	1	0	0	0	0	334
20:00	1	169	34	1	2	1	0	1	0	0	0	0	0	209
21:00	1	168	29	1	1	0	0	0	0	0	0	0	0	200
22:00	0	123	14	0	1	0	0	0	0	0	0	0	0	138
23:00	0	63	5	0	1	0	0	0	0	0	0	0	0	69
Total	39	4163	738	31	146	38	6	29	19	1	0	2	1	5213
Percent	0.7%	79.9%	14.2%	0.6%	2.8%	0.7%	0.1%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	10:00	09:00	11:00	07:00	10:00	07:00	07:00			07:00		07:00
Vol.	3	252	55	8	15	5	3	4	6			1		334
PM Peak	15:00	16:00	12:00	13:00	12:00	12:00		12:00	12:00	13:00			18:00	16:00
Vol.	6	293	60	4	11	4		4	2	1			1	350

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Court Street (Route 140)
south of Washington Street
City, State: Taunton, MA
Client: VHB/M. Pompili

81705 BB class
Site Code: TBA

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/23/0														
8	0	19	1	0	0	0	0	0	0	0	0	0	0	20
01:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
03:00	1	8	4	0	1	0	0	0	0	0	0	0	0	14
04:00	0	23	8	0	0	0	0	0	0	0	0	0	0	31
05:00	0	49	15	3	3	0	0	1	0	0	0	0	0	71
06:00	1	101	25	4	3	1	0	2	0	0	0	0	0	137
07:00	1	237	25	4	1	2	0	0	1	0	0	0	0	271
08:00	1	249	33	1	8	2	0	1	1	0	0	0	0	296
09:00	3	221	40	0	4	1	0	2	1	0	0	0	0	272
10:00	0	205	17	0	6	1	0	0	0	0	0	0	0	229
11:00	4	192	25	2	3	1	0	1	0	0	0	0	0	228
12 PM	0	143	23	0	4	1	0	2	2	0	1	0	0	176
13:00	0	185	26	2	3	5	0	1	0	0	0	0	0	222
14:00	5	214	37	3	1	0	0	0	0	0	0	0	0	260
15:00	1	213	36	0	3	1	0	0	1	0	0	0	0	255
16:00	2	199	16	0	1	0	0	0	0	0	0	0	0	218
17:00	6	244	28	0	1	1	0	0	0	0	0	0	0	280
18:00	5	205	30	0	1	0	0	0	0	0	0	0	0	241
19:00	2	162	23	0	4	0	0	0	0	0	0	0	0	191
20:00	1	112	13	0	4	0	0	0	0	0	0	0	0	130
21:00	0	78	9	0	3	0	0	0	0	0	0	0	0	90
22:00	0	51	3	0	0	0	0	1	0	0	0	0	0	55
23:00	0	45	3	0	0	0	0	0	0	0	0	0	0	48
Total	33	3168	440	19	54	16	0	11	6	0	1	0	0	3748
Percent	0.9%	84.5%	11.7%	0.5%	1.4%	0.4%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	09:00	06:00	08:00	07:00		06:00	07:00					08:00
Vol.	4	249	40	4	8	2		2	1					296
PM Peak	17:00	17:00	14:00	14:00	12:00	13:00		12:00	12:00		12:00			17:00
Vol.	6	244	37	3	4	5		2	2		1			280

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Court Street (Route 140)
south of Washington Street
City, State: Taunton, MA
Client: VHB/M. Pompili

81705 BB class
Site Code: TBA

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/24/0														
8	0	22	0	0	0	0	0	0	0	0	0	0	0	22
01:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
02:00	0	9	0	0	0	0	0	0	1	0	0	0	0	10
03:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12
04:00	0	14	5	0	1	0	0	1	0	0	0	0	0	21
05:00	0	50	11	0	2	0	0	2	1	0	0	0	0	66
06:00	0	102	24	3	3	2	0	3	1	0	0	0	0	138
07:00	1	230	26	4	2	2	0	1	0	0	0	0	0	266
08:00	3	229	32	0	5	2	0	1	0	0	0	0	0	272
09:00	6	210	26	1	5	1	0	1	0	0	0	0	0	250
10:00	3	166	31	0	9	1	0	0	2	0	0	0	0	212
11:00	1	171	33	2	7	0	0	0	0	0	0	0	0	214
12 PM	1	182	18	0	5	1	0	0	0	0	0	0	0	207
13:00	1	190	21	2	2	2	0	1	0	0	0	0	0	219
14:00	3	210	25	3	2	1	0	0	0	0	0	0	0	244
15:00	1	219	21	1	1	1	0	1	0	0	0	0	0	245
16:00	7	216	22	0	1	1	0	0	0	0	0	0	0	247
17:00	1	219	21	0	4	0	0	1	0	0	0	0	0	246
18:00	3	229	18	0	2	0	0	0	0	0	0	0	0	252
19:00	0	184	26	0	4	0	0	0	0	0	0	0	0	214
20:00	3	134	17	0	1	0	0	0	0	0	0	0	0	155
21:00	0	82	14	0	0	0	0	0	0	0	0	0	0	96
22:00	0	60	4	0	0	0	0	0	0	0	0	0	0	64
23:00	0	49	5	0	2	0	0	0	0	0	0	0	0	56
Total	34	3194	405	16	59	14	0	12	5	0	0	0	0	3739
Percent	0.9%	85.4%	10.8%	0.4%	1.6%	0.4%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	11:00	07:00	10:00	06:00		06:00	10:00					08:00
Vol.	6	230	33	4	9	2		3	2					272
PM Peak	16:00	18:00	19:00	14:00	12:00	13:00		13:00						18:00
Vol.	7	229	26	3	5	2		1						252

PRECISION DATA INDUSTRIES, LLC

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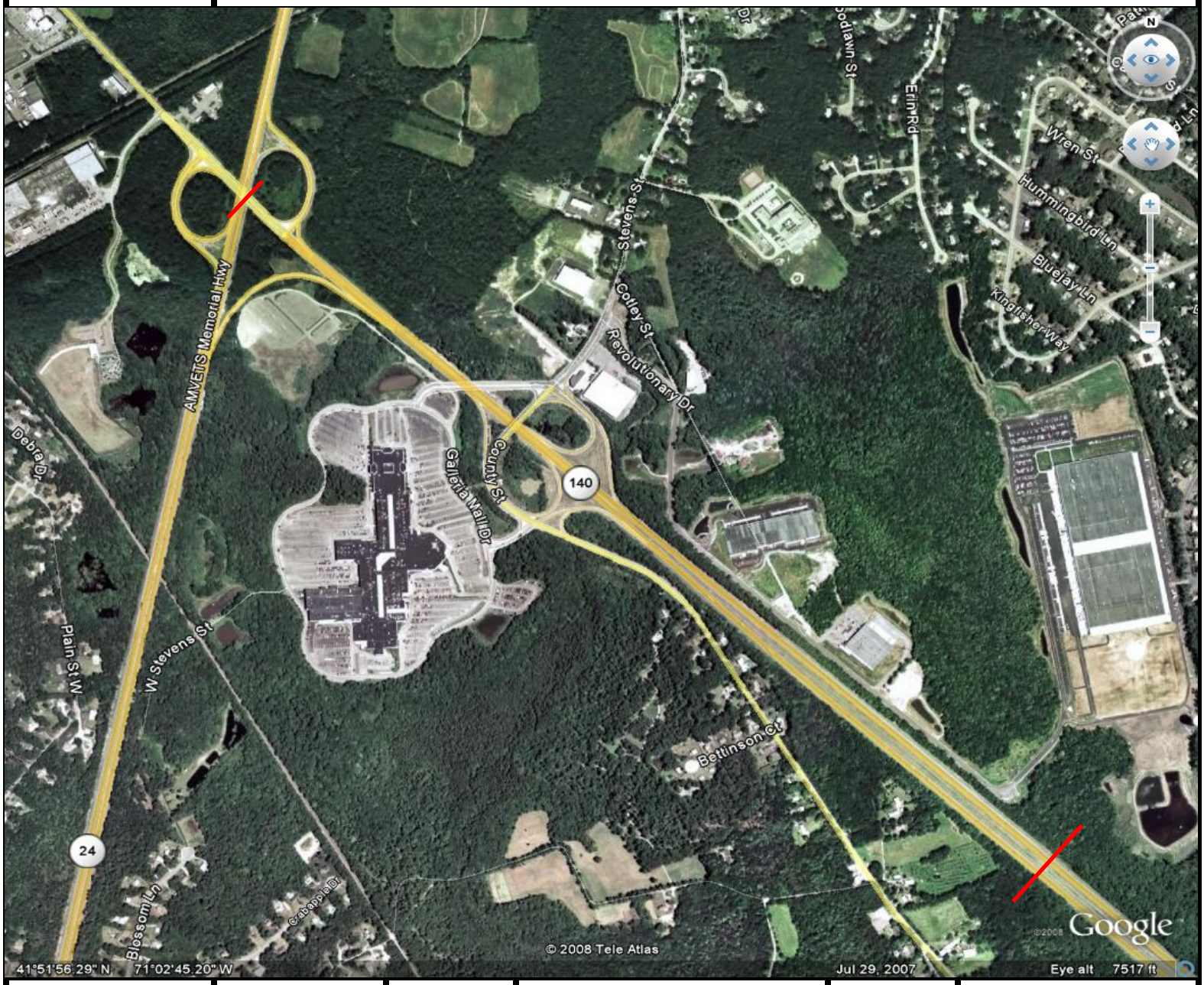
Traffic Counts with Precision



Customer:	Engineer:	Project #:	Date:	PDI File #:	City, State:
VHB	R. Raveendran	10111.31	Wed 10/15/08 thru Thur 10/16/08	81676	Taunton, MA

Route 140 EB lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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81676 G-A volume
Site Code: 10111.31

Start	EB RL				EB LL				Combined				15-Oct-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	45		167		25		111		70		278		
12:15	40		202		18		132		58		334		
12:30	36		188		19		136		55		324		
12:45	13	134	196	753	12	74	148	527	25	208	344	1280	
01:00	25		215		12		155		37		370		
01:15	22		187		5		142		27		329		
01:30	17		176		5		133		22		309		
01:45	19	83	207	785	6	28	160	590	25	111	367	1375	
02:00	20		209		16		154		36		363		
02:15	15		205		14		180		29		385		
02:30	13		234		4		185		17		419		
02:45	5	53	218	866	9	43	201	720	14	96	419	1586	
03:00	9		241		4		186		13		427		
03:15	8		243		5		213		13		456		
03:30	10		283		5		202		15		485		
03:45	15	42	295	1062	4	18	253	854	19	60	548	1916	
04:00	17		318		7		275		24		593		
04:15	27		310		6		265		33		575		
04:30	33		290		18		289		51		579		
04:45	50	127	293	1211	27	58	254	1083	77	185	547	2294	
05:00	33		294		24		244		57		538		
05:15	49		270		42		263		91		533		
05:30	53		251		61		223		114		474		
05:45	61	196	278	1093	56	183	248	978	117	379	526	2071	
06:00	69		272		70		239		139		511		
06:15	86		240		70		194		156		434		
06:30	107		229		89		182		196		411		
06:45	121	383	215	956	119	348	158	773	240	731	373	1729	
07:00	129		199		121		121		250		320		
07:15	137		163		146		124		283		287		
07:30	163		162		154		131		317		293		
07:45	151	580	126	650	159	580	109	485	310	1160	235	1135	
08:00	130		123		140		105		270		228		
08:15	143		143		145		83		288		226		
08:30	129		103		118		84		247		187		
08:45	135	537	111	480	130	533	79	351	265	1070	190	831	
09:00	142		101		87		80		229		181		
09:15	153		89		99		58		252		147		
09:30	134		96		112		90		246		186		
09:45	151	580	56	342	101	399	43	271	252	979	99	613	
10:00	155		60		121		41		276		101		
10:15	156		53		99		49		255		102		
10:30	180		45		115		47		295		92		
10:45	164	655	50	208	104	439	45	182	268	1094	95	390	
11:00	146		38		133		20		279		58		
11:15	150		41		119		33		269		74		
11:30	167		54		121		28		288		82		
11:45	179	642	40	173	127	500	27	108	306	1142	67	281	
Total	4012		8579		3203		6922		7215		15501		
Percent	55.6%		55.3%		44.4%		44.7%						
Day Total		12591				10125				22716			
Peak	10:00		03:45		07:15		04:00		07:30		03:45		
Vol.	655		1213		599		1083		1185		2295		
P.H.F.	0.910		0.954		0.942		0.937		0.935		0.968		

Route 140 EB lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

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81676 G-A volume
Site Code: 10111.31

Start	EB RL				EB LL				Combined				16-Oct-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	39		201		19		124		58		325		
12:15	42		170		25		133		67		303		
12:30	31		200		22		135		53		335		
12:45	22	134	194	765	8	74	154	546	30	208	348	1311	
01:00	20		204		19		117		39		321		
01:15	17		190		4		148		21		338		
01:30	19		181		8		135		27		316		
01:45	14	70	193	768	4	35	159	559	18	105	352	1327	
02:00	19		170		12		148		31		318		
02:15	11		212		8		189		19		401		
02:30	13		236		6		192		19		428		
02:45	12	55	236	854	5	31	214	743	17	86	450	1597	
03:00	9		257		2		209		11		466		
03:15	9		255		2		224		11		479		
03:30	11		276		7		236		18		512		
03:45	19	48	294	1082	13	24	231	900	32	72	525	1982	
04:00	10		311		9		277		19		588		
04:15	20		323		9		263		29		586		
04:30	39		314		17		257		56		571		
04:45	41	110	305	1253	18	53	287	1084	59	163	592	2337	
05:00	27		280		24		233		51		513		
05:15	41		284		43		244		84		528		
05:30	51		296		51		243		102		539		
05:45	61	180	245	1105	61	179	218	938	122	359	463	2043	
06:00	74		222		72		216		146		438		
06:15	80		252		71		201		151		453		
06:30	96		206		111		193		207		399		
06:45	109	359	215	895	120	374	151	761	229	733	366	1656	
07:00	118		191		128		128		246		319		
07:15	145		184		152		149		297		333		
07:30	165		149		156		112		321		261		
07:45	147	575	132	656	171	607	93	482	318	1182	225	1138	
08:00	149		137		143		90		292		227		
08:15	147		122		127		113		274		235		
08:30	144		108		125		79		269		187		
08:45	141	581	100	467	121	516	88	370	262	1097	188	837	
09:00	139		85		97		94		236		179		
09:15	130		87		112		74		242		161		
09:30	141		81		101		60		242		141		
09:45	158	568	67	320	108	418	53	281	266	986	120	601	
10:00	143		64		100		51		243		115		
10:15	147		55		79		55		226		110		
10:30	159		67		103		38		262		105		
10:45	156	605	46	232	129	411	32	176	285	1016	78	408	
11:00	152		62		133		31		285		93		
11:15	179		51		105		43		284		94		
11:30	171		49		112		30		283		79		
11:45	191	693	37	199	119	469	33	137	310	1162	70	336	
Total	3978		8596		3191		6977		7169		15573		
Percent	55.5%		55.2%		44.5%		44.8%						
Day Total		12574				10168				22742			
Peak	11:00		04:00		07:15		04:00		07:15		04:00		
Vol.	693		1253		622		1084		1228		2337		
P.H.F.	0.907		0.970		0.909		0.944		0.956		0.987		

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Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A speed
Site Code: 10111.31

EB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	2	1	14	47	49	10	7	2	1	0	**1**	0	134	40	35
01:00	0	1	3	12	33	25	4	5	0	0	0	0	0	83	39	34
02:00	0	2	6	7	17	11	10	0	0	0	0	0	0	53	40	33
03:00	0	0	3	5	11	14	4	2	3	0	0	0	0	42	42	35
04:00	0	0	8	14	34	36	21	9	4	1	0	0	0	127	43	36
05:00	0	0	11	28	60	53	26	16	1	0	**1**	0	0	196	42	35
06:00	0	8	19	47	139	106	42	17	5	0	0	0	0	383	40	34
07:00	0	1	14	81	202	**199**	54	**24**	4	1	0	0	0	580	39	34
08:00	0	8	27	76	159	165	69	24	**7**	**2**	0	0	0	537	41	34
09:00	0	0	35	69	193	188	74	16	5	0	0	0	0	580	40	34
10:00	0	2	38	95	**256**	193	50	13	6	2	0	0	0	**655**	39	33
11:00	0	**13**	**46**	**102**	207	161	**86**	24	2	0	0	0	0	641	40	33
12 PM	0	**9**	27	88	279	262	68	15	**5**	**1**	0	0	0	754	39	34
13:00	0	5	**36**	112	295	221	87	**26**	1	1	0	0	0	784	39	34
14:00	0	2	31	105	330	292	**88**	17	1	1	0	0	0	867	39	34
15:00	0	7	32	**126**	484	332	59	16	5	0	0	0	0	1061	38	33
16:00	0	0	21	111	**606**	390	69	14	1	0	0	0	0	**1212**	38	34
17:00	0	0	11	91	443	**464**	71	9	3	0	0	0	0	1092	39	34
18:00	0	5	30	102	424	312	71	10	2	0	0	0	0	956	39	34
19:00	0	0	11	56	298	201	66	17	1	0	**1**	0	0	651	39	34
20:00	0	0	7	47	217	141	51	11	5	1	0	0	0	480	39	34
21:00	0	0	3	44	125	129	32	6	1	1	1	0	0	342	39	35
22:00	0	1	2	16	83	68	25	8	5	0	0	0	0	208	41	35
23:00	0	3	4	18	75	46	22	2	2	0	1	0	0	173	40	34
Total	0	69	426	1466	5017	4058	1159	308	71	12	4	1	0	12591		
%	0.0%	0.5%	3.4%	11.6%	39.8%	32.2%	9.2%	2.4%	0.6%	0.1%	0.0%	0.0%	0.0%			
AM Peak		11:00	11:00	11:00	10:00	07:00	11:00	07:00	08:00	08:00	05:00	00:00		10:00		
Vol.		13	46	102	256	199	86	24	7	2	1	1		655		
PM Peak		12:00	13:00	15:00	16:00	17:00	14:00	13:00	12:00	12:00	19:00			16:00		
Vol.		9	36	126	606	464	88	26	5	1	1			1212		

Pecent

15th Percentile :	29 MPH
50th Percentile :	34 MPH
85th Percentile :	39 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	9075
Percent in Pace :	72.1%
Number of Vehicles > 35 MPH :	4801
Percent of Vehicles > 35 MPH :	38.1%
Mean Speed(Average) :	34 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A speed
Site Code: 10111.31

EB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	1	18	48	45	14	3	3	1	1	0	0	134	40	35
01:00	0	1	0	12	31	14	6	4	1	1	0	0	0	70	40	34
02:00	0	0	1	3	16	24	3	6	2	0	0	0	0	55	44	37
03:00	0	0	5	8	13	9	9	3	1	0	0	0	0	48	42	34
04:00	0	0	5	8	35	39	12	6	4	1	0	0	0	110	41	36
05:00	0	1	10	17	63	45	26	12	5	1	0	0	0	180	43	35
06:00	0	4	28	45	120	97	47	15	2	1	0	0	0	359	41	34
07:00	**1**	**10**	28	81	199	174	60	18	4	0	0	0	0	575	39	34
08:00	0	7	14	60	225	191	52	**20**	**8**	1	**3**	0	0	581	39	35
09:00	0	2	25	93	213	164	49	18	4	0	0	0	0	568	39	34
10:00	0	2	31	80	188	197	**86**	16	3	1	0	0	0	604	40	34
11:00	0	0	**40**	**100**	**249**	**210**	69	17	6	**2**	0	0	0	**693**	39	34
12 PM	0	5	**51**	**164**	278	205	54	9	0	0	0	0	0	766	38	32
13:00	0	2	21	102	274	285	64	15	4	0	0	0	0	767	39	34
14:00	1	**9**	48	115	348	253	61	19	1	0	0	0	0	855	39	33
15:00	0	2	39	130	521	323	47	13	6	**1**	0	0	0	1082	38	33
16:00	0	1	19	119	**574**	**465**	63	10	1	0	0	0	0	**1252**	38	34
17:00	**2**	4	19	102	487	410	**67**	10	5	0	0	0	0	1106	38	34
18:00	0	1	21	102	405	289	57	16	3	1	0	0	0	895	38	34
19:00	0	1	4	61	276	220	58	**28**	**7**	0	**1**	0	0	656	39	35
20:00	0	0	6	47	168	166	66	9	4	0	0	0	0	466	40	35
21:00	0	0	3	43	110	108	37	17	3	0	0	0	0	321	41	35
22:00	0	0	3	18	105	68	26	8	4	0	0	0	0	232	40	35
23:00	0	2	3	21	73	64	23	7	4	1	0	**1**	0	199	41	35
Total	4	54	425	1549	5019	4065	1056	299	85	12	5	1	0	12574		
%	0.0%	0.4%	3.4%	12.3%	39.9%	32.3%	8.4%	2.4%	0.7%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	11:00	11:00	11:00	11:00	10:00	08:00	08:00	11:00	08:00			11:00		
Vol.	1	10	40	100	249	210	86	20	8	2	3			693		
PM Peak	17:00	14:00	12:00	12:00	16:00	16:00	17:00	19:00	19:00	15:00	19:00	23:00		16:00		
Vol.	2	9	51	164	574	465	67	28	7	1	1	1		1252		

Pecent

15th Percentile :	29 MPH
50th Percentile :	34 MPH
85th Percentile :	39 MPH
95th Percentile :	43 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	9084
Percent in Pace :	72.2%
Number of Vehicles > 35 MPH :	4710
Percent of Vehicles > 35 MPH :	37.5%
Mean Speed(Average) :	34 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A speed
Site Code: 10111.31

EB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	1	14	25	26	4	2	2	0	0	0	74	44	39
01:00	0	0	0	0	2	9	10	5	1	0	0	0	**1**	28	47	42
02:00	0	0	0	0	4	14	11	6	6	2	0	0	0	43	50	42
03:00	0	0	0	0	2	7	3	4	2	0	0	0	0	18	47	41
04:00	0	0	2	0	9	17	14	7	7	2	0	0	0	58	49	40
05:00	0	0	0	6	49	67	43	14	4	0	0	0	0	183	43	38
06:00	0	**3**	**14**	24	60	120	90	28	7	2	0	0	0	348	44	37
07:00	0	0	6	23	**136**	**210**	**158**	**39**	5	2	**1**	0	0	**580**	43	38
08:00	0	0	5	33	114	188	144	39	**8**	2	0	0	0	533	43	38
09:00	0	0	6	14	86	154	104	28	4	3	0	0	0	399	43	38
10:00	0	0	5	**34**	86	142	135	32	5	0	0	0	0	439	43	38
11:00	0	0	5	26	98	183	141	33	8	**4**	0	**1**	0	499	43	38
12 PM	0	2	14	33	97	192	146	34	9	0	**1**	0	0	528	43	37
13:00	0	1	21	38	135	209	139	37	8	0	1	0	0	589	43	37
14:00	0	2	10	22	170	274	192	41	8	2	0	0	0	721	43	37
15:00	0	1	**24**	34	130	360	242	**59**	4	0	0	0	0	854	43	38
16:00	0	0	17	**63**	**194**	**422**	319	57	11	0	0	0	0	**1083**	43	37
17:00	0	0	1	31	156	384	**342**	52	11	1	0	0	0	978	43	38
18:00	0	0	4	21	159	287	240	49	**13**	0	0	0	0	773	43	38
19:00	0	**5**	1	11	62	213	141	44	5	**3**	0	0	0	485	44	39
20:00	0	0	1	14	52	132	102	37	12	0	0	**1**	0	351	44	39
21:00	0	0	4	8	57	109	63	22	6	0	1	0	0	270	43	38
22:00	0	0	0	3	23	73	51	20	10	2	1	0	0	183	46	40
23:00	0	0	0	5	13	31	32	14	10	3	0	0	0	108	48	41
Total	0	14	140	444	1908	3822	2888	705	166	30	5	2	1	10125		
%	0.0%	0.1%	1.4%	4.4%	18.8%	37.7%	28.5%	7.0%	1.6%	0.3%	0.0%	0.0%	0.0%			
AM Peak		06:00	06:00	10:00	07:00	07:00	07:00	07:00	08:00	11:00	07:00	11:00	01:00	07:00		
Vol.		3	14	34	136	210	158	39	8	4	1	1	1	580		
PM Peak		19:00	15:00	16:00	16:00	16:00	17:00	15:00	18:00	19:00	12:00	20:00		16:00		
Vol.		5	24	63	194	422	342	59	13	3	1	1		1083		

Pecent

15th Percentile :	32 MPH
50th Percentile :	38 MPH
85th Percentile :	43 MPH
95th Percentile :	47 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6710
Percent in Pace :	66.3%
Number of Vehicles > 35 MPH :	6854
Percent of Vehicles > 35 MPH :	67.7%
Mean Speed(Average) :	38 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A speed
Site Code: 10111.31

EB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	1	10	23	24	12	1	**3**	0	0	0	74	46	40
01:00	0	0	0	1	5	9	12	7	1	0	0	0	0	35	46	40
02:00	0	2	0	1	5	7	10	3	2	1	0	0	0	31	45	39
03:00	0	0	0	0	1	8	6	6	3	0	0	0	0	24	48	42
04:00	0	0	0	2	3	15	15	10	8	0	0	0	0	53	49	42
05:00	0	1	3	10	38	64	41	16	6	0	0	0	0	179	44	38
06:00	0	0	2	28	98	125	94	15	**10**	2	0	0	0	374	43	37
07:00	0	**7**	**22**	**36**	**125**	**209**	**162**	**36**	10	0	0	0	0	**607**	43	37
08:00	0	0	11	29	106	197	131	31	7	3	**1**	0	0	516	43	37
09:00	0	0	3	25	102	151	100	29	7	1	0	0	0	418	43	37
10:00	0	0	2	26	99	150	102	25	6	0	1	0	0	411	43	37
11:00	0	0	2	24	94	195	113	32	7	2	0	0	0	469	43	38
12 PM	**2**	**10**	9	46	127	193	120	34	5	0	0	0	0	546	43	36
13:00	0	1	11	39	123	223	127	27	7	1	0	0	0	559	43	37
14:00	0	0	17	**62**	142	281	184	46	**11**	0	0	0	0	743	43	37
15:00	0	3	3	47	167	376	247	46	7	**4**	0	0	0	900	43	38
16:00	0	6	**18**	26	**183**	**435**	348	59	9	0	0	0	0	**1084**	43	38
17:00	0	0	4	20	119	352	**357**	**78**	7	1	0	0	0	938	44	39
18:00	0	0	8	46	123	310	220	50	2	2	0	0	0	761	43	38
19:00	0	0	1	17	74	174	154	54	6	1	0	**1**	0	482	44	39
20:00	0	0	0	11	58	142	121	27	5	4	**1**	1	0	370	44	39
21:00	0	0	0	3	39	100	102	30	7	0	0	0	0	281	44	39
22:00	0	2	0	1	19	56	65	26	4	3	0	0	0	176	46	40
23:00	0	0	0	3	12	47	43	18	10	1	1	0	**2**	137	47	41
Total	2	32	116	504	1872	3842	2898	717	148	29	4	2	2	10168		
%	0.0%	0.3%	1.1%	5.0%	18.4%	37.8%	28.5%	7.1%	1.5%	0.3%	0.0%	0.0%	0.0%			
AM Peak		07:00	07:00	07:00	07:00	07:00	07:00	07:00	06:00	00:00	08:00			07:00		
Vol.		7	22	36	125	209	162	36	10	3	1			607		
PM Peak	12:00	12:00	16:00	14:00	16:00	16:00	17:00	17:00	14:00	15:00	20:00	19:00	23:00	16:00		
Vol.	2	10	18	62	183	435	357	78	11	4	1	1	2	1084		

Pecent

15th Percentile :	32 MPH
50th Percentile :	38 MPH
85th Percentile :	43 MPH
95th Percentile :	47 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6740
Percent in Pace :	66.3%
Number of Vehicles > 35 MPH :	6873
Percent of Vehicles > 35 MPH :	67.6%
Mean Speed(Average) :	38 MPH

PRECISION DATA INDUSTRIES, LLC
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Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A speed
Site Code: 10111.31

EB RL, EB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	2	1	15	61	74	36	11	4	3	0	**1**	0	208	43	37
01:00	0	1	3	12	35	34	14	10	1	0	0	0	**1**	111	42	36
02:00	0	2	6	7	21	25	21	6	6	2	0	0	0	96	44	37
03:00	0	0	3	5	13	21	7	6	5	0	0	0	0	60	45	37
04:00	0	0	10	14	43	53	35	16	11	3	0	0	0	185	45	37
05:00	0	0	11	34	109	120	69	30	5	0	**1**	0	0	379	43	36
06:00	0	11	33	71	199	226	132	45	12	2	0	0	0	731	43	36
07:00	0	1	20	104	338	**409**	212	**63**	9	3	1	0	0	**1160**	42	36
08:00	0	8	32	109	273	353	213	63	**15**	**4**	0	0	0	1070	43	36
09:00	0	0	41	83	279	342	178	44	9	3	0	0	0	979	42	36
10:00	0	2	43	**129**	**342**	335	185	45	11	2	0	0	0	1094	42	35
11:00	0	**13**	**51**	128	305	344	**227**	57	10	4	0	1	0	1140	42	35
12 PM	0	**11**	41	121	376	454	214	49	14	1	1	0	0	1282	42	35
13:00	0	6	**57**	150	430	430	226	63	9	1	1	0	0	1373	42	35
14:00	0	4	41	127	500	566	280	58	9	**3**	0	0	0	1588	41	36
15:00	0	8	56	160	614	692	301	**75**	9	0	0	0	0	1915	41	35
16:00	0	0	38	**174**	**800**	812	388	71	12	0	0	0	0	**2295**	41	35
17:00	0	0	12	122	599	**848**	**413**	61	14	1	0	0	0	2070	42	36
18:00	0	5	34	123	583	599	311	59	15	0	0	0	0	1729	42	36
19:00	0	5	12	67	360	414	207	61	6	3	1	0	0	1136	42	36
20:00	0	0	8	61	269	273	153	48	**17**	1	0	**1**	0	831	43	36
21:00	0	0	7	52	182	238	95	28	7	1	**2**	0	0	612	42	36
22:00	0	1	2	19	106	141	76	28	15	2	1	0	0	391	44	37
23:00	0	3	4	23	88	77	54	16	12	3	1	0	0	281	43	37
Total	0	83	566	1910	6925	7880	4047	1013	237	42	9	3	1	22716		
%	0.0%	0.4%	2.5%	8.4%	30.5%	34.7%	17.8%	4.5%	1.0%	0.2%	0.0%	0.0%	0.0%			
AM Peak		11:00	11:00	10:00	10:00	07:00	11:00	07:00	08:00	08:00	05:00	00:00	01:00	07:00		
Vol.		13	51	129	342	409	227	63	15	4	1	1	1	1160		
PM Peak		12:00	13:00	16:00	16:00	17:00	17:00	15:00	20:00	14:00	21:00	20:00		16:00		
Vol.		11	57	174	800	848	413	75	17	3	2	1		2295		

Pecent

15th Percentile :	30 MPH
50th Percentile :	36 MPH
85th Percentile :	42 MPH
95th Percentile :	45 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	14805
Percent in Pace :	65.2%
Number of Vehicles > 35 MPH :	11656
Percent of Vehicles > 35 MPH :	51.3%
Mean Speed(Average) :	36 MPH

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Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A speed
Site Code: 10111.31

EB RL, EB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	1	19	58	68	38	15	4	**4**	1	0	0	208	43	37
01:00	0	1	0	13	36	23	18	11	2	1	0	0	0	105	44	36
02:00	0	2	1	4	21	31	13	9	4	1	0	0	0	86	45	37
03:00	0	0	5	8	14	17	15	9	4	0	0	0	0	72	45	37
04:00	0	0	5	10	38	54	27	16	12	1	0	0	0	163	46	38
05:00	0	2	13	27	101	109	67	28	11	1	0	0	0	359	43	36
06:00	0	4	30	73	218	222	141	30	12	3	0	0	0	733	42	35
07:00	**1**	**17**	**50**	117	324	383	**222**	**54**	14	0	0	0	0	**1182**	42	35
08:00	0	7	25	89	331	388	183	51	**15**	4	**4**	0	0	1097	42	36
09:00	0	2	28	118	315	315	149	47	11	1	0	0	0	986	41	35
10:00	0	2	33	106	287	347	188	41	9	1	1	0	0	1015	42	36
11:00	0	0	42	**124**	**343**	**405**	182	49	13	4	0	0	0	1162	41	35
12 PM	**2**	**15**	60	**210**	405	398	174	43	5	0	0	0	0	1312	40	34
13:00	0	3	32	141	397	508	191	42	11	1	0	0	0	1326	41	35
14:00	1	9	**65**	177	490	534	245	65	12	0	0	0	0	1598	41	35
15:00	0	5	42	177	688	699	294	59	13	**5**	0	0	0	1982	41	35
16:00	0	7	37	145	**757**	**900**	411	69	10	0	0	0	0	**2336**	41	36
17:00	2	4	23	122	606	762	**424**	**88**	12	1	0	0	0	2044	42	36
18:00	0	1	29	148	528	599	277	66	5	3	0	0	0	1656	41	36
19:00	0	1	5	78	350	394	212	82	13	1	**1**	**1**	0	1138	43	37
20:00	0	0	6	58	226	308	187	36	9	4	1	1	0	836	42	37
21:00	0	0	3	46	149	208	139	47	10	0	0	0	0	602	43	37
22:00	0	2	3	19	124	124	91	34	8	3	0	0	0	408	44	37
23:00	0	2	3	24	85	111	66	25	**14**	2	1	1	**2**	336	44	38
Total	6	86	541	2053	6891	7907	3954	1016	233	41	9	3	2	22742		
%	0.0%	0.4%	2.4%	9.0%	30.3%	34.8%	17.4%	4.5%	1.0%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	11:00	11:00	11:00	07:00	07:00	08:00	00:00	08:00			07:00		
Vol.	1	17	50	124	343	405	222	54	15	4	4			1182		
PM Peak	12:00	12:00	14:00	12:00	16:00	16:00	17:00	17:00	23:00	15:00	19:00	19:00	23:00	16:00		
Vol.	2	15	65	210	757	900	424	88	14	5	1	1	2	2336		

Pecent		
	15th Percentile :	30 MPH
	50th Percentile :	36 MPH
	85th Percentile :	42 MPH
	95th Percentile :	45 MPH

Stats		
	10 MPH Pace Speed :	30-39 MPH
	Number in Pace :	14798
	Percent in Pace :	65.1%
	Number of Vehicles > 35 MPH :	11583
	Percent of Vehicles > 35 MPH :	50.9%
	Mean Speed(Average) :	36 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A class
Site Code: 10111.31

EB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	1	115	10	0	3	1	0	3	0	1	0	0	0	134
01:00	0	66	6	1	3	1	0	0	3	2	1	0	0	83
02:00	3	34	8	2	1	1	0	2	2	0	0	0	0	53
03:00	0	31	8	0	1	0	0	0	2	0	0	0	0	42
04:00	2	90	19	1	4	2	0	4	4	1	0	0	0	127
05:00	3	125	42	0	5	4	0	9	8	0	0	0	0	196
06:00	2	263	60	5	16	5	1	9	20	2	0	0	0	383
07:00	2	414	81	11	24	12	2	12	20	1	0	0	1	580
08:00	3	391	72	10	21	9	2	6	21	0	0	0	2	537
09:00	2	424	84	12	20	8	0	2	27	1	0	0	0	580
10:00	9	453	98	17	28	10	1	12	26	1	0	0	0	655
11:00	3	444	94	15	22	19	1	7	36	0	0	0	0	641
12 PM	4	568	101	15	27	8	2	7	18	2	0	0	2	754
13:00	7	575	89	24	33	13	1	19	22	0	0	1	0	784
14:00	4	639	116	20	41	16	1	12	15	2	0	0	1	867
15:00	2	771	180	12	50	14	1	14	15	1	1	0	0	1061
16:00	6	900	197	14	55	4	1	23	10	2	0	0	0	1212
17:00	4	880	143	9	30	3	0	11	11	0	0	0	1	1092
18:00	4	794	104	8	23	6	0	6	8	0	0	0	3	956
19:00	2	551	71	4	13	0	0	2	7	0	1	0	0	651
20:00	1	408	54	1	7	3	0	3	3	0	0	0	0	480
21:00	1	294	38	4	5	0	0	0	0	0	0	0	0	342
22:00	1	177	25	1	1	2	0	0	1	0	0	0	0	208
23:00	1	146	19	1	2	0	0	0	4	0	0	0	0	173
Total	67	9553	1719	187	435	141	13	163	283	16	3	1	10	12591
Percent	0.5%	75.9%	13.7%	1.5%	3.5%	1.1%	0.1%	1.3%	2.2%	0.1%	0.0%	0.0%	0.1%	
AM Peak	10:00	10:00	10:00	10:00	10:00	11:00	07:00	07:00	11:00	01:00	01:00		08:00	10:00
Vol.	9	453	98	17	28	19	2	12	36	2	1		2	655
PM Peak	13:00	16:00	16:00	13:00	16:00	14:00	12:00	16:00	13:00	12:00	15:00	13:00	18:00	16:00
Vol.	7	900	197	24	55	16	2	23	22	2	1	1	3	1212

PRECISION
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Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A class
Site Code: 10111.31

EB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	110	17	3	1	1	0	2	0	0	0	0	0	134
01:00	0	57	9	0	1	0	0	1	1	0	1	0	0	70
02:00	0	41	10	1	1	1	0	0	1	0	0	0	0	55
03:00	1	30	9	0	4	1	0	1	2	0	0	0	0	48
04:00	2	77	21	1	5	1	0	0	3	0	0	0	0	110
05:00	2	122	30	4	7	1	0	5	8	1	0	0	0	180
06:00	3	227	64	6	21	8	1	9	19	1	0	0	0	359
07:00	5	400	68	17	26	9	0	21	29	0	0	0	0	575
08:00	2	418	76	15	27	12	0	8	23	0	0	0	0	581
09:00	1	411	72	13	23	5	0	4	36	2	0	0	1	568
10:00	3	429	93	6	19	10	0	10	33	1	0	0	0	604
11:00	4	489	101	21	25	11	1	15	22	2	0	2	0	693
12 PM	4	545	101	19	30	15	0	12	37	0	0	1	2	766
13:00	0	570	97	16	38	9	0	13	22	1	0	0	1	767
14:00	3	625	118	29	37	9	0	16	13	1	1	1	2	855
15:00	0	812	159	16	48	13	0	14	19	1	0	0	0	1082
16:00	2	964	197	10	50	6	1	14	8	0	0	0	0	1252
17:00	5	909	123	10	33	3	0	15	7	1	0	0	0	1106
18:00	0	752	100	11	20	1	0	6	5	0	0	0	0	895
19:00	1	550	83	4	10	3	0	2	2	0	0	0	1	656
20:00	2	416	34	0	6	1	0	3	4	0	0	0	0	466
21:00	0	285	28	1	2	0	0	1	4	0	0	0	0	321
22:00	0	199	25	1	3	1	0	1	2	0	0	0	0	232
23:00	1	166	23	2	2	0	0	0	2	3	0	0	0	199
Total	41	9604	1658	206	439	121	3	173	302	14	2	4	7	12574
Percent	0.3%	76.4%	13.2%	1.6%	3.5%	1.0%	0.0%	1.4%	2.4%	0.1%	0.0%	0.0%	0.1%	
AM Peak	07:00	11:00	11:00	11:00	08:00	08:00	06:00	07:00	09:00	09:00	01:00	11:00	09:00	11:00
Vol.	5	489	101	21	27	12	1	21	36	2	1	2	1	693
PM Peak	17:00	16:00	16:00	14:00	16:00	12:00	16:00	14:00	12:00	23:00	14:00	12:00	12:00	16:00
Vol.	5	964	197	29	50	15	1	16	37	3	1	1	2	1252

PRECISION
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Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A class
Site Code: 10111.31

EB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	60	13	0	1	0	0	0	0	0	0	0	0	74
01:00	0	23	2	0	3	0	0	0	0	0	0	0	0	28
02:00	0	40	3	0	0	0	0	0	0	0	0	0	0	43
03:00	0	14	2	0	1	0	0	0	1	0	0	0	0	18
04:00	1	37	16	0	2	1	0	1	0	0	0	0	0	58
05:00	1	125	40	3	11	0	0	3	0	0	0	0	0	183
06:00	1	232	79	4	16	5	0	5	6	0	0	0	0	348
07:00	0	457	91	4	19	3	1	3	2	0	0	0	0	580
08:00	2	425	74	2	17	2	1	1	9	0	0	0	0	533
09:00	2	273	90	7	14	3	1	2	7	0	0	0	0	399
10:00	2	300	85	3	28	6	1	7	7	0	0	0	0	439
11:00	2	370	86	8	20	5	0	3	5	0	0	0	0	499
12 PM	3	384	100	6	16	6	1	5	6	1	0	0	0	528
13:00	1	458	93	2	18	1	1	5	8	0	0	0	2	589
14:00	2	526	153	5	20	2	1	6	3	2	0	1	0	721
15:00	3	607	196	4	31	3	0	6	4	0	0	0	0	854
16:00	4	806	212	1	47	2	0	8	3	0	0	0	0	1083
17:00	6	806	136	3	20	1	0	6	0	0	0	0	0	978
18:00	4	641	107	1	13	1	0	4	2	0	0	0	0	773
19:00	3	392	82	2	3	1	0	1	1	0	0	0	0	485
20:00	2	294	42	1	8	0	0	1	3	0	0	0	0	351
21:00	1	227	32	3	6	0	0	0	1	0	0	0	0	270
22:00	1	150	24	1	4	0	0	1	2	0	0	0	0	183
23:00	0	97	9	0	0	0	0	0	2	0	0	0	0	108
Total	41	7744	1767	60	318	42	7	68	72	3	0	1	2	10125
Percent	0.4%	76.5%	17.5%	0.6%	3.1%	0.4%	0.1%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	11:00	10:00	10:00	07:00	10:00	08:00					07:00
Vol.	2	457	91	8	28	6	1	7	9					580
PM Peak	17:00	16:00	16:00	12:00	16:00	12:00	12:00	16:00	13:00	14:00		14:00	13:00	16:00
Vol.	6	806	212	6	47	6	1	8	8	2		1	2	1083

PRECISION
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Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-A class
Site Code: 10111.31

EB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	62	11	0	0	1	0	0	0	0	0	0	0	74
01:00	1	29	3	0	2	0	0	0	0	0	0	0	0	35
02:00	1	23	5	0	1	1	0	0	0	0	0	0	0	31
03:00	1	20	2	0	1	0	0	0	0	0	0	0	0	24
04:00	0	38	13	0	1	0	0	0	1	0	0	0	0	53
05:00	0	112	52	2	10	1	0	1	1	0	0	0	0	179
06:00	0	255	87	4	18	3	0	4	3	0	0	0	0	374
07:00	2	485	90	1	18	3	0	3	5	0	0	0	0	607
08:00	1	398	74	7	20	2	0	6	8	0	0	0	0	516
09:00	1	296	86	5	17	0	0	5	8	0	0	0	0	418
10:00	0	297	83	5	11	4	0	5	6	0	0	0	0	411
11:00	1	331	98	9	14	6	0	6	4	0	0	0	0	469
12 PM	1	376	121	6	21	6	1	6	8	0	0	0	0	546
13:00	2	427	94	3	17	5	0	6	4	0	0	0	1	559
14:00	4	543	148	4	23	2	0	12	7	0	0	0	0	743
15:00	2	648	202	3	31	5	0	6	2	1	0	0	0	900
16:00	3	784	237	2	42	2	0	10	3	1	0	0	0	1084
17:00	2	763	137	0	31	1	0	4	0	0	0	0	0	938
18:00	0	624	120	0	9	1	0	5	2	0	0	0	0	761
19:00	1	400	70	2	8	0	0	1	0	0	0	0	0	482
20:00	0	295	68	0	4	0	0	0	3	0	0	0	0	370
21:00	0	243	32	1	5	0	0	0	0	0	0	0	0	281
22:00	1	149	23	1	1	0	0	0	1	0	0	0	0	176
23:00	0	126	11	0	0	0	0	0	0	0	0	0	0	137
Total	24	7724	1867	55	305	43	1	80	66	2	0	0	1	10168
Percent	0.2%	76.0%	18.4%	0.5%	3.0%	0.4%	0.0%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	11:00	11:00	08:00	11:00		08:00	08:00					07:00
Vol.	2	485	98	9	20	6		6	8					607
PM Peak	14:00	16:00	16:00	12:00	16:00	12:00	12:00	14:00	12:00	15:00			13:00	16:00
Vol.	4	784	237	6	42	6	1	12	8	1			1	1084

Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 G-A class
Site Code: 10111.31

EB RL, EB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	1	175	23	0	4	1	0	3	0	1	0	0	0	208
01:00	0	89	8	1	6	1	0	0	3	2	1	0	0	111
02:00	3	74	11	2	1	1	0	2	2	0	0	0	0	96
03:00	0	45	10	0	2	0	0	0	3	0	0	0	0	60
04:00	3	127	35	1	6	3	0	5	4	1	0	0	0	185
05:00	4	250	82	3	16	4	0	12	8	0	0	0	0	379
06:00	3	495	139	9	32	10	1	14	26	2	0	0	0	731
07:00	2	871	172	15	43	15	3	15	22	1	0	0	1	1160
08:00	5	816	146	12	38	11	3	7	30	0	0	0	2	1070
09:00	4	697	174	19	34	11	1	4	34	1	0	0	0	979
10:00	11	753	183	20	56	16	2	19	33	1	0	0	0	1094
11:00	5	814	180	23	42	24	1	10	41	0	0	0	0	1140
12 PM	7	952	201	21	43	14	3	12	24	3	0	0	2	1282
13:00	8	1033	182	26	51	14	2	24	30	0	0	1	2	1373
14:00	6	1165	269	25	61	18	2	18	18	4	0	1	1	1588
15:00	5	1378	376	16	81	17	1	20	19	1	1	0	0	1915
16:00	10	1706	409	15	102	6	1	31	13	2	0	0	0	2295
17:00	10	1686	279	12	50	4	0	17	11	0	0	0	1	2070
18:00	8	1435	211	9	36	7	0	10	10	0	0	0	3	1729
19:00	5	943	153	6	16	1	0	3	8	0	1	0	0	1136
20:00	3	702	96	2	15	3	0	4	6	0	0	0	0	831
21:00	2	521	70	7	11	0	0	0	1	0	0	0	0	612
22:00	2	327	49	2	5	2	0	1	3	0	0	0	0	391
23:00	1	243	28	1	2	0	0	0	6	0	0	0	0	281
Total	108	17297	3486	247	753	183	20	231	355	19	3	2	12	22716
Percent	0.5%	76.1%	15.3%	1.1%	3.3%	0.8%	0.1%	1.0%	1.6%	0.1%	0.0%	0.0%	0.1%	
AM Peak	10:00	07:00	10:00	11:00	10:00	11:00	07:00	10:00	11:00	01:00	01:00		08:00	07:00
Vol.	11	871	183	23	56	24	3	19	41	2	1		2	1160
PM Peak	16:00	16:00	16:00	13:00	16:00	14:00	12:00	16:00	13:00	14:00	15:00	13:00	18:00	16:00
Vol.	10	1706	409	26	102	18	3	31	30	4	1	1	3	2295

Route 140 EB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

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81676 G-A class
Site Code: 10111.31

EB RL, EB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	172	28	3	1	2	0	2	0	0	0	0	0	208
01:00	1	86	12	0	3	0	0	1	1	0	1	0	0	105
02:00	1	64	15	1	2	2	0	0	1	0	0	0	0	86
03:00	2	50	11	0	5	1	0	1	2	0	0	0	0	72
04:00	2	115	34	1	6	1	0	0	4	0	0	0	0	163
05:00	2	234	82	6	17	2	0	6	9	1	0	0	0	359
06:00	3	482	151	10	39	11	1	13	22	1	0	0	0	733
07:00	7	885	158	18	44	12	0	24	34	0	0	0	0	1182
08:00	3	816	150	22	47	14	0	14	31	0	0	0	0	1097
09:00	2	707	158	18	40	5	0	9	44	2	0	0	1	986
10:00	3	726	176	11	30	14	0	15	39	1	0	0	0	1015
11:00	5	820	199	30	39	17	1	21	26	2	0	2	0	1162
12 PM	5	921	222	25	51	21	1	18	45	0	0	1	2	1312
13:00	2	997	191	19	55	14	0	19	26	1	0	0	2	1326
14:00	7	1168	266	33	60	11	0	28	20	1	1	1	2	1598
15:00	2	1460	361	19	79	18	0	20	21	2	0	0	0	1982
16:00	5	1748	434	12	92	8	1	24	11	1	0	0	0	2336
17:00	7	1672	260	10	64	4	0	19	7	1	0	0	0	2044
18:00	0	1376	220	11	29	2	0	11	7	0	0	0	0	1656
19:00	2	950	153	6	18	3	0	3	2	0	0	0	1	1138
20:00	2	711	102	0	10	1	0	3	7	0	0	0	0	836
21:00	0	528	60	2	7	0	0	1	4	0	0	0	0	602
22:00	1	348	48	2	4	1	0	1	3	0	0	0	0	408
23:00	1	292	34	2	2	0	0	0	2	3	0	0	0	336
Total	65	17328	3525	261	744	164	4	253	368	16	2	4	8	22742
Percent	0.3%	76.2%	15.5%	1.1%	3.3%	0.7%	0.0%	1.1%	1.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	11:00	11:00	08:00	11:00	06:00	07:00	09:00	09:00	01:00	11:00	09:00	07:00
Vol.	7	885	199	30	47	17	1	24	44	2	1	2	1	1182
PM Peak	14:00	16:00	16:00	14:00	16:00	12:00	12:00	14:00	12:00	23:00	14:00	12:00	12:00	16:00
Vol.	7	1748	434	33	92	21	1	28	45	3	1	1	2	2336

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

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81676 G-B volume
Site Code: 10111.31

Start	WB LL				WB RL				Combined				15-Oct-08
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	4		60		14		94		18		154		
12:15	5		73		11		120		16		193		
12:30	2		79		10		101		12		180		
12:45	6	17	81	293	6	41	112	427	12	58	193	720	
01:00	8		69		8		106		16		175		
01:15	4		77		6		110		10		187		
01:30	2		84		1		114		3		198		
01:45	3	17	68	298	5	20	119	449	8	37	187	747	
02:00	0		85		6		130		6		215		
02:15	2		103		4		112		6		215		
02:30	0		89		10		141		10		230		
02:45	3	5	91	368	8	28	120	503	11	33	211	871	
03:00	2		83		9		114		11		197		
03:15	2		98		11		128		13		226		
03:30	5		103		4		121		9		224		
03:45	1	10	97	381	12	36	126	489	13	46	223	870	
04:00	5		128		2		132		7		260		
04:15	1		101		12		138		13		239		
04:30	6		112		12		134		18		246		
04:45	14	26	104	445	23	49	144	548	37	75	248	993	
05:00	19		110		19		121		38		231		
05:15	32		106		34		126		66		232		
05:30	44		104		35		142		79		246		
05:45	54	149	102	422	49	137	110	499	103	286	212	921	
06:00	47		99		44		120		91		219		
06:15	48		97		58		117		106		214		
06:30	66		87		96		107		162		194		
06:45	93	254	76	359	80	278	105	449	173	532	181	808	
07:00	86		55		83		97		169		152		
07:15	98		70		128		92		226		162		
07:30	108		60		106		93		214		153		
07:45	106	398	56	241	118	435	74	356	224	833	130	597	
08:00	83		47		104		70		187		117		
08:15	89		54		117		56		206		110		
08:30	73		39		99		61		172		100		
08:45	96	341	45	185	122	442	58	245	218	783	103	430	
09:00	74		47		106		51		180		98		
09:15	70		44		87		65		157		109		
09:30	60		35		98		56		158		91		
09:45	50	254	43	169	102	393	45	217	152	647	88	386	
10:00	52		42		94		53		146		95		
10:15	65		20		93		31		158		51		
10:30	59		24		81		40		140		64		
10:45	60	236	22	108	104	372	30	154	164	608	52	262	
11:00	67		8		92		22		159		30		
11:15	51		7		100		26		151		33		
11:30	58		5		100		20		158		25		
11:45	60	236	5	25	92	384	14	82	152	620	19	107	
Total	1943		3294		2615		4418		4558		7712		
Percent	42.6%		42.7%		57.4%		57.3%						
Day Total		5237				7033				12270			
Peak	07:00		04:00		07:15		04:00		07:15		04:00		
Vol.	398		445		456		548		851		993		
P.H.F.	0.921		0.869		0.891		0.951		0.941		0.955		

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 G-B volume
Site Code: 10111.31

Start Time	WB LL A.M.		WB LL P.M.		WB RL A.M.		WB RL P.M.		Combined A.M.		Combined P.M.		16-Oct-08 Thu
12:00	7		85		13		110		20		195		
12:15	6		70		17		109		23		179		
12:30	1		61		15		110		16		171		
12:45	1	15	62	278	5	50	122	451	6	65	184	729	
01:00	4		74		3		110		7		184		
01:15	1		79		7		121		8		200		
01:30	1		84		7		115		8		199		
01:45	0	6	96	333	4	21	100	446	4	27	196	779	
02:00	3		75		9		123		12		198		
02:15	2		84		5		126		7		210		
02:30	0		92		3		125		3		217		
02:45	1	6	85	336	5	22	109	483	6	28	194	819	
03:00	2		97		5		137		7		234		
03:15	3		88		9		112		12		200		
03:30	5		102		10		134		15		236		
03:45	4	14	108	395	12	36	139	522	16	50	247	917	
04:00	1		103		11		144		12		247		
04:15	7		122		6		118		13		240		
04:30	5		132		16		135		21		267		
04:45	11	24	110	467	22	55	149	546	33	79	259	1013	
05:00	14		109		15		136		29		245		
05:15	27		134		33		152		60		286		
05:30	40		114		34		119		74		233		
05:45	56	137	102	459	52	134	142	549	108	271	244	1008	
06:00	36		93		41		119		77		212		
06:15	46		97		64		117		110		214		
06:30	67		100		73		122		140		222		
06:45	85	234	87	377	100	278	106	464	185	512	193	841	
07:00	70		66		95		124		165		190		
07:15	99		54		131		81		230		135		
07:30	102		60		124		84		226		144		
07:45	109	380	55	235	133	483	69	358	242	863	124	593	
08:00	84		47		121		57		205		104		
08:15	79		50		116		69		195		119		
08:30	101		48		119		64		220		112		
08:45	68	332	35	180	108	464	55	245	176	796	90	425	
09:00	72		40		86		58		158		98		
09:15	75		40		100		47		175		87		
09:30	64		40		100		62		164		102		
09:45	56	267	51	171	94	380	61	228	150	647	112	399	
10:00	49		42		91		48		140		90		
10:15	63		31		78		37		141		68		
10:30	55		18		76		37		131		55		
10:45	59	226	11	102	95	340	29	151	154	566	40	253	
11:00	47		12		96		25		143		37		
11:15	57		14		102		27		159		41		
11:30	53		5		95		28		148		33		
11:45	69	226	9	40	108	401	15	95	177	627	24	135	
Total	1867		3373		2664		4538		4531		7911		
Percent	41.2%		42.6%		58.8%		57.4%						
Day Total		5240				7202				12442			
Peak	07:15		04:30		07:15		04:30		07:15		04:30		
Vol.	394		485		509		572		903		1057		
P.H.F.	0.904		0.905		0.957		0.941		0.933		0.924		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B speed
Site Code: 10111.31

WB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	0	1	2	6	4	2	1	1	0	0	17	50	45
01:00	0	0	0	0	3	2	6	5	1	0	0	0	0	17	47	41
02:00	0	0	0	0	0	1	4	0	0	0	0	0	0	5	42	41
03:00	0	0	0	0	0	3	0	5	1	1	0	0	0	10	49	45
04:00	0	0	0	0	0	4	9	6	3	2	2	0	0	26	52	46
05:00	0	0	0	6	22	29	46	29	13	4	0	0	0	149	48	41
06:00	0	0	2	**20**	34	66	66	45	12	**7**	2	0	0	254	48	40
07:00	0	0	0	7	**79**	**118**	**104**	56	**30**	4	0	0	0	**398**	47	40
08:00	0	**2**	**3**	18	44	95	96	**61**	15	7	0	0	0	341	47	40
09:00	0	0	0	4	43	65	63	48	22	6	**3**	0	0	254	49	41
10:00	0	0	3	7	34	71	61	36	20	4	0	0	0	236	48	40
11:00	0	0	1	6	34	70	69	39	11	6	0	0	0	236	47	40
12 PM	0	0	1	12	39	95	74	49	17	6	0	0	0	293	47	40
13:00	0	0	5	25	52	99	57	35	**20**	5	0	0	0	298	47	39
14:00	0	0	3	26	69	129	78	42	17	3	1	0	0	368	45	38
15:00	0	0	2	21	77	122	**95**	47	13	3	0	0	0	380	45	39
16:00	0	0	4	**42**	**118**	**144**	77	39	15	5	**2**	0	0	**446**	44	37
17:00	0	0	3	15	98	134	94	**50**	19	**7**	2	0	0	422	46	39
18:00	0	0	**7**	39	97	92	67	33	19	4	1	0	0	359	45	37
19:00	0	0	0	4	35	89	71	33	8	1	0	0	0	241	45	39
20:00	0	0	0	3	16	57	48	45	14	2	0	0	0	185	48	41
21:00	0	0	0	0	15	53	60	28	13	0	0	0	0	169	47	41
22:00	0	0	0	0	6	30	33	27	9	3	0	0	0	108	49	42
23:00	0	0	0	0	1	12	5	2	4	1	0	0	0	25	50	42
Total	0	2	34	255	917	1582	1289	764	298	82	14	0	0	5237		
%	0.0%	0.0%	0.6%	4.9%	17.5%	30.2%	24.6%	14.6%	5.7%	1.6%	0.3%	0.0%	0.0%			
AM Peak		08:00	08:00	06:00	07:00	07:00	07:00	08:00	07:00	06:00	09:00			07:00		
Vol.		2	3	20	79	118	104	61	30	7	3			398		
PM Peak			18:00	16:00	16:00	16:00	15:00	17:00	13:00	17:00	16:00			16:00		
Vol.			7	42	118	144	95	50	20	7	2			446		

Pecent

15th Percentile :	32 MPH
50th Percentile :	39 MPH
85th Percentile :	47 MPH
95th Percentile :	52 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	2871
Percent in Pace :	54.8%
Number of Vehicles > 35 MPH :	3712
Percent of Vehicles > 35 MPH :	70.9%
Mean Speed(Average) :	39 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B speed
Site Code: 10111.31

WB LL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	0	5	1	2	4	2	1	0	0	0	15	50	42
01:00	0	0	0	0	0	1	2	3	0	0	0	0	0	6	46	44
02:00	0	0	0	0	0	3	0	1	2	0	0	0	0	6	50	43
03:00	0	0	0	0	1	4	4	2	1	1	1	0	0	14	54	44
04:00	0	0	1	1	3	2	7	7	1	2	0	0	0	24	48	42
05:00	0	0	0	7	17	27	42	28	13	2	1	0	0	137	48	41
06:00	0	0	1	14	34	63	69	39	10	3	1	0	0	234	47	40
07:00	0	**5**	**8**	**20**	**73**	**116**	79	48	24	5	**2**	0	0	**380**	47	39
08:00	0	0	3	13	41	99	**87**	**65**	16	**8**	0	0	0	332	47	40
09:00	0	1	2	9	36	92	56	34	**27**	7	1	**1**	**1**	267	49	40
10:00	0	0	1	12	21	67	63	34	22	6	0	0	0	226	48	41
11:00	0	0	1	7	24	64	68	41	17	4	0	0	0	226	48	41
12 PM	0	0	3	16	42	89	71	26	19	**11**	0	**1**	0	278	47	40
13:00	0	0	6	16	55	79	83	**60**	**28**	5	0	1	0	333	48	40
14:00	0	0	0	14	62	116	76	44	16	6	**1**	0	**1**	336	46	39
15:00	0	0	4	17	86	140	98	34	14	2	0	0	0	395	44	38
16:00	0	2	6	**43**	**143**	138	86	39	6	4	0	0	0	**467**	43	36
17:00	**1**	**3**	**11**	27	107	**154**	**101**	33	19	3	0	0	0	459	44	37
18:00	0	0	1	19	73	121	99	40	24	0	0	0	0	377	45	39
19:00	0	0	0	8	41	65	63	42	10	6	0	0	0	235	47	40
20:00	0	0	0	2	25	51	52	41	9	0	0	0	0	180	47	41
21:00	0	0	0	1	17	50	51	36	12	4	0	0	0	171	48	42
22:00	0	0	0	0	13	27	32	24	5	1	0	0	0	102	47	41
23:00	0	0	0	1	2	13	12	6	2	4	0	0	0	40	49	42
Total	1	11	48	247	921	1582	1303	731	299	85	7	3	2	5240		
%	0.0%	0.2%	0.9%	4.7%	17.6%	30.2%	24.9%	14.0%	5.7%	1.6%	0.1%	0.1%	0.0%			
AM Peak		07:00	07:00	07:00	07:00	07:00	08:00	08:00	09:00	08:00	07:00	09:00	09:00	07:00		
Vol.		5	8	20	73	116	87	65	27	8	2	1	1	380		
PM Peak	17:00	17:00	17:00	16:00	16:00	17:00	17:00	13:00	13:00	12:00	14:00	12:00	14:00	16:00		
Vol.	1	3	11	43	143	154	101	60	28	11	1	1	1	467		

Pecent

15th Percentile :	32 MPH
50th Percentile :	39 MPH
85th Percentile :	47 MPH
95th Percentile :	52 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	2885
Percent in Pace :	55.1%
Number of Vehicles > 35 MPH :	3695
Percent of Vehicles > 35 MPH :	70.5%
Mean Speed(Average) :	39 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B speed
Site Code: 10111.31

WB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	0	2	17	15	3	3	1	0	0	0	41	47	41
01:00	0	0	0	0	0	2	9	6	1	2	0	0	0	20	49	45
02:00	0	0	0	2	4	7	5	4	5	1	0	0	0	28	51	41
03:00	0	0	0	3	4	11	5	7	4	1	0	0	**1**	36	50	41
04:00	0	0	0	3	9	14	11	6	5	1	0	0	0	49	48	40
05:00	0	0	0	14	37	36	24	17	4	4	1	0	0	137	46	38
06:00	0	0	9	23	61	95	53	22	8	4	**2**	**1**	0	278	44	37
07:00	0	**4**	4	33	103	**152**	**97**	25	**15**	1	1	0	0	435	43	37
08:00	0	3	**12**	**45**	**108**	147	89	22	12	3	0	1	0	**442**	43	36
09:00	0	0	2	26	76	145	81	**39**	14	**8**	1	0	1	393	45	38
10:00	0	2	11	26	96	124	85	18	7	3	0	0	0	372	43	37
11:00	0	0	6	24	85	132	88	32	15	1	1	0	0	384	44	38
12 PM	0	0	6	32	110	144	81	37	13	**3**	1	0	0	427	44	37
13:00	0	6	10	33	95	146	**103**	38	13	2	**3**	0	0	449	44	37
14:00	3	6	8	38	147	**160**	98	27	**14**	2	0	0	0	503	43	36
15:00	0	4	13	50	138	151	91	25	14	1	2	0	0	489	43	36
16:00	**6**	**12**	**22**	**65**	**156**	147	84	39	13	3	1	0	0	**548**	43	35
17:00	0	5	12	63	141	156	81	28	10	3	0	0	0	499	42	36
18:00	1	4	15	60	138	114	66	37	10	2	2	0	0	449	43	35
19:00	0	1	6	24	77	131	59	**46**	8	2	2	0	0	356	45	38
20:00	0	0	0	8	46	83	56	38	11	3	0	0	0	245	46	39
21:00	0	0	2	11	49	66	56	16	14	3	0	0	0	217	44	38
22:00	0	0	1	9	25	44	42	18	14	1	0	0	0	154	47	39
23:00	0	0	0	5	13	21	25	13	1	2	2	0	0	82	46	40
Total	10	47	139	597	1720	2245	1404	563	228	57	19	2	2	7033		
%	0.1%	0.7%	2.0%	8.5%	24.5%	31.9%	20.0%	8.0%	3.2%	0.8%	0.3%	0.0%	0.0%			
AM Peak		07:00	08:00	08:00	08:00	07:00	07:00	09:00	07:00	09:00	06:00	06:00	03:00	08:00		
Vol.		4	12	45	108	152	97	39	15	8	2	1	1	442		
PM Peak	16:00	16:00	16:00	16:00	16:00	14:00	13:00	19:00	14:00	12:00	13:00			16:00		
Vol.	6	12	22	65	156	160	103	46	14	3	3			548		

Pecent

15th Percentile :	30 MPH
50th Percentile :	37 MPH
85th Percentile :	44 MPH
95th Percentile :	49 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	3965
Percent in Pace :	56.4%
Number of Vehicles > 35 MPH :	4071
Percent of Vehicles > 35 MPH :	57.9%
Mean Speed(Average) :	37 MPH

PRECISION
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Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B speed
Site Code: 10111.31

WB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	3	2	7	14	11	5	5	3	0	0	0	50	49	40
01:00	0	0	1	0	3	8	5	2	1	0	**1**	0	0	21	45	39
02:00	0	0	1	0	7	4	3	3	3	1	0	0	0	22	50	39
03:00	0	0	0	1	10	9	6	4	1	3	1	**1**	0	36	54	41
04:00	0	0	0	1	7	20	15	6	6	0	0	0	0	55	48	40
05:00	0	0	1	8	36	38	28	11	8	4	0	0	0	134	45	38
06:00	0	0	5	20	77	96	51	22	6	1	0	0	0	278	43	37
07:00	0	0	**14**	**51**	**140**	159	75	23	**15**	**5**	1	0	0	**483**	43	36
08:00	0	**4**	7	41	105	**166**	**90**	34	13	4	0	0	0	464	43	37
09:00	0	3	3	29	94	128	85	27	9	1	1	0	0	380	43	37
10:00	0	0	1	16	74	134	69	**39**	6	1	0	0	0	340	44	38
11:00	0	2	8	37	95	143	75	29	9	3	0	0	0	401	43	37
12 PM	0	0	4	33	123	159	73	45	13	0	1	0	0	451	44	37
13:00	2	2	14	34	95	**168**	81	37	10	3	0	0	0	446	43	37
14:00	0	1	11	54	139	156	76	35	8	3	0	0	0	483	43	36
15:00	0	1	**24**	54	157	167	86	29	3	1	0	0	0	522	42	35
16:00	1	**6**	10	**85**	**195**	135	63	38	12	1	0	0	0	546	42	35
17:00	**4**	4	9	68	170	154	**88**	38	10	2	**2**	0	0	**549**	43	36
18:00	0	0	10	60	135	129	72	**48**	8	1	1	0	0	464	44	36
19:00	0	0	1	20	96	111	79	37	**14**	0	0	0	0	358	44	38
20:00	0	0	0	6	46	91	56	35	10	1	0	0	0	245	46	39
21:00	0	0	1	9	39	79	52	30	14	**4**	0	0	0	228	47	39
22:00	0	0	0	6	32	47	41	17	5	3	0	0	0	151	45	39
23:00	0	0	1	3	19	27	25	11	4	4	1	0	0	95	47	40
Total	7	23	129	638	1901	2342	1305	605	193	49	9	1	0	7202		
%	0.1%	0.3%	1.8%	8.9%	26.4%	32.5%	18.1%	8.4%	2.7%	0.7%	0.1%	0.0%	0.0%			
AM Peak		08:00	07:00	07:00	07:00	08:00	08:00	10:00	07:00	07:00	01:00	03:00		07:00		
Vol.		4	14	51	140	166	90	39	15	5	1	1		483		
PM Peak	17:00	16:00	15:00	16:00	16:00	13:00	17:00	18:00	19:00	21:00	17:00			17:00		
Vol.	4	6	24	85	195	168	88	48	14	4	2			549		

Pecent

15th Percentile :	30 MPH
50th Percentile :	36 MPH
85th Percentile :	44 MPH
95th Percentile :	49 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	4243
Percent in Pace :	58.9%
Number of Vehicles > 35 MPH :	4035
Percent of Vehicles > 35 MPH :	56.0%
Mean Speed(Average) :	37 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B speed
Site Code: 10111.31

WB LL, WB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	0	3	19	21	7	5	2	1	0	0	58	48	42
01:00	0	0	0	0	3	4	15	11	2	2	0	0	0	37	48	44
02:00	0	0	0	2	4	8	9	4	5	1	0	0	0	33	50	41
03:00	0	0	0	3	4	14	5	12	5	2	0	0	**1**	46	50	42
04:00	0	0	0	3	9	18	20	12	8	3	2	0	0	75	50	42
05:00	0	0	0	20	59	65	70	46	17	8	1	0	0	286	48	40
06:00	0	0	11	43	95	161	119	67	20	11	**4**	**1**	0	532	46	39
07:00	0	4	4	40	**182**	**270**	**201**	81	**45**	5	1	0	0	**833**	45	38
08:00	0	**5**	**15**	**63**	152	242	185	83	27	10	0	1	0	783	45	38
09:00	0	0	2	30	119	210	144	**87**	36	**14**	4	0	1	647	47	39
10:00	0	2	14	33	130	195	146	54	27	7	0	0	0	608	44	38
11:00	0	0	7	30	119	202	157	71	26	7	1	0	0	620	45	39
12 PM	0	0	7	44	149	239	155	**86**	30	9	1	0	0	720	45	38
13:00	0	6	15	58	147	245	160	73	**33**	7	**3**	0	0	747	45	38
14:00	3	6	11	64	216	289	176	69	31	5	1	0	0	871	44	37
15:00	0	4	15	71	215	273	**186**	72	27	4	2	0	0	869	44	37
16:00	**6**	**12**	**26**	**107**	**274**	**291**	161	78	28	8	3	0	0	**994**	43	36
17:00	0	5	15	78	239	290	175	78	29	**10**	2	0	0	921	44	37
18:00	1	4	22	99	235	206	133	70	29	6	3	0	0	808	44	36
19:00	0	1	6	28	112	220	130	79	16	3	2	0	0	597	45	38
20:00	0	0	0	11	62	140	104	83	25	5	0	0	0	430	47	40
21:00	0	0	2	11	64	119	116	44	27	3	0	0	0	386	46	40
22:00	0	0	1	9	31	74	75	45	23	4	0	0	0	262	48	41
23:00	0	0	0	5	14	33	30	15	5	3	2	0	0	107	47	40
Total	10	49	173	852	2637	3827	2693	1327	526	139	33	2	2	12270		
%	0.1%	0.4%	1.4%	6.9%	21.5%	31.2%	21.9%	10.8%	4.3%	1.1%	0.3%	0.0%	0.0%			
AM Peak		08:00	08:00	08:00	07:00	07:00	07:00	09:00	07:00	09:00	06:00	06:00	03:00	07:00		
Vol.		5	15	63	182	270	201	87	45	14	4	1	1	833		
PM Peak	16:00	16:00	16:00	16:00	16:00	16:00	15:00	12:00	13:00	17:00	13:00			16:00		
Vol.	6	12	26	107	274	291	186	86	33	10	3			994		

Pecent

15th Percentile :	31 MPH
50th Percentile :	38 MPH
85th Percentile :	45 MPH
95th Percentile :	50 MPH

Stats

10 MPH Pace Speed :	35-44 MPH
Number in Pace :	6520
Percent in Pace :	53.1%
Number of Vehicles > 35 MPH :	7783
Percent of Vehicles > 35 MPH :	63.4%
Mean Speed(Average) :	38 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B speed
Site Code: 10111.31

WB LL, WB RL

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	3	2	12	15	13	9	7	4	0	0	0	65	50	40
01:00	0	0	1	0	3	9	7	5	1	0	1	0	0	27	47	40
02:00	0	0	1	0	7	7	3	4	5	1	0	0	0	28	51	41
03:00	0	0	0	1	11	13	10	6	2	4	2	**1**	0	50	53	42
04:00	0	0	1	2	10	22	22	13	7	2	0	0	0	79	48	41
05:00	0	0	1	15	53	65	70	39	21	6	1	0	0	271	48	40
06:00	0	0	6	34	111	159	120	61	16	4	1	0	0	512	45	38
07:00	0	**5**	**22**	**71**	**213**	**275**	154	71	**39**	10	**3**	0	0	**863**	44	37
08:00	0	4	10	54	146	265	**177**	**99**	29	**12**	0	0	0	796	46	38
09:00	0	4	5	38	130	220	141	61	36	8	2	1	**1**	647	45	38
10:00	0	0	2	28	95	201	132	73	28	7	0	0	0	566	46	39
11:00	0	2	9	44	119	207	143	70	26	7	0	0	0	627	45	38
12 PM	0	0	7	49	165	248	144	71	32	**11**	1	**1**	0	729	45	38
13:00	2	2	20	50	150	247	164	**97**	**38**	8	0	1	0	779	46	38
14:00	0	1	11	68	201	272	152	79	24	9	1	0	**1**	819	44	37
15:00	0	1	**28**	71	243	307	184	63	17	3	0	0	0	917	43	36
16:00	1	**8**	16	**128**	**338**	273	149	77	18	5	0	0	0	**1013**	43	36
17:00	**5**	7	20	95	277	**308**	**189**	71	29	5	**2**	0	0	1008	43	36
18:00	0	0	11	79	208	250	171	88	32	1	1	0	0	841	44	37
19:00	0	0	1	28	137	176	142	79	24	6	0	0	0	593	46	39
20:00	0	0	0	8	71	142	108	76	19	1	0	0	0	425	47	40
21:00	0	0	1	10	56	129	103	66	26	8	0	0	0	399	47	40
22:00	0	0	0	6	45	74	73	41	10	4	0	0	0	253	46	40
23:00	0	0	1	4	21	40	37	17	6	8	1	0	0	135	48	40
Total	8	34	177	885	2822	3924	2608	1336	492	134	16	4	2	12442		
%	0.1%	0.3%	1.4%	7.1%	22.7%	31.5%	21.0%	10.7%	4.0%	1.1%	0.1%	0.0%	0.0%			
AM Peak		07:00	07:00	07:00	07:00	07:00	08:00	08:00	07:00	08:00	07:00	03:00	09:00	07:00		
Vol.		5	22	71	213	275	177	99	39	12	3	1	1	863		
PM Peak	17:00	16:00	15:00	16:00	16:00	17:00	17:00	13:00	13:00	12:00	17:00	12:00	14:00	16:00		
Vol.	5	8	28	128	338	308	189	97	38	11	2	1	1	1013		

Pecent

15th Percentile :	31 MPH
50th Percentile :	37 MPH
85th Percentile :	45 MPH
95th Percentile :	50 MPH

Stats

10 MPH Pace Speed :	30-39 MPH
Number in Pace :	6746
Percent in Pace :	54.2%
Number of Vehicles > 35 MPH :	7731
Percent of Vehicles > 35 MPH :	62.1%
Mean Speed(Average) :	38 MPH

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B class
Site Code: 10111.31

WB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	14	3	0	0	0	0	0	0	0	0	0	0	17
01:00	0	13	2	0	1	0	0	0	1	0	0	0	0	17
02:00	0	1	2	0	1	0	0	1	0	0	0	0	0	5
03:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10
04:00	0	19	6	0	1	0	0	0	0	0	0	0	0	26
05:00	2	81	52	1	9	0	0	2	2	0	0	0	0	149
06:00	1	163	60	4	20	0	0	3	3	0	0	0	0	254
07:00	0	310	62	1	17	2	0	4	2	0	0	0	0	398
08:00	0	250	57	5	22	1	0	1	5	0	0	0	0	341
09:00	1	162	67	3	11	4	0	1	5	0	0	0	0	254
10:00	0	172	37	6	12	1	0	3	5	0	0	0	0	236
11:00	1	171	46	3	11	0	1	0	3	0	0	0	0	236
12 PM	3	220	54	2	5	1	1	3	4	0	0	0	0	293
13:00	1	223	54	1	11	1	0	2	5	0	0	0	0	298
14:00	0	278	73	3	4	1	1	4	3	0	0	1	0	368
15:00	4	292	69	0	12	0	0	1	2	0	0	0	0	380
16:00	1	318	98	2	18	2	0	5	2	0	0	0	0	446
17:00	1	329	80	2	8	0	0	1	1	0	0	0	0	422
18:00	4	279	62	0	13	0	0	1	0	0	0	0	0	359
19:00	2	196	37	1	5	0	0	0	0	0	0	0	0	241
20:00	1	159	21	0	2	0	0	2	0	0	0	0	0	185
21:00	1	145	21	0	2	0	0	0	0	0	0	0	0	169
22:00	0	95	10	0	2	0	0	1	0	0	0	0	0	108
23:00	0	23	2	0	0	0	0	0	0	0	0	0	0	25
Total	23	3921	976	34	188	13	3	35	43	0	0	1	0	5237
Percent	0.4%	74.9%	18.6%	0.6%	3.6%	0.2%	0.1%	0.7%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	09:00	10:00	08:00	09:00	11:00	07:00	08:00					07:00
Vol.	2	310	67	6	22	4	1	4	5					398
PM Peak	15:00	17:00	16:00	14:00	16:00	16:00	12:00	16:00	13:00			14:00		16:00
Vol.	4	329	98	3	18	2	1	5	5			1		446

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 G-B class
Site Code: 10111.31

WB LL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	0	12	2	0	1	0	0	0	0	0	0	0	0	15
01:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
02:00	0	4	1	0	0	0	0	0	1	0	0	0	0	6
03:00	0	11	1	0	2	0	0	0	0	0	0	0	0	14
04:00	0	13	9	0	0	1	0	1	0	0	0	0	0	24
05:00	0	80	43	2	9	1	0	2	0	0	0	0	0	137
06:00	0	149	60	2	16	3	0	1	3	0	0	0	0	234
07:00	2	276	67	2	21	2	0	2	7	1	0	0	0	380
08:00	2	248	63	2	10	1	0	2	4	0	0	0	0	332
09:00	1	190	56	4	13	0	0	0	3	0	0	0	0	267
10:00	0	172	32	2	6	2	0	2	9	0	0	0	1	226
11:00	0	149	55	3	8	1	0	5	5	0	0	0	0	226
12 PM	1	193	58	3	11	0	1	6	5	0	0	0	0	278
13:00	0	239	71	4	8	2	0	4	4	1	0	0	0	333
14:00	1	253	65	4	8	1	0	2	2	0	0	0	0	336
15:00	0	288	83	0	13	1	0	8	1	0	1	0	0	395
16:00	0	322	111	4	23	2	0	4	1	0	0	0	0	467
17:00	3	367	73	0	13	2	0	1	0	0	0	0	0	459
18:00	1	292	72	0	11	0	0	0	1	0	0	0	0	377
19:00	0	197	33	1	4	0	0	0	0	0	0	0	0	235
20:00	1	153	22	0	4	0	0	0	0	0	0	0	0	180
21:00	0	144	24	0	3	0	0	0	0	0	0	0	0	171
22:00	0	94	7	0	0	0	0	1	0	0	0	0	0	102
23:00	0	32	7	0	1	0	0	0	0	0	0	0	0	40
Total	12	3883	1016	33	185	19	1	41	46	2	1	0	1	5240
Percent	0.2%	74.1%	19.4%	0.6%	3.5%	0.4%	0.0%	0.8%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	07:00	06:00		11:00	10:00	07:00			10:00	07:00
Vol.	2	276	67	4	21	3		5	9	1			1	380
PM Peak	17:00	17:00	16:00	13:00	16:00	13:00	12:00	15:00	12:00	13:00	15:00			16:00
Vol.	3	367	111	4	23	2	1	8	5	1	1			467

PRECISION
D A T A
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Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B class
Site Code: 10111.31

WB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	32	8	0	1	0	0	0	0	0	0	0	0	41
01:00	0	17	3	0	0	0	0	0	0	0	0	0	0	20
02:00	1	21	4	0	0	0	0	1	1	0	0	0	0	28
03:00	0	25	9	0	2	0	0	0	0	0	0	0	0	36
04:00	1	34	8	0	3	1	0	1	1	0	0	0	0	49
05:00	0	72	46	1	10	3	0	3	2	0	0	0	0	137
06:00	2	189	63	2	11	8	0	2	1	0	0	0	0	278
07:00	4	326	74	1	17	4	0	1	8	0	0	0	0	435
08:00	0	323	86	3	14	3	1	3	9	0	0	0	0	442
09:00	2	252	104	4	18	3	1	6	3	0	0	0	0	393
10:00	0	256	91	5	8	3	1	2	6	0	0	0	0	372
11:00	2	279	73	4	13	4	2	3	4	0	0	0	0	384
12 PM	1	298	89	3	21	3	1	2	9	0	0	0	0	427
13:00	2	333	77	2	18	5	2	6	4	0	0	0	0	449
14:00	1	358	102	4	21	7	0	7	3	0	0	0	0	503
15:00	1	360	96	3	18	2	1	4	4	0	0	0	0	489
16:00	2	411	103	7	17	1	0	5	2	0	0	0	0	548
17:00	3	385	96	4	9	1	0	1	0	0	0	0	0	499
18:00	2	361	68	3	13	0	0	1	1	0	0	0	0	449
19:00	1	299	51	1	4	0	0	0	0	0	0	0	0	356
20:00	0	210	32	0	3	0	0	0	0	0	0	0	0	245
21:00	0	181	32	0	3	0	0	1	0	0	0	0	0	217
22:00	0	130	23	0	1	0	0	0	0	0	0	0	0	154
23:00	0	66	15	0	1	0	0	0	0	0	0	0	0	82
Total	25	5218	1353	47	226	48	9	49	58	0	0	0	0	7033
Percent	0.4%	74.2%	19.2%	0.7%	3.2%	0.7%	0.1%	0.7%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	09:00	10:00	09:00	06:00	11:00	09:00	08:00					08:00
Vol.	4	326	104	5	18	8	2	6	9					442
PM Peak	17:00	16:00	16:00	16:00	12:00	14:00	13:00	14:00	12:00					16:00
Vol.	3	411	103	7	21	7	2	7	9					548

PRECISION
D A T A
INDUSTRIES, LLC
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Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B class
Site Code: 10111.31

WB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	36	10	0	2	1	0	0	0	0	0	0	0	50
01:00	0	11	8	1	1	0	0	0	0	0	0	0	0	21
02:00	0	16	5	0	1	0	0	0	0	0	0	0	0	22
03:00	0	24	6	0	4	2	0	0	0	0	0	0	0	36
04:00	0	44	6	0	4	1	0	0	0	0	0	0	0	55
05:00	0	77	41	0	11	2	0	2	1	0	0	0	0	134
06:00	1	194	60	1	11	6	0	2	3	0	0	0	0	278
07:00	1	357	89	2	19	5	0	4	5	1	0	0	0	483
08:00	1	332	94	3	12	6	1	4	11	0	0	0	0	464
09:00	2	246	100	5	18	1	1	1	6	0	0	0	0	380
10:00	0	244	77	0	8	3	0	3	5	0	0	0	0	340
11:00	0	278	90	4	10	3	1	2	13	0	0	0	0	401
12 PM	0	342	71	4	16	4	1	7	6	0	0	0	0	451
13:00	1	331	82	0	17	5	1	4	5	0	0	0	0	446
14:00	0	361	93	1	17	2	1	4	4	0	0	0	0	483
15:00	0	404	92	5	16	0	0	2	3	0	0	0	0	522
16:00	1	427	94	3	13	0	0	3	5	0	0	0	0	546
17:00	1	437	97	3	8	1	0	1	1	0	0	0	0	549
18:00	0	370	76	1	15	0	0	0	2	0	0	0	0	464
19:00	0	286	61	2	7	0	0	0	2	0	0	0	0	358
20:00	0	210	32	1	2	0	0	0	0	0	0	0	0	245
21:00	0	200	25	1	1	0	0	0	1	0	0	0	0	228
22:00	0	126	24	0	1	0	0	0	0	0	0	0	0	151
23:00	0	82	13	0	0	0	0	0	0	0	0	0	0	95
Total	9	5435	1346	37	214	42	6	39	73	1	0	0	0	7202
Percent	0.1%	75.5%	18.7%	0.5%	3.0%	0.6%	0.1%	0.5%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	09:00	09:00	07:00	06:00	08:00	07:00	11:00	07:00				07:00
Vol.	2	357	100	5	19	6	1	4	13	1				483
PM Peak	13:00	17:00	17:00	15:00	13:00	13:00	12:00	12:00	12:00					17:00
Vol.	1	437	97	5	17	5	1	7	6					549

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-B class
Site Code: 10111.31

WB LL, WB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	46	11	0	1	0	0	0	0	0	0	0	0	58
01:00	0	30	5	0	1	0	0	0	1	0	0	0	0	37
02:00	1	22	6	0	1	0	0	2	1	0	0	0	0	33
03:00	0	33	10	0	3	0	0	0	0	0	0	0	0	46
04:00	1	53	14	0	4	1	0	1	1	0	0	0	0	75
05:00	2	153	98	2	19	3	0	5	4	0	0	0	0	286
06:00	3	352	123	6	31	8	0	5	4	0	0	0	0	532
07:00	4	636	136	2	34	6	0	5	10	0	0	0	0	833
08:00	0	573	143	8	36	4	1	4	14	0	0	0	0	783
09:00	3	414	171	7	29	7	1	7	8	0	0	0	0	647
10:00	0	428	128	11	20	4	1	5	11	0	0	0	0	608
11:00	3	450	119	7	24	4	3	3	7	0	0	0	0	620
12 PM	4	518	143	5	26	4	2	5	13	0	0	0	0	720
13:00	3	556	131	3	29	6	2	8	9	0	0	0	0	747
14:00	1	636	175	7	25	8	1	11	6	0	0	1	0	871
15:00	5	652	165	3	30	2	1	5	6	0	0	0	0	869
16:00	3	729	201	9	35	3	0	10	4	0	0	0	0	994
17:00	4	714	176	6	17	1	0	2	1	0	0	0	0	921
18:00	6	640	130	3	26	0	0	2	1	0	0	0	0	808
19:00	3	495	88	2	9	0	0	0	0	0	0	0	0	597
20:00	1	369	53	0	5	0	0	2	0	0	0	0	0	430
21:00	1	326	53	0	5	0	0	1	0	0	0	0	0	386
22:00	0	225	33	0	3	0	0	1	0	0	0	0	0	262
23:00	0	89	17	0	1	0	0	0	0	0	0	0	0	107
Total	48	9139	2329	81	414	61	12	84	101	0	0	1	0	12270
Percent	0.4%	74.5%	19.0%	0.7%	3.4%	0.5%	0.1%	0.7%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	09:00	10:00	08:00	06:00	11:00	09:00	08:00					07:00
Vol.	4	636	171	11	36	8	3	7	14					833
PM Peak	18:00	16:00	16:00	16:00	16:00	14:00	12:00	14:00	12:00			14:00		16:00
Vol.	6	729	201	9	35	8	2	11	13			1		994

Route 140 WB Lanes
between Rtoute 24 Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 G-B class
Site Code: 10111.31

WB LL, WB RL

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	48	12	0	3	1	0	0	0	0	0	0	0	65
01:00	0	16	9	1	1	0	0	0	0	0	0	0	0	27
02:00	0	20	6	0	1	0	0	0	1	0	0	0	0	28
03:00	0	35	7	0	6	2	0	0	0	0	0	0	0	50
04:00	0	57	15	0	4	2	0	1	0	0	0	0	0	79
05:00	0	157	84	2	20	3	0	4	1	0	0	0	0	271
06:00	1	343	120	3	27	9	0	3	6	0	0	0	0	512
07:00	3	633	156	4	40	7	0	6	12	2	0	0	0	863
08:00	3	580	157	5	22	7	1	6	15	0	0	0	0	796
09:00	3	436	156	9	31	1	1	1	9	0	0	0	0	647
10:00	0	416	109	2	14	5	0	5	14	0	0	0	1	566
11:00	0	427	145	7	18	4	1	7	18	0	0	0	0	627
12 PM	1	535	129	7	27	4	2	13	11	0	0	0	0	729
13:00	1	570	153	4	25	7	1	8	9	1	0	0	0	779
14:00	1	614	158	5	25	3	1	6	6	0	0	0	0	819
15:00	0	692	175	5	29	1	0	10	4	0	1	0	0	917
16:00	1	749	205	7	36	2	0	7	6	0	0	0	0	1013
17:00	4	804	170	3	21	3	0	2	1	0	0	0	0	1008
18:00	1	662	148	1	26	0	0	0	3	0	0	0	0	841
19:00	0	483	94	3	11	0	0	0	2	0	0	0	0	593
20:00	1	363	54	1	6	0	0	0	0	0	0	0	0	425
21:00	0	344	49	1	4	0	0	0	1	0	0	0	0	399
22:00	0	220	31	0	1	0	0	1	0	0	0	0	0	253
23:00	0	114	20	0	1	0	0	0	0	0	0	0	0	135
Total	21	9318	2362	70	399	61	7	80	119	3	1	0	1	12442
Percent	0.2%	74.9%	19.0%	0.6%	3.2%	0.5%	0.1%	0.6%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	09:00	07:00	06:00	08:00	11:00	11:00	07:00			10:00	07:00
Vol.	3	633	157	9	40	9	1	7	18	2			1	863
PM Peak	17:00	17:00	16:00	12:00	16:00	13:00	12:00	12:00	12:00	13:00	15:00			16:00
Vol.	4	804	205	7	36	7	2	13	11	1	1			1013

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

81676 G-C volume
Site Code: 10111.31

Start Time	A.M.	EB	P.M.				Wed 15-Oct-08
12:00	59		163				
12:15	53		182				
12:30	49		199				
12:45	24	185	213	757			
01:00	30		202				
01:15	26		220				
01:30	20		200				
01:45	23	99	205	827			
02:00	16		234				
02:15	25		258				
02:30	21		284				
02:45	8	70	305	1081			
03:00	15		307				
03:15	9		325				
03:30	13		369				
03:45	12	49	412	1413			
04:00	14		420				
04:15	14		447				
04:30	20		424				
04:45	24	72	411	1702			
05:00	26		428				
05:15	43		433				
05:30	58		385				
05:45	56	183	438	1684			
06:00	81		405				
06:15	90		337				
06:30	126		299				
06:45	157	454	285	1326			
07:00	167		211				
07:15	208		215				
07:30	213		193				
07:45	226	814	173	792			
08:00	184		162				
08:15	200		161				
08:30	166		168				
08:45	148	698	142	633			
09:00	132		146				
09:15	171		131				
09:30	166		152				
09:45	137	606	101	530			
10:00	156		93				
10:15	144		91				
10:30	178		77				
10:45	174	652	80	341			
11:00	173		51				
11:15	169		59				
11:30	170		68				
11:45	195	707	62	240			
Total	4589		11326				
Percent			100.0%		0.0%	0.0%	
Day Total		15915					
Peak	07:15		04:15				
Vol.	831		1710				
P.H.F.	0.919		0.956				

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

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81676 G-C volume
Site Code: 10111.31

Start Time	A.M.	EB	P.M.				Thu 16-Oct-08
12:00	53		179				
12:15	56		198				
12:30	54		190				
12:45	32	195	228	795			
01:00	29		186				
01:15	28		200				
01:30	24		205				
01:45	19	100	219	810			
02:00	18		228				
02:15	26		288				
02:30	15		277				
02:45	14	73	307	1100			
03:00	8		336				
03:15	11		374				
03:30	14		371				
03:45	17	50	418	1499			
04:00	13		427				
04:15	14		463				
04:30	28		426				
04:45	25	80	457	1773			
05:00	20		371				
05:15	34		445				
05:30	44		400				
05:45	58	156	382	1598			
06:00	70		314				
06:15	89		326				
06:30	136		332				
06:45	141	436	271	1243			
07:00	175		190				
07:15	197		238				
07:30	212		199				
07:45	219	803	167	794			
08:00	197		153				
08:15	194		175				
08:30	188		154				
08:45	179	758	146	628			
09:00	156		139				
09:15	151		129				
09:30	147		146				
09:45	146	600	116	530			
10:00	144		95				
10:15	151		99				
10:30	151		81				
10:45	163	609	80	355			
11:00	177		60				
11:15	172		87				
11:30	178		66				
11:45	202	729	60	273			
Total	4589		11398				
Percent			100.0%		0.0%	0.0%	
Day Total		15987					
Peak	07:15		04:00				
Vol.	825		1773				
P.H.F.	0.942		0.957				

PRECISION
D A T A
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Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C speed
Site Code: 10111.31

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	3	7	22	52	47	43	9	1	1	0	185	73	66
01:00	0	0	0	0	10	21	38	19	9	1	0	1	0	99	69	63
02:00	0	0	0	1	4	11	29	15	6	2	2	0	0	70	70	64
03:00	0	0	0	0	0	8	18	12	5	3	1	1	1	49	74	67
04:00	0	0	0	1	2	11	26	19	8	4	1	0	0	72	71	65
05:00	0	0	0	3	11	31	42	57	25	11	1	1	1	183	73	66
06:00	0	0	0	8	18	59	120	125	78	30	9	3	2	452	74	66
07:00	0	**2**	0	3	26	84	**199**	**231**	**160**	79	**27**	2	**3**	**816**	75	68
08:00	0	0	0	8	16	89	175	168	133	**83**	18	**7**	1	698	76	68
09:00	0	0	0	3	24	82	185	140	112	51	6	2	1	606	74	66
10:00	0	0	**3**	**10**	**41**	103	180	178	92	39	5	1	0	652	73	65
11:00	0	0	1	9	30	**117**	195	175	127	39	12	1	1	707	73	66
12 PM	1	0	1	8	46	112	230	210	99	36	8	**6**	0	757	72	65
13:00	**2**	**1**	**3**	**19**	**71**	182	215	208	93	22	8	2	0	826	71	63
14:00	0	0	0	5	48	161	342	305	157	51	8	4	**1**	1082	72	66
15:00	0	0	0	12	44	215	427	407	242	**62**	3	0	0	1412	72	66
16:00	2	0	0	4	44	228	548	**577**	**248**	46	4	2	0	**1703**	71	66
17:00	1	0	0	3	47	**246**	**549**	576	219	39	3	1	0	1684	71	65
18:00	1	0	0	1	43	234	434	393	183	34	3	0	0	1326	71	65
19:00	0	0	1	2	34	141	279	221	89	21	4	0	0	792	70	65
20:00	0	0	0	5	42	113	231	166	66	9	1	0	0	633	70	64
21:00	0	0	2	6	18	94	197	123	69	12	**9**	0	0	530	71	65
22:00	0	0	0	6	14	44	114	104	42	11	2	3	1	341	71	65
23:00	1	0	0	2	9	34	91	72	23	6	0	2	0	240	70	65
Total	8	3	11	122	649	2442	4916	4548	2328	700	136	40	12	15915		
%	0.1%	0.0%	0.1%	0.8%	4.1%	15.3%	30.9%	28.6%	14.6%	4.4%	0.9%	0.3%	0.1%			
AM Peak		07:00	10:00	10:00	10:00	11:00	07:00	07:00	07:00	08:00	07:00	08:00	07:00	07:00		
Vol.		2	3	10	41	117	199	231	160	83	27	7	3	816		
PM Peak	13:00	13:00	13:00	13:00	13:00	17:00	17:00	16:00	16:00	15:00	21:00	12:00	14:00	16:00		
Vol.	2	1	3	19	71	246	549	577	248	62	9	6	1	1703		

Pecent

15th Percentile :	59 MPH
50th Percentile :	65 MPH
85th Percentile :	72 MPH
95th Percentile :	76 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	9464
Percent in Pace :	59.5%
Number of Vehicles > 65 MPH :	7764
Percent of Vehicles > 65 MPH :	48.8%
Mean Speed(Average) :	66 MPH

PRECISION
D A T A
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Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C speed
Site Code: 10111.31

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	6	14	20	48	59	35	10	2	0	1	195	73	66
01:00	0	0	0	4	2	16	45	18	13	2	0	0	0	100	70	64
02:00	0	0	0	1	7	9	26	20	8	1	1	0	0	73	70	64
03:00	0	0	0	0	2	14	22	11	0	0	0	0	1	50	67	63
04:00	0	0	0	2	8	17	22	15	10	5	1	0	0	80	72	64
05:00	0	0	0	2	12	36	41	41	17	3	1	**2**	1	156	71	64
06:00	1	0	0	7	28	92	141	113	39	12	2	0	0	435	70	64
07:00	1	0	2	**15**	**59**	**173**	**265**	184	**85**	17	2	1	0	**804**	70	63
08:00	1	0	0	9	46	159	250	**204**	69	**18**	2	0	0	758	70	64
09:00	1	0	1	12	56	145	204	116	46	15	2	2	0	600	69	63
10:00	**2**	0	**3**	11	48	143	205	133	39	17	**4**	2	**2**	609	69	63
11:00	0	0	0	12	50	146	246	170	85	16	3	0	1	729	70	64
12 PM	1	0	0	**17**	**74**	153	261	190	75	21	3	0	0	795	70	63
13:00	**2**	0	2	7	40	163	262	217	91	23	2	1	0	810	70	64
14:00	0	0	**4**	10	44	184	381	302	138	**32**	5	0	0	1100	71	65
15:00	2	0	1	15	67	**257**	533	452	148	22	2	0	0	1499	70	64
16:00	2	0	1	10	61	233	**626**	**630**	174	29	6	0	0	**1772**	70	65
17:00	2	0	0	9	52	255	485	548	**223**	22	3	0	0	1599	71	65
18:00	0	0	0	4	40	200	403	389	174	28	4	1	0	1243	71	65
19:00	0	0	0	2	36	148	251	232	102	20	3	0	0	794	71	65
20:00	0	0	0	3	19	115	206	185	80	15	4	1	0	628	71	65
21:00	0	0	1	2	30	96	168	144	70	12	6	1	0	530	71	65
22:00	0	0	0	1	11	66	115	98	50	9	3	1	**1**	355	72	65
23:00	0	0	0	1	8	20	76	91	52	14	**8**	**3**	0	273	74	67
Total	15	0	15	162	814	2860	5282	4562	1823	363	69	15	7	15987		
%	0.1%	0.0%	0.1%	1.0%	5.1%	17.9%	33.0%	28.5%	11.4%	2.3%	0.4%	0.1%	0.0%			
AM Peak	10:00		10:00	07:00	07:00	07:00	07:00	08:00	07:00	08:00	10:00	05:00	10:00	07:00		
Vol.	2		3	15	59	173	265	204	85	18	4	2	2	804		
PM Peak	13:00		14:00	12:00	12:00	15:00	16:00	16:00	17:00	14:00	23:00	23:00	22:00	16:00		
Vol.	2		4	17	74	257	626	630	223	32	8	3	1	1772		

Pecent

15th Percentile :	58 MPH
50th Percentile :	64 MPH
85th Percentile :	70 MPH
95th Percentile :	75 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	9844
Percent in Pace :	61.6%
Number of Vehicles > 65 MPH :	6839
Percent of Vehicles > 65 MPH :	42.8%
Mean Speed(Average) :	64 MPH

PRECISION
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Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	1	156	21	0	4	1	0	1	1	0	0	0	0	185
01:00	3	79	7	1	2	4	0	0	1	1	1	0	0	99
02:00	1	54	10	0	1	1	0	0	3	0	0	0	0	70
03:00	0	40	5	1	2	0	0	0	1	0	0	0	0	49
04:00	2	47	11	0	3	3	0	3	3	0	0	0	0	72
05:00	4	123	33	1	5	5	0	9	3	0	0	0	0	183
06:00	4	311	80	5	22	8	0	7	13	2	0	0	0	452
07:00	12	600	113	12	33	22	1	9	14	0	0	0	0	816
08:00	9	521	94	13	24	19	1	6	11	0	0	0	0	698
09:00	13	414	100	14	29	16	0	6	13	1	0	0	0	606
10:00	12	436	108	15	31	20	0	11	19	0	0	0	0	652
11:00	16	487	101	15	32	28	2	11	14	0	0	0	1	707
12 PM	14	551	113	10	33	11	0	15	9	0	0	0	1	757
13:00	19	608	115	9	20	28	1	9	16	0	1	0	0	826
14:00	16	873	113	9	20	29	1	15	6	0	0	0	0	1082
15:00	14	1144	180	4	21	27	1	12	9	0	0	0	0	1412
16:00	22	1431	173	4	29	21	2	12	8	0	0	0	1	1703
17:00	24	1490	116	5	22	16	0	7	4	0	0	0	0	1684
18:00	17	1184	84	3	17	12	1	6	1	1	0	0	0	1326
19:00	10	699	69	4	4	5	0	1	0	0	0	0	0	792
20:00	1	586	31	1	3	5	0	4	2	0	0	0	0	633
21:00	4	483	30	3	3	4	0	2	1	0	0	0	0	530
22:00	3	319	8	1	3	4	0	2	1	0	0	0	0	341
23:00	3	221	10	1	1	3	0	0	1	0	0	0	0	240
Total	224	12857	1725	131	364	292	10	148	154	5	2	0	3	15915
Percent	1.4%	80.8%	10.8%	0.8%	2.3%	1.8%	0.1%	0.9%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	10:00	07:00	11:00	11:00	10:00	10:00	06:00	01:00		11:00	07:00
Vol.	16	600	113	15	33	28	2	11	19	2	1		1	816
PM Peak	17:00	17:00	15:00	12:00	12:00	14:00	16:00	12:00	13:00	18:00	13:00		12:00	16:00
Vol.	24	1490	180	10	33	29	2	15	16	1	1		1	1703

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Route 140 EB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-C class
Site Code: 10111.31

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	173	15	1	1	3	0	1	0	0	0	0	0	195
01:00	2	86	8	0	3	1	0	0	0	0	0	0	0	100
02:00	1	63	6	0	1	2	0	0	0	0	0	0	0	73
03:00	1	40	4	0	2	1	0	0	2	0	0	0	0	50
04:00	3	60	10	0	3	3	0	0	1	0	0	0	0	80
05:00	5	121	18	0	2	5	0	1	3	1	0	0	0	156
06:00	7	338	53	2	6	14	0	6	8	1	0	0	0	435
07:00	22	657	55	1	18	27	2	10	11	1	0	0	0	804
08:00	14	633	48	5	15	31	0	7	5	0	0	0	0	758
09:00	23	466	48	3	15	30	0	2	13	0	0	0	0	600
10:00	32	458	48	3	16	40	1	4	6	0	1	0	0	609
11:00	29	554	67	4	32	29	1	7	6	0	0	0	0	729
12 PM	22	606	77	4	33	33	0	8	10	0	0	1	1	795
13:00	24	638	75	6	27	28	0	5	6	0	0	0	1	810
14:00	17	900	108	8	30	18	1	7	8	0	1	2	0	1100
15:00	17	1274	134	3	32	24	1	7	5	2	0	0	0	1499
16:00	21	1522	161	1	24	18	1	18	4	1	0	0	1	1772
17:00	16	1434	105	2	17	13	1	8	2	1	0	0	0	1599
18:00	8	1118	74	5	15	10	0	4	6	1	0	0	2	1243
19:00	1	719	61	2	4	4	1	2	0	0	0	0	0	794
20:00	6	575	37	0	2	6	0	0	2	0	0	0	0	628
21:00	6	496	20	2	1	5	0	0	0	0	0	0	0	530
22:00	2	329	19	0	1	3	0	1	0	0	0	0	0	355
23:00	2	241	25	1	1	1	0	0	2	0	0	0	0	273
Total	282	13501	1276	53	301	349	9	98	100	8	2	3	5	15987
Percent	1.8%	84.4%	8.0%	0.3%	1.9%	2.2%	0.1%	0.6%	0.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	11:00	08:00	11:00	10:00	07:00	07:00	09:00	05:00	10:00			07:00
Vol.	32	657	67	5	32	40	2	10	13	1	1			804
PM Peak	13:00	16:00	16:00	14:00	12:00	12:00	14:00	16:00	12:00	15:00	14:00	14:00	18:00	16:00
Vol.	24	1522	161	8	33	33	1	18	10	2	1	2	2	1772

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

81676 G-D volume
Site Code: 10111.31

Start Time	A.M.	WB	P.M.				Wed 15-Oct-08
12:00	21		191				
12:15	24		211				
12:30	17		203				
12:45	10	72	199	804			
01:00	22		185				
01:15	10		199				
01:30	18		190				
01:45	7	57	243	817			
02:00	9		227				
02:15	7		258				
02:30	13		240				
02:45	14	43	227	952			
03:00	18		215				
03:15	12		232				
03:30	23		229				
03:45	39	92	255	931			
04:00	35		230				
04:15	66		225				
04:30	101		258				
04:45	132	334	284	997			
05:00	187		236				
05:15	304		251				
05:30	346		275				
05:45	357	1194	225	987			
06:00	322		191				
06:15	320		224				
06:30	365		157				
06:45	398	1405	171	743			
07:00	370		138				
07:15	434		138				
07:30	401		123				
07:45	416	1621	97	496			
08:00	369		96				
08:15	344		100				
08:30	326		94				
08:45	362	1401	88	378			
09:00	251		88				
09:15	280		74				
09:30	233		61				
09:45	223	987	69	292			
10:00	203		74				
10:15	200		57				
10:30	223		46				
10:45	190	816	41	218			
11:00	202		26				
11:15	221		37				
11:30	223		41				
11:45	201	847	23	127			
Total	8869		7742				
Percent			100.0%		0.0%	0.0%	
Day Total		16611					
Peak	07:00		04:45				
Vol.	1621		1046				
P.H.F.	0.934		0.921				

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

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81676 G-D volume
Site Code: 10111.31

Start Time	A.M.	WB	P.M.				Thu 16-Oct-08
12:00	17		207				
12:15	16		224				
12:30	13		193				
12:45	15	61	205	829			
01:00	15		193				
01:15	10		239				
01:30	15		201				
01:45	13	53	250	883			
02:00	13		199				
02:15	11		249				
02:30	5		236				
02:45	17	46	221	905			
03:00	15		201				
03:15	17		231				
03:30	33		238				
03:45	23	88	232	902			
04:00	37		232				
04:15	52		264				
04:30	104		284				
04:45	123	316	256	1036			
05:00	187		245				
05:15	285		293				
05:30	344		265				
05:45	358	1174	259	1062			
06:00	336		220				
06:15	339		218				
06:30	348		219				
06:45	368	1391	180	837			
07:00	327		159				
07:15	406		142				
07:30	420		99				
07:45	401	1554	108	508			
08:00	344		81				
08:15	339		98				
08:30	341		101				
08:45	346	1370	87	367			
09:00	260		85				
09:15	266		65				
09:30	228		70				
09:45	229	983	58	278			
10:00	189		76				
10:15	243		66				
10:30	208		47				
10:45	191	831	37	226			
11:00	215		28				
11:15	200		39				
11:30	183		37				
11:45	214	812	30	134			
Total	8679		7967				
Percent			100.0%		0.0%	0.0%	
Day Total		16646					
Peak	07:15		04:30				
Vol.	1571		1078				
P.H.F.	0.935		0.920				

PRECISION
D A T A
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Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

WB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	1	0	0	1	1	17	18	20	8	2	3	1	0	72	72	65
01:00	2	0	0	3	3	6	18	19	4	1	1	0	0	57	69	62
02:00	2	0	0	3	1	7	11	11	6	1	0	1	0	43	71	62
03:00	0	0	1	3	2	15	30	26	9	5	1	0	0	92	71	65
04:00	6	0	1	1	9	35	82	99	65	25	5	4	2	334	74	66
05:00	53	0	0	6	14	73	224	300	272	186	51	12	2	1193	77	67
06:00	63	0	0	7	25	**125**	268	320	300	207	74	14	3	1406	78	67
07:00	**79**	0	0	1	24	108	**293**	320	**407**	**266**	**103**	18	1	**1620**	78	68
08:00	70	0	0	3	**28**	99	245	**331**	272	240	90	20	4	1402	78	68
09:00	53	0	1	4	23	77	207	240	196	104	55	**21**	**6**	987	77	66
10:00	43	**1**	0	3	23	77	181	208	137	96	33	10	4	816	77	66
11:00	48	0	**2**	**8**	20	73	191	222	160	76	31	14	2	847	75	65
12 PM	47	**1**	0	**8**	24	77	195	222	137	62	23	6	2	804	74	64
13:00	46	0	0	1	20	71	188	218	146	80	31	13	3	817	76	65
14:00	**55**	0	**2**	1	**27**	88	196	239	207	96	33	6	2	952	75	65
15:00	39	0	0	4	23	**108**	**237**	198	171	96	37	14	4	931	76	66
16:00	44	0	0	3	20	75	188	259	**216**	116	**56**	**15**	5	**997**	77	67
17:00	26	0	0	4	12	43	202	**276**	207	**146**	50	15	5	986	78	69
18:00	14	0	0	2	8	53	169	222	170	71	25	3	**6**	743	75	68
19:00	2	1	0	3	16	60	145	141	82	29	16	1	1	497	74	66
20:00	3	0	0	1	11	40	92	118	74	27	12	0	0	378	74	67
21:00	2	0	2	2	12	41	85	62	49	27	6	2	2	292	75	66
22:00	2	0	0	4	9	20	65	60	43	5	7	2	1	218	73	66
23:00	0	0	0	1	9	9	40	36	22	8	2	0	0	127	73	66
Total	700	3	9	77	364	1397	3570	4167	3360	1972	745	192	55	16611		
%	4.2%	0.0%	0.1%	0.5%	2.2%	8.4%	21.5%	25.1%	20.2%	11.9%	4.5%	1.2%	0.3%			
AM Peak	07:00	10:00	11:00	11:00	08:00	06:00	07:00	08:00	07:00	07:00	07:00	09:00	09:00	07:00		
Vol.	79	1	2	8	28	125	293	331	407	266	103	21	6	1620		
PM Peak	14:00	12:00	14:00	12:00	14:00	15:00	15:00	17:00	16:00	17:00	16:00	16:00	18:00	16:00		
Vol.	55	1	2	8	27	108	237	276	216	146	56	15	6	997		

Pecent

15th Percentile :	60 MPH
50th Percentile :	68 MPH
85th Percentile :	77 MPH
95th Percentile :	82 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	7737
Percent in Pace :	46.6%
Number of Vehicles > 65 MPH :	10491
Percent of Vehicles > 65 MPH :	63.2%
Mean Speed(Average) :	67 MPH

PRECISION
D A T A
INDUSTRIES, LLC
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Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

WB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	0	3	9	17	16	11	4	1	0	0	61	73	66
01:00	1	0	0	2	2	3	19	19	5	2	0	0	0	53	70	64
02:00	0	0	0	0	2	5	14	18	4	2	1	0	0	46	70	66
03:00	0	0	0	3	3	10	25	25	14	5	1	2	0	88	73	66
04:00	4	0	0	1	8	28	79	87	73	23	12	0	1	316	75	67
05:00	55	0	0	0	12	81	233	283	257	183	62	6	2	1174	78	67
06:00	**63**	0	0	0	21	**125**	**272**	316	292	216	65	18	3	1391	78	67
07:00	63	0	0	2	**24**	96	272	**364**	**330**	**276**	110	12	5	**1554**	79	68
08:00	53	0	0	0	20	80	229	330	274	222	**121**	**37**	4	1370	79	69
09:00	47	0	0	3	17	77	213	243	205	117	41	14	6	983	77	67
10:00	48	0	0	**5**	21	74	151	202	177	87	46	15	5	831	77	66
11:00	49	0	0	1	11	46	191	233	128	88	35	18	**11**	811	77	66
12 PM	**51**	0	1	3	20	58	176	208	158	101	31	16	6	829	77	66
13:00	42	0	0	1	**21**	68	169	220	181	105	**59**	**17**	1	884	78	67
14:00	42	0	1	2	14	78	210	195	168	116	59	13	**7**	905	78	67
15:00	41	0	0	1	14	57	218	233	183	105	36	13	1	902	76	67
16:00	49	0	0	2	12	75	213	**288**	187	**139**	56	13	2	1036	77	67
17:00	44	0	0	0	5	87	**250**	256	**225**	137	47	7	4	**1062**	77	67
18:00	24	**1**	0	**4**	17	**101**	243	204	150	74	15	3	1	837	74	65
19:00	12	0	1	4	14	69	126	157	81	30	11	3	0	508	73	65
20:00	1	0	0	1	11	49	102	104	58	30	9	1	0	366	74	67
21:00	4	0	0	2	13	44	79	71	42	15	5	1	3	279	73	65
22:00	2	0	**2**	2	12	33	57	65	37	9	5	1	1	226	73	65
23:00	2	0	0	1	5	20	37	37	24	7	1	0	0	134	73	65
Total	697	1	5	40	302	1373	3595	4174	3264	2093	829	210	63	16646		
%	4.2%	0.0%	0.0%	0.2%	1.8%	8.2%	21.6%	25.1%	19.6%	12.6%	5.0%	1.3%	0.4%			
AM Peak	06:00			10:00	07:00	06:00	06:00	07:00	07:00	07:00	08:00	08:00	11:00	07:00		
Vol.	63			5	24	125	272	364	330	276	121	37	11	1554		
PM Peak	12:00	18:00	22:00	18:00	13:00	18:00	17:00	16:00	17:00	16:00	13:00	13:00	14:00	17:00		
Vol.	51	1	2	4	21	101	250	288	225	139	59	17	7	1062		

Pecent

15th Percentile :	61 MPH
50th Percentile :	68 MPH
85th Percentile :	77 MPH
95th Percentile :	82 MPH

Stats

10 MPH Pace Speed :	61-70 MPH
Number in Pace :	7769
Percent in Pace :	46.7%
Number of Vehicles > 65 MPH :	10633
Percent of Vehicles > 65 MPH :	63.9%
Mean Speed(Average) :	67 MPH

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Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

Direction 2

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/15/0																
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:00	8	0	0	0	0	0	0	0	0	0	0	0	0	8	7	4
06:00	10	0	0	0	0	0	0	0	0	0	0	0	0	10	8	6
07:00	**17**	0	0	0	0	0	0	0	0	0	0	0	0	**17**	14	9
08:00	9	0	0	0	0	0	0	0	0	0	0	0	0	9	8	5
09:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
10:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
11:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
12 PM	0	0	**1**	0	0	0	0	0	0	0	0	0	0	1	41	41
13:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
14:00	**7**	0	0	0	0	0	0	0	0	0	0	0	0	**7**	6	4
15:00	4	0	0	0	0	0	0	0	0	0	0	0	0	4	3	2
16:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
17:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
18:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
19:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
20:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	81	0	1	0	0	0	0	0	0	0	0	0	0	82		
%	98.8%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00													07:00		
Vol.	17													17		
PM Peak	14:00		12:00											14:00		
Vol.	7		1											7		

Pecent	15th Percentile :	4 MPH
	50th Percentile :	15 MPH
	85th Percentile :	30 MPH
	95th Percentile :	34 MPH

Stats	10 MPH Pace Speed :	1-10 MPH
	Number in Pace :	30
	Percent in Pace :	36.6%
	Number of Vehicles > 65 MPH :	0
	Percent of Vehicles > 65 MPH :	0.0%
	Mean Speed(Average) :	17 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D speed
Site Code: 10111.31

Direction 2

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 9999	Total	85th % ile	Ave Speed
10/16/0																
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:00	10	0	0	0	0	0	0	0	0	0	0	0	0	10	8	6
06:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
07:00	**13**	0	0	0	0	0	0	0	0	0	0	0	0	**13**	11	7
08:00	6	0	0	0	0	0	0	0	0	0	0	0	0	6	5	4
09:00	7	0	0	0	0	0	0	0	0	0	0	0	0	7	6	4
10:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
11:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
12 PM	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
13:00	4	0	0	0	0	0	0	0	0	0	0	0	0	4	3	2
14:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
15:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5	4	3
16:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
17:00	**7**	0	0	0	0	0	0	0	0	0	0	0	0	**7**	6	4
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	74	0	0	0	0	0	0	0	0	0	0	0	0	74		
%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00													07:00		
Vol.	13													13		
PM Peak	17:00													17:00		
Vol.	7													7		

Pecent	15th Percentile :	4 MPH
	50th Percentile :	17 MPH
	85th Percentile :	30 MPH
	95th Percentile :	33 MPH

Stats	10 MPH Pace Speed :	1-10 MPH
	Number in Pace :	24
	Percent in Pace :	32.4%
	Number of Vehicles > 65 MPH :	0
	Percent of Vehicles > 65 MPH :	0.0%
	Mean Speed(Average) :	17 MPH

PRECISION
D A T A
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Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

81676 G-D class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/15/0														
8	0	58	9	0	3	0	0	0	2	0	0	0	0	72
01:00	2	42	4	0	4	1	0	0	4	0	0	0	0	57
02:00	0	26	8	0	1	0	0	3	5	0	0	0	0	43
03:00	1	64	16	1	7	0	0	0	3	0	0	0	0	92
04:00	2	208	78	7	32	2	0	3	2	0	0	0	0	334
05:00	4	660	375	10	122	3	0	12	7	0	0	0	0	1193
06:00	9	984	301	10	79	8	1	12	2	0	0	0	0	1406
07:00	11	1310	200	16	49	10	8	13	3	0	0	0	0	1620
08:00	6	1121	180	14	49	6	9	12	5	0	0	0	0	1402
09:00	7	740	154	12	37	15	3	10	9	0	0	0	0	987
10:00	3	601	137	11	44	8	1	9	2	0	0	0	0	816
11:00	18	601	137	12	40	12	3	13	10	1	0	0	0	847
12 PM	13	588	107	18	44	10	4	7	13	0	0	0	0	804
13:00	6	594	128	23	40	8	0	13	5	0	0	0	0	817
14:00	4	688	166	15	54	7	5	10	3	0	0	0	0	952
15:00	5	695	151	11	44	4	5	5	11	0	0	0	0	931
16:00	1	789	141	13	29	3	4	15	2	0	0	0	0	997
17:00	6	808	132	7	20	5	2	3	3	0	0	0	0	986
18:00	14	607	87	4	25	2	0	1	3	0	0	0	0	743
19:00	3	394	82	2	12	1	0	1	2	0	0	0	0	497
20:00	1	322	45	0	8	0	0	1	1	0	0	0	0	378
21:00	1	247	38	0	3	1	0	0	2	0	0	0	0	292
22:00	0	200	15	0	1	0	0	1	1	0	0	0	0	218
23:00	1	112	13	0	0	1	0	0	0	0	0	0	0	127
Total	118	12459	2704	186	747	107	45	144	100	1	0	0	0	16611
Percent	0.7%	75.0%	16.3%	1.1%	4.5%	0.6%	0.3%	0.9%	0.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	05:00	07:00	05:00	09:00	08:00	07:00	11:00	11:00				07:00
Vol.	18	1310	375	16	122	15	9	13	10	1				1620
PM Peak	18:00	17:00	14:00	13:00	14:00	12:00	14:00	16:00	12:00					16:00
Vol.	14	808	166	23	54	10	5	15	13					997

Route 140 WB
east of Stevens Street Ramps
City, State: Taunton, MA
Client: VHB/R. Raveendran

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81676 G-D class
Site Code: 10111.31

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/16/0														
8	1	48	8	0	1	0	0	2	1	0	0	0	0	61
01:00	0	40	5	2	1	1	0	1	3	0	0	0	0	53
02:00	1	33	10	0	0	1	0	1	0	0	0	0	0	46
03:00	0	58	16	1	9	0	0	0	4	0	0	0	0	88
04:00	0	188	82	9	30	3	0	2	2	0	0	0	0	316
05:00	5	672	349	8	118	9	0	12	1	0	0	0	0	1174
06:00	6	974	316	8	61	10	0	10	6	0	0	0	0	1391
07:00	12	1227	227	12	40	14	0	14	8	0	0	0	0	1554
08:00	4	1095	176	11	52	8	0	16	8	0	0	0	0	1370
09:00	4	743	161	14	45	9	0	3	4	0	0	0	0	983
10:00	2	619	134	11	44	6	0	8	6	1	0	0	0	831
11:00	7	573	139	14	53	7	0	13	4	1	0	0	0	811
12 PM	7	595	128	20	48	6	2	13	10	0	0	0	0	829
13:00	8	633	155	22	45	5	0	11	5	0	0	0	0	884
14:00	6	649	160	20	44	9	0	16	1	0	0	0	0	905
15:00	3	696	146	10	39	3	0	4	1	0	0	0	0	902
16:00	6	814	147	8	47	6	0	8	0	0	0	0	0	1036
17:00	2	859	154	8	30	2	0	6	1	0	0	0	0	1062
18:00	2	682	115	4	28	4	0	2	0	0	0	0	0	837
19:00	0	420	67	3	15	0	0	3	0	0	0	0	0	508
20:00	1	310	43	0	9	1	0	1	1	0	0	0	0	366
21:00	0	226	47	0	5	0	0	0	1	0	0	0	0	279
22:00	0	197	26	0	1	0	0	1	1	0	0	0	0	226
23:00	0	115	16	1	1	0	0	0	1	0	0	0	0	134
Total	77	12466	2827	186	766	104	2	147	69	2	0	0	0	16646
Percent	0.5%	74.9%	17.0%	1.1%	4.6%	0.6%	0.0%	0.9%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	05:00	09:00	05:00	07:00		08:00	07:00	10:00				07:00
Vol.	12	1227	349	14	118	14		16	8	1				1554
PM Peak	13:00	17:00	14:00	13:00	12:00	14:00	12:00	14:00	12:00					17:00
Vol.	8	859	160	22	48	9	2	16	10					1062

Appendix 4.1-F

Preliminary Traffic Signal Warrant Analysis

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Anawan / Broadway

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Required approach volumes: Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road: Northbound	Entering Vol. on Major Road: Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	375	265	575	840	Yes	Yes	Yes	Yes	Yes
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM	275	260	655	915	Yes	Yes	Yes	Yes	Yes
5:00 - 6:00 PM				0	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Central / Davol

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	2 Lane(s) on each approach	100	100
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	2 Lane(s) on each approach	160	80

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	224	327	560	887	Yes	Yes	Yes	Yes	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM	300	348	596	944	Yes	Yes	Yes	Yes	Verify
5:00 - 6:00 PM				0	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	Verify
				Warrants Met?		1		2	3
						NO		No	Verify

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Davol Street NB / Station Driveway

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	600	600
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	900	900
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	2 Lane(s) on each approach	480	720
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	50	975		975	No	No	No	No	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM	190	910		910	Yes	Yes	Yes	Verify	No
5:00 - 6:00 PM				0	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	No
				Warrants Met?		1		2	3
						NO		No	No

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: South Main St / High Street

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Required approach volumes: Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road: Northbound	Entering Vol. on Major Road: Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	63	555	1250	1805	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	14	1433	719	2152	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: South Main St / Ridge Hill Road

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	76	848	1292	2140	No	Yes	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	281	1513	700	2213	Yes	Yes	Yes	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: South Main St / Narrows

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Required approach volumes: Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road: Northbound	Entering Vol. on Major Road: Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	160	199	479	678	Yes	No	Yes	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	138	578	142	720	No	No	Yes	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: South Main St / Site Driveway

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	2 Lane(s) on each approach	100	100
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	2 Lane(s) on each approach	160	80

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	26	240	472	712	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	54	539	336	875	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	No
				Warrants Met?		1		2	3
						NO		No	No

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Coggeshall St at North Front Street

Major Street Direction: Eastbound-Westbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Eastbound	Entering Vol. on Major Road Westbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	150	495	490	985	No	Yes	Yes	Yes	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	275	550	435	985	Yes	Yes	Yes	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Coggeshall St at Purchase Street

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	170	272	292	564	Yes	No	No	No	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	178	427	355	782	Yes	Yes	Yes	Verify	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	No
				Warrants Met?		1		2	3
						NO		No	No

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 5

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Purchase Street at Weld Street

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	2 Lane(s) on each approach	100	100
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	2 Lane(s) on each approach	160	80

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	205	285	280	565	Yes	No	No	No	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	240	460	275	735	Yes	No	Yes	Verify	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	No
				Warrants Met?		1		2	3
						NO		No	No

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Purchase Street at Rt 18 SB Exit Ramp

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**	Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)		
	Major Street : 1 Lane(s) on each approach	500	500
	Minor Street : 1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)		
	Major Street : 1 Lane(s) on each approach	750	750
	Minor Street : 1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B		Warrant 1A	Warrant 1B
	Major Street : 1 Lane(s) on each approach	400	600
	Minor Street : 1 Lane(s) on each approach	120	60

Required approach volumes

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach

Minor Street : 1 Lane(s) on each approach

If "verify" indicated, see Figure 4C-1 or 4C-2.

25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach

Minor Street : 1 Lane(s) on each approach

If "verify" indicated, see Figure 4C-3 or 4C-4.

25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	298	231	279	510	Yes	No	No	Yes	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	250	468	269	737	Yes	No	Yes	Yes	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	No
				Warrants Met?		1		2	3
						NO		No	No

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 28

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 2

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Route 140 SB Off Ramps at Mr. Pleasant Street

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	167	638	281	919	Yes	Yes	Yes	Yes	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	257	667	567	1234	Yes	Yes	Yes	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Whales's Tooth Station Driveway / Mc Arthur Dr

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Required approach volumes

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	70	230	125	355	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM	165	115	110	225	No	No	No	No	No
5:00 - 6:00 PM				0	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Washington St at Fredrick Martin Parkway

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	600	600
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	900	900
	Minor Street :	2 Lane(s) on each approach	100	100
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	2 Lane(s) on each approach	480	720
	Minor Street :	2 Lane(s) on each approach	160	80

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	149	939	855	1794	No	Yes	No	Yes	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	156	1033	1119	2152	Yes	Yes	Yes	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Oak Street / Station Driveway

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	900	900
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	2 Lane(s) on each approach	400	720
	Minor Street :	1 Lane(s) on each approach	160	60

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	109	400	489	889	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	163	477	540	1017	No	Yes	Yes	Verify	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Arlington St / Station Driveway

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Required approach volumes: Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	900	900
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	2 Lane(s) on each approach	400	720
	Minor Street :	1 Lane(s) on each approach	160	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	2 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	2 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road: Northbound	Entering Vol. on Major Road: Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	50	265	363	628	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM	107	126	541	667	No	No	No	No	No
5:00 - 6:00 PM				0	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Route 123 / N Worcester

Major Street Direction: Eastbound-Westbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	2 Lane(s) on each approach	100	100
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	2 Lane(s) on each approach	160	80

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Eastbound	Entering Vol. on Major Road Westbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	457	550	412	962	Yes	Yes	Yes	Yes	Yes
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM	372	565	654	1219	Yes	Yes	Yes	Yes	Yes
5:00 - 6:00 PM				0	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Station Driveway / S. Worcester Street

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**		
	Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
	Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**		
	Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
	Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM				0	No	No	No	No	No
8:00 - 9:00 AM	74	204	255	459	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	90	283	160	443	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	No
				Warrants Met?		1		2	3
						NO		No	No

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Route 138 at Station Driveway

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 4

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Required approach volumes: Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road: Northbound	Entering Vol. on Major Road: Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	83	1431	409	1840	No	Yes	No	Verify	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	119	644	1107	1751	No	Yes	No	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Route 138 at ElmStreet

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	600	600
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	900	900
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	2 Lane(s) on each approach	480	720
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**		
	Major Street :	2 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
	Minor Street :	2 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**		
	Major Street :	2 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
	Minor Street :	2 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	232	1415	492	1907	Yes	Yes	Yes	Yes	Yes
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	133	803	1369	2172	No	Yes	Yes	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Route 138 at Union Street

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Required approach volumes: Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	600	600
	Minor Street :	2 Lane(s) on each approach	200	200
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	2 Lane(s) on each approach	900	900
	Minor Street :	2 Lane(s) on each approach	100	100
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	2 Lane(s) on each approach	480	720
	Minor Street :	2 Lane(s) on each approach	160	80

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 2 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 2 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road: Northbound	Entering Vol. on Major Road: Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	186	1528	492	2020	No	Yes	Yes	Yes	Yes
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	317	797	1361	2158	Yes	Yes	Yes	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Main Street at Center Street

Major Street Direction: Eastbound-Westbound

Year: **Condition:** Future

Operating speed on major roadway: 30 mph

Number of approaches: 3

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**	Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)		
	Major Street : 1 Lane(s) on each approach	500	500
	Minor Street : 1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)		
	Major Street : 1 Lane(s) on each approach	750	750
	Minor Street : 1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B		Warrant 1A	Warrant 1B
	Major Street : 1 Lane(s) on each approach	400	600
	Minor Street : 1 Lane(s) on each approach	120	60

Required approach volumes

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach

Minor Street : 1 Lane(s) on each approach

If "verify" indicated, see Figure 4C-1 or 4C-2.

25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach

Minor Street : 1 Lane(s) on each approach

If "verify" indicated, see Figure 4C-3 or 4C-4.

25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Eastbound	Entering Vol. on Major Road Westbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	209	504	330	834	Yes	Yes	Yes	Yes	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	158	291	1014	1305	Yes	Yes	Yes	Yes	Yes
6:00 - 7:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

2003 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: Route 138 at Wilbur Street

Major Street Direction: Northbound-Southbound

Year: **Condition:** Future

Operating speed on major roadway: 40 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**		
	Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
	Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**		
	Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
	Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM				0	No	No	No	No	No
7:00 - 8:00 AM	12	1429	403	1832	No	No	No	No	No
8:00 - 9:00 AM				0	No	No	No	No	No
9:00 - 10:00 AM				0	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 PM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM				0	No	No	No	No	No
3:00 - 4:00 PM				0	No	No	No	No	No
4:00 - 5:00 PM				0	No	No	No	No	No
5:00 - 6:00 PM	10	648	1283	1931	No	No	No	No	No
6:00 - 7:00 PM				0	No	No	No	No	No
					No	No	No	No	No
				Warrants Met?		1		2	3
						NO		No	No

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2003 Edition [2003]

last updated: 08/05/05 [version]

Appendix 4.1-G

Pedestrian/Bicycle Distribution Analysis

South Coast Rail

Project #: 10111.00

Pedestrian Routes based on TAZs

Station Location	TAZ	Route	Route Description	Alternate Route
Fall River Depot 30621				
	2762	N. Davol St via Brightman Br/Brightman St	All traffic will filter south on Riverside Ave/County St, east through Brightman St bridge, south on North Davol St	
	2772	N. Davol St via Brayton Ave.	Traffic filter north on Brayton Ave, east on GAR Highway and Brightman St/bridge, south on North Davol St	
	2763	N. Davol St via Brayton Point Rd	All traffic will filter north on Brayton Point Rd, east on GAR Highway and Brightman St/bridge, south on North Davol St	
	2771	N. Davol St via N. Main St - SB	All traffic will filter south on N. Main St, west on Pearce St, south on N. Davol St.	Traffic can also filter south on Robeson St, west on President Ave, south on N. Davol St
	2768/ 2774	N. Davol St via N. Main St - SB	All traffic will filter south on N. Main St, west on Pearce St, south on N. Davol St.	All traffic will filter south on N. Main St, west on President Ave, south on N. Davol St.
	2773/ 2775	N. Davol St via Robeson St	All traffic will filter south on Robeson St, west through President Ave, south through N. Main St, west on Pearce St, north on N. Davol St	All traffic will filter south on Robeson St, west through President Ave, south on N. Davol St
	2776/ 2777/ 2782	N. Davol St via N. Main St - NB	All traffic will filter north on N. Main St, west through Turner, north on N. Davol St	
	2778	N.Davol St via Prospect St	Traffic will filter north on Winter and west on Prospect St, north on N. Main St, west on Turner, north on N. Davol St	
	2785	N. Davol St via Bedford St/Central St	All traffic will filter west on Bedford St, north on Main St, west through Turner, north on N. Davol St	
Battleship Cove 30625				
	2783	Battleship Cove via Columbia St	All traffic filters west on Columbia St, north on Eagle St/Water St	
	2784	Battleship Cove via N. Main St	All traffic filters south on N. Main St, west on Pine St and Central St, south on Water St	
	2787	Battleship Cove via Bay St	Traffic filters north on Bay St, east on William St, north on Eagle St/Water St	
	2788/ 2795	Battleship Cove via Broadway St	Traffic filters north on Broadway St, and north on Eagle St	
	2789	Battleship Cove via S. Main St	Traffic filters north on S. Main St and Hunter St, west on Columbia, north on Eagle St/Water St	
	2790	Battleship Cove via Bedford St	Traffic will filter west on Bedford St, south on Water St	
	2791/ 2794	Battleship Cove via Pleasant St	Traffic filters west on Pleasant St/Pocasset St, south on Water St	
	2796/ 2797	Battleship Cove via Plymouth Ave	Traffic will filter north on Plymouth Ave, west on Middle St, north on Brodway St and Eagle St/Water St	

Barrowsville 30580				
	2455	S. Worcester St. via Maple St	All traffic will filter north or south on Maple St, east through Harvey, northwest on S. Worcester St/Dean St	All traffic will filter north on Dean St OR north on Maple St, west on S. Worcester St
	2453	S. Worcester St. via N. Worcester St	All traffic will filter south on N. Worcester St, west on S. Wocester St.	
	2451	S. Worcester St. via Barrows St.	All traffic will filter south through Taunton Ave, west on Barrows St, southeast on S. Worcester St/Dean St.	All traffic will filter west on W Main St, south through Austin St, southwest on Barrows St
	2450	S. Worcester St via Dean St	All traffic will filter west on E Hodges St, north on Dean St.	All traffic will filter west on S. Worcester St, north on Dean St.
Freetown 30606				
	2806	S. Main St via Narrows Rd	All traffic will filter southeast on Narrows Rd/Causeway Rd, south on S. Main St AND north on S. Main St	
Kings Highway 30633				
	2831	Kings Highway via Church St - SB	All traffic will filter south on Church St, west on Tarkiln Hill Rd/ Kings Highway	
	2833	Kings Highway via Phillips St	All traffic will filter, east on Samuel Barnett Blvd, south on Phillips St/Church St, west on Tarkiln Hill Rd/ Kings Highway	
	2832	Kings Highway via Ashley Blvd	All traffic will filter south on Ashley Blvd, west on Tarkiln Hill Rd/ Kings Highway	
	2834	Kings Highway via Mt Pleasant St	All traffic will filter south on Mt Pleasant St, east on Kings Highway	
	2835	Kings Highway via Church St - NB	All traffic will filter north on Church St, west on Tarkiln Hill Rd/ Kings Highway	
	2836	Kings Highway via Tarkiln Hill Rd (East)	All traffic will filter west on Tarkiln Hill Rd until Kings Highway	
Whales Tooth 30640				
	2868	Mc Arthur Dr via Purchase St	All traffic will filter north on Purchase St, east through Union St, north on Mc Arthur Dr/Acushnet Ave	
	2867	Mc Arthur Dr via S. Front St	All Traffic will filter north on S. Front Street. Some traffic will filter east on Delano St and take the ped. Bridge to S. Front St	
	2864/ 2862	Mc Arthur Dr via Union St	All traffic will filter east on Union St, north on Mc Arthur Dr	
	2863	Mc Arthur Dr via County St	All traffic will filter south/north on County St and north on Pleasant St, east through Hillman St, north on Mc Arthur Dr	
	2861	Mc Arthur Dr via Rt 6 (Mill St/Kempton St)	All traffic will filter east on either Mill Street or Kempton St, north on Purchase St, east through Hillman St, north on Mc Arthur Dr.	All traffic will filter east on Union St, north on Mc Arthur Dr.
	2859	Mc Arthur Dr via Pleasant St	All traffic will filter south on Pleasant St, east on Hillman St, north on Mc Arthur Dr	
	2858/ 2857	Mc Arthur Dr via Hillman St	All traffic will filter, east on Parker St, south on County St, east on Hillman St, north on Mc Arthur Dr	
	2855	Mc Arthur Dr via Logan St	All traffic will filter north/south on Purchase St, east through Logan St, south on Mc Arthur Dr	
	2850	Mc Arthur Dr via Coggeshall St	All traffic will filter east on Coggeshall St, south on Purchase St, east through Logan St, south on Mc Arthur Dr	Traffic will also filter west on Coggeshall St, south on N. Front St, west through Logan St, and south on Mc Arthur Dr.

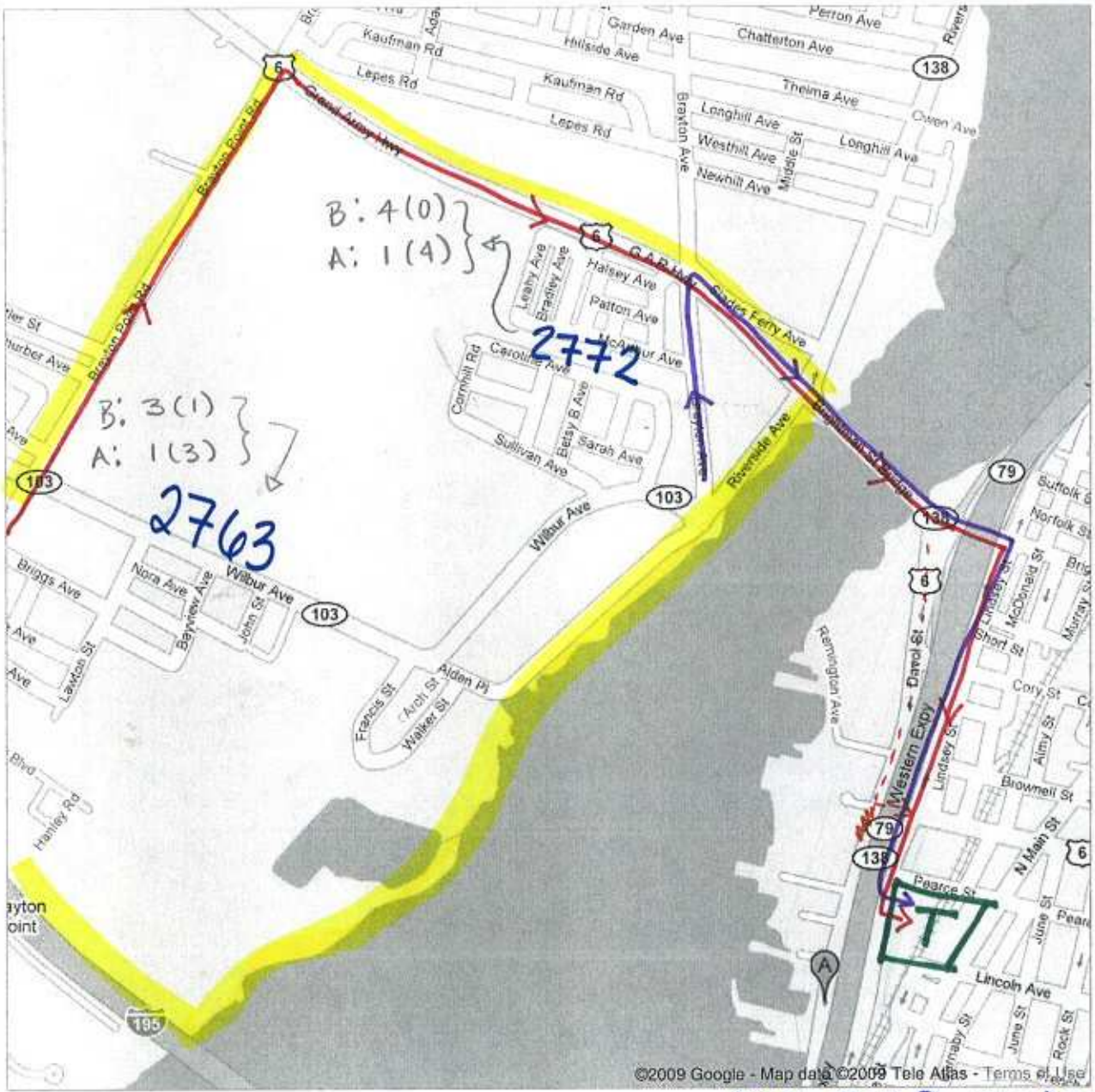
East Taunton 30589				
	2607	County St via Plain St	All traffic will filter north or south on Plain St, east on Hart St, south on County St	
	2606	County St via Linden St	All traffic will filter south on Linden St, east on Hart St, south on County St	
GATRA 30585				
	2593/ 2597	Oak St via School St	All traffic will filter south on School St and Washington St, west through Taunton Gr, south on Oak St	
	2596	Oak St via Hopewell St	All traffic will filter east on West Brittania St and Danforth St, south through Hopewell St , southwest on Washington St	
	2595/ 2594	Oak St via Tremont St	All traffic will filter east on Tremont St, south on Oak St	
	2592	Oak via Summer St	Traffic will filter north on Summer St, west on Main St and Court St, south on Washington St	
	2591	Oak St via High St	Traffic will filter north on Weir St and High St, west on High Street and Martin Sr Pkwy, south on Oak St	
	2583	Oak St via Cohannett St	Traffic will filter north on Winthrop St, Cohannett St and Somerset St, then west through R Martin Pkwy, south on Oak St	
	2590/ 2585	Oak St via Winthrop St	Traffic will filter north on Winthrop St and Somerset St, west through High St and Martin Sr Pkwy, south on Oak St	
	2588/ 2587	Oak St via Kilmer/Tremont	traffic will filter west through Kilmer St and Tremont St, south or north on Oak St	
	2589	Oak St via Hodges St	All traffic will filter east on Hodges St, south on Oak St	Some traffic will filter north through Winthrop st, west on High St and R. Martin Pkwy, and south on Oak St
	2586	Oak St NB via Highland St	Traffic will filter north on Cohannet St and south on Highland St, east on Oak St	
Dean 30666				
	2590/ 2591	Arlington St via Wier St	Traffic will filter north on Rt 138 (Weir St) and Somerset St, east on Main St, north on Arlington St	
	2603/ 2606	Arlington St via Gordon Riverway	Traffic will filter north through Linden St and Gordon Riverway, west on Rt 44 (Dean St), north on Arlington	
	2592	Arlington St via Main St	Traffic will filter north through Summer St and Prospect Street, east on Main St, north on Arlington St	
	2589	Arlington St via Hodges St	Traffic will filter east on Hodges St an dnorth on Winthrop St, east through Main St, and north on Arlington St	
	2593	Arlington St via Broadway St	Traffic will filter south on Broadway St and School St, east on Main St, north on Arlington	
	2597/ 2599	Arlington St via School	Traffic will filter east on Winter St and Purchase, south through School St, east on Arlington St	
	2598	Arlington St via Longmeadow Rd	Traffic will filter south on Longmeadow Rd and S. Main St, west on Dean St, north on Arlington	
	2600	Arlington St via Bay St	Traffic will filter south on Bay St and Arlington St	

Raynham				
30653				
	2529	Turnpike St (Rt. 138)	Traffic will filter east and west through Foundry St, south on Turnpike St and Washington St	
	2556	Broadway St (Rt. 138)	Traffic will filter west on Wilbur St and Elm St, east on Bridge St and Elm St, north on Broadway St	Some traffic will filter north through Robinson St and west on Wilbur St, north on Rt 138
Easton North				
30651	1716	Roche Bros via Plain St	Traffic will filter east on Plain St, south on Wier St, east on Plain St, south on Washington St (Rt. 138)	Part of the traffic will filter south on N. Main St, east on Elm St, and north on Rt. 138 to Roche Bros. Way
Easton Village				
30652	2523	Easton Village via Center St	Traffic will filter east on Depot St (Rt. 123), north on Center St, north on Sullivan Rd	
	2519	Easton Village via Rockland St	Traffic will filter east on Rockland St, north and south on Bay Rd to Lincoln St, east on Lincoln St and north on Rt. 138 to Roche Bros. Way	
	2524	Easton Village via Main St SB	Traffic will filter south on Canton and Main St, west on Elm St, east through Oliver St	
	2525	Easton Village via Union St	Traffic will filter west on Union St/Pleasant St, south on Rt. 138, west on Elm St, south on Main St, east on Oliver St	
	2526	Easton Village via Pearl St	Traffic will filter north on Pearl St, west on Main St, north on Sullivan Rd	

Google Maps

Address **Davol St**
Fall River, MA

Get Google Maps on your phone
Text the word "GMAPS" to 466453



SCR - Fall River Depot

TAZ: 2772 & 2763

TAZ

Train Station Location

TAZ code

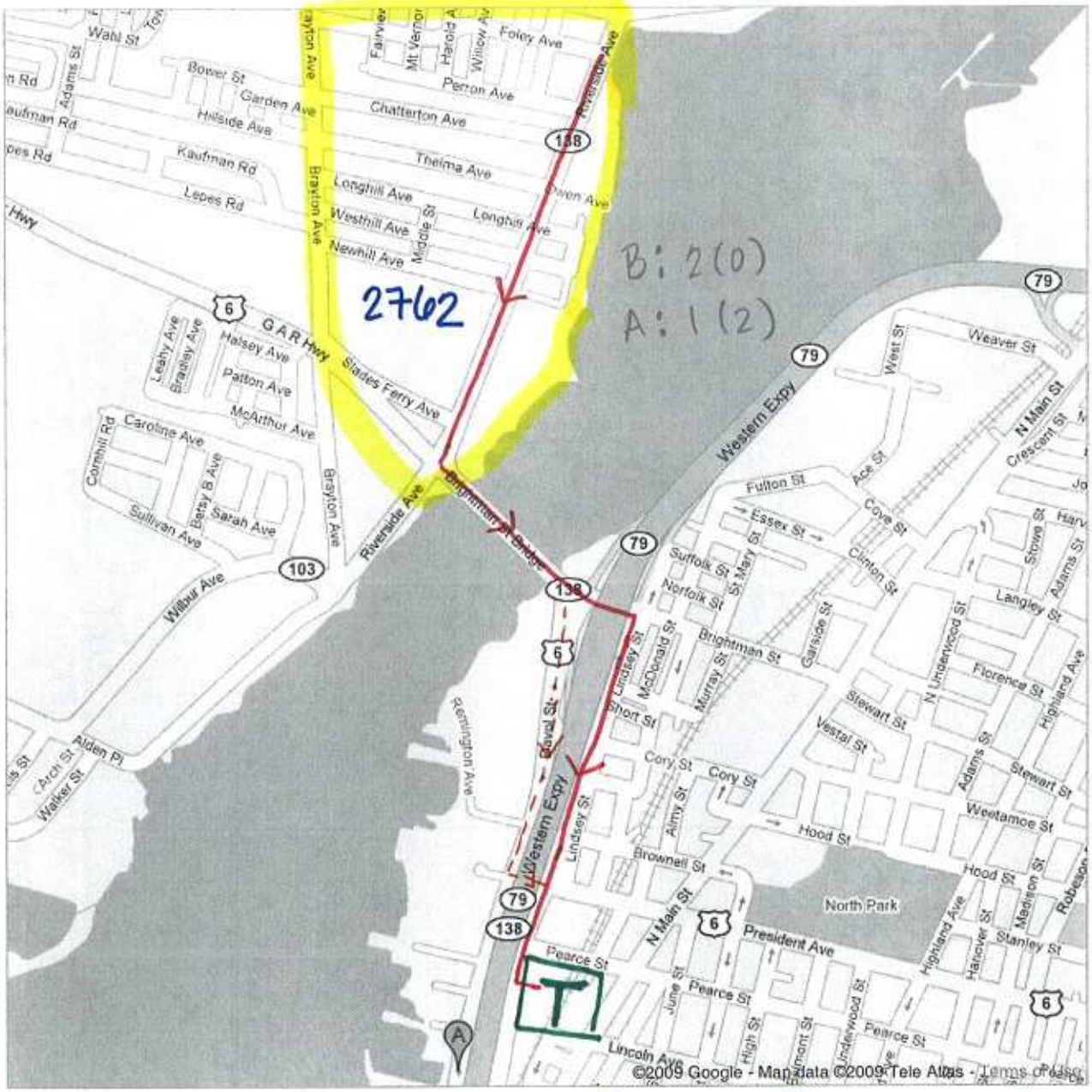
Ped Route for TAZ 2763

Ped Route for TAZ 2772

Google Maps

Address **Davol St**
Fall River, MA

Get Google Maps on your phone
Text the word "GMAPS" to 466453



TAZ
Pedestrian Route
Train Station Location
TAZ number

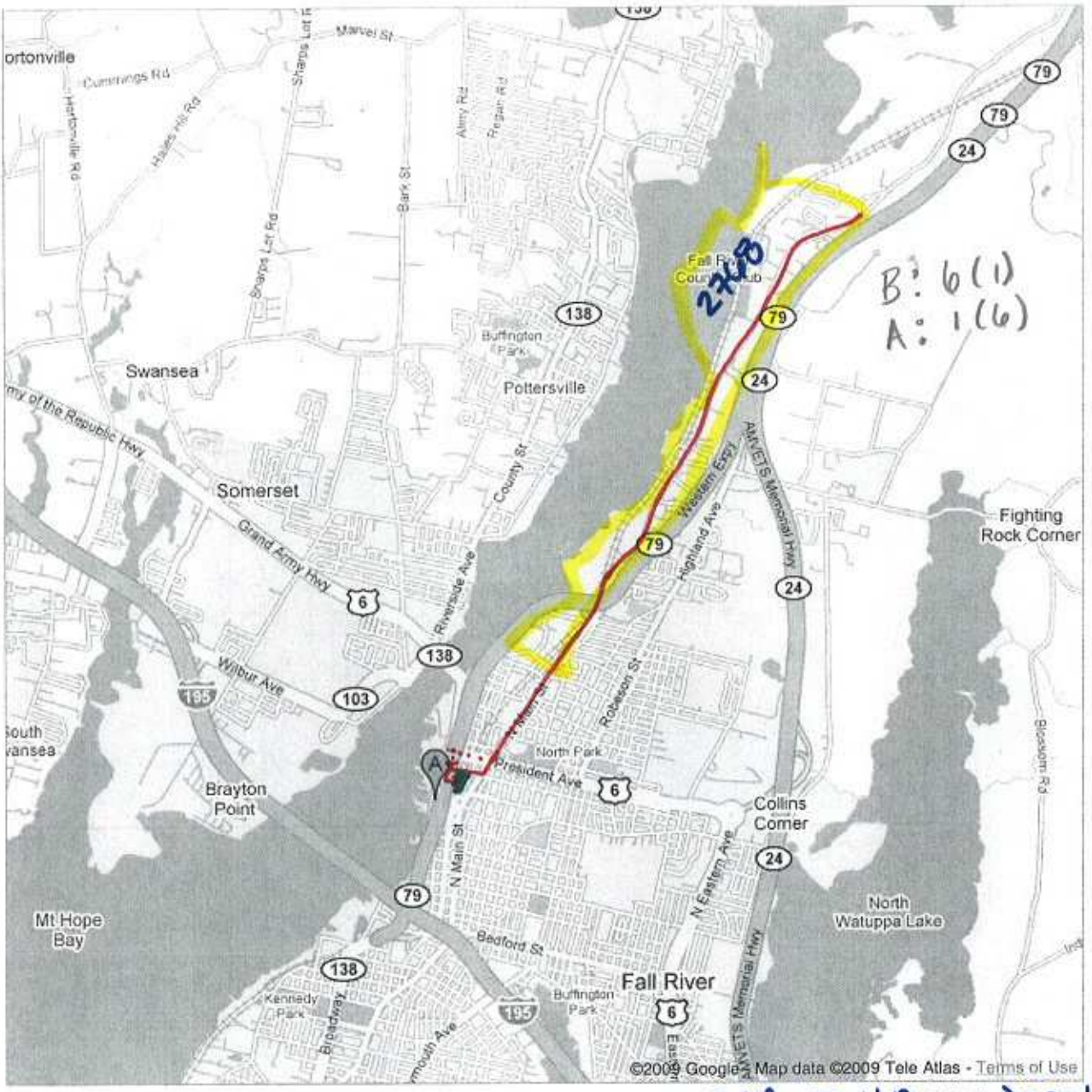
SCR - Fall River Depot
TAZ: 2762

Bike

Google Maps

Address **Davol St**
Fall River, MA

Get Google Maps on your phone
Text the word "GMAPS" to 466453

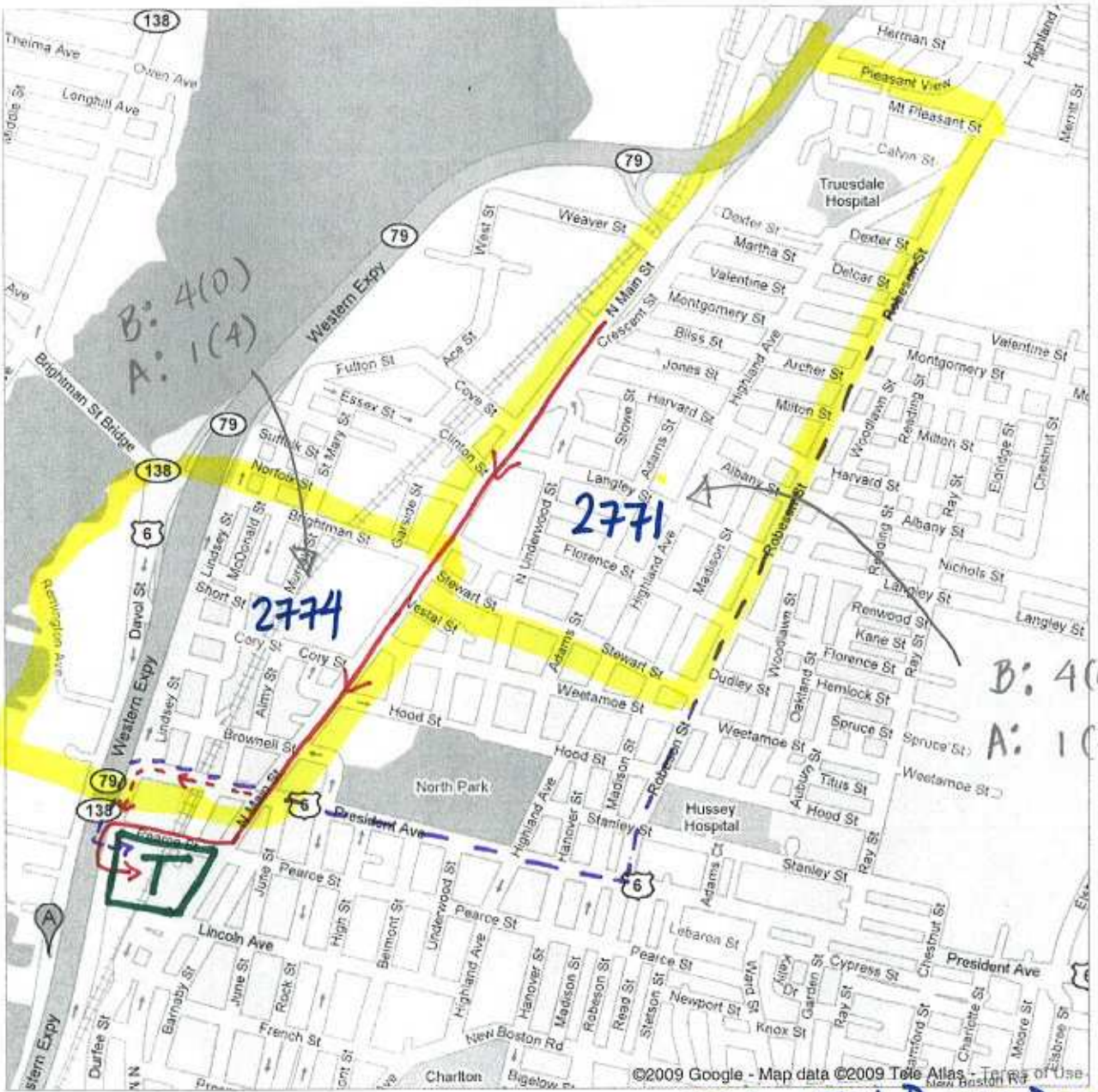


SCR - Fall River Depot
TAZ: 2768

Google Maps

Address **Davol St**
Fall River, MA

Get Google Maps on your phone
Text the word "GMAPS" to 466453



SCR - Fall River Depot

TAZ: 2771 & 2774

TAZ

Fall River Depot station

TAZ code

Ped route to train station for both TAZs

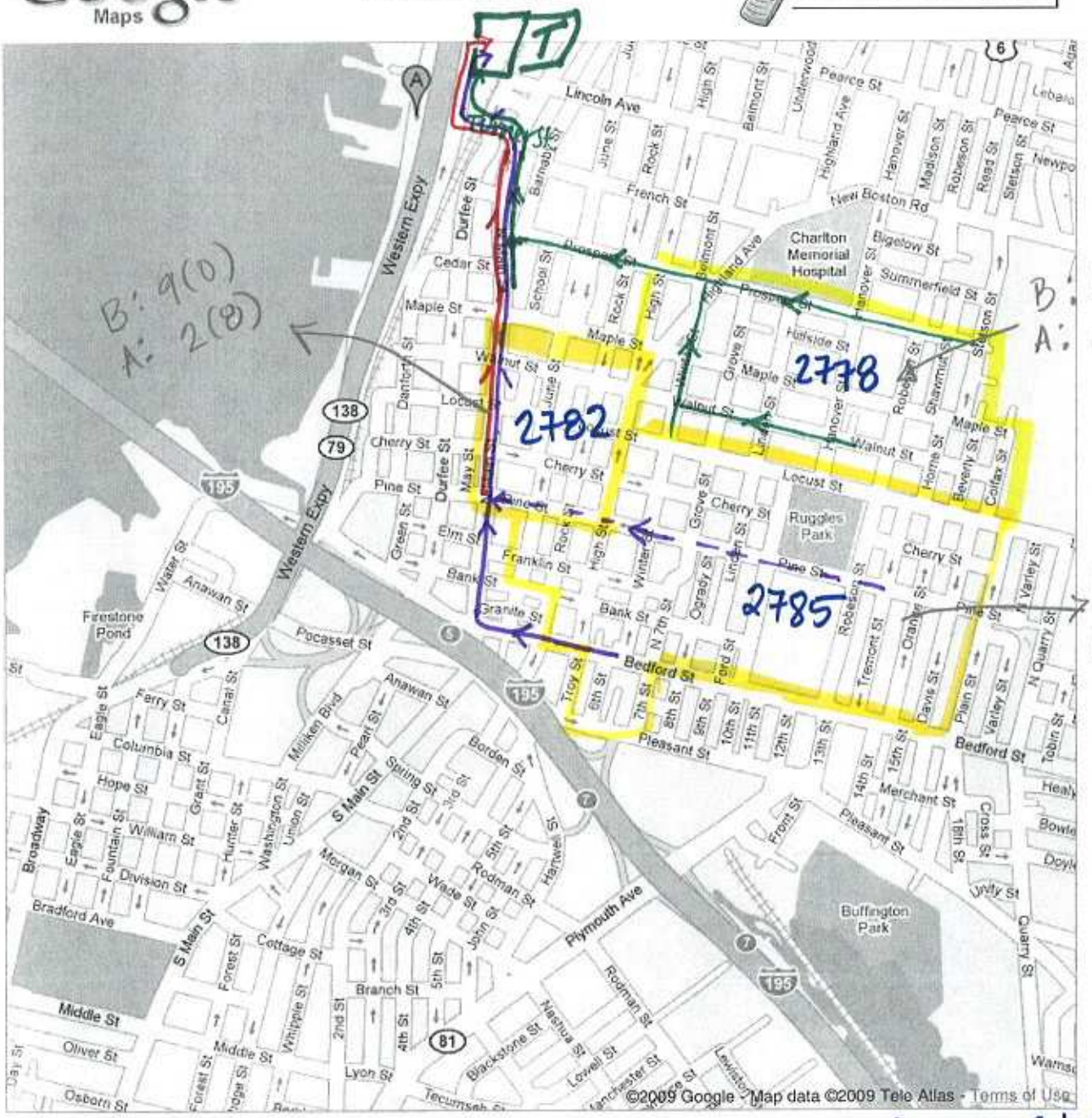
alternate ped route for both TAZs

alternate route for TAZ 2771 only

Google Maps

Address **Davol St**
Fall River, MA

Get Google Maps on your phone
Text the word "GMAPS" to 466453



T Fall River Depot Station

Fall River Depot Station
TAZ: 2782 & 2785 & 2778

— Ped route to train station from TAZ 2782

— Ped route to train station from TAZ 2785

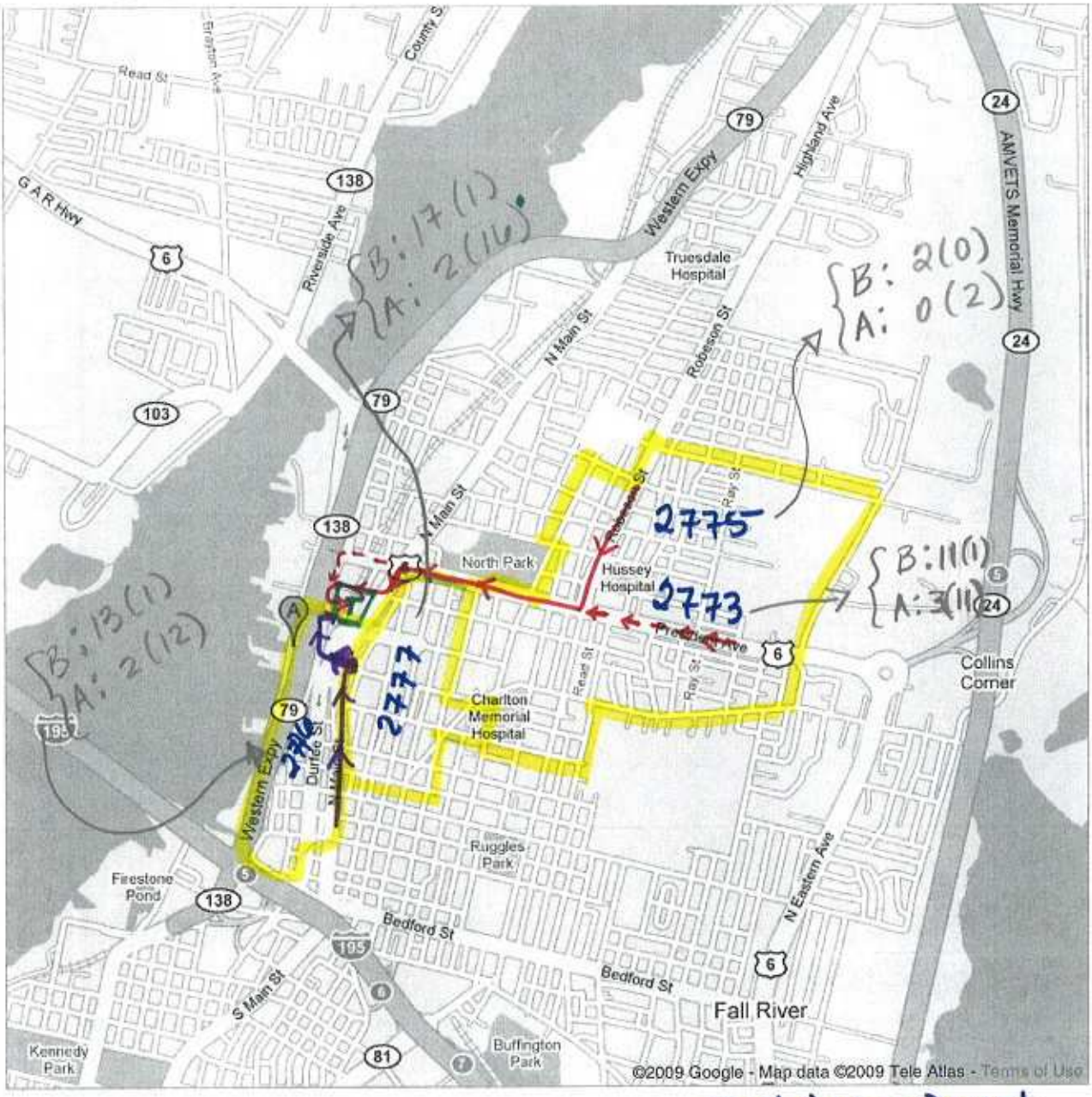
- - - Alternate ped route to train station from TAZ 2785

— Ped route to train station from TAZ 2778

Google Maps

Address **Davol St**
Fall River, MA

Get Google Maps on your phone
Text the word "GMAPS" to 466453



Fall River Depot

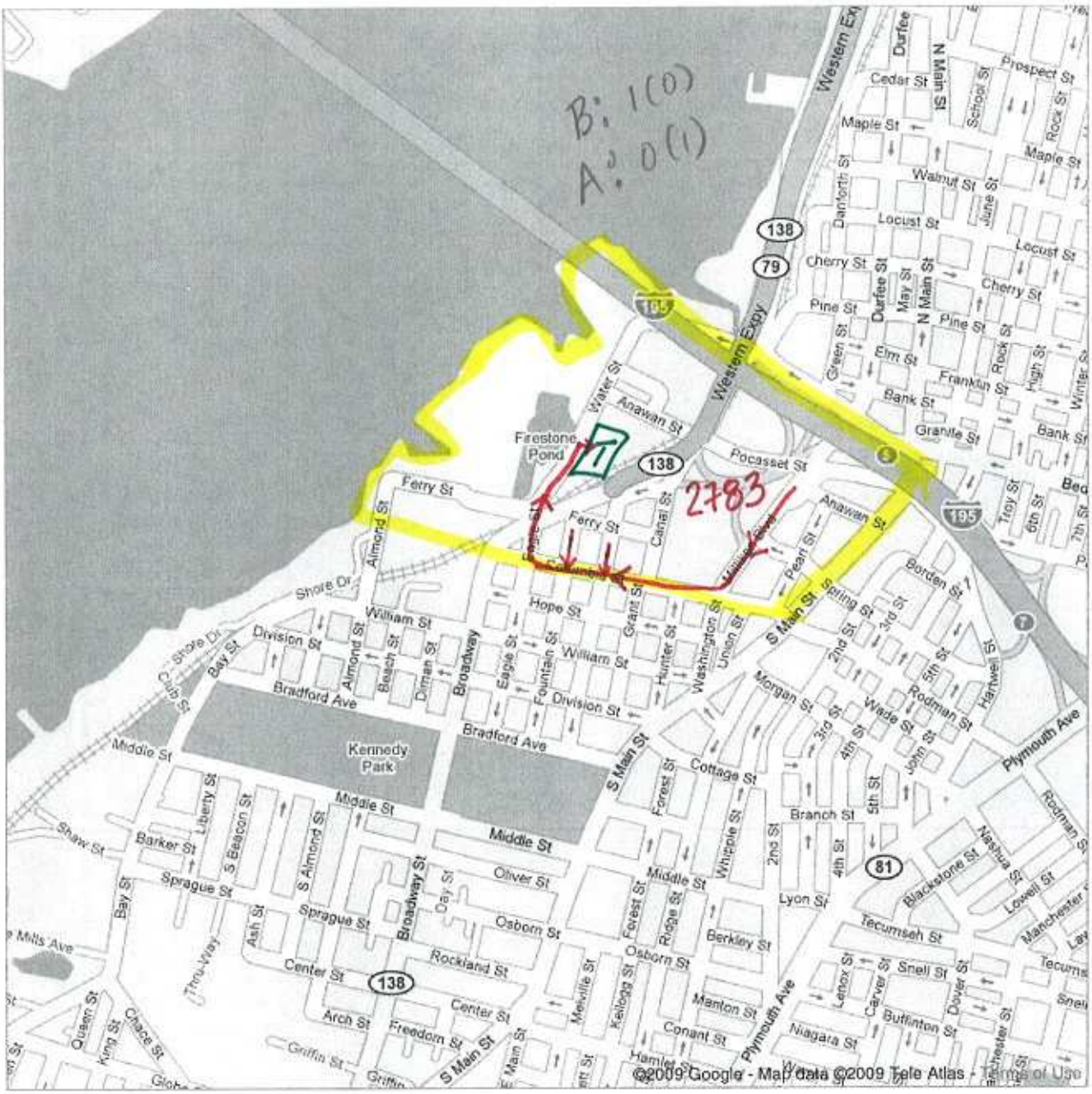
TAZ: 2775 & 2773
2777 & 2776

- TAZ
- Fall River Depot Station
- # TAZ code
- Ped Route to train station for both TAZ
- alternate ped route for both TAZ (2775 and 2773)
- Ped route to train station for taz 2777 and 2776

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

Get Google Maps on your phone
Text the word "GMAPS" to 466453



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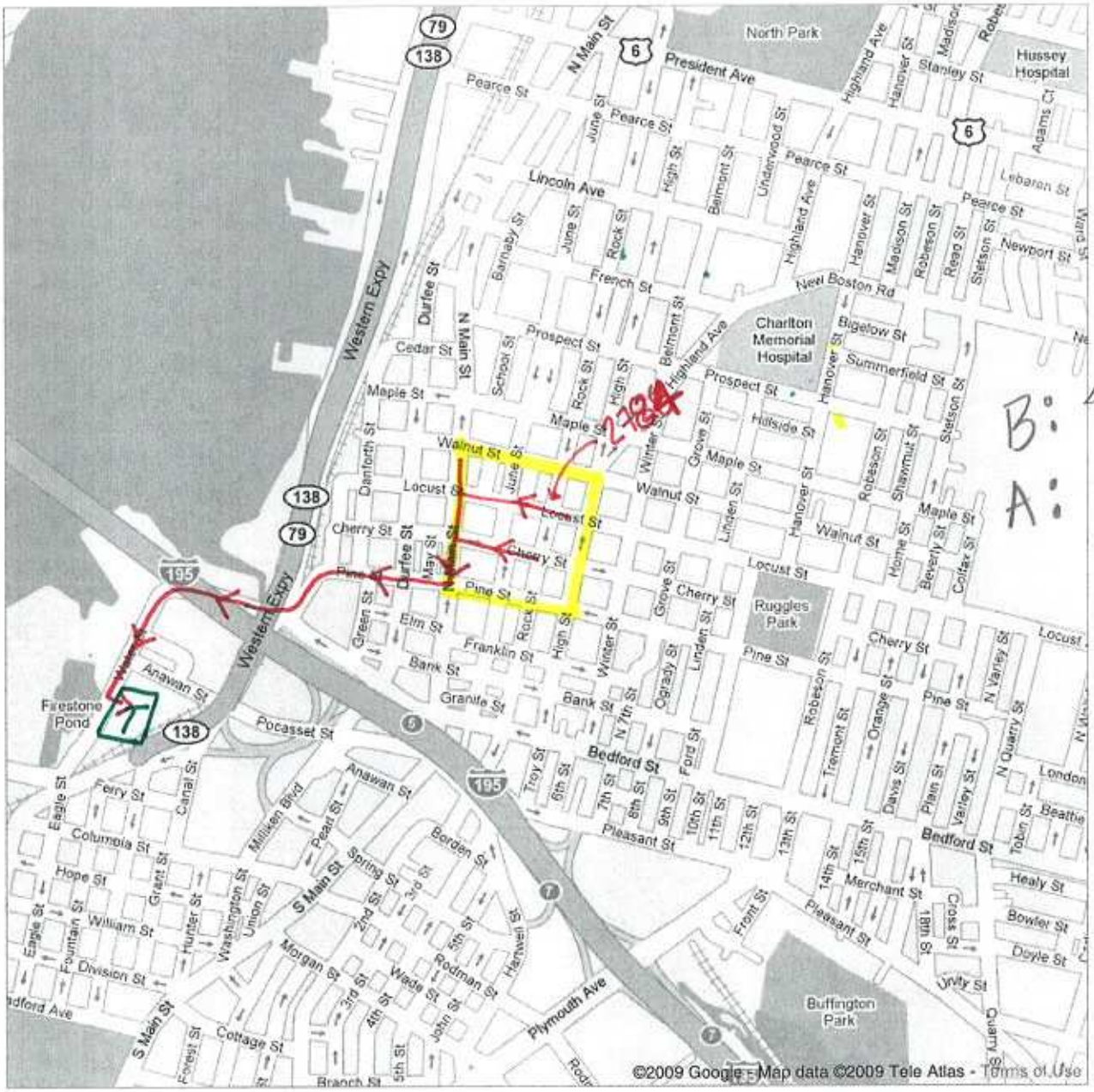
[T] Battleship Cove Station

— Ped route to Battleship Cove Station from TAZ 2783

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

Get Google Maps on your phone
Text the word "GMAPS" to 466453



B: 4(1)
A: 1(2)

T Battleship Cove Station

— Ped route to Battleship Cove Station from TAZ 2784

Bike

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

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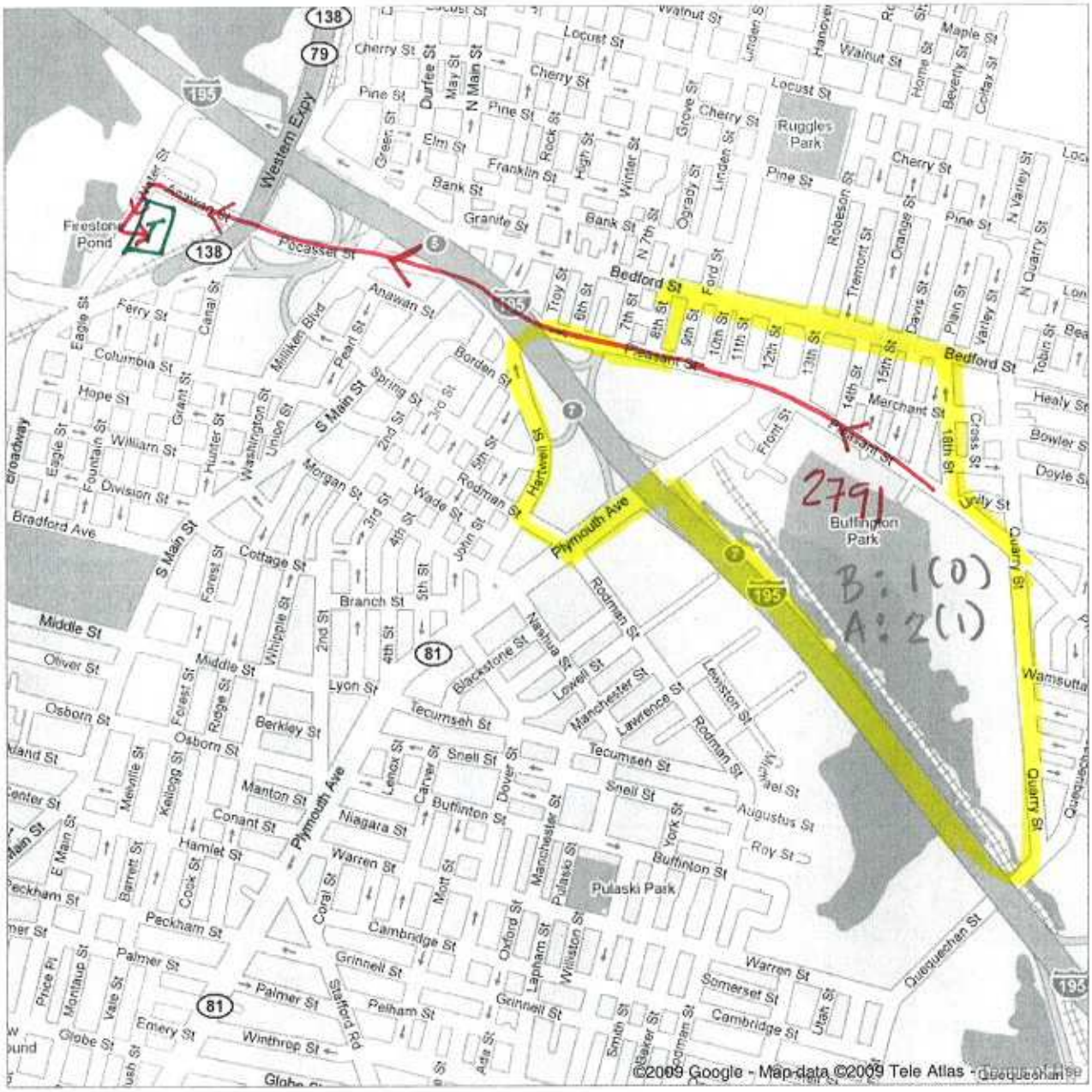
Text the word "GMAPS" to 466453



[T] Battleship Cove Station

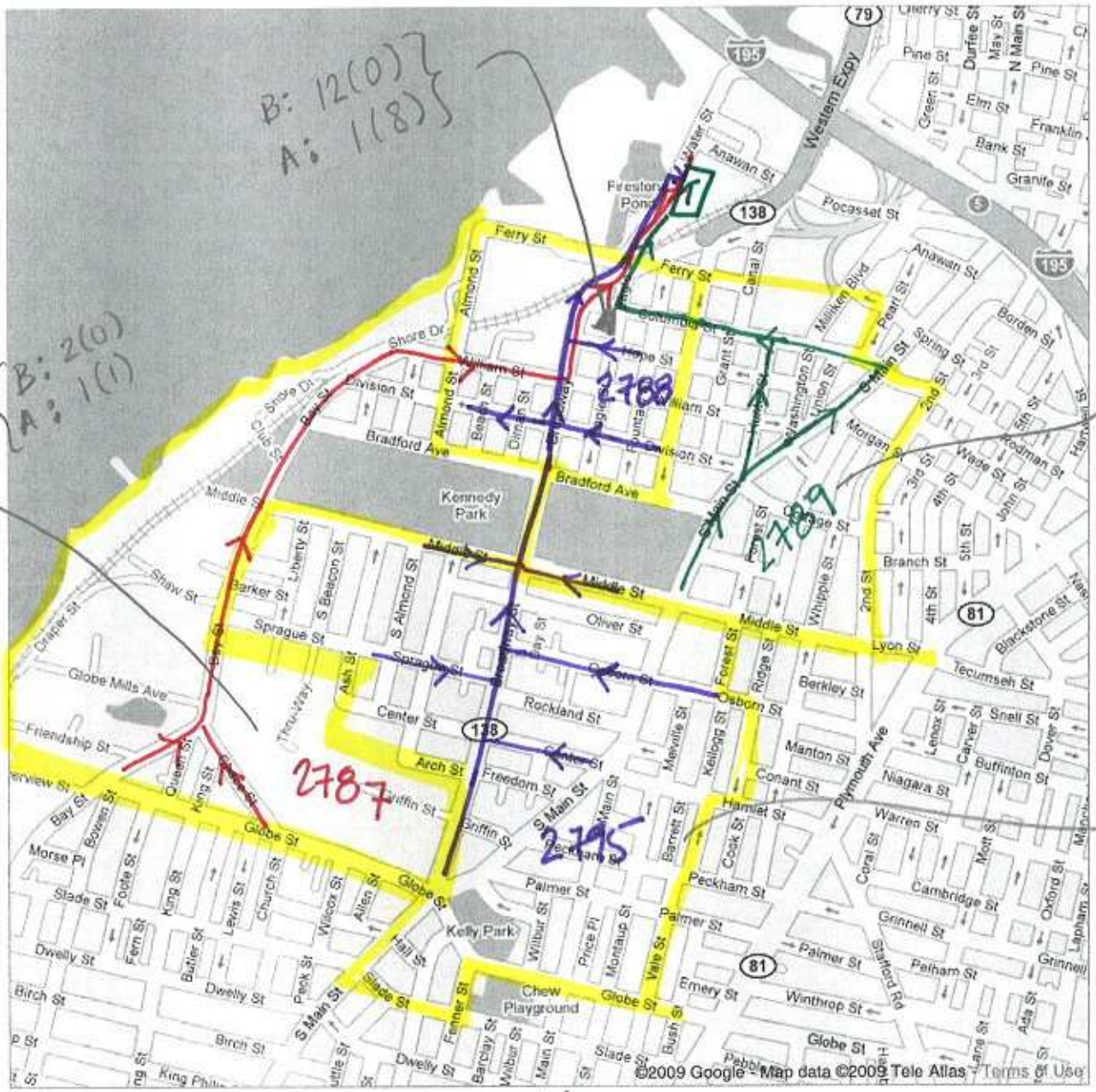
– Ped route from TAZ 2791 to Battleship Cove Station

Bike

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

Get Google Maps on your phone
Text the word "GMAPS" to 466453


B: 12(0)
A: 1(8)
B: 2(0)
A: 1(1)
B: 19(1)
A: 1(15)
B: 10(0)
A: 1(9)
2788
2789
2787
2795
T
Ferry St
Bradford Ave
Kennedy Park
Middle St
Shaw St
Sprague St
Globe Mills Ave
Friendship St
Center St
Rockland St
Arch St
Freedom St
Griffin St
Globe St
Morse Pl
Slade St
Dwelly St
Birch St
Kelly Park
Chew Playground
Palmer St
Peckham St
Hamlet St
Conant St
Manton St
Niagara St
Warren St
Cambridge St
Grinnell St
Pelham St
Winthrop St
Emery St
Olney St
Osborn St
Lyon St
Branch St
Tecumseh St
Berkley St
Plymouth Ave
Western Expy
Anawan St
Pocasset St
Bank St
Granite St
Pine St
Elm St
Franklin
Durfee St
Green St
Shore Dr
Division St
William St
Almond St
Bedford St
Dover St
Pleasant St
Hope St
Grant St
Canal St
Milliken Blvd
Pearl St
Spring St
Borden St
Morgan St
Wade St
Rodman St
John St
Whipple St
Ridge St
Forest St
Kolloch St
Mervile St
Barnett St
Cook St
Coral St
Mott St
Lenox St
Carver St
Snell St
Buffinton St
Dover St
Blackstone St
Oxford St
Lapham St
Stafford Rd
Pleasant St
Grinnell
Hall St
Pitce Pl
Montaup St
Wilbur St
Vale St
Bush St
Barclay St
Fenner St
Wilcox St
Allen St
Church St
Levis St
Fern St
Buxton St
Peck St
S Main St
Foote St
King St
Bay St
Bowen St
Queen St
Thru Way
Liberty St
S Beacon St
S Almond St
Ash St
Barker St
Draper St
Club St
Shore Dr
Middle St
Pleasant St
Bedford St
Dover

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

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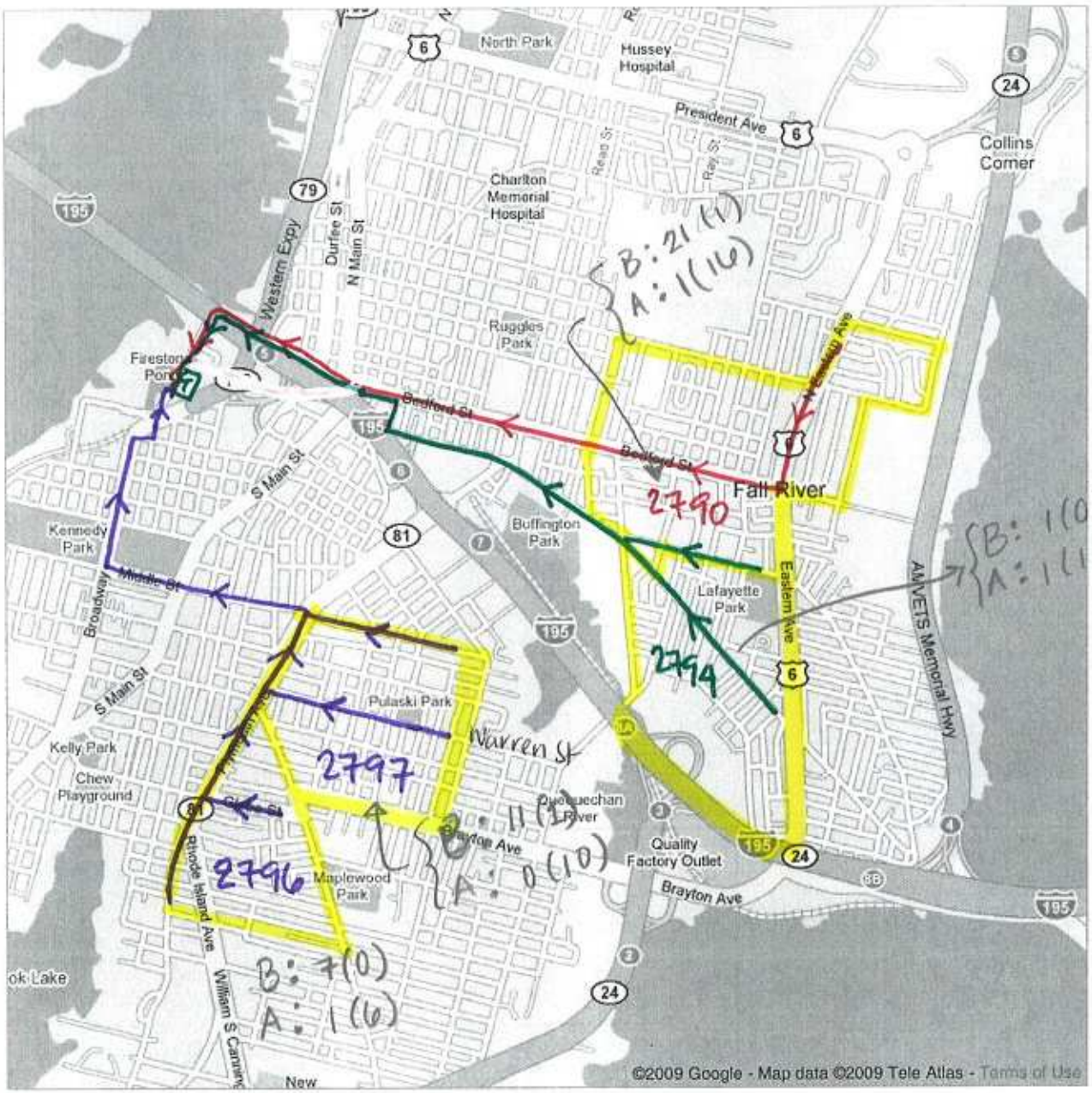


B: 21 (1)
A: 1 (16)

B: 1 (0)
A: 1 (1)

B: 11 (1)
A: 0 (10)

B: 7 (0)
A: 1 (6)

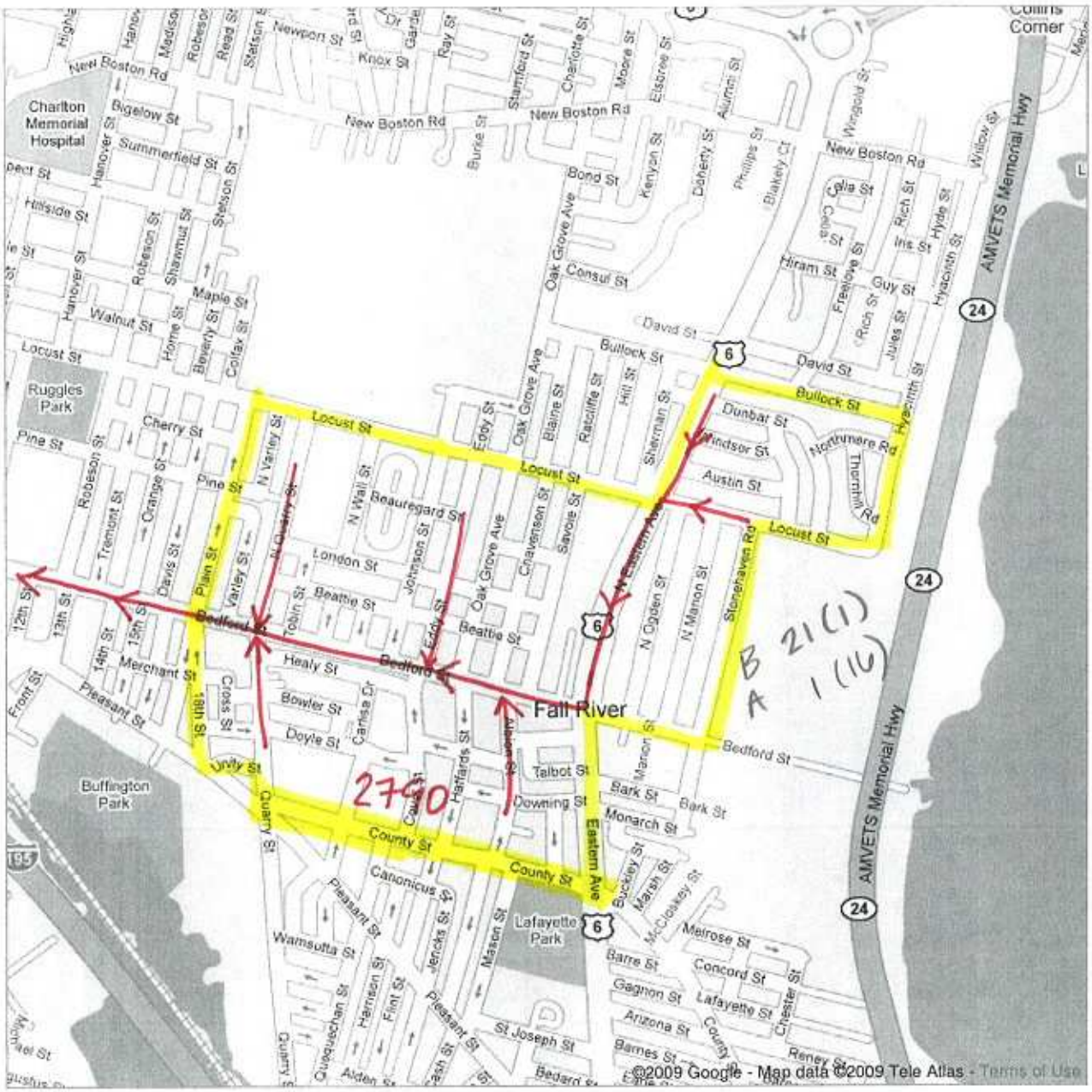
T Battleship Cove Station

- Ped route to Battleship Cove Station from TAZ 2790
- Ped route to Battleship Cove Station from TAZ 2794
- Ped routes to Battleship Cove Station from TAZs: 2796 & 2797

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

Get Google Maps on your phone
Text the word "GMAPS" to 466453

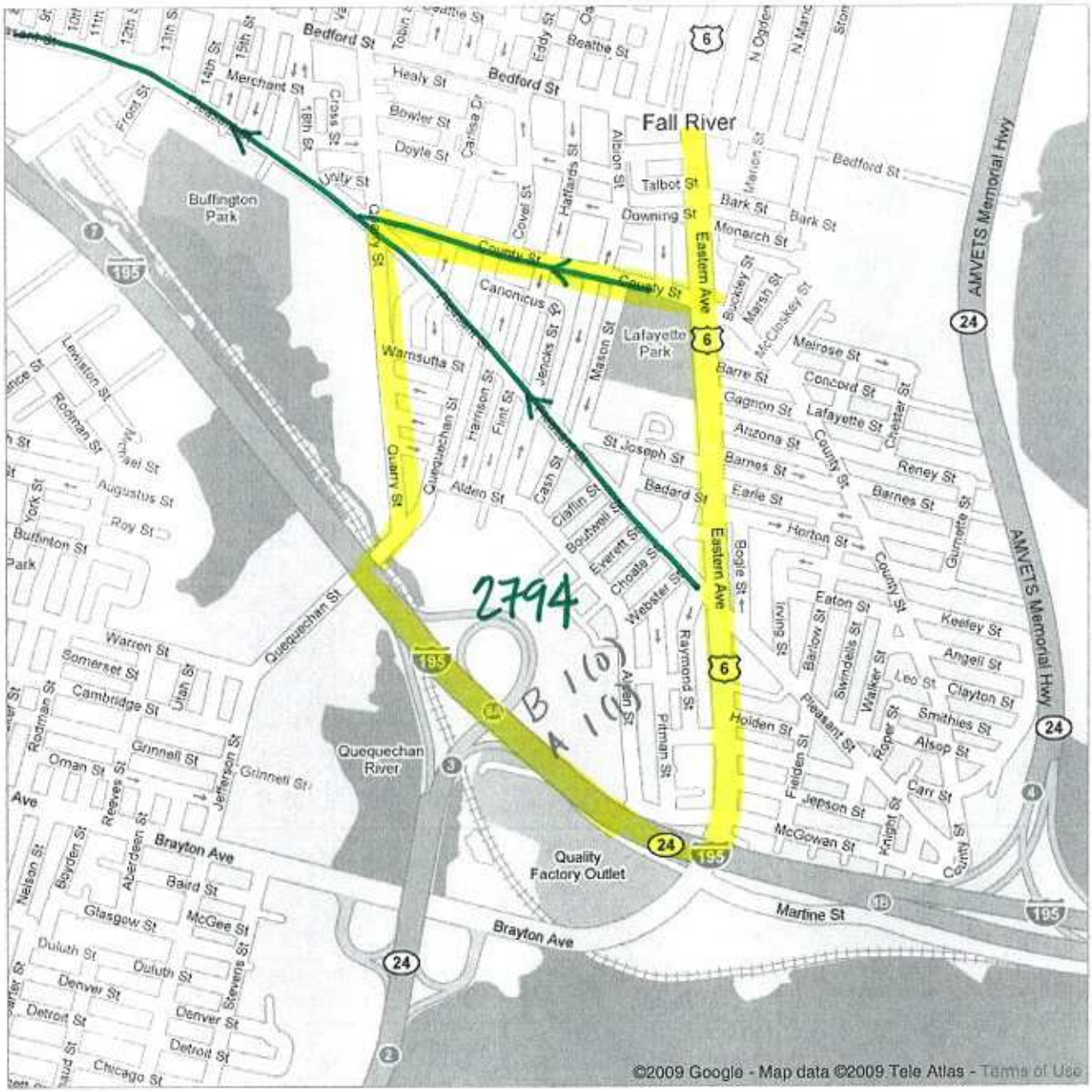


— Ped route from 2790

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

Get Google Maps on your phone
Text the word "GMAPS" to 466453

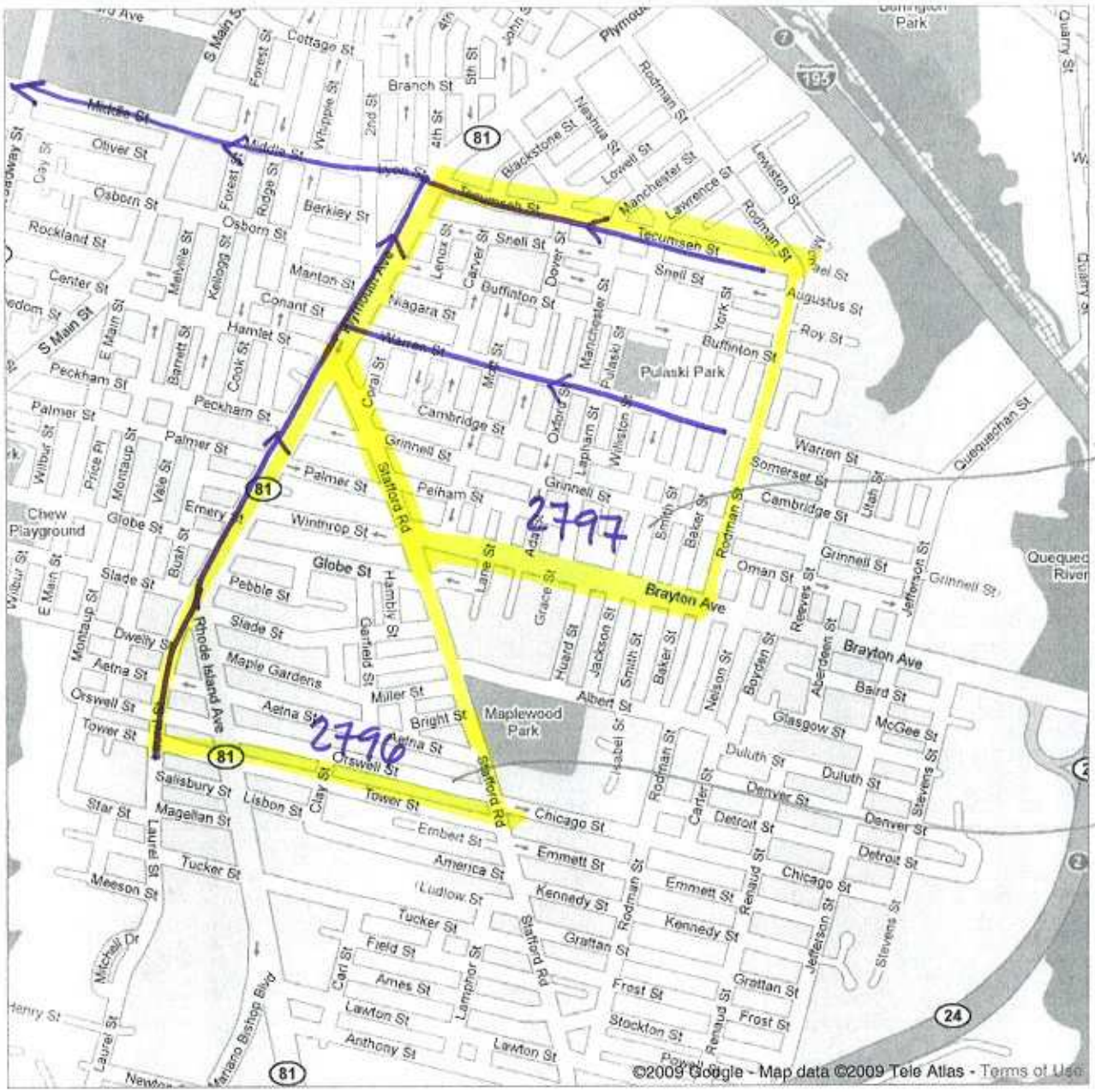


– Ped Route to Battleship Cove from TAZ 2794

Google Maps

Address **President Ave & Davol St**
Fall River, MA 02720

Get Google Maps on your phone
Text the word "GMAPS" to 466453



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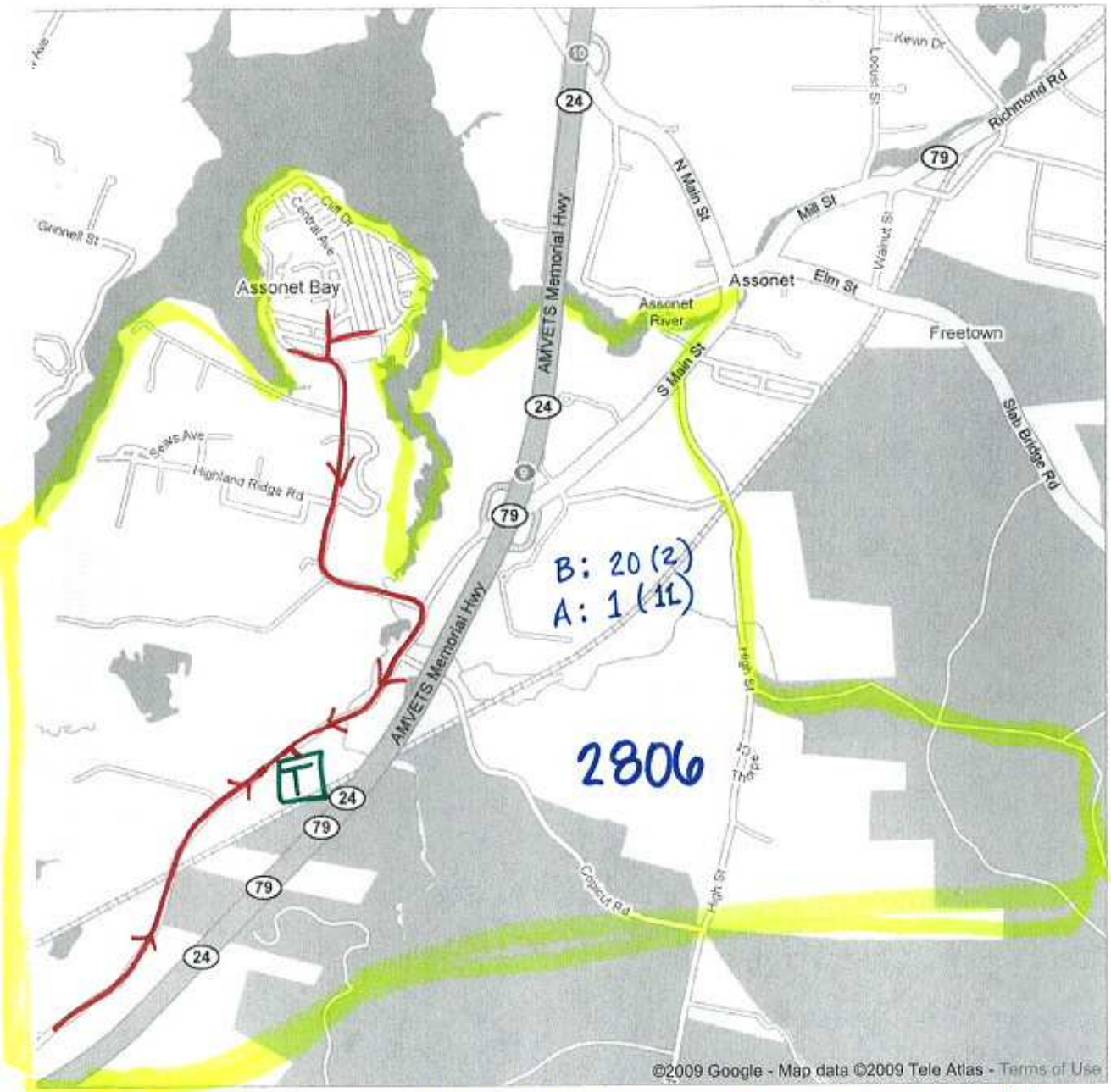
B: 11(1)
A: 0(10)

B: 7(0)
A: 1(6)

- Ped routes to Battleship Cove from TAZs: 2796 & 2797

Google maps

Get Google Maps on your phone
Text the word "GMAPS" to 466453



TAZ 2806 Freetown, MA

T Freetown Station

Pedestrian Route to Freetown Station

B : Boardings

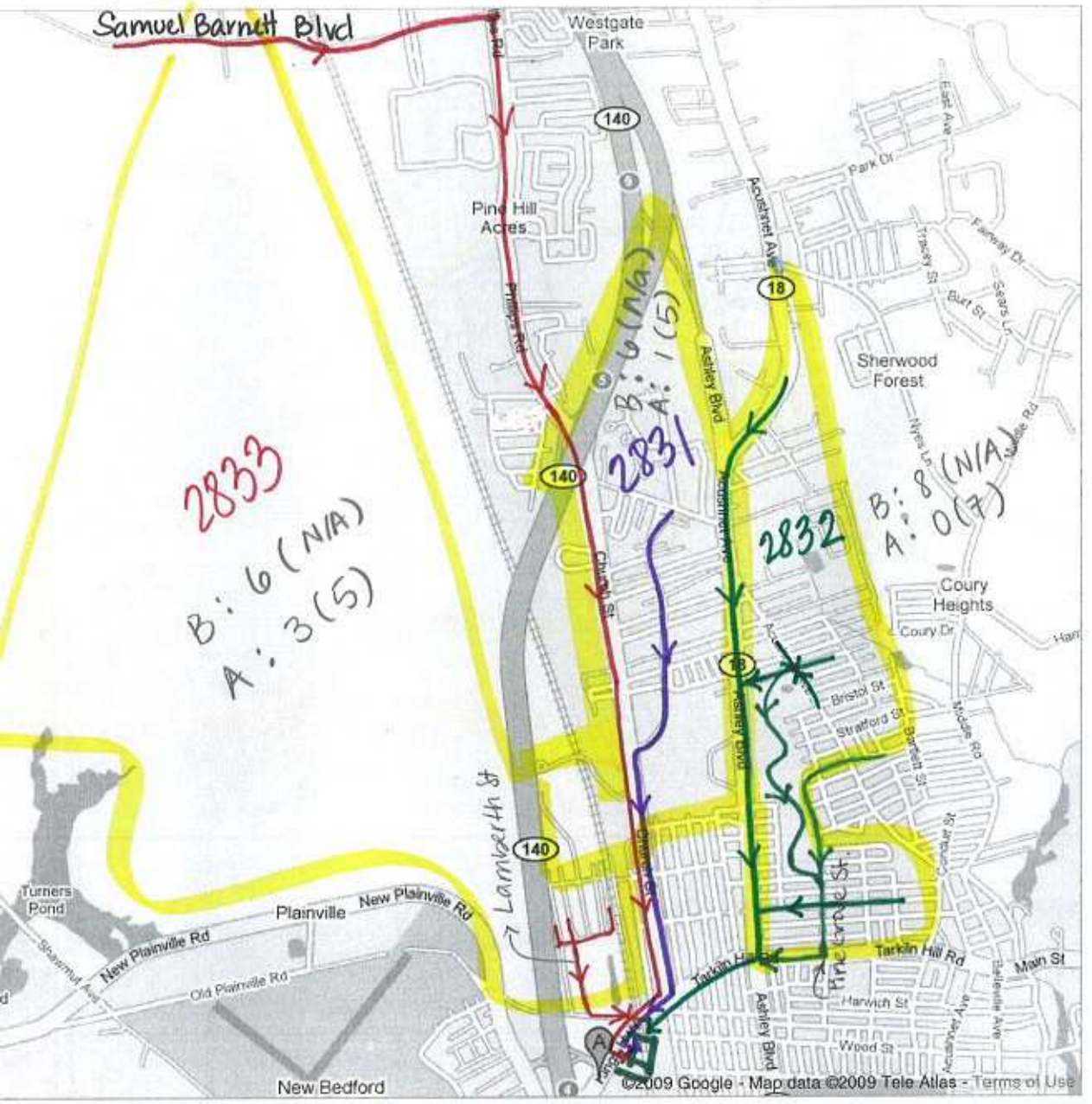
A : Alightings

xx (xx) : AM (PM)

Google Maps

Address **Kings Hwy**
New Bedford, MA 02745

Get Google Maps on your phone
Text the word "GMAPS" to 466453

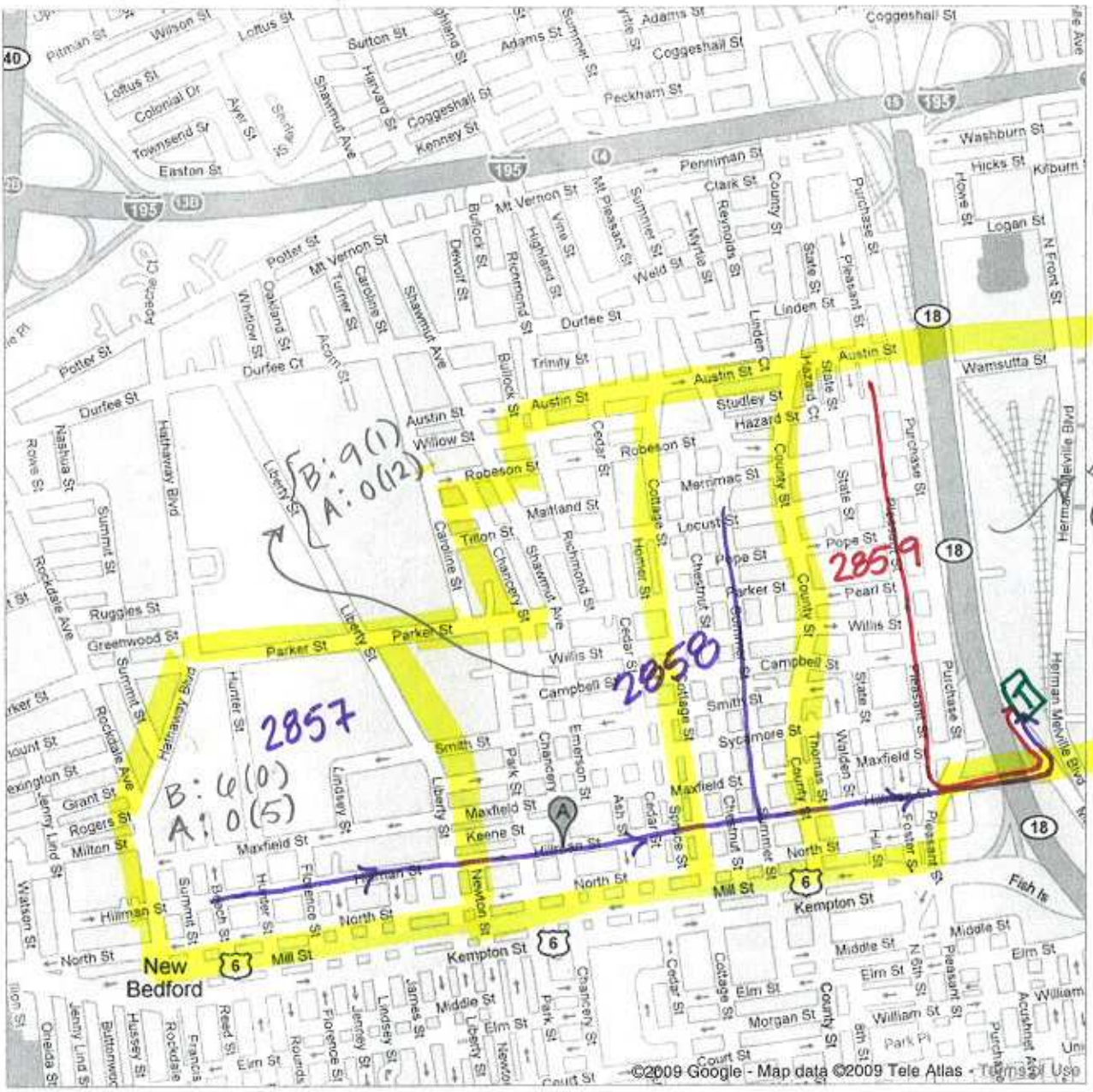


T Kings Highway Station
— Pedestrian route to Kings Highway Station through Wildwood Rd (TAZ 2831)
— Pedestrian route to Kings H. Station through Phillips St. (TAZ 2833)
— Pedestrian route to Kings Highway Station from TAZ 2832.

Google Maps

Address **Hillman St**
New Bedford, MA 02740

Get Google Maps on your phone
Text the word "GMAPS" to 466453



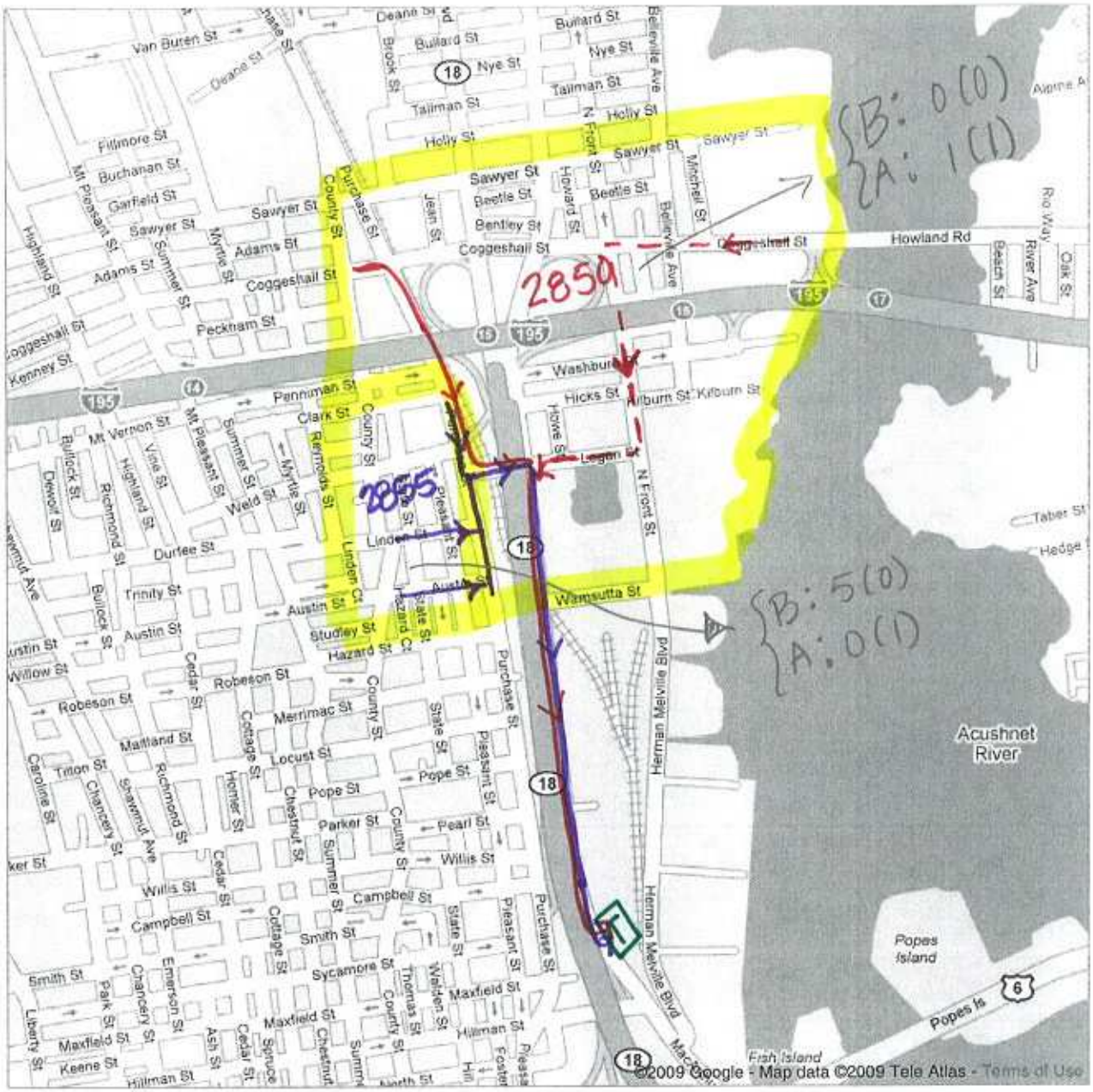
[T] Whales Tooth Station

- Ped route to Whales Tooth Station from TAZs: 2857 & 2858
- Ped route to Whales Tooth Station from TAZ 2859

Google Maps

Address **Union St**
New Bedford, MA 02740

Get Google Maps on your phone
Text the word "GMAPS" to 466453



[T] Whales Tooth Station

— Ped route to Whales Tooth Station from TAZ 2850

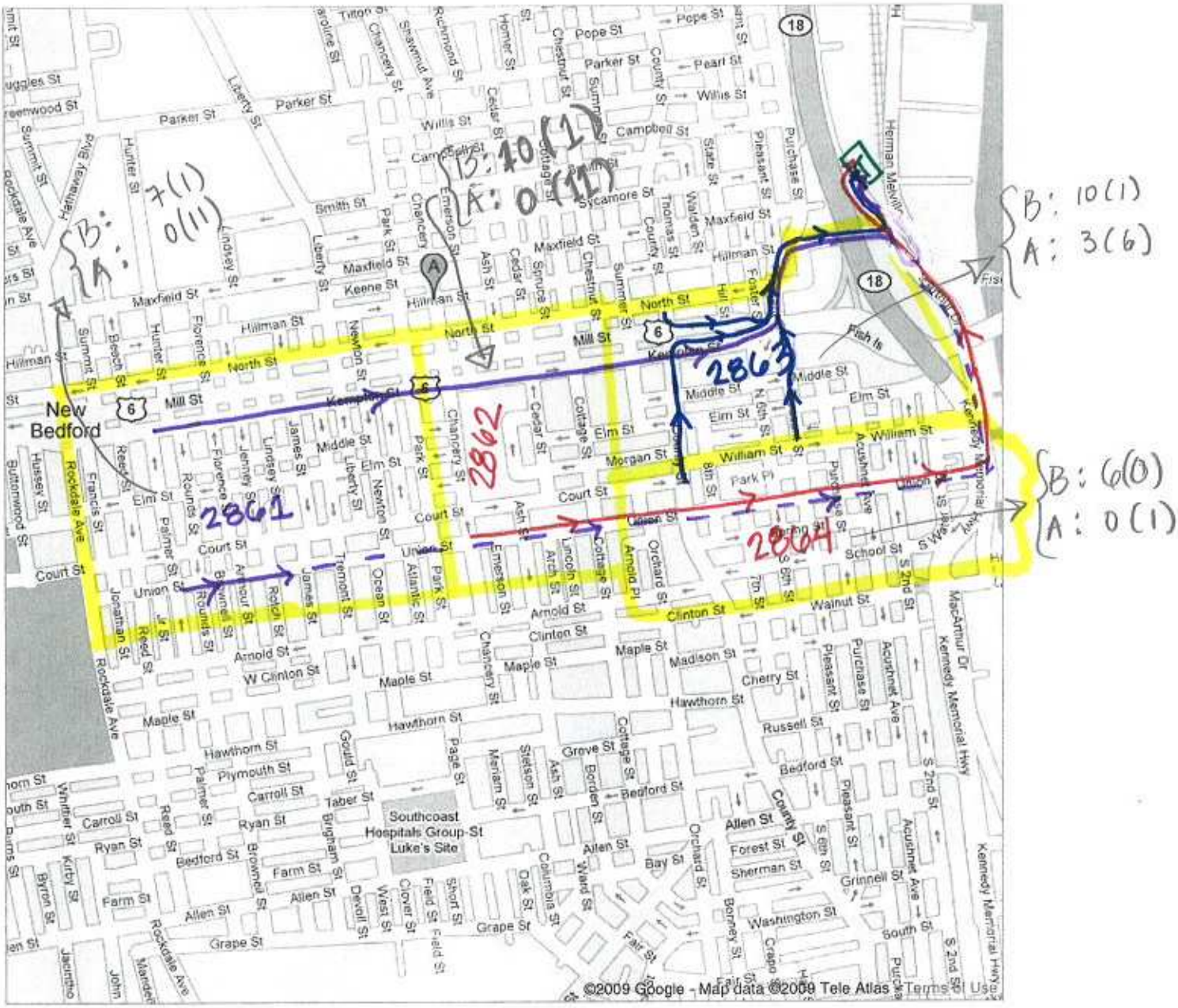
--- Alternate ped route through N. Front St.

— Ped route to Whales Tooth Station from TAZ 2855

Google Maps

Address **Hillman St**
New Bedford, MA 02740

Get Google Maps on your phone
Text the word "GMAPS" to 466453



[T] Whales Tooth Station

— Ped route to Whales Tooth Station from TAZ 2861

--- Alternate ped rout from TAZ 2861 (through Union St.)

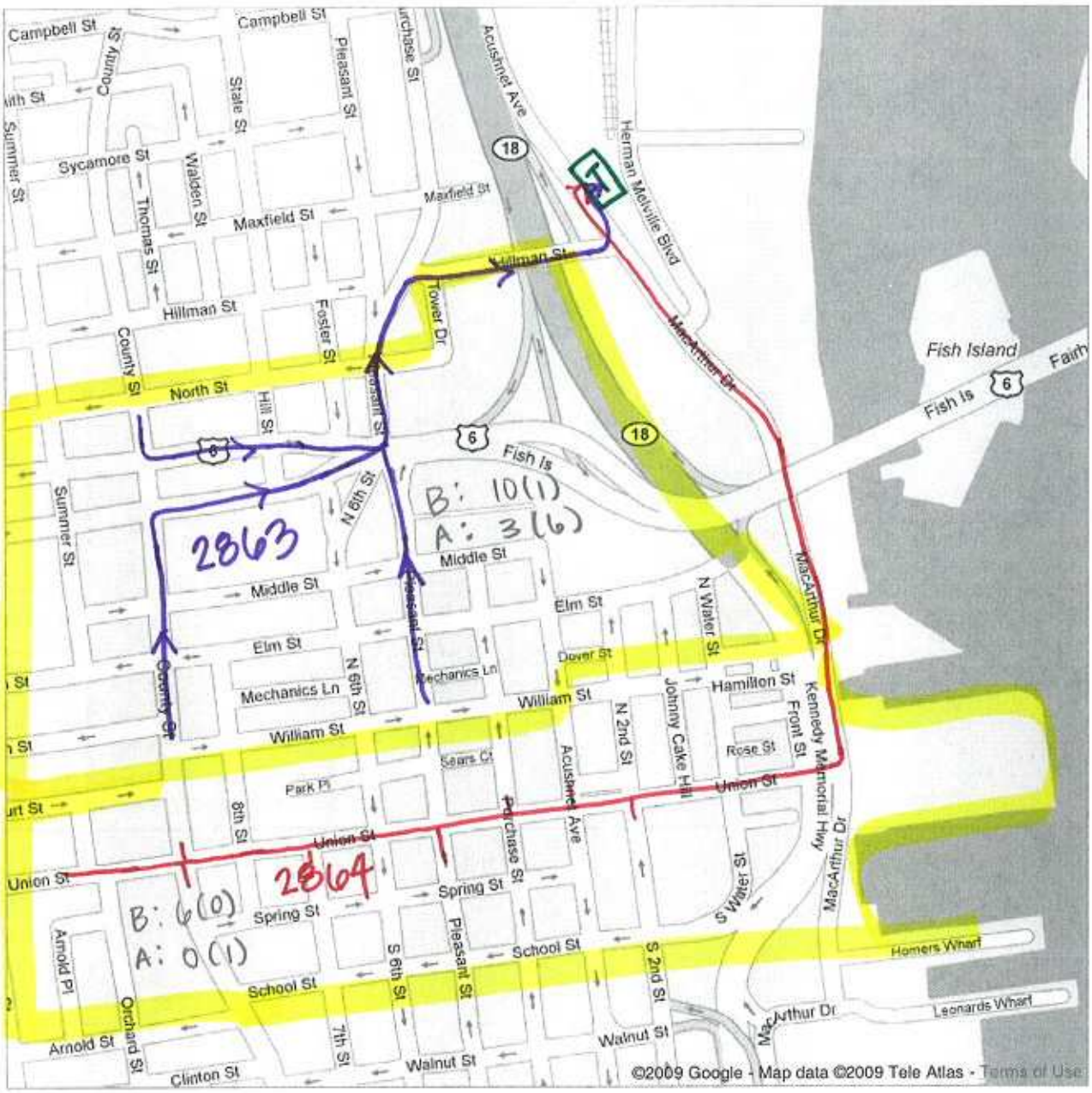
— Ped route to Whales Tooth Station from TAZs 2862 & 2864

— Ped route to Whales Tooth Station from TAZ 2863

Google Maps

Address **Hillman St**
New Bedford, MA 02740

Get Google Maps on your phone
Text the word "GMAPS" to 466453



[T] Whales Tooth station

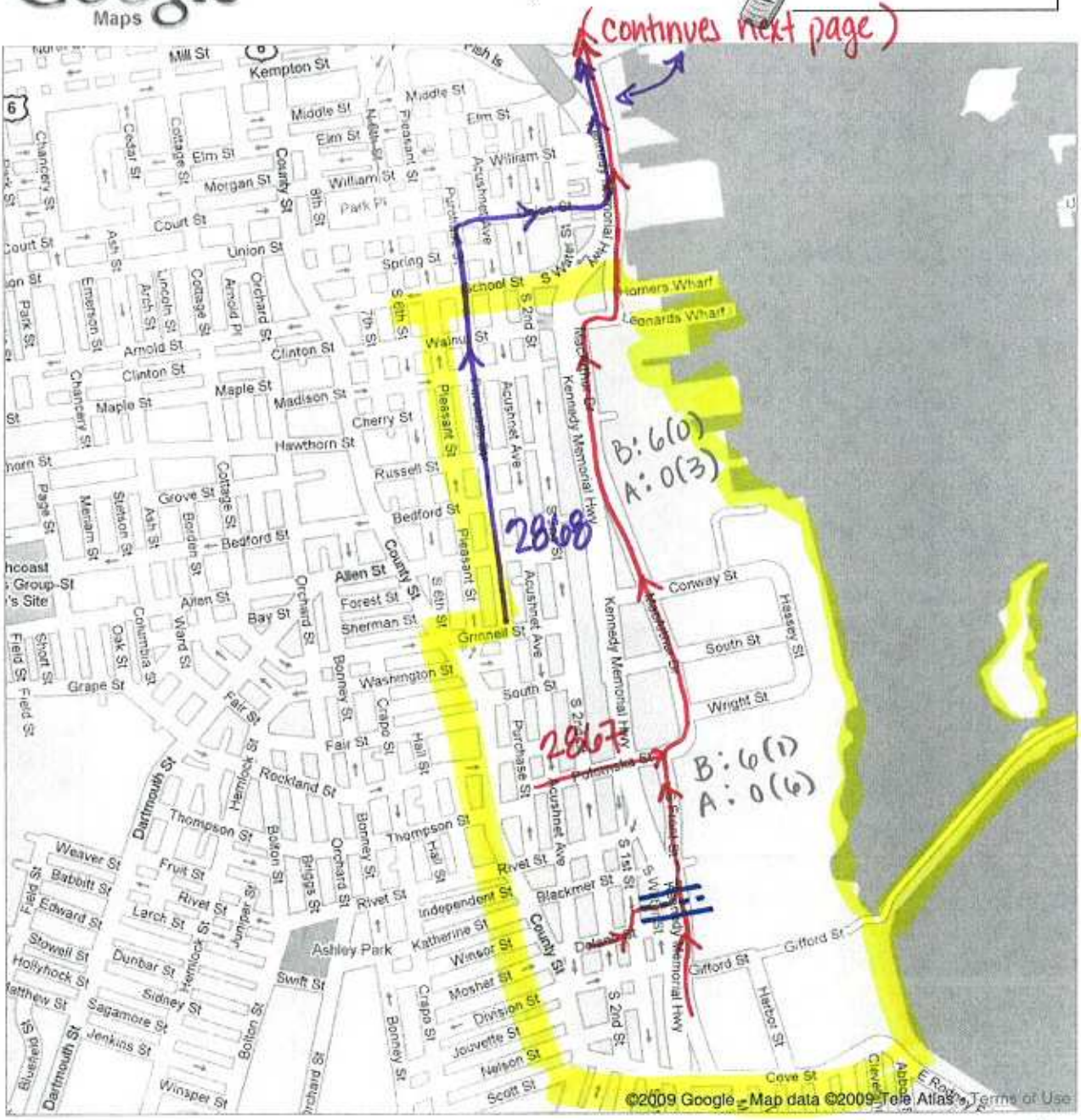
— Ped route to Whales Tooth Station from TAZ 2863

— Ped Route to " " " from TAZ 2864

Google Maps

Address **Hillman St**
New Bedford, MA 02740

Get Google Maps on your phone
Text the word "GMAPS" to 466453



* Whales Tooth Station

Ped Bridge

— Ped route to go to Whales Tooth Station from TAZ 2867

— Ped route to go to Whales Tooth Station from TAZ 2868

Google Maps

Address **Hillman St**
New Bedford, MA 02740

Get Google Maps on your phone
Text the word "GMAPS" to 466453

2

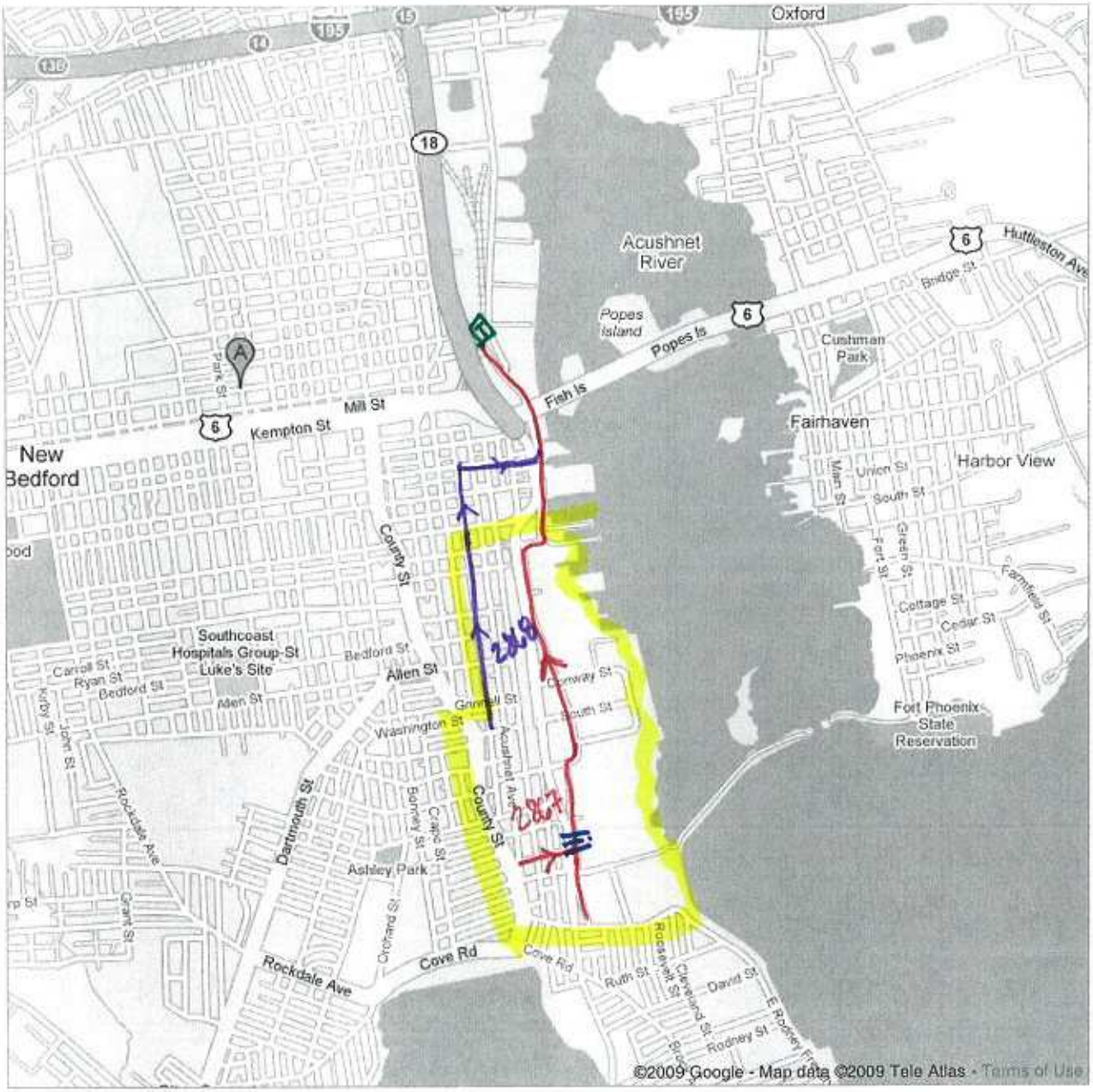
Acushnet River
Popes Island
Fish Island
Fish Is
Popes Is
Hillman St
Kempton St
Mill St
North St
Keene St
Maxfield St
Sycamore St
Campbell St
Willis St
Pearl St
Pope St
Parker St
Locust St
Merrimac St
Robeson St
Maitland St
Tilton St
Willow St
Austin St
Trinity St
Durfee St
Linden St
Wamsutta St
Purchase St
Pleasant St
State St
County St
Cedar St
Cottage St
Homer St
Chancery St
Shawmut Ave
Richmond St
Caroline St
Liberty St
Park St
Emerson St
Ash St
Spruce St
Chestnut St
Summer St
Thomas St
Walden St
Hillman St
Hill St
Foster St
Middle St
Elm St
William St
Union St
Court St
Morgan St
Park Pl
Spring St
School St
Homers Wharf
Leonards Wharf
Walnut St
Clinton St
Maple St
Madison St
Cherry St
Hawthorn St
Russell St
Grove St
Arnold St
Orchard St
Lincoln St
Arnold Pl
Atlantic St
Ocean St
Trenton St
James St
Lindsey St
Newton St
Kennedy Memorial Hwy
MacArthur Dr
Herman Melville Blvd
Acushnet Ave
Purchase St
Pleasant St
S Water St
S 2nd St
S 6th St
7th St
8th St
N 6th St
Weld St
Linden Ct
Hazard Ct
Studley St
Hazard St
Bullock St
Shawmut Ave
Richmond St
Cedar St
Cottage St
Chestnut St
Summer St
County St
State St
Pleasant St
Purchase St
Hillman St
Hill St
Foster St
Pleasant St
Middle St
Elm St
William St
Union St
Court St
Spring St
Walnut St
Clinton St
Maple St
Hawthorn St
Russell St
Grove St
Arnold St
Orchard St
Lincoln St
Arnold Pl
Atlantic St
Ocean St
Trenton St
James St
Lindsey St
Newton St
Kennedy Memorial Hwy
MacArthur Dr
Herman Melville Blvd
Acushnet Ave
Purchase St
Pleasant St
S Water St
S 2nd St
S 6th St
7th St
8th St
N 6th St
Weld St
Linden Ct
Hazard Ct
Studley St
Hazard St
Bullock St
Shawmut Ave
Richmond St
Cedar St
Cottage St
Chestnut St
Summer St
County St
State St
Pleasant St
Purchase St
Hillman St
Hill St
Foster

Google Maps

Address **Hillman St**
New Bedford, MA 02740

Get Google Maps on your phone
Text the word "GMAPS" to 466453

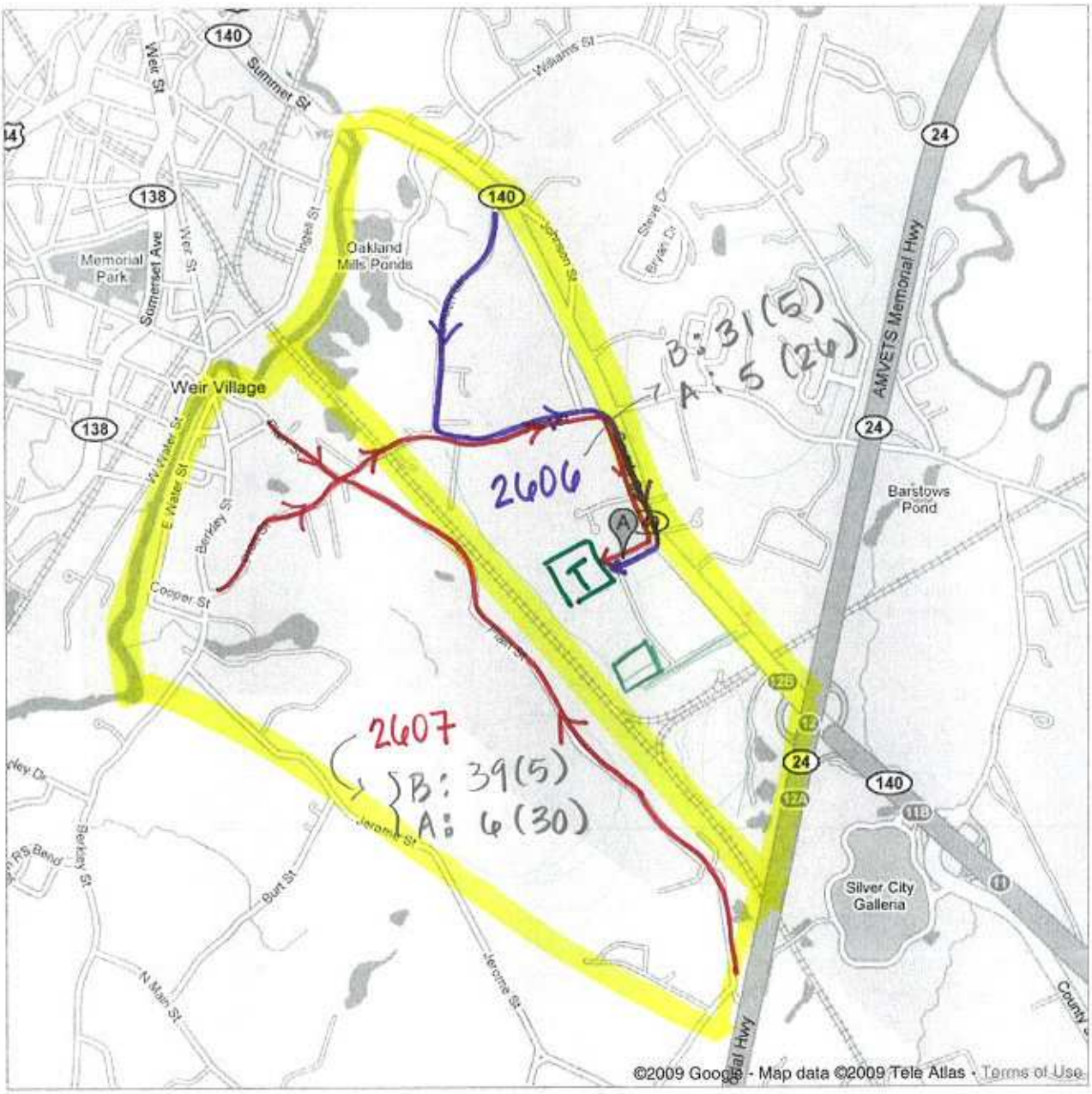
3



Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453



[T] East Taunton Station

– Ped route to E. Taunton Station from TAZ 2606

– Ped route to E. Taunton Station from TAZ 2607

Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453

B 3(2)
A 2(7)
2598

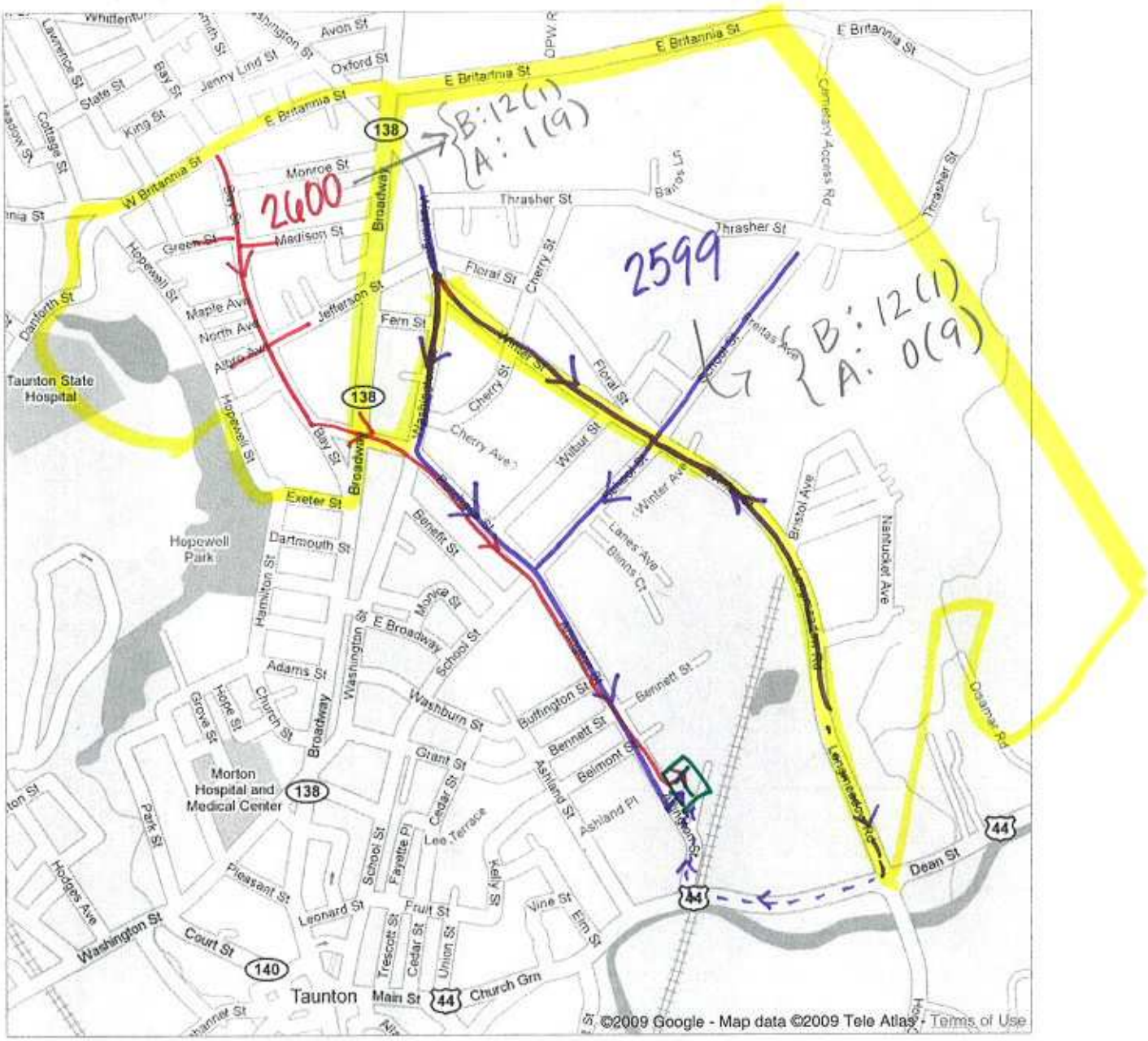
[T] Taunton Station (Dean St)

– Ped route to Taunton Station from 2598

Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453



T (Dean St) Taunton Station

— Ped route from TAZ 2600

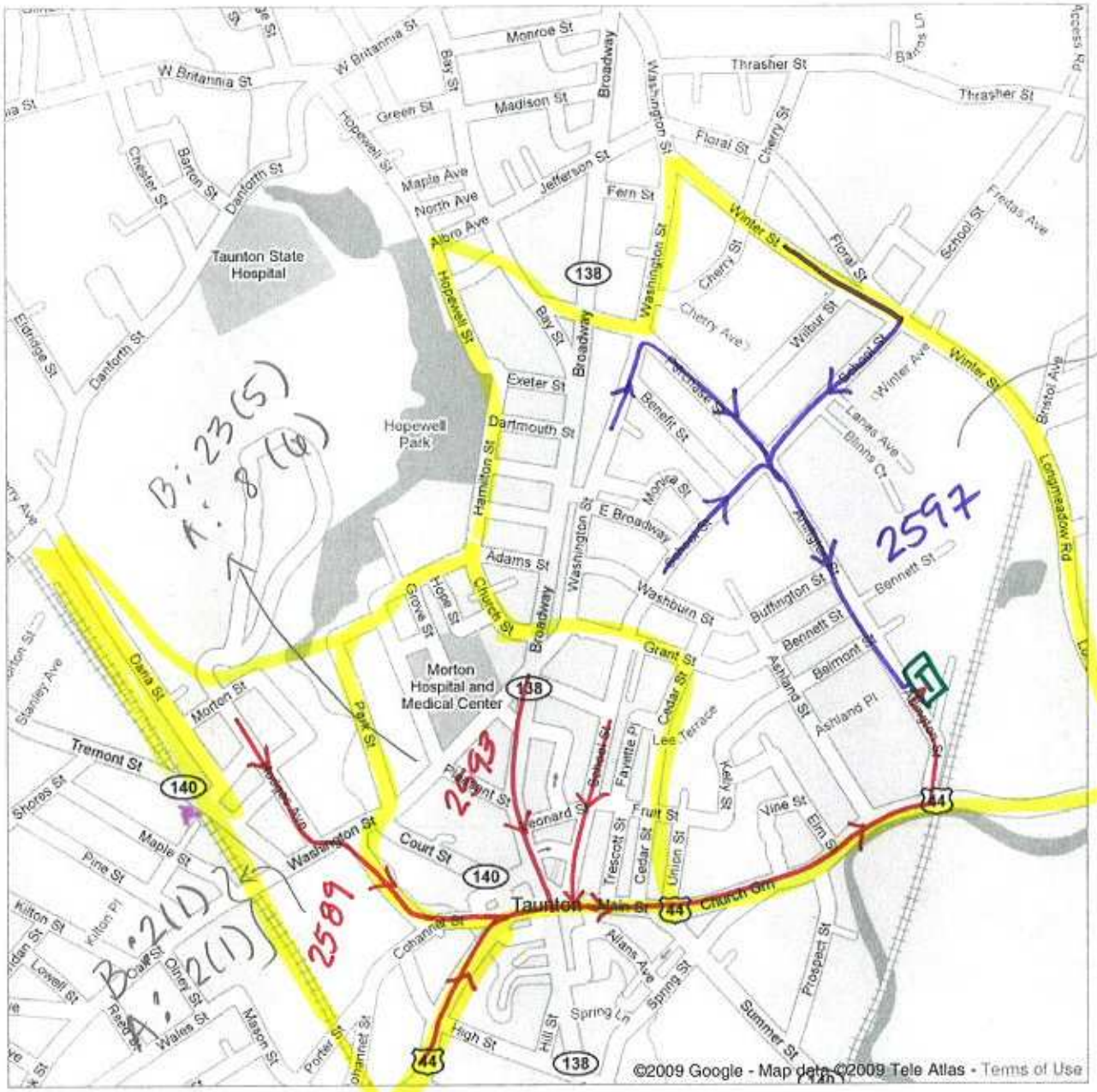
— Ped route from 2599

--- alternate route from 2599

Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453



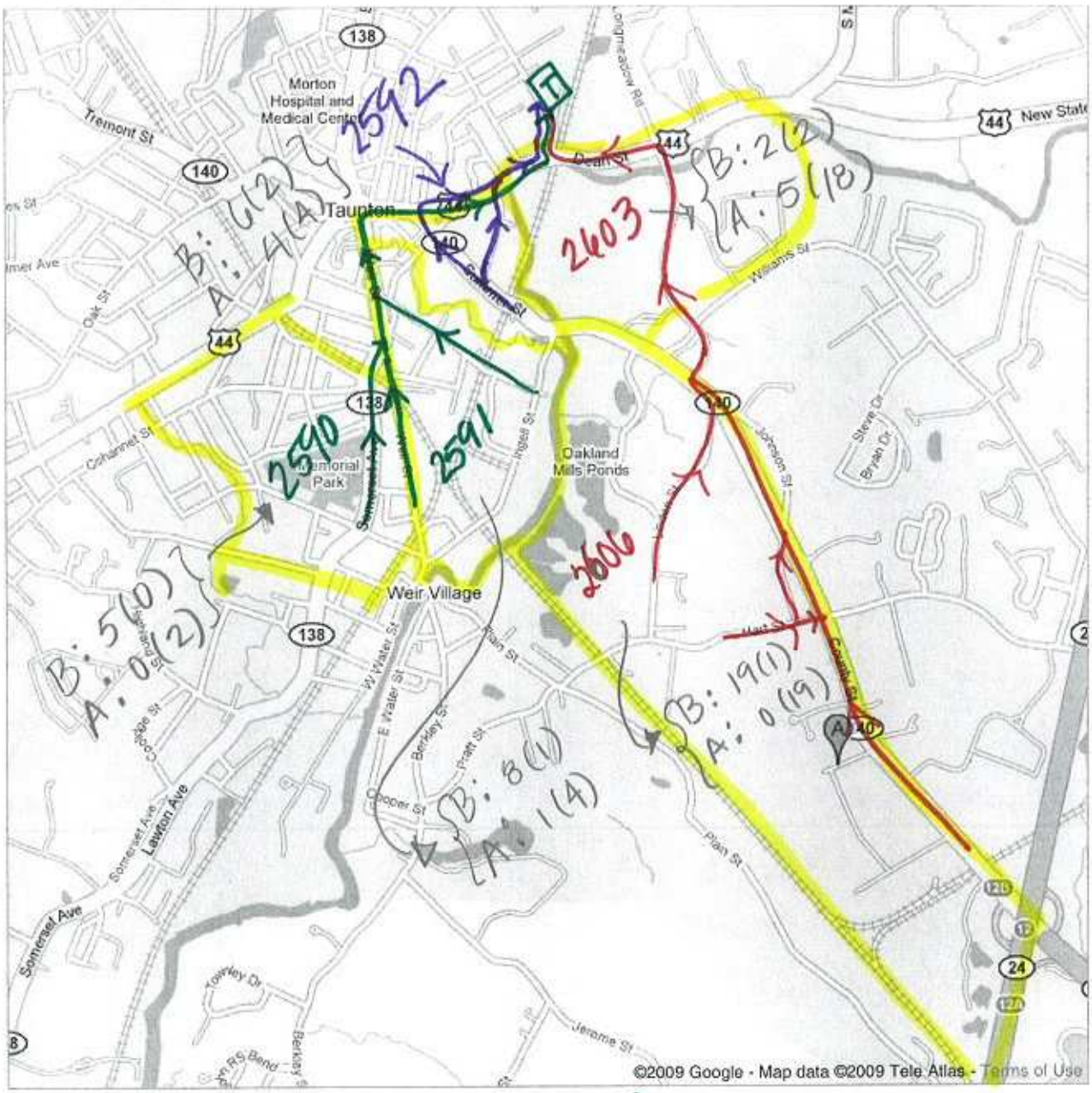
T Taunton Station (Dean St.)

- Ped route from TAZs: 2589 & 2593
- Ped route from TAZ 2597

Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453



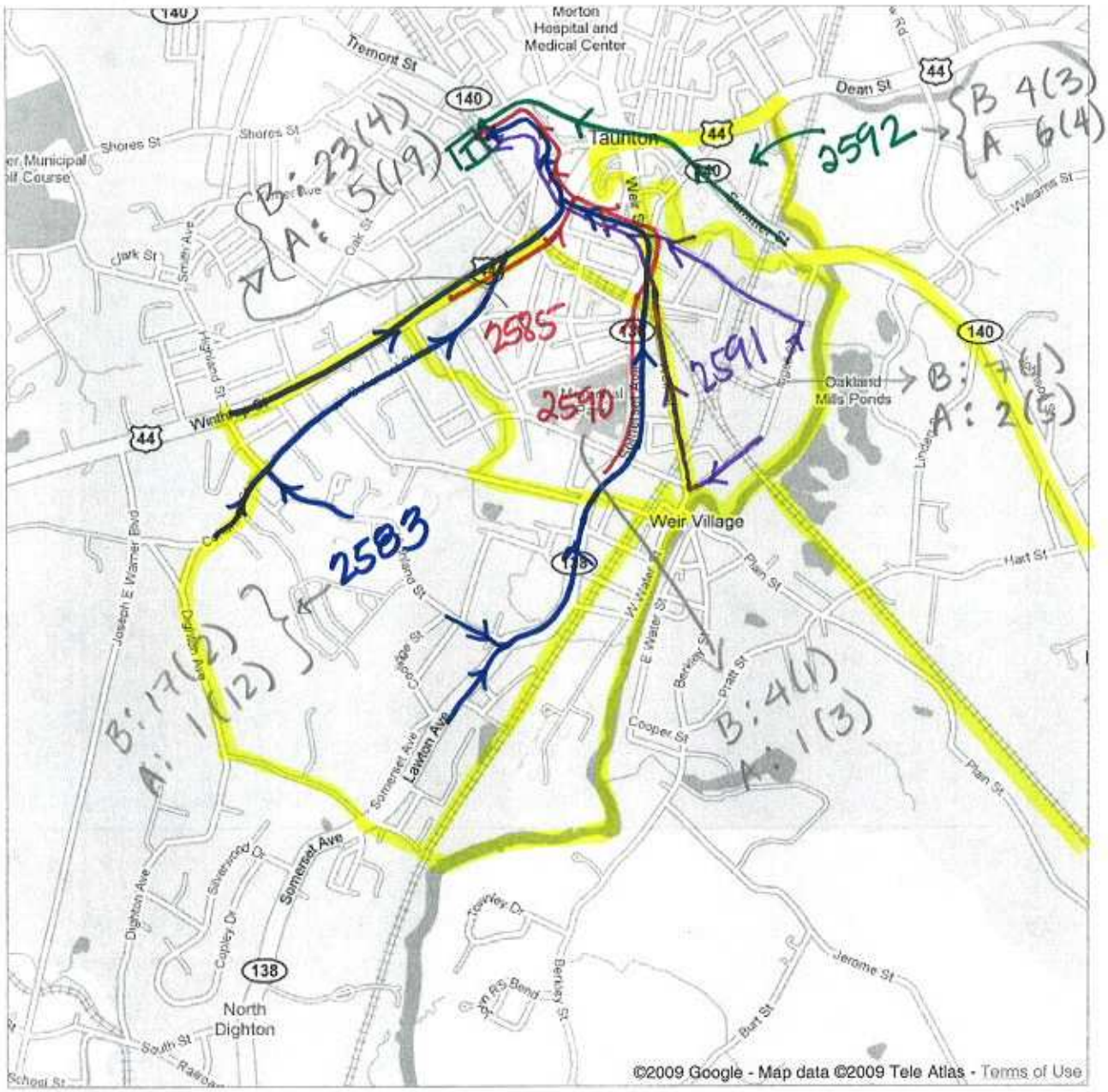
[T] Taunton Station (Dean St)

- Ped route from TAZ 2592
- Ped route from TAZs: 2603 & 2606
- Ped route from TAZs: 2590 & 2591

Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453



[T] Taunton Depot Station

- Ped route from TAZs 2585 & 2590
- Ped route from TAZ 2583
- Ped route from TAZ 2592
- Ped route from TAZ 2591

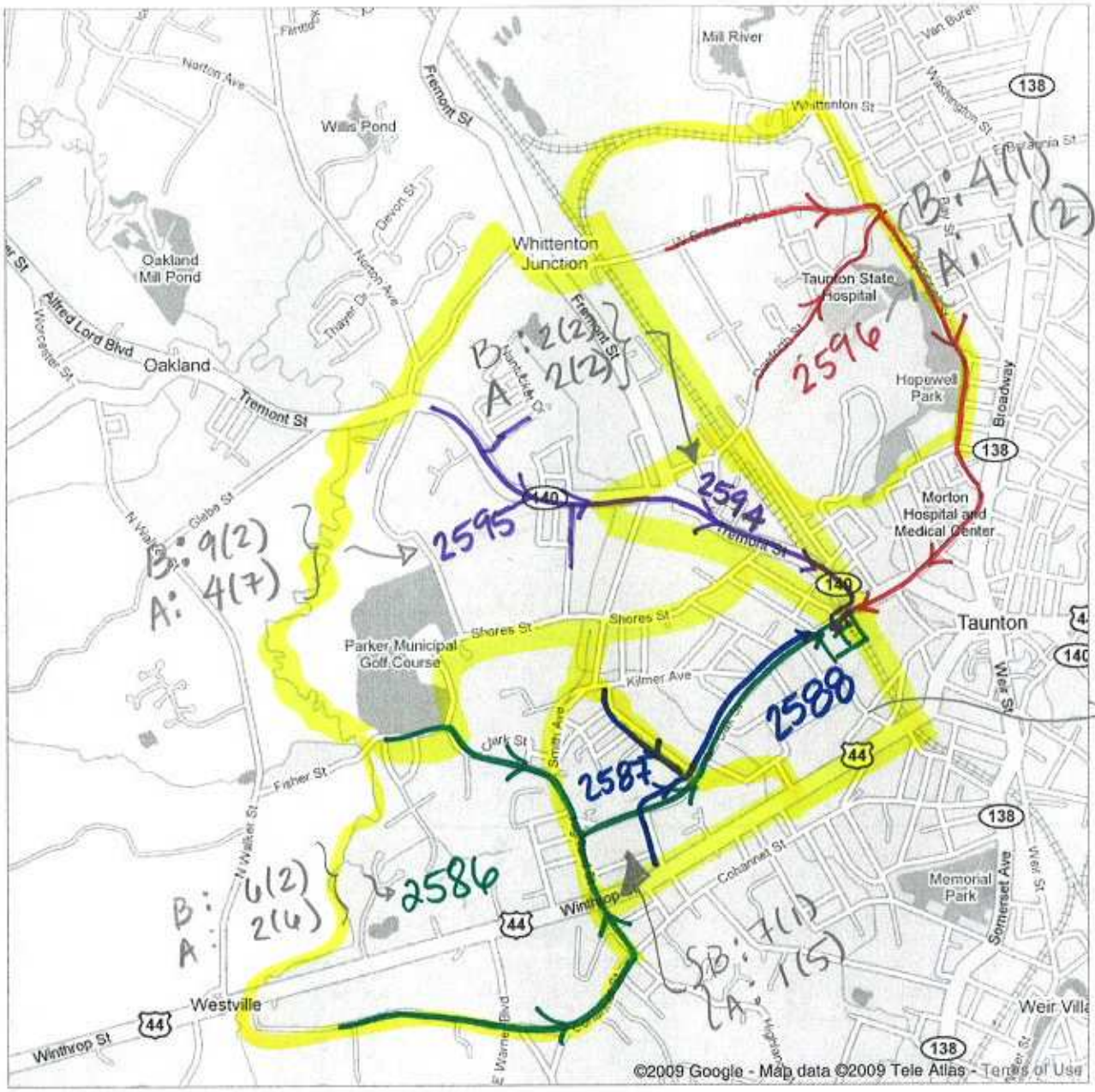
All routes are heading to Taunton Depot Station

bike

Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453



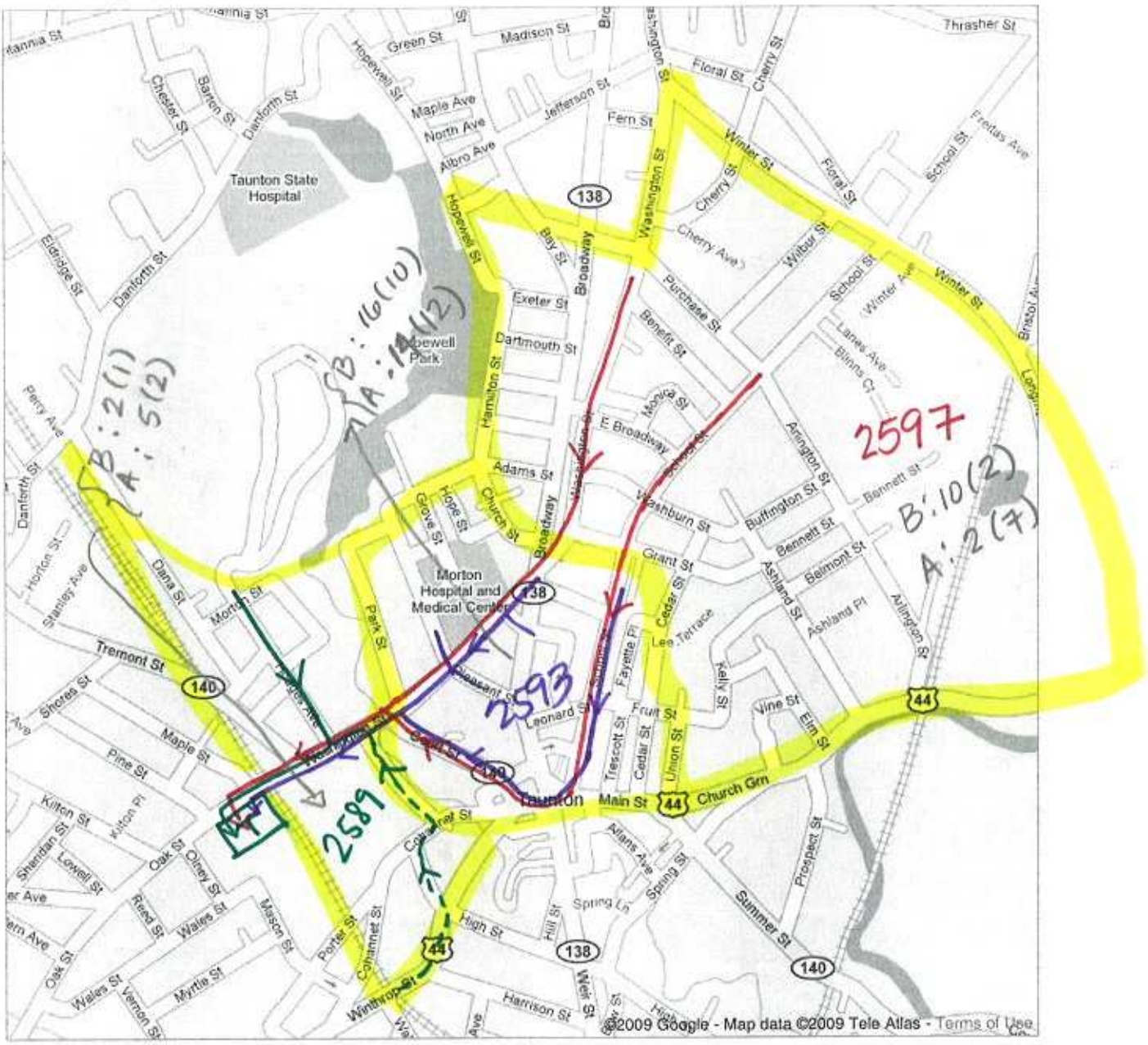
[T] Taunton Station
Depot

- Ped route to Taunton Depot Station from TAZ 2596
- Ped route to Taunton Depot Station from TAZs: 2594 & 2595
- Ped route to Taunton Depot Station from 2586 - bike
- Ped route to Taunton Depot Station from TAZs: 2587 & 2588

Google Maps

Address **Taunton Depot Dr**
Taunton, MA 02780

Get Google Maps on your phone
Text the word "GMAPS" to 466453



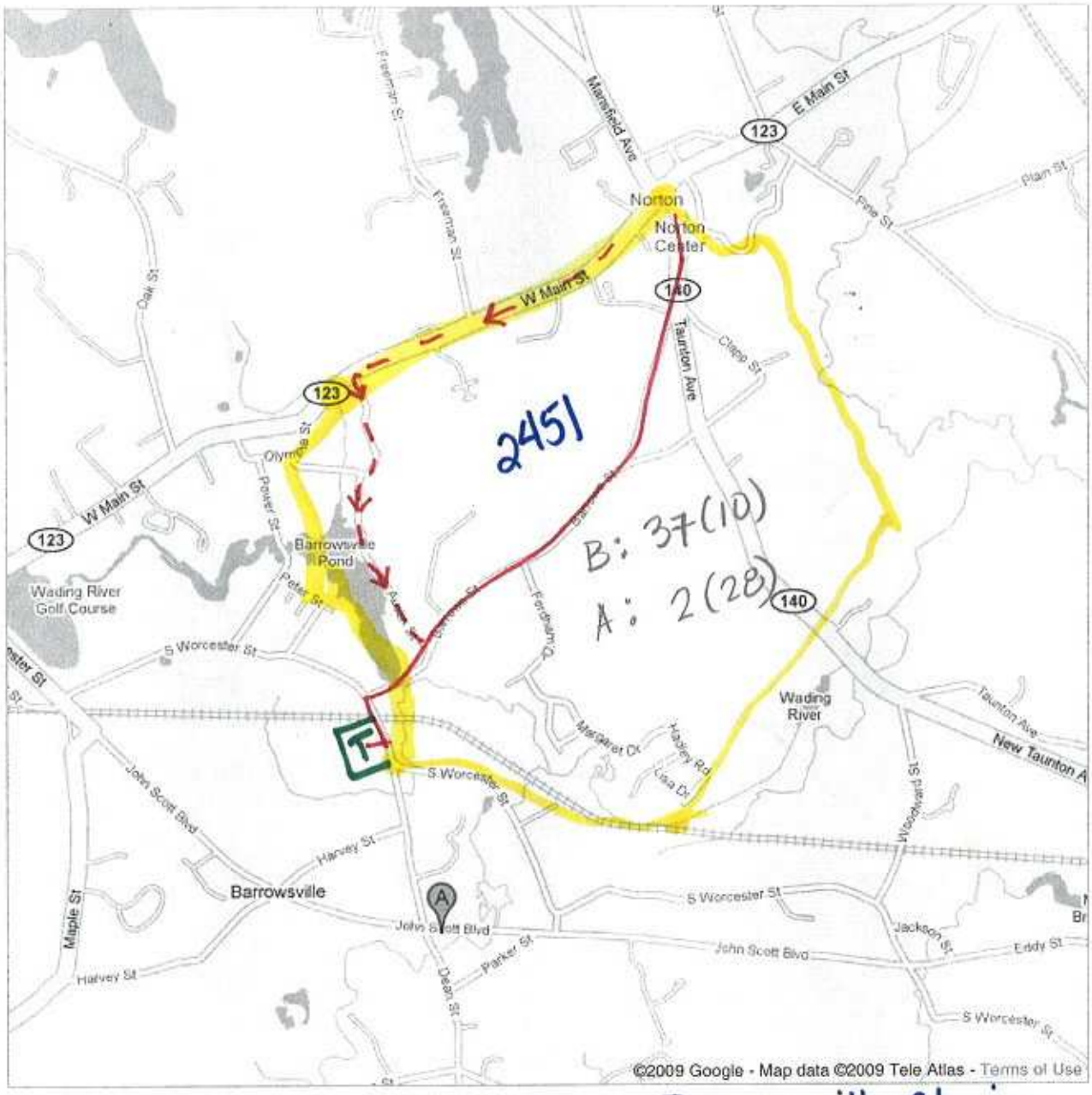
T Taunton Station (Gatra) Depot

- Ped route to Taunton Depot Station from TAZ 2593
- Ped route to Taunton Depot Station from TAZ 2597
- Ped route to Taunton Depot Station from TAZ 2589
- --- Alternate ped route from Winthrop St.

Google Maps

Address **John Scott Blvd**
Norton, MA 02766

Get Google Maps on your phone
Text the word "GMAPS" to 466453



TAZ: 2451 Barrowsville Station

T Barrowsville Station
—— Ped route to train station through Taunton Ave
- - - alternate ped route through W. Main St.

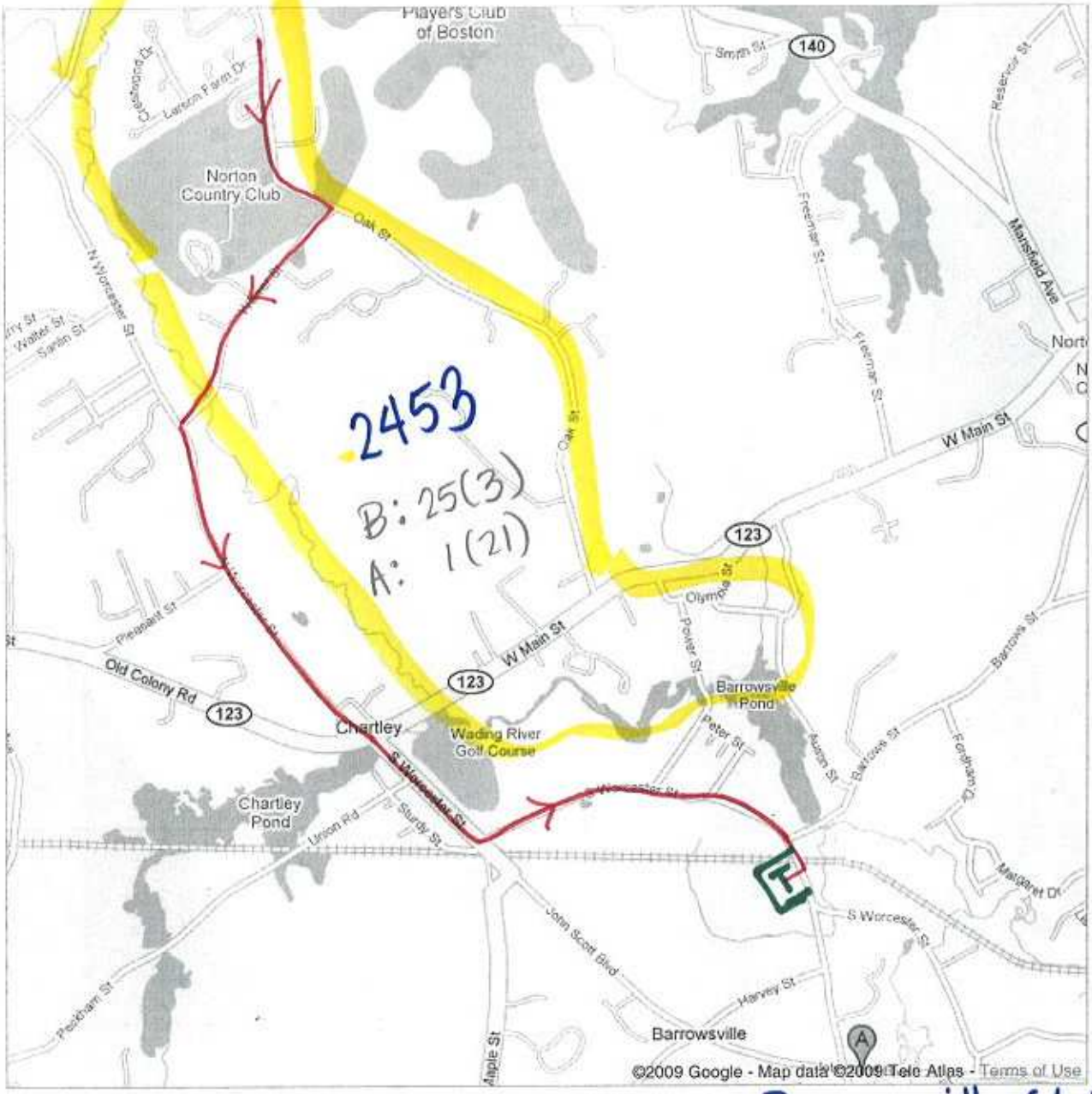
	Boardings	Alightments
AM	37	10
PM	2	28

over 2 miles

Google Maps

Address **John Scott Blvd**
Norton, MA 02766

Get Google Maps on your phone
Text the word "GMAPS" to 466453



Barrowsville Station

[T] Barrowsville Station

— Ped Route to Barrowsville Station

TAZ : 2453

	Boardings	Alightments
AM	25	3
PM	1	21

over 3 miles

Google Maps

Address **John Scott Blvd**
Norton, MA 02766

Get Google Maps on your phone
Text the word "GMAPS" to 466453

TAZ: 2455 Barrowsville Station

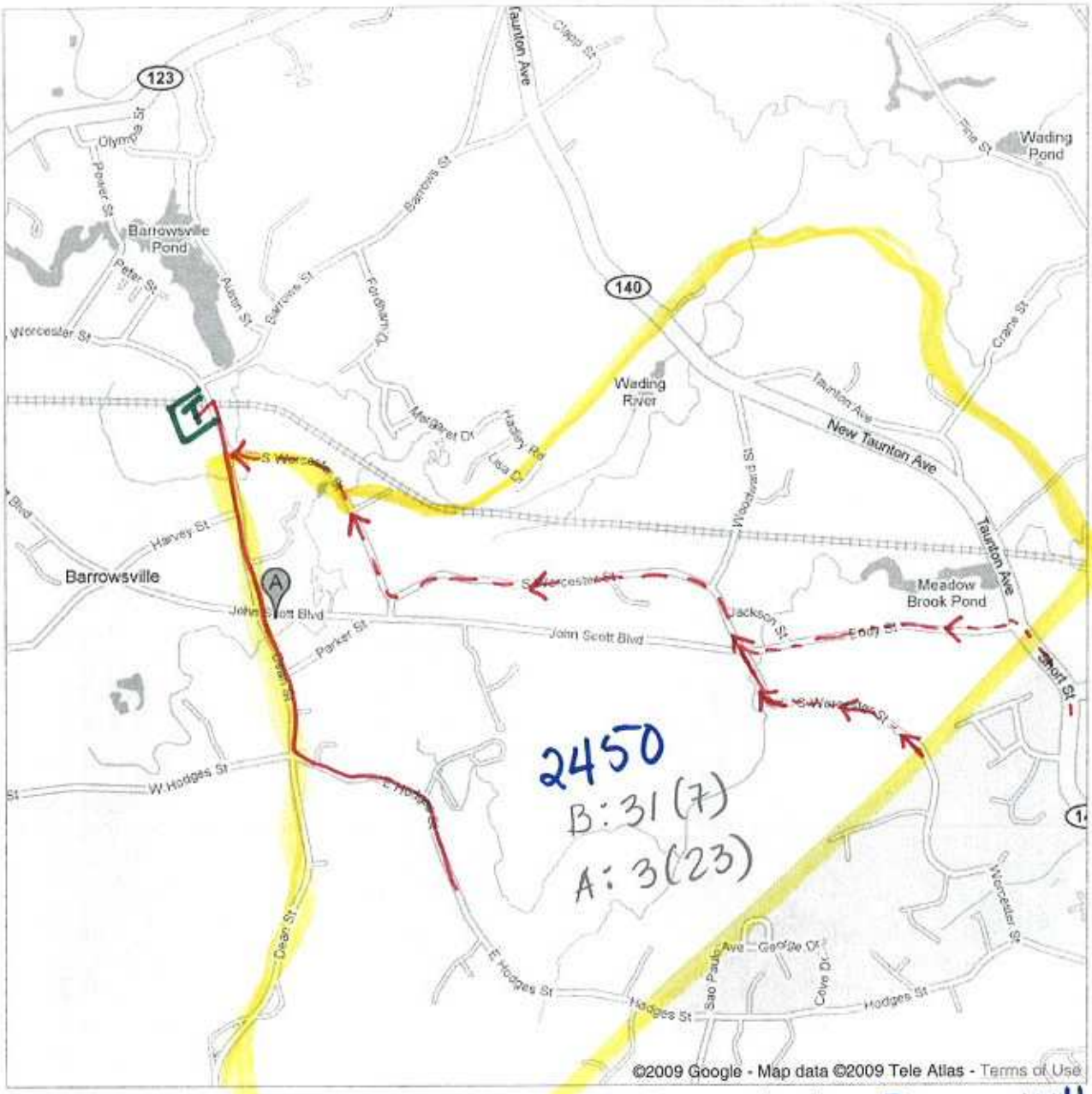
- Barrowsville Station
- Ped route to Barrowsville station
- Alternate ped routes to Barrowsville station

	Boardings	Alightments
AM	43	2
PM	2	33

Google Maps

Address **John Scott Blvd**
Norton, MA 02766

Get Google Maps on your phone
Text the word "GMAPS" to 466453



2450
B: 31 (7)
A: 3 (23)

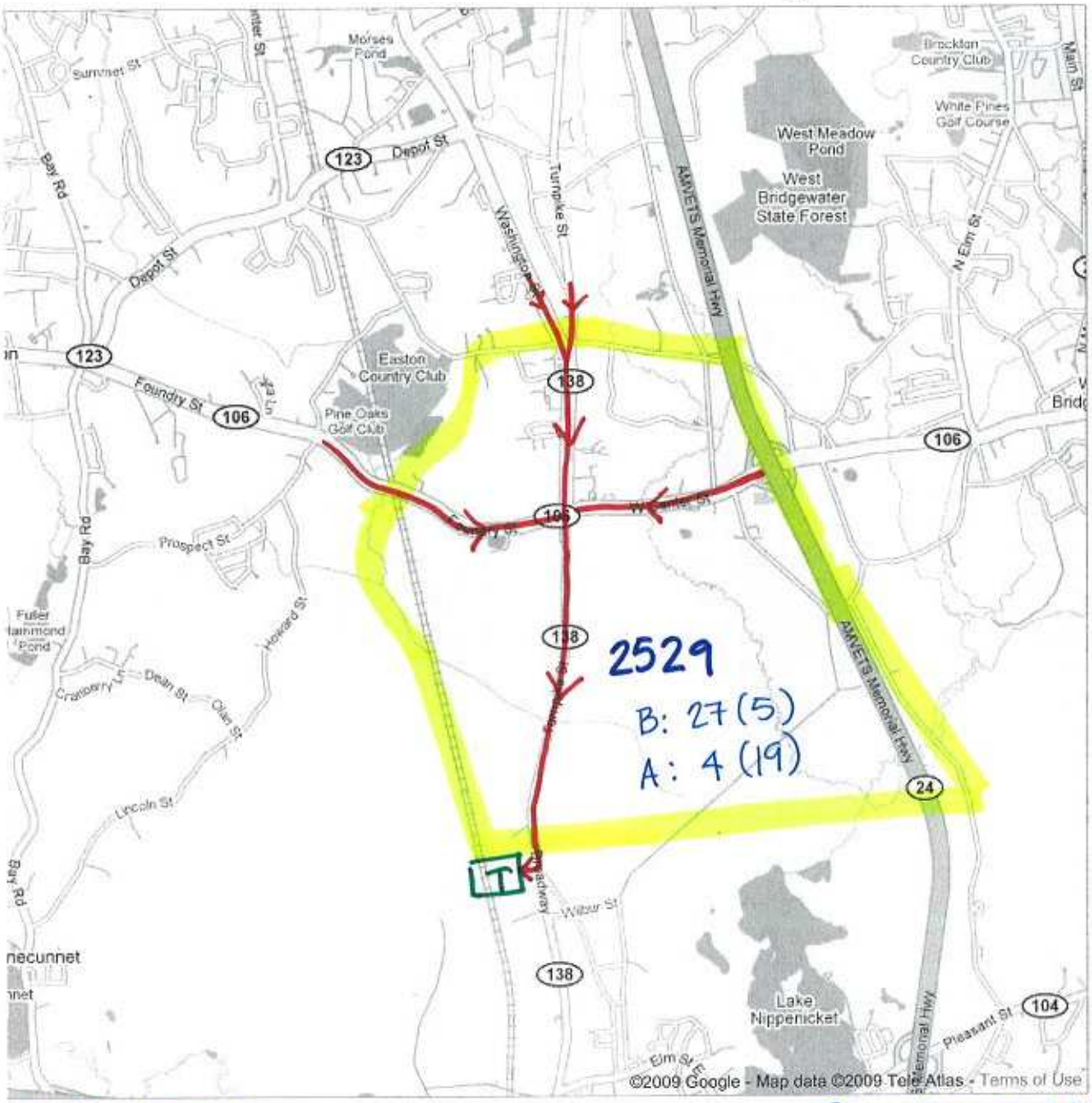
TAZ 2450 Barrowsville Station

T Barrowsville Station
— Ped route to train station through E. Hodges St
--- Alternate ped route to train station through S. Worcester St.

	Boardings	Alightments
AM	31	7
PM	3	23

Google maps

Get Google Maps on your phone
Text the word "GMAPS" to 466453



TAZ 2529

Raynham, MA

T Raynham Park Station

— Pedestrian Route to Raynham Park Station

B: Boardings

A: Alightings

xx (xx): AM (PM)

Google maps

Get Google Maps on your phone
Text the word "GMAPS" to 466453

TAZ 2556

Raynham, MA

T Raynham Park Station

— Pedestrian Route to Raynham Park Station

B: Boardings

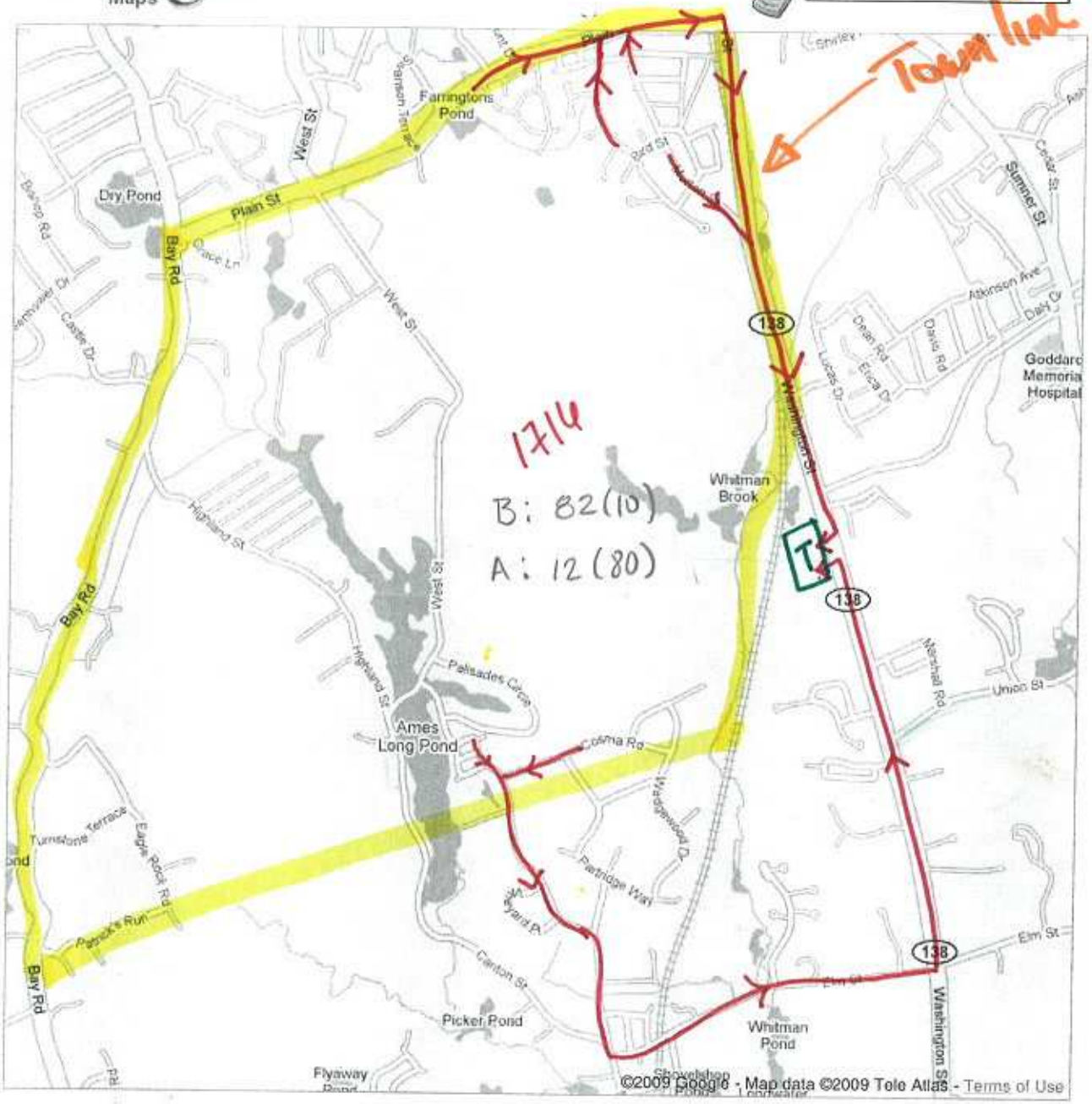
A: Alightings

xx(xx) = AM(PM)

Google Maps

Address **Barrows St**
MA 02356

Get Google Maps on your phone
Text the word "GMAPS" to 466453



T Easton (North) Station

– Ped routes to North Easton Station from TAZ 1714

Boardings Alightments

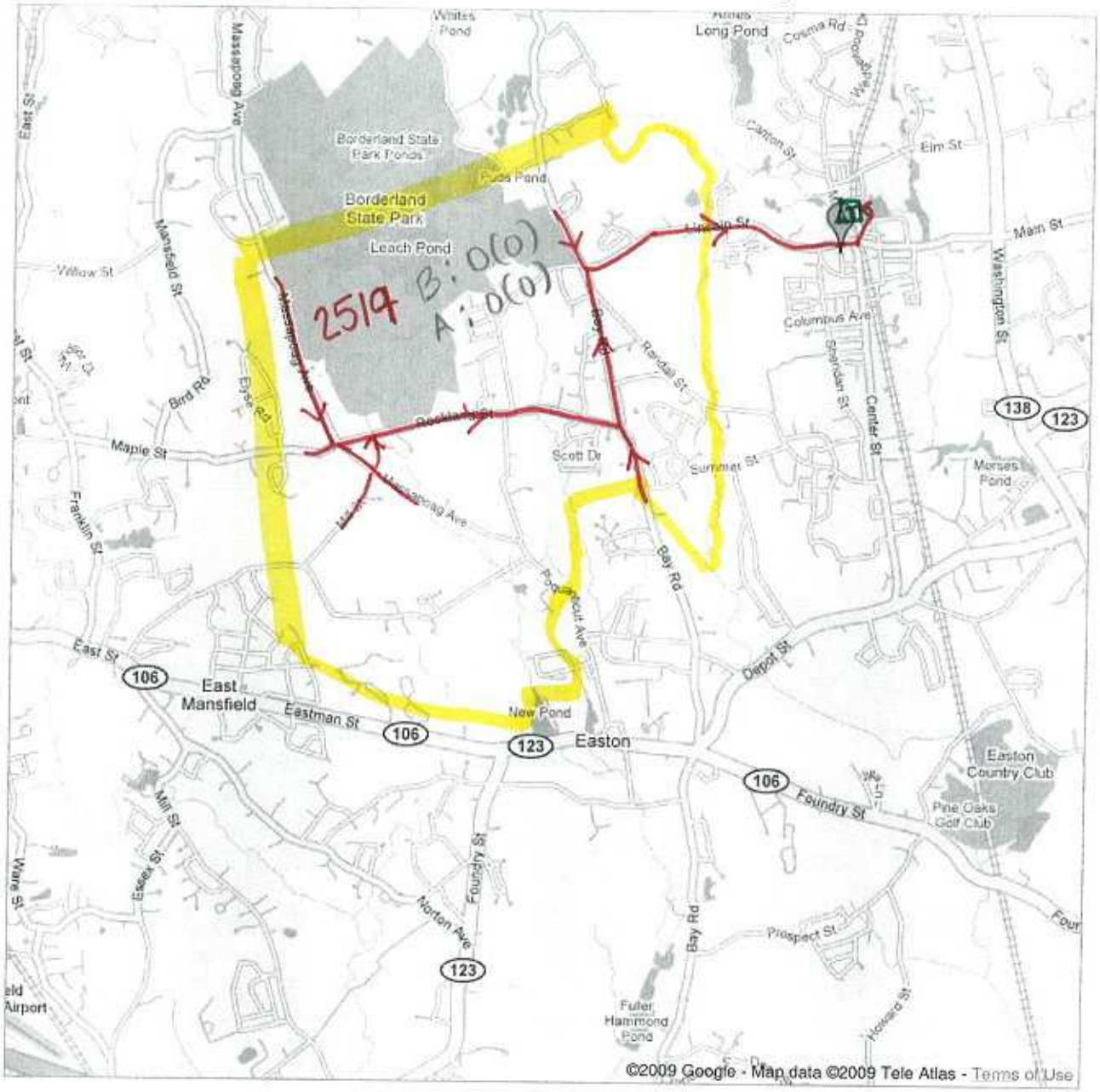
Stoughton people close to Stoughton

People using Elm would go Easton Village

Google Maps

Address **Barrows St**
MA 02356

Get Google Maps on your phone
Text the word "GMAPS" to 466453



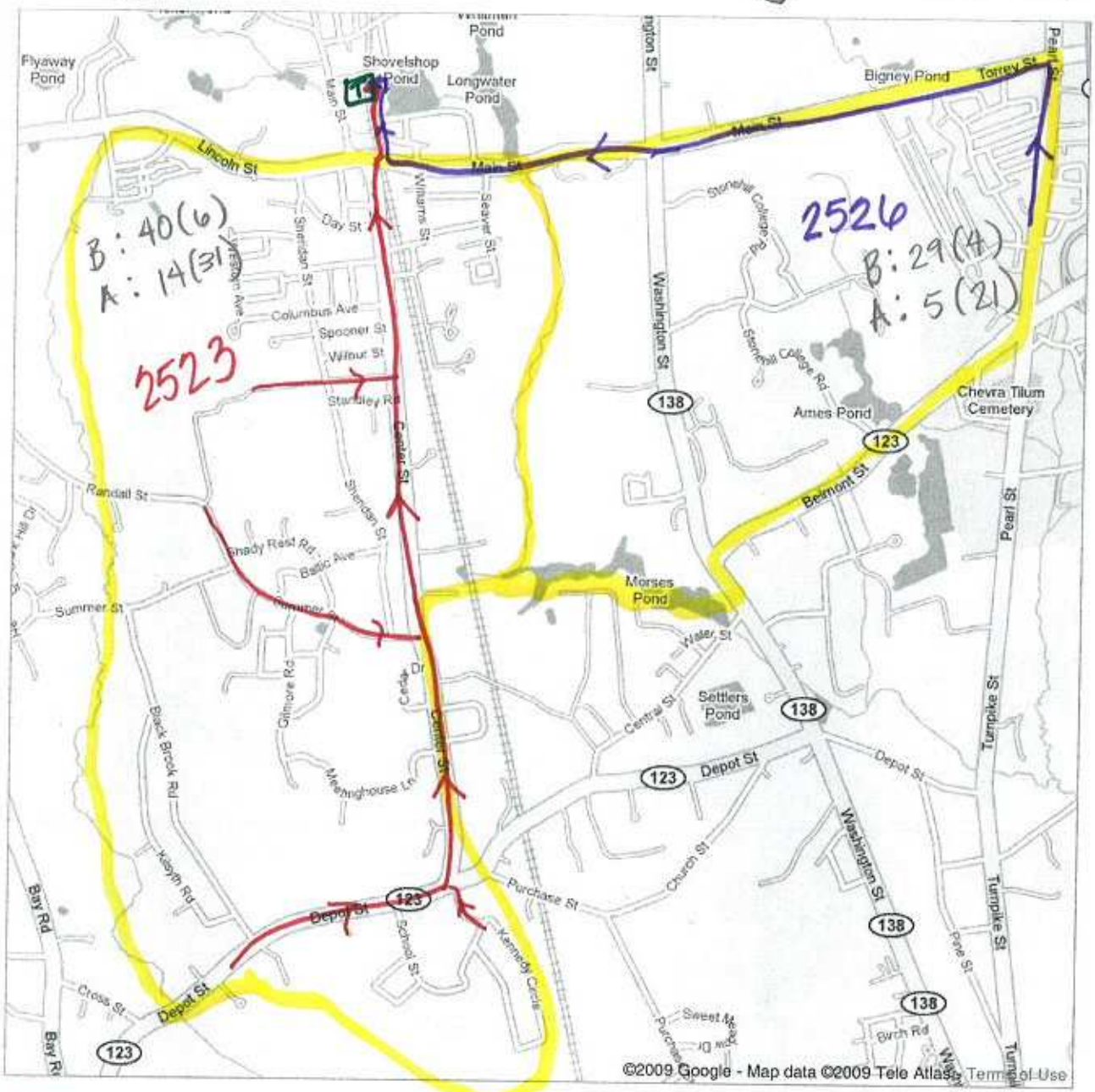
[T] Easton Village Station

– Ped route to Easton Village Station from TAZ 2519

Google Maps

Address **Elm St**
MA 02356

Get Google Maps on your phone
Text the word "GMAPS" to 466453



[T] Easton Village Station

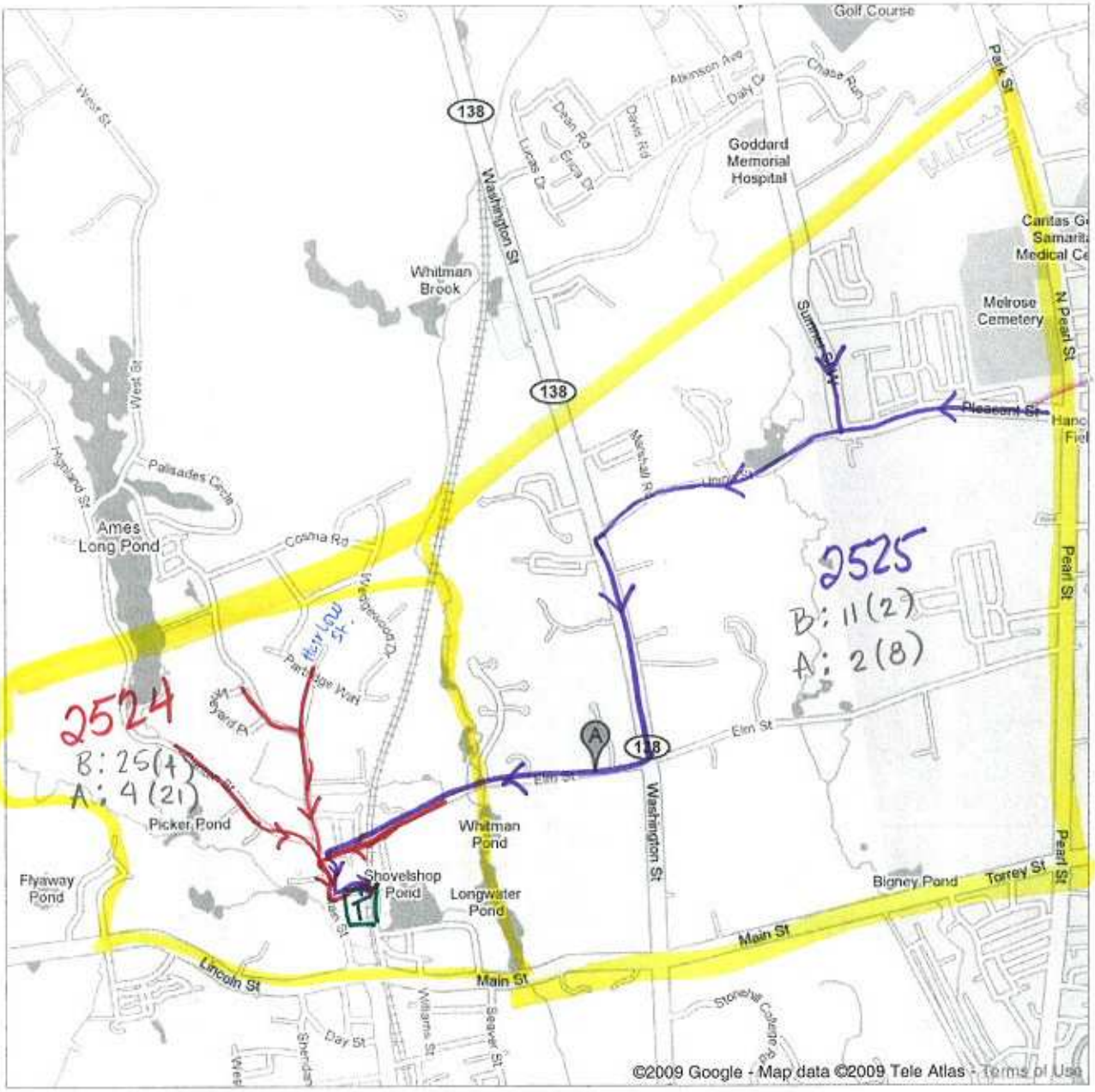
— Ped route to Easton Village Station from TAZ 2526

— Ped route to Easton Village Station from TAZ 2523

Google Maps

Address **Elm St**
MA 02356

Get Google Maps on your phone
Text the word "GMAPS" to 466453



[T] Easton Village Station

– Ped route to Easton Village Station from TAZ 2525

– Ped route to Easton Village Station from TAZ 2524

Appendix 4.1-H

Ridership and Trip Generation (2030)

Note: The first seven pages of this appendix remain unchanged from the DEIS/DEIR. The station boarding estimates presented in this appendix have been supersceded by the station-level boarding information provided in the 2035 CTPS ridership projections (FEIS/FEIR Appendix 3.2-H). However, this appendix is retained in the FEIS/FEIR because these 2030 ridership and boardings were the basis for many of the station-level transportation impact assessments presented in Chapter 4.1 of the FEIS/FEIR. Section 4.1.5.2 of the FEIS/FEIR (subsection on stations) discusses the sensitivity analyses conducted to compare the 2030 and 2035 boardings and determine necessary updates to the impact analyses. The last page of this appendix provides the backup documentation of this sensitivity analysis.

SCR Trip Generation Summary

Alternative		AM Peak Hour Trips								PM Peak Hour Trips							
	Station	PNR Entry	PNR Exit	KNR Entry	KNR Exit	Transit Entry	Transit Exit	**Total Entry**	**Total Exit**	PNR Entry	PNR Exit	KNR Entry	KNR Exit	Transit Entry	Transit Exit	**Total Entry**	**Total Exit**
Stoughton Alternative																	
	North Easton	239	31	27	27	0	0	**266**	**58**	27	234	26	26	0	0	**53**	**261**
	Easton Village	0	0	44	44	0	0	**44**	**44**	0	0	32	32	0	0	**32**	**32**
	E. Taunton North	160	20	18	18	0	0	**178**	**38**	12	128	14	14	0	0	**26**	**142**
	Dean St	41	17	20	20	0	0	**61**	**37**	11	24	12	12	0	0	**24**	**37**
	Freetown	81	9	17	17	0	0	**98**	**26**	5	45	9	9	0	0	**14**	**54**

Alternative		AM Peak Hour Trips								PM Peak Hour Trips							
	Station	PNR Entry	PNR Exit	KNR Entry	KNR Exit	Transit Entry	Transit Exit	**Total Entry**	**Total Exit**	PNR Entry	PNR Exit	KNR Entry	KNR Exit	Transit Entry	Transit Exit	**Total Entry**	**Total Exit**
Attleboro Alternative																	
	Barrowsville	143	32	59	59	0	0	**202**	**91**	12	93	35	35	0	0	**47**	**129**
	Taunton Depot/GATRA	237	78	62	62	10	10	**309**	**150**	59	184	47	47	9	9	**115**	**241**
	E. Taunton North																
	Fall River Depot	184	25	26	26	0	0	**210**	**51**	14	166	22	22	0	0	**36**	**188**
	Battleship Cove	0	0	34	34	0	0	**34**	**34**	0	0	25	25	0	0	**25**	**25**
	Kings Hwy	143	16	28	28	0	0	**170**	**44**	8	114	21	21	0	0	**30**	**135**
	Whales Tooth	146	16	44	44	11	11	**201**	**71**	10	120	35	35	11	11	**56**	**166**

Alternative		AM Peak Hour Trips								PM Peak Hour Trips							
	Station	PNR Entry	PNR Exit	KNR Entry	KNR Exit	Transit Entry	Transit Exit	**Total Entry**	**Total Exit**	PNR Entry	PNR Exit	KNR Entry	KNR Exit	Transit Entry	Transit Exit	**Total Entry**	**Total Exit**
Stoughton Whittendon Alternative																	
	Rayhnam	183	21	32	32	0	0	**215**	**53**	17	166	29	29	0	0	**46**	**195**

SCR CTPS Ridership Estimates
2030 Alightings

Location		Alternative		Average Daily Person Trips															
				2030 Stoughton Local Electric															
Corridor						Mode of Access				Inbound Alightings					Outbound Alightings				
Station		Branch	Community	Daily Boardings	Parking Spaces Available	Walk/ Bike	PNR	KNR	Other	Total	AM	MD	PM	NT	Total	AM	MD	PM	NT
Stoughton																			
9	North Easton	Merge	Easton	750	999	180	520	50	0	50	30	20			700	40	90	530	40
10	Easton Village	Merge	Easton	320	0	240	0	80	0	40	30	10			280	20	50	160	50
11	Raynham	Merge	Raynham																
12	Dean St	Merge	Taunton	410	999	250	120	40	0	50	30	10	10		360	60	120	120	60
13	E. Taunton North			510		160	320	30	0	20	10	10			490	40	50	320	80
14	Freetown	FR	Freetown	240	999	40	170	30	0						240	20	60	100	60
15	Fall River Depot			740											740	80	170	440	50
16	Battleship Cove			210											210	10	50	100	50
17	Kings Hwy			460											460	40	80	280	60
18	Whales Tooth			600											600	50	100	340	110
Attleboro																			
9	Barrowsville	Merge	Norton																
10	Taunton Depot/GATRA	Merge	Taunton																
11	E. Taunton North	Merge	Taunton																
12	Freetown																		
13	Fall River Depot	FR	Fall River																
14	Battleship Cove	FR	Fall River																
14	Kings Hwy	NB	New Bedford																
15	Whales Tooth	NB	New Bedford																
Stoughton - Whittenton Alternative																			
11	Raynham	Merge	Raynham	600	999	140	400	60	0	10	10	0	0	0	590	40	90	390	70

Walk/Bike = Assumes a max of a 1 mile
KNR = Kiss-and-Ride or drop-offs
PNR = People using parking lot spaces
Other = Transit access

AM = Peak 3 hrs (6AM to 9AM)
MD = Midday 6 hrs (9AM to 3PM)
PM = Peak 3 hrs (3PM to 6PM)
NT = Night 12 hrs (6PM to 6AM)

SCR CTPS Ridership Estimates
2030 Alightings

Location		Alternative		Average Daily Person Trips															
				2030 Attleboro Local Electric															
Corridor						Mode of Access				Inbound Alightings					Outbound Alightings				
Station		Branch	Community	Daily Boardings	Parking Spaces Available	Walk/ Bike	PNR	KNR	Other	Total	AM	MD	PM	NT	Total	AM	MD	PM	NT
Stoughton																			
9	North Easton	Merge	Easton																
10	Easton Village	Merge	Easton																
11	Raynham	Merge	Raynham																
12	Dean St	Merge	Taunton																
13	E. Taunton North																		
14	Freetown	FR	Freetown																
15	Fall River Depot																		
16	Battleship Cove																		
17	Kings Hwy																		
18	Whales Tooth																		
Attleboro																			
9	Barrowsville	Merge	Norton	680		270	310	100	0	40	30	10	0	0	640	80	150	320	90
10	Taunton Depot/GATRA	Merge	Taunton	1,350		360	590	110	290	250	180	30	0	40	1,100	100	220	660	120
11	E. Taunton North	Merge	Taunton																
12	Freetown			210		30	150	30	0						210	20	40	130	20
13	Fall River Depot	FR	Fall River	760	999	280	430	50	0						760	70	150	460	80
14	Battleship Cove	FR	Fall River	240	0	180	0	60	0						240	20	50	140	30
14	Kings Hwy	NB	New Bedford	470	999	120	300	50	0						470	40	90	280	60
15	Whales Tooth	NB	New Bedford	610	999	150	310	80	70						610	50	120	370	70
Stoughton - Whittenton Alternative																			
11	Raynham	Merge	Raynham																

Walk/Bike = Assumes a max of a 1 mile
KNR = Kiss-and-Ride or drop-offs
PNR = People using parking lot spaces
Other = Transit access

AM = Peak 3 hrs (6AM to 9AM)
MD = Midday 6 hrs (9AM to 3PM)
PM = Peak 3 hrs (3PM to 6PM)
NT = Night 12 hrs (6PM to 6AM)

SCR CTPS Ridership Estimates
2030 Boardings

Location		Alternative		Average Daily Person Trips															
				2030 Stoughton Local Electric															
Corridor						Mode of Access				Inbound Boardings					Outbound Boardings				
Station		Branch	Community	Daily Boardings	Parking Spaces Available	Walk/ Bike	PNR	KNR	Other	Total	AM	MD	PM	NT	Total	AM	MD	PM	NT
Stoughton																			
9	North Easton	Merge	Easton	750	xx	180	520	50	0	700	540	120	30	10	50	-	10	30	10
10	Easton Village	Merge	Easton	320	0	240	0	80	0	280	210	50	10	10	40	-	10	20	10
11	Raynham	Merge	Raynham																
12	Dean St	Merge	Taunton	410	999	250	120	40	0	360	220	100	30	10	50	-	10	30	10
13	E. Taunton North	Merge	Taunton	510	XX	160	320	30	0	490	400	60	20	10	20	-	-	10	10
14	Freetown	FR	Freetown	240	999	40	170	30	0	240	180	50	10	0	-	-	-	-	-
15	Fall River Depot																		
16	Battleship Cove																		
17	Kings Hwy																		
18	Whales Tooth																		
Attleboro																			
9	Barrowsville	Merge	Norton																
10	Taunton Depot	Merge	Taunton																
11	E. Taunton North	Merge	Taunton																
12	Freetown																		
13	Fall River Depot	FR	Fall River																
14	Battleship Cove	FR	Fall River																
14	Kings Hwy	NB	New Bedford																
15	Whales Tooth	NB	New Bedford																
Stoughton - Whittenton																			
11	Raynham	Merge	Raynham	600	999	140	400	60	0	590	430	120	30	10	10	-	-	10	-

Walk/Bike = Assumes a max of a 1 mile
KNR = Kiss-and-Ride or drop-offs
PNR = People using parking lot spaces
Other = Transit access

AM = Peak 3 hrs (6AM to 9AM)
MD = Midday 6 hrs (9AM to 3PM)
PM = Peak 3 hrs (3PM to 6PM)
NT = Night 12 hrs (6PM to 6AM)

SCR CTPS Ridership Estimates
2030 Boardings

Location		Alternative		Average Daily Person Trips															
				2030 Attleboro Local Electric															
Corridor						Mode of Access				Inbound Boardings					Outbound Boardings				
Station		Branch	Community	Daily Boardings	Parking Spaces Available	Walk/ Bike	PNR	KNR	Other	Total	AM	MD	PM	NT	Total	AM	MD	PM	NT
Stoughton																			
9	North Easton	Merge	Easton																
10	Easton Village	Merge	Easton																
11	Raynham	Merge	Raynham																
12	Dean St	Merge	Taunton																
13	E. Taunton North	Merge	Taunton																
14	Freetown	FR	Freetown																
15	Fall River Depot																		
16	Battleship Cove																		
17	Kings Hwy																		
18	Whales Tooth																		
Attleboro																			
9	Barrowsville	Merge	Norton	680		270	310	100	0	640	460	120	40	20	40	30	10	-	-
10	Taunton Depot	Merge	Taunton	1350		360	590	110	290	1,100	810	210	60	20	250	40	20	150	40
11	E. Taunton North	Merge	Taunton																
12	Freetown																		
13	Fall River Depot	FR	Fall River	760	999	280	430	50	0	760	510	140	40	70	-	-	-	-	-
14	Battleship Cove	FR	Fall River	240	0	180	0	60	0	240	180	50	10	0	-	-	-	-	-
14	Kings Hwy	NB	New Bedford	470	999	120	300	50	0	470	350	90	20	10	-	-	-	-	-
15	Whales Tooth	NB	New Bedford	610	999	150	310	80	70	610	450	120	30	10	-	-	-	-	-
Stoughton - Whittenton																			
11	Raynham	Merge	Raynham																

Walk/Bike = Assumes a max of a 1 mile
KNR = Kiss-and-Ride or drop-offs
PNR = People using parking lot spaces
Other = Transit access

AM = Peak 3 hrs (6AM to 9AM)
MD = Midday 6 hrs (9AM to 3PM)
PM = Peak 3 hrs (3PM to 6PM)
NT = Night 12 hrs (6PM to 6AM)

SCR Trip Generation Calculations (Alightings)

SLE

Stations	Daily Boardings	Mode of Access				Inbound Alightings										Outbound Alightings									
		Walk/ Bike	PNR	KNR	Other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	PM other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	AM other
North Easton	750	24%	69%	7%	0%	20	5	13	1	0	0	0	0	0	0	27	6	18	2	-	355	85	234	24	0
Easton Village	320	75%	0%	25%	0%	20	15	0	5	0	0	0	0	0	0	13	10	-	3	-	107	80	0	27	0
E. Taunton North	510	31%	63%	6%	0%	7	2	4	0	0	0	0	0	0	0	27	8	16	2	-	214	67	128	13	0
Dean St	410	61%	29%	10%	0%	20	12	6	2	0	7	4	2	1	0	40	25	11	4	-	80	49	22	8	0
Freetown	240	17%	71%	13%	0%	0	0	0	0	0	0	0	0	0	0	13	2	9	2	-	67	11	45	8	0

ALE

Stations	Daily Boardings	Mode of Access				Inbound Alightings										Outbound Alightings									
		Walk/ Bike	PNR	KNR	Other	AM	AM W/B	AM PNR	AM KNR	AM other	PM	PM W/B	PM PNR	PM KNR	PM other	AM	AM W/B	AM PNR	AM KNR	AM other	PM	PM W/B	PM PNR	PM KNR	PM other
Barrowsville	680	40%	46%	15%	0%	20	8	9	3	0	0	0	0	0	0	54	21	23	8	0	214	85	93	32	0
Taunton Depot	1350	27%	44%	8%	21%	121	32	50	10	26	0	0	0	0	0	67	18	28	5	14	442	118	184	36	95
Fall River Depot	760	37%	57%	7%	0%	0	0	0	0	0	0	0	0	0	0	47	17	25	3	0	308	114	166	20	0
Battleship Cove	240	75%	0%	25%	0%	0	0	0	0	0	0	0	0	0	0	13	10	0	3	0	94	70	0	23	0
Kings Hwy	470	26%	64%	11%	0%	0	0	0	0	0	0	0	0	0	0	27	7	16	3	0	188	48	114	20	0
Whales Tooth	610	25%	51%	13%	11%	0	0	0	0	0	0	0	0	0	0	34	8	16	4	4	248	61	120	33	28

Whittenton LE

Stations	Daily Boardings	Mode of Access				Inbound Alightings										Outbound Alightings									
		Walk/ Bike	PNR	KNR	Other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	PM other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	AM other
Raynham	600	23%	67%	10%	0%	7	2	4	1	0	0	0	0	0	0	27	6	17	3	-	261	61	166	26	0

Notes:
1. Mode split based on CTPS ridership estimates
2. Peak hour adjustment factor of 0.67 used to reduce CTPS peak period (3-hours) ridership to peak hour ridership
3. Park and ride ridership converted to vehicles with vehicle occupancy factor of 1.05 .

SCR Trip Generation Calculations (Boardings)

SLE

Station	Daily Boardings	Mode of Access				Inbound Boardings										Outbound Boardings									
		Walk/ Bike	PNR	KNR	Other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	PM other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	AM other
North Easton	750	24%	69%	7%	0%	362	87	239	24	0	20	5	13	1	0	-	-	-	-	-	20	5	13	1	0
Easton Village	320	75%	0%	25%	0%	141	106	0	35	0	7	5	0	2	0	-	-	-	-	-	13	10	0	3	0
E. Taunton North	510	31%	63%	6%	0%	268	84	160	16	0	13	4	8	1	0	-	-	-	-	-	7	2	4	0	0
Dean St	410	61%	29%	10%	0%	147	90	41	14	0	20	12	6	2	0	-	-	-	-	-	20	12	6	2	0
Freetown	240	17%	71%	13%	0%	121	20	81	15	0	7	1	5	1	0	-	-	-	-	-	-	0	0	0	0

ALE

Stations	Daily Boardings	Mode of Access				Inbound Boardings										Outbound Boardings									
		Walk/ Bike	PNR	KNR	Other	AM	AM W/B	AM PNR	AM KNR	AM other	PM	PM W/B	PM PNR	PM KNR	PM other	AM	AM W/B	AM PNR	AM KNR	AM other	PM	PM W/B	PM PNR	PM KNR	PM other
Barrowsville	680	40%	46%	15%	0%	308	122	134	45	0	27	11	12	4	0	20	8	9	3	0	-	0	0	0	0
Taunton Depot	1350	27%	44%	8%	21%	543	145	226	44	117	40	11	17	3	9	27	7	11	2	6	101	27	42	8	22
Fall River Depot	760	37%	57%	7%	0%	342	126	184	22	0	27	10	14	2	0	-	0	0	0	0	-	0	0	0	0
Battleship Cove	240	75%	0%	25%	0%	121	90	0	30	0	7	5	0	2	0	-	0	0	0	0	-	0	0	0	0
Kings Hwy	470	26%	64%	11%	0%	235	60	143	25	0	13	3	8	1	0	-	0	0	0	0	-	0	0	0	0
Whales Tooth	610	25%	51%	13%	11%	302	74	146	40	35	20	5	10	3	2	-	0	0	0	0	-	0	0	0	0

Whittenton LE

Stations	Daily Boardings	Mode of Access				Inbound Boardings										Outbound Boardings									
		Walk/ Bike	PNR	KNR	Other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	PM other	AM-Total	AM W/B	AM PNR	AM KNR	AM other	PM-Total	PM W/B	PM PNR	PM KNR	AM other
Raynham	600	23%	67%	10%	0%	288	67	183	29	0	20	5	13	2	0	-	-	-	-	-	7	2	4	1	0

Notes:
1. Mode split based on CTPS ridership estimates
2. Peak hour adjustment factor of 0.67 used to reduce CTPS peak period (3-hours) ridership to peak hour ridership
3. Park and ride ridership converted to vehicles with vehicle occupancy factor of 1.05 .

Table 1. SCR Ridership and Trip Generation Comparison

Stations			Stoughton Electric Inbound Boardings						DEIR Peak Hour Trip Generation[3]				New Stoughton Electric Peak Hour Trip Generation[4]				Difference between 2030 and 2035	
			2030		2035		Difference between 2030 and 2035		2030				2035					
Station No.	2030 Stations	2035 Stations	Total[1]	AM Peak Period[2]	Total	AM Peak Period	Total	AM Peak Period	AM W/B[5]	AM PNR[6]	AM KNR[7]	AM other[8]	AM W/B	AM PNR	AM KNR	AM other	AM PNR Trips	AM KNR Trips
1	South Station	South Station	-	-	-	-	-	-										
2	Back Bay	Back Bay	1,930	1,350	880	610	(1,050)	(740)										
3	Ruggles	Ruggles	160	100	120	80	(40)	(20)										
4	Hyde Park	Hyde Park	700	350	460	320	(240)	(30)										
5	Rte 128 Station	Rte 128 Station	1,320	910	600	420	(720)	(490)										
6	Canton Junction	Canton Junction	1,470	960	710	470	(760)	(490)										
7	Canton Center	Canton Center	1,240	830	720	480	(520)	(350)										
8	Stoughton	Stoughton	1,430	1,030	900	680	(530)	(350)										
9	North Easton	North Easton	700	540	450	310	(250)	(230)	87	239	24	0	50	138	14	0	(101)	(11)
10	Easton Village	Easton Village	280	210	150	120	(130)	(90)	106	0	35	0	64	0	16	0	0	(19)
11	Raynham	Raynham	530	390	410	310	(120)	(80)	67	183	29	0	43	129	29	0	(54)	0
12	Taunton Depot/GATRA	Dana Street	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
13	Dean St	Taunton	360	220	620	480	260	260	90	41	14	0	110	119	58	29	78	43
14	E. Taunton North	Taunton Depot	490	400	380	290	(110)	(110)	84	160	16	0	39	102	29	19	(58)	13
15	Freetown	Freetown	240	180	180	140	(60)	(40)	20	81	15	0	16	65	10	0	(17)	(5)
16	Fall River Depot	Fall River Depot	740	550	840	600	100	50	126	184	22	0	139	210	34	10	26	11
17	Battleship Cove	Battleship Cove	210	160	240	80	30	(80)	90	0	30	0	40	0	11	2	0	(19)
18	Kings Hwy	Kings Hwy	460	340	520	390	60	50	60	143	25	0	55	163	35	0	20	10
19	Whales Tooth	Whales Tooth	600	440	680	460	80	20	74	146	40	35	86	134	41	41	(12)	1
		Total	**12,860**	**8,960**	**8,860**	**6,240**	**-**	**-**	**804**	**1,177**	**250**	**35**	**643**	**1,058**	**276**	**101**	**-**	-

[1] Total Includes: AM Peak Period = Peak 3 hrs (6AM to 9AM); Midday Peak Period= 6hrs (9AM to 3 PM); PM Peak Period = Peak 3 hrs (3PM to 6PM) and Nighttime Peak Period = 12hrs (6PM to 6AM)
[2] AM Peak Period = Morning Peak 3 hrs (6AM to 9AM)
[3] Trips from DEIR documents and reflect the highest projected ridership at individual stations from the Stoughton Electric, Attleboro Electric and the Whittenton Electric Alternative analyses
[4] Peak Hour adjustment factor of 0.67 used to reduce CTPS peak period (3-hours) ridership to peak hour ridership
[5] Walk/Bike = Assumes a max of a 1 mile
[6] PNR = People using parking lot spaces; Park and ride ridership converted to vehicles with vehicle occupancy factor of 1.05 .
[7] KNR = Kiss-and-Ride or drop-offs
[8] Other = Transit access

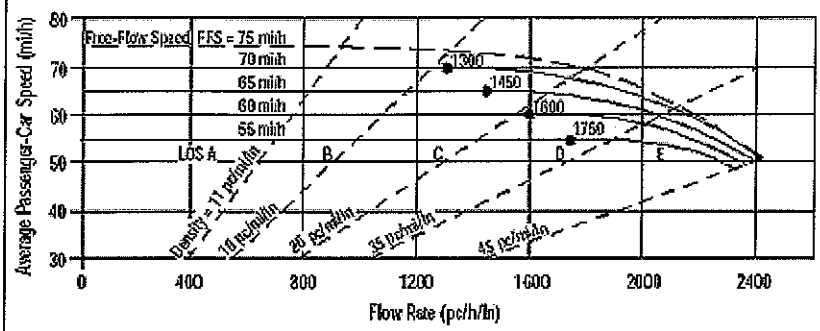
Stations			Whittenton Electric Inbound Boardings						DEIR Peak Hour Trip Generation[3]				New Whittenton Electric Peak Hour Trip Generation[4]				Difference between 2030 and 2035	
			2030		2035		Difference between 2030 and 2035		2030				2035					
Station No.	2030 Stations	2035 Stations	Total[1]	AM Peak Period[2]	Total	AM Peak Period	Total	AM Peak Period	AM W/B[5]	AM PNR[6]	AM KNR[7]	AM other[8]	AM W/B	AM PNR	AM KNR	AM other	AM PNR Trips	AM KNR Trips
1	South Station	South Station	-	-	-	-	-	-										
2	Back Bay	Back Bay	1,250	880	830	580	(420)	(300)										
3	Ruggles	Ruggles	160	100	110	70	(50)	(30)										
4	Hyde Park	Hyde Park	700	350	450	310	(250)	(40)										
5	Rte 128 Station	Rte 128 Station	1,320	910	630	440	(690)	(470)										
6	Canton Junction	Canton Junction	1,470	960	720	480	(750)	(480)										
7	Canton Center	Canton Center	1,240	830	740	490	(500)	(340)										
8	Stoughton	Stoughton	1,430	1,030	950	720	(480)	(310)										
9	North Easton	North Easton	700	540	480	330	(220)	(210)	87	239	24	0	50	150	14	0	(88)	(11)
10	Easton Village	Easton Village	280	210	150	120	(130)	(90)	106	0	35	0	64	0	16	0	0	(19)
11	Raynham	Raynham	590	430	500	380	(90)	(50)	67	183	29	0	44	168	34	0	(15)	5
12	Taunton Depot/GATRA	Dana Street	850	460	310	240	(540)	(220)	145	226	44	117	25	105	25	0	(121)	(19)
13	Dean St	Taunton	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
14	E. Taunton North	Taunton Depot	340	240	340	260	0	20	84	160	16	0	34	97	29	10	(63)	13
15	Freetown	Freetown	260	130	160	120	(100)	(10)	20	81	15	0	10	57	10	0	(24)	(5)
16	Fall River Depot	Fall River Depot	640	420	750	540	110	120	126	184	22	0	125	188	29	10	4	6
17	Battleship Cove	Battleship Cove	200	120	200	70	0	(50)	90	0	30	0	35	0	9	2	0	(21)
18	Kings Hwy	Kings Hwy	390	270	480	360	90	90	60	143	25	0	55	148	30	0	6	5
19	Whales Tooth	Whales Tooth	510	360	610	410	100	50	74	146	40	35	77	124	41	27	(22)	1
		Total	**12,330**	**8,240**	**8,410**	**5,920**	**-**	**-**	**859**	**1,362**	**280**	**151**	**519**	**1,039**	**237**	**49**	**-**	-

[1] Total Includes: AM Peak Period = Peak 3 hrs (6AM to 9AM); Midday Peak Period= 6hrs (9AM to 3 PM); PM Peak Period = Peak 3 hrs (3PM to 6PM) and Nighttime Peak Period = 12hrs (6PM to 6AM)
[2] AM Peak Period = Morning Peak 3 hrs (6AM to 9AM)
[3] Trips from DEIR documents and reflect the highest projected ridership at individual stations from the Stoughton Electric, Attleboro Electric and the Whittenton Electric Alternative analyses
[4] Peak Hour adjustment factor of 0.67 used to reduce CTPS peak period (3-hours) ridership to peak hour ridership
[5] Walk/Bike = Assumes a max of a 1 mile
[6] PNR = People using parking lot spaces; Park and ride ridership converted to vehicles with vehicle occupancy factor of 1.05 .
[7] KNR = Kiss-and-Ride or drop-offs
[8] Other = Transit access

Appendix 4.1-I

Capacity Analysis

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7845*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*58.3*	mi/h	FFS	*58.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2121*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*54.8*	mi/h	S		mi/h
D = v_p / S	*38.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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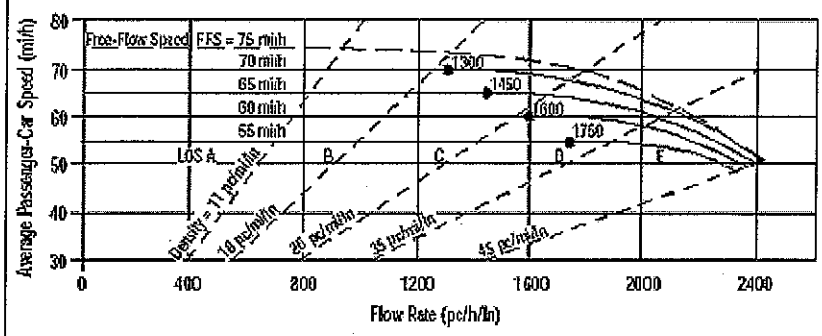
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5310*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*58.3*	mi/h	FFS	*58.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1431*	pc/h/ln	Design LOS		
S	*58.3*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*24.5*	pc/mi/ln	S		mi/h
LOS	*C*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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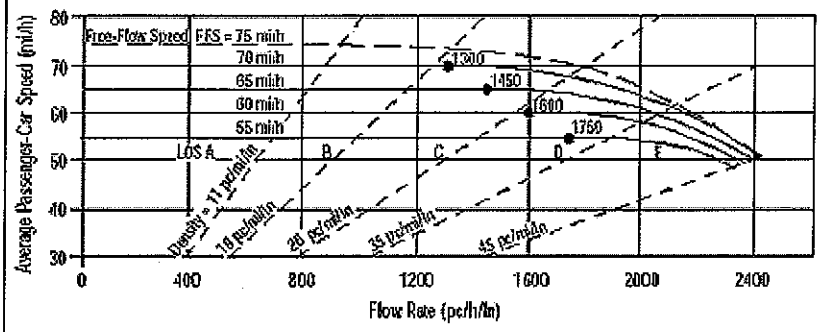
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5085*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*59.0*	mi/h	FFS	*59.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1385*	pc/h/ln	Design LOS		
S	*59.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*23.5*	pc/mi/ln	S		mi/h
LOS	*C*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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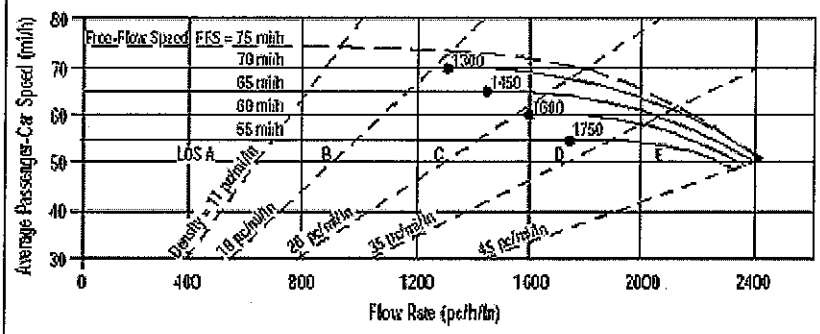
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*7255*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*59.0*	mi/h	FFS	*59.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1935*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*57.9*	mi/h	S	mi/h
D = v_p / S	*33.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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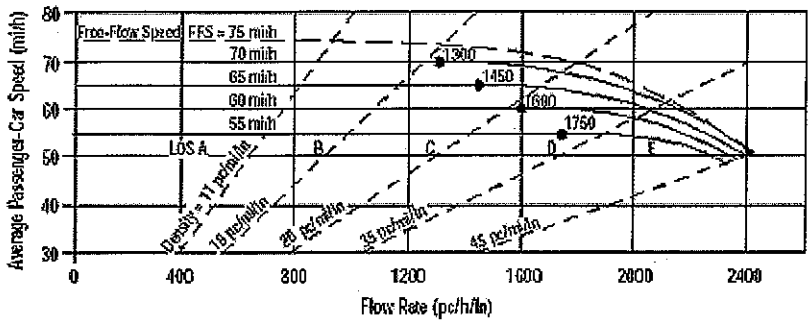

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5955*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*66.0*	mi/h	FFS	*66.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1628*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*65.7*	mi/h	S		mi/h
D = v_p / S	*24.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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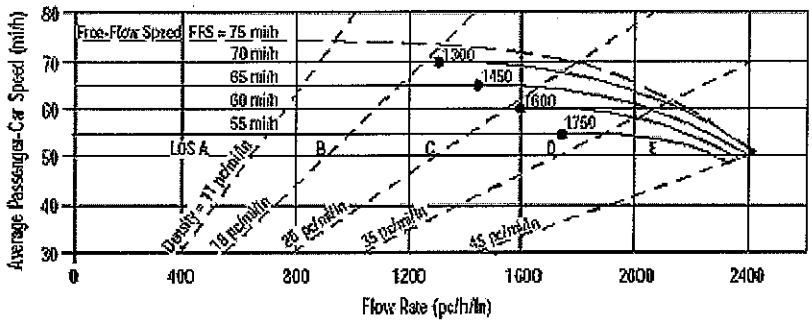
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/18/2008*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4755*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*66.0*	mi/h	FFS	*66.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1275*	pc/h/ln	Design LOS		
S	*66.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*19.3*	pc/mi/ln	S		mi/h
LOS	*C*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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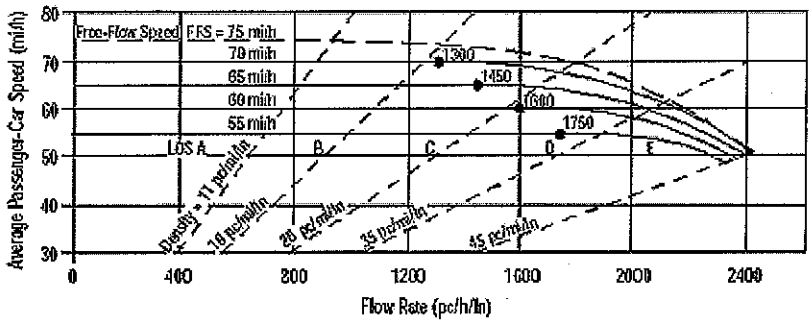

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6985*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*64.0*	mi/h	FFS	*64.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1845*	pc/h/ln	Design LOS		
S	*62.7*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*29.4*	pc/mi/ln	S		mi/h
LOS	*D*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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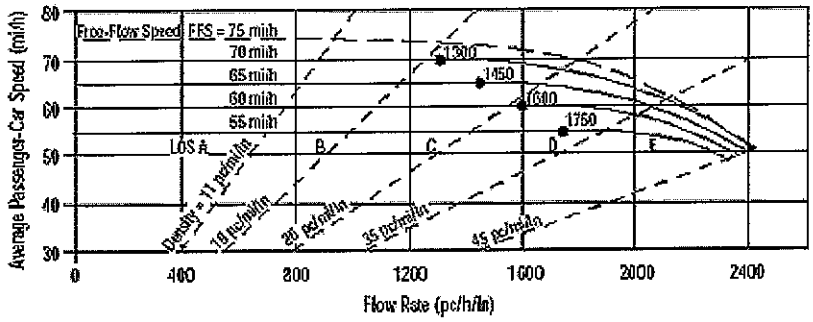

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7375*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*64.0*	mi/h	FFS	*64.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1948*	pc/h/ln	Design LOS		
S	*61.5*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*31.7*	pc/mi/ln	S		mi/h
LOS	*D*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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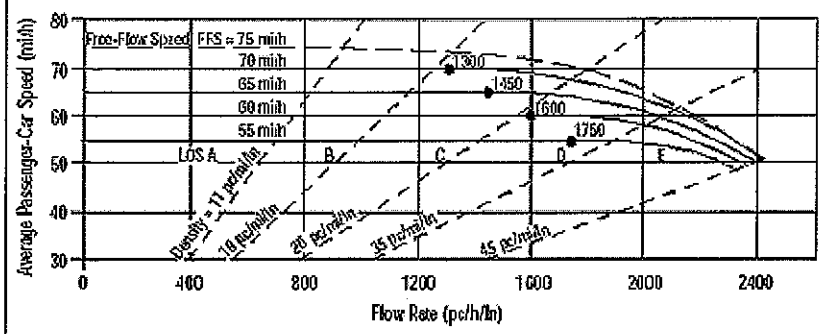

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route I-93*
Date Performed	*11/18/08*	Jurisdiction	*Randolph*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5102*	veh/h	Peak-Hour Factor, PHF	*0.89*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*63.9*	mi/h	FFS	*63.9*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2064*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*59.5*	mi/h	S	mi/h
D = v_p / S	*34.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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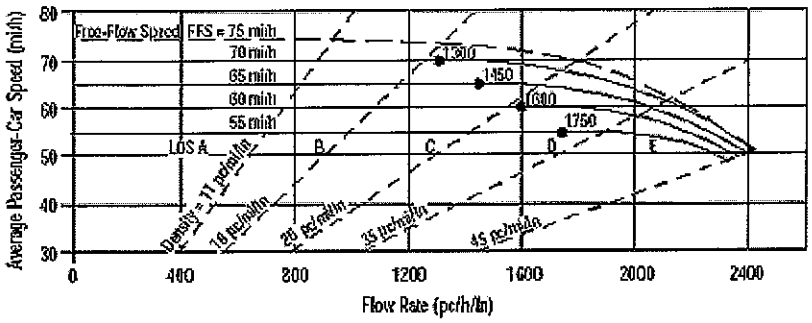

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/18/08*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 South of Route I-93*
Jurisdiction	*Randolph*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2775*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*63.9*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*63.9*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*998*	pc/h/ln
S	*63.9*	mi/h
D = v_p / S	*15.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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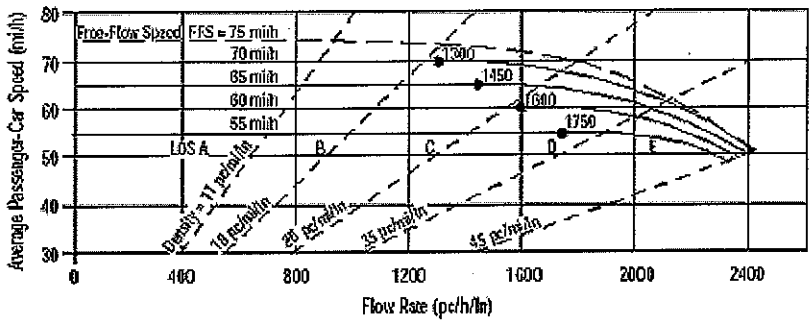

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route I-93*
Date Performed	*11/18/08*	Jurisdiction	*Randolph*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*3400*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*65.8*	mi/h	FFS	*65.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1261*	pc/h/ln	Design LOS		
S	*65.8*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*19.2*	pc/mi/ln	S		mi/h
LOS	*C*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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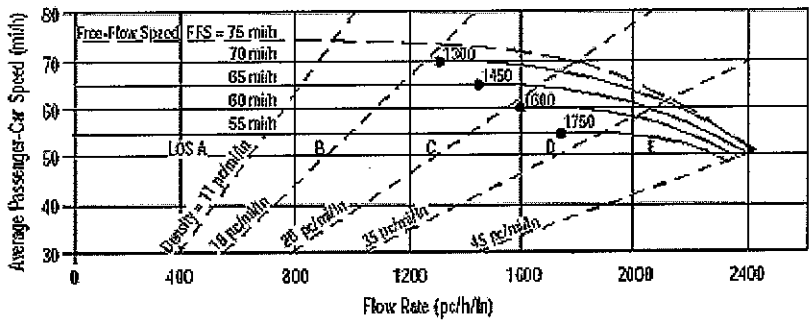

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route I-93*
Date Performed	*11/18/08*	Jurisdiction	*Randolph*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6110*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*65.8*	mi/h	FFS	*65.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2141*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*59.1*	mi/h	S		mi/h
D = v_p / S	*36.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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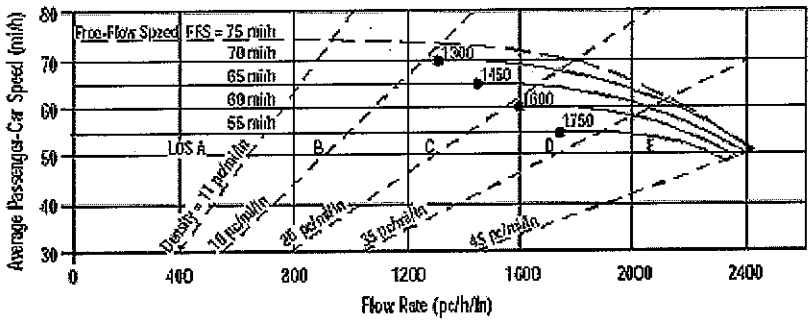

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/21/08*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24, South of Pond St.*
Jurisdiction	*Avon*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5355*	veh/h	Peak-Hour Factor, PHF	*0.99*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*66.4*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.4*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1893*	pc/h/ln
S	*64.0*	mi/h
D = v_p / S	*29.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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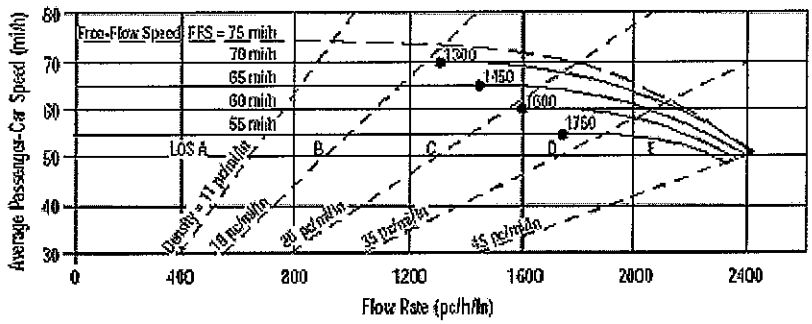

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24, South of Pond St.*
Date Performed	*11/21/08*	Jurisdiction	*Avon*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3330*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1184*	pc/h/ln	Design LOS		
S	*70.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*16.9*	pc/mi/ln	S		mi/h
LOS	*B*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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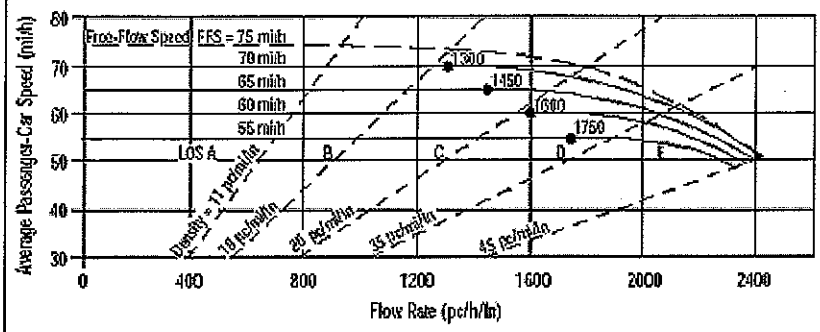

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24, South of Pond St.*
Date Performed	*11/21/08*	Jurisdiction	*Avon*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3075*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1104*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*67.1*	mi/h	S		mi/h
D = v_p / S	*16.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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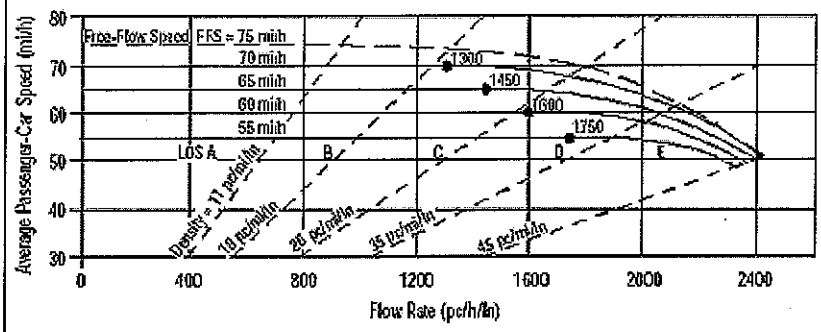

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24, South of Pond St.*
Date Performed	*11/21/08*	Jurisdiction	*Avon*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6010*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2117*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*60.5*	mi/h	S		mi/h
D = v_p / S	*35.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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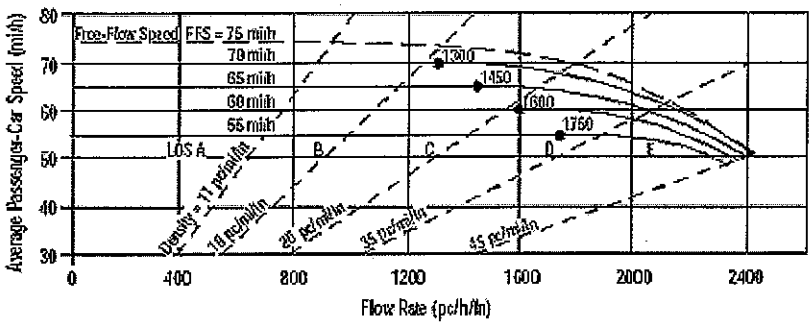

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5405*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1950*	pc/h/ln	Design LOS		
S	*63.7*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*30.6*	pc/mi/ln	S		mi/h
LOS	*D*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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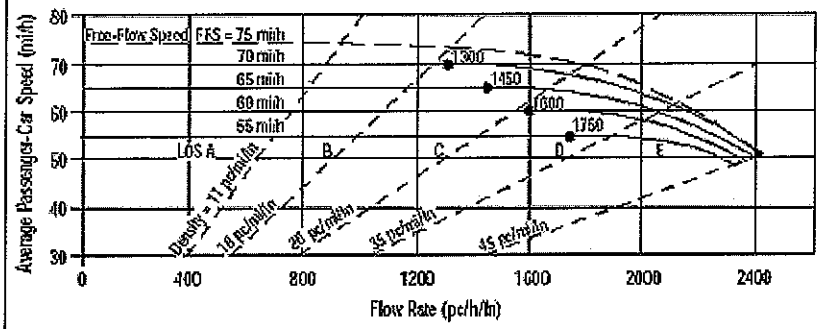
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3260*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1172*	pc/h/ln	Design LOS		
S	*67.1*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*17.5*	pc/mi/ln	S		mi/h
LOS	*B*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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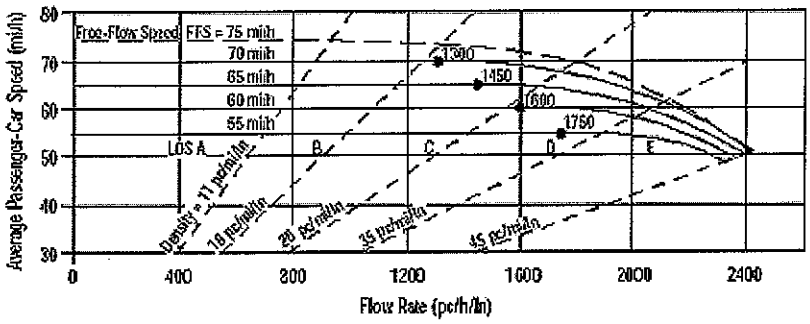

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2350*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.3*	mi/h	FFS	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*858*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.3*	mi/h	S		mi/h
D = v_p / S	*12.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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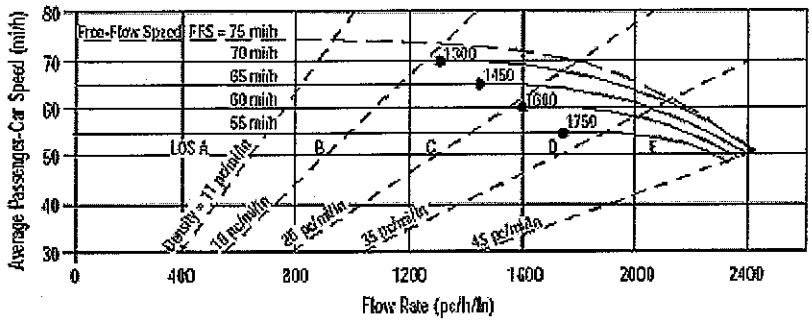

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5445*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.3*	mi/h	FFS	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1889*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*66.2*	mi/h	S		mi/h
D = v_p / S	*28.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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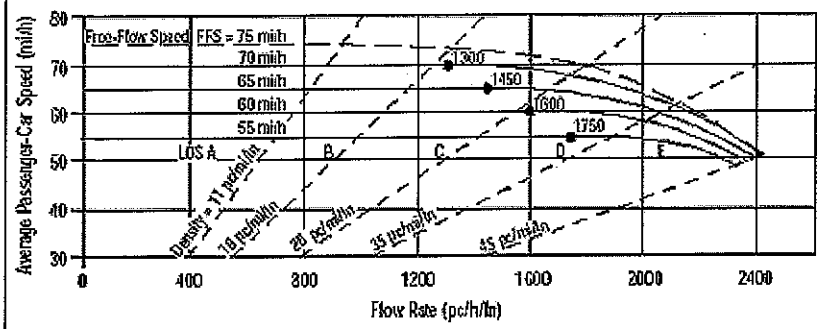

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route I-495*
Date Performed	*11/21/08*	Jurisdiction	*Raynham*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5260*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*66.8*	mi/h	FFS	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1881*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*64.5*	mi/h	S		mi/h
D = v_p / S	*29.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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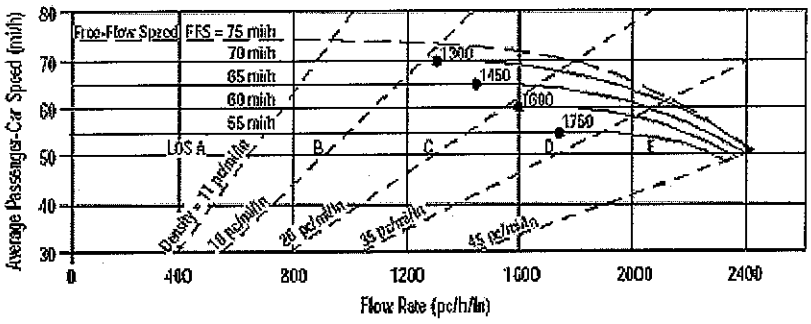

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of I-495*
Date Performed	*11/21/08*	Jurisdiction	*Raynham*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3435*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*66.8*	mi/h	FFS	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1241*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*66.8*	mi/h	S		mi/h
D = v_p / S	*18.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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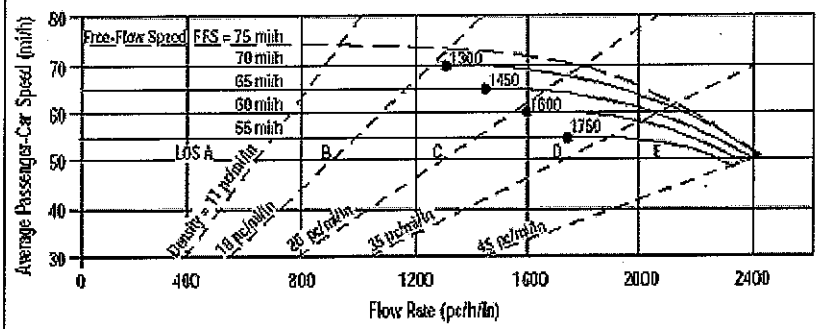

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of I-495*
Date Performed	*11/21/08*	Jurisdiction	*Raynham*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2630*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*63.0*	mi/h	FFS	*63.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*949*	pc/h/ln	Design LOS		
S	*63.0*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*15.1*	pc/mi/ln	S		mi/h
LOS	*B*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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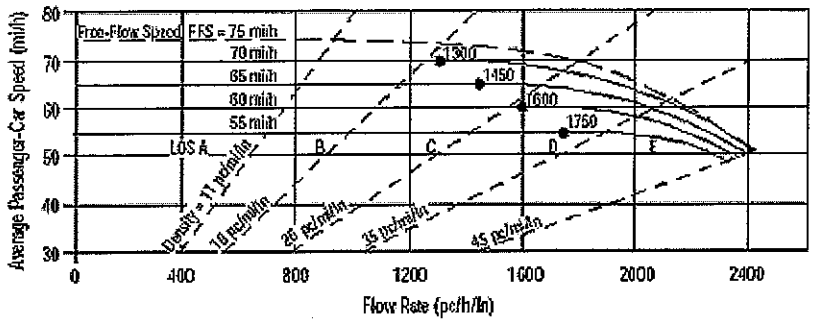

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/21/08*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of I-495*
Jurisdiction	*Raynham*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4755*	veh/h	Peak-Hour Factor, PHF	*0.98*	
AADT		veh/day	%Trucks and Buses, P_T	*6*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*63.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*63.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1666*	pc/h/ln
S	*62.8*	mi/h
D = v_p / S	*26.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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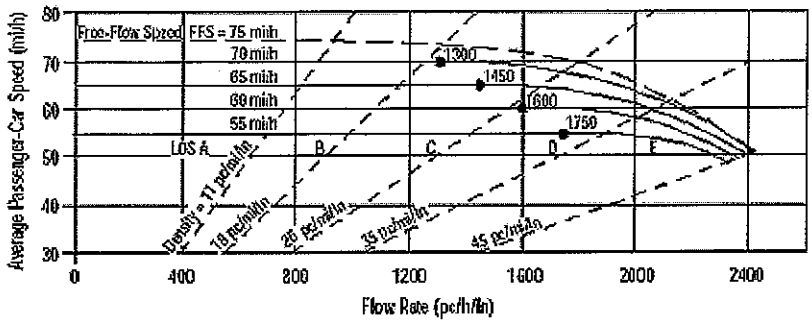

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 44*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3930*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2137*	pc/h/ln	Design LOS		
S	*62.1*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*34.4*	pc/mi/ln	S		mi/h
LOS	*D*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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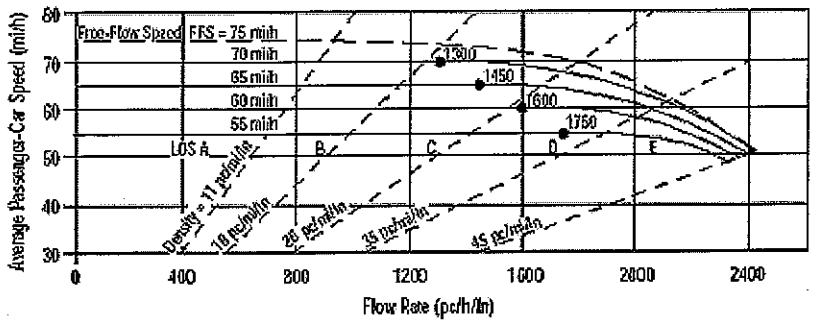

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 44*
Date Performed	*11/19/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2475*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1397*	pc/h/ln	Design LOS		
S	*70.9*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*19.7*	pc/mi/ln	S		mi/h
LOS	*C*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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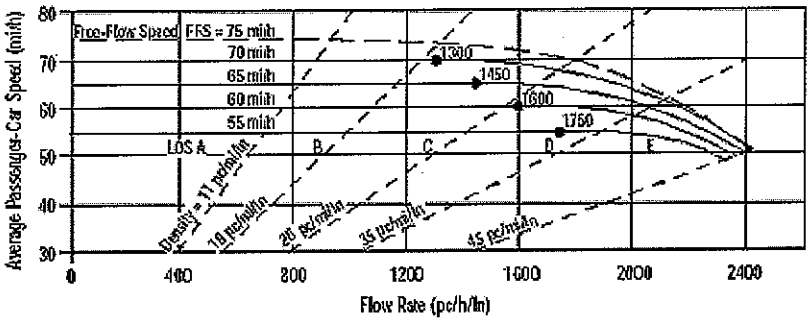

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBC*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 44*
Date Performed	*11/19/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2110*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*69.7*	mi/h	FFS	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1159*	pc/h/ln	Design LOS		
S	*69.7*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*16.6*	pc/mi/ln	S		mi/h
LOS	*B*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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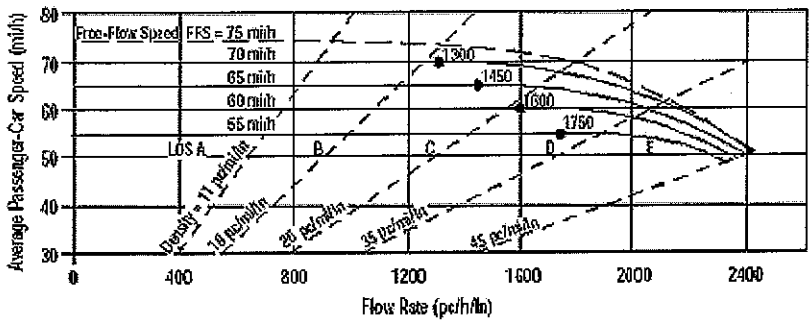

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBC*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/19/2008*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of Route 44*
Jurisdiction	*Taunton*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3860*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.7*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2088*	pc/h/ln
S	*62.8*	mi/h
D = v_p / S	*33.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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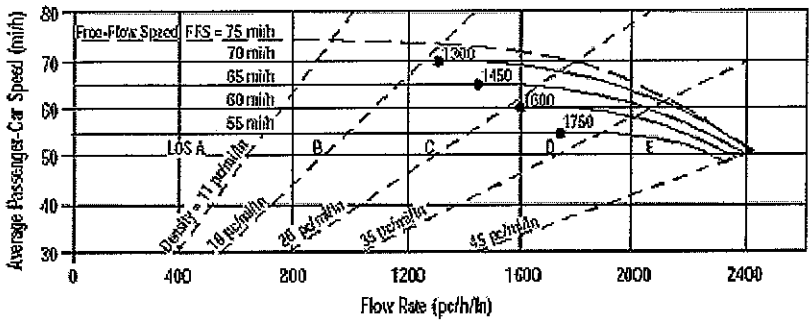

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route 140*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1110*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.1*	mi/h	FFS	*70.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*611*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.1*	mi/h	S		mi/h
D = v_p / S	*8.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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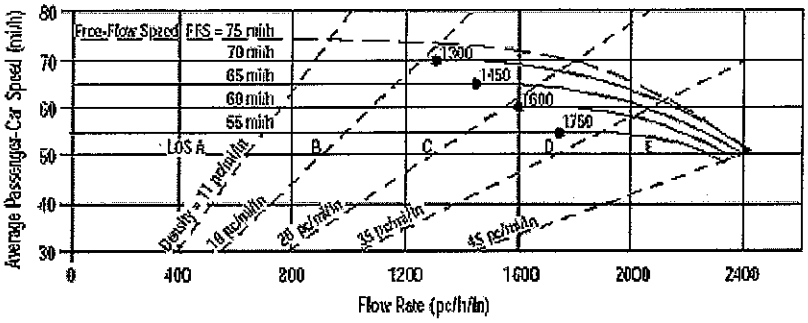

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route 140*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1255*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	i/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.1*	mi/h	FFS	*70.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*715*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.1*	mi/h	S	mi/h
D = v_p / S	*10.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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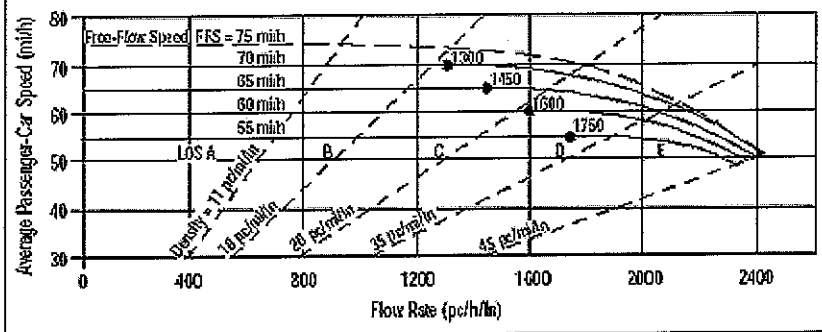

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBC*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/18/2008*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 South of Route 140*
Jurisdiction	*Taunton*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1355*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*770*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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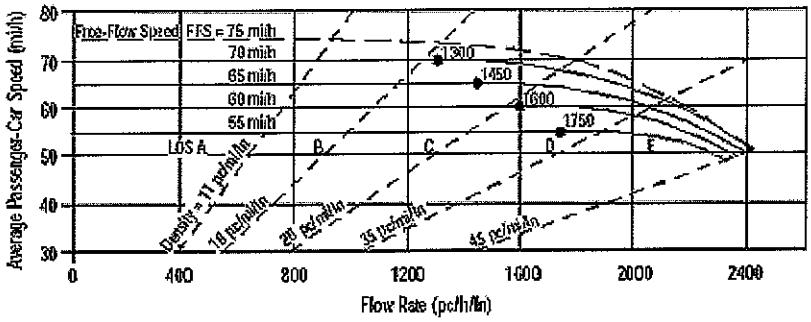

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBC*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/18/2008*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 South of Route 140*
Jurisdiction	*Taunton*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2875*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1560*	pc/h/ln
S	*69.6*	mi/h
D = v_p / S	*22.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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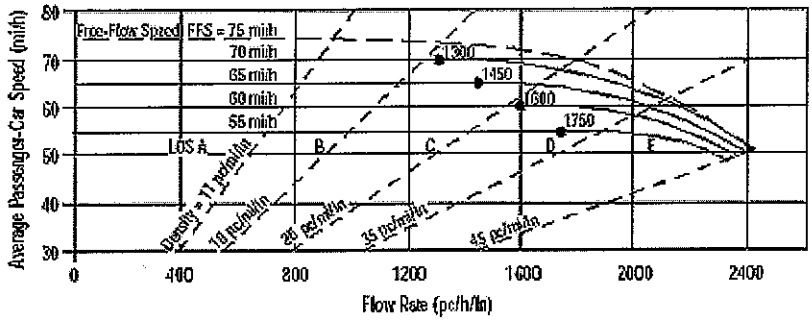

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Eastbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/19/08*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*830*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*65.0*	mi/h	FFS	*65.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*469*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*65.0*	mi/h	S	mi/h
D = v_p / S	*7.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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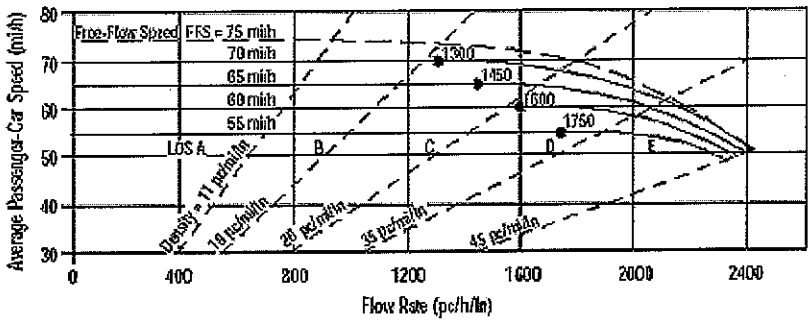

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Eastbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/19/08*	Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1740*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*65.0*	mi/h	FFS	*65.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*924*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*65.0*	mi/h	S		mi/h
D = v_p / S	*14.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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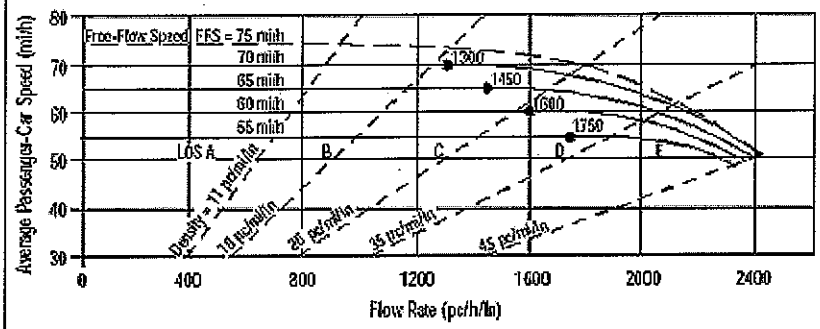

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Westbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1595*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*66.8*	mi/h	FFS	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*883*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*66.8*	mi/h	S	mi/h
D = v_p / S	*13.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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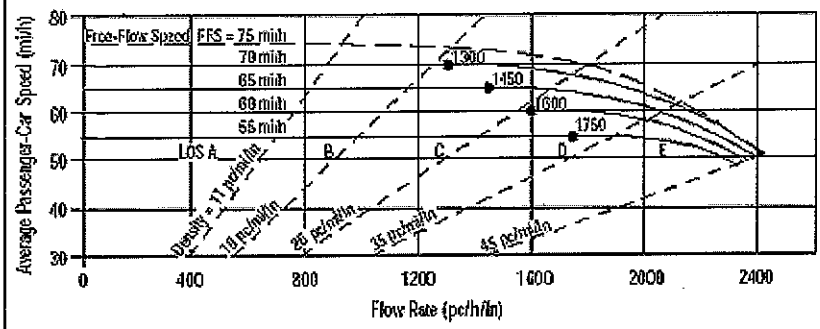

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBC*	Highway/Direction of Travel	*Westbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1060*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*593*	pc/h/ln
S	*66.8*	mi/h
D = v_p / S	*8.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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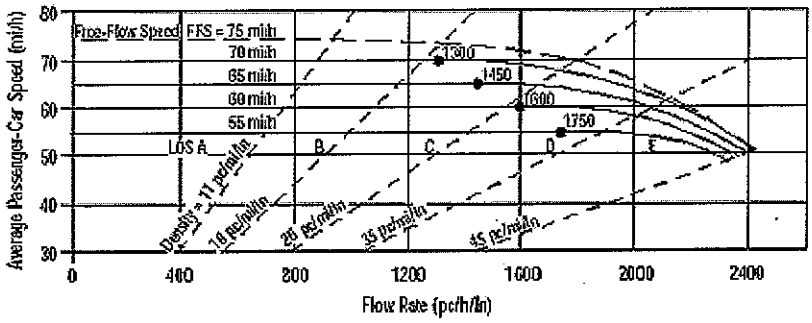

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBC*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/18/2008*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 140 North of Hathaway Rd*
Jurisdiction	*New Bedford*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2015*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1120*	pc/h/ln
S	*69.3*	mi/h
D = v_p / S	*16.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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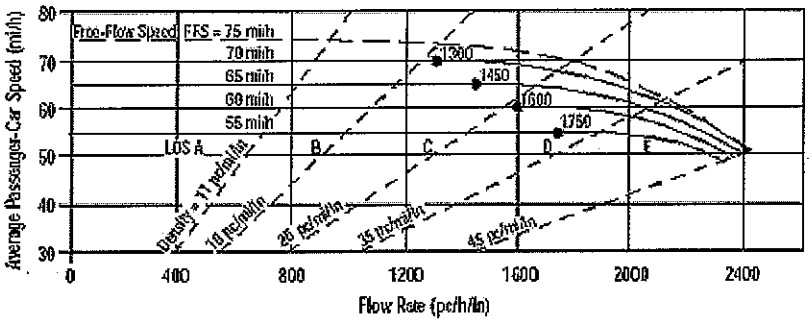

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 North of Hathaway Rd*
Date Performed	*11/18/2008*	Jurisdiction	*New Bedford*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2085*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*69.3*	mi/h	FFS	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1153*	pc/h/ln	Design LOS		
S	*69.3*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*16.6*	pc/mi/ln	S		mi/h
LOS	*B*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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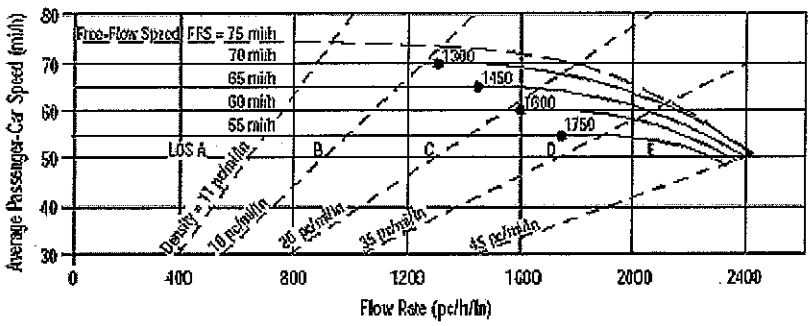

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBC*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 North of Hathaway Rd*
Date Performed	*11/18/2008*	Jurisdiction	*New Bedford*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2160*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.2*	mi/h	FFS	*62.2*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1196*	pc/h/ln	Design LOS		
S	*62.2*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*19.2*	pc/mi/ln	S		mi/h
LOS	*C*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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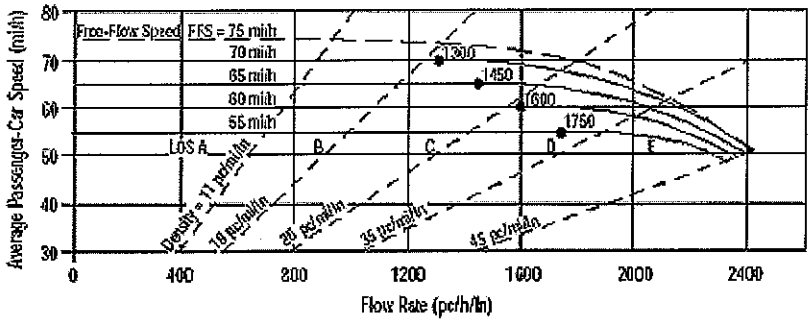

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBC*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 North of Hathaway Rd*
Date Performed	*11/18/2008*	Jurisdiction	*New Bedford*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2225*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.2*	mi/h	FFS	*62.2*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1194*	pc/h/ln	Design LOS		
S	*62.2*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S	*19.2*	pc/mi/ln	S		mi/h
LOS	*C*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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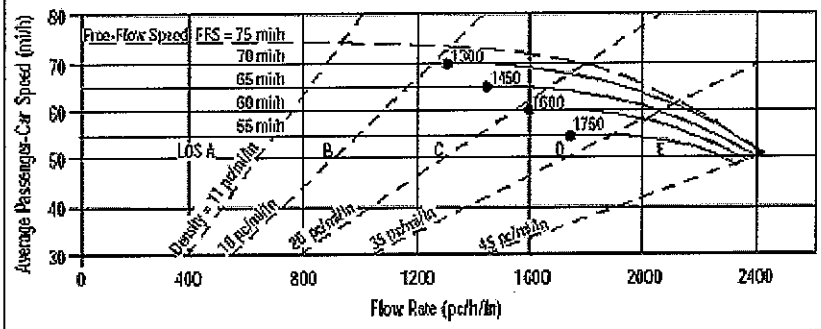

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/19/08*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 at Freetown Line*
Jurisdiction	*Fall River*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2030*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1162*	pc/h/ln
S	*70.8*	mi/h
D = v_p / S	*16.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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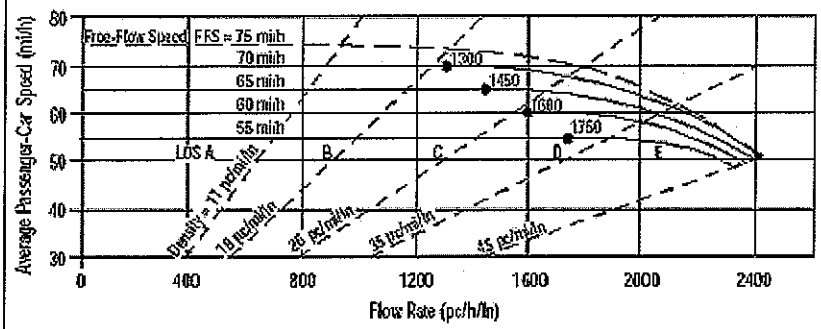

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 at Freetown Line*
Date Performed	*11/19/08*	Jurisdiction	*Fall River*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1890*	veh/h	Peak-Hour Factor, PHF	*0.86*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1115*	pc/h/ln	Design LOS v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.8*	mi/h	S		mi/h
D = v_p / S	*15.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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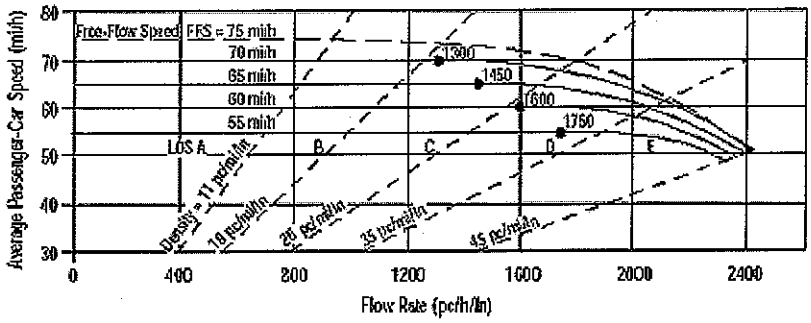

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 at Freetown Line*
Date Performed	*11/19/08*	Jurisdiction	*Fall River*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1770*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*996*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*62.5*	mi/h	S		mi/h
D = v_p / S	*15.9*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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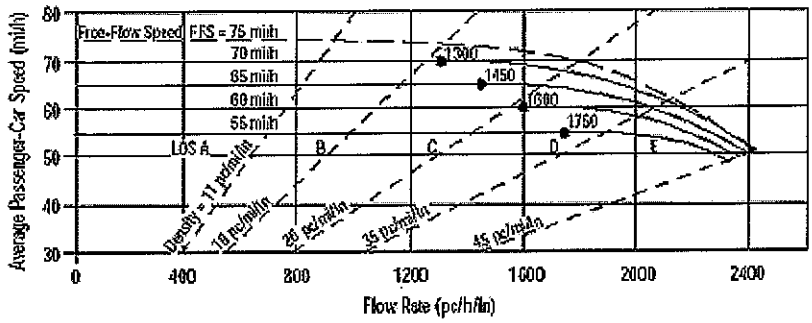
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/19/08*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 at Freetown Line*
Jurisdiction	*Fall River*
Analysis Year	*2008*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2590*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*62.5*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1434*	pc/h/ln
S	*62.5*	mi/h
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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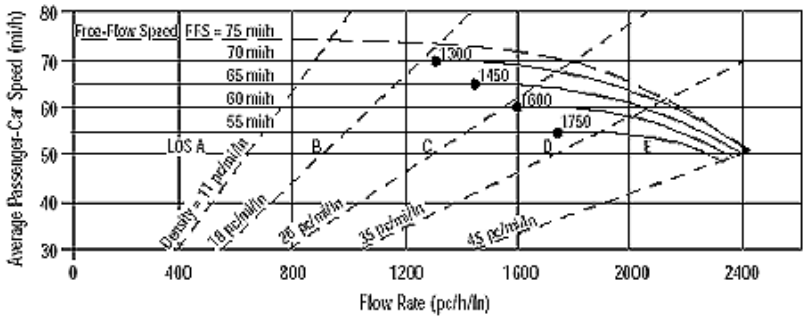

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3795*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1369*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*71.0*	mi/h	S		mi/h
D = v_p / S	*19.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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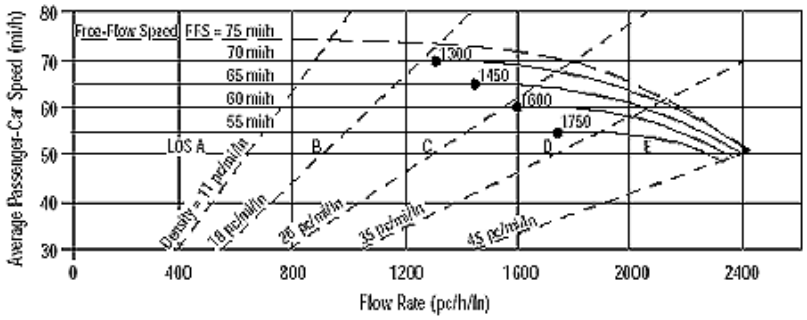

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed		Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2060*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*775*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*71.0*	mi/h	S		mi/h
D = v_p / S	*10.9*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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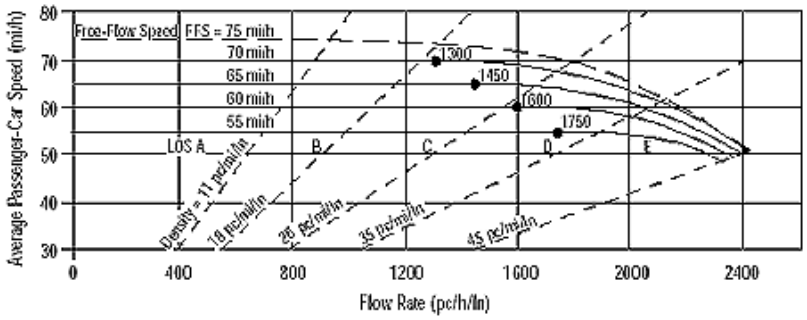

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed		Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1860*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.7*	mi/h	FFS	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*678*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.7*	mi/h	S		mi/h
D = v_p / S	*9.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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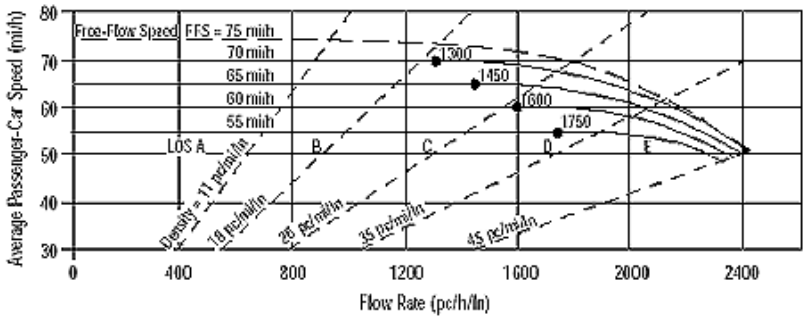

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed		Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3910*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.7*	mi/h	FFS	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1396*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.7*	mi/h	S		mi/h
D = v_p / S	*20.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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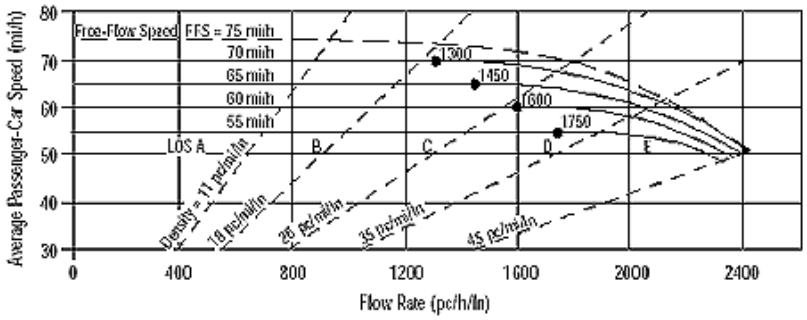

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1835*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*714*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.8*	mi/h	S		mi/h
D = v_p / S	*10.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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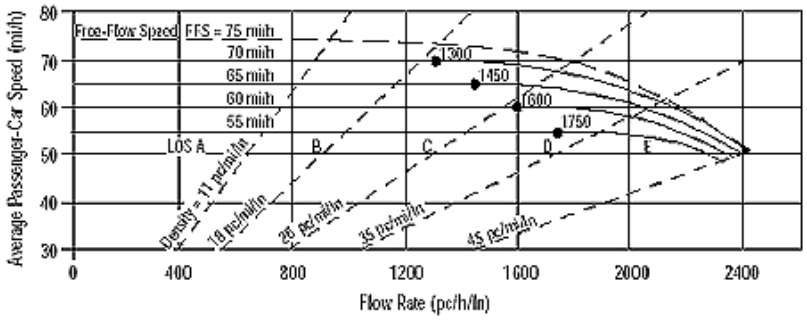

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1610*	veh/h	Peak-Hour Factor, PHF	*0.86*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*983*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.8*	mi/h	S		mi/h
D = v_p / S	*13.9*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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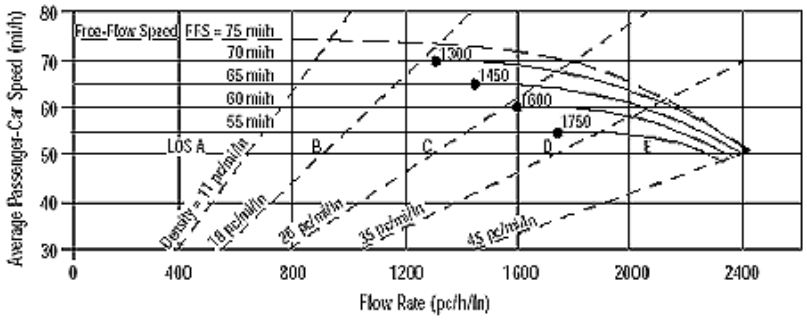
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*11/21/08*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1430*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*816*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*62.5*	mi/h	S	mi/h
D = v_p / S	*13.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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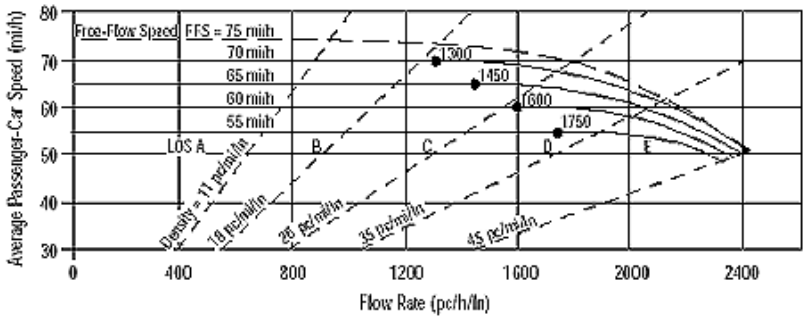
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2008 Existing*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2390*	veh/h	Peak-Hour Factor, PHF	*0.93*	
AADT		veh/day	%Trucks and Buses, P_T	*10*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1349*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*62.5*	mi/h	S	mi/h
D = v_p / S	*21.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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HCM Unsignalized Intersection Capacity Analysis
3: Elm St & Route 138

Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	30	30	10	15	25	25	1145	15	0	365	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.68	0.68	0.68	0.91	0.91	0.91	0.89	0.89	0.89
Hourly flow rate (vph)	107	36	36	15	22	37	27	1258	16	0	410	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1802	1762	433	1808	1776	1266	455			1275		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1802	1762	433	1808	1776	1266	455			1275		
tC, single (s)	7.1	6.5	6.2	7.1	6.6	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	0	56	94	61	71	82	97			100		
cM capacity (veh/h)	39	82	621	38	75	204	1095			552		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	179	74	1302	455
Volume Left	107	15	27	0
Volume Right	36	37	16	45
cSH	55	85	1095	552
Volume to Capacity	3.26	0.87	0.03	0.00
Queue Length 95th (ft)	Err	115	2	0
Control Delay (s)	Err	149.1	1.0	0.0
Lane LOS	F	F	A	
Approach Delay (s)	Err	149.1	1.0	0.0
Approach LOS	F	F		

Intersection Summary				
Average Delay	894.7			
Intersection Capacity Utilization	103.0%	ICU Level of Service	G	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
10: Lincoln Street & Main Street

Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	430	15	135	100	55	5	55	440	80	35	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.87	0.87	0.80	0.80	0.80	0.87	0.87	0.87
Hourly flow rate (vph)	5	473	16	155	115	63	6	69	550	92	40	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	115			489			975	917	481	983	957	147
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115			489			975	917	481	983	957	147
tC, single (s)	4.1			4.1			7.3	6.5	6.2	7.1	6.7	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.1	3.3
p0 queue free %	100			85			96	70	6	0	81	99
cM capacity (veh/h)	1487			1064			163	231	585	9	208	906

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	495	333	625	138
Volume Left	5	155	6	92
Volume Right	16	63	550	6
cSH	1487	1064	490	14
Volume to Capacity	0.00	0.15	1.28	10.04
Queue Length 95th (ft)	0	13	648	Err
Control Delay (s)	0.1	5.0	164.0	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.1	5.0	164.0	Err
Approach LOS			F	F

Intersection Summary				
Average Delay	932.5			
Intersection Capacity Utilization	90.1%	ICU Level of Service	E	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
11: Lincoln Street & Barrows Street

Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	135	445	0	0	110	0	0	0	5	0	0	65
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.59
Hourly flow rate (vph)	141	464	0	0	125	0	0	0	6	0	0	110
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	125			464			980	870	464	875	870	125
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	125			464			980	870	464	875	870	125
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			100			100	100	99	100	100	88
cM capacity (veh/h)	1462			1098			187	262	599	249	262	928

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	604	125	6	110
Volume Left	141	0	0	0
Volume Right	0	0	6	110
cSH	1462	1700	599	928
Volume to Capacity	0.10	0.07	0.01	0.12
Queue Length 95th (ft)	8	0	1	10
Control Delay (s)	2.6	0.0	11.1	9.4
Lane LOS	A		B	A
Approach Delay (s)	2.6	0.0	11.1	9.4
Approach LOS			B	A

Intersection Summary				
Average Delay		3.1		
Intersection Capacity Utilization		48.2%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
12: Union Street & Route 138

Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	60	85	1010	235	70	335
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.89	0.89	0.81	0.81
Hourly flow rate (vph)	68	97	1135	264	86	414
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1853	1267			1399	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1853	1267			1399	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	52			82	
cM capacity (veh/h)	68	203			485	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	165	1399	500
Volume Left	68	0	86
Volume Right	97	264	0
cSH	111	1700	485
Volume to Capacity	1.48	0.82	0.18
Queue Length 95th (ft)	298	0	16
Control Delay (s)	329.3	0.0	5.2
Lane LOS	F		A
Approach Delay (s)	329.3	0.0	5.2
Approach LOS	F		

Intersection Summary				
Average Delay		27.5		
Intersection Capacity Utilization		92.8%	ICU Level of Service	F
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
17: Elm Street & Main Street

Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	40	15	140	90	45	140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.86	0.86	0.73	0.73
Hourly flow rate (vph)	45	17	163	105	62	192
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	530	215			267	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	530	215			267	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	90	98			95	
cM capacity (veh/h)	475	812			1296	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	62	267	253
Volume Left	45	0	62
Volume Right	17	105	0
cSH	536	1700	1296
Volume to Capacity	0.12	0.16	0.05
Queue Length 95th (ft)	10	0	4
Control Delay (s)	12.6	0.0	2.2
Lane LOS	B		A
Approach Delay (s)	12.6	0.0	2.2
Approach LOS	B		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
47: Roosevelt Circle & Route 138

Existing Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	0	5	830	480	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	5	902	522	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				856		
pX, platoon unblocked	0.66					
vC, conflicting volume	1438	524	527			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1405	524	527			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	100	99			
cM capacity (veh/h)	101	553	1040			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	11	908	527
Volume Left	11	5	0
Volume Right	0	0	5
cSH	101	1040	1700
Volume to Capacity	0.11	0.01	0.31
Queue Length 95th (ft)	9	0	0
Control Delay (s)	45.1	0.1	0.0
Lane LOS	E	A	
Approach Delay (s)	45.1	0.1	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lanes, Volumes, Timings
1: Main Street & Rte 138

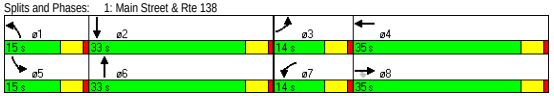
Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	180	200	70	325	80	195	375	45	125	520	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	11	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4952			2928	
Travel Time (s)		26.1			62.7			84.4			49.9	
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	201	220	244	82	476	0	217	467	0	140	859	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	21.0		12.0	21.0		12.0	20.0	
Total Split (s)	14.0	35.0	35.0	14.0	35.0	0.0	15.0	33.0	0.0	15.0	33.0	0.0
Total Split (%)	14.4%	36.1%	36.1%	14.4%	36.1%	0.0%	15.5%	34.0%	0.0%	15.5%	34.0%	0.0%
Maximum Green (s)	9.0	30.0	30.0	9.0	30.0		10.0	28.0		10.0	28.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					5.0			5.0				
Flash Dont Walk (s)					11.0			11.0				
Pedestrian Calls (#/hr)					0			0				
v/c Ratio	1.01	0.51	0.43	0.48	0.72		0.98	0.43		0.69	0.78	
Control Delay	107.0	33.6	6.7	45.8	35.3		95.8	22.5		54.3	28.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	107.0	33.6	6.7	45.8	35.3		95.8	22.5		54.3	28.6	
Queue Length 50th (ft)	~113	105	0	41	114		~115	93		70	184	
Queue Length 95th (ft)	#231	157	41	84	153		#275	149		#160	277	
Internal Link Dist (ft)		1645			3138			4872			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	199	682	747	195	1275		221	1159		217	1185	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	1.01	0.32	0.33	0.42	0.37		0.98	0.40		0.65	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 80.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Rte 138



HCM Signalized Intersection Capacity Analysis
1: Main Street & Rte 138

Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	180	200	70	325	80	195	375	45	125	520	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	11	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1818	1583	1728	3346		1770	3287		1736	3235	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1818	1583	1728	3346		1770	3287		1736	3235	
Peak-hour factor, PHF	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Adj. Flow (vph)	201	220	244	82	382	94	217	417	50	140	584	275
RTOR Reduction (vph)	0	0	187	0	26	0	0	9	0	0	55	0
Lane Group Flow (vph)	201	220	57	82	450	0	217	458	0	140	804	0
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	9.1	19.1	19.1	6.4	16.4		10.1	26.5		9.5	25.9	
Effective Green, g (s)	9.1	19.1	19.1	6.4	16.4		10.1	26.5		9.5	25.9	
Actuated g/C Ratio	0.11	0.23	0.23	0.08	0.20		0.12	0.33		0.12	0.32	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	198	426	371	136	673		219	1069		202	1028	
v/s Ratio Prot	c0.11	c0.12		0.05	c0.13		c0.12	0.14		0.08	c0.25	
v/s Ratio Perm			0.04									
v/c Ratio	1.02	0.52	0.15	0.60	0.67		0.99	0.43		0.69	0.78	
Uniform Delay, d1	36.2	27.2	24.8	36.3	30.0		35.7	21.6		34.6	25.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	67.9	0.4	0.1	5.1	2.0		58.0	0.4		8.0	4.2	
Delay (s)	104.1	27.6	24.9	41.4	32.0		93.6	21.9		42.6	29.4	
Level of Service	F	C	C	D	C		F	C		D	C	
Approach Delay (s)		49.7			33.4			44.7			31.3	
Approach LOS		D			C			D			C	

Intersection Summary

HCM Average Control Delay	39.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	81.5	Sum of lost time (s)	25.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
2: Belmont St (Rt. 123) & Route 138

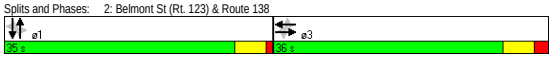
Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	25	70	485	35	165	25	365	290	205	580	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	100		0	0		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			2550			908			853	
Travel Time (s)		5.9			38.6			13.8			12.9	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	551	228	0	0	731	0	0	895	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Detector Phase	3	3		3	3		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		13.0	13.0		13.0	13.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.7%	50.7%	0.0%	50.7%	50.7%	0.0%	49.3%	49.3%	0.0%	49.3%	49.3%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		None	None		None	None	
v/c Ratio		0.19		1.02	0.29			0.53			1.05	
Control Delay		7.0		69.0	4.6			9.8			66.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		7.0		69.0	4.6			9.8			66.4	
Queue Length 50th (ft)		16		~247	10			63			~228	
Queue Length 95th (ft)		46		#427	46			110			#342	
Internal Link Dist (ft)		307			2470			828			773	
Turn Bay Length (ft)				100								
Base Capacity (vph)		754		538	777			1391			856	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.19		1.02	0.29			0.53			1.05	

Intersection Summary

Area Type: Other
Cycle Length: 71
Actuated Cycle Length: 71
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Belmont St (Rt. 123) & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St (Rt. 123) & Route 138

Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	25	70	485	35	165	25	365	290	205	580	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	10	11	12	12	11	12	12	11	12
Total Lost time (s)		6.0		6.0	6.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.92		1.00	0.88			0.94			0.99	
Flt Protected		0.99		0.95	1.00			1.00			0.99	
Satd. Flow (prot)		1851		1668	1583			3178			3315	
Flt Permitted		0.89		0.72	1.00			0.90			0.60	
Satd. Flow (perm)		1677		1273	1583			2867			2016	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91
Adj. Flow (vph)	34	28	79	551	40	188	27	392	312	225	637	33
RTOR Reduction (vph)	0	46	0	0	109	0	0	180	0	0	4	0
Lane Group Flow (vph)	0	95	0	551	119	0	0	551	0	0	891	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		30.0		30.0	30.0			30.0			30.0	
Effective Green, g (s)		30.0		30.0	30.0			30.0			30.0	
Actuated g/C Ratio		0.42		0.42	0.42			0.42			0.42	
Clearance Time (s)		6.0		6.0	6.0			5.0			5.0	
Vehicle Extension (s)		4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)		709		538	669			1211			852	
v/s Ratio Prot					0.08							
v/s Ratio Perm		0.06		c0.43				0.19			c0.44	
v/c Ratio		0.13		1.02	0.18			0.45			1.05	
Uniform Delay, d1		12.6		20.5	12.8			14.7			20.5	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		0.1		45.1	0.2			0.4			43.5	
Delay (s)		12.7		65.6	13.0			15.0			64.0	
Level of Service		B		E	B			B			E	
Approach Delay (s)		12.7			50.2			15.0			64.0	
Approach LOS		B			D			B			E	

Intersection Summary

HCM Average Control Delay	42.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	71.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

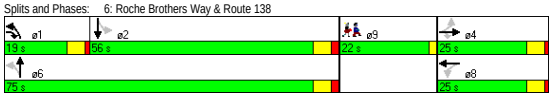
Lanes, Volumes, Timings
6: Roche Brothers Way & Route 138

Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	85	0	270	1	0	0	175	425	5	5	720	130	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	11	12	12	12	11	11	11	12	12	12	
Storage Length (ft)	0		100	0		0	0		0	0		0	
Storage Lanes	0		1	0		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		635			332			1623			2417		
Travel Time (s)		14.4			7.5			36.9			54.9		
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30	
Peak Hour Factor	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90	
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	94	300	0	4	0	0	737	0	0	950	0	
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm			
Protected Phases		4	1		8		1	6			2		9
Permitted Phases	4		4	8			6			2			
Detector Phase	4	4	1	8	8		1	6		2	2		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	10.0		10.0	10.0		7.0
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	21.0		21.0	21.0		22.0
Total Split (s)	25.0	25.0	19.0	25.0	25.0	0.0	19.0	75.0	0.0	56.0	56.0	0.0	22.0
Total Split (%)	20.5%	20.5%	15.6%	20.5%	20.5%	0.0%	15.6%	61.5%	0.0%	45.9%	45.9%	0.0%	18%
Maximum Green (s)	20.0	20.0	14.0	20.0	20.0		14.0	69.0		50.0	50.0		20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag			Lead				Lead			Lag	Lag		
Lead-Lag Optimize?			Yes				Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None	None	None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.36	0.48		0.02			0.55			0.69		
Control Delay		25.2	5.0		20.0			7.2			15.8		
Queue Delay		0.0	0.0		0.0			0.0			0.0		
Total Delay		25.2	5.0		20.0			7.2			15.8		
Queue Length 50th (ft)		25	0		1			48			118		
Queue Length 95th (ft)		73	45		2			87			208		
Internal Link Dist (ft)		555			252			1543			2337		
Turn Bay Length (ft)			100										
Base Capacity (vph)		580	832		538			1969			2985		
Starvation Cap Reductn		0	0		0			0			0		
Spillback Cap Reductn		0	0		0			0			0		
Storage Cap Reductn		0	0		0			0			0		
Reduced v/c Ratio		0.16	0.36		0.01			0.37			0.32		

Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 51	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 6: Roche Brothers Way & Route 138



HCM Signalized Intersection Capacity Analysis
6: Roche Brothers Way & Route 138

Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	0	270	1	0	0	175	425	5	5	720	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0			6.0			6.0	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.94		1.00			1.00			0.99	
Flpb, ped/bikes		0.95	1.00		0.96			1.00			1.00	
Frt		1.00	0.85		1.00			1.00			0.98	
Flt Protected		0.95	1.00		0.95			0.99			1.00	
Satd. Flow (prot)		1714	1454		1725			3331			3434	
Flt Permitted		0.76	1.00		0.70			0.54			0.95	
Satd. Flow (perm)		1363	1454		1264			1816			3262	
Peak-hour factor, PHF	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90
Adj. Flow (vph)	94	0	300	4	0	0	213	518	6	6	800	144
RTOR Reduction (vph)	0	0	218	0	0	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	94	82	0	4	0	0	737	0	0	938	0
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		7.7	14.2		7.7			33.1			21.6	
Effective Green, g (s)		7.7	14.2		7.7			33.1			21.6	
Actuated g/C Ratio		0.15	0.27		0.15			0.64			0.42	
Clearance Time (s)		5.0	5.0		5.0			6.0			6.0	
Vehicle Extension (s)		2.0	2.0		2.0			2.0			2.0	
Lane Grp Cap (vph)		203	539		188			1351			1360	
v/s Ratio Prot			0.02					c0.07				
v/s Ratio Perm		c0.07	0.04		0.00			0.28			c0.29	
v/c Ratio		0.46	0.15		0.02			0.55			0.69	
Uniform Delay, d1		20.2	14.2		18.8			5.2			12.4	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		0.6	0.0		0.0			0.2			1.2	
Delay (s)		20.8	14.3		18.8			5.4			13.5	
Level of Service		C	B		B			A			B	
Approach Delay (s)		15.8			18.8			5.4			13.5	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	51.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
1: Main Street & Rte 138

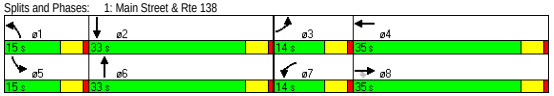
Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	345	330	170	30	130	110	105	665	45	65	285	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	11	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4949			2928	
Travel Time (s)		26.1			62.7			84.4			49.9	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	388	371	191	34	273	0	114	772	0	74	392	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	21.0	21.0	12.0	23.0		12.0	23.0		12.0	21.0	
Total Split (s)	14.0	35.0	35.0	14.0	35.0	0.0	15.0	33.0	0.0	15.0	33.0	0.0
Total Split (%)	14.4%	36.1%	36.1%	14.4%	36.1%	0.0%	15.5%	34.0%	0.0%	15.5%	34.0%	0.0%
Maximum Green (s)	9.0	30.0	30.0	9.0	30.0		10.0	28.0		10.0	28.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					7.0			7.0				
Flash Dont Walk (s)					8.0			8.0				
Pedestrian Calls (#/hr)					0			0				
v/c Ratio	1.87	0.62	0.30	0.21	0.36		0.54	0.74		0.38	0.38	
Control Delay	438.0	31.6	5.5	42.0	15.6		48.3	30.3		43.6	22.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	438.0	31.6	5.5	42.0	15.6		48.3	30.3		43.6	22.7	
Queue Length 50th (ft)	~337	185	0	17	33		58	183		38	78	
Queue Length 95th (ft)	#576	294	46	49	63		#142	302		86	134	
Internal Link Dist (ft)		1645			3138			4869			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	207	771	768	202	1371		245	1308		243	1324	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	1.87	0.48	0.25	0.17	0.20		0.47	0.59		0.30	0.30	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 76.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Rte 138



HCM Signalized Intersection Capacity Analysis
1: Main Street & Rte 138

Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	345	330	170	30	130	110	105	665	45	65	285	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	11	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1626	1818	1553	1586	3066		1736	3298		1719	3305	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1626	1818	1553	1586	3066		1736	3298		1719	3305	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	388	371	191	34	148	125	114	723	49	74	324	68
RTOR Reduction (vph)	0	0	131	0	95	0	0	5	0	0	18	0
Lane Group Flow (vph)	388	371	60	34	178	0	114	767	0	74	374	0
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	9.7	24.9	24.9	3.9	19.1		6.9	24.1		6.4	23.6	
Effective Green, g (s)	9.7	24.9	24.9	3.9	19.1		6.9	24.1		6.4	23.6	
Actuated g/C Ratio	0.12	0.31	0.31	0.05	0.24		0.09	0.30		0.08	0.30	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	199	571	488	78	738		151	1002		139	984	
v/s Ratio Prot	c0.24	c0.20		0.02	0.06		c0.07	c0.23		0.04	0.11	
v/s Ratio Perm			0.04									
v/c Ratio	1.95	0.65	0.12	0.44	0.24		0.75	0.77		0.53	0.38	
Uniform Delay, d1	34.8	23.4	19.4	36.6	24.3		35.4	25.0		35.0	22.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	445.2	1.9	0.0	1.4	0.1		17.2	3.8		2.0	0.3	
Delay (s)	480.0	25.4	19.4	38.0	24.3		52.5	28.8		37.0	22.4	
Level of Service	F	C	B	D	C		D	C		D	C	
Approach Delay (s)		209.9			25.8			31.9			24.7	
Approach LOS		F			C			C			C	

Intersection Summary

HCM Average Control Delay	94.7	HCM Level of Service	F
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	79.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
2: Belmont St (Rt. 123) & Route 138

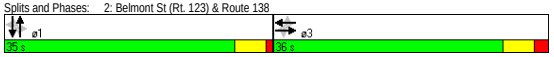
Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	15	5	235	15	180	15	645	410	175	265	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	100		0	0		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			2550			980			856	
Travel Time (s)		5.9			38.6			14.8			13.0	
Peak Hour Factor	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	287	238	0	0	1151	0	0	483	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Detector Phase	3	3		3	3		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		13.0	13.0		13.0	13.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.7%	50.7%	0.0%	50.7%	50.7%	0.0%	49.3%	49.3%	0.0%	49.3%	49.3%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		None	None		None	None	
v/c Ratio		0.08		0.68	0.43			0.74			1.48dl	
Control Delay		11.7		26.2	10.1			14.7			15.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		11.7		26.2	10.1			14.7			15.6	
Queue Length 50th (ft)		9		91	30			128			60	
Queue Length 95th (ft)		20		142	64			265			132	
Internal Link Dist (ft)		307			2470			900			776	
Turn Bay Length (ft)				100								
Base Capacity (vph)		848		656	790			1691			964	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.05		0.44	0.30			0.68			0.50	

Intersection Summary

Area Type: Other
Cycle Length: 71
Actuated Cycle Length: 59.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 2: Belmont St (Rt. 123) & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St (Rt. 123) & Route 138

Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	15	5	235	15	180	15	645	410	175	265	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	10	11	12	12	11	12	12	11	12
Total Lost time (s)		6.0		6.0	6.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.98		1.00	0.86			0.94			1.00	
Flt Protected		0.98		0.95	1.00			1.00			0.98	
Satd. Flow (prot)		1807		1636	1398			3192			3275	
Flt Permitted		0.88		0.73	1.00			0.95			0.55	
Satd. Flow (perm)		1617		1256	1398			3023			1848	
Peak-hour factor, PHF	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	14	21	7	287	18	220	16	694	441	190	288	5
RTOR Reduction (vph)	0	5	0	0	83	0	0	123	0	0	1	0
Lane Group Flow (vph)	0	37	0	287	155	0	0	1028	0	0	482	0
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		19.9		19.9	19.9			28.1			28.1	
Effective Green, g (s)		19.9		19.9	19.9			28.1			28.1	
Actuated g/C Ratio		0.34		0.34	0.34			0.48			0.48	
Clearance Time (s)		6.0		6.0	6.0			5.0			5.0	
Vehicle Extension (s)		4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)		545		424	472			1440			880	
v/s Ratio Prot					0.11							
v/s Ratio Perm		0.02		c0.23				c0.34			0.26	
v/c Ratio		0.07		0.68	0.33			0.71			1.48dl	
Uniform Delay, d1		13.3		16.8	14.6			12.3			10.9	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		0.1		4.6	0.6			1.8			0.9	
Delay (s)		13.3		21.4	15.1			14.1			11.8	
Level of Service		B		C	B			B			B	
Approach Delay (s)		13.3			18.6			14.1			11.8	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
6: Roche Brothers Way & Route 138

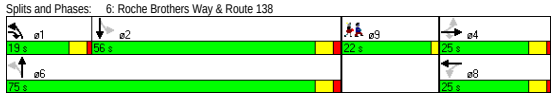
Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	75	0	60	5	0	5	175	915	0	0	310	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	11	12	12	12	11	11	11	12	12	12	
Storage Length (ft)	0		100	0		0	0		0	0		0	
Storage Lanes	0		1	0		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		635			332			1623			2417		
Travel Time (s)		14.4			7.5			36.9			54.9		
Peak Hour Factor	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84	
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	91	73	0	16	0	0	1282	0	0	470	0	
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm			
Protected Phases		4	1		8		1	6			2		9
Permitted Phases	4		4	8			6			2			
Detector Phase	4	4	1	8	8		1	6		2	2		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	10.0		10.0	10.0		7.0
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	21.0		21.0	21.0		22.0
Total Split (s)	25.0	25.0	19.0	25.0	25.0	0.0	19.0	75.0	0.0	56.0	56.0	0.0	22.0
Total Split (%)	20.5%	20.5%	15.6%	20.5%	20.5%	0.0%	15.6%	61.5%	0.0%	45.9%	45.9%	0.0%	18%
Maximum Green (s)	20.0	20.0	14.0	20.0	20.0		14.0	69.0		50.0	50.0		20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag			Lead				Lead			Lag	Lag		
Lead-Lag Optimize?			Yes				Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None	None	None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.42	0.15		0.07			0.69			0.23		
Control Delay		34.6	7.0		22.4			8.5			8.3		
Queue Delay		0.0	0.0		0.0			0.0			0.0		
Total Delay		34.6	7.0		22.4			8.5			8.3		
Queue Length 50th (ft)		30	0		3			116			47		
Queue Length 95th (ft)		86	26		14			178			74		
Internal Link Dist (ft)		555			252			1543			2337		
Turn Bay Length (ft)			100										
Base Capacity (vph)		455	671		485			2365			2741		
Starvation Cap Reductn		0	0		0			0			0		
Spillback Cap Reductn		0	0		0			0			0		
Storage Cap Reductn		0	0		0			0			0		
Reduced v/c Ratio		0.20	0.11		0.03			0.54			0.17		

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 64.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Roche Brothers Way & Route 138



HCM Signalized Intersection Capacity Analysis
6: Roche Brothers Way & Route 138

Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	0	60	5	0	5	175	915	0	0	310	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0			6.0			6.0	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frt		1.00	0.85		0.93			1.00			0.97	
Flt Protected		0.95	1.00		0.98			0.99			1.00	
Satd. Flow (prot)		1736	1473		1686			3361			3345	
Flt Permitted		0.75	1.00		0.83			0.72			1.00	
Satd. Flow (perm)		1365	1473		1440			2455			3345	
Peak-hour factor, PHF	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	91	0	73	8	0	8	206	1076	0	0	369	101
RTOR Reduction (vph)	0	0	58	0	7	0	0	0	0	0	16	0
Lane Group Flow (vph)	0	91	15	0	9	0	0	1282	0	0	454	0
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		8.5	13.2		8.5			46.4			36.7	
Effective Green, g (s)		8.5	13.2		8.5			46.4			36.7	
Actuated g/C Ratio		0.13	0.20		0.13			0.70			0.56	
Clearance Time (s)		5.0	5.0		5.0			6.0			6.0	
Vehicle Extension (s)		2.0	2.0		2.0			2.0			2.0	
Lane Grp Cap (vph)		176	407		186			1793			1863	
v/s Ratio Prot			0.00					c0.05			0.14	
v/s Ratio Perm		c0.07	0.01		0.01			c0.45				
v/c Ratio		0.52	0.04		0.05			0.72			0.24	
Uniform Delay, d1		26.8	21.2		25.2			5.8			7.5	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		1.1	0.0		0.0			1.1			0.0	
Delay (s)		27.9	21.2		25.2			7.0			7.5	
Level of Service		C	C		C			A			A	
Approach Delay (s)		24.9			25.2			7.0			7.5	
Approach LOS		C			C			A			A	

Intersection Summary

HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	65.9	Sum of lost time (s)	11.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
3: Elm St & Route 138

Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	15	30	20	45	35	55	575	25	20	875	150
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	71	18	35	23	52	41	62	653	28	24	1029	176
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2024	1972	1118	2001	2046	668	1206			682		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2024	1972	1118	2001	2046	668	1206			682		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	68	86	12	0	91	89			97		
cM capacity (veh/h)	0	55	250	26	49	457	579			920		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	124	116	744	1229
Volume Left	71	23	62	24
Volume Right	35	41	28	176
cSH	0	57	579	920
Volume to Capacity	Err	2.03	0.11	0.03
Queue Length 95th (ft)	Err	281	9	2
Control Delay (s)	Err	634.7	3.0	1.0
Lane LOS	F	F	A	A
Approach Delay (s)	Err	634.7	3.0	1.0
Approach LOS	F	F		

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization		81.1%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Lincoln Street & Main Street

Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	215	25	365	385	90	15	40	185	70	65	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.89	0.89	0.89	0.93	0.93	0.93
Hourly flow rate (vph)	6	253	29	424	448	105	17	45	208	75	70	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	448			282			1674	1576	268	1651	1643	500
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	448			282			1674	1576	268	1651	1643	500
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.6	4.0	3.3
p0 queue free %	99			67			0	38	73	0	0	98
cM capacity (veh/h)	1123			1286			0	73	769	22	66	575

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	288	977	270	156
Volume Left	6	424	17	75
Volume Right	29	105	208	11
cSH	1123	1286	0	35
Volume to Capacity	0.01	0.33	Err	4.51
Queue Length 95th (ft)	0	36	Err	Err
Control Delay (s)	0.2	6.5	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	6.5	Err	Err
Approach LOS			F	F

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization		94.6%	ICU Level of Service	F
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
11: Lincoln Street & Barrows Street

Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	230	0	0	405	5	10	5	15	0	0	165
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.92	0.92	0.89	0.89	0.92	0.92	0.92	0.89	0.92	0.89
Hourly flow rate (vph)	71	274	0	0	455	6	11	5	16	0	0	185
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	461			274			1060	877	274	894	875	458
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	461			274			1060	877	274	894	875	458
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			92	98	98	100	100	69
cM capacity (veh/h)	1111			1289			133	268	765	242	269	607

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	345	461	33	185
Volume Left	71	0	11	0
Volume Right	0	6	16	185
cSH	1111	1700	265	607
Volume to Capacity	0.06	0.27	0.12	0.31
Queue Length 95th (ft)	5	0	10	32
Control Delay (s)	2.3	0.0	20.5	13.5
Lane LOS	A		C	B
Approach Delay (s)	2.3	0.0	20.5	13.5
Approach LOS			C	B

Intersection Summary				
Average Delay		3.9		
Intersection Capacity Utilization		57.7%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
12: Union Street & Route 138

Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	165	115	505	145	120	895
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.84	0.84	0.92	0.92
Hourly flow rate (vph)	206	144	601	173	130	973
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1921	688			774	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1921	688			774	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	68			85	
cM capacity (veh/h)	63	448			846	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	350	774	1103
Volume Left	206	0	130
Volume Right	144	173	0
cSH	98	1700	846
Volume to Capacity	3.59	0.46	0.15
Queue Length 95th (ft)	Err	0	14
Control Delay (s)	Err	0.0	4.4
Lane LOS	F		A
Approach Delay (s)	Err	0.0	4.4
Approach LOS	F		

Intersection Summary				
Average Delay		1573.6		
Intersection Capacity Utilization		115.3%	ICU Level of Service	H
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
17: Elm Street & Main Street

Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	120	95	150	50	35	160
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.92	0.92	0.95	0.95
Hourly flow rate (vph)	143	113	163	54	37	168
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	432	190			217	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	432	190			217	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	75	87			97	
cM capacity (veh/h)	565	854			1364	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	256	217	205
Volume Left	143	0	37
Volume Right	113	54	0
cSH	664	1700	1364
Volume to Capacity	0.39	0.13	0.03
Queue Length 95th (ft)	45	0	2
Control Delay (s)	13.8	0.0	1.6
Lane LOS	B		A
Approach Delay (s)	13.8	0.0	1.6
Approach LOS	B		

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
48: Roosevelt Circle & Route 138

Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	10	30	530	770	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	11	33	576	837	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				853		
pX, platoon unblocked	0.85					
vC, conflicting volume	1489	848	859			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1487	848	859			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	97	96			
cM capacity (veh/h)	112	361	782			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	16	609	859
Volume Left	5	33	0
Volume Right	11	0	22
cSH	207	782	1700
Volume to Capacity	0.08	0.04	0.51
Queue Length 95th (ft)	6	3	0
Control Delay (s)	23.9	1.1	0.0
Lane LOS	C	A	
Approach Delay (s)	23.9	1.1	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Ferry Street & Ponta Delgada

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	245	45	10	60	25	160
Sign Control	Stop		Free		Free	
Grade	1%		1%		1%	
Peak Hour Factor	0.90	0.90	0.62	0.62	0.78	0.78
Hourly flow rate (vph)	272	50	16	97	32	205
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	264	135	237			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	264	135	237			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	62	95	99			
cM capacity (veh/h)	719	920	1342			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	322	113	237
Volume Left	272	16	0
Volume Right	50	0	205
cSH	744	1342	1700
Volume to Capacity	0.43	0.01	0.14
Queue Length 95th (ft)	55	1	0
Control Delay (s)	13.5	1.2	0.0
Lane LOS	B	A	
Approach Delay (s)	13.5	1.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		6.7	
Intersection Capacity Utilization		41.8%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
7: Anawan Street & Ponta Delgada

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	20	0	35	10	5	5	10	290	20	150	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.64	0.64	0.64	0.72	0.72	0.72	0.91	0.91	0.91	0.87	0.87	0.87
Hourly flow rate (vph)	0	31	0	49	14	7	5	11	319	23	172	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	425	571	184	427	423	170	195			330		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	425	571	184	427	423	170	195			330		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	92	100	90	97	99	100			98		
cM capacity (veh/h)	518	404	864	501	514	879	1390			1213		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	31	69	335	218
Volume Left	0	49	5	23
Volume Right	0	7	319	23
cSH	404	526	1390	1213
Volume to Capacity	0.08	0.13	0.00	0.02
Queue Length 95th (ft)	6	11	0	1
Control Delay (s)	14.7	12.9	0.2	1.0
Lane LOS	B	B	A	A
Approach Delay (s)	14.7	12.9	0.2	1.0
Approach LOS	B	B		

Intersection Summary			
Average Delay		2.5	
Intersection Capacity Utilization		37.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: Central Street & Davol Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	70	100	130	0	300	0	0	440	80
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.76	0.76	0.76	0.86	0.86	0.86	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	92	132	171	0	349	0	0	550	100
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1186	949	600	949	999	349	650			349		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1186	949	600	949	999	349	650			349		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	61	46	75	100			100		
cM capacity (veh/h)	72	263	505	238	242	690	946			1221		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	158	237	349	650
Volume Left	92	0	0	0
Volume Right	0	171	0	100
cSH	240	455	946	1700
Volume to Capacity	0.66	0.52	0.00	0.38
Queue Length 95th (ft)	103	73	0	0
Control Delay (s)	45.0	21.2	0.0	0.0
Lane LOS	E	C		
Approach Delay (s)	30.7		0.0	0.0
Approach LOS	D			

Intersection Summary				
Average Delay		8.7		
Intersection Capacity Utilization		43.7%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Anawan Street & Davol Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	130	170	25	30	20	10	140	70	220	275	30
Peak Hour Factor	0.94	0.94	0.94	0.76	0.76	0.76	0.84	0.84	0.84	0.81	0.81	0.81
Hourly flow rate (vph)	37	138	181	33	39	26	12	167	83	272	340	37

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	356	99	262	648
Volume Left (vph)	37	33	12	272
Volume Right (vph)	181	26	83	37
Hadj (s)	0.04	-0.02	-0.17	0.07
Departure Headway (s)	6.8	7.6	6.6	6.2
Degree Utilization, x	0.67	0.21	0.48	1.12
Capacity (veh/h)	513	419	515	569
Control Delay (s)	22.5	12.6	15.5	98.7
Approach Delay (s)	22.5	12.6	15.5	98.7
Approach LOS	C	B	C	F

Intersection Summary				
Delay		56.6		
HCM Level of Service		F		
Intersection Capacity Utilization		71.0%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
29: Turner Street & Davol Street NB

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	45	670	155	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.68	0.68	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	66	736	170	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	821	453			907	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	821	453			907	
tC, single (s)	6.8	7.1			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	100	88			100	
cM capacity (veh/h)	316	535			759	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	66	491	416
Volume Left	0	0	0
Volume Right	66	0	170
cSH	535	1700	1700
Volume to Capacity	0.12	0.29	0.24
Queue Length 95th (ft)	11	0	0
Control Delay (s)	12.7	0.0	0.0
Lane LOS	B		
Approach Delay (s)	12.7	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	33.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
30: Pearce Street & North Davol Street

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	75	715	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	82	786	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						475
pX, platoon unblocked						
vC, conflicting volume	786	393			786	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	786	393			786	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	87			100	
cM capacity (veh/h)	333	609			842	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	82	393	393
Volume Left	0	0	0
Volume Right	82	0	0
cSH	609	1700	1700
Volume to Capacity	0.13	0.23	0.23
Queue Length 95th (ft)	12	0	0
Control Delay (s)	11.8	0.0	0.0
Lane LOS	B		
Approach Delay (s)	11.8	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	31.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
85: Davol St. SB & U-Turn to SB U-turn to SB Davol St

2008 Existing Condition - AM Peak Hour

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	0	0	720	20	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.86	0.86	0.75	0.75
Hourly flow rate (vph)	0	0	0	837	27	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		419	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		419	0
tC, single (s)			4.1		7.1	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			100		95	100
cM capacity (veh/h)			1636		533	1091

Direction, Lane #	SB 1	SB 2	SW 1
Volume Total	419	419	27
Volume Left	0	0	27
Volume Right	0	0	0
cSH	1700	1700	533
Volume to Capacity	0.25	0.25	0.05
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.0	0.0	12.1
Lane LOS			B
Approach Delay (s)	0.0		12.1
Approach LOS			B

Intersection Summary			
Average Delay			0.4
Intersection Capacity Utilization			46.8%
Analysis Period (min)			15

ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis
88: Davol St. NB & U-turn to NB Davol St

2008 Existing Condition - AM Peak Hour

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Volume (veh/h)	0	710	0	0	110	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.72	0.72
Hourly flow rate (vph)	0	789	0	0	153	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				394	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				394	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				74	100
cM capacity (veh/h)	1636				585	1091

Direction, Lane #	NB 1	NB 2	NE 1
Volume Total	394	394	153
Volume Left	0	0	153
Volume Right	0	0	0
cSH	1700	1700	585
Volume to Capacity	0.23	0.23	0.26
Queue Length 95th (ft)	0	0	26
Control Delay (s)	0.0	0.0	13.3
Lane LOS			B
Approach Delay (s)	0.0		13.3
Approach LOS			B

Intersection Summary			
Average Delay			2.2
Intersection Capacity Utilization			51.3%
Analysis Period (min)			15

ICU Level of Service A

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

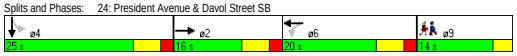
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	0	0	330	5	0	0	0	0	510	500	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	12	12	12	12	12	12	12	12	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		238			272			1959			1114		
Travel Time (s)		5.4			6.2			44.5			25.3		
Peak Hour Factor	0.38	0.38	0.38	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	0%	
Shared Lane Traffic (%)				49%									
Lane Group Flow (vph)	0	0	0	198	196	0	0	0	0	0	1123	0	
Turn Type				Perm						Perm			
Protected Phases		2			6						4		9
Permitted Phases				6						4			
Detector Phase		2		6	6					4	4		
Switch Phase													
Minimum Initial (s)		4.0		12.0	12.0					12.0	12.0		7.0
Minimum Split (s)		10.0		18.0	18.0					18.0	18.0		14.0
Total Split (s)	0.0	16.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	14.0
Total Split (%)	0.0%	21.3%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	19%
Maximum Green (s)		10.0		14.0	14.0					19.0	19.0		11.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0		3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0		3.0
Recall Mode		None		Min	Min					C-Max	C-Max		None
Walk Time (s)													5.0
Flash Dont Walk (s)													6.0
Pedestrian Calls (#/hr)													5
v/c Ratio				0.52	0.48						0.58		
Control Delay				35.6	34.3						15.2		
Queue Delay				1.5	1.7						0.0		
Total Delay				37.2	36.1						15.2		
Queue Length 50th (ft)				96	95						148		
Queue Length 95th (ft)				152	150						#395		
Internal Link Dist (ft)		158			192			1879			1034		
Turn Bay Length (ft)													
Base Capacity (vph)				391	419						1945		
Starvation Cap Reductn				78	107						0		
Spillback Cap Reductn				0	0						0		
Storage Cap Reductn				0	0						0		
Reduced v/c Ratio				0.63	0.63						0.58		

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: President Avenue & Davol Street SB



HCM Signalized Intersection Capacity Analysis
24: President Avenue & Davol Street SB

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	330	5	0	0	0	0	510	500	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	12	12
Total Lost time (s)				6.0	6.0						6.0	
Lane Util. Factor				0.95	0.95						0.95	
Frt				1.00	1.00						1.00	
Flt Protected				0.95	0.95						0.98	
Satd. Flow (prot)				1600	1722						3452	
Flt Permitted				0.95	0.95						0.98	
Satd. Flow (perm)				1600	1715						3452	
Peak-hour factor, PHF	0.38	0.38	0.38	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	388	6	0	0	0	0	567	556	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	198	196	0	0	0	0	0	1123	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	0%
Turn Type				Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases				6						4		
Actuated Green, G (s)				17.9	17.9						39.9	
Effective Green, g (s)				17.9	17.9						39.9	
Actuated g/C Ratio				0.24	0.24						0.53	
Clearance Time (s)				6.0	6.0						6.0	
Vehicle Extension (s)				3.0	3.0						3.0	
Lane Grp Cap (vph)				382	409						1836	
v/s Ratio Prot												
v/s Ratio Perm				c0.12	0.11						0.33	
v/c Ratio				0.52	0.48						0.61	
Uniform Delay, d1				24.8	24.5						12.2	
Progression Factor				1.28	1.29						1.00	
Incremental Delay, d2				1.2	0.9						1.5	
Delay (s)				33.0	32.5						13.7	
Level of Service				C	C						B	
Approach Delay (s)		0.0			32.7			0.0			13.7	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

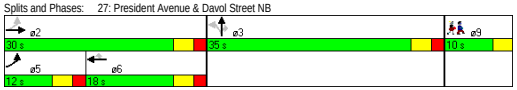
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	35	475	0	0	270	340	65	580	280	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12	
Storage Length (ft)	0		0	0		165	0		125	0		0	
Storage Lanes	0		0	0		1	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		272			959			475			333		
Travel Time (s)		6.2			21.8			10.8			7.6		
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92	
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	554	0	0	303	382	0	742	322	0	0	0	
Turn Type	pm+pt					Perm	Perm		Perm				
Protected Phases	5	2			6			3					9
Permitted Phases	2					6	3		3				
Detector Phase	5	2			6	6	3	3	3				
Switch Phase													
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0				7.0
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0				10.0
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0	10.0
Total Split (%)	16.0%	40.0%	0.0%	0.0%	24.0%	24.0%	46.7%	46.7%	46.7%	0.0%	0.0%	0.0%	13%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0				7.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead				Lag	Lag							
Lead-Lag Optimize?	Yes				Yes	Yes							
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None				Ped
Walk Time (s)													4.0
Flash Dont Walk (s)													3.0
Pedestrian Calls (#/hr)													1
v/c Ratio		0.42			0.21	0.57		0.68	0.63				
Control Delay		15.5			15.7	22.8		25.3	27.1				
Queue Delay		0.2			0.0	0.0		0.0	0.0				
Total Delay		15.7			15.7	22.8		25.3	27.1				
Queue Length 50th (ft)		34			45	132		156	126				
Queue Length 95th (ft)		135			82	#252		177	173				
Internal Link Dist (ft)		192			879			395			253		
Turn Bay Length (ft)						165			125				
Base Capacity (vph)		1315			1442	667		1376	646				
Starvation Cap Reductn		250			0	0		0	0				
Spillback Cap Reductn		0			0	0		0	0				
Storage Cap Reductn		0			0	0		0	0				
Reduced v/c Ratio		0.52			0.21	0.57		0.54	0.50				

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	475	0	0	270	340	65	580	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3439			3455	1599		3441	1615			
Flt Permitted		0.91			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3149			3455	1599		3441	1615			
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	38	516	0	0	303	382	75	667	322	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	554	0	0	303	382	0	742	322	0	0	0
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		31.3			31.3	31.3		23.7	23.7			
Effective Green, g (s)		31.3			31.3	31.3		23.7	23.7			
Actuated g/C Ratio		0.42			0.42	0.42		0.32	0.32			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		1314			1442	667		1087	510			
v/s Ratio Prot					0.09							
v/s Ratio Perm		0.18				c0.24		0.22	0.20			
v/c Ratio		0.42			0.21	0.57		0.68	0.63			
Uniform Delay, d1		15.4			14.0	16.7		22.4	21.9			
Progression Factor		0.87			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.2			0.3	3.6		1.8	2.5			
Delay (s)		13.6			14.3	20.3		24.2	24.5			
Level of Service		B			B	C		C	C			
Approach Delay (s)		13.6			17.6			24.3			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
35: President Avenue & North Main Street

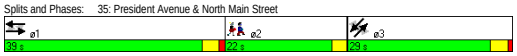
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR	ø2
Lane Configurations													
Volume (vph)	110	530	110	55	405	55	110	240	70	145	180	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	16	12	12	16	12	12	16	12	
Storage Length (ft)	0		0	125		0	0		0	0		0	
Storage Lanes	1		0	1		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		959			1952			265			1409		
Travel Time (s)		21.8			44.4			6.0			32.0		
Peak Hour Factor	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96	
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0	
Parking (#/hr)			5										
Shared Lane Traffic (%)													
Lane Group Flow (vph)	122	711	0	65	541	0	0	457	0	0	428	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		1			1			3			3		2
Permitted Phases	1			1			3			3			
Detector Phase	1	1		1	1		3	3		3	3		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0		10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0		22.0
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0	22.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%	24%
Maximum Green (s)	35.0	35.0		35.0	35.0		25.0	25.0		25.0	25.0		19.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead		Lead	Lead								Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes								Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0		3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None		None
Walk Time (s)													10.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													15
v/c Ratio	0.49	0.72		0.55	0.54			0.79			0.89		
Control Delay	24.1	22.0		38.1	16.8			34.2			45.7		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	24.1	22.0		38.1	16.8			34.2			45.7		
Queue Length 50th (ft)	30	203		16	134			160			157		
Queue Length 95th (ft)	#133	#581		#94	328			#462			#467		
Internal Link Dist (ft)		879			1872			185			1329		
Turn Bay Length (ft)				125									
Base Capacity (vph)	264	1046		127	1062			580			483		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.46	0.68		0.51	0.51			0.79			0.89		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 70.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 35: President Avenue & North Main Street



HCM Signalized Intersection Capacity Analysis
35: President Avenue & North Main Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	110	530	110	55	405	55	110	240	70	145	180	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	12	12	16	12
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.98			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1752	2070		1719	2091			2061			2027	
Flt Permitted	0.28	1.00		0.14	1.00			0.76			0.64	
Satd. Flow (perm)	523	2070		250	2091			1587			1312	
Peak-hour factor, PHF	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	122	589	122	65	476	65	120	261	76	151	188	89
RTOR Reduction (vph)	0	0	0	0	5	0	0	7	0	0	10	0
Lane Group Flow (vph)	122	711	0	65	536	0	0	450	0	0	418	0
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)	33.5	33.5		33.5	33.5			25.5			25.5	
Effective Green, g (s)	33.5	33.5		33.5	33.5			25.5			25.5	
Actuated g/C Ratio	0.46	0.46		0.46	0.46			0.35			0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Grp Cap (vph)	240	950		115	960			554			458	
v/s Ratio Prot		c0.34			0.26							
v/s Ratio Perm	0.23			0.26				0.28			c0.32	
v/c Ratio	0.51	0.75		0.57	0.56			0.81			0.91	
Uniform Delay, d1	13.9	16.3		14.4	14.4			21.6			22.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	3.5	3.9		10.1	1.2			10.4			24.2	
Delay (s)	17.4	20.2		24.5	15.6			32.0			46.9	
Level of Service	B	C		C	B			C			D	
Approach Delay (s)		19.8			16.5			32.0			46.9	
Approach LOS		B			B			C			D	

Intersection Summary

HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	73.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

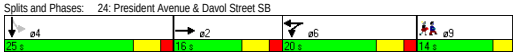
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	10	15	375	15	0	0	0	0	405	450	5	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	12	12	12	12	12	12	12	12	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		238			272			1959			1114		
Travel Time (s)		5.4			6.2			44.5			25.3		
Peak Hour Factor	0.57	0.57	0.57	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88	
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	2%	1%	0%	
Shared Lane Traffic (%)				48%									
Lane Group Flow (vph)	0	44	0	222	221	0	0	0	0	0	977	0	
Turn Type				Split						Perm			
Protected Phases		2		6	6						4		9
Permitted Phases										4			
Detector Phase		2		6	6					4	4		
Switch Phase													
Minimum Initial (s)		4.0		12.0	12.0					12.0	12.0		7.0
Minimum Split (s)		10.0		18.0	18.0					18.0	18.0		14.0
Total Split (s)	0.0	16.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	14.0
Total Split (%)	0.0%	21.3%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	19%
Maximum Green (s)		10.0		14.0	14.0					19.0	19.0		11.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0		3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0		3.0
Recall Mode		None		Min	Min					C-Max	C-Max		None
Walk Time (s)													5.0
Flash Dont Walk (s)													6.0
Pedestrian Calls (#/hr)													5
v/c Ratio		0.25		0.71	0.66						0.57		
Control Delay		21.4		56.5	52.5						19.6		
Queue Delay		0.0		0.1	0.9						0.0		
Total Delay		21.4		56.6	53.4						19.6		
Queue Length 50th (ft)		8		122	121						171		
Queue Length 95th (ft)		18		#203	187						#384		
Internal Link Dist (ft)		158			192			1879			1034		
Turn Bay Length (ft)													
Base Capacity (vph)		256		320	345						1729		
Starvation Cap Reductn		0		2	24						0		
Spillback Cap Reductn		0		0	0						0		
Storage Cap Reductn		0		0	0						0		
Reduced v/c Ratio		0.17		0.70	0.69						0.57		

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: President Avenue & Davol Street SB



HCM Signalized Intersection Capacity Analysis
24: President Avenue & Davol Street SB

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	10	15	375	15	0	0	0	0	405	450	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0		6.0	6.0						6.0	
Lane Util. Factor		1.00		0.95	0.95						0.95	
Frt		0.92		1.00	1.00						1.00	
Flt Protected		1.00		0.95	0.96						0.98	
Satd. Flow (prot)		1748		1569	1694						3473	
Flt Permitted		1.00		0.95	0.96						0.98	
Satd. Flow (perm)		1748		1569	1694						3473	
Peak-hour factor, PHF	0.57	0.57	0.57	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	18	26	426	17	0	0	0	0	460	511	6
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	20	0	222	221	0	0	0	0	0	976	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	2%	1%	0%
Turn Type				Split						Perm		
Protected Phases		2		6	6						4	
Permitted Phases										4		
Actuated Green, G (s)		4.4		14.9	14.9						32.5	
Effective Green, g (s)		4.4		14.9	14.9						32.5	
Actuated g/C Ratio		0.06		0.20	0.20						0.43	
Clearance Time (s)		6.0		6.0	6.0						6.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		103		312	337						1505	
v/s Ratio Prot		c0.01		c0.14	0.13							
v/s Ratio Perm											0.28	
v/c Ratio		0.19		0.71	0.66						0.65	
Uniform Delay, d1		33.6		28.0	27.7						16.8	
Progression Factor		1.00		1.53	1.53						1.00	
Incremental Delay, d2		0.9		7.3	4.5						2.2	
Delay (s)		34.5		50.3	46.9						18.9	
Level of Service		C		D	D						B	
Approach Delay (s)		34.5			48.6			0.0			18.9	
Approach LOS		C			D			A			B	

Intersection Summary

HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	23.2
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

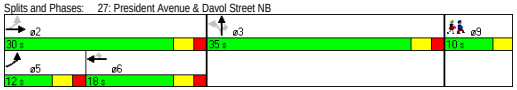
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	30	385	0	0	310	190	80	440	270	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12	
Storage Length (ft)	0		0	0		165	0		125	0		0	
Storage Lanes	0		0	0		1	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		272			959			475			333		
Travel Time (s)		6.2			21.8			10.8			7.6		
Peak Hour Factor	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	507	0	0	352	216	0	565	293	0	0	0	
Turn Type	pm+pt					Perm	Perm		Perm				
Protected Phases	5	2			6			3					9
Permitted Phases	2					6	3		3				
Detector Phase	5	2			6	6	3	3	3				
Switch Phase													
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0				7.0
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0				10.0
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0	10.0
Total Split (%)	16.0%	40.0%	0.0%	0.0%	24.0%	24.0%	46.7%	46.7%	46.7%	0.0%	0.0%	0.0%	13%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0				7.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead				Lag	Lag							
Lead-Lag Optimize?	Yes				Yes	Yes							
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None				Ped
Walk Time (s)													4.0
Flash Dont Walk (s)													3.0
Pedestrian Calls (#/hr)													1
v/c Ratio		0.36			0.23	0.30		0.60	0.67				
Control Delay		18.9			14.3	16.2		25.6	30.9				
Queue Delay		0.2			0.0	0.0		0.1	0.0				
Total Delay		19.2			14.3	16.2		25.7	30.9				
Queue Length 50th (ft)		36			50	61		119	120				
Queue Length 95th (ft)		154			91	128		142	170				
Internal Link Dist (ft)		192			879			395			253		
Turn Bay Length (ft)						165			125				
Base Capacity (vph)		1405			1546	715		1348	633				
Starvation Cap Reductn		346			0	0		0	0				
Spillback Cap Reductn		0			0	0		126	0				
Storage Cap Reductn		0			0	0		0	0				
Reduced v/c Ratio		0.48			0.23	0.30		0.46	0.46				

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	385	0	0	310	190	80	440	270	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3382			3388	1568		3372	1583			
Flt Permitted		0.91			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3079			3388	1568		3372	1583			
Peak-hour factor, PHF	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	470	0	0	352	216	87	478	293	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	507	0	0	352	216	0	565	293	0	0	0
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		34.2			34.2	34.2		20.8	20.8			
Effective Green, g (s)		34.2			34.2	34.2		20.8	20.8			
Actuated g/C Ratio		0.46			0.46	0.46		0.28	0.28			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		1404			1545	715		935	439			
v/s Ratio Prot					0.10							
v/s Ratio Perm		c0.16				0.14		0.17	c0.19			
v/c Ratio		0.36			0.23	0.30		0.60	0.67			
Uniform Delay, d1		13.3			12.4	12.9		23.5	24.0			
Progression Factor		1.23			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.1			0.3	1.1		1.1	3.8			
Delay (s)		16.5			12.7	14.0		24.6	27.9			
Level of Service		B			B	B		C	C			
Approach Delay (s)		16.5			13.2			25.7			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

HCM Average Control Delay	19.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
35: President Avenue & North Main Street

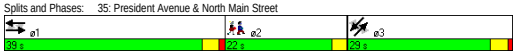
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR	ø2
Lane Configurations													
Volume (vph)	130	460	65	50	320	65	95	180	70	100	155	75	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	16	12	12	16	12	12	16	12	
Storage Length (ft)	0		0	125		0	0		0	0		0	
Storage Lanes	1		0	1		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		959			1952			265			1409		
Travel Time (s)		21.8			44.4			6.0			32.0		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75	
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0	
Parking (#/hr)			5										
Shared Lane Traffic (%)													
Lane Group Flow (vph)	149	604	0	57	443	0	0	396	0	0	440	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		1			1			3			3		2
Permitted Phases	1			1			3			3			
Detector Phase	1	1		1	1		3	3		3	3		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0		10.0
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		22.0
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0	22.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%	24%
Maximum Green (s)	35.0	35.0		35.0	35.0		25.0	25.0		25.0	25.0		19.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead		Lead	Lead								Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes								Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0		3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None		None
Walk Time (s)													10.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													15
v/c Ratio	0.51	0.66		0.34	0.48			0.69			0.77		
Control Delay	22.8	19.9		21.2	15.9			28.4			32.2		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	22.8	19.9		21.2	15.9			28.4			32.2		
Queue Length 50th (ft)	36	160		13	102			127			147		
Queue Length 95th (ft)	129	399		58	265			#373			#335		
Internal Link Dist (ft)		879			1872			185			1329		
Turn Bay Length (ft)				125									
Base Capacity (vph)	355	1114		206	1119			577			574		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.42	0.54		0.28	0.40			0.69			0.77		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 67.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 35: President Avenue & North Main Street



HCM Signalized Intersection Capacity Analysis
35: President Avenue & North Main Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	130	460	65	50	320	65	95	180	70	100	155	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	12	12	16	12
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.97			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	2069		1805	2064			1923			1966	
Flt Permitted	0.35	1.00		0.20	1.00			0.76			0.74	
Satd. Flow (perm)	659	2069		382	2064			1478			1467	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75
Adj. Flow (vph)	149	529	75	57	368	75	109	207	80	133	207	100
RTOR Reduction (vph)	0	0	0	0	7	0	0	9	0	0	10	0
Lane Group Flow (vph)	149	604	0	57	436	0	0	387	0	0	430	0
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)	29.7	29.7		29.7	29.7			25.8			25.8	
Effective Green, g (s)	29.7	29.7		29.7	29.7			25.8			25.8	
Actuated g/C Ratio	0.43	0.43		0.43	0.43			0.37			0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Grp Cap (vph)	282	887		164	885			550			546	
v/s Ratio Prot		c0.29			0.21							
v/s Ratio Perm	0.23			0.15				0.26			c0.29	
v/c Ratio	0.53	0.68		0.35	0.49			0.70			0.79	
Uniform Delay, d1	14.6	16.0		13.3	14.3			18.5			19.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	3.4	2.8		2.7	0.9			6.0			9.1	
Delay (s)	18.0	18.8		16.0	15.2			24.5			28.4	
Level of Service	B	B		B	B			C			C	
Approach Delay (s)		18.6			15.3			24.5			28.4	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	69.3	Sum of lost time (s)	13.8
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
4: Ferry Street & Ponta Delgada

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	145	30	15	15	25	255
Sign Control	Stop		Free		Free	
Grade	1%		1%		1%	
Peak Hour Factor	0.89	0.89	0.91	0.91	0.74	0.74
Hourly flow rate (vph)	163	34	16	16	34	345
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	256	206	378			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	256	206	378			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	96	99			
cM capacity (veh/h)	725	839	1191			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	197	33	378
Volume Left	163	16	0
Volume Right	34	0	345
cSH	742	1191	1700
Volume to Capacity	0.26	0.01	0.22
Queue Length 95th (ft)	27	1	0
Control Delay (s)	11.6	4.1	0.0
Lane LOS	B	A	
Approach Delay (s)	11.6	4.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		4.0	
Intersection Capacity Utilization		40.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
7: Anawan Street & Ponta Delgada

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	25	5	65	0	5	0	10	155	35	215	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.67	0.67	0.67	0.91	0.91	0.91	0.78	0.78	0.78
Hourly flow rate (vph)	0	36	7	97	0	7	0	11	170	45	276	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	475	553	282	493	474	96	288			181		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	475	553	282	493	474	96	288			181		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	91	99	78	100	99	100			97		
cM capacity (veh/h)	487	419	762	442	476	966	1285			1388		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	104	181	333
Volume Left	0	97	0	45
Volume Right	7	7	170	13
cSH	453	460	1285	1388
Volume to Capacity	0.09	0.23	0.00	0.03
Queue Length 95th (ft)	8	22	0	3
Control Delay (s)	13.8	15.1	0.0	1.3
Lane LOS	B	C		A
Approach Delay (s)	13.8	15.1	0.0	1.3
Approach LOS	B	C		

Intersection Summary			
Average Delay		3.9	
Intersection Capacity Utilization		44.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: Central Street & Davol Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	120	110	255	5	310	0	0	440	115
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.78	0.78	0.78	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	140	128	297	6	397	0	0	489	128
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1323	963	553	963	1027	397	617			397		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1323	963	553	963	1027	397	617			397		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	40	45	55	99			100		
cM capacity (veh/h)	41	256	537	234	231	657	973			1172		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	203	360	404	617
Volume Left	140	0	6	0
Volume Right	0	297	0	128
cSH	233	495	973	1700
Volume to Capacity	0.87	0.73	0.01	0.36
Queue Length 95th (ft)	177	149	0	0
Control Delay (s)	74.9	29.4	0.2	0.0
Lane LOS	F	D	A	
Approach Delay (s)	45.8		0.2	0.0
Approach LOS	E			

Intersection Summary				
Average Delay		16.4		
Intersection Capacity Utilization		51.6%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Anawan Street & Davol Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	110	85	50	95	40	55	5	150	85	170	355	35
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.94	0.94	0.94	0.85	0.85	0.85
Hourly flow rate (vph)	126	98	57	125	53	72	5	160	90	200	418	41

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	282	250	255	659
Volume Left (vph)	126	125	5	200
Volume Right (vph)	57	72	90	41
Hadj (s)	0.01	-0.06	-0.19	0.04
Departure Headway (s)	7.4	7.4	7.1	6.7
Degree Utilization, x	0.58	0.51	0.50	1.22
Capacity (veh/h)	463	450	473	534
Control Delay (s)	19.9	18.0	17.1	136.3
Approach Delay (s)	19.9	18.0	17.1	136.3
Approach LOS	C	C	C	F

Intersection Summary				
Delay		72.1		
HCM Level of Service		F		
Intersection Capacity Utilization		70.0%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
29: Turner Street & Davol Street NB

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	60	785	115	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	0	107	872	128	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	936	500			1000	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	936	500			1000	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	79			100	
cM capacity (veh/h)	267	516			700	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	107	581	419
Volume Left	0	0	0
Volume Right	107	0	128
cSH	516	1700	1700
Volume to Capacity	0.21	0.34	0.25
Queue Length 95th (ft)	19	0	0
Control Delay (s)	13.8	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.8	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
30: Pearce Street & North Davol Street

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	70	855	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.67	0.67	0.86	0.86	0.92	0.92
Hourly flow rate (vph)	0	104	994	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						475
pX, platoon unblocked						
vC, conflicting volume	994	497			994	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	994	497			994	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	80			100	
cM capacity (veh/h)	245	521			704	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	104	497	497
Volume Left	0	0	0
Volume Right	104	0	0
cSH	521	1700	1700
Volume to Capacity	0.20	0.29	0.29
Queue Length 95th (ft)	19	0	0
Control Delay (s)	13.6	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.6	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
85: Davol St. SB & U-Turn to SB U-turn to SB Davol St

2008 Existing Condition - PM Peak Hour

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	0	0	735	20	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	0	0	0	799	40	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		399	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		399	0
tC, single (s)			4.1		7.0	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			100		93	100
cM capacity (veh/h)			1636		558	1091

Direction, Lane #	SB 1	SB 2	SW 1
Volume Total	399	399	40
Volume Left	0	0	40
Volume Right	0	0	0
cSH	1700	1700	558
Volume to Capacity	0.23	0.23	0.07
Queue Length 95th (ft)	0	0	6
Control Delay (s)	0.0	0.0	12.0
Lane LOS			B
Approach Delay (s)	0.0		12.0
Approach LOS			B

Intersection Summary			
Average Delay			0.6
Intersection Capacity Utilization			50.4%
Analysis Period (min)			15

ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis
88: Davol St. NB & U-turn to NB Davol St

2008 Existing Condition - PM Peak Hour

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Volume (veh/h)	0	825	0	0	75	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	0	927	0	0	84	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				463	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				463	0
tC, single (s)	4.1				6.9	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				84	100
cM capacity (veh/h)	1636				525	1091

Direction, Lane #	NB 1	NB 2	NE 1
Volume Total	463	463	84
Volume Left	0	0	84
Volume Right	0	0	0
cSH	1700	1700	525
Volume to Capacity	0.27	0.27	0.16
Queue Length 95th (ft)	0	0	14
Control Delay (s)	0.0	0.0	13.2
Lane LOS			B
Approach Delay (s)	0.0		13.2
Approach LOS			B

Intersection Summary			
Average Delay			1.1
Intersection Capacity Utilization			54.5%
Analysis Period (min)			15

ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis
2: Narrows St & South Main St

2008 Existing Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	120	10	10	165	185	85
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.75	0.75	0.79	0.79
Hourly flow rate (vph)	146	12	13	220	234	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	535	288	342			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	535	288	342			
tC, single (s)	6.5	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.5	2.3			
p0 queue free %	70	98	99			
cM capacity (veh/h)	485	710	1174			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	159	233	342
Volume Left	146	13	0
Volume Right	12	0	108
cSH	498	1174	1700
Volume to Capacity	0.32	0.01	0.20
Queue Length 95th (ft)	34	1	0
Control Delay (s)	15.6	0.6	0.0
Lane LOS	C	A	
Approach Delay (s)	15.6	0.6	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		3.5	
Intersection Capacity Utilization		30.8%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
5: Copicut Road & South Main St

2008 Existing Conditions - AM Peak Hour

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	5	5	170	0	5	200
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.72	0.72	0.81	0.81
Hourly flow rate (vph)	9	9	236	0	6	247
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	495	236			236	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	495	236			236	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	98	99			100	
cM capacity (veh/h)	535	774			1343	

Direction, Lane #	WB 1	NE 1	SW 1
Volume Total	18	236	253
Volume Left	9	0	6
Volume Right	9	0	0
cSH	633	1700	1343
Volume to Capacity	0.03	0.14	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	10.9	0.0	0.2
Lane LOS	B		A
Approach Delay (s)	10.9	0.0	0.2
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		24.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
7: South Main St & Route 24 SB Off-Ramp

2008 Existing Conditions - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	70	245	225	350	25	55
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.87	0.87	0.91	0.91
Hourly flow rate (vph)	82	288	259	402	27	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	259				913	460
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	259				913	460
tC, single (s)	4.2				6.6	6.4
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.5
p0 queue free %	93				90	89
cM capacity (veh/h)	1266				269	558

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	371	661	88
Volume Left	82	0	27
Volume Right	0	402	60
cSH	1266	1700	418
Volume to Capacity	0.07	0.39	0.21
Queue Length 95th (ft)	5	0	20
Control Delay (s)	2.3	0.0	15.9
Lane LOS	A		C
Approach Delay (s)	2.3	0.0	15.9
Approach LOS			C

Intersection Summary			
Average Delay		2.0	
Intersection Capacity Utilization		64.8%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
17: South Main St & Route 24 NB Off-Ramp

2008 Existing Conditions - AM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	160	75	85	500	75	280
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.88	0.88	0.80	0.80
Hourly flow rate (vph)	195	91	97	568	94	350
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			195		1002	241
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			195		1002	241
tC, single (s)			4.2		6.5	6.5
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.5
p0 queue free %			93		62	53
cM capacity (veh/h)			1331		244	742

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	287	665	444
Volume Left	0	97	94
Volume Right	91	0	350
cSH	1700	1331	519
Volume to Capacity	0.17	0.07	0.86
Queue Length 95th (ft)	0	6	226
Control Delay (s)	0.0	1.9	40.5
Lane LOS		A	E
Approach Delay (s)	0.0	1.9	40.5
Approach LOS			E

Intersection Summary			
Average Delay		13.8	
Intersection Capacity Utilization		75.4%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
21: Ridge Hill Rd & South Main St

2008 Existing Conditions - AM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	15	5	130	15	0	5	30	390	20	15	440	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.59	0.59	0.59	0.84	0.84	0.84	0.95	0.95	0.95
Hourly flow rate (vph)	20	7	171	25	0	8	36	464	24	16	463	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1053	1057	466	1219	1048	476	468			488		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1053	1057	466	1219	1048	476	468			488		
tC, single (s)	7.1	7.0	6.2	7.3	6.5	6.4	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.4	3.3	3.7	4.0	3.5	2.3			2.3		
p0 queue free %	90	96	71	73	100	98	97			98		
cM capacity (veh/h)	195	177	595	96	219	544	1038			1045		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	197	34	524	484
Volume Left	20	25	36	16
Volume Right	171	8	24	5
cSH	463	121	1038	1045
Volume to Capacity	0.43	0.28	0.03	0.02
Queue Length 95th (ft)	52	27	3	1
Control Delay (s)	18.4	46.1	1.0	0.4
Lane LOS	C	E	A	A
Approach Delay (s)	18.4	46.1	1.0	0.4
Approach LOS	C	E		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
30: South Main St & High Street

2008 Existing Conditions - AM Peak Hour

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	5	385	0	5	470	5	0	0	0	5	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.25	0.25	0.25	0.64	0.64	0.64
Hourly flow rate (vph)	5	414	0	5	485	5	0	0	0	8	0	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	490			414			938	922	487	922	925	414
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	490			414			938	922	487	922	925	414
tC, single (s)	4.1			5.1			7.1	6.5	6.2	7.3	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.2			3.1			3.5	4.0	3.3	3.7	4.0	3.5
p0 queue free %	100			99			100	100	100	97	100	97
cM capacity (veh/h)	1084			768			238	269	585	234	268	607

Direction, Lane #	NB 1	SB 1	SE 1	NW 1
Volume Total	419	495	0	23
Volume Left	5	5	0	8
Volume Right	0	5	0	16
cSH	1084	768	1700	396
Volume to Capacity	0.00	0.01	0.00	0.06
Queue Length 95th (ft)	0	1	0	5
Control Delay (s)	0.2	0.2	0.0	14.7
Lane LOS	A	A	A	B
Approach Delay (s)	0.2	0.2	0.0	14.7
Approach LOS			A	B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
2: Narrows St & South Main St

2008 Existing Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	110	15	25	265	240	100
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	134	18	28	298	253	105
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	659	305	358			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	659	305	358			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	67	97	98			
cM capacity (veh/h)	412	712	1212			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	152	326	358
Volume Left	134	28	0
Volume Right	18	0	105
cSH	434	1212	1700
Volume to Capacity	0.35	0.02	0.21
Queue Length 95th (ft)	39	2	0
Control Delay (s)	17.7	0.9	0.0
Lane LOS	C	A	
Approach Delay (s)	17.7	0.9	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization		48.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
5: Copicut Road & South Main St

2008 Existing Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	10	270	5	5	250
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.46	0.46	0.93	0.93	0.73	0.73
Hourly flow rate (vph)	11	22	290	5	7	342
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	649	293			296	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	649	293			296	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	98	97			99	
cM capacity (veh/h)	435	721			1277	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	33	296	349
Volume Left	11	0	7
Volume Right	22	5	0
cSH	591	1700	1277
Volume to Capacity	0.06	0.17	0.01
Queue Length 95th (ft)	4	0	0
Control Delay (s)	11.4	0.0	0.2
Lane LOS	B		A
Approach Delay (s)	11.4	0.0	0.2
Approach LOS	B		

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		27.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
7: South Main St & Route 24 SB Off-Ramp

2008 Existing Conditions - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	95	265	295	250	110	35
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.94	0.94	0.79	0.79
Hourly flow rate (vph)	108	301	314	266	139	44
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	314				964	447
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	314				964	447
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	91				45	92
cM capacity (veh/h)	1213				254	589

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	409	580	184
Volume Left	108	0	139
Volume Right	0	266	44
cSH	1213	1700	294
Volume to Capacity	0.09	0.34	0.62
Queue Length 95th (ft)	7	0	97
Control Delay (s)	2.8	0.0	35.6
Lane LOS	A		E
Approach Delay (s)	2.8	0.0	35.6
Approach LOS			E

Intersection Summary			
Average Delay		6.6	
Intersection Capacity Utilization		68.2%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
17: South Main St & Route 24 NB Off-Ramp

2008 Existing Conditions - PM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	280	95	50	470	85	340
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.94	0.94	0.95	0.95
Hourly flow rate (vph)	329	112	53	500	89	358
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			329		992	385
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			329		992	385
tC, single (s)			4.1		6.6	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			96		64	46
cM capacity (veh/h)			1219		246	662

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	441	553	447
Volume Left	0	53	89
Volume Right	112	0	358
cSH	1700	1219	495
Volume to Capacity	0.26	0.04	0.90
Queue Length 95th (ft)	0	3	258
Control Delay (s)	0.0	1.2	49.3
Lane LOS		A	E
Approach Delay (s)	0.0	1.2	49.3
Approach LOS			E

Intersection Summary			
Average Delay		15.8	
Intersection Capacity Utilization		83.7%	ICU Level of Service E
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
21: Ridge Hill Rd & South Main St

2008 Existing Conditions - PM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	10	0	80	35	0	15	35	530	30	5	405	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.87	0.87	0.87
Hourly flow rate (vph)	11	0	87	41	0	17	38	576	33	6	466	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1163	1162	466	1232	1145	592	466			609		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1163	1162	466	1232	1145	592	466			609		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	85	66	100	97	97			99		
cM capacity (veh/h)	153	189	599	120	193	510	1106			980		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	98	58	647	471
Volume Left	11	41	38	6
Volume Right	87	17	33	0
cSH	452	156	1106	980
Volume to Capacity	0.22	0.37	0.03	0.01
Queue Length 95th (ft)	20	39	3	0
Control Delay (s)	15.1	41.1	0.9	0.2
Lane LOS	C	E	A	A
Approach Delay (s)	15.1	41.1	0.9	0.2
Approach LOS	C	E		

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization		67.4%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
30: South Main St & High St.

2008 Existing Conditions - PM Peak Hour

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	535	10	15	410	5	0	0	0	0	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.25	0.25	0.25	0.83	0.83	0.83
Hourly flow rate (vph)	0	588	11	16	441	5	0	0	0	0	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	446			599			1081	1075	444	1069	1072	593
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	446			599			1081	1075	444	1069	1072	593
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	100	100	98
cM capacity (veh/h)	1125			954			190	218	618	198	219	509

Direction, Lane #	NB 1	SB 1	SE 1	NW 1
Volume Total	599	462	0	12
Volume Left	0	16	0	0
Volume Right	11	5	0	12
cSH	1125	954	1700	509
Volume to Capacity	0.00	0.02	0.00	0.02
Queue Length 95th (ft)	0	1	0	2
Control Delay (s)	0.0	0.5	0.0	12.2
Lane LOS		A	A	B
Approach Delay (s)	0.0	0.5	0.0	12.2
Approach LOS			A	B

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		44.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
2: Jones St & Mt Pleasant St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	5	0	170	10	530	0	70	220	175	185	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.82	0.82	0.82	0.94	0.94	0.94	0.83	0.83	0.83
Hourly flow rate (vph)	0	6	0	207	12	646	0	74	234	211	223	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1492	956	226	839	842	191	229			309		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1492	956	226	839	842	191	229			309		
tC, single (s)	7.1	6.7	6.2	7.2	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.2	3.3	3.6	4.2	3.3	2.2			2.2		
p0 queue free %	100	97	100	13	95	23	100			83		
cM capacity (veh/h)	20	200	818	238	229	843	1351			1235		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	6	220	646	309	211	229
Volume Left	0	207	0	0	211	0
Volume Right	0	0	646	234	0	6
cSH	200	237	843	1351	1235	1700
Volume to Capacity	0.03	0.92	0.77	0.00	0.17	0.13
Queue Length 95th (ft)	2	201	189	0	15	0
Control Delay (s)	23.6	84.4	21.8	0.0	8.5	0.0
Lane LOS	C	F	C		A	
Approach Delay (s)	23.6	37.7		0.0	4.1	
Approach LOS	C	E				

Intersection Summary				
Average Delay	21.3			
Intersection Capacity Utilization	63.4%	ICU Level of Service	B	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
9: Tarkiln Hill Rd & Kings Highway

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	20	10	540	690	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.83	0.83	0.90	0.90
Hourly flow rate (vph)	12	24	12	651	767	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				393	611	
pX, platoon unblocked	0.82					
vC, conflicting volume	1475	800	833			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1469	800	833			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	94	99			
cM capacity (veh/h)	113	380	808			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	37	663	833
Volume Left	12	12	0
Volume Right	24	0	67
cSH	213	808	1700
Volume to Capacity	0.17	0.01	0.49
Queue Length 95th (ft)	15	1	0
Control Delay (s)	25.4	0.4	0.0
Lane LOS	D	A	
Approach Delay (s)	25.4	0.4	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
16: Park Ave. & Church St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	65	130	20	0	45	0	400	20	10	185	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.84	0.84	0.84	0.85	0.85	0.85	0.76	0.76	0.76
Hourly flow rate (vph)	0	83	167	24	0	54	0	471	24	13	243	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											176	
pX, platoon unblocked	0.93	0.93	0.93	0.93	0.93		0.93					
vC, conflicting volume	806	764	243	960	752	482	243			494		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	751	706	144	918	693	482	144			494		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	75	80	84	100	91	100			99		
cM capacity (veh/h)	275	330	818	150	338	588	1345			1080		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	250	77	494	257
Volume Left	0	24	0	13
Volume Right	167	54	24	0
cSH	548	310	1700	1080
Volume to Capacity	0.46	0.25	0.29	0.01
Queue Length 95th (ft)	59	24	0	1
Control Delay (s)	17.0	20.5	0.0	0.5
Lane LOS	C	C		A
Approach Delay (s)	17.0	20.5	0.0	0.5
Approach LOS	C	C		

Intersection Summary				
Average Delay		5.5		
Intersection Capacity Utilization		47.5%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
17: Irvington Street & Church Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	25	0	20	5	260	0	0	325	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.79	0.79	0.79	0.85	0.85	0.85	0.77	0.77	0.77
Hourly flow rate (vph)	7	0	7	32	0	25	6	306	0	0	422	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	772	746	429	753	753	306	435			306		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	772	746	429	753	753	306	435			306		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	90	100	97	99			100		
cM capacity (veh/h)	307	342	631	314	339	739	1135			1266		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	57	312	435
Volume Left	7	32	6	0
Volume Right	7	25	0	13
cSH	413	422	1135	1700
Volume to Capacity	0.03	0.14	0.01	0.26
Queue Length 95th (ft)	2	12	0	0
Control Delay (s)	14.0	14.9	0.2	0.0
Lane LOS	B	B	A	
Approach Delay (s)	14.0	14.9	0.2	0.0
Approach LOS	B	B		

Intersection Summary				
Average Delay		1.3		
Intersection Capacity Utilization		27.8%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	375	45	85	305	50	25	60	45	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92
Hourly flow rate (vph)	56	421	51	101	363	60	29	70	52	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			443							
pX, platoon unblocked	0.98			0.92			0.93	0.93	0.92	0.93	0.93	0.98
vC, conflicting volume	423			472			1154	1184	447	1241	1180	393
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	397			382			1073	1105	355	1167	1100	367
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	95			91			82	59	92	100	100	100
cM capacity (veh/h)	1124			1082			160	168	620	90	172	667

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	528	524	151
Volume Left	56	101	29
Volume Right	51	60	52
cSH	1124	1082	222
Volume to Capacity	0.05	0.09	0.68
Queue Length 95th (ft)	4	8	108
Control Delay (s)	1.4	2.5	50.0
Lane LOS	A	A	E
Approach Delay (s)	1.4	2.5	50.0
Approach LOS			E

Intersection Summary			
Average Delay	8.0		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
54: driveway & Purchase St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	10	235	5	35	0	215	0	0	250	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	11	255	5	38	0	234	0	0	272	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								830				
pX, platoon unblocked												
vC, conflicting volume	546	505	272	516	505	234	272			234		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	546	505	272	516	505	234	272			234		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	45	99	95	100			100		
cM capacity (veh/h)	423	469	767	463	469	805	1292			1334		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	11	299	234	272
Volume Left	0	255	0	0
Volume Right	11	38	0	0
cSH	767	489	1292	1700
Volume to Capacity	0.01	0.61	0.00	0.16
Queue Length 95th (ft)	1	101	0	0
Control Delay (s)	9.8	23.2	0.0	0.0
Lane LOS	A	C		
Approach Delay (s)	9.8	23.2	0.0	0.0
Approach LOS	A	C		

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	150	35	35	100	90	10	185	60	90	165	15
Peak Hour Factor	0.80	0.80	0.80	0.83	0.83	0.83	0.89	0.89	0.89	0.88	0.88	0.88
Hourly flow rate (vph)	19	188	44	42	120	108	11	208	67	102	188	17

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	250	271	287	307
Volume Left (vph)	19	42	11	102
Volume Right (vph)	44	108	67	17
Hadj (s)	-0.04	-0.09	-0.05	0.19
Departure Headway (s)	6.4	6.3	6.3	6.4
Degree Utilization, x	0.45	0.48	0.50	0.55
Capacity (veh/h)	496	506	523	508
Control Delay (s)	14.5	15.0	15.4	17.0
Approach Delay (s)	14.5	15.0	15.4	17.0
Approach LOS	B	B	C	C

Intersection Summary				
Delay			15.5	
HCM Level of Service			C	
Intersection Capacity Utilization			60.0%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
72: Weld St & Purchase St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	115	55	25	55	210	0	0	225	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.89	0.89	0.89	0.83	0.83	0.83
Hourly flow rate (vph)	6	0	6	129	62	28	62	236	0	0	271	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	705	646	286	652	661	236	301			236		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	705	646	286	652	661	236	301			236		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.3			2.2		
p0 queue free %	98	100	99	64	83	96	95			100		
cM capacity (veh/h)	286	373	746	361	363	786	1216			1343		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	12	160	59	298	301
Volume Left	6	129	0	62	0
Volume Right	6	0	28	0	30
cSH	413	361	488	1216	1343
Volume to Capacity	0.03	0.44	0.12	0.05	0.00
Queue Length 95th (ft)	2	55	10	4	0
Control Delay (s)	14.0	22.6	13.4	2.1	0.0
Lane LOS	B	C	B	A	
Approach Delay (s)	14.0	20.1		2.1	0.0
Approach LOS	B	C			

Intersection Summary				
Average Delay			6.3	
Intersection Capacity Utilization			49.2%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
74: Logan St & Purchase St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	35	0	40	0	225	115	90	255	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.84	0.84	0.84	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	42	0	48	0	250	128	100	283	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	845	861	283	797	797	314	283			378		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	845	861	283	797	797	314	283			378		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.3	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.4	2.2			2.3		
p0 queue free %	100	100	100	85	100	93	100			91		
cM capacity (veh/h)	248	270	760	280	294	715	1291			1154		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	89	378	383
Volume Left	0	42	0	100
Volume Right	0	48	128	0
cSH	1700	414	1291	1154
Volume to Capacity	0.00	0.22	0.00	0.09
Queue Length 95th (ft)	0	20	0	7
Control Delay (s)	0.0	16.1	0.0	2.8
Lane LOS	A	C		A
Approach Delay (s)	0.0	16.1	0.0	2.8
Approach LOS	A	C		

Intersection Summary				
Average Delay	3.0			
Intersection Capacity Utilization	51.6%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
75: Logan St & North Front Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	135	15	15	5	5	15	5	130	5	55	190	65
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.69	0.69	0.69	0.78	0.78	0.78	0.93	0.93	0.93
Hourly flow rate (vph)	159	18	18	7	7	22	6	167	6	59	204	70
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											720	
pX, platoon unblocked												
vC, conflicting volume	566	543	239	567	575	170	274			173		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	566	543	239	567	575	170	274			173		
tC, single (s)	7.2	6.5	6.4	7.1	6.5	6.4	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.5	3.5	4.0	3.5	2.4			2.2		
p0 queue free %	59	96	98	98	98	97	99			96		
cM capacity (veh/h)	391	428	762	399	411	827	1207			1404		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	194	36	179	333
Volume Left	159	7	6	59
Volume Right	18	22	6	70
cSH	412	584	1207	1404
Volume to Capacity	0.47	0.06	0.01	0.04
Queue Length 95th (ft)	61	5	0	3
Control Delay (s)	21.3	11.6	0.3	1.7
Lane LOS	C	B	A	A
Approach Delay (s)	21.3	11.6	0.3	1.7
Approach LOS	C	B		

Intersection Summary				
Average Delay	7.0			
Intersection Capacity Utilization	50.3%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
77: Rt. 140 Ramps & Mt. Pleasant Street

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	155	45	215	385	55	210
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.69	0.69	0.85	0.85	0.75	0.75
Hourly flow rate (vph)	225	65	253	453	73	280
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	906	479			253	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	906	479			253	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	18	89			94	
cM capacity (veh/h)	276	582			1312	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	290	706	353
Volume Left	225	0	73
Volume Right	65	453	0
cSH	313	1700	1312
Volume to Capacity	0.93	0.42	0.06
Queue Length 95th (ft)	227	0	4
Control Delay (s)	71.4	0.0	2.1
Lane LOS	F		A
Approach Delay (s)	71.4	0.0	2.1
Approach LOS	F		

Intersection Summary			
Average Delay	15.9		
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
126: Logan St & Acushnet Avenue

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	140	50	20	55	0	20	5	35	0	5	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.88	0.88	0.88	0.67	0.67	0.67
Hourly flow rate (vph)	19	175	62	22	61	0	23	6	40	0	7	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	109	98	7	228	78	26	7			45		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	109	98	7	228	78	26	7			45		
tC, single (s)	7.2	6.5	6.3	7.2	6.6	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.6	4.1	3.3	2.3			2.2		
p0 queue free %	98	77	94	96	92	100	99			100		
cM capacity (veh/h)	788	776	1063	545	792	1056	1526			1575		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	256	83	68	7
Volume Left	19	22	23	0
Volume Right	62	0	40	0
cSH	832	707	1526	1575
Volume to Capacity	0.31	0.12	0.01	0.00
Queue Length 95th (ft)	33	10	1	0
Control Delay (s)	11.2	10.8	2.5	0.0
Lane LOS	B	B	A	
Approach Delay (s)	11.2	10.8	2.5	0.0
Approach LOS	B	B		

Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
130: Herman Melville Boulevard & McArthur Drive

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	115	35	125	95	60	130
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.99	0.99	0.81	0.81
Hourly flow rate (vph)	122	37	126	96	74	160
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	483	174			222	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	483	174			222	
tC, single (s)	6.6	6.4			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.3	
p0 queue free %	75	96			94	
cM capacity (veh/h)	490	829			1301	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	160	222	235
Volume Left	122	0	74
Volume Right	37	96	0
cSH	542	1700	1301
Volume to Capacity	0.29	0.13	0.06
Queue Length 95th (ft)	31	0	5
Control Delay (s)	14.4	0.0	2.8
Lane LOS	B		A
Approach Delay (s)	14.4	0.0	2.8
Approach LOS	B		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
136: Hillman St & McArthur Dr

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	45	160	115	45	30	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.91	0.91	0.82	0.82
Hourly flow rate (vph)	53	188	126	49	37	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	354	52	67			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	354	52	67			
tC, single (s)	6.4	6.3	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.4			
p0 queue free %	91	81	91			
cM capacity (veh/h)	587	1005	1433			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	241	176	67
Volume Left	53	126	0
Volume Right	188	0	30
cSH	869	1433	1700
Volume to Capacity	0.28	0.09	0.04
Queue Length 95th (ft)	28	7	0
Control Delay (s)	10.7	5.8	0.0
Lane LOS	B	A	
Approach Delay (s)	10.7	5.8	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
147: Wamsutta St & McArthur Drive

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	10	50	15	10	65
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.65	0.65	0.86	0.86	0.76	0.76
Hourly flow rate (vph)	31	15	58	17	13	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	179	67			58	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	179	67			58	
tC, single (s)	6.4	6.4			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.5			2.3	
p0 queue free %	96	98			99	
cM capacity (veh/h)	808	936			1502	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	46	76	99
Volume Left	31	0	13
Volume Right	15	17	0
cSH	847	1700	1502
Volume to Capacity	0.05	0.04	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	9.5	0.0	1.0
Lane LOS	A		A
Approach Delay (s)	9.5	0.0	1.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
148: Wamsutta St & North Front St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	0	10	5	0	10	5	110	15	10	155	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.64	0.64	0.64	0.58	0.58	0.58	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	23	0	16	9	0	17	5	118	16	11	174	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	365	356	188	363	362	126	202			134		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	365	356	188	363	362	126	202			134		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.3	4.1			4.5		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.4	2.2			2.5		
p0 queue free %	96	100	98	98	100	98	100			99		
cM capacity (veh/h)	578	566	859	545	561	900	1382			1265		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	39	26	140	213
Volume Left	23	9	5	11
Volume Right	16	17	16	28
cSH	665	740	1382	1265
Volume to Capacity	0.06	0.03	0.00	0.01
Queue Length 95th (ft)	5	3	0	1
Control Delay (s)	10.8	10.0	0.3	0.5
Lane LOS	B	B	A	A
Approach Delay (s)	10.8	10.0	0.3	0.5
Approach LOS	B	B		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lanes, Volumes, Timings
14: Tarkiln Hill Rd & Church Street

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	505	5	35	435	65	220	200	75	65	265	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	12	11	11	12	11	11	11	11	11	12
Storage Length (ft)	50		0	0		0	0		0	0		145
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			1116			176			552	
Travel Time (s)		6.9			25.4			4.0			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	554	0	38	549	0	256	320	0	0	371	129
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Minimum Split (s)	35.0	35.0		35.0	35.0		21.0	21.0		21.0	21.0	21.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	24.0	24.0	0.0	24.0	24.0	24.0
Total Split (%)	59.3%	59.3%	0.0%	59.3%	59.3%	0.0%	40.7%	40.7%	0.0%	40.7%	40.7%	40.7%
Maximum Green (s)	30.0	30.0		30.0	30.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lead	Lead		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
v/c Ratio	0.40	0.60		0.13	0.61		1.13	0.58			0.79	0.25
Control Delay	14.1	13.7		9.1	14.0		124.3	21.7			33.8	16.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	14.1	13.7		9.1	14.0		124.3	21.7			33.8	16.4
Queue Length 50th (ft)	24	128		7	128		~109	93			118	33
Queue Length 95th (ft)	63	214		21	215		#217	154			#243	68
Internal Link Dist (ft)		225			1036			96			472	
Turn Bay Length (ft)	50											145
Base Capacity (vph)	298	924		294	901		227	553			467	515
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.40	0.60		0.13	0.61		1.13	0.58			0.79	0.25

Intersection Summary

Area Type: Other
Cycle Length: 59
Actuated Cycle Length: 59
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle: 65
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Tarkiln Hill Rd & Church Street

HCM Signalized Intersection Capacity Analysis
14: Tarkiln Hill Rd & Church Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	505	5	35	435	65	220	200	75	65	265	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1636	1816		1631	1770		1728	1718			1787	1599
Flt Permitted	0.34	1.00		0.34	1.00		0.39	1.00			0.80	1.00
Satd. Flow (perm)	587	1816		578	1770		705	1718			1448	1599
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Adj. Flow (vph)	120	549	5	38	478	71	256	233	87	73	298	129
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	120	554	0	38	549	0	256	320	0	0	371	129
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Effective Green, g (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.32	0.32			0.32	0.32
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	298	923		294	900		227	553			466	515
v/s Ratio Prot		0.31			c0.31			0.19				
v/s Ratio Perm	0.20			0.07			c0.36				0.26	0.08
v/c Ratio	0.40	0.60		0.13	0.61		1.13	0.58			0.80	0.25
Uniform Delay, d1	9.0	10.3		7.6	10.3		20.0	16.7			18.2	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	4.0	2.9		0.9	3.1		98.4	4.4			13.2	1.2
Delay (s)	13.0	13.1		8.5	13.4		118.4	21.0			31.4	15.9
Level of Service	B	B		A	B		F	C			C	B
Approach Delay (s)		13.1			13.1			64.3			27.4	
Approach LOS		B			B			E			C	

Intersection Summary

HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	101.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
19: Wood Street & Route 18

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	15	150	10	45	100	35	15	370	50	110	510	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	14	16	16	14	16	11	11	16	11	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		197			310			393			488		
Travel Time (s)		4.5			7.0			8.9			11.1		
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86	
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	3%	2%	1%	2%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	190	0	0	205	0	18	506	0	128	610	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	21.0
Total Split (%)	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	26%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		5.0
Recall Mode	None	None		None	None		None	None		None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													4.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.39			0.45		0.06	0.54		0.32	0.64		
Control Delay		16.5			16.9		6.9	10.4		10.0	12.3		
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0		
Total Delay		16.5			16.9		6.9	10.4		10.0	12.3		
Queue Length 50th (ft)		42			43		2	73		16	96		
Queue Length 95th (ft)		83			85		10	150		50	207		
Internal Link Dist (ft)		117			230			313			408		
Turn Bay Length (ft)													
Base Capacity (vph)		1021			931		318	937		396	956		
Starvation Cap Reductn		0			0		0	0		0	0		
Spillback Cap Reductn		0			0		0	0		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		0.19			0.22		0.06	0.54		0.32	0.64		

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 47.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Wood Street & Route 18

HCM Signalized Intersection Capacity Analysis
19: Wood Street & Route 18

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	150	10	45	100	35	15	370	50	110	510	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	14	16	16	14	16	11	11	16	11	11	16
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.98		1.00	1.00	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1985			1917		1745	1753		1728	1794	
Flt Permitted		0.96			0.89		0.33	1.00		0.41	1.00	
Satd. Flow (perm)		1916			1734		597	1753		744	1794	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86
Adj. Flow (vph)	16	163	11	51	114	40	18	446	60	128	593	17
RTOR Reduction (vph)	0	3	0	0	12	0	0	4	0	0	1	0
Lane Group Flow (vph)	0	187	0	0	193	0	18	502	0	128	609	0
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	3%	2%	1%	2%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		12.0			12.0		25.1	25.1		25.1	25.1	
Effective Green, g (s)		12.0			12.0		25.1	25.1		25.1	25.1	
Actuated g/C Ratio		0.25			0.25		0.53	0.53		0.53	0.53	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		488			442		318	934		396	956	
v/s Ratio Prot								0.29			c0.34	
v/s Ratio Perm		0.10			c0.11		0.03			0.17		
v/c Ratio		0.38			0.44		0.06	0.54		0.32	0.64	
Uniform Delay, d1		14.5			14.7		5.3	7.2		6.2	7.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			0.9		0.1	0.8		0.6	1.6	
Delay (s)		15.2			15.7		5.4	8.0		6.9	9.4	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		15.2			15.7			7.9			8.9	
Approach LOS		B			B			A			A	

Intersection Summary

HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
24: Nash Road & Church Street

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	400	75	40	265	55	60	160	30	70	235	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	16	14	16	16	16	16
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1761			1229			1754			2421	
Travel Time (s)		40.0			27.9			39.9			55.0	
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.89	0.89	0.89	0.86	0.86	0.86
Heavy Vehicles (%)	1%	3%	1%	3%	3%	0%	0%	3%	3%	0%	4%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	696	0	0	395	0	0	281	0	0	523	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Minimum Split (s)	36.0	36.0		36.0	36.0		29.0	29.0		29.0	29.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	55.4%	55.4%	0.0%	55.4%	55.4%	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.87			0.47			0.60			0.87	
Control Delay		30.5			14.3			24.1			38.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		30.5			14.3			24.1			38.1	
Queue Length 50th (ft)		235			102			90			190	
Queue Length 95th (ft)		#388			168			161			#331	
Internal Link Dist (ft)		1681			1149			1674			2341	
Turn Bay Length (ft)												
Base Capacity (vph)		798			846			472			602	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.87			0.47			0.60			0.87	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 18 (28%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 65
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: Nash Road & Church Street

HCM Signalized Intersection Capacity Analysis
24: Nash Road & Church Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	400	75	40	265	55	60	160	30	70	235	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	16	14	16	16	16	16
Total Lost time (s)		6.0			6.0			7.0			7.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.98			0.96	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		2048			2045			1926			1983	
Flt Permitted		0.84			0.89			0.72			0.89	
Satd. Flow (perm)		1727			1834			1396			1780	
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.89	0.89	0.89	0.86	0.86	0.86
Adj. Flow (vph)	131	476	89	44	291	60	67	180	34	81	273	169
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	696	0	0	395	0	0	281	0	0	523	0
Heavy Vehicles (%)	1%	3%	1%	3%	3%	0%	0%	3%	3%	0%	4%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)		30.0			30.0			22.0			22.0	
Effective Green, g (s)		30.0			30.0			22.0			22.0	
Actuated g/C Ratio		0.46			0.46			0.34			0.34	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Lane Grp Cap (vph)		797			846			472			602	
v/s Ratio Prot												
v/s Ratio Perm		c0.40			0.22			0.20			c0.29	
v/c Ratio		0.87			0.47			0.60			0.87	
Uniform Delay, d1		15.8			12.0			17.8			20.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		12.7			1.8			5.4			15.6	
Delay (s)		28.5			13.9			23.3			35.8	
Level of Service		C			B			C			D	
Approach Delay (s)		28.5			13.9			23.3			35.8	
Approach LOS		C			B			C			D	

Intersection Summary

HCM Average Control Delay	26.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
28: Coggeshall Street & Route 18 SB (Ashley Blvd)

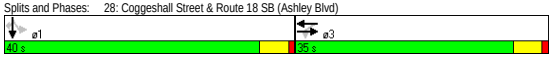
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	205	90	165	220	0	0	0	0	100	605	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	12	12	12	12	12	10	10
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		686			474			1008			501	
Travel Time (s)		15.6			10.8			22.9			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	4%	1%	1%	0%	0%	0%	0%	6%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	0	0	448	0	0	0	0	0	734	47
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Minimum Split (s)		35.0		35.0	35.0					40.0	40.0	40.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	40.0	40.0	40.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)		30.0		30.0	30.0					35.0	35.0	35.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.44			0.90						0.48	0.06
Control Delay		16.8			45.3						15.1	4.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		16.8			45.3						15.1	4.0
Queue Length 50th (ft)		93			190						117	0
Queue Length 95th (ft)		160			#339						163	16
Internal Link Dist (ft)		606			394			928			421	
Turn Bay Length (ft)												130
Base Capacity (vph)		727			499						1522	728
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.44			0.90						0.48	0.06

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 75
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 28: Coggeshall Street & Route 18 SB (Ashley Blvd)



HCM Signalized Intersection Capacity Analysis
28: Coggeshall Street & Route 18 SB (Ashley Blvd)

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	205	90	165	220	0	0	0	0	100	605	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	15	12	12	12	12	12	10	10
Total Lost time (s)		5.0			5.0						5.0	5.0
Lane Util. Factor		1.00			1.00						0.95	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.99	1.00
Satd. Flow (prot)		1763			2026						3262	1507
Flt Permitted		1.00			0.60						0.99	1.00
Satd. Flow (perm)		1763			1247						3262	1507
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	0	223	98	192	256	0	0	0	0	104	630	47
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	25
Lane Group Flow (vph)	0	300	0	0	448	0	0	0	0	0	734	22
Heavy Vehicles (%)	0%	3%	4%	1%	1%	0%	0%	0%	0%	6%	2%	0%
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Actuated Green, G (s)		30.0			30.0						35.0	35.0
Effective Green, g (s)		30.0			30.0						35.0	35.0
Actuated g/C Ratio		0.40			0.40						0.47	0.47
Clearance Time (s)		5.0			5.0						5.0	5.0
Lane Grp Cap (vph)		705			499						1522	703
v/s Ratio Prot		0.17										
v/s Ratio Perm					c0.36						0.23	0.01
v/c Ratio		0.43			0.90						0.48	0.03
Uniform Delay, d1		16.3			21.1						13.8	10.8
Progression Factor		1.00			1.00						1.00	1.00
Incremental Delay, d2		1.9			21.6						1.1	0.1
Delay (s)		18.1			42.6						14.9	10.9
Level of Service		B			D						B	B
Approach Delay (s)		18.1			42.6			0.0			14.6	
Approach LOS		B			D			A			B	

Intersection Summary

HCM Average Control Delay	23.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

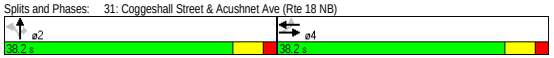
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	260	0	0	270	80	115	445	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	15	12	12	11	11	12	12	12
Storage Length (ft)	0		0	0		0	0		160	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		474			546			1002			363	
Travel Time (s)		10.8			12.4			22.8			8.3	
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	4%	3%	0%	0%	1%	1%	0%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	328	0	0	372	0	124	478	301	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Minimum Split (s)	38.2	38.2			38.2		38.2	38.2	38.2			
Total Split (s)	38.2	38.2	0.0	0.0	38.2	0.0	38.2	38.2	38.2	0.0	0.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		32.0	32.0	32.0			
Yellow Time (s)	4.2	4.2			4.2		4.2	4.2	4.2			
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.0	4.0	6.2	4.0	6.2	6.2	6.2	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.43			0.44		0.16	0.63	0.37			
Control Delay		18.0			16.7		14.6	22.2	3.4			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		18.0			16.7		14.6	22.2	3.4			
Queue Length 50th (ft)		107			113		36	174	0			
Queue Length 95th (ft)		174			183		69	273	43			
Internal Link Dist (ft)		394			466			922			283	
Turn Bay Length (ft)									160			
Base Capacity (vph)		763			854		756	754	816			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.43			0.44		0.16	0.63	0.37			

Intersection Summary

Area Type: Other
Cycle Length: 76.4
Actuated Cycle Length: 76.4
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed

Splits and Phases: 31: Coggeshall Street & Acushnet Ave (Rte 18 NB)



HCM Signalized Intersection Capacity Analysis
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	260	0	0	270	80	115	445	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	15	12	12	11	11	12	12	12
Total Lost time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00			
Frt		1.00			0.97		1.00	1.00	0.85			
Flt Protected		0.99			1.00		0.95	1.00	1.00			
Satd. Flow (prot)		2012			2005		1805	1801	1531			
Flt Permitted		0.90			1.00		0.95	1.00	1.00			
Satd. Flow (perm)		1822			2005		1805	1801	1531			
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	48	280	0	0	287	85	124	478	301	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	0	175	0	0	0
Lane Group Flow (vph)	0	328	0	0	358	0	124	478	126	0	0	0
Heavy Vehicles (%)	4%	3%	0%	0%	1%	1%	0%	2%	2%	0%	0%	0%
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		32.0			32.0		32.0	32.0	32.0			
Effective Green, g (s)		32.0			32.0		32.0	32.0	32.0			
Actuated g/C Ratio		0.42			0.42		0.42	0.42	0.42			
Clearance Time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Grp Cap (vph)		763			840		756	754	641			
v/s Ratio Prot					0.18			c0.27				
v/s Ratio Perm		c0.18					0.07		0.08			
v/c Ratio		0.43			0.43		0.16	0.63	0.20			
Uniform Delay, d1		15.7			15.7		13.9	17.6	14.1			
Progression Factor		1.00			1.00		1.00	1.00	1.00			
Incremental Delay, d2		1.8			1.6		0.5	4.0	0.7			
Delay (s)		17.5			17.3		14.3	21.6	14.7			
Level of Service		B			B		B	C	B			
Approach Delay (s)		17.5			17.3			18.3			0.0	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

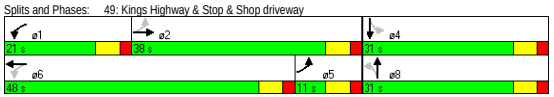
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	700	110	160	420	50	85	45	220	155	25	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			213			360			359	
Travel Time (s)		11.7			4.8			8.2			8.2	
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1048	0	0	663	0	0	412	0	0	387	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	13.0		11.0	13.0		13.0	13.0		19.0	19.0	
Total Split (s)	11.0	38.0	0.0	21.0	48.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	12.2%	42.2%	0.0%	23.3%	53.3%	0.0%	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%
Maximum Green (s)	5.0	32.0		15.0	42.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)										5.0	5.0	
Flash Dont Walk (s)										8.0	8.0	
Pedestrian Calls (#/hr)										0	0	
v/c Ratio		0.71			0.57			0.59			0.65	
Control Delay		12.4			10.2			11.2			15.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.4			10.2			11.2			15.7	
Queue Length 50th (ft)		102			56			22			30	
Queue Length 95th (ft)		231			135			49			65	
Internal Link Dist (ft)		435			133			280			279	
Turn Bay Length (ft)												
Base Capacity (vph)		1480			1525			1289			1144	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.71			0.43			0.32			0.34	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 55.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 49: Kings Highway & Stop & Shop driveway



HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	700	110	160	420	50	85	45	220	155	25	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.99			0.91			0.93	
Flt Protected		0.99			0.99			0.99			0.98	
Satd. Flow (prot)		3488			3490			3215			3247	
Flt Permitted		0.72			0.56			0.77			0.69	
Satd. Flow (perm)		2517			1986			2515			2288	
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	177	753	118	168	442	53	100	53	259	174	28	185
RTOR Reduction (vph)	0	7	0	0	5	0	0	208	0	0	149	0
Lane Group Flow (vph)	0	1041	0	0	658	0	0	204	0	0	238	0
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		32.2			32.2			10.8			10.8	
Effective Green, g (s)		32.2			32.2			10.8			10.8	
Actuated g/C Ratio		0.59			0.59			0.20			0.20	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1474			1163			494			449	
v/s Ratio Prot												
v/s Ratio Perm		c0.41			0.33			0.08			c0.10	
v/c Ratio		0.71			0.57			0.41			0.53	
Uniform Delay, d1		8.1			7.1			19.3			19.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			0.4			0.2			0.6	
Delay (s)		9.3			7.4			19.5			20.4	
Level of Service		A			A			B			C	
Approach Delay (s)		9.3			7.4			19.5			20.4	
Approach LOS		A			A			B			C	

Intersection Summary

HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
91: Route 140 NB Ramps & Kings Highway

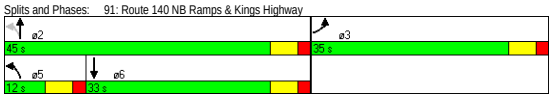
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	465	155	145	510	580	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	12	12	16
Storage Length (ft)	0	100	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				No
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			574	515	
Travel Time (s)	6.1			13.0	11.7	
Peak Hour Factor	0.92	0.92	0.83	0.83	0.79	0.79
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	673	0	0	789	848	0
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Detector Phase	3		5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	
Minimum Split (s)	13.0		11.0	13.0	13.0	
Total Split (s)	35.0	0.0	12.0	45.0	33.0	0.0
Total Split (%)	43.8%	0.0%	15.0%	56.3%	41.3%	0.0%
Maximum Green (s)	29.0		6.0	39.0	27.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	None		None	Min	Min	
v/c Ratio	0.91			0.83	0.54	
Control Delay	41.7			26.1	15.6	
Queue Delay	0.0			0.0	0.0	
Total Delay	41.7			26.1	15.6	
Queue Length 50th (ft)	308			162	144	
Queue Length 95th (ft)	#533			206	161	
Internal Link Dist (ft)	188			494	435	
Turn Bay Length (ft)						
Base Capacity (vph)	808			1150	1654	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.83			0.69	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 72.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 91: Route 140 NB Ramps & Kings Highway



HCM Signalized Intersection Capacity Analysis
91: Route 140 NB Ramps & Kings Highway

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	465	155	145	510	580	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.98	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1976			3520	3454	
Flt Permitted	0.96			0.59	1.00	
Satd. Flow (perm)	1976			2092	3454	
Peak-hour factor, PHF	0.92	0.92	0.83	0.83	0.79	0.79
Adj. Flow (vph)	505	168	175	614	734	114
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	673	0	0	789	848	0
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	27.3			33.1	33.1	
Effective Green, g (s)	27.3			33.1	33.1	
Actuated g/C Ratio	0.38			0.46	0.46	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	2.0			2.0	2.0	
Lane Grp Cap (vph)	745			956	1579	
v/s Ratio Prot	c0.34				0.25	
v/s Ratio Perm				c0.38		
v/c Ratio	0.90			0.83	0.54	
Uniform Delay, d1	21.3			17.1	14.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	14.0			5.6	0.2	
Delay (s)	35.3			22.7	14.3	
Level of Service	D			C	B	
Approach Delay (s)	35.3			22.7	14.3	
Approach LOS	D			C	B	

Intersection Summary

HCM Average Control Delay	23.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	72.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

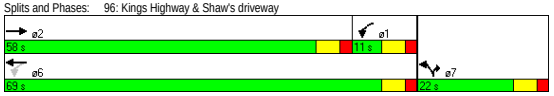
Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	565	225	140	595	150	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	525			574	347	
Travel Time (s)	11.9			13.0	7.9	
Peak Hour Factor	0.91	0.91	0.96	0.96	0.89	0.89
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	868	0	0	766	169	101
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Detector Phase	2		1	6	7	7
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	7.0
Minimum Split (s)	13.0		11.0	13.0	13.0	13.0
Total Split (s)	58.0	0.0	11.0	69.0	22.0	22.0
Total Split (%)	63.7%	0.0%	12.1%	75.8%	24.2%	24.2%
Maximum Green (s)	52.0		5.0	63.0	16.0	16.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	Min		None	Min	None	None
v/c Ratio	0.48			0.64	0.47	0.25
Control Delay	6.9			10.6	20.6	6.4
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	6.9			10.6	20.6	6.4
Queue Length 50th (ft)	50			58	32	0
Queue Length 95th (ft)	98			121	91	29
Internal Link Dist (ft)	445			494	267	
Turn Bay Length (ft)						
Base Capacity (vph)	3389			2320	674	666
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.26			0.33	0.25	0.15

Intersection Summary

Area Type: Other
Cycle Length: 91
Actuated Cycle Length: 43.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated

Splits and Phases: 96: Kings Highway & Shaw's driveway



HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	565	225	140	595	150	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3407			3541	1787	1599
Flt Permitted	1.00			0.65	0.95	1.00
Satd. Flow (perm)	3407			2321	1787	1599
Peak-hour factor, PHF	0.91	0.91	0.96	0.96	0.89	0.89
Adj. Flow (vph)	621	247	146	620	169	101
RTOR Reduction (vph)	52	0	0	0	0	81
Lane Group Flow (vph)	816	0	0	766	169	20
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	22.5			22.5	8.7	8.7
Effective Green, g (s)	22.5			22.5	8.7	8.7
Actuated g/C Ratio	0.52			0.52	0.20	0.20
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	1774			1209	360	322
v/s Ratio Prot	0.24				c0.09	0.01
v/s Ratio Perm				c0.33		
v/c Ratio	0.46			0.63	0.47	0.06
Uniform Delay, d1	6.5			7.4	15.2	14.0
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.8	0.4	0.0
Delay (s)	6.6			8.2	15.6	14.0
Level of Service	A			A	B	B
Approach Delay (s)	6.6			8.2	15.0	
Approach LOS	A			A	B	

Intersection Summary

HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	43.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

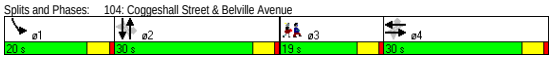
Lanes, Volumes, Timings
104: Coggeshall Street & Belville Avenue

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	110	265	70	70	225	255	30	225	315	280	175	140	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	11	16	16	10	10	16	12	14	16	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		443			1111			850			178		
Travel Time (s)		10.1			25.3			19.3			4.0		
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	3%	6%	1%	1%	4%	3%	4%	1%	3%	3%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	484	0	0	313	271	0	283	350	0	646	0	
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt			
Protected Phases		4			4			2		1	2		3
Permitted Phases	4			4		4	2		2	2			
Detector Phase	4	4		4	4	4	2	2	2	1	2		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		6.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0		19.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	30.0	30.0	30.0	30.0	20.0	30.0	0.0	19.0
Total Split (%)	30.3%	30.3%	0.0%	30.3%	30.3%	30.3%	30.3%	30.3%	30.3%	20.2%	30.3%	0.0%	19%
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	15.0	25.0		14.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		0.2
Recall Mode	Max	Max		Max	Max	Max	None	None	None	None	None		None
Walk Time (s)													6.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.44			0.52	0.35		0.43	0.39		0.68		
Control Delay		13.3			16.8	3.2		15.0	3.0		17.5		
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0		
Total Delay		13.3			16.8	3.2		15.0	3.0		17.5		
Queue Length 50th (ft)		60			81	0		69	0		87		
Queue Length 95th (ft)		96			148	37		124	40		140		
Internal Link Dist (ft)		363			1031			770			98		
Turn Bay Length (ft)													
Base Capacity (vph)		1096			602	772		693	927		997		
Starvation Cap Reductn		0			0	0		0	0		0		
Spillback Cap Reductn		0			0	0		0	0		0		
Storage Cap Reductn		0			0	0		0	0		0		
Reduced v/c Ratio		0.44			0.52	0.35		0.41	0.38		0.65		

Intersection Summary	
Area Type:	Other
Cycle Length: 99	
Actuated Cycle Length: 58.8	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	

Splits and Phases: 104: Coggeshall Street & Belville Avenue



HCM Signalized Intersection Capacity Analysis
104: Coggeshall Street & Belville Avenue

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	265	70	70	225	255	30	225	315	280	175	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	11	16	16	10	10	16	12	14	16	11	16
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		0.95	
Frt		0.98			1.00	0.85		1.00	0.85		0.96	
Flt Protected		0.99			0.99	1.00		0.99	1.00		0.98	
Satd. Flow (prot)		3269			1735	1449		1818	1706		3215	
Flt Permitted		0.77			0.80	1.00		0.89	1.00		0.69	
Satd. Flow (perm)		2548			1413	1449		1628	1706		2274	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	120	288	76	74	239	271	33	250	350	304	190	152
RTOR Reduction (vph)	0	12	0	0	0	156	0	0	208	0	29	0
Lane Group Flow (vph)	0	472	0	0	313	115	0	283	142	0	617	0
Heavy Vehicles (%)	1%	3%	6%	1%	1%	4%	3%	4%	1%	3%	3%	0%
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)		25.0			25.0	25.0		23.8	23.8		23.8	
Effective Green, g (s)		25.0			25.0	25.0		23.8	23.8		23.8	
Actuated g/C Ratio		0.43			0.43	0.43		0.40	0.40		0.40	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Grp Cap (vph)		1083			601	616		659	691		920	
v/s Ratio Prot												
v/s Ratio Perm		0.19			c0.22	0.08		0.17	0.08		c0.27	
v/c Ratio		0.44			0.52	0.19		0.43	0.21		0.67	
Uniform Delay, d1		11.9			12.5	10.6		12.6	11.4		14.3	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		1.3			3.2	0.7		0.6	0.2		2.1	
Delay (s)		13.2			15.7	11.2		13.2	11.6		16.4	
Level of Service		B			B	B		B	B		B	
Approach Delay (s)		13.2			13.6			12.3			16.4	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	58.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
137: Hillman St & Pleasant Street

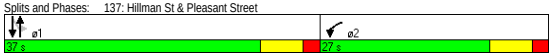
2008 Existing Condition - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	95	80	355	550	105	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	16	16	14
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	693		149			313
Travel Time (s)	15.8		3.4			7.1
Peak Hour Factor	0.77	0.77	0.94	0.94	0.73	0.73
Heavy Vehicles (%)	3%	6%	3%	3%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	227	0	963	0	0	603
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Minimum Split (s)	27.0		37.0		37.0	37.0
Total Split (s)	27.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	42.2%	0.0%	57.8%	0.0%	57.8%	57.8%
Maximum Green (s)	20.0		30.0		30.0	30.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	4.0	7.0	4.0	7.0	7.0
Lead/Lag	Lag		Lead		Lead	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes
v/c Ratio	0.36		0.51			0.61
Control Delay	13.5		5.3			15.9
Queue Delay	0.0		0.0			0.0
Total Delay	13.5		5.3			15.9
Queue Length 50th (ft)	46		43			86
Queue Length 95th (ft)	76		80			98
Internal Link Dist (ft)	613		69			233
Turn Bay Length (ft)						
Base Capacity (vph)	637		1904			992
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.36		0.51			0.61

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 35 (55%), Referenced to phase 2:WBL and 6:, Start of Green
Natural Cycle: 65
Control Type: Pretimed

Splits and Phases: 137: Hillman St & Pleasant Street



HCM Signalized Intersection Capacity Analysis
137: Hillman St & Pleasant Street

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	95	80	355	550	105	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	14	16	16	14
Total Lost time (s)	7.0		7.0			7.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.94		0.91			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1884		3398			3694
Flt Permitted	0.97		1.00			0.57
Satd. Flow (perm)	1884		3398			2115
Peak-hour factor, PHF	0.77	0.77	0.94	0.94	0.73	0.73
Adj. Flow (vph)	123	104	378	585	144	459
RTOR Reduction (vph)	47	0	311	0	0	0
Lane Group Flow (vph)	180	0	652	0	0	603
Heavy Vehicles (%)	3%	6%	3%	3%	3%	3%
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Actuated Green, G (s)	20.0		30.0			30.0
Effective Green, g (s)	20.0		30.0			30.0
Actuated g/C Ratio	0.31		0.47			0.47
Clearance Time (s)	7.0		7.0			7.0
Lane Grp Cap (vph)	589		1593			991
v/s Ratio Prot	c0.10		0.19			
v/s Ratio Perm						c0.29
v/c Ratio	0.30		0.41			0.61
Uniform Delay, d1	16.7		11.2			12.6
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	1.3		0.8			2.8
Delay (s)	18.1		12.0			15.4
Level of Service	B		B			B
Approach Delay (s)	18.1		12.0			15.4
Approach LOS	B		B			B

Intersection Summary

HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
140: Mill Street & Pleasant St

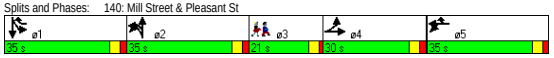
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	250	185	345	195	230	25	130	430	100	80	310	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	16	11	12	10	16	10	12	14	16	14	16	
Storage Length (ft)	0		0		0		100		0	0		0	
Storage Lanes	1		1		1		1		0	0		0	
Taper Length (ft)	25		25		25		25		25	25		25	
Right Turn on Red					No				Yes				
Link Speed (mph)		30		30				30			30		
Link Distance (ft)		168		308				709			499		
Travel Time (s)		3.8		7.0				16.1			11.3		
Peak Hour Factor	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83	
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	260	193	371	210	247	0	178	609	0	0	529	0	
Turn Type	Split		Split		pt+ov	Split	Split			Split			
Protected Phases	4	4	5	5	1 5	2	2	2		1	1		3
Permitted Phases													
Detector Phase	4	4	5	5	1 5	2	2	2		1	1		
Switch Phase													
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0		10.0
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	12.0		21.0
Total Split (s)	30.0	30.0	35.0	35.0	70.0	35.0	35.0	35.0	0.0	35.0	35.0	0.0	21.0
Total Split (%)	19.2%	19.2%	22.4%	22.4%	44.9%	22.4%	22.4%	22.4%	0.0%	22.4%	22.4%	0.0%	13%
Maximum Green (s)	25.0	25.0	30.0	30.0		30.0	30.0	30.0		30.0	30.0		17.0
Yellow Time (s)	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag				Lag	Lag	Lag		Lead	Lead		Lead
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0		0.2
Recall Mode	Max	Max	Max	Max		Max	Max	Max		Max	Max		None
Walk Time (s)													10.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.76	0.49	0.99	0.50	0.35		0.50	0.79			0.64		
Control Delay	67.4	54.1	97.5	50.9	23.6		51.4	56.7			51.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0		
Total Delay	67.4	54.1	97.5	50.9	23.6		51.4	56.7			51.6		
Queue Length 50th (ft)	219	153	328	163	132		138	261			223		
Queue Length 95th (ft)	#339	233	#538	246	199		206	318			259		
Internal Link Dist (ft)		88		228				629			419		
Turn Bay Length (ft)							100						
Base Capacity (vph)	342	395	373	418	704		359	770			831		
Starvation Cap Reductn	0	0	0	0	0		0	0			0		
Spillback Cap Reductn	0	0	0	0	0		0	0			0		
Storage Cap Reductn	0	0	0	0	0		0	0			0		
Reduced v/c Ratio	0.76	0.49	0.99	0.50	0.35		0.50	0.79			0.64		

Intersection Summary

Area Type: Other
Cycle Length: 156
Actuated Cycle Length: 135
Natural Cycle: 120
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 140: Mill Street & Pleasant St



HCM Signalized Intersection Capacity Analysis
140: Mill Street & Pleasant St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	185	345	195	230	25	130	430	100	80	310	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	11	12	10	16	10	12	14	16	14	16
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	
Frt	1.00	1.00	1.00	1.00	0.85		1.00	0.97			0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1847	2132	1678	1881	1463		1617	3406			3738	
Flt Permitted	0.95	1.00	0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1847	2132	1678	1881	1463		1617	3406			3738	
Peak-hour factor, PHF	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83
Adj. Flow (vph)	260	193	371	210	247	29	149	494	115	96	373	60
RTOR Reduction (vph)	0	0	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	260	193	371	210	247	0	178	597	0	0	529	0
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%
Turn Type	Split		Split		pt+ov	Split	Split			Split		
Protected Phases	4	4	5	5	1 5	2	2	2		1	1	
Permitted Phases												
Actuated Green, G (s)	25.0	25.0	30.0	30.0	65.0		30.0	30.0			30.0	
Effective Green, g (s)	25.0	25.0	30.0	30.0	65.0		30.0	30.0			30.0	
Actuated g/C Ratio	0.19	0.19	0.22	0.22	0.48		0.22	0.22			0.22	
Clearance Time (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Vehicle Extension (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Lane Grp Cap (vph)	342	395	373	418	704		359	757			831	
v/s Ratio Prot	c0.14	0.09	c0.22	0.11	0.17		0.11	c0.18			c0.14	
v/s Ratio Perm												
v/c Ratio	0.76	0.49	0.99	0.50	0.35		0.50	0.79			0.64	
Uniform Delay, d1	52.2	49.3	52.4	46.0	21.8		45.9	49.5			47.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	14.7	4.3	45.3	4.3	1.4		4.8	8.1			3.7	
Delay (s)	66.8	53.5	97.7	50.2	23.2		50.7	57.6			51.3	
Level of Service	E	D	F	D	C		D	E			D	
Approach Delay (s)		61.2		63.4				56.1			51.3	
Approach LOS		E		E				E			D	

Intersection Summary

HCM Average Control Delay	58.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
174: Union Street & Route 18

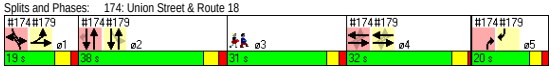
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	325	30	60	65	35	15	85	940	20	35	1105	140	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	16	16	16	16	16	11	11	11	10	11	11	
Storage Length (ft)	0		0	0		0	150		225	150		225	
Storage Lanes	0		0	0		0	1		1	1		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		432			82			365			2491		
Travel Time (s)		9.8			1.9			8.3			56.6		
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99	
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	446	0	0	135	0	93	1033	22	35	1116	141	
Turn Type	Perm			Perm			Prot		custom	Prot		Perm	
Protected Phases		4			4		1	2	5	1	2		3
Permitted Phases	4			4								2	
Detector Phase	4	4		4	4		1	2	5	1	2	2	
Switch Phase													
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	7.0	4.0	4.0	7.0	7.0	17.0
Minimum Split (s)	12.0	12.0		12.0	12.0		10.0	13.0	9.0	10.0	13.0	13.0	31.0
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	19.0	38.0	20.0	19.0	38.0	38.0	31.0
Total Split (%)	22.9%	22.9%	0.0%	22.9%	22.9%	0.0%	13.6%	27.1%	14.3%	13.6%	27.1%	27.1%	22%
Maximum Green (s)	27.0	27.0		27.0	27.0		13.0	32.0	15.0	13.0	32.0	32.0	26.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	6.0	6.0	5.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lag		Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0	0.2
Recall Mode	None	None		None	None		None	None	None	None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													0
v/c Ratio		1.22			0.31		0.51	1.02	0.11	0.23	1.10	0.27	
Control Delay		156.0			66.4		55.0	70.0	42.6	47.5	94.9	15.0	
Queue Delay		0.0			0.0		0.0	85.6	0.2	0.0	0.0	0.0	
Total Delay		156.0			66.4		55.0	155.7	42.9	47.5	94.9	15.0	
Queue Length 50th (ft)		~385			90		61	~406	14	22	~470	31	
Queue Length 95th (ft)		#589			153		115	#545	37	54	#611	82	
Internal Link Dist (ft)		352			2			285			2411		
Turn Bay Length (ft)							150		225	150		225	
Base Capacity (vph)		366			433		213	1016	222	177	1016	524	
Starvation Cap Reductn		0			0		0	174	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	59	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	0	
Reduced v/c Ratio		1.22			0.31		0.44	1.23	0.13	0.20	1.10	0.27	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 105.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 174: Union Street & Route 18



HCM Signalized Intersection Capacity Analysis
174: Union Street & Route 18

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	30	60	65	35	15	85	940	20	35	1105	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.98			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.96			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		2011			2034		1728	3355	1561	1440	3355	1546
Flt Permitted		0.69			0.81		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1433			1694		1728	3355	1561	1440	3355	1546
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99
Adj. Flow (vph)	349	32	65	76	41	18	93	1033	22	35	1116	141
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	56
Lane Group Flow (vph)	0	446	0	0	135	0	93	1033	22	35	1116	85
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)		27.0			27.0		11.3	32.0	13.4	11.3	32.0	32.0
Effective Green, g (s)		27.0			27.0		11.3	32.0	13.4	11.3	32.0	32.0
Actuated g/C Ratio		0.26			0.26		0.11	0.30	0.13	0.11	0.30	0.30
Clearance Time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)		5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		366			433		185	1016	198	154	1016	468
v/s Ratio Prot							c0.05	0.31	c0.01	0.02	c0.33	
v/s Ratio Perm		c0.31			0.08							0.06
v/c Ratio		1.22			0.31		0.50	1.02	0.11	0.23	1.10	0.18
Uniform Delay, d1		39.3			31.8		44.5	36.8	40.9	43.2	36.8	27.2
Progression Factor		1.00			1.94		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		120.7			0.8		2.9	32.5	0.3	1.0	59.1	0.3
Delay (s)		160.1			62.6		47.5	69.3	41.2	44.2	96.0	27.4
Level of Service		F			E		D	E	D	D	F	C
Approach Delay (s)		160.1			62.6			67.0			87.1	
Approach LOS		F			E			E			F	

Intersection Summary

HCM Average Control Delay	89.1	HCM Level of Service	F
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	105.7	Sum of lost time (s)	22.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

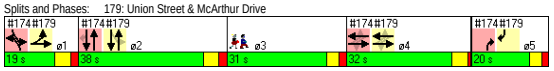
Lanes, Volumes, Timings
179: Union Street & McArthur Drive

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	45	5	35	0	15	5	0	190	5	5	235	100	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	16	16	16	15	16	16	16	16	16	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		82			609			920			687		
Travel Time (s)		1.9			13.8			20.9			15.6		
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83	
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	95	0	0	27	0	0	282	0	0	289	120	
Turn Type	pm+pt			Perm						Perm		custom	
Protected Phases	1	1 4			4			2			2	5	3
Permitted Phases	1 4			4						2			
Detector Phase	1	1 4		4	4			2		2	2	5	
Switch Phase													
Minimum Initial (s)	4.0			7.0	7.0			7.0		7.0	7.0	4.0	17.0
Minimum Split (s)	10.0			12.0	12.0			13.0		13.0	13.0	9.0	31.0
Total Split (s)	19.0	51.0	0.0	32.0	32.0	0.0	0.0	38.0	0.0	38.0	38.0	20.0	31.0
Total Split (%)	13.6%	36.4%	0.0%	22.9%	22.9%	0.0%	0.0%	27.1%	0.0%	27.1%	27.1%	14.3%	22%
Maximum Green (s)	13.0			27.0	27.0			32.0		32.0	32.0	15.0	26.0
Yellow Time (s)	4.0			4.0	4.0			4.0		4.0	4.0	3.0	3.0
All-Red Time (s)	2.0			1.0	1.0			2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	5.0	
Lead/Lag	Lead			Lag	Lag			Lag		Lag	Lag		Lead
Lead-Lag Optimize?	Yes			Yes	Yes			Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0			5.0	5.0			4.0		4.0	4.0	4.0	0.2
Recall Mode	None			None	None			None		None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.16			0.06			0.46			0.54	0.59	
Control Delay		6.5			25.6			33.4			35.8	56.6	
Queue Delay		0.0			0.0			0.0			0.0	672.4	
Total Delay		6.5			25.6			33.4			35.8	729.0	
Queue Length 50th (ft)		19			11			158			168	78	
Queue Length 95th (ft)		m29			27			176			233	129	
Internal Link Dist (ft)		2			529			840			607		
Turn Bay Length (ft)												50	
Base Capacity (vph)		626			489			612			539	227	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			8			0			0	187	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.15			0.06			0.46			0.54	3.00	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 105.8	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 179: Union Street & McArthur Drive



HCM Signalized Intersection Capacity Analysis
179: Union Street & McArthur Drive

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	5	35	0	15	5	0	190	5	5	235	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.94			0.96			1.00			1.00	0.85
Flt Protected		0.97			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1833			1894			2018			1793	1599
Flt Permitted		0.87			1.00			1.00			0.99	1.00
Satd. Flow (perm)		1628			1894			2018			1781	1599
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83
Adj. Flow (vph)	50	6	39	0	20	7	0	275	7	6	283	120
RTOR Reduction (vph)	0	0	0	0	5	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	95	0	0	22	0	0	281	0	0	289	120
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		38.3			27.0			32.0			32.0	13.4
Effective Green, g (s)		38.3			27.0			32.0			32.0	13.4
Actuated g/C Ratio		0.36			0.26			0.30			0.30	0.13
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		612			484			611			539	203
v/s Ratio Prot		c0.02			0.01			0.14				c0.08
v/s Ratio Perm		c0.04									c0.16	
v/c Ratio		0.16			0.05			0.46			0.54	0.59
Uniform Delay, d1		22.8			29.6			29.9			30.7	43.6
Progression Factor		0.46			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.1			0.1			0.8			1.3	5.3
Delay (s)		10.7			29.7			30.6			32.0	48.9
Level of Service		B			C			C			C	D
Approach Delay (s)		10.7			29.7			30.6			36.9	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	105.7	Sum of lost time (s)	23.0
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
14: Tarkiln Hill Road & Church St

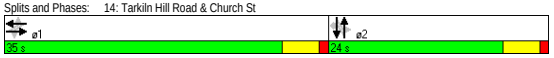
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	295	0	30	450	60	215	190	40	45	165	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	12	11	11	12	11	11	11	11	11	12
Storage Length (ft)	50		0	0		0	0		0	0		145
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			1116			176			552	
Travel Time (s)		6.9			25.4			4.0			12.5	
Peak Hour Factor	0.81	0.81	0.81	0.87	0.87	0.87	0.84	0.84	0.84	0.90	0.90	0.90
Heavy Vehicles (%)	5%	2%	0%	8%	2%	2%	1%	2%	0%	11%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	364	0	34	586	0	256	274	0	0	233	94
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Minimum Split (s)	35.0	35.0		35.0	35.0		12.0	12.0		12.0	12.0	12.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	24.0	24.0	0.0	24.0	24.0	24.0
Total Split (%)	59.3%	59.3%	0.0%	59.3%	59.3%	0.0%	40.7%	40.7%	0.0%	40.7%	40.7%	40.7%
Maximum Green (s)	30.0	30.0		30.0	30.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lead	Lead		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
v/c Ratio	0.28	0.40		0.08	0.65		0.75	0.48			0.47	0.18
Control Delay	11.8	10.6		8.1	15.0		35.0	19.6			19.9	15.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	11.8	10.6		8.1	15.0		35.0	19.6			19.9	15.6
Queue Length 50th (ft)	14	73		6	140		80	77			65	24
Queue Length 95th (ft)	34	109		17	223		#166	126			122	53
Internal Link Dist (ft)		225			1036			96			472	
Turn Bay Length (ft)	50											145
Base Capacity (vph)	266	916		434	899		341	567			493	520
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.28	0.40		0.08	0.65		0.75	0.48			0.47	0.18

Intersection Summary

Area Type: Other
Cycle Length: 59
Actuated Cycle Length: 59
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle: 60
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Tarkiln Hill Road & Church St



HCM Signalized Intersection Capacity Analysis
14: Tarkiln Hill Road & Church St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	295	0	30	450	60	215	190	40	45	165	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1604	1801		1616	1769		1728	1759			1722	1615
Flt Permitted	0.31	1.00		0.50	1.00		0.58	1.00			0.88	1.00
Satd. Flow (perm)	524	1801		853	1769		1060	1759			1531	1615
Peak-hour factor, PHF	0.81	0.81	0.81	0.87	0.87	0.87	0.84	0.84	0.84	0.90	0.90	0.90
Adj. Flow (vph)	74	364	0	34	517	69	256	226	48	50	183	94
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	364	0	34	586	0	256	274	0	0	233	94
Heavy Vehicles (%)	5%	2%	0%	8%	2%	2%	1%	2%	0%	11%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Effective Green, g (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.32	0.32			0.32	0.32
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	266	916		434	899		341	566			493	520
v/s Ratio Prot		0.20			c0.33			0.16				
v/s Ratio Perm	0.14			0.04			c0.24				0.15	0.06
v/c Ratio	0.28	0.40		0.08	0.65		0.75	0.48			0.47	0.18
Uniform Delay, d1	8.3	8.9		7.4	10.7		17.9	16.1			16.0	14.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	2.6	1.3		0.4	3.7		14.1	2.9			3.2	0.8
Delay (s)	10.9	10.2		7.8	14.3		32.0	19.0			19.2	15.2
Level of Service	B	B		A	B		C	B			B	B
Approach Delay (s)		10.3			14.0			25.3			18.1	
Approach LOS		B			B			C			B	

Intersection Summary

HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
19: Wood St & Rt 18

2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	25	75	10	55	115	40	10	280	60	60	355	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	14	16	16	14	16	11	11	16	11	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		197			310			393			488		
Travel Time (s)		4.5			7.0			8.9			11.1		
Peak Hour Factor	0.77	0.77	0.77	0.69	0.69	0.69	0.88	0.88	0.88	0.91	0.91	0.91	
Heavy Vehicles (%)	0%	8%	11%	4%	4%	3%	0%	4%	5%	0%	4%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	142	0	0	305	0	11	386	0	66	406	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	17.0	17.0		17.0	17.0		21.0	21.0		21.0	21.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	21.0
Total Split (%)	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	26%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		5.0
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													4.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.20			0.43		0.03	0.53		0.20	0.55		
Control Delay		11.6			14.1		10.9	16.0		13.1	16.7		
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0		
Total Delay		11.6			14.1		10.9	16.0		13.1	16.7		
Queue Length 50th (ft)		30			71		2	96		15	105		
Queue Length 95th (ft)		51			89		10	162		38	181		
Internal Link Dist (ft)		117			230			313			408		
Turn Bay Length (ft)													
Base Capacity (vph)		703			711		318	724		334	734		
Starvation Cap Reductn		0			0		0	0		0	0		
Spillback Cap Reductn		0			0		0	0		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		0.20			0.43		0.03	0.53		0.20	0.55		

Intersection Summary	
Area Type:	Other
Cycle Length: 81	
Actuated Cycle Length: 60	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	

Splits and Phases: 19: Wood St & Rt 18

HCM Signalized Intersection Capacity Analysis
19: Wood St & Rt 18

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	75	10	55	115	40	10	280	60	60	355	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	14	16	16	14	16	11	11	16	11	11	16
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1859			1878		1745	1716		1745	1758	
Flt Permitted		0.89			0.89		0.41	1.00		0.44	1.00	
Satd. Flow (perm)		1679			1684		762	1716		801	1758	
Peak-hour factor, PHF	0.77	0.77	0.77	0.69	0.69	0.69	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	32	97	13	80	167	58	11	318	68	66	390	16
RTOR Reduction (vph)	0	4	0	0	9	0	0	8	0	0	2	0
Lane Group Flow (vph)	0	139	0	0	296	0	11	378	0	66	404	0
Heavy Vehicles (%)	0%	8%	11%	4%	4%	3%	0%	4%	5%	0%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.0			25.0		25.0	25.0		25.0	25.0	
Effective Green, g (s)		25.0			25.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio		0.42			0.42		0.42	0.42		0.42	0.42	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		700			702		318	715		334	733	
v/s Ratio Prot								0.22			c0.23	
v/s Ratio Perm		0.08			c0.18		0.01			0.08		
v/c Ratio		0.20			0.42		0.03	0.53		0.20	0.55	
Uniform Delay, d1		11.1			12.4		10.4	13.1		11.1	13.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6			1.9		0.2	2.8		1.3	3.0	
Delay (s)		11.8			14.2		10.6	15.9		12.4	16.2	
Level of Service		B			B		B	B		B	B	
Approach Delay (s)		11.8			14.2			15.7			15.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
24: Nash Road & Church Street

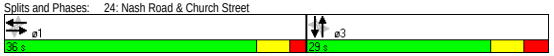
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	230	25	40	245	40	60	95	25	35	155	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	16	14	16	16	16	16
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1761			1229			1754			2421	
Travel Time (s)		40.0			27.9			39.9			55.0	
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.83	0.83	0.83	0.91	0.91	0.91
Heavy Vehicles (%)	15%	6%	12%	7%	2%	0%	2%	2%	8%	8%	10%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	387	0	0	339	0	0	216	0	0	362	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Minimum Split (s)	36.0	36.0		36.0	36.0		29.0	29.0		29.0	29.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	55.4%	55.4%	0.0%	55.4%	55.4%	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.52			0.39			0.44			0.60	
Control Delay		15.4			13.1			20.4			22.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.4			13.1			20.4			22.9	
Queue Length 50th (ft)		103			83			65			117	
Queue Length 95th (ft)		172			140			110			197	
Internal Link Dist (ft)		1681			1149			1674			2341	
Turn Bay Length (ft)												
Base Capacity (vph)		751			875			486			602	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.52			0.39			0.44			0.60	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 18 (28%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 65
Control Type: Pretimed

Splits and Phases: 24: Nash Road & Church Street



HCM Signalized Intersection Capacity Analysis
24: Nash Road & Church Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	230	25	40	245	40	60	95	25	35	155	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	16	14	16	16	16	16
Total Lost time (s)		6.0			6.0			7.0			7.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.98			0.94	
Flt Protected		0.99			0.99			0.98			0.99	
Satd. Flow (prot)		1935			2056			1902			1875	
Flt Permitted		0.83			0.92			0.74			0.94	
Satd. Flow (perm)		1628			1898			1436			1777	
Peak-hour factor, PHF	0.89	0.89	0.89	0.96	0.96	0.96	0.83	0.83	0.83	0.91	0.91	0.91
Adj. Flow (vph)	101	258	28	42	255	42	72	114	30	38	170	154
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	387	0	0	339	0	0	216	0	0	362	0
Heavy Vehicles (%)	15%	6%	12%	7%	2%	0%	2%	2%	8%	8%	10%	5%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)		30.0			30.0			22.0			22.0	
Effective Green, g (s)		30.0			30.0			22.0			22.0	
Actuated g/C Ratio		0.46			0.46			0.34			0.34	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Lane Grp Cap (vph)		751			876			486			601	
v/s Ratio Prot												
v/s Ratio Perm		c0.24			0.18			0.15			c0.20	
v/c Ratio		0.52			0.39			0.44			0.60	
Uniform Delay, d1		12.4			11.5			16.7			17.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.5			1.3			2.9			4.4	
Delay (s)		14.9			12.8			19.7			22.3	
Level of Service		B			B			B			C	
Approach Delay (s)		14.9			12.8			19.7			22.3	
Approach LOS		B			B			B			C	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
28: Coggeshall Street & Ashley Blvd. (Rt 18 SB)

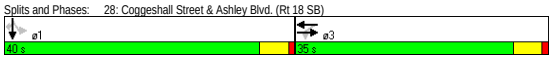
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	190	90	185	195	0	0	0	0	115	665	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	12	12	12	12	12	10	10
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		686			474			1008			501	
Travel Time (s)		15.6			10.8			22.9			11.4	
Peak Hour Factor	0.78	0.78	0.78	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	5%	2%	2%	8%	0%	0%	0%	0%	7%	3%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	359	0	0	442	0	0	0	0	0	887	45
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Minimum Split (s)		35.0		35.0	35.0					40.0	40.0	40.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	40.0	40.0	40.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)		30.0		30.0	30.0					35.0	35.0	35.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.50			1.04						0.59	0.06
Control Delay		17.8			80.4						16.7	4.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		17.8			80.4						16.7	4.0
Queue Length 50th (ft)		107			~227						152	0
Queue Length 95th (ft)		148			#370						201	15
Internal Link Dist (ft)		606			394			928			421	
Turn Bay Length (ft)												130
Base Capacity (vph)		722			425						1507	694
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.50			1.04						0.59	0.06

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 28: Coggeshall Street & Ashley Blvd. (Rt 18 SB)



HCM Signalized Intersection Capacity Analysis
28: Coggeshall Street & Ashley Blvd. (Rt 18 SB)

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	190	90	185	195	0	0	0	0	115	665	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	15	12	12	12	12	12	10	10
Total Lost time (s)		5.0			5.0						5.0	5.0
Lane Util. Factor		1.00			1.00						0.95	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.99	1.00
Satd. Flow (prot)		1747			1942						3229	1436
Flt Permitted		1.00			0.53						0.99	1.00
Satd. Flow (perm)		1747			1062						3229	1436
Peak-hour factor, PHF	0.78	0.78	0.78	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	244	115	215	227	0	0	0	0	131	756	45
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	0	0	0	24
Lane Group Flow (vph)	0	336	0	0	442	0	0	0	0	0	887	21
Heavy Vehicles (%)	0%	5%	2%	2%	8%	0%	0%	0%	0%	7%	3%	5%
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Actuated Green, G (s)		30.0			30.0						35.0	35.0
Effective Green, g (s)		30.0			30.0						35.0	35.0
Actuated g/C Ratio		0.40			0.40						0.47	0.47
Clearance Time (s)		5.0			5.0						5.0	5.0
Lane Grp Cap (vph)		699			425						1507	670
v/s Ratio Prot		0.19										
v/s Ratio Perm					c0.42						0.27	0.01
v/c Ratio		0.48			1.04						0.59	0.03
Uniform Delay, d1		16.7			22.5						14.7	10.8
Progression Factor		1.00			1.00						1.00	1.00
Incremental Delay, d2		2.4			54.4						1.7	0.1
Delay (s)		19.1			76.9						16.4	10.9
Level of Service		B			E						B	B
Approach Delay (s)		19.1			76.9			0.0			16.1	
Approach LOS		B			E			A			B	

Intersection Summary

HCM Average Control Delay	32.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
31: Coggeshall Street & Acushnet Ave (Rt 18 NB)

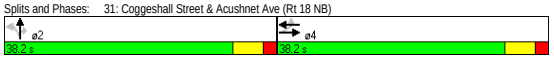
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	260	0	0	300	50	80	285	220	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	15	12	12	11	11	12	12	12
Storage Length (ft)	0		0	0		0	0		160	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		474			546			1002			363	
Travel Time (s)		10.8			12.4			22.8			8.3	
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.92	0.92	0.92
Heavy Vehicles (%)	7%	7%	0%	0%	4%	4%	12%	10%	4%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	0	0	407	0	95	339	262	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Minimum Split (s)	38.2	38.2			38.2		38.2	38.2	38.2			
Total Split (s)	38.2	38.2	0.0	0.0	38.2	0.0	38.2	38.2	38.2	0.0	0.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		32.0	32.0	32.0			
Yellow Time (s)	4.2	4.2			4.2		4.2	4.2	4.2			
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.0	4.0	6.2	4.0	6.2	6.2	6.2	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.44			0.49		0.14	0.48	0.34			
Control Delay		18.2			18.1		14.5	19.1	3.3			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		18.2			18.1		14.5	19.1	3.3			
Queue Length 50th (ft)		105			132		27	114	0			
Queue Length 95th (ft)		172			196		51	169	32			
Internal Link Dist (ft)		394			466			922			283	
Turn Bay Length (ft)									160			
Base Capacity (vph)		731			833		675	699	781			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.44			0.49		0.14	0.48	0.34			

Intersection Summary

Area Type: Other
Cycle Length: 76.4
Actuated Cycle Length: 76.4
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed

Splits and Phases: 31: Coggeshall Street & Acushnet Ave (Rt 18 NB)



HCM Signalized Intersection Capacity Analysis
31: Coggeshall Street & Acushnet Ave (Rt 18 NB)

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	260	0	0	300	50	80	285	220	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	15	12	12	11	11	12	12	12
Total Lost time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00			
Frt		1.00			0.98		1.00	1.00	0.85			
Flt Protected		0.99			1.00		0.95	1.00	1.00			
Satd. Flow (prot)		1939			1971		1612	1670	1501			
Flt Permitted		0.89			1.00		0.95	1.00	1.00			
Satd. Flow (perm)		1745			1971		1612	1670	1501			
Peak-hour factor, PHF	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	47	274	0	0	349	58	95	339	262	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	152	0	0	0
Lane Group Flow (vph)	0	321	0	0	399	0	95	339	110	0	0	0
Heavy Vehicles (%)	7%	7%	0%	0%	4%	4%	12%	10%	4%	0%	0%	0%
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		32.0			32.0		32.0	32.0	32.0			
Effective Green, g (s)		32.0			32.0		32.0	32.0	32.0			
Actuated g/C Ratio		0.42			0.42		0.42	0.42	0.42			
Clearance Time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Grp Cap (vph)		731			826		675	699	629			
v/s Ratio Prot					c0.20			c0.20				
v/s Ratio Perm		0.18					0.06		0.07			
v/c Ratio		0.44			0.48		0.14	0.48	0.17			
Uniform Delay, d1		15.8			16.2		13.7	16.2	13.9			
Progression Factor		1.00			1.00		1.00	1.00	1.00			
Incremental Delay, d2		1.9			2.0		0.4	2.4	0.6			
Delay (s)		17.7			18.2		14.1	18.6	14.5			
Level of Service		B			B		B	B	B			
Approach Delay (s)		17.7			18.2			16.5			0.0	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

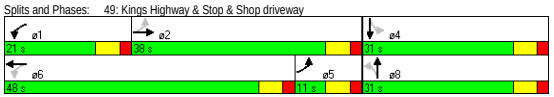
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	445	40	100	575	35	25	5	60	45	10	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			185			360			359	
Travel Time (s)		11.7			4.2			8.2			8.2	
Peak Hour Factor	0.81	0.81	0.81	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	3%	1%	4%	0%	12%	29%	2%	0%	13%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	691	0	0	789	0	0	101	0	0	159	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	13.0		11.0	13.0		13.0	13.0		19.0	19.0	
Total Split (s)	11.0	38.0	0.0	21.0	48.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	12.2%	42.2%	0.0%	23.3%	53.3%	0.0%	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%
Maximum Green (s)	5.0	32.0		15.0	42.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)										5.0	5.0	
Flash Dont Walk (s)										8.0	8.0	
Pedestrian Calls (#/hr)										0	0	
v/c Ratio		0.50			0.56			0.20			0.29	
Control Delay		7.6			8.2			9.2			10.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.6			8.2			9.2			10.5	
Queue Length 50th (ft)		44			52			3			6	
Queue Length 95th (ft)		67			94			21			22	
Internal Link Dist (ft)		435			105			280			279	
Turn Bay Length (ft)												
Base Capacity (vph)		1992			2508			1561			1656	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.31			0.06			0.10	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 42.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 49: Kings Highway & Stop & Shop driveway



HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	445	40	100	575	35	25	5	60	45	10	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.99			0.99			0.90			0.92	
Flt Protected		0.99			0.99			0.99			0.98	
Satd. Flow (prot)		3354			3442			3014			3227	
Flt Permitted		0.76			0.76			0.83			0.82	
Satd. Flow (perm)		2574			2647			2540			2685	
Peak-hour factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72
Adj. Flow (vph)	93	549	49	111	639	39	28	6	67	62	14	83
RTOR Reduction (vph)	0	5	0	0	4	0	0	55	0	0	68	0
Lane Group Flow (vph)	0	686	0	0	785	0	0	46	0	0	91	0
Heavy Vehicles (%)	6%	6%	3%	1%	4%	0%	12%	29%	2%	0%	13%	0%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		22.5			22.5			7.5			7.5	
Effective Green, g (s)		22.5			22.5			7.5			7.5	
Actuated g/C Ratio		0.54			0.54			0.18			0.18	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1379			1418			454			479	
v/s Ratio Prot												
v/s Ratio Perm		0.27			c0.30			0.02			c0.03	
v/c Ratio		0.50			0.55			0.10			0.19	
Uniform Delay, d1		6.2			6.4			14.4			14.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.3			0.0			0.1	
Delay (s)		6.3			6.7			14.5			14.7	
Level of Service		A			A			B			B	
Approach Delay (s)		6.3			6.7			14.5			14.7	
Approach LOS		A			A			B			B	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	42.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
91: Rt 140 NB Ramps & Kings Highway

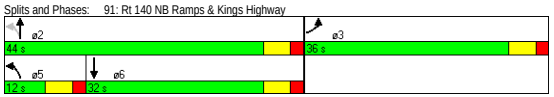
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	305	95	85	255	615	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	12	12	16
Storage Length (ft)	0	100	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				No
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			574	515	
Travel Time (s)	6.1			13.0	11.7	
Peak Hour Factor	0.83	0.83	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	3%	4%	7%	5%	5%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	481	0	0	400	777	0
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Detector Phase	3		5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	
Minimum Split (s)	13.0		11.0	13.0	13.0	
Total Split (s)	36.0	0.0	12.0	44.0	32.0	0.0
Total Split (%)	45.0%	0.0%	15.0%	55.0%	40.0%	0.0%
Maximum Green (s)	30.0		6.0	38.0	26.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	Min	Min	
v/c Ratio	0.66			0.51	0.62	
Control Delay	18.3			15.5	15.6	
Queue Delay	0.0			0.0	0.0	
Total Delay	18.3			15.5	15.6	
Queue Length 50th (ft)	104			43	87	
Queue Length 95th (ft)	203			91	161	
Internal Link Dist (ft)	188			494	435	
Turn Bay Length (ft)						
Base Capacity (vph)	1263			1689	1923	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.38			0.24	0.40	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 48.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 91: Rt 140 NB Ramps & Kings Highway



HCM Signalized Intersection Capacity Analysis
91: Rt 140 NB Ramps & Kings Highway

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	305	95	85	255	615	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.99	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1945			3380	3414	
Flt Permitted	0.96			0.62	1.00	
Satd. Flow (perm)	1945			2116	3414	
Peak-hour factor, PHF	0.83	0.83	0.85	0.85	0.85	0.85
Adj. Flow (vph)	367	114	100	300	724	53
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	481	0	0	400	777	0
Heavy Vehicles (%)	3%	4%	7%	5%	5%	0%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	18.2			17.9	17.9	
Effective Green, g (s)	18.2			17.9	17.9	
Actuated g/C Ratio	0.38			0.37	0.37	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	736			787	1270	
v/s Ratio Prot	c0.25				c0.23	
v/s Ratio Perm				0.19		
v/c Ratio	0.65			0.51	0.61	
Uniform Delay, d1	12.3			11.7	12.3	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	2.1			0.5	0.9	
Delay (s)	14.4			12.2	13.2	
Level of Service	B			B	B	
Approach Delay (s)	14.4			12.2	13.2	
Approach LOS	B			B	B	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	48.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

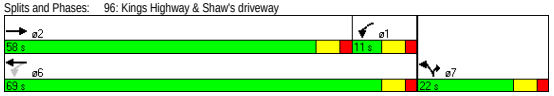
2008 Existing Condition - AM Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	300	100	85	625	85	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	525			574	347	
Travel Time (s)	11.9			13.0	7.9	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.85	0.85
Heavy Vehicles (%)	6%	2%	5%	4%	7%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	431	0	0	771	100	47
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Detector Phase	2		1	6	7	7
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	7.0
Minimum Split (s)	13.0		11.0	13.0	13.0	13.0
Total Split (s)	58.0	0.0	11.0	69.0	22.0	22.0
Total Split (%)	63.7%	0.0%	12.1%	75.8%	24.2%	24.2%
Maximum Green (s)	52.0		5.0	63.0	16.0	16.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	Min		None	Min	None	None
v/c Ratio	0.21			0.44	0.29	0.13
Control Delay	4.7			7.2	15.8	6.3
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	4.7			7.2	15.8	6.3
Queue Length 50th (ft)	18			50	17	0
Queue Length 95th (ft)	38			91	45	16
Internal Link Dist (ft)	445			494	267	
Turn Bay Length (ft)						
Base Capacity (vph)	3308			2930	751	711
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.13			0.26	0.13	0.07

Intersection Summary

Area Type: Other
Cycle Length: 91
Actuated Cycle Length: 36.8
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 96: Kings Highway & Shaw's driveway



HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

2008 Existing Condition - AM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	300	100	85	625	85	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3309			3447	1687	1538
Flt Permitted	1.00			0.84	0.95	1.00
Satd. Flow (perm)	3309			2929	1687	1538
Peak-hour factor, PHF	0.93	0.93	0.92	0.92	0.85	0.85
Adj. Flow (vph)	323	108	92	679	100	47
RTOR Reduction (vph)	39	0	0	0	0	40
Lane Group Flow (vph)	392	0	0	771	100	7
Heavy Vehicles (%)	6%	2%	5%	4%	7%	5%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	20.4			20.4	5.7	5.7
Effective Green, g (s)	20.4			20.4	5.7	5.7
Actuated g/C Ratio	0.54			0.54	0.15	0.15
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	1772			1568	252	230
v/s Ratio Prot	0.12				c0.06	0.00
v/s Ratio Perm				c0.26		
v/c Ratio	0.22			0.49	0.40	0.03
Uniform Delay, d1	4.7			5.6	14.6	13.8
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.0			0.1	0.4	0.0
Delay (s)	4.7			5.7	15.0	13.9
Level of Service	A			A	B	B
Approach Delay (s)	4.7			5.7	14.6	
Approach LOS	A			A	B	

Intersection Summary

HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	38.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
104: Coggeshall Street & Belville Avenue

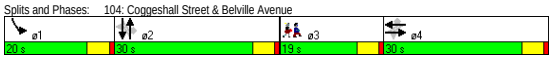
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	85	250	85	65	210	130	35	125	160	215	205	180	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	11	16	16	10	10	16	12	14	16	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		443			1111			850			178		
Travel Time (s)		10.1			25.3			19.3			4.0		
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82	0.84	0.84	0.84	
Heavy Vehicles (%)	1%	6%	5%	1%	6%	6%	3%	6%	11%	4%	4%	2%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	466	0	0	302	143	0	195	195	0	714	0	
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt			
Protected Phases		4			4			2		1	2		3
Permitted Phases	4			4		4	2		2	2			
Detector Phase	4	4		4	4	4	2	2	2	1	2		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		6.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0		19.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	30.0	30.0	30.0	30.0	20.0	30.0	0.0	19.0
Total Split (%)	30.3%	30.3%	0.0%	30.3%	30.3%	30.3%	30.3%	30.3%	30.3%	20.2%	30.3%	0.0%	19%
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	15.0	25.0		14.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		3.0
Recall Mode	Max	Max		Max	Max	Max	None	None	None	None	None		None
Walk Time (s)													6.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.40			0.51	0.20		0.35	0.27		0.69		
Control Delay		12.2			16.3	3.3		14.2	3.2		16.9		
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0		
Total Delay		12.2			16.3	3.3		14.2	3.2		16.9		
Queue Length 50th (ft)		55			78	0		46	0		91		
Queue Length 95th (ft)		88			144	27		79	24		129		
Internal Link Dist (ft)		363			1031			770			98		
Turn Bay Length (ft)													
Base Capacity (vph)		1172			597	698		615	783		1129		
Starvation Cap Reductn		0			0	0		0	0		0		
Spillback Cap Reductn		0			0	0		0	0		0		
Storage Cap Reductn		0			0	0		0	0		0		
Reduced v/c Ratio		0.40			0.51	0.20		0.32	0.25		0.63		

Intersection Summary

Area Type: Other
Cycle Length: 99
Actuated Cycle Length: 57.8
Natural Cycle: 80
Control Type: Semi Act-Uncoord

Splits and Phases: 104: Coggeshall Street & Belville Avenue



HCM Signalized Intersection Capacity Analysis
104: Coggeshall Street & Belville Avenue

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	250	85	65	210	130	35	125	160	215	205	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	11	16	16	10	10	16	12	14	16	11	16
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		0.95	
Frt		0.97			1.00	0.85		1.00	0.85		0.96	
Flt Protected		0.99			0.99	1.00		0.99	1.00		0.98	
Satd. Flow (prot)		3197			1672	1422		1784	1552		3166	
Flt Permitted		0.82			0.81	1.00		0.79	1.00		0.77	
Satd. Flow (perm)		2660			1377	1422		1418	1552		2497	
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82	0.84	0.84	0.84
Adj. Flow (vph)	94	278	94	71	231	143	43	152	195	256	244	214
RTOR Reduction (vph)	0	17	0	0	0	81	0	0	118	0	49	0
Lane Group Flow (vph)	0	449	0	0	302	62	0	195	77	0	665	0
Heavy Vehicles (%)	1%	6%	5%	1%	6%	6%	3%	6%	11%	4%	4%	2%
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)		25.1			25.1	25.1		22.7	22.7		22.7	
Effective Green, g (s)		25.1			25.1	25.1		22.7	22.7		22.7	
Actuated g/C Ratio		0.43			0.43	0.43		0.39	0.39		0.39	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Grp Cap (vph)		1155			598	618		557	610		981	
v/s Ratio Prot												
v/s Ratio Perm		0.17			c0.22	0.04		0.14	0.05		c0.27	
v/c Ratio		0.39			0.51	0.10		0.35	0.13		0.68	
Uniform Delay, d1		11.1			11.8	9.7		12.4	11.2		14.5	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		1.0			3.0	0.3		0.5	0.1		2.0	
Delay (s)		12.1			14.9	10.0		12.9	11.3		16.6	
Level of Service		B			B	A		B	B		B	
Approach Delay (s)		12.1			13.3			12.1			16.6	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	57.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
137: Hillman St & Pleasant Street

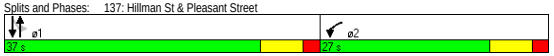
2008 Existing Condition - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	50	40	175	400	125	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	16	16	14
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	693		149			313
Travel Time (s)	15.8		3.4			7.1
Peak Hour Factor	0.84	0.84	0.86	0.86	0.90	0.90
Heavy Vehicles (%)	8%	18%	7%	5%	8%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	668	0	0	550
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Minimum Split (s)	27.0		37.0		37.0	37.0
Total Split (s)	27.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	42.2%	0.0%	57.8%	0.0%	57.8%	57.8%
Maximum Green (s)	20.0		30.0		30.0	30.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	4.0	7.0	4.0	7.0	7.0
Lead/Lag	Lag		Lead		Lead	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes
v/c Ratio	0.19		0.38			0.49
Control Delay	10.9		3.9			13.6
Queue Delay	0.0		0.0			0.0
Total Delay	10.9		3.9			13.6
Queue Length 50th (ft)	16		22			73
Queue Length 95th (ft)	43		44			113
Internal Link Dist (ft)	613		69			233
Turn Bay Length (ft)						
Base Capacity (vph)	581		1778			1118
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.19		0.38			0.49

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 35 (55%), Referenced to phase 2:WBL and 6:, Start of Green
Natural Cycle: 65
Control Type: Pretimed

Splits and Phases: 137: Hillman St & Pleasant Street



HCM Signalized Intersection Capacity Analysis
137: Hillman St & Pleasant Street

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	50	40	175	400	125	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	14	16	16	14
Total Lost time (s)	7.0		7.0			7.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.94		0.90			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1751		3265			3596
Flt Permitted	0.97		1.00			0.65
Satd. Flow (perm)	1751		3265			2383
Peak-hour factor, PHF	0.84	0.84	0.86	0.86	0.90	0.90
Adj. Flow (vph)	60	48	203	465	139	411
RTOR Reduction (vph)	33	0	247	0	0	0
Lane Group Flow (vph)	75	0	421	0	0	550
Heavy Vehicles (%)	8%	18%	7%	5%	8%	5%
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Actuated Green, G (s)	20.0		30.0			30.0
Effective Green, g (s)	20.0		30.0			30.0
Actuated g/C Ratio	0.31		0.47			0.47
Clearance Time (s)	7.0		7.0			7.0
Lane Grp Cap (vph)	547		1530			1117
v/s Ratio Prot	c0.04		0.13			
v/s Ratio Perm						c0.23
v/c Ratio	0.14		0.28			0.49
Uniform Delay, d1	15.8		10.4			11.7
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.5		0.4			1.6
Delay (s)	16.3		10.8			13.3
Level of Service	B		B			B
Approach Delay (s)	16.3		10.8			13.3
Approach LOS	B		B			B

Intersection Summary

HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
140: Mill Street & Pleasant St

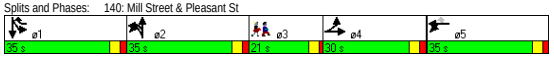
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations														
Volume (vph)	215	135	5	395	175	140	20	55	205	30	50	270	45	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	16	16	11	12	10	16	10	12	14	16	14	16	
Storage Length (ft)	0			0		0		100		0	0		0	
Storage Lanes	1			1		1		1		0	0		0	
Taper Length (ft)	25			25		25		25		25	25		25	
Right Turn on Red			Yes			No				Yes				
Link Speed (mph)		30			30				30			30		
Link Distance (ft)		168			308				709			499		
Travel Time (s)		3.8			7.0				16.1			11.3		
Peak Hour Factor	0.88	0.88	0.88	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.84	0.84	0.84	
Heavy Vehicles (%)	5%	1%	0%	3%	3%	4%	0%	9%	5%	3%	4%	0%	4%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	244	159	0	482	213	171	0	85	267	0	0	435	0	
Turn Type	Split			Split		pm+ov	Split	Split			Split			
Protected Phases	4	4		5	5	1	2	2	2		1	1		3
Permitted Phases						5								
Detector Phase	4	4		5	5	1	2	2	2		1	1		
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0		4.0
Minimum Split (s)	21.0	21.0		21.0	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0
Total Split (s)	30.0	30.0	0.0	35.0	35.0	35.0	35.0	35.0	35.0	0.0	35.0	35.0	0.0	21.0
Total Split (%)	19.2%	19.2%	0.0%	22.4%	22.4%	22.4%	22.4%	22.4%	22.4%	0.0%	22.4%	22.4%	0.0%	13%
Maximum Green (s)	25.0	25.0		30.0	30.0	30.0	30.0	30.0	30.0		30.0	30.0		17.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag				Lead	Lag	Lag	Lag		Lead	Lead		Lead
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		3.0
Recall Mode	Max	Max		Max	Max	Max	Max	Max	Max		Max	Max		None
Walk Time (s)														10.0
Flash Dont Walk (s)														7.0
Pedestrian Calls (#/hr)														0
v/c Ratio	0.74	0.40		1.28	0.52	0.24		0.24	0.35			0.53		
Control Delay	66.6	51.7		187.9	51.5	21.8		45.4	44.3			49.0		
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0			0.0		
Total Delay	66.6	51.7		187.9	51.5	21.8		45.4	44.3			49.0		
Queue Length 50th (ft)	204	123		~535	166	86		62	101			178		
Queue Length 95th (ft)	#298	189		#655	223	122		108	140			215		
Internal Link Dist (ft)		88			228				629			419		
Turn Bay Length (ft)								100						
Base Capacity (vph)	329	393		376	410	698		351	758			825		
Starvation Cap Reductn	0	0		0	0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0	0		0	0			0		
Storage Cap Reductn	0	0		0	0	0		0	0			0		
Reduced v/c Ratio	0.74	0.40		1.28	0.52	0.24		0.24	0.35			0.53		

Intersection Summary

Area Type: Other
Cycle Length: 156
Actuated Cycle Length: 135
Natural Cycle: 115
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 140: Mill Street & Pleasant St



HCM Signalized Intersection Capacity Analysis
140: Mill Street & Pleasant St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Volume (vph)	215	135	5	395	175	140	20	55	205	30	50	270	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	16	11	12	10	16	10	12	14	16	14	16
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	0.95			0.95	
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1776	2121		1694	1845	1449		1581	3381			3714	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1776	2121		1694	1845	1449		1581	3381			3714	
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	244	153	6	482	213	171	23	62	233	34	60	321	54
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	244	158	0	482	213	171	0	85	260	0	0	435	0
Heavy Vehicles (%)	5%	1%	0%	3%	3%	4%	0%	9%	5%	3%	4%	0%	4%
Turn Type	Split			Split		pm+ov	Split	Split			Split		
Protected Phases	4	4		5	5	1	2	2	2		1	1	
Permitted Phases						5							
Actuated Green, G (s)	25.0	25.0		30.0	30.0	60.0		30.0	30.0			30.0	
Effective Green, g (s)	25.0	25.0		30.0	30.0	60.0		30.0	30.0			30.0	
Actuated g/C Ratio	0.19	0.19		0.22	0.22	0.44		0.22	0.22			0.22	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0	
Lane Grp Cap (vph)	329	393		376	410	698		351	751			825	
v/s Ratio Prot	c0.14	0.07		c0.28	0.12	0.05		0.05	c0.08			c0.12	
v/s Ratio Perm						0.06							
v/c Ratio	0.74	0.40		1.28	0.52	0.24		0.24	0.35			0.53	
Uniform Delay, d1	51.9	48.4		52.5	46.2	23.4		43.2	44.2			46.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	14.0	3.1		145.8	4.6	0.8		1.6	1.3			2.4	
Delay (s)	66.0	51.5		198.3	50.8	24.2		44.8	45.5			48.7	
Level of Service	E	D		F	D	C		D	D			D	
Approach Delay (s)		60.2			127.6				45.3			48.7	
Approach LOS		E			F				D			D	

Intersection Summary

HCM Average Control Delay	83.6	HCM Level of Service	F
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
174: Union Street & Route 18

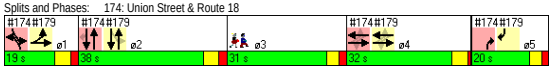
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	240	50	40	35	15	10	40	855	25	85	820	230	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	16	16	16	16	11	11	11	10	11	11	
Storage Length (ft)	0		0	0		0	150		225	150		225	
Storage Lanes	1		0	0		0	1		1	1		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		440			82			328			2491		
Travel Time (s)		10.0			1.9			7.5			56.6		
Peak Hour Factor	0.89	0.89	0.89	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	
Heavy Vehicles (%)	8%	6%	3%	6%	6%	10%	7%	7%	4%	7%	5%	3%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	270	101	0	0	73	0	45	972	28	92	891	250	
Turn Type	Perm			Perm			Prot		custom	Prot		Perm	
Protected Phases		4			4		1	2	5	1	2		3
Permitted Phases	4			4								2	
Detector Phase	4	4		4	4		1	2	5	1	2	2	
Switch Phase													
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	7.0	4.0	4.0	7.0	7.0	17.0
Minimum Split (s)	12.0	12.0		12.0	12.0		10.0	13.0	9.0	10.0	13.0	13.0	31.0
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	19.0	38.0	20.0	19.0	38.0	38.0	31.0
Total Split (%)	22.9%	22.9%	0.0%	22.9%	22.9%	0.0%	13.6%	27.1%	14.3%	13.6%	27.1%	27.1%	22%
Maximum Green (s)	27.0	27.0		27.0	27.0		13.0	32.0	15.0	13.0	32.0	32.0	26.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	6.0	6.0	5.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lag		Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0	3.0
Recall Mode	None	None		None	None		None	None	None	None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.79	0.23			0.17		0.24	0.93	0.18	0.51	0.84	0.41	
Control Delay	54.2	32.6			58.3		45.9	50.4	45.3	54.4	41.4	11.6	
Queue Delay	0.0	0.0			0.0		0.0	100.1	0.9	0.0	0.0	0.0	
Total Delay	54.2	32.6			58.3		45.9	150.5	46.2	54.4	41.4	11.6	
Queue Length 50th (ft)	170	53			43		27	334	17	58	294	35	
Queue Length 95th (ft)	#320	101			75		63	#481	44	114	#429	106	
Internal Link Dist (ft)		360			2			248			2411		
Turn Bay Length (ft)							150		225	150		225	
Base Capacity (vph)	342	443			432		213	1046	226	205	1066	607	
Starvation Cap Reductn	0	0			0		0	254	0	0	0	0	
Spillback Cap Reductn	0	0			0		0	0	99	1	0	0	
Storage Cap Reductn	0	0			0		0	0	0	0	0	0	
Reduced v/c Ratio	0.79	0.23			0.17		0.21	1.23	0.22	0.45	0.84	0.41	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 100.6
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 174: Union Street & Route 18



HCM Signalized Intersection Capacity Analysis
174: Union Street & Route 18

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	240	50	40	35	15	10	40	855	25	85	820	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.93			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1616	1638			1918		1631	3261	1501	1574	3323	1516
Flt Permitted	0.74	1.00			0.81		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1261	1638			1595		1631	3261	1501	1574	3323	1516
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	270	56	45	43	18	12	45	972	28	92	891	250
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	121
Lane Group Flow (vph)	270	101	0	0	73	0	45	972	28	92	891	129
Heavy Vehicles (%)	8%	6%	3%	6%	6%	10%	7%	7%	4%	7%	5%	3%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)	27.2	27.2			27.2		11.4	32.3	8.7	11.4	32.3	32.3
Effective Green, g (s)	27.2	27.2			27.2		11.4	32.3	8.7	11.4	32.3	32.3
Actuated g/C Ratio	0.27	0.27			0.27		0.11	0.32	0.09	0.11	0.32	0.32
Clearance Time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	338	439			427		183	1037	129	177	1056	482
v/s Ratio Prot		0.06					0.03	c0.30	c0.02	c0.06	0.27	
v/s Ratio Perm	c0.21				0.05							0.08
v/c Ratio	0.80	0.23			0.17		0.25	0.94	0.22	0.52	0.84	0.27
Uniform Delay, d1	34.7	29.0			28.5		41.2	33.7	43.3	42.5	32.3	25.8
Progression Factor	1.00	1.00			1.84		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.1	0.6			0.4		1.0	15.2	1.2	3.4	6.5	0.4
Delay (s)	48.7	29.6			52.9		42.1	48.9	44.4	45.9	38.8	26.2
Level of Service	D	C			D		D	D	D	D	D	C
Approach Delay (s)		43.5			52.9			48.5			36.8	
Approach LOS		D			D			D			D	

Intersection Summary

HCM Average Control Delay	42.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	101.6	Sum of lost time (s)	22.0
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

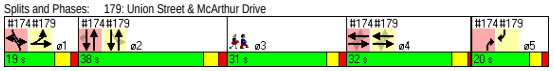
Lanes, Volumes, Timings
179: Union Street & McArthur Drive

2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	50	20	90	5	10	5	0	155	20	15	170	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	16	16	16	15	16	16	16	16	16	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		82			609			920			687		
Travel Time (s)		1.9			13.8			20.9			15.6		
Peak Hour Factor	0.78	0.78	0.78	0.57	0.57	0.57	0.89	0.89	0.89	0.81	0.81	0.81	
Heavy Vehicles (%)	12%	14%	5%	0%	17%	33%	0%	22%	0%	14%	13%	4%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	205	0	0	36	0	0	196	0	0	229	62	
Turn Type	pm+pt			Perm						Perm		custom	
Protected Phases	1	1 4			4			2			2	5	3
Permitted Phases	1 4			4						2			
Detector Phase	1	1 4		4	4			2		2	2	5	
Switch Phase													
Minimum Initial (s)	4.0			7.0	7.0			7.0		7.0	7.0	4.0	17.0
Minimum Split (s)	10.0			12.0	12.0			13.0		13.0	13.0	9.0	31.0
Total Split (s)	19.0	51.0	0.0	32.0	32.0	0.0	0.0	38.0	0.0	38.0	38.0	20.0	31.0
Total Split (%)	13.6%	36.4%	0.0%	22.9%	22.9%	0.0%	0.0%	27.1%	0.0%	27.1%	27.1%	14.3%	22%
Maximum Green (s)	13.0			27.0	27.0			32.0		32.0	32.0	15.0	26.0
Yellow Time (s)	4.0			4.0	4.0			4.0		4.0	4.0	3.0	3.0
All-Red Time (s)	2.0			1.0	1.0			2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	5.0	
Lead/Lag	Lead			Lag	Lag			Lag		Lag	Lag		Lead
Lead-Lag Optimize?	Yes			Yes	Yes			Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0			5.0	5.0			4.0		4.0	4.0	4.0	3.0
Recall Mode	None			None	None			None		None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.32			0.08			0.34			0.44	0.39	
Control Delay		5.6			25.0			29.5			32.2	50.9	
Queue Delay		0.0			0.0			0.0			0.0	138.0	
Total Delay		5.6			25.0			29.5			32.2	188.9	
Queue Length 50th (ft)		25			14			99			122	39	
Queue Length 95th (ft)		34			24			168			180	73	
Internal Link Dist (ft)		2			529			840			607		
Turn Bay Length (ft)												50	
Base Capacity (vph)		668			440			572			521	234	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			11			0			0	183	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.31			0.08			0.34			0.44	1.22	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 100.6	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 179: Union Street & McArthur Drive



HCM Signalized Intersection Capacity Analysis
179: Union Street & McArthur Drive

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	20	90	5	10	5	0	155	20	15	170	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.92			0.97			0.98			1.00	0.85
Flt Protected		0.98			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1809			1708			1774			1673	1553
Flt Permitted		0.90			0.93			1.00			0.97	1.00
Satd. Flow (perm)		1661			1603			1774			1623	1553
Peak-hour factor, PHF	0.78	0.78	0.78	0.57	0.57	0.57	0.89	0.89	0.89	0.81	0.81	0.81
Adj. Flow (vph)	64	26	115	9	18	9	0	174	22	19	210	62
RTOR Reduction (vph)	0	0	0	0	7	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	205	0	0	29	0	0	193	0	0	229	62
Heavy Vehicles (%)	12%	14%	5%	0%	17%	33%	0%	22%	0%	14%	13%	4%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		38.6			27.2			32.3			32.3	8.7
Effective Green, g (s)		38.6			27.2			32.3			32.3	8.7
Actuated g/C Ratio		0.38			0.27			0.32			0.32	0.09
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		648			429			564			516	133
v/s Ratio Prot		c0.04						0.11				c0.04
v/s Ratio Perm		c0.08			0.02						c0.14	
v/c Ratio		0.32			0.07			0.34			0.44	0.47
Uniform Delay, d1		22.2			27.8			26.5			27.5	44.2
Progression Factor		0.32			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.4			0.1			0.5			0.8	3.5
Delay (s)		7.4			27.9			27.0			28.3	47.7
Level of Service		A			C			C			C	D
Approach Delay (s)		7.4			27.9			27.0			32.5	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	101.6	Sum of lost time (s)	23.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
2: Jones Street & Mt Pleasant St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	270	5	470	5	155	385	405	315	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.54	0.54	0.54	0.97	0.97	0.97	0.94	0.94	0.94	0.80	0.80	0.80
Hourly flow rate (vph)	9	0	9	278	5	485	5	165	410	506	394	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2274	1991	394	1796	1787	370	394			574		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2274	1991	394	1796	1787	370	394			574		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	99	0	87	28	100			50		
cM capacity (veh/h)	4	30	660	37	41	674	1176			1004		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	19	284	485	580	900
Volume Left	9	278	0	5	506
Volume Right	9	0	485	410	0
cSH	9	37	674	1176	1004
Volume to Capacity	2.10	7.67	0.72	0.00	0.50
Queue Length 95th (ft)	83	Err	153	0	73
Control Delay (s)	1330.2	Err	22.8	0.1	10.3
Lane LOS	F	F	C	A	B
Approach Delay (s)	1330.2	3705.3		0.1	10.3
Approach LOS	F	F			

Intersection Summary				
Average Delay	1270.7			
Intersection Capacity Utilization	103.0%	ICU Level of Service	G	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
9: Tarkiln Hill Rd & Kings Highway

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	50	15	30	1045	615	155
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	62	19	33	1148	683	172
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				393	611	
pX, platoon unblocked	0.73					
vC, conflicting volume	1984	769	856			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2159	769	856			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	95	96			
cM capacity (veh/h)	37	402	784			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	81	1181	856
Volume Left	62	33	0
Volume Right	19	0	172
cSH	47	784	1700
Volume to Capacity	1.75	0.04	0.50
Queue Length 95th (ft)	203	3	0
Control Delay (s)	548.7	1.5	0.0
Lane LOS	F	A	
Approach Delay (s)	548.7	1.5	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	21.9		
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
16: Park Avenue & Church Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	160	310	15	0	30	0	460	20	5	300	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.80	0.80	0.80	0.85	0.85	0.85	0.79	0.79	0.79
Hourly flow rate (vph)	5	170	330	19	0	38	0	541	24	6	380	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											176	
pX, platoon unblocked	0.85	0.85	0.85	0.85	0.85		0.85					
vC, conflicting volume	983	957	380	1360	945	553	380			565		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	888	858	174	1335	844	553	174			565		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	32	55	32	100	93	100			99		
cM capacity (veh/h)	208	249	734	27	254	531	1195			1017		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	505	56	565	386
Volume Left	5	19	0	6
Volume Right	330	38	24	0
cSH	437	75	1700	1017
Volume to Capacity	1.16	0.75	0.33	0.01
Queue Length 95th (ft)	468	90	0	0
Control Delay (s)	123.2	137.2	0.0	0.2
Lane LOS	F	F		A
Approach Delay (s)	123.2	137.2	0.0	0.2
Approach LOS	F	F		

Intersection Summary				
Average Delay		46.3		
Intersection Capacity Utilization		59.9%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
17: Irvington Street & Church Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	25	5	15	10	365	0	0	455	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.66	0.66	0.66	0.92	0.92	0.92	0.91	0.91	0.91
Hourly flow rate (vph)	7	0	7	38	8	23	11	397	0	0	500	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	948	921	503	928	924	397	505			397		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	948	921	503	928	924	397	505			397		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.3			2.2		
p0 queue free %	97	100	99	84	97	96	99			100		
cM capacity (veh/h)	227	270	573	241	269	642	1014			1173		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	14	68	408	505
Volume Left	7	38	11	0
Volume Right	7	23	0	5
cSH	325	309	1014	1700
Volume to Capacity	0.04	0.22	0.01	0.30
Queue Length 95th (ft)	3	21	1	0
Control Delay (s)	16.6	19.9	0.3	0.0
Lane LOS	C	C	A	
Approach Delay (s)	16.6	19.9	0.3	0.0
Approach LOS	C	C		

Intersection Summary				
Average Delay		1.7		
Intersection Capacity Utilization		37.3%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	95	390	40	50	315	45	25	130	55	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.79	0.79	0.79	0.92	0.92	0.92
Hourly flow rate (vph)	102	419	43	54	339	48	32	165	70	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			443							
pX, platoon unblocked	0.96			0.92			0.94	0.94	0.92	0.94	0.94	0.96
vC, conflicting volume	387			462			1116	1140	441	1267	1137	363
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	342			370			997	1022	347	1159	1020	317
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	91			95			83	14	89	100	100	100
cM capacity (veh/h)	1170			1081			189	192	627	37	194	700

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	565	441	266
Volume Left	102	54	32
Volume Right	43	48	70
cSH	1170	1081	234
Volume to Capacity	0.09	0.05	1.14
Queue Length 95th (ft)	7	4	304
Control Delay (s)	2.3	1.5	144.8
Lane LOS	A	A	F
Approach Delay (s)	2.3	1.5	144.8
Approach LOS			F

Intersection Summary			
Average Delay		31.8	
Intersection Capacity Utilization		61.4%	ICU Level of Service B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
54: driveway & Purchase St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	185	5	50	5	430	0	0	255	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	201	5	54	5	467	0	0	277	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								824				
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93				0.93		
vC, conflicting volume	812	755	277	755	755	467	277			467		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	764	703	277	703	703	394	277			394		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	39	98	91	100			100		
cM capacity (veh/h)	269	337	762	328	337	612	1286			1087		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	261	473	277
Volume Left	0	201	5	0
Volume Right	0	54	0	0
cSH	1700	363	1286	1700
Volume to Capacity	0.00	0.72	0.00	0.16
Queue Length 95th (ft)	0	134	0	0
Control Delay (s)	0.0	36.5	0.1	0.0
Lane LOS	A	E	A	
Approach Delay (s)	0.0	36.5	0.1	0.0
Approach LOS	A	E		

Intersection Summary			
Average Delay		9.5	
Intersection Capacity Utilization		46.8%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	130	10	20	140	100	20	310	70	105	220	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.83	0.83	0.83	0.94	0.94	0.94
Hourly flow rate (vph)	6	148	11	23	159	114	24	373	84	112	234	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	165	295	482	356
Volume Left (vph)	6	23	24	112
Volume Right (vph)	11	114	84	11
Hadj (s)	0.01	-0.20	-0.03	0.12
Departure Headway (s)	7.7	7.0	6.5	6.9
Degree Utilization, x	0.35	0.58	0.87	0.68
Capacity (veh/h)	408	475	536	488
Control Delay (s)	14.8	19.2	38.6	23.6
Approach Delay (s)	14.8	19.2	38.6	23.6
Approach LOS	B	C	E	C

Intersection Summary				
Delay		27.1		
HCM Level of Service		D		
Intersection Capacity Utilization		72.0%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
72: Weld St & Purchase St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	0	45	85	115	30	90	340	0	0	230	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.86	0.86	0.86	0.94	0.94	0.94	0.90	0.90	0.90
Hourly flow rate (vph)	28	0	51	99	134	35	96	362	0	0	256	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	927	825	272	877	842	362	289			362		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	927	825	272	877	842	362	289			362		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	79	100	93	58	52	95	93			100		
cM capacity (veh/h)	138	287	755	236	279	663	1279			1208		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	80	166	102	457	289
Volume Left	28	99	0	96	0
Volume Right	51	0	35	0	33
cSH	291	252	348	1279	1208
Volume to Capacity	0.27	0.66	0.29	0.07	0.00
Queue Length 95th (ft)	27	104	30	6	0
Control Delay (s)	22.0	43.0	19.5	2.3	0.0
Lane LOS	C	E	C	A	
Approach Delay (s)	22.0	34.1		2.3	0.0
Approach LOS	C	D			

Intersection Summary				
Average Delay		10.9		
Intersection Capacity Utilization		60.9%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
74: Logan St & Purchase St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	60	0	65	0	365	110	60	300	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.85	0.85	0.85	0.96	0.96	0.96	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	0	71	0	76	0	380	115	64	319	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	961	942	319	884	884	438	319			495		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	961	942	319	884	884	438	319			495		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	72	100	88	100			94		
cM capacity (veh/h)	199	249	726	253	269	619	1252			1044		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	147	495	383
Volume Left	0	71	0	64
Volume Right	0	76	115	0
cSH	1700	366	1252	1044
Volume to Capacity	0.00	0.40	0.00	0.06
Queue Length 95th (ft)	0	47	0	5
Control Delay (s)	0.0	21.3	0.0	2.0
Lane LOS	A	C		A
Approach Delay (s)	0.0	21.3	0.0	2.0
Approach LOS	A	C		

Intersection Summary				
Average Delay		3.8		
Intersection Capacity Utilization	62.3%		ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
75: Logan St & North Front Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	135	15	10	10	20	45	5	195	5	10	130	45
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.61	0.61	0.61	0.92	0.92	0.92	0.88	0.88	0.88
Hourly flow rate (vph)	155	17	11	16	33	74	5	212	5	11	148	51
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											720	
pX, platoon unblocked												
vC, conflicting volume	512	424	173	442	447	215	199			217		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	512	424	173	442	447	215	199			217		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	62	97	99	97	93	91	100			99		
cM capacity (veh/h)	404	518	875	505	503	830	1386			1364		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	184	123	223	210
Volume Left	155	16	5	11
Volume Right	11	74	5	51
cSH	427	659	1386	1364
Volume to Capacity	0.43	0.19	0.00	0.01
Queue Length 95th (ft)	53	17	0	1
Control Delay (s)	19.6	11.7	0.2	0.5
Lane LOS	C	B	A	A
Approach Delay (s)	19.6	11.7	0.2	0.5
Approach LOS	C	B		

Intersection Summary				
Average Delay		7.0		
Intersection Capacity Utilization	36.8%		ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
77: Route 140 Ramps & Mt. Pleasant Street

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	245	95	240	390	65	475
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.95	0.95	0.68	0.68
Hourly flow rate (vph)	278	108	253	411	96	699
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1348	458			253	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1348	458			253	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	0	82			93	
cM capacity (veh/h)	153	601			1290	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	386	663	794
Volume Left	278	0	96
Volume Right	108	411	0
cSH	194	1700	1290
Volume to Capacity	2.00	0.39	0.07
Queue Length 95th (ft)	727	0	6
Control Delay (s)	506.0	0.0	1.9
Lane LOS	F		A
Approach Delay (s)	506.0	0.0	1.9
Approach LOS	F		

Intersection Summary			
Average Delay	106.8		
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
126: Logan St & Acushnet Avenue

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	130	25	25	80	0	40	15	25	0	5	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.61	0.61	0.61	0.93	0.93	0.93	0.75	0.75	0.75
Hourly flow rate (vph)	16	140	27	41	131	0	43	16	27	0	7	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	191	139	10	222	129	30	13			43		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	191	139	10	222	129	30	13			43		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	81	97	93	82	100	97			100		
cM capacity (veh/h)	654	732	1054	594	739	1051	1599			1579		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	183	172	86	13
Volume Left	16	41	43	0
Volume Right	27	0	27	7
cSH	758	699	1599	1579
Volume to Capacity	0.24	0.25	0.03	0.00
Queue Length 95th (ft)	24	24	2	0
Control Delay (s)	11.3	11.8	3.8	0.0
Lane LOS	B	B	A	
Approach Delay (s)	11.3	11.8	3.8	0.0
Approach LOS	B	B		

Intersection Summary			
Average Delay	9.7		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
130: Herman Melville Boulevard & McArthur Drive

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	135	65	145	90	30	170
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.95	0.95	0.73	0.73
Hourly flow rate (vph)	178	86	153	95	41	233
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	515	200			247	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	515	200			247	
tC, single (s)	6.4	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.3	
p0 queue free %	64	90			97	
cM capacity (veh/h)	500	821			1273	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	263	247	274
Volume Left	178	0	41
Volume Right	86	95	0
cSH	572	1700	1273
Volume to Capacity	0.46	0.15	0.03
Queue Length 95th (ft)	60	0	3
Control Delay (s)	16.5	0.0	1.4
Lane LOS	C		A
Approach Delay (s)	16.5	0.0	1.4
Approach LOS	C		

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
136: Hillman St & McArthur Dr

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	45	145	180	30	55	55
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.87	0.87	0.77	0.77
Hourly flow rate (vph)	54	175	207	34	71	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	555	107	143			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	555	107	143			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	87	81	85			
cM capacity (veh/h)	424	936	1422			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	229	241	143
Volume Left	54	207	0
Volume Right	175	0	71
cSH	728	1422	1700
Volume to Capacity	0.31	0.15	0.08
Queue Length 95th (ft)	34	13	0
Control Delay (s)	12.2	7.0	0.0
Lane LOS	B	A	
Approach Delay (s)	12.2	7.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
147: Wamsutta St & McArthur Drive

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	15	15	65	15	5	50
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.72	0.72	0.63	0.63
Hourly flow rate (vph)	19	19	90	21	8	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	196	101			90	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	196	101			90	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	98			99	
cM capacity (veh/h)	793	960			1518	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	37	111	87
Volume Left	19	0	8
Volume Right	19	21	0
cSH	869	1700	1518
Volume to Capacity	0.04	0.07	0.01
Queue Length 95th (ft)	3	0	0
Control Delay (s)	9.3	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	9.3	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
148: Wamsutta St & North Front St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	0	5	10	0	20	10	170	10	5	150	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.68	0.68	0.68	0.63	0.63	0.63	0.90	0.90	0.90	0.82	0.82	0.82
Hourly flow rate (vph)	22	0	7	16	0	32	11	189	11	6	183	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	456	430	195	431	436	194	207			200		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	456	430	195	431	436	194	207			200		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.4	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	96	100	99	97	100	96	99			100		
cM capacity (veh/h)	493	515	851	528	510	812	1376			1384		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	48	211	213
Volume Left	22	16	11	6
Volume Right	7	32	11	24
cSH	551	689	1376	1384
Volume to Capacity	0.05	0.07	0.01	0.00
Queue Length 95th (ft)	4	6	1	0
Control Delay (s)	11.9	10.6	0.5	0.3
Lane LOS	B	B	A	A
Approach Delay (s)	11.9	10.6	0.5	0.3
Approach LOS	B	B		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2008 Existing Condition - AM Pek Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	15	325	125	45	285	45	65	55	10	160	105	110
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.81	0.81	0.81	0.79	0.79	0.79	0.67	0.67	0.67
Hourly flow rate (vph)	16	357	137	56	352	56	82	70	13	239	157	164
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	407			495			1192	1018	380	997	977	426
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	407			495			1192	1018	380	997	977	426
tC, single (s)	4.2			4.1			7.1	6.6	6.2	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.6	4.1	3.4
p0 queue free %	98			95			0	68	98	0	31	73
cM capacity (veh/h)	1094			1080			51	219	661	150	228	614

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	511	463	165	560
Volume Left	16	56	82	239
Volume Right	137	56	13	164
cSH	1094	1080	85	220
Volume to Capacity	0.02	0.05	1.94	2.55
Queue Length 95th (ft)	1	4	357	1175
Control Delay (s)	0.4	1.5	545.6	744.6
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	1.5	545.6	744.6
Approach LOS			F	F

Intersection Summary				
Average Delay		298.8		
Intersection Capacity Utilization		70.1%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
2: S Worcester St & S. Worcerster Street

2008 Existing Condition - AM Pek Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	30	205	0	0	330	70	0	0	5	10	0	45
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.56	0.56	0.56	0.69	0.69	0.69
Hourly flow rate (vph)	33	228	0	0	367	78	0	0	9	14	0	65
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	444			228			765	739	228	709	700	406
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	444			228			765	739	228	709	700	406
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.3
p0 queue free %	97			100			100	100	99	95	100	90
cM capacity (veh/h)	1110			1352			283	337	817	313	355	645

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	261	444	9	80
Volume Left	33	0	0	14
Volume Right	0	78	9	65
cSH	1110	1352	817	541
Volume to Capacity	0.03	0.00	0.01	0.15
Queue Length 95th (ft)	2	0	1	13
Control Delay (s)	1.3	0.0	9.5	12.8
Lane LOS	A		A	B
Approach Delay (s)	1.3	0.0	9.5	12.8
Approach LOS			A	B

Intersection Summary				
Average Delay		1.8		
Intersection Capacity Utilization		52.8%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
9: John B. Scott Blvd & Harvey Street

2008 Existing Condition - AM Pek Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	170	5	5	200	0	15	0	10	5	0	5
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.75	0.75	0.75	0.69	0.69	0.69
Hourly flow rate (vph)	0	185	5	5	211	0	20	0	13	7	0	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	190	216	33	14
Volume Left (vph)	0	5	20	7
Volume Right (vph)	5	0	13	7
Hadj (s)	0.11	0.06	0.32	0.23
Departure Headway (s)	4.4	4.3	5.2	5.1
Degree Utilization, x	0.23	0.26	0.05	0.02
Capacity (veh/h)	807	814	643	644
Control Delay (s)	8.7	8.8	8.4	8.2
Approach Delay (s)	8.7	8.8	8.4	8.2
Approach LOS	A	A	A	A

Intersection Summary				
Delay			8.7	
HCM Level of Service			A	
Intersection Capacity Utilization			24.5%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
14: Barrows St & S. Worcester St

2008 Existing Condition - AM Pek Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	35	80	180	55	30	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.72	0.72	0.72	0.72	0.70	0.70
Hourly flow rate (vph)	49	111	250	76	43	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	431	288			326	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	431	288			326	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	91	85			97	
cM capacity (veh/h)	551	746			1245	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	160	326	100
Volume Left	49	0	43
Volume Right	111	76	0
cSH	673	1700	1245
Volume to Capacity	0.24	0.19	0.03
Queue Length 95th (ft)	23	0	3
Control Delay (s)	12.0	0.0	3.6
Lane LOS	B		A
Approach Delay (s)	12.0	0.0	3.6
Approach LOS	B		

Intersection Summary				
Average Delay			3.9	
Intersection Capacity Utilization			33.4%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
16: John B. Scott Blvd & Dean Stret

2008 Existing Condition - AM Pek Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	155	20	5	150	10	55	140	5	10	35	0
Peak Hour Factor	0.86	0.86	0.86	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	180	23	7	200	13	61	156	6	11	39	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	209	220	222	50
Volume Left (vph)	6	7	61	11
Volume Right (vph)	23	13	6	0
Hadj (s)	-0.03	0.11	0.16	0.25
Departure Headway (s)	4.9	5.1	5.2	5.6
Degree Utilization, x	0.29	0.31	0.32	0.08
Capacity (veh/h)	679	668	633	571
Control Delay (s)	9.9	10.3	10.7	9.1
Approach Delay (s)	9.9	10.3	10.7	9.1
Approach LOS	A	B	B	A

Intersection Summary				
Delay		10.3		
HCM Level of Service		B		
Intersection Capacity Utilization		33.7%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	15	270	225	135	390	70	60	140	20	140	65	105
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93
Hourly flow rate (vph)	15	278	232	152	438	79	68	159	23	151	70	113
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	517			510			1354	1322	478	1308	1245	394
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	517			510			1354	1322	478	1308	1245	394
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	99			86			0	0	96	0	52	83
cM capacity (veh/h)	1059			1060			59	133	580	0	147	657

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	526	669	250	333
Volume Left	15	152	68	151
Volume Right	232	79	23	113
cSH	1059	1060	105	0
Volume to Capacity	0.01	0.14	2.39	Err
Queue Length 95th (ft)	1	12	559	Err
Control Delay (s)	0.4	3.5	717.1	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	3.5	717.1	Err
Approach LOS			F	F

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		100.5%	ICU Level of Service G
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
2: S Worcester St & S. Worcerster Street

2008 Existing Condition - PM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	70	435	5	5	230	30	0	0	5	35	0	80
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.44	0.44	0.44	0.67	0.67	0.67
Hourly flow rate (vph)	77	478	5	6	261	34	0	0	11	52	0	119
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	295			484			1044	941	481	936	927	278
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	295			484			1044	941	481	936	927	278
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			100	100	98	77	100	84
cM capacity (veh/h)	1278			1090			167	248	589	228	253	763

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	560	301	11	172
Volume Left	77	6	0	52
Volume Right	5	34	11	119
cSH	1278	1090	589	445
Volume to Capacity	0.06	0.01	0.02	0.39
Queue Length 95th (ft)	5	0	1	45
Control Delay (s)	1.7	0.2	11.2	18.1
Lane LOS	A	A	B	C
Approach Delay (s)	1.7	0.2	11.2	18.1
Approach LOS			B	C

Intersection Summary			
Average Delay		4.1	
Intersection Capacity Utilization		64.8%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: John B. Scott Blvd & Harvey Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	285	15	10	175	0	5	5	5	0	0	5
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75	0.42	0.42	0.42
Hourly flow rate (vph)	6	328	17	11	199	0	7	7	7	0	0	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	351	210	20	12
Volume Left (vph)	6	11	7	0
Volume Right (vph)	17	0	7	12
Hadj (s)	0.00	0.04	-0.02	-0.60
Departure Headway (s)	4.2	4.4	5.1	4.5
Degree Utilization, x	0.41	0.26	0.03	0.02
Capacity (veh/h)	845	799	629	693
Control Delay (s)	10.1	8.9	8.3	7.6
Approach Delay (s)	10.1	8.9	8.3	7.6
Approach LOS	B	A	A	A

Intersection Summary				
Delay		9.5		
HCM Level of Service		A		
Intersection Capacity Utilization		29.3%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
14: Barrows St & S. Worcester St

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	100	50	95	50	40	130
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.86	0.86	0.79	0.79
Hourly flow rate (vph)	118	59	110	58	51	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	405	140			169	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	405	140			169	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	80	93			96	
cM capacity (veh/h)	582	903			1421	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	176	169	215
Volume Left	118	0	51
Volume Right	59	58	0
cSH	660	1700	1421
Volume to Capacity	0.27	0.10	0.04
Queue Length 95th (ft)	27	0	3
Control Delay (s)	12.4	0.0	2.0
Lane LOS	B		A
Approach Delay (s)	12.4	0.0	2.0
Approach LOS	B		

Intersection Summary				
Average Delay		4.7		
Intersection Capacity Utilization		35.7%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
16: John B. Scott Blvd & Dean Stret

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	185	85	15	150	15	30	60	10	10	120	5
Peak Hour Factor	0.86	0.86	0.86	0.88	0.88	0.88	0.86	0.86	0.86	0.96	0.96	0.96
Hourly flow rate (vph)	6	215	99	17	170	17	35	70	12	10	125	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	320	205	116	141
Volume Left (vph)	6	17	35	10
Volume Right (vph)	99	17	12	5
Hadj (s)	-0.16	-0.01	0.04	0.01
Departure Headway (s)	4.8	5.1	5.5	5.4
Degree Utilization, x	0.42	0.29	0.18	0.21
Capacity (veh/h)	716	665	579	598
Control Delay (s)	11.2	10.1	9.7	9.9
Approach Delay (s)	11.2	10.1	9.7	9.9
Approach LOS	B	B	A	A

Intersection Summary				
Delay		10.4		
HCM Level of Service		B		
Intersection Capacity Utilization		37.5%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
13: Dog Track driveway & Route 138

2008 Existing Condition- AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	25	40	1145	330	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.68	0.68	0.91	0.91	0.79	0.79
Hourly flow rate (vph)	7	37	44	1258	418	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1764	418	418			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1764	418	418			
tC, single (s)	7.2	6.7	4.2			
tC, 2 stage (s)						
tF (s)	4.2	3.8	2.3			
p0 queue free %	87	93	96			
cM capacity (veh/h)	59	544	1095			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	44	1302	418
Volume Left	7	44	0
Volume Right	37	0	0
cSH	228	1095	1700
Volume to Capacity	0.19	0.04	0.25
Queue Length 95th (ft)	17	3	0
Control Delay (s)	24.5	1.5	0.0
Lane LOS	C	A	
Approach Delay (s)	24.5	1.5	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: I-495 SB Off-Ramp & Route 138

2008 Existing Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	235	0	45	0	0	0	0	1310	210	60	395	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.92	0.92	0.92	0.25	0.96	0.96	0.79	0.79	0.25
Hourly flow rate (vph)	305	0	58	0	0	0	0	1365	219	76	500	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1334	2016	250	1876	2126	792	500			1365		
vC1, stage 1 conf vol	652	652		1474	1474							
vC2, stage 2 conf vol	682	1365		402	652							
vCu, unblocked vol	1334	2016	250	1876	2126	792	500			1365		
tC, single (s)	7.6	6.6	7.0	7.5	6.5	6.9	4.1			4.3		
tC, 2 stage (s)	6.6	5.6		6.5	5.5							
tF (s)	3.6	4.1	3.4	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	0	100	92	100	100	100	100			84		
cM capacity (veh/h)	246	122	735	126	168	332	1075			469		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	364	910	674	76	250	250
Volume Left	305	0	0	76	0	0
Volume Right	58	0	219	0	0	0
cSH	275	1700	1700	469	1700	1700
Volume to Capacity	1.32	0.54	0.40	0.16	0.15	0.15
Queue Length 95th (ft)	461	0	0	14	0	0
Control Delay (s)	204.6	0.0	0.0	14.1	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	204.6	0.0		1.9		
Approach LOS	F					

Intersection Summary			
Average Delay	29.9		
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: I-495 NB On-Ramp & Route 138

2008 Existing Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	100	0	165	295	1240	0	0	340	245
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.91	0.91	0.91	0.91	0.91	0.25	0.25	0.80	0.80
Hourly flow rate (vph)	0	0	0	110	0	181	324	1363	0	0	425	306
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)											1195	
pX, platoon unblocked												
vC, conflicting volume	1908	2589	366	2223	2436	681	425			1363		
vC1, stage 1 conf vol	578	578		2011	2011							
vC2, stage 2 conf vol	1330	2011		212	425							
vCu, unblocked vol	1908	2589	366	2223	2436	681	425			1363		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.2			4.1		
tC, 2 stage (s)	6.5	5.5		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	0	100	53	71			100		
cM capacity (veh/h)	61	72	637	41	67	388	1124			511		

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	291	324	681	681	283	448
Volume Left	110	324	0	0	0	0
Volume Right	181	0	0	0	0	306
cSH	93	1124	1700	1700	1700	1700
Volume to Capacity	3.15	0.29	0.40	0.40	0.17	0.26
Queue Length 95th (ft)	Err	30	0	0	0	0
Control Delay (s)	Err	9.5	0.0	0.0	0.0	0.0
Lane LOS	F	A				
Approach Delay (s)	Err	1.8			0.0	
Approach LOS	F					

Intersection Summary				
Average Delay	1075.9			
Intersection Capacity Utilization	72.0%	ICU Level of Service	C	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
23: Center Street & Route 138

2008 Existing Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	15	0	130	0	1045	35	85	410	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.93	0.93	0.86	0.86	0.92
Hourly flow rate (vph)	0	0	0	17	0	144	0	1124	38	99	477	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1961	1836	477	1817	1817	1142	477			1161		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1961	1836	477	1817	1817	1142	477			1161		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	68	100	40	100			83		
cM capacity (veh/h)	17	63	588	52	65	243	1085			580		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	161	1161	576
Volume Left	0	17	0	99
Volume Right	0	144	38	0
cSH	1700	176	1700	580
Volume to Capacity	0.00	0.92	0.68	0.17
Queue Length 95th (ft)	0	173	0	15
Control Delay (s)	0.0	100.4	0.0	4.6
Lane LOS	A	F		A
Approach Delay (s)	0.0	100.4	0.0	4.6
Approach LOS	A	F		

Intersection Summary				
Average Delay	9.9			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
24: Britton Street & Route 138

2008 Existing Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	25	25	1055	15	5	415
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.57	0.57	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	44	44	1199	17	5	432
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1650	1207			1216	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1650	1207			1216	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	60	81			99	
cM capacity (veh/h)	109	225			556	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	88	1216	438
Volume Left	44	0	5
Volume Right	44	17	0
cSH	147	1700	556
Volume to Capacity	0.60	0.72	0.01
Queue Length 95th (ft)	78	0	1
Control Delay (s)	60.6	0.0	0.3
Lane LOS	F		A
Approach Delay (s)	60.6	0.0	0.3
Approach LOS	F		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
27: Britton Street & Route 138

2008 Existing Condition- AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	30	5	5	1040	425	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	0.89	0.89
Hourly flow rate (vph)	30	5	5	1040	478	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1530	480	483			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1530	480	483			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	99	100			
cM capacity (veh/h)	128	586	1069			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	35	1045	483
Volume Left	30	5	0
Volume Right	5	0	6
cSH	144	1069	1700
Volume to Capacity	0.24	0.00	0.28
Queue Length 95th (ft)	23	0	0
Control Delay (s)	37.8	0.1	0.0
Lane LOS	E	A	
Approach Delay (s)	37.8	0.1	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
50: Wilbur Street & Route 138

2008 Existing Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	5	1160	5	0	350
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.63	0.63	0.94	0.94	0.85	0.85
Hourly flow rate (vph)	8	8	1234	5	0	412
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1648	1237			1239	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1648	1237			1239	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	93	96			100	
cM capacity (veh/h)	110	217			529	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	16	1239	412
Volume Left	8	0	0
Volume Right	8	5	0
cSH	146	1700	529
Volume to Capacity	0.11	0.73	0.00
Queue Length 95th (ft)	9	0	0
Control Delay (s)	32.6	0.0	0.0
Lane LOS	D		
Approach Delay (s)	32.6	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
52: Robinson Street & Route 138

2008 Existing Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	20	1165	0	5	350
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.91	0.91	0.79	0.79
Hourly flow rate (vph)	0	36	1280	0	6	443
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1736	1280			1280	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1736	1280			1280	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	83			99	
cM capacity (veh/h)	96	204			549	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	36	1280	449
Volume Left	0	0	6
Volume Right	36	0	0
cSH	204	1700	549
Volume to Capacity	0.17	0.75	0.01
Queue Length 95th (ft)	15	0	1
Control Delay (s)	26.3	0.0	0.3
Lane LOS	D		A
Approach Delay (s)	26.3	0.0	0.3
Approach LOS	D		

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

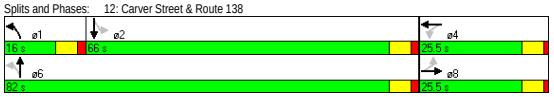
Lanes, Volumes, Timings
12: Carver Street & Route 138

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	145	80	80	55	65	35	50	670	40	100	1245	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Storage Length (ft)	250		70	0		0	0		175	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			737			2001			1020	
Travel Time (s)		5.7			16.8			45.5			23.2	
Confl. Peds. (#/hr)						5	2					
Peak Hour Factor	0.92	0.92	0.92	0.79	0.79	0.79	0.88	0.88	0.88	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	174	0	0	196	0	0	863	0	0	1581	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Total Split (s)	25.5	25.5	0.0	25.5	25.5	0.0	16.0	82.0	0.0	66.0	66.0	0.0
Total Split (%)	23.7%	23.7%	0.0%	23.7%	23.7%	0.0%	14.9%	76.3%	0.0%	61.4%	61.4%	0.0%
Maximum Green (s)	20.0	20.0		20.0	20.0		10.0	76.0		60.0	60.0	
Yellow Time (s)	4.3	4.3		4.3	4.3		4.3	4.3		4.3	4.3	
All-Red Time (s)	1.2	1.2		1.2	1.2		1.7	1.7		1.7	1.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	4.0	5.5	5.5	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
v/c Ratio	0.75	0.45			0.70			0.55			0.88	
Control Delay	56.4	27.7			45.7			9.6			19.9	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	56.4	27.7			45.7			9.6			19.9	
Queue Length 50th (ft)	85	66			98			125			355	
Queue Length 95th (ft)	#177	127			146			167			#534	
Internal Link Dist (ft)		171			657			1921			940	
Turn Bay Length (ft)	250											
Base Capacity (vph)	233	420			306			1992			1795	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.68	0.41			0.64			0.43			0.88	

Intersection Summary

Area Type: Other
Cycle Length: 107.5
Actuated Cycle Length: 89.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Carver Street & Route 138



HCM Signalized Intersection Capacity Analysis
12: Carver Street & Route 138

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	145	80	80	55	65	35	50	670	40	100	1245	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	11	12
Total Lost time (s)	5.5	5.5			5.5			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.92			0.97			0.99			0.98	
Flt Protected	0.95	1.00			0.98			1.00			1.00	
Satd. Flow (prot)	1787	1740			1826			3318			3343	
Flt Permitted	0.55	1.00			0.71			0.71			0.80	
Satd. Flow (perm)	1043	1740			1328			2349			2668	
Peak-hour factor, PHF	0.92	0.92	0.92	0.79	0.79	0.79	0.88	0.88	0.88	0.98	0.98	0.98
Adj. Flow (vph)	158	87	87	70	82	44	57	761	45	102	1270	209
RTOR Reduction (vph)	0	33	0	0	10	0	0	4	0	0	8	0
Lane Group Flow (vph)	158	141	0	0	186	0	0	859	0	0	1573	0
Confl. Peds. (#/hr)						5	2					
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	18.2	18.2			18.2			60.1			60.1	
Effective Green, g (s)	18.2	18.2			18.2			60.1			60.1	
Actuated g/C Ratio	0.20	0.20			0.20			0.67			0.67	
Clearance Time (s)	5.5	5.5			5.5			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	211	353			269			1572			1786	
v/s Ratio Prot		0.08										
v/s Ratio Perm	c0.15				0.14			0.37			c0.59	
v/c Ratio	0.75	0.40			0.69			0.55			0.88	
Uniform Delay, d1	33.7	31.1			33.2			7.7			12.0	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	12.0	0.3			6.1			0.2			5.3	
Delay (s)	45.6	31.3			39.3			8.0			17.3	
Level of Service	D	C			D			A			B	
Approach Delay (s)		38.1			39.3			8.0			17.3	
Approach LOS		D			D			A			B	

Intersection Summary

HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	89.8	Sum of lost time (s)	11.5
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Elm Street & Route 138

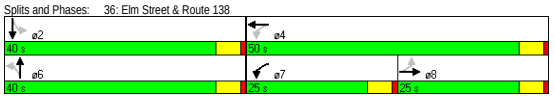
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	35	320	15	25	30	550	295	40	960	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Peak Hour Factor	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	364	45	0	0	961	0	0	1069	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		15.0	15.0		15.0	15.0	
Total Split (s)	25.0	25.0	0.0	25.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	20.0	20.0		20.0	45.0		35.0	35.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.37		0.62	0.07			0.72			0.74	
Control Delay		37.6		21.7	13.4			21.2			21.7	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		37.6		21.7	13.4			21.2			21.7	
Queue Length 50th (ft)		34		124	13			199			225	
Queue Length 95th (ft)		60		191	30			297			331	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		450		645	1072			1415			1526	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.16		0.56	0.04			0.68			0.70	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 73.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Elm Street & Route 138



HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	35	320	15	25	30	550	295	40	960	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.91		1.00	0.91			0.95			1.00	
Flt Protected		0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1709		1770	1689			3259			3524	
Flt Permitted		0.93		0.55	1.00			0.88			0.88	
Satd. Flow (perm)		1598		1030	1689			2868			3095	
Peak-hour factor, PHF	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	13	13	47	364	17	28	33	604	324	42	1011	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	73	0	364	45	0	0	961	0	0	1069	0
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		7.1		29.9	29.9			34.3			34.3	
Effective Green, g (s)		7.1		29.9	29.9			34.3			34.3	
Actuated g/C Ratio		0.10		0.40	0.40			0.46			0.46	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		153		593	681			1326			1431	
v/s Ratio Prot				c0.15	0.03							
v/s Ratio Perm		0.05		c0.10				0.34			c0.35	
v/c Ratio		0.48		0.61	0.07			0.72			0.75	
Uniform Delay, d1		31.8		16.9	13.6			16.1			16.4	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		2.3		1.9	0.0			2.1			2.3	
Delay (s)		34.1		18.8	13.6			18.3			18.7	
Level of Service		C		B	B			B			B	
Approach Delay (s)		34.1			18.3			18.3			18.7	
Approach LOS		C			B			B			B	

Intersection Summary

HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	74.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
44: Route 106 & Route 138

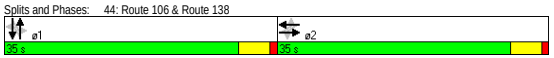
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	245	45	390	380	110	65	300	210	135	595	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1742			2236			4525			923	
Travel Time (s)		39.6			50.8			102.8			21.0	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.79	0.79	0.79	0.94	0.94	0.94	0.89	0.89	1.00	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	5%	5%	5%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	462	0	0	936	0	0	620	0	0	894	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phase	2	2		2	2		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.49			1.08dl			0.58			0.88	
Control Delay		15.6			45.9			13.4			29.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.6			45.9			13.4			29.8	
Queue Length 50th (ft)		67			197			72			171	
Queue Length 95th (ft)		90			#334			118			#289	
Internal Link Dist (ft)		1662			2156			4445			843	
Turn Bay Length (ft)												
Base Capacity (vph)		944			956			1100			1044	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.98			0.56			0.86	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 69.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 44: Route 106 & Route 138



HCM Signalized Intersection Capacity Analysis
44: Route 106 & Route 138

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	245	45	390	380	110	65	300	210	135	595	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.95			0.98	
Flt Protected		0.99			0.98			0.99			0.99	
Satd. Flow (prot)		3438			3300			3244			3403	
Flt Permitted		0.62			0.64			0.71			0.69	
Satd. Flow (perm)		2144			2170			2325			2369	
Peak-hour factor, PHF	0.79	0.79	0.79	0.94	0.94	0.94	0.89	0.89	1.00	0.94	0.94	0.94
Adj. Flow (vph)	95	310	57	415	404	117	73	337	210	144	633	117
RTOR Reduction (vph)	0	16	0	0	16	0	0	94	0	0	17	0
Lane Group Flow (vph)	0	446	0	0	920	0	0	526	0	0	877	0
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	5%	5%	5%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Actuated Green, G (s)		30.0			30.0			29.2			29.2	
Effective Green, g (s)		30.0			30.0			29.2			29.2	
Actuated g/C Ratio		0.43			0.43			0.42			0.42	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		929			941			981			1000	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.42			0.23			c0.37	
v/c Ratio		0.48			1.08dl			0.54			0.88	
Uniform Delay, d1		14.0			19.3			14.9			18.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			23.8			0.7			9.0	
Delay (s)		14.6			43.1			15.7			27.4	
Level of Service		B			D			B			C	
Approach Delay (s)		14.6			43.1			15.7			27.4	
Approach LOS		B			D			B			C	

Intersection Summary

HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

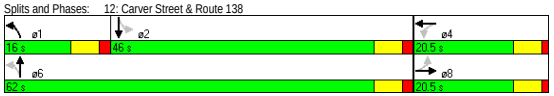
Lanes, Volumes, Timings
12: Carver Street & Route 138

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	25	30	15	40	160	35	1140	5	45	455	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Storage Length (ft)	250		70	0		0	0		175	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			737			2001			1020	
Travel Time (s)		5.7			16.8			45.5			23.2	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.95	0.95	0.95	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	250	66	0	0	233	0	0	1242	0	0	619	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.5	20.5	0.0	20.5	20.5	0.0	16.0	62.0	0.0	46.0	46.0	0.0
Total Split (%)	24.8%	24.8%	0.0%	24.8%	24.8%	0.0%	19.4%	75.2%	0.0%	55.8%	55.8%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		10.0	56.0		40.0	40.0	
Yellow Time (s)	4.3	4.3		4.3	4.3		4.3	4.3		4.3	4.3	
All-Red Time (s)	1.2	1.2		1.2	1.2		1.7	1.7		1.7	1.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	4.0	5.5	5.5	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
v/c Ratio	0.74	0.13			0.41			0.82			0.52	
Control Delay	36.2	10.6			12.5			16.3			10.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	36.2	10.6			12.5			16.3			10.4	
Queue Length 50th (ft)	69	7			30			154			60	
Queue Length 95th (ft)	#189	32			96			222			90	
Internal Link Dist (ft)		171			657			1921			940	
Turn Bay Length (ft)	250											
Base Capacity (vph)	338	527			571			3114			1870	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.74	0.13			0.41			0.40			0.33	

Intersection Summary

Area Type: Other
Cycle Length: 82.5
Actuated Cycle Length: 52.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Carver Street & Route 138



HCM Signalized Intersection Capacity Analysis
12: Carver Street & Route 138

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	25	30	15	40	160	35	1140	5	45	455	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	11	12
Total Lost time (s)	5.5	5.5			5.5			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.92			0.90			1.00			0.99	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1787	1727			1742			3381			3208	
Flt Permitted	0.62	1.00			0.98			0.92			0.75	
Satd. Flow (perm)	1166	1727			1712			3116			2411	
Peak-hour factor, PHF	0.84	0.84	0.84	0.92	0.92	0.92	0.95	0.95	0.95	0.88	0.88	0.88
Adj. Flow (vph)	250	30	36	16	43	174	37	1200	5	51	517	51
RTOR Reduction (vph)	0	26	0	0	74	0	0	1	0	0	8	0
Lane Group Flow (vph)	250	40	0	0	159	0	0	1241	0	0	611	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	7%	7%	7%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	15.2	15.2			15.2			25.5			25.5	
Effective Green, g (s)	15.2	15.2			15.2			25.5			25.5	
Actuated g/C Ratio	0.29	0.29			0.29			0.49			0.49	
Clearance Time (s)	5.5	5.5			5.5			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	340	503			499			1522			1178	
v/s Ratio Prot		0.02										
v/s Ratio Perm	c0.21				0.09			c0.40			0.25	
v/c Ratio	0.74	0.08			0.32			0.82			0.52	
Uniform Delay, d1	16.7	13.4			14.5			11.4			9.1	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	6.9	0.0			0.1			3.3			0.2	
Delay (s)	23.6	13.5			14.6			14.7			9.3	
Level of Service	C	B			B			B			A	
Approach Delay (s)		21.5			14.6			14.7			9.3	
Approach LOS		C			B			B			A	

Intersection Summary

HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	52.2	Sum of lost time (s)	11.5
Intersection Capacity Utilization	91.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Elm Street & Route 138

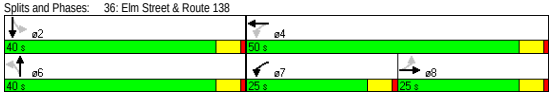
2008 Existing Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	20	25	205	5	55	5	1050	190	35	310	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	297	87	0	0	1324	0	0	451	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		15.0	15.0		15.0	15.0	
Total Split (s)	25.0	25.0	0.0	25.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	20.0	20.0		20.0	45.0		35.0	35.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.47		0.55	0.15			0.85			0.43	
Control Delay		39.9		20.1	14.1			26.8			16.8	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		39.9		20.1	14.1			26.8			16.8	
Queue Length 50th (ft)		45		98	25			306			77	
Queue Length 95th (ft)		84		113	38			#511			118	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		411		613	942			1564			1061	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.23		0.48	0.09			0.85			0.43	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 36: Elm Street & Route 138



HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2008 Existing Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	20	25	205	5	55	5	1050	190	35	310	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Frt		0.96		1.00	0.86			0.98			0.99	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1796		1686	1531			3424			3148	
Flt Permitted		0.82		0.58	1.00			0.95			0.70	
Satd. Flow (perm)		1501		1034	1531			3266			2217	
Peak-hour factor, PHF	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Adj. Flow (vph)	42	24	30	297	7	80	5	1117	202	43	378	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	96	0	297	87	0	0	1324	0	0	451	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		8.3		30.0	30.0			35.8			35.8	
Effective Green, g (s)		8.3		30.0	30.0			35.8			35.8	
Actuated g/C Ratio		0.11		0.40	0.40			0.47			0.47	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		164		553	606			1543			1047	
v/s Ratio Prot				c0.12	0.06							
v/s Ratio Perm		0.06		c0.09				c0.41			0.20	
v/c Ratio		0.59		0.54	0.14			0.86			0.43	
Uniform Delay, d1		32.1		17.2	14.7			17.7			13.2	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		5.2		1.0	0.1			5.2			0.4	
Delay (s)		37.4		18.2	14.8			22.9			13.6	
Level of Service		D		B	B			C			B	
Approach Delay (s)		37.4			17.4			22.9			13.6	
Approach LOS		D			B			C			B	

Intersection Summary

HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	75.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
44: Route 106 & Route 138

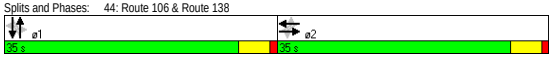
2008 Existing Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	340	25	165	330	155	55	705	350	80	160	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1742			2236			4568			923	
Travel Time (s)		39.6			50.8			103.8			21.0	
Confl. Peds. (#/hr)			3									
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	9%	9%	9%	3%	3%	3%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	0	0	730	0	0	1206	0	0	371	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phase	2	2		2	2		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.53			0.78			0.85			0.44	
Control Delay		16.7			21.8			23.1			11.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.7			21.8			23.1			11.1	
Queue Length 50th (ft)		79			119			215			37	
Queue Length 95th (ft)		117			182			#350			72	
Internal Link Dist (ft)		1662			2156			4488			843	
Turn Bay Length (ft)												
Base Capacity (vph)		1101			1061			1485			891	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.46			0.69			0.81			0.42	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 65.6
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 44: Route 106 & Route 138



HCM Signalized Intersection Capacity Analysis
44: Route 106 & Route 138

2008 Existing Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	340	25	165	330	155	55	705	350	80	160	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.96			0.95			0.95	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		3439			3154			3331			3096	
Flt Permitted		0.68			0.69			0.91			0.57	
Satd. Flow (perm)		2362			2200			3045			1793	
Peak-hour factor, PHF	0.88	0.88	0.88	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	97	386	28	185	371	174	60	766	380	86	172	113
RTOR Reduction (vph)	0	6	0	0	44	0	0	75	0	0	63	0
Lane Group Flow (vph)	0	505	0	0	686	0	0	1131	0	0	308	0
Confl. Peds. (#/hr)			3									
Heavy Vehicles (%)	3%	3%	3%	9%	9%	9%	3%	3%	3%	10%	10%	10%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Actuated Green, G (s)		26.7			26.7			28.8			28.8	
Effective Green, g (s)		26.7			26.7			28.8			28.8	
Actuated g/C Ratio		0.41			0.41			0.44			0.44	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		963			897			1339			788	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.31			c0.37			0.17	
v/c Ratio		0.52			0.76			0.84			0.39	
Uniform Delay, d1		14.6			16.7			16.4			12.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.7			4.2			5.3			0.4	
Delay (s)		15.3			20.9			21.6			12.9	
Level of Service		B			C			C			B	
Approach Delay (s)		15.3			20.9			21.6			12.9	
Approach LOS		B			C			C			B	

Intersection Summary

HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
10: Dog Track driveway & Route 138

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	60	30	555	1000	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.68	0.68	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	7	88	33	617	1099	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1782	1099	1099			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1782	1099	1099			
tC, single (s)	6.7	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.3			
p0 queue free %	90	66	95			
cM capacity (veh/h)	71	261	620			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	96	650	1099
Volume Left	7	33	0
Volume Right	88	0	0
cSH	216	620	1700
Volume to Capacity	0.44	0.05	0.65
Queue Length 95th (ft)	52	4	0
Control Delay (s)	34.2	1.5	0.0
Lane LOS	D	A	
Approach Delay (s)	34.2	1.5	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: I-495 SB Off-Ramp & Route 138

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	205	0	440	0	0	0	0	740	125	95	1125	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.81	0.81	0.25	0.25	0.25	0.25	0.95	0.95	0.98	0.98	0.25
Hourly flow rate (vph)	253	0	543	0	0	0	0	779	132	97	1148	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1731	2121	574	1613	2187	455	1148			779		
vC1, stage 1 conf vol	1342	1342		845	845							
vC2, stage 2 conf vol	389	779		768	1342							
vCu, unblocked vol	1731	2121	574	1613	2187	455	1148			779		
tC, single (s)	7.6	6.6	7.0	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.6	5.6		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	0	0	100	100	100			88		
cM capacity (veh/h)	133	161	457	0	173	558	616			834		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	796	519	391	97	574	574
Volume Left	253	0	0	97	0	0
Volume Right	543	0	132	0	0	0
cSH	258	1700	1700	834	1700	1700
Volume to Capacity	3.09	0.31	0.23	0.12	0.34	0.34
Queue Length 95th (ft)	Err	0	0	10	0	0
Control Delay (s)	Err	0.0	0.0	9.9	0.0	0.0
Lane LOS	F			A		
Approach Delay (s)	Err	0.0		0.8		
Approach LOS	F					

Intersection Summary			
Average Delay	2697.8		
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
15: I-495 NB On-Ramp & Route 138

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	125	0	75	100	825	0	0	1095	230
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.78	0.78	0.78	0.92	0.92	0.25	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	160	0	96	109	897	0	0	1141	240
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh)								2				
Upstream signal (ft)											1195	
pX, platoon unblocked	0.80	0.80	0.80	0.80	0.80		0.80					
vC, conflicting volume	1926	2375	690	1684	2255	448	1141			897		
vC1, stage 1 conf vol	1260	1260		1114	1114							
vC2, stage 2 conf vol	666	1114		570	1141							
vCu, unblocked vol	1655	2217	107	1353	2067	448	672			897		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.2			4.1		
tC, 2 stage (s)	6.5	5.5		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	11	100	83	85			100		
cM capacity (veh/h)	196	186	745	180	170	555	720			753		

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	256	109	448	448	760	620
Volume Left	160	109	0	0	0	0
Volume Right	96	0	0	0	0	240
cSH	241	720	1700	1700	1700	1700
Volume to Capacity	1.07	0.15	0.26	0.26	0.45	0.36
Queue Length 95th (ft)	271	13	0	0	0	0
Control Delay (s)	120.6	10.9	0.0	0.0	0.0	0.0
Lane LOS	F	B				
Approach Delay (s)	120.6	1.2			0.0	
Approach LOS	F					

Intersection Summary				
Average Delay	12.1			
Intersection Capacity Utilization	78.1%	ICU Level of Service	D	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
23: Center Street & Route 138

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	5	25	0	100	0	670	35	290	1125	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.38	0.38	0.38	0.82	0.82	0.82	0.90	0.90	0.90	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	13	30	0	122	0	744	39	296	1148	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2626	2523	1148	2517	2504	764	1148			783		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2626	2523	1148	2517	2504	764	1148			783		
tC, single (s)	7.1	6.5	6.2	7.2	6.6	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.1	3.4	2.2			2.2		
p0 queue free %	100	100	95	0	100	69	100			65		
cM capacity (veh/h)	8	18	244	13	18	396	605			835		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	152	783	1444
Volume Left	0	30	0	296
Volume Right	13	122	39	0
cSH	244	56	1700	835
Volume to Capacity	0.05	2.74	0.46	0.35
Queue Length 95th (ft)	4	394	0	40
Control Delay (s)	20.6	945.9	0.0	11.7
Lane LOS	C	F		B
Approach Delay (s)	20.6	945.9	0.0	11.7
Approach LOS	C	F		

Intersection Summary				
Average Delay	67.4			
Intersection Capacity Utilization	Err%	ICU Level of Service	H	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
24: Britton Street & Route 138

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	30	20	695	25	25	1140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.85	0.85	0.97	0.97
Hourly flow rate (vph)	40	27	818	29	26	1175
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2059	832			847	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2059	832			847	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	32	93			97	
cM capacity (veh/h)	58	369			790	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	67	847	1201
Volume Left	40	0	26
Volume Right	27	29	0
cSH	88	1700	790
Volume to Capacity	0.76	0.50	0.03
Queue Length 95th (ft)	96	0	3
Control Delay (s)	121.1	0.0	1.2
Lane LOS	F		A
Approach Delay (s)	121.1	0.0	1.2
Approach LOS	F		

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
27: Britton Street & Route 138

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	15	5	5	680	1100	35
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	18	6	6	773	1146	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1948	1164	1182			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1948	1164	1182			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	97	99			
cM capacity (veh/h)	71	239	587			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	778	1182
Volume Left	18	6	0
Volume Right	6	0	36
cSH	86	587	1700
Volume to Capacity	0.28	0.01	0.70
Queue Length 95th (ft)	26	1	0
Control Delay (s)	62.4	0.3	0.0
Lane LOS	F	A	
Approach Delay (s)	62.4	0.3	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
50: Wilbur Street & Route 138

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	5	565	10	10	1040
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.39	0.39	0.97	0.97	0.96	0.96
Hourly flow rate (vph)	13	13	582	10	10	1083
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1692	588			593	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1692	588			593	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	87	98			99	
cM capacity (veh/h)	102	513			983	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	593	1094
Volume Left	13	0	10
Volume Right	13	10	0
cSH	171	1700	983
Volume to Capacity	0.15	0.35	0.01
Queue Length 95th (ft)	13	0	1
Control Delay (s)	29.8	0.0	0.3
Lane LOS	D		A
Approach Delay (s)	29.8	0.0	0.3
Approach LOS	D		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
52: Robinson Street & Route 138

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	570	0	10	1050
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.63	0.63	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	0	24	633	0	11	1154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1809	633			633	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1809	633			633	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	100	95			99	
cM capacity (veh/h)	87	469			959	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	633	1165
Volume Left	0	0	11
Volume Right	24	0	0
cSH	469	1700	959
Volume to Capacity	0.05	0.37	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	13.1	0.0	0.4
Lane LOS	B		A
Approach Delay (s)	13.1	0.0	0.4
Approach LOS	B		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
66: Cohannet Street & Taunton Green

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (veh/h)	0	130	10	0	0	0	565	220	85	0	415
Sign Control		Stop			Stop		Free			Free	
Grade		0%			0%		0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.93	0.93	0.93	0.83	0.83
Hourly flow rate (vph)	0	140	11	0	0	0	608	237	91	0	500
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type							Raised			None	
Median storage veh)							1				
Upstream signal (ft)											
pX, platoon unblocked											
vC, conflicting volume	1747	1997	282	1532	1543	0	500				
vC1, stage 1 conf vol	1497	1497		0	0						
vC2, stage 2 conf vol	250	500		1532	1543						
vCu, unblocked vol	1747	1997	282	1532	1543	0	500				
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.2				
tC, 2 stage (s)	6.1	5.6		6.1	5.5						
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.3				
p0 queue free %	100	0	99	0	100	100	42				
cM capacity (veh/h)	54	24	761	0	67	1091	1044				

Direction, Lane #	EB 1	EB 2	SB 1	SB 2	SB 3	NE 1
Volume Total	140	11	304	304	328	500
Volume Left	0	0	304	304	0	0
Volume Right	0	11	0	0	91	500
cSH	24	761	1044	1044	1700	1700
Volume to Capacity	5.81	0.01	0.58	0.58	0.19	0.29
Queue Length 95th (ft)	Err	1	97	97	0	0
Control Delay (s)	Err	9.8	13.1	13.1	0.0	0.0
Lane LOS	F	A	B	B		
Approach Delay (s)	9285.5		8.5			0.0
Approach LOS	F					

Intersection Summary				
Average Delay	886.4			
Intersection Capacity Utilization	39.2%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
67: Taunton Green & Broadway

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	0	670	695	0	380
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.91	0.91	0.96	0.96
Hourly flow rate (vph)	0	0	736	764	0	396
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	1500				736	368
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1500				736	368
tC, single (s)	4.1				6.8	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.4
p0 queue free %	100				100	36
cM capacity (veh/h)	453				358	620

Direction, Lane #	WB 1	WB 2	WB 3	SB 1
Volume Total	368	368	764	396
Volume Left	0	0	0	0
Volume Right	0	0	764	396
cSH	1700	1700	1700	620
Volume to Capacity	0.22	0.22	0.45	0.64
Queue Length 95th (ft)	0	0	0	114
Control Delay (s)	0.0	0.0	0.0	20.5
Lane LOS				C
Approach Delay (s)	0.0			20.5
Approach LOS				C

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	48.7%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
70: Post Office Square & Court Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	10	600	55	380	0	0	0	0	265	0
Sign Control		Free			Free			Yield			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.46	0.46	0.46	0.94	0.94	0.94	0.92	0.92	0.92	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	22	638	59	404	0	0	0	0	298	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					565							
pX, platoon unblocked												
vC, conflicting volume	59			22			1484	1335	0	1346	1357	59
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	59			22			1484	1335	0	1346	1357	59
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.1	3.3
p0 queue free %	100			59			0	100	100	100	0	100
cM capacity (veh/h)	1558			1562			0	92	1091	88	86	1013

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	22	426	271	404	298
Volume Left	0	426	213	0	0
Volume Right	22	0	0	404	0
cSH	1700	1562	1562	1700	86
Volume to Capacity	0.01	0.41	0.41	0.24	3.44
Queue Length 95th (ft)	0	51	51	0	Err
Control Delay (s)	0.0	8.9	7.8	0.0	Err
Lane LOS		A	A		F
Approach Delay (s)	0.0	5.4			Err
Approach LOS					F

Intersection Summary				
Average Delay	2100.0			
Intersection Capacity Utilization	45.3%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
75: Driveway & Washington Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	0	90	0	130	0	700	150	100	625	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.42	0.42	0.42	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	12	0	0	103	0	149	0	795	170	114	710	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								574			260	
pX, platoon unblocked	0.91	0.91	0.89	0.91	0.91	0.96	0.89			0.96		
vC, conflicting volume	1487	1906	713	1818	1824	483	716			966		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1331	1793	614	1696	1702	385	617			887		
tC, single (s)	7.5	6.5	6.9	7.7	6.5	7.0	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	82	100	100	0	100	75	100			84		
cM capacity (veh/h)	68	62	391	44	71	588	864			713		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	12	103	149	398	568	114	716
Volume Left	12	103	0	0	0	114	0
Volume Right	0	0	149	0	170	0	6
cSH	68	44	588	864	1700	713	1700
Volume to Capacity	0.18	2.33	0.25	0.00	0.33	0.16	0.42
Queue Length 95th (ft)	15	273	25	0	0	14	0
Control Delay (s)	68.8	801.8	13.2	0.0	0.0	11.0	0.0
Lane LOS	F	F	B			B	
Approach Delay (s)	68.8	335.8		0.0		1.5	
Approach LOS	F	F					

Intersection Summary				
Average Delay	42.2			
Intersection Capacity Utilization	72.0%	ICU Level of Service	C	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
78: Kilmer Street & Oak Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	95	10	20	330	165	95
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.79	0.79
Hourly flow rate (vph)	119	12	25	412	209	120
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	731	269	329			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	731	269	329			
tC, single (s)	6.4	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.3			
p0 queue free %	69	98	98			
cM capacity (veh/h)	379	728	1197			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	131	438	329
Volume Left	119	25	0
Volume Right	12	0	120
cSH	397	1197	1700
Volume to Capacity	0.33	0.02	0.19
Queue Length 95th (ft)	35	2	0
Control Delay (s)	18.5	0.7	0.0
Lane LOS	C	A	
Approach Delay (s)	18.5	0.7	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		3.0	
Intersection Capacity Utilization		46.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
87: Purchase Street & School Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	220	10	15	120	5	25	65	20	10	65	55
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.88	0.88	0.88	0.69	0.69	0.69	0.90	0.90	0.90
Hourly flow rate (vph)	41	259	12	17	136	6	36	94	29	11	72	61
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	142			271			618	523	265	596	526	139
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	142			271			618	523	265	596	526	139
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			89	78	96	97	83	93
cM capacity (veh/h)	1417			1305			319	438	767	325	436	914

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	312	159	159	144
Volume Left	41	17	36	11
Volume Right	12	6	29	61
cSH	1417	1305	435	542
Volume to Capacity	0.03	0.01	0.37	0.27
Queue Length 95th (ft)	2	1	41	27
Control Delay (s)	1.2	0.9	18.0	14.0
Lane LOS	A	A	C	B
Approach Delay (s)	1.2	0.9	18.0	14.0
Approach LOS			C	B

Intersection Summary			
Average Delay		7.0	
Intersection Capacity Utilization		39.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Purchase Street & Washington Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	100	5	20	125	35	5	60	40	100	45	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.68	0.70	0.70	0.70
Hourly flow rate (vph)	0	145	7	29	184	51	7	88	59	143	64	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	235			152			463	443	149	520	421	210
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	235			152			463	443	149	520	421	210
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			98	82	93	62	88	98
cM capacity (veh/h)	1344			1441			446	499	903	374	516	836

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	152	265	154	221
Volume Left	0	29	7	143
Volume Right	7	51	59	14
cSH	1344	1441	597	423
Volume to Capacity	0.00	0.02	0.26	0.52
Queue Length 95th (ft)	0	2	26	74
Control Delay (s)	0.0	1.0	13.1	22.5
Lane LOS		A	B	C
Approach Delay (s)	0.0	1.0	13.1	22.5
Approach LOS			B	C

Intersection Summary			
Average Delay		9.2	
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
89: Winter Street & School Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	210	10	70	355	20	25	35	60	20	40	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.63	0.63	0.63	0.84	0.84	0.84	0.56	0.56	0.56
Hourly flow rate (vph)	11	226	11	111	563	32	30	42	71	36	71	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	595			237			1108	1070	231	1147	1060	579
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	595			237			1108	1070	231	1147	1060	579
tC, single (s)	4.2			4.1			7.1	6.6	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.1	3.3	3.6	4.0	3.3
p0 queue free %	99			92			76	79	91	70	65	97
cM capacity (veh/h)	952			1336			122	197	801	118	205	518

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	247	706	143	125
Volume Left	11	111	30	36
Volume Right	11	32	71	18
cSH	952	1336	262	183
Volume to Capacity	0.01	0.08	0.54	0.68
Queue Length 95th (ft)	1	7	75	103
Control Delay (s)	0.5	2.1	34.0	59.1
Lane LOS	A	A	D	F
Approach Delay (s)	0.5	2.1	34.0	59.1
Approach LOS			D	F

Intersection Summary			
Average Delay		11.3	
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)		15	

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

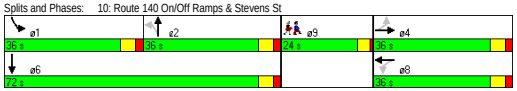
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	40	80	5	30	40	45	5	165	305	180	175	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	13	16	12	12	16	12	12	16	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	200		0	
Storage Lanes	0		0	0		0	0		0	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		819			376			787			471		
Travel Time (s)		18.6			8.5			17.9			10.7		
Peak Hour Factor	0.76	0.76	0.76	0.84	0.84	0.84	0.89	0.89	0.89	0.80	0.80	0.80	
Heavy Vehicles (%)	0%	0%	0%	10%	0%	2%	0%	8%	0%	1%	1%	3%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	165	0	0	138	0	0	534	0	225	263	0	
Turn Type	Perm			Perm			Perm			Prot			
Protected Phases		4			8			2		1	6		9
Permitted Phases	4			8			2						
Detector Phase	4	4		8	8		2	2		1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		4.0
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		24.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0	36.0	72.0	0.0	24.0
Total Split (%)	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	54.5%	0.0%	18%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	66.0		20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag							Lag	Lag		Lead			
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None		None	None		None	None		None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.31			0.26			0.62		0.35	0.27		
Control Delay		17.4			12.2			9.9		17.3	6.0		
Queue Delay		0.0			0.0			0.0		0.0	0.0		
Total Delay		17.4			12.2			9.9		17.3	6.0		
Queue Length 50th (ft)		17			8			22		23	27		
Queue Length 95th (ft)		35			27			60		46	52		
Internal Link Dist (ft)		739			296			707			391		
Turn Bay Length (ft)										200			
Base Capacity (vph)		2328			2102			2369		2641	1828		
Starvation Cap Reductn		0			0			0		0	0		
Spillback Cap Reductn		0			0			0		0	0		
Storage Cap Reductn		0			0			0		0	0		
Reduced v/c Ratio		0.07			0.07			0.23		0.09	0.14		

Intersection Summary

Area Type: Other
Cycle Length: 132
Actuated Cycle Length: 41.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Route 140 On/Off Ramps & Stevens St



HCM Signalized Intersection Capacity Analysis
10: Route 140 On/Off Ramps & Stevens St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	80	5	30	40	45	5	165	305	180	175	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	16	12	12	16	12	12	16	12	12	12
Total Lost time (s)		6.0			6.0			6.0		6.0	6.0	
Lane Util. Factor		0.95			0.95			0.95		0.97	1.00	
Frt		0.99			0.94			0.90		1.00	0.97	
Flt Protected		0.98			0.99			1.00		0.95	1.00	
Satd. Flow (prot)		3648			3244			3172		3467	1828	
Flt Permitted		0.82			0.84			0.95		0.95	1.00	
Satd. Flow (perm)		3053			2745			3009		3467	1828	
Peak-hour factor, PHF	0.76	0.76	0.76	0.84	0.84	0.84	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	53	105	7	36	48	54	6	185	343	225	219	44
RTOR Reduction (vph)	0	2	0	0	44	0	0	254	0	0	5	0
Lane Group Flow (vph)	0	163	0	0	94	0	0	280	0	225	258	0
Heavy Vehicles (%)	0%	0%	0%	10%	0%	2%	0%	8%	0%	1%	1%	3%
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		7.4			7.4			8.5		7.7	22.2	
Effective Green, g (s)		7.4			7.4			8.5		7.7	22.2	
Actuated g/C Ratio		0.18			0.18			0.20		0.19	0.53	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		543			488			615		642	976	
v/s Ratio Prot										0.06	c0.14	
v/s Ratio Perm		c0.05			0.03			c0.09				
v/c Ratio		0.30			0.19			0.46		0.35	0.26	
Uniform Delay, d1		14.8			14.6			14.5		14.8	5.3	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.1			0.1			0.2		0.1	0.1	
Delay (s)		15.0			14.6			14.7		14.9	5.3	
Level of Service		B			B			B		B	A	
Approach Delay (s)		15.0			14.6			14.7			9.7	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	41.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

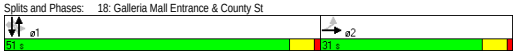
Lanes, Volumes, Timings
18: Galleria Mall Entrance & County St

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	150	45	0	0	0	25	60	0	135	135	435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	14	12	12	12	12	12	16	12	12	16
Storage Length (ft)	0		0	0		0	200		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			269			674			311	
Travel Time (s)		9.0			6.1			15.3			7.1	
Peak Hour Factor	0.94	0.94	0.94	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Heavy Vehicles (%)	1%	4%	0%	0%	0%	11%	0%	0%	0%	3%	1%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	527	0	0	0	0	0	112	0	0	300	483
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Detector Phase	2	2					1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0					8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	13.0	13.0					13.0	13.0		13.0	13.0	13.0
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0	51.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%	62.2%	62.2%	62.2%
Maximum Green (s)	26.0	26.0					46.0	46.0		46.0	46.0	46.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag					Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0					2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None					Min	Min		Min	Min	Min
v/c Ratio		0.45						0.11			0.33	0.53
Control Delay		9.3						6.9			8.2	3.3
Queue Delay		0.0						0.0			0.0	0.0
Total Delay		9.3						6.9			8.2	3.3
Queue Length 50th (ft)		27						5			14	0
Queue Length 95th (ft)		60						12			33	31
Internal Link Dist (ft)		316			189			594			231	
Turn Bay Length (ft)												
Base Capacity (vph)		3474						2942			2764	1794
Starvation Cap Reductn		0						0			0	0
Spillback Cap Reductn		0						0			0	0
Storage Cap Reductn		0						0			0	0
Reduced v/c Ratio		0.15						0.04			0.11	0.27

Intersection Summary	
Area Type:	Other
Cycle Length: 82	
Actuated Cycle Length: 28.2	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 18: Galleria Mall Entrance & County St



HCM Signalized Intersection Capacity Analysis
18: Galleria Mall Entrance & County St

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	150	45	0	0	0	25	60	0	135	135	435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	14	12	12	12	12	12	16	12	12	16
Total Lost time (s)		5.0						5.0			5.0	5.0
Lane Util. Factor		0.95						0.95			0.95	1.00
Frt		0.99						1.00			1.00	0.85
Flt Protected		0.97						0.99			0.98	1.00
Satd. Flow (prot)		3734						3558			3453	1794
Flt Permitted		0.97						0.82			0.78	1.00
Satd. Flow (perm)		3734						2943			2763	1794
Peak-hour factor, PHF	0.94	0.94	0.94	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Adj. Flow (vph)	319	160	48	0	0	0	33	79	0	150	150	483
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	0	321
Lane Group Flow (vph)	0	518	0	0	0	0	0	112	0	0	300	162
Heavy Vehicles (%)	1%	4%	0%	0%	0%	11%	0%	0%	0%	3%	1%	2%
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Actuated Green, G (s)		8.7						9.4			9.4	9.4
Effective Green, g (s)		8.7						9.4			9.4	9.4
Actuated g/C Ratio		0.31						0.33			0.33	0.33
Clearance Time (s)		5.0						5.0			5.0	5.0
Vehicle Extension (s)		2.0						2.0			2.0	2.0
Lane Grp Cap (vph)		1156						984			924	600
v/s Ratio Prot												
v/s Ratio Perm		0.14						0.04			c0.11	0.09
v/c Ratio		0.45						0.11			0.32	0.27
Uniform Delay, d1		7.8						6.5			7.0	6.8
Progression Factor		1.00						1.00			1.00	1.00
Incremental Delay, d2		0.1						0.0			0.1	0.1
Delay (s)		7.9						6.5			7.1	6.9
Level of Service		A						A			A	A
Approach Delay (s)		7.9			0.0			6.5			7.0	
Approach LOS		A			A			A			A	

Intersection Summary					
HCM Average Control Delay		7.3	HCM Level of Service	A	
HCM Volume to Capacity ratio		0.38			
Actuated Cycle Length (s)		28.1	Sum of lost time (s)	10.0	
Intersection Capacity Utilization		43.4%	ICU Level of Service	A	
Analysis Period (min)		15			
c Critical Lane Group					

Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

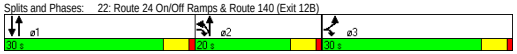
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	240	1340	205	790	1000	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	12	12	12
Storage Length (ft)	0	50	250			100
Storage Lanes	1	1	1			1
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	729			870	522	
Travel Time (s)	16.6			19.8	11.9	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	0%	3%	2%	2%
Shared Lane Traffic (%)		42%				
Lane Group Flow (vph)	836	810	223	859	1435	0
Turn Type		pt+ov	Prot			
Protected Phases	3	2 3	2	1 2	1	
Permitted Phases						
Detector Phase	3	2 3	2	1 2	1	
Switch Phase						
Minimum Initial (s)	10.0		8.0		10.0	
Minimum Split (s)	15.0		13.0		15.0	
Total Split (s)	30.0	50.0	20.0	50.0	30.0	0.0
Total Split (%)	37.5%	62.5%	25.0%	62.5%	37.5%	0.0%
Maximum Green (s)	25.0		15.0		25.0	
Yellow Time (s)	4.0		4.0		4.0	
All-Red Time (s)	1.0		1.0		1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0		3.0		4.0	
Recall Mode	None		None		Min	
v/c Ratio	1.50	0.98	0.66	0.44	1.30	
Control Delay	260.3	45.3	40.8	11.0	167.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	260.3	45.3	40.8	11.0	167.2	
Queue Length 50th (ft)	~589	381	104	120	~484	
Queue Length 95th (ft)	#804	#664	#190	162	#616	
Internal Link Dist (ft)	649			790	442	
Turn Bay Length (ft)		50	250			
Base Capacity (vph)	557	830	338	1972	1105	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	1.50	0.98	0.66	0.44	1.30	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 22: Route 24 On/Off Ramps & Route 140 (Exit 12B)



HCM Signalized Intersection Capacity Analysis
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	240	1340	205	790	1000	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	15	12	12	12	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	
Frt	0.89	0.85	1.00	1.00	0.96	
Flt Protected	0.99	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1782	1475	1805	3505	3410	
Flt Permitted	0.99	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1782	1475	1805	3505	3410	
Peak-hour factor, PHF	0.96	0.96	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	1396	223	859	1087	348
RTOR Reduction (vph)	0	0	0	0	39	0
Lane Group Flow (vph)	836	810	223	859	1397	0
Heavy Vehicles (%)	2%	4%	0%	3%	2%	2%
Turn Type		pt+ov	Prot			
Protected Phases	3	2 3	2	1 2	1	
Permitted Phases						
Actuated Green, G (s)	25.0	45.0	15.0	45.0	25.0	
Effective Green, g (s)	25.0	45.0	15.0	45.0	25.0	
Actuated g/C Ratio	0.31	0.56	0.19	0.56	0.31	
Clearance Time (s)	5.0		5.0		5.0	
Vehicle Extension (s)	4.0		3.0		4.0	
Lane Grp Cap (vph)	557	830	338	1972	1066	
v/s Ratio Prot	c0.47	c0.55	0.12	0.25	c0.41	
v/s Ratio Perm						
v/c Ratio	1.50	0.98	0.66	0.44	1.31	
Uniform Delay, d1	27.5	17.0	30.1	10.1	27.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	234.7	25.2	4.6	0.2	146.3	
Delay (s)	262.2	42.1	34.7	10.4	173.8	
Level of Service	F	D	C	B	F	
Approach Delay (s)	153.9			15.4	173.8	
Approach LOS	F			B	F	

Intersection Summary

HCM Average Control Delay	124.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	102.5%	ICU Level of Service	G
Analysis Period (min)	15		

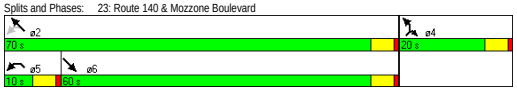
c Critical Lane Group

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	1110	180	215	815	165	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	0		0	0
Storage Lanes		0	0		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1786			342	1096	
Travel Time (s)	40.6			7.8	24.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1403	0	0	1120	179	228
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Detector Phase	6		5	2	4	4
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	15.0		10.0	10.0	15.0	15.0
Total Split (s)	60.0	0.0	10.0	70.0	20.0	20.0
Total Split (%)	66.7%	0.0%	11.1%	77.8%	22.2%	22.2%
Maximum Green (s)	55.0		5.0	65.0	15.0	15.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	Min		None	Min	None	None
v/c Ratio	0.58			1.18dl	0.62	0.58
Control Delay	6.6			19.4	42.2	17.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	6.6			19.4	42.2	17.6
Queue Length 50th (ft)	145			185	84	29
Queue Length 95th (ft)	204			#337	164	104
Internal Link Dist (ft)	1706			262	1016	
Turn Bay Length (ft)						
Base Capacity (vph)	2812			1551	378	466
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.50			0.72	0.47	0.49

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 23: Route 140 & Mozzone Boulevard



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	1110	180	215	815	165	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.98			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3465			3503	1770	1583
Flt Permitted	1.00			0.51	0.95	1.00
Satd. Flow (perm)	3465			1822	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1207	196	234	886	179	228
RTOR Reduction (vph)	11	0	0	0	0	136
Lane Group Flow (vph)	1392	0	0	1120	179	92
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Actuated Green, G (s)	51.5			51.5	12.2	12.2
Effective Green, g (s)	51.5			51.5	12.2	12.2
Actuated g/C Ratio	0.70			0.70	0.17	0.17
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2421			1273	293	262
v/s Ratio Prot	0.40				c0.10	0.06
v/s Ratio Perm				c0.61		
v/c Ratio	0.57			1.18dl	0.61	0.35
Uniform Delay, d1	5.6			8.7	28.5	27.2
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.3			7.2	3.7	0.8
Delay (s)	5.9			15.9	32.3	28.1
Level of Service	A			B	C	C
Approach Delay (s)	5.9			15.9	29.9	
Approach LOS	A			B	C	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	73.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

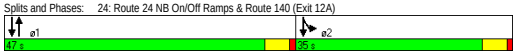
2008 Existing Condition - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	235	740	715	160	2215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12
Storage Length (ft)	0	0		300	250	
Storage Lanes	0	1		1	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	736		624			870
Travel Time (s)	16.7		14.2			19.8
Peak Hour Factor	0.94	0.94	0.98	0.98	0.97	0.97
Heavy Vehicles (%)	0%	2%	3%	6%	6%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	250	755	730	165	2284
Turn Type		Free		Free	Prot	
Protected Phases			1		2	1 2
Permitted Phases		Free		Free		
Detector Phase			1		2	1 2
Switch Phase						
Minimum Initial (s)			16.0		8.0	
Minimum Split (s)			21.0		13.0	
Total Split (s)	0.0	0.0	47.0	0.0	35.0	82.0
Total Split (%)	0.0%	0.0%	57.3%	0.0%	42.7%	100.0%
Maximum Green (s)			42.0		30.0	
Yellow Time (s)			4.0		4.0	
All-Red Time (s)			1.0		1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)			2.0		2.0	
Recall Mode			Min		None	
v/c Ratio		0.14	0.44	0.48	0.27	0.65
Control Delay		0.2	12.4	1.1	17.8	1.0
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		0.2	12.4	1.1	17.8	1.0
Queue Length 50th (ft)		0	94	0	44	0
Queue Length 95th (ft)		0	161	0	105	0
Internal Link Dist (ft)	656		544			790
Turn Bay Length (ft)				300	250	
Base Capacity (vph)		1772	2183	1524	758	3465
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.14	0.35	0.48	0.22	0.66

Intersection Summary

Area Type: Other
Cycle Length: 82
Actuated Cycle Length: 68.9
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)



HCM Signalized Intersection Capacity Analysis
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	235	740	715	160	2215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	12	12
Total Lost time (s)		4.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95
Frt		0.86	1.00	0.85	1.00	1.00
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1772	3505	1524	1703	3505
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1772	3505	1524	1703	3505
Peak-hour factor, PHF	0.94	0.94	0.98	0.98	0.97	0.97
Adj. Flow (vph)	0	250	755	730	165	2284
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	250	755	730	165	2284
Heavy Vehicles (%)	0%	2%	3%	6%	6%	3%
Turn Type		Free		Free	Prot	
Protected Phases			1		2	1 2
Permitted Phases		Free		Free		
Actuated Green, G (s)		68.6	33.9	68.6	24.7	68.6
Effective Green, g (s)		68.6	33.9	68.6	24.7	68.6
Actuated g/C Ratio		1.00	0.49	1.00	0.36	1.00
Clearance Time (s)			5.0		5.0	
Vehicle Extension (s)			2.0		2.0	
Lane Grp Cap (vph)		1772	1732	1524	613	3505
v/s Ratio Prot			0.22		0.10	c0.65
v/s Ratio Perm		0.14		0.48		
v/c Ratio		0.14	0.44	0.48	0.27	0.65
Uniform Delay, d1		0.0	11.2	0.0	15.6	0.0
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2	0.1	1.1	0.1	0.3
Delay (s)		0.2	11.2	1.1	15.6	0.3
Level of Service		A	B	A	B	A
Approach Delay (s)	0.2		6.3			1.4
Approach LOS	A		A			A

Intersection Summary

HCM Average Control Delay	3.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	0.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Taunton Depot Dr & Route 140

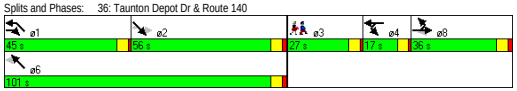
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	ø3
Lane Configurations													
Volume (vph)	225	5	220	5	0	0	0	810	250	185	755	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	12	12	
Storage Length (ft)	0		100	0		0	180		130	320		350	
Storage Lanes	1		1	0		0	1		1	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		846			205			2224			1786		
Travel Time (s)		19.2			4.7			50.5			40.6		
Peak Hour Factor	0.93	0.93	0.93	0.63	0.63	0.63	0.98	0.98	0.98	0.94	0.94	0.94	
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	2%	2%	0%	1%	0%	
Shared Lane Traffic (%)	49%												
Lane Group Flow (vph)	123	124	237	0	8	0	0	827	255	197	803	0	
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt			
Protected Phases	8	8	1	4	4			2		1	6		3
Permitted Phases			8				2		2	6			
Detector Phase	8	8	1	4	4		2	2	2	1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	4.0	4.0		6.0	6.0	6.0	6.0	20.0		4.0
Minimum Split (s)	12.0	12.0	11.0	9.0	9.0		12.0	12.0	12.0	11.0	26.0		27.0
Total Split (s)	36.0	36.0	45.0	17.0	17.0	0.0	56.0	56.0	56.0	45.0	101.0	0.0	27.0
Total Split (%)	19.9%	19.9%	24.9%	9.4%	9.4%	0.0%	30.9%	30.9%	30.9%	24.9%	55.8%	0.0%	15%
Maximum Green (s)	30.0	30.0	40.0	12.0	12.0		50.0	50.0	50.0	40.0	95.0		22.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	1.0		2.0	2.0	2.0	1.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	5.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	6.0	4.0	
Lead/Lag			Lead	Lag	Lag		Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes	Yes				Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		4.0	4.0	4.0	2.0	4.0		3.0
Recall Mode	None	None	None	None	None		Min	Min	Min	None	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													15.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.44	0.45	0.31		0.05			0.56	0.35	0.43	0.35		
Control Delay	37.1	37.1	4.0		41.8			18.4	11.1	8.6	7.0		
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0	0.0	0.0		
Total Delay	37.1	37.1	4.0		41.8			18.4	11.1	8.6	7.0		
Queue Length 50th (ft)	46	46	0		3			123	37	25	65		
Queue Length 95th (ft)	144	145	49		15			284	130	83	167		
Internal Link Dist (ft)		766			125			2144			1706		
Turn Bay Length (ft)			100						130	320			
Base Capacity (vph)	760	765	1383		370			2652	1211	1128	3490		
Starvation Cap Reductn	0	0	0		0			0	0	0	0		
Spillback Cap Reductn	0	0	0		0			0	0	0	0		
Storage Cap Reductn	0	0	0		0			0	0	0	0		
Reduced v/c Ratio	0.16	0.16	0.17		0.02			0.31	0.21	0.17	0.23		

Intersection Summary

Area Type: Other
Cycle Length: 181
Actuated Cycle Length: 71.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Taunton Depot Dr & Route 140



HCM Signalized Intersection Capacity Analysis
36: Taunton Depot Dr & Route 140

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	225	5	220	5	0	0	0	810	250	185	755	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	12	12
Total Lost time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00			0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		1.00			1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00		0.95			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1690	1599		2046			3539	1583	1805	3574	
Flt Permitted	0.95	0.95	1.00		0.95			1.00	1.00	0.21	1.00	
Satd. Flow (perm)	1681	1690	1599		2046			3539	1583	405	3574	
Peak-hour factor, PHF	0.93	0.93	0.93	0.63	0.63	0.63	0.98	0.98	0.98	0.94	0.94	0.94
Adj. Flow (vph)	242	5	237	8	0	0	0	827	255	197	803	0
RTOR Reduction (vph)	0	0	168	0	0	0	0	0	59	0	0	0
Lane Group Flow (vph)	123	124	69	0	8	0	0	827	196	197	803	0
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	2%	2%	0%	1%	0%
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Actuated Green, G (s)	11.8	11.8	21.8		0.8			30.4	30.4	45.4	45.4	
Effective Green, g (s)	11.8	11.8	21.8		0.8			30.4	30.4	45.4	45.4	
Actuated g/C Ratio	0.16	0.16	0.29		0.01			0.41	0.41	0.61	0.61	
Clearance Time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Vehicle Extension (s)	2.0	2.0	2.0		2.0			4.0	4.0	2.0	4.0	
Lane Grp Cap (vph)	264	266	465		22			1434	642	432	2163	
v/s Ratio Prot	0.07	c0.07	0.02		c0.00			c0.23		c0.06	0.22	
v/s Ratio Perm			0.02						0.12	0.22		
v/c Ratio	0.47	0.47	0.15		0.36			0.58	0.30	0.46	0.37	
Uniform Delay, d1	28.7	28.7	19.7		36.8			17.3	15.1	8.2	7.5	
Progression Factor	1.00	1.00	1.00		1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.5	0.1		3.7			0.7	0.4	0.3	0.1	
Delay (s)	29.2	29.2	19.8		40.5			18.0	15.5	8.5	7.7	
Level of Service	C	C	B		D			B	B	A	A	
Approach Delay (s)		24.6			40.5			17.4			7.8	
Approach LOS		C			D			B			A	

Intersection Summary

HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

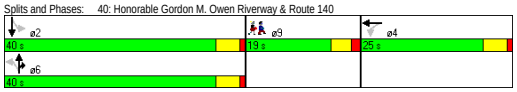
Lanes, Volumes, Timings
40: Honorable Gordon M. Owen Riverway & Route 140

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	0	0	450	0	5	0	500	325	15	645	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	13	12	
Storage Length (ft)	0		0	0		0	0		175	0		0	
Storage Lanes	0		0	0		0	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		220			991			547			1888		
Travel Time (s)		5.0			22.5			12.4			42.9		
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.96	0.96	0.96	0.89	0.89	0.89	
Heavy Vehicles (%)	2%	2%	2%	1%	0%	100%	0%	3%	1%	0%	2%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	555	0	0	521	339	0	742	0	
Turn Type				Perm			Perm		Prot	Perm			
Protected Phases					4			6	6		2		9
Permitted Phases				4			6			2			
Detector Phase				4	4		6	6	6	2	2		
Switch Phase													
Minimum Initial (s)				6.0	6.0		6.0	6.0	6.0	6.0	6.0		1.0
Minimum Split (s)				11.0	11.0		11.0	11.0	11.0	11.0	11.0		19.0
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	40.0	40.0	40.0	40.0	40.0	0.0	19.0
Total Split (%)	0.0%	0.0%	0.0%	29.8%	29.8%	0.0%	47.6%	47.6%	47.6%	47.6%	47.6%	0.0%	23%
Maximum Green (s)				20.0	20.0		35.0	35.0	35.0	35.0	35.0		14.0
Yellow Time (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		3.5
All-Red Time (s)				1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode				None	None		None	None	None	None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													0
v/c Ratio					0.94			0.57	0.34		0.76		
Control Delay					48.8			13.1	2.1		18.0		
Queue Delay					0.0			0.0	0.0		0.0		
Total Delay					48.8			13.1	2.1		18.0		
Queue Length 50th (ft)					215			122	0		203		
Queue Length 95th (ft)					#350			202	32		323		
Internal Link Dist (ft)		140			911			467			1808		
Turn Bay Length (ft)									175				
Base Capacity (vph)					593			1010	1053		1074		
Starvation Cap Reductn					0			0	0		0		
Spillback Cap Reductn					0			0	0		0		
Storage Cap Reductn					0			0	0		0		
Reduced v/c Ratio					0.94			0.52	0.32		0.69		

Intersection Summary

Area Type: Other
Cycle Length: 84
Actuated Cycle Length: 62.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Honorable Gordon M. Owen Riverway & Route 140



HCM Signalized Intersection Capacity Analysis
40: Honorable Gordon M. Owen Riverway & Route 140

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	450	0	5	0	500	325	15	645	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	13	12
Total Lost time (s)					5.0			5.0	5.0		5.0	
Lane Util. Factor					1.00			1.00	1.00		1.00	
Frt					1.00			1.00	0.85		1.00	
Flt Protected					0.95			1.00	1.00		1.00	
Satd. Flow (prot)					1830			1783	1599		1923	
Flt Permitted					0.95			1.00	1.00		0.99	
Satd. Flow (perm)					1830			1783	1599		1898	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.96	0.96	0.96	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	549	0	6	0	521	339	17	725	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	165	0	0	0
Lane Group Flow (vph)	0	0	0	0	554	0	0	521	174	0	742	0
Heavy Vehicles (%)	2%	2%	2%	1%	0%	100%	0%	3%	1%	0%	2%	0%
Turn Type				Perm			Perm		Prot	Perm		
Protected Phases					4			6	6		2	
Permitted Phases				4			6			2		
Actuated Green, G (s)					20.1			31.9	31.9		31.9	
Effective Green, g (s)					20.1			31.9	31.9		31.9	
Actuated g/C Ratio					0.32			0.51	0.51		0.51	
Clearance Time (s)					5.0			5.0	5.0		5.0	
Vehicle Extension (s)					4.0			4.0	4.0		4.0	
Lane Grp Cap (vph)					593			917	823		977	
v/s Ratio Prot								0.29	0.11			
v/s Ratio Perm					0.30						c0.39	
v/c Ratio					0.93			0.57	0.21		0.76	
Uniform Delay, d1					20.3			10.3	8.2		12.0	
Progression Factor					1.00			1.00	1.00		1.00	
Incremental Delay, d2					22.3			1.0	0.2		3.7	
Delay (s)					42.6			11.3	8.4		15.7	
Level of Service					D			B	A		B	
Approach Delay (s)		0.0			42.6			10.2			15.7	
Approach LOS		A			D			B			B	

Intersection Summary

HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	62.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

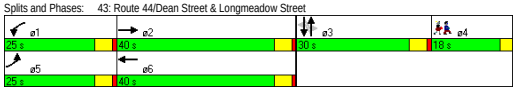
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø4
Lane Configurations													
Volume (vph)	10	780	335	385	730	210	70	315	210	145	225	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12	
Storage Length (ft)	100		70	100		70	0		50	0		100	
Storage Lanes	1		1	1		1	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1663			1440			2994			1249		
Travel Time (s)		37.8			32.7			68.0			28.4		
Peak Hour Factor	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84	
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	11	1199	0	401	979	0	0	646	0	0	453	0	
Turn Type	Prot			Prot			Perm			Perm			
Protected Phases	5	2		1	6			3			3		4
Permitted Phases							3			3			
Detector Phase	5	2		1	6		3	3		3	3		
Switch Phase													
Minimum Initial (s)	9.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0		8.0
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0		18.0
Total Split (s)	25.0	40.0	0.0	25.0	40.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	18.0
Total Split (%)	22.1%	35.4%	0.0%	22.1%	35.4%	0.0%	26.5%	26.5%	0.0%	26.5%	26.5%	0.0%	16%
Maximum Green (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0		3.0
Recall Mode	None	Min		None	Min		None	None		None	None		None
Walk Time (s)													8.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.07	0.94		1.15	0.48			0.94			1.71dl		
Control Delay	40.4	43.2		132.3	11.9			53.8			56.9		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	40.4	43.2		132.3	11.9			53.8			56.9		
Queue Length 50th (ft)	6	347		~287	140			178			138		
Queue Length 95th (ft)	23	#493		#468	270			#293			#207		
Internal Link Dist (ft)		1583			1360			2914			1169		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	355	1272		348	2052			686			503		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.03	0.94		1.15	0.48			0.94			0.90		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 95
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	780	335	385	730	210	70	315	210	145	225	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.95		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1685	3347		1652	3387			3236			3378	
Flt Permitted	0.95	1.00		0.95	1.00			0.73			0.55	
Satd. Flow (perm)	1685	3347		1652	3387			2374			1904	
Peak-hour factor, PHF	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	11	839	360	401	760	219	76	342	228	173	268	12
RTOR Reduction (vph)	0	37	0	0	14	0	0	62	0	0	1	0
Lane Group Flow (vph)	11	1162	0	401	965	0	0	584	0	0	452	0
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)	1.8	39.0		20.0	57.2			25.0			25.0	
Effective Green, g (s)	1.8	39.0		20.0	57.2			25.0			25.0	
Actuated g/C Ratio	0.02	0.39		0.20	0.58			0.25			0.25	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	31	1319		334	1957			599			481	
v/s Ratio Prot	0.01	c0.35		c0.24	0.28							
v/s Ratio Perm								c0.25			0.24	
v/c Ratio	0.35	0.88		1.20	0.49			0.97			1.71dl	
Uniform Delay, d1	48.0	27.8		39.5	12.3			36.7			36.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	9.3	7.7		115.5	0.4			30.3			26.4	
Delay (s)	57.3	35.6		155.0	12.7			67.0			62.7	
Level of Service	E	D		F	B			E			E	
Approach Delay (s)		35.8			54.1			67.0			62.7	
Approach LOS		D			D			E			E	

Intersection Summary

HCM Average Control Delay	51.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	99.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
45: Hart Street & Route 140

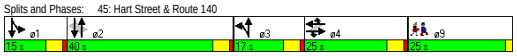
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2	ø9
Lane Configurations														
Volume (vph)	35	95	155	100	145	100	220	630	110	95	815	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12		
Storage Length (ft)	0		50	0		50	50		0	50		0		
Storage Lanes	0		1	0		1	1		0	1		0		
Taper Length (ft)	25		25	25		25	25		25	25		25		
Right Turn on Red			Yes			Yes			Yes			Yes		
Link Speed (mph)		30			30			35			35			
Link Distance (ft)		1373			971			2224			3692			
Travel Time (s)		31.2			22.1			43.3			71.9			
Peak Hour Factor	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96		
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	191	228	0	258	105	0	1011	0	0	958	0		
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt				
Protected Phases		4	4		4	4	3	2 3		1	1 2		2	9
Permitted Phases	4			4			2 3			1 2				
Detector Phase	4	4	4	4	4	4	3	2 3		1	1 2			
Switch Phase														
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0			4.0			8.0	1.0
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0	13.0	9.0			9.0			13.0	25.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	17.0	57.0	0.0	15.0	55.0	0.0	40.0	25.0
Total Split (%)	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	13.9%	46.7%	0.0%	12.3%	45.1%	0.0%	33%	20%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	12.0			10.0			35.0	23.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0			4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0			1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0		
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lead			Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Recall Mode	Max	Max	Max	Max	Max	Max	None			None			None	None
Walk Time (s)														7.0
Flash Dont Walk (s)														16.0
Pedestrian Calls (#/hr)														0
v/c Ratio		0.85	0.55		1.08	0.29		0.87			0.84			
Control Delay		70.0	21.1		118.2	22.4		30.4			27.5			
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0			
Total Delay		70.0	21.1		118.2	22.4		30.4			27.5			
Queue Length 50th (ft)		114	54		~178	32		203			197			
Queue Length 95th (ft)		139	72		#332	78		#279			#257			
Internal Link Dist (ft)		1293			891			2144			3612			
Turn Bay Length (ft)			50			50								
Base Capacity (vph)		225	416		240	364		1165			1135			
Starvation Cap Reductn		0	0		0	0		0			0			
Spillback Cap Reductn		0	0		0	0		0			0			
Storage Cap Reductn		0	0		0	0		0			0			
Reduced v/c Ratio		0.85	0.55		1.08	0.29		0.87			0.84			

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 97
Natural Cycle: 150
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



HCM Signalized Intersection Capacity Analysis
45: Hart Street & Route 140

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	95	155	100	145	100	220	630	110	95	815	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.98			1.00	
Flt Protected		0.99	1.00		0.98	1.00		0.99			0.99	
Satd. Flow (prot)		1799	1531		1836	1599		3357			3486	
Flt Permitted		0.60	1.00		0.62	1.00		0.61			0.61	
Satd. Flow (perm)		1092	1531		1163	1599		2059			2150	
Peak-hour factor, PHF	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	51	140	228	105	153	105	232	663	116	99	849	10
RTOR Reduction (vph)	0	0	100	0	0	34	0	7	0	0	1	0
Lane Group Flow (vph)	0	191	128	0	258	71	0	1004	0	0	957	0
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		20.0	20.0		20.0	20.0		47.0			45.0	
Effective Green, g (s)		20.0	20.0		20.0	20.0		47.0			45.0	
Actuated g/C Ratio		0.21	0.21		0.21	0.21		0.48			0.46	
Clearance Time (s)		5.0	5.0		5.0	5.0						
Vehicle Extension (s)		3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)		225	316		240	330		1158			1135	
v/s Ratio Prot			0.08			0.04		c0.11			c0.09	
v/s Ratio Perm		0.17			c0.22			c0.31			0.30	
v/c Ratio		0.85	0.40		1.08	0.21		0.87			0.84	
Uniform Delay, d1		37.0	33.3		38.5	32.0		22.2			22.9	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		30.9	3.8		79.4	1.5		7.0			5.9	
Delay (s)		67.9	37.2		117.9	33.5		29.3			28.8	
Level of Service		E	D		F	C		C			C	
Approach Delay (s)		51.2			93.5			29.3			28.8	
Approach LOS		D			F			C			C	

Intersection Summary

HCM Average Control Delay	40.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	97.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	89.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
52: Route 44/Dean Street & Arlington Street

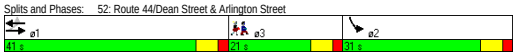
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	20	760	715	80	370	65	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.89	0.89	0.98	0.98	0.97	0.97	
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	22	854	812	0	448	0	
Turn Type	Perm						
Protected Phases		1	1		2		3
Permitted Phases	1						
Detector Phase	1	1	1		2		
Switch Phase							
Minimum Initial (s)	9.0	9.0	9.0		4.0		5.0
Minimum Split (s)	15.0	15.0	15.0		10.0		21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	0.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	0.0%	23%
Maximum Green (s)	35.0	35.0	35.0		25.0		15.0
Yellow Time (s)	4.0	4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	4.0	6.0	4.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		1.0
Recall Mode	None	None	None		None		None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.18	0.91	0.77		0.75		
Control Delay	15.2	33.5	21.0		29.8		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay	15.2	33.5	21.0		29.8		
Queue Length 50th (ft)	5	328	273		168		
Queue Length 95th (ft)	21	#581	#459		267		
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	121	935	1052		679		
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.18	0.91	0.77		0.66		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 69.2
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



HCM Signalized Intersection Capacity Analysis
52: Route 44/Dean Street & Arlington Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	20	760	715	80	370	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	6.0	6.0	6.0		6.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.98	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1685	1845	2068		1875	
Flt Permitted	0.13	1.00	1.00		0.96	
Satd. Flow (perm)	237	1845	2068		1875	
Peak-hour factor, PHF	0.89	0.89	0.98	0.98	0.97	0.97
Adj. Flow (vph)	22	854	730	82	381	67
RTOR Reduction (vph)	0	0	3	0	0	0
Lane Group Flow (vph)	22	854	809	0	448	0
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%
Turn Type	Perm					
Protected Phases		1	1		2	
Permitted Phases	1					
Actuated Green, G (s)	35.1	35.1	35.1		22.1	
Effective Green, g (s)	35.1	35.1	35.1		22.1	
Actuated g/C Ratio	0.51	0.51	0.51		0.32	
Clearance Time (s)	6.0	6.0	6.0		6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	120	936	1049		599	
v/s Ratio Prot		c0.46	0.39		c0.24	
v/s Ratio Perm	0.09					
v/c Ratio	0.18	0.91	0.77		0.75	
Uniform Delay, d1	9.3	15.6	13.8		21.1	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.7	12.9	3.6		5.1	
Delay (s)	10.0	28.6	17.4		26.1	
Level of Service	B	C	B		C	
Approach Delay (s)		28.1	17.4		26.1	
Approach LOS		C	B		C	

Intersection Summary

HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

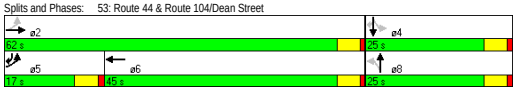
Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	965	0	0	990	15	15	10	5	60	15	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	12	12	12	16
Storage Length (ft)	50		0	0		50	0		0	0		50
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		825			1426			127			959	
Travel Time (s)		18.8			32.4			2.9			21.8	
Peak Hour Factor	0.97	0.97	0.97	0.84	0.84	0.84	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	0%	0%	2%	6%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1134	0	0	1197	0	0	40	0	0	81	290
Turn Type	pm+pt						Perm			Perm		pm+ov
Protected Phases	5	2			6			8			4	5
Permitted Phases	2						8			4		4
Detector Phase	5	2			6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	6.0	12.0			12.0		6.0	6.0		6.0	6.0	6.0
Minimum Split (s)	11.0	17.0			17.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	17.0	62.0	0.0	0.0	45.0	0.0	25.0	25.0	0.0	25.0	25.0	17.0
Total Split (%)	19.5%	71.3%	0.0%	0.0%	51.7%	0.0%	28.7%	28.7%	0.0%	28.7%	28.7%	19.5%
Maximum Green (s)	12.0	57.0			40.0		20.0	20.0		20.0	20.0	12.0
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?	Yes				Yes							Yes
Vehicle Extension (s)	1.5	1.5			1.5		2.0	2.0		2.0	2.0	1.5
Recall Mode	None	Min			Min		None	None		None	None	None
v/c Ratio		0.67			0.73			0.16			0.35	0.47
Control Delay		6.6			14.9			24.3			30.7	17.4
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.6			14.9			24.3			30.7	17.4
Queue Length 50th (ft)		75			154			9			24	60
Queue Length 95th (ft)		135			243			34			78	166
Internal Link Dist (ft)		745			1346			47			879	
Turn Bay Length (ft)												50
Base Capacity (vph)		2125			2636			615			580	801
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.53			0.45			0.07			0.14	0.36

Intersection Summary	
Area Type:	Other
Cycle Length: 87	
Actuated Cycle Length: 55.2	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 53: Route 44 & Route 104/Dean Street



HCM Signalized Intersection Capacity Analysis
53: Route 44 & Route 104/Dean Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	965	0	0	990	15	15	10	5	60	15	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	16	12	12	12	12	12	16
Total Lost time (s)		5.0			5.0			5.0			5.0	5.0
Lane Util. Factor		0.95			0.95			1.00			1.00	1.00
Frt		1.00			1.00			0.98			1.00	0.85
Flt Protected		0.99			1.00			0.98			0.96	1.00
Satd. Flow (prot)		3518			3529			1810			1827	1794
Flt Permitted		0.60			1.00			0.80			0.74	1.00
Satd. Flow (perm)		2121			3529			1484			1408	1794
Peak-hour factor, PHF	0.97	0.97	0.97	0.84	0.84	0.84	0.75	0.75	0.75	0.93	0.93	0.93
Adj. Flow (vph)	139	995	0	0	1179	18	20	13	7	65	16	290
RTOR Reduction (vph)	0	0	0	0	1	0	0	6	0	0	0	25
Lane Group Flow (vph)	0	1134	0	0	1196	0	0	34	0	0	81	265
Heavy Vehicles (%)	2%	2%	0%	0%	2%	6%	0%	0%	0%	0%	0%	2%
Turn Type	pm+pt						Perm			Perm		pm+ov
Protected Phases	5	2			6			8			4	5
Permitted Phases	2						8			4		4
Actuated Green, G (s)		39.1			26.4			6.7			6.7	14.4
Effective Green, g (s)		39.1			26.4			6.7			6.7	14.4
Actuated g/C Ratio		0.70			0.47			0.12			0.12	0.26
Clearance Time (s)		5.0			5.0			5.0			5.0	5.0
Vehicle Extension (s)		1.5			1.5			2.0			2.0	1.5
Lane Grp Cap (vph)		1679			1670			178			169	624
v/s Ratio Prot		c0.09			0.34							c0.06
v/s Ratio Perm		c0.38						0.02			0.06	0.09
v/c Ratio		0.68			0.72			0.19			0.48	0.42
Uniform Delay, d1		4.7			11.7			22.1			22.9	17.2
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.9			1.2			0.2			0.8	0.2
Delay (s)		5.6			13.0			22.3			23.7	17.4
Level of Service		A			B			C			C	B
Approach Delay (s)		5.6			13.0			22.3			18.8	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	55.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
57: Spring Street & Summer Street

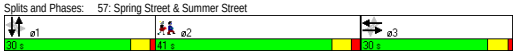
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	40	205	105	15	235	10	55	355	10	10	335	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	16	12	
Right Turn on Red			Yes			No			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		376			382			1581			384		
Travel Time (s)		8.5			8.7			35.9			8.7		
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.85	0.85	0.85	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	2%	1%	0%	1%	0%	0%	2%	0%	0%	1%	3%	
Parking (#/hr)											0		
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	437	0	0	342	0	0	495	0	0	403	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	41.0
Total Split (%)	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	41%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.62			0.40			0.70			0.52		
Control Delay		17.8			14.0			20.9			15.8		
Queue Delay		0.0			0.0			0.0			0.1		
Total Delay		17.8			14.0			20.9			16.0		
Queue Length 50th (ft)		113			83			141			102		
Queue Length 95th (ft)		164			113			218			174		
Internal Link Dist (ft)		296			302			1501			304		
Turn Bay Length (ft)													
Base Capacity (vph)		705			854			708			780		
Starvation Cap Reductn		0			0			0			44		
Spillback Cap Reductn		0			0			0			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.62			0.40			0.70			0.55		

Intersection Summary

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 60
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 57: Spring Street & Summer Street



HCM Signalized Intersection Capacity Analysis
57: Spring Street & Summer Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	205	105	15	235	10	55	355	10	10	335	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	16	12
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			1.00			0.99	
Flt Protected		0.99			1.00			0.99			1.00	
Satd. Flow (prot)		1782			2117			1850			1893	
Flt Permitted		0.93			0.97			0.91			0.98	
Satd. Flow (perm)		1662			2049			1696			1866	
Peak-hour factor, PHF	0.80	0.80	0.80	0.76	0.76	0.76	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	50	256	131	20	309	13	65	418	12	11	360	32
RTOR Reduction (vph)	0	12	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	425	0	0	342	0	0	494	0	0	401	0
Heavy Vehicles (%)	2%	2%	1%	0%	1%	0%	0%	2%	0%	0%	1%	3%
Parking (#/hr)											0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.0			25.0			25.0			25.0	
Effective Green, g (s)		25.0			25.0			25.0			25.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		693			854			707			778	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.17			c0.29			0.21	
v/c Ratio		0.61			0.40			0.70			0.51	
Uniform Delay, d1		13.7			12.3			14.4			13.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.0			1.4			5.7			2.4	
Delay (s)		17.7			13.7			20.1			15.4	
Level of Service		B			B			C			B	
Approach Delay (s)		17.7			13.7			20.1			15.4	
Approach LOS		B			B			C			B	

Intersection Summary

HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

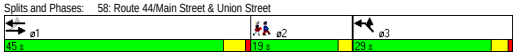
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2	ø2
Lane Configurations												
Volume (vph)	15	460	375	0	485	20	0	0	375	25	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	16	12	16	12	12	12	12	16	15	
Right Turn on Red			Yes			Yes		Yes			Yes	
Link Speed (mph)		30			30		30		30			
Link Distance (ft)		913			784		606		384			
Travel Time (s)		20.8			17.8		13.8		8.7			
Peak Hour Factor	0.93	0.93	0.93	0.86	0.86	0.86	0.92	0.92	0.91	0.91	0.91	
Heavy Vehicles (%)	7%	3%	1%	0%	4%	0%	0%	0%	2%	4%	0%	
Parking (#/hr)			0			0						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	914	0	0	587	0	0	0	412	43	0	
Turn Type	Perm									Prot		
Protected Phases		1			1				3	3		2
Permitted Phases	1											
Detector Phase	1	1			1				3	3		
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0				5.0	5.0		1.0
Minimum Split (s)	20.0	20.0			20.0				9.0	9.0		19.0
Total Split (s)	45.0	45.0	0.0	0.0	45.0	0.0	0.0	0.0	29.0	29.0	0.0	19.0
Total Split (%)	48.4%	48.4%	0.0%	0.0%	48.4%	0.0%	0.0%	0.0%	31.2%	31.2%	0.0%	20%
Maximum Green (s)	40.0	40.0			40.0				25.0	25.0		16.0
Yellow Time (s)	4.0	4.0			4.0				3.0	3.0		3.0
All-Red Time (s)	1.0	1.0			1.0				1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead			Lead							Lag
Lead-Lag Optimize?	Yes	Yes			Yes							Yes
Vehicle Extension (s)	3.0	3.0			3.0				3.0	3.0		3.0
Recall Mode	Max	Max			Max				Max	Max		None
Walk Time (s)												7.0
Flash Dont Walk (s)												9.0
Pedestrian Calls (#/hr)												0
v/c Ratio		0.84			0.53				0.69	0.07		
Control Delay		22.9			13.0				28.3	12.4		
Queue Delay		0.0			0.0				0.1	0.0		
Total Delay		22.9			13.0				28.4	12.4		
Queue Length 50th (ft)		310			159				160	8		
Queue Length 95th (ft)		#566			226				258	28		
Internal Link Dist (ft)		833			704		526		304			
Turn Bay Length (ft)												
Base Capacity (vph)		1083			1117				598	614		
Starvation Cap Reductn		0			0				10	0		
Spillback Cap Reductn		0			0				0	0		
Storage Cap Reductn		0			0				0	0		
Reduced v/c Ratio		0.84			0.53				0.70	0.07		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 74
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: Route 44/Main Street & Union Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2
Lane Configurations											
Volume (vph)	15	460	375	0	485	20	0	0	375	25	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	16	12	16	12	12	12	12	16	15
Total Lost time (s)		5.0			5.0				4.0	4.0	
Lane Util. Factor		1.00			1.00				1.00	1.00	
Frt		0.94			0.99				1.00	0.85	
Flt Protected		1.00			1.00				0.95	1.00	
Satd. Flow (prot)		1980			2063				1770	1785	
Flt Permitted		0.99			1.00				0.95	1.00	
Satd. Flow (perm)		1958			2063				1770	1785	
Peak-hour factor, PHF	0.93	0.93	0.93	0.86	0.86	0.86	0.92	0.92	0.91	0.91	0.91
Adj. Flow (vph)	16	495	403	0	564	23	0	0	412	27	16
RTOR Reduction (vph)	0	25	0	0	1	0	0	0	0	11	0
Lane Group Flow (vph)	0	889	0	0	586	0	0	0	412	32	0
Heavy Vehicles (%)	7%	3%	1%	0%	4%	0%	0%	0%	2%	4%	0%
Parking (#/hr)			0			0					
Turn Type	Perm									Prot	
Protected Phases		1			1				3	3	
Permitted Phases	1										
Actuated Green, G (s)		40.0			40.0				25.0	25.0	
Effective Green, g (s)		40.0			40.0				25.0	25.0	
Actuated g/C Ratio		0.54			0.54				0.34	0.34	
Clearance Time (s)		5.0			5.0				4.0	4.0	
Vehicle Extension (s)		3.0			3.0				3.0	3.0	
Lane Grp Cap (vph)		1058			1115				598	603	
v/s Ratio Prot					0.28				c0.23	0.02	
v/s Ratio Perm		c0.45									
v/c Ratio		0.84			0.53				0.69	0.05	
Uniform Delay, d1		14.3			10.9				21.1	16.5	
Progression Factor		1.00			1.00				1.00	1.00	
Incremental Delay, d2		8.1			1.8				6.4	0.2	
Delay (s)		22.4			12.7				27.5	16.7	
Level of Service		C			B				C	B	
Approach Delay (s)		22.4			12.7		0.0		26.5		
Approach LOS		C			B		A		C		

Intersection Summary

HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
61: Taunton Green & Broadway

2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	160	855	320	0	0	1075	0	190	125	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		304			913			579			302		
Travel Time (s)		6.9			20.8			13.2			6.9		
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%	
Parking (#/hr)			0			0			0				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	172	919	344	0	0	1168	0	216	142	0	0	0	
Turn Type	Perm		Perm			Free			Perm				
Protected Phases		1						3					2
Permitted Phases	1		1			Free			3				
Detector Phase	1	1	1					3	3				
Switch Phase													
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0				1.0
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0				21.0
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	21.0
Total Split (%)	40.7%	40.7%	40.7%	0.0%	0.0%	0.0%	0.0%	34.9%	34.9%	0.0%	0.0%	0.0%	24%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0				17.0
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0				4.0
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead										Lag
Lead-Lag Optimize?	Yes	Yes	Yes										Yes
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0				2.0
Recall Mode	Max	Max	Max					Max	Max				Ped
Walk Time (s)													10.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.24	0.75	0.44			0.44		0.43	0.29				
Control Delay	5.4	28.8	4.0			0.5		27.9	6.1				
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0				
Total Delay	5.4	28.8	4.0			0.5		27.9	6.1				
Queue Length 50th (ft)	6	228	0			0		94	0				
Queue Length 95th (ft)	47	298	49			0		154	39				
Internal Link Dist (ft)		224			833			499			222		
Turn Bay Length (ft)													
Base Capacity (vph)	714	1223	787			2647		506	487				
Starvation Cap Reductn	0	0	0			0		0	0				
Spillback Cap Reductn	0	0	0			0		0	0				
Storage Cap Reductn	0	0	0			0		0	0				
Reduced v/c Ratio	0.24	0.75	0.44			0.44		0.43	0.29				

Intersection Summary

Area Type: Other
Cycle Length: 86
Actuated Cycle Length: 86
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 61: Taunton Green & Broadway

HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	855	320	0	0	1075	0	190	125	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1770	3505	1615			2647		1739	1330			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1770	3505	1615			2647		1739	1330			
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	172	919	344	0	0	1168	0	216	142	0	0	0
RTOR Reduction (vph)	96	0	224	0	0	0	0	0	101	0	0	0
Lane Group Flow (vph)	76	919	120	0	0	1168	0	216	41	0	0	0
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Actuated g/C Ratio	0.35	0.35	0.35			1.00		0.29	0.29			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	617	1223	563			2647		506	387			
v/s Ratio Prot		c0.26						0.12				
v/s Ratio Perm	0.04		0.07			c0.44			0.03			
v/c Ratio	0.12	0.75	0.21			0.44		0.43	0.11			
Uniform Delay, d1	19.0	24.7	19.7			0.0		24.7	22.3			
Progression Factor	0.91	0.98	0.86			1.00		1.00	1.00			
Incremental Delay, d2	0.4	4.3	0.9			0.5		2.6	0.6			
Delay (s)	17.7	28.4	17.9			0.5		27.3	22.9			
Level of Service	B	C	B			A		C	C			
Approach Delay (s)		24.6			0.5			25.6			0.0	
Approach LOS		C			A			C			A	

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

2008 Existing Condition - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations							
Volume (vph)	415	20	540	230	50	650	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.94	0.94	0.92	0.92	0.95	0.95	
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	441	21	587	250	53	684	
Turn Type		Perm		Perm	Perm		
Protected Phases	3		1			1	2
Permitted Phases		3		1	1		
Minimum Split (s)	10.0	10.0	15.0	15.0	15.0	15.0	17.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0	55.0	17.0
Total Split (%)	25.8%	25.8%	56.7%	56.7%	56.7%	56.7%	18%
Maximum Green (s)	20.0	20.0	50.0	50.0	50.0	50.0	15.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag			Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							0
v/c Ratio	1.18	0.06	0.65	0.29	0.20	0.71	
Control Delay	142.1	24.5	21.3	2.6	15.4	22.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	142.1	24.5	21.3	2.6	15.4	22.9	
Queue Length 50th (ft)	~329	7	251	0	17	306	
Queue Length 95th (ft)	#516	27	370	36	42	443	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	373	361	905	856	259	970	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	1.18	0.06	0.65	0.29	0.20	0.71	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 97
Offset: 0 (0%), Referenced to phase 2:Ped and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 71: Court Street & Washington Street

HCM Signalized Intersection Capacity Analysis
71: Court Street & Washington Street

2008 Existing Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	415	20	540	230	50	650
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1811	1723	1756	1425	1671	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.29	1.00
Satd. Flow (perm)	1811	1723	1756	1425	503	1881
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.95	0.95
Adj. Flow (vph)	441	21	587	250	53	684
RTOR Reduction (vph)	0	6	0	121	0	0
Lane Group Flow (vph)	441	15	587	129	53	684
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%
Turn Type		Perm		Perm	Perm	
Protected Phases	3		1			1
Permitted Phases		3		1	1	
Actuated Green, G (s)	20.0	20.0	50.0	50.0	50.0	50.0
Effective Green, g (s)	20.0	20.0	50.0	50.0	50.0	50.0
Actuated g/C Ratio	0.21	0.21	0.52	0.52	0.52	0.52
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	373	355	905	735	259	970
v/s Ratio Prot	c0.24		0.33			c0.36
v/s Ratio Perm		0.01		0.09	0.11	
v/c Ratio	1.18	0.04	0.65	0.18	0.20	0.71
Uniform Delay, d1	38.5	30.8	17.1	12.5	12.7	17.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	106.2	0.2	3.6	0.5	1.8	4.3
Delay (s)	144.7	31.1	20.7	13.0	14.5	22.2
Level of Service	F	C	C	B	B	C
Approach Delay (s)	139.5		18.4			21.6
Approach LOS	F		B			C

Intersection Summary

HCM Average Control Delay	47.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	97.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

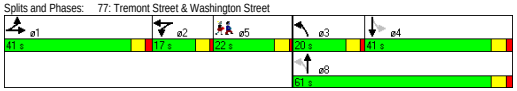
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø5
Lane Configurations													
Volume (vph)	480	165	95	25	125	35	100	300	55	35	340	490	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		698			192			1911			574		
Travel Time (s)		15.9			4.4			43.4			13.0		
Peak Hour Factor	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88	
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%	
Shared Lane Traffic (%)	23%												
Lane Group Flow (vph)	381	382	0	0	228	0	0	484	0	0	983	0	
Turn Type	Split			Split			pm+pt			Perm			
Protected Phases	1	1		2	2		3	8			4		5
Permitted Phases							8			4			
Detector Phase	1	1		2	2		3	8		4	4		
Switch Phase													
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0		3.0
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0		22.0
Total Split (s)	41.0	41.0	0.0	17.0	17.0	0.0	20.0	61.0	0.0	41.0	41.0	0.0	22.0
Total Split (%)	29.1%	29.1%	0.0%	12.1%	12.1%	0.0%	14.2%	43.3%	0.0%	29.1%	29.1%	0.0%	16%
Maximum Green (s)	35.0	35.0		12.0	12.0		15.0	55.0		35.0	35.0		17.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None		None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													10.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.72	0.76			0.94			0.88dl			0.79		
Control Delay	37.4	39.3			86.3			30.3			25.3		
Queue Delay	0.0	0.0			0.0			0.0			0.0		
Total Delay	37.4	39.3			86.3			30.3			25.3		
Queue Length 50th (ft)	204	202			128			117			204		
Queue Length 95th (ft)	324	326			#267			202			313		
Internal Link Dist (ft)		618			112			1831			494		
Turn Bay Length (ft)													
Base Capacity (vph)	693	651			242			1068			1241		
Starvation Cap Reductn	0	0			0			0			0		
Spillback Cap Reductn	0	0			0			0			0		
Storage Cap Reductn	0	0			0			0			0		
Reduced v/c Ratio	0.55	0.59			0.94			0.45			0.79		

Intersection Summary

Area Type: Other
Cycle Length: 141
Actuated Cycle Length: 91.9
Natural Cycle: 125
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 77: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
77: Tremont Street & Washington Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	480	165	95	25	125	35	100	300	55	35	340	490
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	
Lane Util. Factor	0.95	0.95			1.00			0.95			0.95	
Frt	1.00	0.96			0.97			0.98			0.92	
Flt Protected	0.95	0.99			0.99			0.99			1.00	
Satd. Flow (prot)	1811	1681			1805			3351			3103	
Flt Permitted	0.95	0.99			0.99			0.52			0.91	
Satd. Flow (perm)	1811	1681			1805			1766			2832	
Peak-hour factor, PHF	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	495	170	98	31	154	43	106	319	59	40	386	557
RTOR Reduction (vph)	0	8	0	0	5	0	0	8	0	0	136	0
Lane Group Flow (vph)	381	374	0	0	223	0	0	476	0	0	847	0
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	26.9	26.9			12.1			35.9			35.9	
Effective Green, g (s)	26.9	26.9			12.1			35.9			35.9	
Actuated g/C Ratio	0.29	0.29			0.13			0.39			0.39	
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	530	492			238			690			1106	
v/s Ratio Prot	0.21	c0.22			c0.12							
v/s Ratio Perm								0.27			c0.30	
v/c Ratio	0.72	0.76			0.94			0.88dl			0.77	
Uniform Delay, d1	29.1	29.6			39.5			23.4			24.3	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	3.9	5.9			40.3			2.3			2.9	
Delay (s)	33.0	35.5			79.8			25.7			27.2	
Level of Service	C	D			E			C			C	
Approach Delay (s)		34.2			79.8			25.7			27.2	
Approach LOS		C			E			C			C	

Intersection Summary

HCM Average Control Delay	34.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	91.9	Sum of lost time (s)	17.0
Intersection Capacity Utilization	91.0%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
93: Washington Street & Broadway

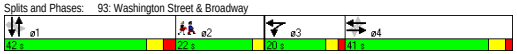
2008 Existing Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	270	140	5	35	140	5	5	480	55	20	480	375	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	12	12	12	12	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			No			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1068			1376			92			2042		
Travel Time (s)		24.3			31.3			2.1			46.4		
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.98	0.98	0.98	0.95	0.95	0.95	
Heavy Vehicles (%)	3%	2%	0%	3%	3%	50%	29%	4%	15%	9%	4%	3%	
Parking (#/hr)									2				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	450	0	0	215	0	0	551	0	0	526	395	
Turn Type	Perm			pm+pt			Perm			Perm		Perm	
Protected Phases		4		3	3 4			1			1		2
Permitted Phases	4			3 4			1			1		1	
Detector Phase	4	4		3	3 4		1	1		1	1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		4.0			18.0	18.0		18.0	18.0	18.0	1.0
Minimum Split (s)	14.0	14.0		9.0			25.0	25.0		25.0	25.0	25.0	22.0
Total Split (s)	41.0	41.0	0.0	20.0	61.0	0.0	42.0	42.0	0.0	42.0	42.0	42.0	22.0
Total Split (%)	32.8%	32.8%	0.0%	16.0%	48.8%	0.0%	33.6%	33.6%	0.0%	33.6%	33.6%	33.6%	18%
Maximum Green (s)	35.0	35.0		15.0			35.0	35.0		35.0	35.0	35.0	19.0
Yellow Time (s)	4.0	4.0		3.0			4.0	4.0		4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	7.0	7.0	4.0	7.0	7.0	7.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.0			3.0	3.0		3.0	3.0	3.0	2.0
Recall Mode	None	None		None			Max	Max		Max	Max	Max	None
Walk Time (s)													7.0
Flash Dont Walk (s)													12.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.89			0.27			0.48			0.85	0.71	
Control Delay		53.1			13.8			26.5			44.4	36.6	
Queue Delay		0.0			0.0			0.0			0.0	0.0	
Total Delay		53.1			13.8			26.5			44.4	36.6	
Queue Length 50th (ft)		265			70			137			302	212	
Queue Length 95th (ft)		#477			103			198			#514	342	
Internal Link Dist (ft)		988			1296			12			1962		
Turn Bay Length (ft)												50	
Base Capacity (vph)		503			851			1142			622	555	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			0			0			0	0	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.89			0.25			0.48			0.85	0.71	

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 98.9
Natural Cycle: 110
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 93: Washington Street & Broadway



HCM Signalized Intersection Capacity Analysis
93: Washington Street & Broadway

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	270	140	5	35	140	5	5	480	55	20	480	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			5.0			7.0			7.0	7.0
Lane Util. Factor		1.00			1.00			0.95			1.00	1.00
Frt		1.00			1.00			0.98			1.00	0.85
Flt Protected		0.97			0.99			1.00			1.00	1.00
Satd. Flow (prot)		2029			1797			3373			1820	1568
Flt Permitted		0.68			0.89			0.95			0.96	1.00
Satd. Flow (perm)		1423			1619			3206			1756	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.98	0.98	0.98	0.95	0.95	0.95
Adj. Flow (vph)	293	152	5	42	167	6	5	490	56	21	505	395
RTOR Reduction (vph)	0	0	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	450	0	0	215	0	0	545	0	0	526	395
Heavy Vehicles (%)	3%	2%	0%	3%	3%	50%	29%	4%	15%	9%	4%	3%
Parking (#/hr)									2			
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Actuated Green, G (s)		35.0			45.9			35.0			35.0	35.0
Effective Green, g (s)		35.0			45.9			35.0			35.0	35.0
Actuated g/C Ratio		0.35			0.46			0.35			0.35	0.35
Clearance Time (s)		6.0						7.0			7.0	7.0
Vehicle Extension (s)		4.0						3.0			3.0	3.0
Lane Grp Cap (vph)		504			771			1135			621	555
v/s Ratio Prot					c0.03							
v/s Ratio Perm		c0.32			0.10			0.17			c0.30	0.25
v/c Ratio		0.89			0.28			0.48			0.85	0.71
Uniform Delay, d1		30.2			16.3			24.9			29.5	27.6
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		18.3			0.1			1.5			13.4	7.6
Delay (s)		48.4			16.4			26.3			42.9	35.2
Level of Service		D			B			C			D	D
Approach Delay (s)		48.4			16.4			26.3			39.6	
Approach LOS		D			B			C			D	

Intersection Summary

HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	98.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

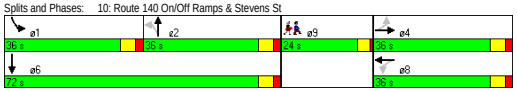
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	5	5	0	10	5	110	5	205	70	80	55	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	13	16	12	12	16	12	12	16	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	200		0	
Storage Lanes	0		0	0		0	0		0	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		819			376			787			471		
Travel Time (s)		18.6			8.5			17.9			10.7		
Peak Hour Factor	0.45	0.45	0.45	0.84	0.84	0.84	0.85	0.85	0.85	0.84	0.84	0.84	
Heavy Vehicles (%)	0%	0%	0%	33%	0%	3%	0%	7%	13%	11%	4%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	22	0	0	149	0	0	329	0	95	77	0	
Turn Type	Perm			Perm			Perm			Prot			
Protected Phases		4			8			2		1	6		9
Permitted Phases	4			8			2						
Detector Phase	4	4		8	8		2	2		1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		4.0
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		24.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0	36.0	72.0	0.0	24.0
Total Split (%)	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	54.5%	0.0%	18%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	66.0		20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag							Lag	Lag		Lead			
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		3.0
Recall Mode	None	None		None	None		None	None		None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.03			0.22			0.39		0.14	0.08		
Control Delay		14.9			6.2			13.1		15.2	4.2		
Queue Delay		0.0			0.0			0.0		0.0	0.0		
Total Delay		14.9			6.2			13.1		15.2	4.2		
Queue Length 50th (ft)		2			1			28		9	6		
Queue Length 95th (ft)		4			17			53		22	16		
Internal Link Dist (ft)		739			296			707			391		
Turn Bay Length (ft)										200			
Base Capacity (vph)		2652			2271			2476		2561	1796		
Starvation Cap Reductn		0			0			0		0	0		
Spillback Cap Reductn		0			0			0		0	0		
Storage Cap Reductn		0			0			0		0	0		
Reduced v/c Ratio		0.01			0.07			0.13		0.04	0.04		

Intersection Summary

Area Type: Other
Cycle Length: 132
Actuated Cycle Length: 34.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Route 140 On/Off Ramps & Stevens St



HCM Signalized Intersection Capacity Analysis
10: Route 140 On/Off Ramps & Stevens St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	5	0	10	5	110	5	205	70	80	55	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	16	12	12	16	12	12	16	12	12	12
Total Lost time (s)		6.0			6.0			6.0		6.0	6.0	
Lane Util. Factor		0.95			0.95			0.95		0.97	1.00	
Frt		1.00			0.87			0.96		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		3639			2964			3204		3155	1795	
Flt Permitted		0.88			0.93			0.95		0.95	1.00	
Satd. Flow (perm)		3269			2768			3043		3155	1795	
Peak-hour factor, PHF	0.45	0.45	0.45	0.84	0.84	0.84	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	11	11	0	12	6	131	6	241	82	95	65	12
RTOR Reduction (vph)	0	0	0	0	115	0	0	24	0	0	5	0
Lane Group Flow (vph)	0	22	0	0	34	0	0	305	0	95	72	0
Heavy Vehicles (%)	0%	0%	0%	33%	0%	3%	0%	7%	13%	11%	4%	0%
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		4.3			4.3			9.2		4.4	19.6	
Effective Green, g (s)		4.3			4.3			9.2		4.4	19.6	
Actuated g/C Ratio		0.12			0.12			0.26		0.12	0.55	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		392			332			780		387	980	
v/s Ratio Prot										c0.03	0.04	
v/s Ratio Perm		0.01			c0.01			c0.10				
v/c Ratio		0.06			0.10			0.39		0.25	0.07	
Uniform Delay, d1		14.0			14.1			11.0		14.2	3.9	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.0			0.0			0.1		0.1	0.0	
Delay (s)		14.0			14.1			11.2		14.4	3.9	
Level of Service		B			B			B		B	A	
Approach Delay (s)		14.0			14.1			11.2			9.7	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	35.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

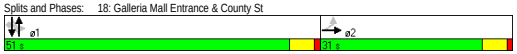
Lanes, Volumes, Timings
18: Galleria Mall Entrance & County St

2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	10	10	0	0	0	5	100	0	50	50	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	14	12	12	12	12	12	16	12	12	16
Storage Length (ft)	0		0	0		0	200		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			269			674			311	
Travel Time (s)		9.0			6.1			15.3			7.1	
Peak Hour Factor	0.83	0.83	0.83	0.77	0.77	0.77	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles (%)	41%	25%	38%	0%	0%	0%	36%	4%	0%	13%	8%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	0	0	0	124	0	0	114	86
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Detector Phase	2	2					1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0					8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	13.0	13.0					13.0	13.0		13.0	13.0	13.0
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0	51.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%	62.2%	62.2%	62.2%
Maximum Green (s)	26.0	26.0					46.0	46.0		46.0	46.0	46.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag					Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0					2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None					Min	Min		Min	Min	Min
v/c Ratio		0.06						0.04			0.05	0.06
Control Delay		8.2						2.0			2.0	1.2
Queue Delay		0.0						0.0			0.0	0.0
Total Delay		8.2						2.0			2.0	1.2
Queue Length 50th (ft)		1						0			0	0
Queue Length 95th (ft)		9						12			11	10
Internal Link Dist (ft)		316			189			594			231	
Turn Bay Length (ft)												
Base Capacity (vph)		2420						3239			2721	1679
Starvation Cap Reductn		0						0			0	0
Spillback Cap Reductn		0						0			0	0
Storage Cap Reductn		0						0			0	0
Reduced v/c Ratio		0.02						0.04			0.04	0.05

Intersection Summary	
Area Type:	Other
Cycle Length: 82	
Actuated Cycle Length: 29.9	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 18: Galleria Mall Entrance & County St



HCM Signalized Intersection Capacity Analysis
18: Galleria Mall Entrance & County St

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	10	10	0	0	0	5	100	0	50	50	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	14	12	12	12	12	12	16	12	12	16
Total Lost time (s)		5.0						5.0			5.0	5.0
Lane Util. Factor		0.95						0.95			0.95	1.00
Frt		0.96						1.00			1.00	0.85
Flt Protected		0.98						1.00			0.98	1.00
Satd. Flow (prot)		2745						3412			3187	1679
Flt Permitted		0.98						0.95			0.83	1.00
Satd. Flow (perm)		2745						3238			2722	1679
Peak-hour factor, PHF	0.83	0.83	0.83	0.77	0.77	0.77	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	18	12	12	0	0	0	6	118	0	57	57	86
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	28
Lane Group Flow (vph)	0	30	0	0	0	0	0	124	0	0	114	58
Heavy Vehicles (%)	41%	25%	38%	0%	0%	0%	36%	4%	0%	13%	8%	9%
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Actuated Green, G (s)		1.3						22.8			22.8	22.8
Effective Green, g (s)		1.3						22.8			22.8	22.8
Actuated g/C Ratio		0.04						0.67			0.67	0.67
Clearance Time (s)		5.0						5.0			5.0	5.0
Vehicle Extension (s)		2.0						2.0			2.0	2.0
Lane Grp Cap (vph)		105						2165			1820	1123
v/s Ratio Prot												
v/s Ratio Perm		0.01						0.04			c0.04	0.03
v/c Ratio		0.29						0.06			0.06	0.05
Uniform Delay, d1		16.0						1.9			2.0	1.9
Progression Factor		1.00						1.00			1.00	1.00
Incremental Delay, d2		0.6						0.0			0.0	0.0
Delay (s)		16.5						2.0			2.0	1.9
Level of Service		B						A			A	A
Approach Delay (s)		16.5			0.0			2.0			2.0	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	3.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.07		
Actuated Cycle Length (s)	34.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	24.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

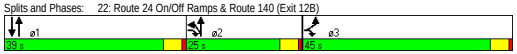
Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	200	605	75	740	585	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	12	12	12
Storage Length (ft)	0	50	50			100
Storage Lanes	1	1	1			1
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	741			870	518	
Travel Time (s)	16.8			19.8	11.8	
Peak Hour Factor	0.85	0.85	0.90	0.90	0.84	0.84
Heavy Vehicles (%)	5%	9%	16%	4%	6%	2%
Shared Lane Traffic (%)		35%				
Lane Group Flow (vph)	484	463	83	822	964	0
Turn Type		pt+ov	Prot			
Protected Phases	3	2 3	2	1 2	1	
Permitted Phases						
Detector Phase	3	2 3	2	1 2	1	
Switch Phase						
Minimum Initial (s)	12.0		8.0		10.0	
Minimum Split (s)	17.0		13.0		15.0	
Total Split (s)	45.0	70.0	25.0	64.0	39.0	0.0
Total Split (%)	41.3%	64.2%	22.9%	58.7%	35.8%	0.0%
Maximum Green (s)	40.0		20.0		34.0	
Yellow Time (s)	4.0		4.0		4.0	
All-Red Time (s)	1.0		1.0		1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes			
Vehicle Extension (s)	4.0		3.0		4.0	
Recall Mode	None		None		Min	
v/c Ratio	0.83	0.57	0.28	0.42	0.86	
Control Delay	44.6	17.1	40.4	14.1	40.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	44.6	17.1	40.4	14.1	40.9	
Queue Length 50th (ft)	292	191	49	163	311	
Queue Length 95th (ft)	386	263	97	220	370	
Internal Link Dist (ft)	661			790	438	
Turn Bay Length (ft)		50	50			
Base Capacity (vph)	687	878	304	1961	1130	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.70	0.53	0.27	0.42	0.85	

Intersection Summary	
Area Type:	Other
Cycle Length: 109	
Actuated Cycle Length: 103	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 22: Route 24 On/Off Ramps & Route 140 (Exit 12B)



HCM Signalized Intersection Capacity Analysis
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2008 Existing Condition - AM Peak Hour

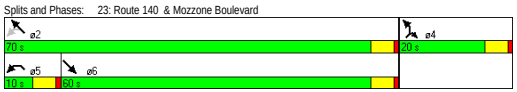
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	200	605	75	740	585	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	15	12	12	12	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	
Frt	0.92	0.85	1.00	1.00	0.96	
Flt Protected	0.98	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1759	1408	1556	3471	3298	
Flt Permitted	0.98	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1759	1408	1556	3471	3298	
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.84	0.84
Adj. Flow (vph)	235	712	83	822	696	268
RTOR Reduction (vph)	0	0	0	0	36	0
Lane Group Flow (vph)	484	463	83	822	928	0
Heavy Vehicles (%)	5%	9%	16%	4%	6%	2%
Turn Type		pt+ov	Prot			
Protected Phases	3	2 3	2	1 2	1	
Permitted Phases						
Actuated Green, G (s)	34.2	59.1	19.9	58.7	33.8	
Effective Green, g (s)	34.2	59.1	19.9	58.7	33.8	
Actuated g/C Ratio	0.33	0.57	0.19	0.57	0.33	
Clearance Time (s)	5.0		5.0		5.0	
Vehicle Extension (s)	4.0		3.0		4.0	
Lane Grp Cap (vph)	585	809	301	1980	1083	
v/s Ratio Prot	c0.28	c0.33	0.05	0.24	c0.28	
v/s Ratio Perm						
v/c Ratio	0.83	0.57	0.28	0.42	0.86	
Uniform Delay, d1	31.6	13.9	35.4	12.4	32.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	9.8	1.0	0.5	0.2	7.1	
Delay (s)	41.4	14.9	35.9	12.6	39.4	
Level of Service	D	B	D	B	D	
Approach Delay (s)	28.4			14.8	39.4	
Approach LOS	C			B	D	

Intersection Summary			
HCM Average Control Delay	27.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	102.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	795	20	35	905	5	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	0		0	0
Storage Lanes		0	0		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1797			332	1312	
Travel Time (s)	40.8			7.5	29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	886	0	0	1022	5	16
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Detector Phase	6		5	2	4	4
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	15.0		10.0	10.0	15.0	15.0
Total Split (s)	60.0	0.0	10.0	70.0	20.0	20.0
Total Split (%)	66.7%	0.0%	11.1%	77.8%	22.2%	22.2%
Maximum Green (s)	55.0		5.0	65.0	15.0	15.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	Min		None	Min	None	None
v/c Ratio	0.27			0.34	0.02	0.06
Control Delay	1.2			1.5	18.0	11.2
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	1.2			1.5	18.0	11.2
Queue Length 50th (ft)	0			0	1	0
Queue Length 95th (ft)	66			85	9	14
Internal Link Dist (ft)	1717			252	1232	
Turn Bay Length (ft)						
Base Capacity (vph)	3525			3207	752	682
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.25			0.32	0.01	0.02

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 37.1	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 23: Route 140 & Mozzone Boulevard



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	795	20	35	905	5	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3526			3533	1770	1583
Flt Permitted	1.00			0.91	0.95	1.00
Satd. Flow (perm)	3526			3206	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	864	22	38	984	5	16
RTOR Reduction (vph)	1	0	0	0	0	16
Lane Group Flow (vph)	885	0	0	1022	5	0
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Actuated Green, G (s)	30.3			30.3	0.9	0.9
Effective Green, g (s)	30.3			30.3	0.9	0.9
Actuated g/C Ratio	0.74			0.74	0.02	0.02
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2593			2358	39	35
v/s Ratio Prot	0.25				c0.00	0.00
v/s Ratio Perm				c0.32		
v/c Ratio	0.34			0.43	0.13	0.01
Uniform Delay, d1	1.9			2.1	19.8	19.7
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.1	1.5	0.1
Delay (s)	2.0			2.2	21.3	19.8
Level of Service	A			A	C	B
Approach Delay (s)	2.0			2.2	20.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	2.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	41.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

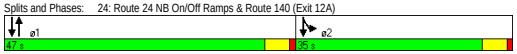
2008 Existing Condition - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	270	565	1095	270	910
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12
Storage Length (ft)	0	0		300	50	
Storage Lanes	0	1		1	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	736		624			870
Travel Time (s)	16.7		14.2			19.8
Peak Hour Factor	0.92	0.92	0.86	0.86	0.92	0.92
Heavy Vehicles (%)	0%	1%	7%	6%	6%	8%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	293	657	1273	293	989
Turn Type		Free		Free	Prot	
Protected Phases			1		2	1 2
Permitted Phases		Free		Free		
Detector Phase			1		2	1 2
Switch Phase						
Minimum Initial (s)			16.0		8.0	
Minimum Split (s)			21.0		13.0	
Total Split (s)	0.0	0.0	47.0	0.0	35.0	82.0
Total Split (%)	0.0%	0.0%	57.3%	0.0%	42.7%	100.0%
Maximum Green (s)			42.0		30.0	
Yellow Time (s)			4.0		4.0	
All-Red Time (s)			1.0		1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)			2.0		2.0	
Recall Mode			Min		None	
v/c Ratio		0.16	0.44	0.84	0.54	0.30
Control Delay		0.2	10.2	6.6	16.2	0.2
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		0.2	10.2	6.6	16.2	0.2
Queue Length 50th (ft)		0	50	0	49	0
Queue Length 95th (ft)		0	107	0	130	0
Internal Link Dist (ft)	656		544			790
Turn Bay Length (ft)				300	50	
Base Capacity (vph)		1790	3142	1524	1248	3343
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.16	0.21	0.84	0.23	0.30

Intersection Summary

Area Type: Other
Cycle Length: 82
Actuated Cycle Length: 42.4
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)



HCM Signalized Intersection Capacity Analysis
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	270	565	1095	270	910
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	12	12
Total Lost time (s)		4.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95
Frt		0.86	1.00	0.85	1.00	1.00
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1790	3374	1524	1703	3343
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1790	3374	1524	1703	3343
Peak-hour factor, PHF	0.92	0.92	0.86	0.86	0.92	0.92
Adj. Flow (vph)	0	293	657	1273	293	989
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	293	657	1273	293	989
Heavy Vehicles (%)	0%	1%	7%	6%	6%	8%
Turn Type		Free		Free	Prot	
Protected Phases			1		2	1 2
Permitted Phases		Free		Free		
Actuated Green, G (s)		42.1	18.6	42.1	13.5	42.1
Effective Green, g (s)		42.1	18.6	42.1	13.5	42.1
Actuated g/C Ratio		1.00	0.44	1.00	0.32	1.00
Clearance Time (s)			5.0		5.0	
Vehicle Extension (s)			2.0		2.0	
Lane Grp Cap (vph)		1790	1491	1524	546	3343
v/s Ratio Prot			0.19		0.17	0.30
v/s Ratio Perm		0.16		c0.84		
v/c Ratio		0.16	0.44	0.84	0.54	0.30
Uniform Delay, d1		0.0	8.1	0.0	11.7	0.0
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2	0.1	5.6	0.5	0.0
Delay (s)		0.2	8.2	5.6	12.2	0.0
Level of Service		A	A	A	B	A
Approach Delay (s)	0.2		6.5			2.8
Approach LOS	A		A			A

Intersection Summary

HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	42.1	Sum of lost time (s)	0.0
Intersection Capacity Utilization	38.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Taunton Depot Dr & Route 140

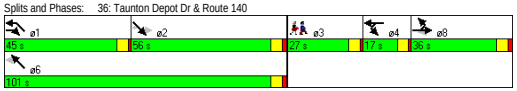
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	ø3
Lane Configurations													
Volume (vph)	55	0	60	0	0	5	5	720	120	80	670	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	12	12	
Storage Length (ft)	0		100	0		0	180		130	320		350	
Storage Lanes	1		1	0		0	1		1	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		846			205			2224			1797		
Travel Time (s)		19.2			4.7			50.5			40.8		
Peak Hour Factor	0.85	0.85	0.85	0.50	0.50	0.50	0.90	0.90	0.90	0.93	0.93	0.93	
Heavy Vehicles (%)	9%	0%	4%	0%	0%	0%	0%	4%	5%	0%	6%	0%	
Shared Lane Traffic (%)	50%												
Lane Group Flow (vph)	32	33	71	0	10	0	0	806	133	86	720	0	
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt			
Protected Phases	8	8	1	4	4			2		1	6		3
Permitted Phases			8				2		2	6			
Detector Phase	8	8	1	4	4		2	2	2	1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	4.0	4.0		6.0	6.0	6.0	6.0	20.0		7.0
Minimum Split (s)	12.0	12.0	11.0	9.0	9.0		12.0	12.0	12.0	11.0	26.0		27.0
Total Split (s)	36.0	36.0	45.0	17.0	17.0	0.0	56.0	56.0	56.0	45.0	101.0	0.0	27.0
Total Split (%)	19.9%	19.9%	24.9%	9.4%	9.4%	0.0%	30.9%	30.9%	30.9%	24.9%	55.8%	0.0%	15%
Maximum Green (s)	30.0	30.0	40.0	12.0	12.0		50.0	50.0	50.0	40.0	95.0		22.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	1.0		2.0	2.0	2.0	1.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	5.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	6.0	4.0	
Lead/Lag			Lead	Lag	Lag		Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?				Yes	Yes								Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		4.0	4.0	4.0	2.0	4.0		3.0
Recall Mode	None	None	None	None	None		Min	Min	Min	None	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													15.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.17	0.18	0.14		0.02			0.51	0.17	0.18	0.30		
Control Delay	28.7	28.8	6.2		0.0			12.7	7.5	5.0	5.0		
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0	0.0	0.0		
Total Delay	28.7	28.8	6.2		0.0			12.7	7.5	5.0	5.0		
Queue Length 50th (ft)	9	9	0		0			90	14	7	40		
Queue Length 95th (ft)	38	40	25		0			193	53	30	110		
Internal Link Dist (ft)		766			125			2144			1717		
Turn Bay Length (ft)			100						130	320			
Base Capacity (vph)	860	860	1397		738			2938	1377	1329	3406		
Starvation Cap Reductn	0	0	0		0			0	0	0	0		
Spillback Cap Reductn	0	0	0		0			0	0	0	0		
Storage Cap Reductn	0	0	0		0			0	0	0	0		
Reduced v/c Ratio	0.04	0.04	0.05		0.01			0.27	0.10	0.06	0.21		

Intersection Summary

Area Type: Other
Cycle Length: 181
Actuated Cycle Length: 56.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Taunton Depot Dr & Route 140



HCM Signalized Intersection Capacity Analysis
36: Taunton Depot Dr & Route 140

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	55	0	60	0	0	5	5	720	120	80	670	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	12	12
Total Lost time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00			0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		0.86			1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00		1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1573	1573	1553		1863			3471	1538	1805	3406	
Flt Permitted	0.95	0.95	1.00		1.00			0.95	1.00	0.24	1.00	
Satd. Flow (perm)	1573	1573	1553		1863			3296	1538	465	3406	
Peak-hour factor, PHF	0.85	0.85	0.85	0.50	0.50	0.50	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	65	0	71	0	0	10	6	800	133	86	720	0
RTOR Reduction (vph)	0	0	58	0	10	0	0	0	29	0	0	0
Lane Group Flow (vph)	32	33	13	0	0	0	0	806	104	86	720	0
Heavy Vehicles (%)	9%	0%	4%	0%	0%	0%	0%	4%	5%	0%	6%	0%
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Actuated Green, G (s)	5.3	5.3	11.7		0.7			27.6	27.6	39.0	39.0	
Effective Green, g (s)	5.3	5.3	11.7		0.7			27.6	27.6	39.0	39.0	
Actuated g/C Ratio	0.09	0.09	0.19		0.01			0.45	0.45	0.63	0.63	
Clearance Time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Vehicle Extension (s)	2.0	2.0	2.0		2.0			4.0	4.0	2.0	4.0	
Lane Grp Cap (vph)	134	134	293		21			1467	685	431	2142	
v/s Ratio Prot	0.02	c0.02	0.00		c0.00					0.02	c0.21	
v/s Ratio Perm			0.00					c0.24	0.07	0.10		
v/c Ratio	0.24	0.25	0.05		0.01			0.55	0.15	0.20	0.34	
Uniform Delay, d1	26.5	26.5	20.6		30.3			12.6	10.2	5.3	5.4	
Progression Factor	1.00	1.00	1.00		1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	0.4	0.0		0.0			0.5	0.1	0.1	0.1	
Delay (s)	26.8	26.8	20.6		30.3			13.2	10.4	5.4	5.5	
Level of Service	C	C	C		C			B	B	A	A	
Approach Delay (s)		23.6			30.3			12.8			5.5	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	62.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
40: Honorable Gordon M. Owen Riverway & Route 140

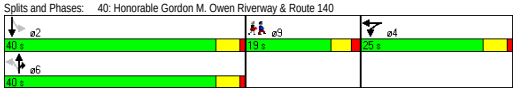
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	0	0	210	0	5	0	620	275	10	380	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	13	12	
Storage Length (ft)	0		0	0		0	0		175	0		0	
Storage Lanes	0		0	0		0	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		220			991			547			1888		
Travel Time (s)		5.0			22.5			12.4			42.9		
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.89	0.89	0.89	
Heavy Vehicles (%)	0%	0%	0%	8%	0%	0%	0%	6%	4%	8%	5%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	256	0	0	667	296	0	438	0	
Turn Type				Split			Perm		Prot	Perm			
Protected Phases				4	4			6	6		2		9
Permitted Phases							6			2			
Detector Phase				4	4		6	6	6	2	2		
Switch Phase													
Minimum Initial (s)				6.0	6.0		6.0	6.0	6.0	6.0	6.0		1.0
Minimum Split (s)				11.0	11.0		11.0	11.0	11.0	11.0	11.0		19.0
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	40.0	40.0	40.0	40.0	40.0	0.0	19.0
Total Split (%)	0.0%	0.0%	0.0%	29.8%	29.8%	0.0%	47.6%	47.6%	47.6%	47.6%	47.6%	0.0%	23%
Maximum Green (s)				20.0	20.0		35.0	35.0	35.0	35.0	35.0		14.0
Yellow Time (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		3.5
All-Red Time (s)				1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode				None	None		None	None	None	None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													0
v/c Ratio					0.56			0.70	0.30		0.43		
Control Delay					23.9			14.4	2.5		9.4		
Queue Delay					0.0			0.0	0.0		0.0		
Total Delay					23.9			14.4	2.5		9.4		
Queue Length 50th (ft)					81			141	5		75		
Queue Length 95th (ft)					132			302	37		156		
Internal Link Dist (ft)		140			911			467			1808		
Turn Bay Length (ft)									175				
Base Capacity (vph)					643			1126	1101		1194		
Starvation Cap Reductn					0			0	0		0		
Spillback Cap Reductn					0			0	0		0		
Storage Cap Reductn					0			0	0		0		
Reduced v/c Ratio					0.40			0.59	0.27		0.37		

Intersection Summary

Area Type: Other
Cycle Length: 84
Actuated Cycle Length: 55.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 40: Honorable Gordon M. Owen Riverway & Route 140



HCM Signalized Intersection Capacity Analysis
40: Honorable Gordon M. Owen Riverway & Route 140

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	210	0	5	0	620	275	10	380	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	13	12
Total Lost time (s)					5.0			5.0	5.0		5.0	
Lane Util. Factor					1.00			1.00	1.00		1.00	
Frt					1.00			1.00	0.85		1.00	
Flt Protected					0.95			1.00	1.00		1.00	
Satd. Flow (prot)					1731			1733	1553		1866	
Flt Permitted					0.95			1.00	1.00		0.98	
Satd. Flow (perm)					1731			1733	1553		1837	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	250	0	6	0	667	296	11	427	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	116	0	0	0
Lane Group Flow (vph)	0	0	0	0	255	0	0	667	180	0	438	0
Heavy Vehicles (%)	0%	0%	0%	8%	0%	0%	0%	6%	4%	8%	5%	0%
Turn Type				Split			Perm		Prot	Perm		
Protected Phases				4	4			6	6		2	
Permitted Phases							6			2		
Actuated Green, G (s)					14.6			30.6	30.6		30.6	
Effective Green, g (s)					14.6			30.6	30.6		30.6	
Actuated g/C Ratio					0.26			0.55	0.55		0.55	
Clearance Time (s)					5.0			5.0	5.0		5.0	
Vehicle Extension (s)					4.0			4.0	4.0		4.0	
Lane Grp Cap (vph)					458			961	861		1018	
v/s Ratio Prot					c0.15			c0.38	0.12			
v/s Ratio Perm											0.24	
v/c Ratio					0.56			0.69	0.21		0.43	
Uniform Delay, d1					17.5			8.9	6.2		7.2	
Progression Factor					1.00			1.00	1.00		1.00	
Incremental Delay, d2					1.8			2.4	0.2		0.4	
Delay (s)					19.3			11.3	6.4		7.6	
Level of Service					B			B	A		A	
Approach Delay (s)		0.0			19.3			9.8			7.6	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	55.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

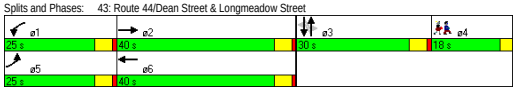
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø4
Lane Configurations													
Volume (vph)	10	775	270	175	610	90	110	335	260	120	210	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12	
Storage Length (ft)	100		70	100		70	0		50	0		100	
Storage Lanes	1		1	1		1	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1663			1440			2994			1249		
Travel Time (s)		37.8			32.7			68.0			28.4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68	
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	11	1111	0	186	745	0	0	820	0	0	507	0	
Turn Type	Prot			Prot			Perm			Perm			
Protected Phases	5	2		1	6			3			3		4
Permitted Phases							3			3			
Detector Phase	5	2		1	6		3	3		3	3		
Switch Phase													
Minimum Initial (s)	9.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0		8.0
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0		18.0
Total Split (s)	25.0	40.0	0.0	25.0	40.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	18.0
Total Split (%)	22.1%	35.4%	0.0%	22.1%	35.4%	0.0%	26.5%	26.5%	0.0%	26.5%	26.5%	0.0%	16%
Maximum Green (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0		0.2
Recall Mode	None	Min		None	Min		None	None		None	None		None
Walk Time (s)													8.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.08	0.84		0.66	0.37			1.27			2.17dl		
Control Delay	40.4	32.2		46.5	11.1			162.6			77.3		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	40.4	32.2		46.5	11.1			162.6			77.3		
Queue Length 50th (ft)	6	293		101	98			~299			~157		
Queue Length 95th (ft)	23	#436		171	194			#409			#171		
Internal Link Dist (ft)		1583			1360			2914			1169		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	314	1322		352	2007			644			503		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.04	0.84		0.53	0.37			1.27			1.01		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 91.2
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	775	270	175	610	90	110	335	260	120	210	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.96		1.00	0.98			0.94			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1428	3369		1604	3413			3109			3191	
Flt Permitted	0.95	1.00		0.95	1.00			0.67			0.56	
Satd. Flow (perm)	1428	3369		1604	3413			2093			1822	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68
Adj. Flow (vph)	11	824	287	186	649	96	128	390	302	176	309	22
RTOR Reduction (vph)	0	26	0	0	7	0	0	70	0	0	3	0
Lane Group Flow (vph)	11	1085	0	186	738	0	0	750	0	0	504	0
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)	1.7	39.0		16.1	53.4			25.0			25.0	
Effective Green, g (s)	1.7	39.0		16.1	53.4			25.0			25.0	
Actuated g/C Ratio	0.02	0.41		0.17	0.56			0.26			0.26	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	26	1382		272	1916			550			479	
v/s Ratio Prot	0.01	c0.32		c0.12	0.22							
v/s Ratio Perm								c0.36			0.28	
v/c Ratio	0.42	0.79		0.68	0.39			1.36			2.17dl	
Uniform Delay, d1	46.2	24.4		37.1	11.7			35.0			35.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	14.4	3.5		7.5	0.3			175.1			55.6	
Delay (s)	60.6	27.9		44.6	11.9			210.1			90.6	
Level of Service	E	C		D	B			F			F	
Approach Delay (s)		28.2			18.5			210.1			90.6	
Approach LOS		C			B			F			F	

Intersection Summary

HCM Average Control Delay	79.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	95.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
45: Hart Street & Route 140

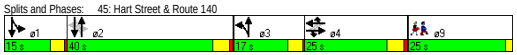
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2	ø9
Lane Configurations														
Volume (vph)	25	140	230	115	100	220	125	575	55	85	400	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12		
Storage Length (ft)	0		50	0		50	50		0	50		0		
Storage Lanes	0		1	0		1	1		0	1		0		
Taper Length (ft)	25		25	25		25	25		25	25		25		
Right Turn on Red			Yes			Yes			Yes			Yes		
Link Speed (mph)		30			30			35			35			
Link Distance (ft)		1373			971			2224			3692			
Travel Time (s)		31.2			22.1			43.3			71.9			
Peak Hour Factor	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73		
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	206	288	0	226	232	0	795	0	0	678	0		
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt				
Protected Phases		4	4		4	4	3	2 3		1	1 2		2	9
Permitted Phases	4			4			2 3			1 2				
Detector Phase	4	4	4	4	4	4	3	2 3		1	1 2			
Switch Phase														
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0			4.0			8.0	1.0
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0	13.0	8.0			8.0			13.0	25.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	17.0	57.0	0.0	15.0	55.0	0.0	40.0	25.0
Total Split (%)	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	13.9%	46.7%	0.0%	12.3%	45.1%	0.0%	33%	20%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	13.0			11.0			35.0	23.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5			3.5			4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.5			0.5			1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0		
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lead			Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Recall Mode	Max	Max	Max	Max	Max	Max	None			None			None	None
Walk Time (s)														7.0
Flash Dont Walk (s)														16.0
Pedestrian Calls (#/hr)														0
v/c Ratio		0.60	0.64		0.96	0.54		0.69			0.56			
Control Delay		41.1	23.5		88.2	22.5		20.4			15.1			
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0			
Total Delay		41.1	23.5		88.2	22.5		20.4			15.1			
Queue Length 50th (ft)		110	73		134	62		147			111			
Queue Length 95th (ft)		165	132		#291	142		195			122			
Internal Link Dist (ft)		1293			891			2144			3612			
Turn Bay Length (ft)			50			50								
Base Capacity (vph)		346	450		235	431		1322			1272			
Starvation Cap Reductn		0	0		0	0		0			0			
Spillback Cap Reductn		0	0		0	0		0			0			
Storage Cap Reductn		0	0		0	0		0			0			
Reduced v/c Ratio		0.60	0.64		0.96	0.54		0.60			0.53			

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 91
Natural Cycle: 110
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



HCM Signalized Intersection Capacity Analysis
45: Hart Street & Route 140

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	140	230	115	100	220	125	575	55	85	400	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		5.0			4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.99			1.00	
Flt Protected		0.99	1.00		0.97	1.00		0.99			0.99	
Satd. Flow (prot)		1735	1516		1807	1568		3272			3340	
Flt Permitted		0.90	1.00		0.58	1.00		0.72			0.65	
Satd. Flow (perm)		1569	1516		1067	1568		2360			2179	
Peak-hour factor, PHF	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73
Adj. Flow (vph)	31	175	288	121	105	232	132	605	58	116	548	14
RTOR Reduction (vph)	0	0	115	0	0	85	0	4	0	0	1	0
Lane Group Flow (vph)	0	206	173	0	226	147	0	791	0	0	677	0
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		20.1	20.1		20.1	20.1		41.8			43.4	
Effective Green, g (s)		20.1	20.1		20.1	20.1		41.8			43.4	
Actuated g/C Ratio		0.22	0.22		0.22	0.22		0.46			0.48	
Clearance Time (s)		5.0	5.0		5.0	5.0						
Vehicle Extension (s)		3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)		347	335		236	347		1180			1181	
v/s Ratio Prot			0.11			0.09		c0.07			c0.07	
v/s Ratio Perm		0.13			c0.21			c0.24			0.20	
v/c Ratio		0.59	0.52		0.96	0.42		0.67			0.57	
Uniform Delay, d1		31.7	31.1		35.0	30.4		19.2			17.1	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		7.3	5.6		48.6	3.8		1.5			0.7	
Delay (s)		39.0	36.7		83.6	34.2		20.7			17.8	
Level of Service		D	D		F	C		C			B	
Approach Delay (s)		37.7			58.6			20.7			17.8	
Approach LOS		D			E			C			B	

Intersection Summary

HCM Average Control Delay	30.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.9	Sum of lost time (s)	19.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

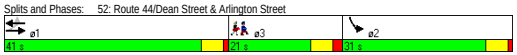
c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	30	765	625	110	265	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.87	0.87	0.86	0.86	0.81	0.81	
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	34	879	855	0	389	0	
Turn Type	Perm						
Protected Phases		1	1		2		3
Permitted Phases	1						
Detector Phase	1	1	1		2		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0		5.0		5.0
Minimum Split (s)	15.0	15.0	15.0		10.0		21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	0.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	0.0%	23%
Maximum Green (s)	36.0	36.0	36.0		26.0		15.0
Yellow Time (s)	4.0	4.0	4.0		4.0		4.0
All-Red Time (s)	1.0	1.0	1.0		1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0	4.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		1.0
Recall Mode	None	None	None		None		None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.26	0.88	0.77		0.73		
Control Delay	15.8	27.3	18.7		29.3		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay	15.8	27.3	18.7		29.3		
Queue Length 50th (ft)	6	278	237		138		
Queue Length 95th (ft)	29	#579	#448		193		
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	133	999	1117		720		
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.26	0.88	0.77		0.54		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 65.5
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	30	765	625	110	265	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.98	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1636	1810	2015		1808	
Flt Permitted	0.14	1.00	1.00		0.96	
Satd. Flow (perm)	241	1810	2015		1808	
Peak-hour factor, PHF	0.87	0.87	0.86	0.86	0.81	0.81
Adj. Flow (vph)	34	879	727	128	327	62
RTOR Reduction (vph)	0	0	5	0	0	0
Lane Group Flow (vph)	34	879	850	0	389	0
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%
Turn Type	Perm					
Protected Phases		1	1		2	
Permitted Phases	1					
Actuated Green, G (s)	36.2	36.2	36.2		19.3	
Effective Green, g (s)	36.2	36.2	36.2		19.3	
Actuated g/C Ratio	0.55	0.55	0.55		0.29	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	133	1000	1114		533	
v/s Ratio Prot		c0.49	0.42		c0.22	
v/s Ratio Perm	0.14					
v/c Ratio	0.26	0.88	0.76		0.73	
Uniform Delay, d1	7.6	12.7	11.3		20.8	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.0	8.9	3.2		5.0	
Delay (s)	8.7	21.6	14.5		25.7	
Level of Service	A	C	B		C	
Approach Delay (s)		21.2	14.5		25.7	
Approach LOS		C	B		C	

Intersection Summary

HCM Average Control Delay	19.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

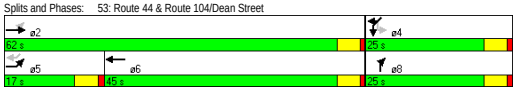
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	170	955	0	0	695	20	0	0	30	5	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	12	12	16
Storage Length (ft)	50		0	0		50	0	0		0	50
Storage Lanes	1		0	0		0	0	1		1	1
Taper Length (ft)	25		25	25		25	25	25		25	25
Right Turn on Red			Yes			Yes					Yes
Link Speed (mph)		30			30		30			30	
Link Distance (ft)		825			1426		127			959	
Travel Time (s)		18.8			32.4		2.9			21.8	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	3%	3%	0%	0%	4%	0%	0%	0%	7%	0%	4%
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	1324	0	0	777	0	0	0	0	40	191
Turn Type	pm+pt							custom	Perm		custom
Protected Phases	5	2			6			8		4	4
Permitted Phases	2								4		5
Detector Phase	5	2			6			8	4	4	4
Switch Phase											
Minimum Initial (s)	6.0	12.0			12.0			6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	17.0			17.0			11.0	11.0	11.0	11.0
Total Split (s)	17.0	62.0	0.0	0.0	45.0	0.0	0.0	25.0	25.0	25.0	25.0
Total Split (%)	19.5%	71.3%	0.0%	0.0%	51.7%	0.0%	0.0%	28.7%	28.7%	28.7%	28.7%
Maximum Green (s)	12.0	57.0			40.0			20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0			4.0			4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0			1.0			1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead				Lag						
Lead-Lag Optimize?	Yes				Yes						
Vehicle Extension (s)	1.5	1.5			1.5			2.0	2.0	2.0	2.0
Recall Mode	None	Min			Min			None	None	None	None
v/c Ratio		0.78			0.32					0.18	0.56
Control Delay		10.4			4.0					28.7	18.1
Queue Delay		0.0			0.0					0.0	0.0
Total Delay		10.4			4.0					28.7	18.1
Queue Length 50th (ft)		121			41					12	20
Queue Length 95th (ft)		230			84					44	87
Internal Link Dist (ft)		745			1346		47			879	
Turn Bay Length (ft)											50
Base Capacity (vph)		2190			2608					576	677
Starvation Cap Reductn		0			0					0	0
Spillback Cap Reductn		0			0					0	0
Storage Cap Reductn		0			0					0	0
Reduced v/c Ratio		0.60			0.30					0.07	0.28

Intersection Summary

Area Type: Other
Cycle Length: 87
Actuated Cycle Length: 61.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 53: Route 44 & Route 104/Dean Street



HCM Signalized Intersection Capacity Analysis
53: Route 44 & Route 104/Dean Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	170	955	0	0	695	20	0	0	30	5	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	16	12	12	12	12	16
Total Lost time (s)		5.0			5.0					5.0	5.0
Lane Util. Factor		0.95			0.95					1.00	1.00
Frt		1.00			1.00					1.00	0.85
Flt Protected		0.99			1.00					0.95	1.00
Satd. Flow (prot)		3479			3460					1704	1760
Flt Permitted		0.69			1.00					0.95	1.00
Satd. Flow (perm)		2432			3460					1704	1760
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	200	1124	0	0	755	22	0	0	34	6	191
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	108
Lane Group Flow (vph)	0	1324	0	0	776	0	0	0	0	40	83
Heavy Vehicles (%)	3%	3%	0%	0%	4%	0%	0%	0%	7%	0%	4%
Turn Type	pm+pt							custom	Perm		custom
Protected Phases	5	2			6			8		4	4
Permitted Phases	2								4		5
Actuated Green, G (s)		42.9			42.9					8.2	8.2
Effective Green, g (s)		42.9			42.9					8.2	8.2
Actuated g/C Ratio		0.70			0.70					0.13	0.13
Clearance Time (s)		5.0			5.0					5.0	5.0
Vehicle Extension (s)		1.5			1.5					2.0	2.0
Lane Grp Cap (vph)		1708			2429					229	236
v/s Ratio Prot					0.22						c0.05
v/s Ratio Perm		c0.54								0.02	
v/c Ratio		0.78			0.32					0.17	0.35
Uniform Delay, d1		5.9			3.5					23.4	24.0
Progression Factor		1.00			1.00					1.00	1.00
Incremental Delay, d2		2.1			0.0					0.1	0.3
Delay (s)		8.0			3.5					23.6	24.4
Level of Service		A			A					C	C
Approach Delay (s)		8.0			3.5		0.0			24.2	
Approach LOS		A			A		A			C	

Intersection Summary

HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
57: Spring Street & Summer Street

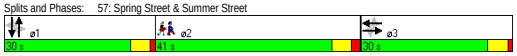
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	20	205	55	35	135	10	45	425	20	10	250	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	16	12	
Right Turn on Red			Yes			No			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		376			382			1581			384		
Travel Time (s)		8.5			8.7			35.9			8.7		
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.76	0.76	0.76	
Heavy Vehicles (%)	5%	4%	4%	3%	5%	13%	2%	5%	0%	0%	2%	5%	
Parking (#/hr)											0		
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	322	0	0	220	0	0	527	0	0	368	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	41.0
Total Split (%)	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	41%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		5.0
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.44			0.29			0.75			0.48		
Control Delay		14.4			12.9			23.1			15.2		
Queue Delay		0.0			0.0			0.0			0.1		
Total Delay		14.4			12.9			23.1			15.3		
Queue Length 50th (ft)		76			51			153			91		
Queue Length 95th (ft)		129			83			#300			124		
Internal Link Dist (ft)		296			302			1501			304		
Turn Bay Length (ft)													
Base Capacity (vph)		727			758			707			768		
Starvation Cap Reductn		0			0			0			34		
Spillback Cap Reductn		0			0			0			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.44			0.29			0.75			0.50		

Intersection Summary

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 60
Natural Cycle: 70
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 57: Spring Street & Summer Street



HCM Signalized Intersection Capacity Analysis
57: Spring Street & Summer Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	205	55	35	135	10	45	425	20	10	250	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	16	12
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.99	
Flt Protected		1.00			0.99			1.00			1.00	
Satd. Flow (prot)		1771			2015			1799			1876	
Flt Permitted		0.97			0.89			0.94			0.98	
Satd. Flow (perm)		1727			1816			1696			1838	
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.76	0.76	0.76
Adj. Flow (vph)	23	236	63	43	165	12	48	457	22	13	329	26
RTOR Reduction (vph)	0	7	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	315	0	0	220	0	0	526	0	0	366	0
Heavy Vehicles (%)	5%	4%	4%	3%	5%	13%	2%	5%	0%	0%	2%	5%
Parking (#/hr)											0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.0			25.0			25.0			25.0	
Effective Green, g (s)		25.0			25.0			25.0			25.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		720			757			707			766	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.12			c0.31			0.20	
v/c Ratio		0.44			0.29			0.74			0.48	
Uniform Delay, d1		12.5			11.6			14.8			12.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.9			1.0			7.0			2.1	
Delay (s)		14.4			12.6			21.8			14.9	
Level of Service		B			B			C			B	
Approach Delay (s)		14.4			12.6			21.8			14.9	
Approach LOS		B			B			C			B	

Intersection Summary

HCM Average Control Delay	16.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
58: Route 44/Main Street & Union Street

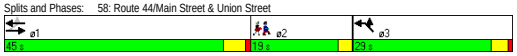
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2	ø2
Lane Configurations												
Volume (vph)	10	505	290	0	465	10	0	0	430	10	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	16	12	16	12	12	12	12	16	15	
Right Turn on Red			Yes			Yes		Yes			Yes	
Link Speed (mph)		30			30		30		30			
Link Distance (ft)		913			784		606		384			
Travel Time (s)		20.8			17.8		13.8		8.7			
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.97	0.97	0.97	
Heavy Vehicles (%)	0%	5%	5%	0%	6%	14%	0%	0%	7%	0%	0%	
Parking (#/hr)			0			0						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	894	0	0	533	0	0	0	443	31	0	
Turn Type	Perm									Prot		
Protected Phases		1			1				3	3		2
Permitted Phases	1											
Detector Phase	1	1			1				3	3		
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0				5.0	5.0		1.0
Minimum Split (s)	20.0	20.0			20.0				9.0	9.0		19.0
Total Split (s)	45.0	45.0	0.0	0.0	45.0	0.0	0.0	0.0	29.0	29.0	0.0	19.0
Total Split (%)	48.4%	48.4%	0.0%	0.0%	48.4%	0.0%	0.0%	0.0%	31.2%	31.2%	0.0%	20%
Maximum Green (s)	40.0	40.0			40.0				25.0	25.0		16.0
Yellow Time (s)	4.0	4.0			4.0				3.0	3.0		3.0
All-Red Time (s)	1.0	1.0			1.0				1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead			Lead							Lag
Lead-Lag Optimize?	Yes	Yes			Yes							Yes
Vehicle Extension (s)	3.0	3.0			3.0				3.0	3.0		3.0
Recall Mode	Max	Max			Max				Max	Max		None
Walk Time (s)												7.0
Flash Dont Walk (s)												9.0
Pedestrian Calls (#/hr)												0
v/c Ratio		0.84			0.49				0.78	0.05		
Control Delay		22.9			12.5				33.5	9.7		
Queue Delay		0.0			0.0				0.0	0.0		
Total Delay		22.9			12.5				33.5	9.7		
Queue Length 50th (ft)		307			141				180	3		
Queue Length 95th (ft)		#557			213				#322	20		
Internal Link Dist (ft)		833			704		526		304			
Turn Bay Length (ft)												
Base Capacity (vph)		1065			1093				570	632		
Starvation Cap Reductn		0			0				0	0		
Spillback Cap Reductn		0			0				0	0		
Storage Cap Reductn		0			0				0	0		
Reduced v/c Ratio		0.84			0.49				0.78	0.05		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 74
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: Route 44/Main Street & Union Street



HCM Signalized Intersection Capacity Analysis
58: Route 44/Main Street & Union Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2
Lane Configurations											
Volume (vph)	10	505	290	0	465	10	0	0	430	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	16	12	16	12	12	12	12	16	15
Total Lost time (s)		5.0			5.0				4.0	4.0	
Lane Util. Factor		1.00			1.00				1.00	1.00	
Frt		0.95			1.00				1.00	0.85	
Flt Protected		1.00			1.00				0.95	1.00	
Satd. Flow (prot)		1951			2023				1687	1830	
Flt Permitted		0.99			1.00				0.95	1.00	
Satd. Flow (perm)		1939			2023				1687	1830	
Peak-hour factor, PHF	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	11	561	322	0	522	11	0	0	443	10	21
RTOR Reduction (vph)	0	17	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	877	0	0	533	0	0	0	443	17	0
Heavy Vehicles (%)	0%	5%	5%	0%	6%	14%	0%	0%	7%	0%	0%
Parking (#/hr)			0			0					
Turn Type	Perm									Prot	
Protected Phases		1			1				3	3	
Permitted Phases	1										
Actuated Green, G (s)		40.0			40.0				25.0	25.0	
Effective Green, g (s)		40.0			40.0				25.0	25.0	
Actuated g/C Ratio		0.54			0.54				0.34	0.34	
Clearance Time (s)		5.0			5.0				4.0	4.0	
Vehicle Extension (s)		3.0			3.0				3.0	3.0	
Lane Grp Cap (vph)		1048			1094				570	618	
v/s Ratio Prot					0.26				c0.26	0.01	
v/s Ratio Perm		c0.45									
v/c Ratio		0.84			0.49				0.78	0.03	
Uniform Delay, d1		14.3			10.6				22.0	16.4	
Progression Factor		1.00			1.00				1.00	1.00	
Incremental Delay, d2		7.9			1.6				10.0	0.1	
Delay (s)		22.2			12.2				32.0	16.5	
Level of Service		C			B				C	B	
Approach Delay (s)		22.2			12.2		0.0		31.0		
Approach LOS		C			B		A		C		

Intersection Summary

HCM Average Control Delay	21.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
61: Taunton Green & Broadway

2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	170	730	180	0	0	905	0	280	85	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		304			913			579			302		
Travel Time (s)		6.9			20.8			13.2			6.9		
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%	
Parking (#/hr)			0			0			0				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	187	802	198	0	0	984	0	311	94	0	0	0	
Turn Type	Perm		Perm			Free			Perm				
Protected Phases		1						3					2
Permitted Phases	1		1			Free			3				
Detector Phase	1	1	1					3	3				
Switch Phase													
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0				1.0
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0				21.0
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	21.0
Total Split (%)	40.7%	40.7%	40.7%	0.0%	0.0%	0.0%	0.0%	34.9%	34.9%	0.0%	0.0%	0.0%	24%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0				17.0
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0				4.0
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead										Lag
Lead-Lag Optimize?	Yes	Yes	Yes										Yes
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0				2.0
Recall Mode	Max	Max	Max					Max	Max				Ped
Walk Time (s)													10.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.27	0.68	0.31			0.39		0.64	0.22				
Control Delay	5.0	26.5	4.0			0.4		33.7	6.7				
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0				
Total Delay	5.0	26.5	4.0			0.4		33.7	6.7				
Queue Length 50th (ft)	5	193	0			0		146	0				
Queue Length 95th (ft)	m46	253	m38			0		234	34				
Internal Link Dist (ft)		224			833			499			222		
Turn Bay Length (ft)													
Base Capacity (vph)	702	1188	647			2547		486	432				
Starvation Cap Reductn	0	0	0			0		0	0				
Spillback Cap Reductn	0	0	0			0		0	0				
Storage Cap Reductn	0	0	0			0		0	0				
Reduced v/c Ratio	0.27	0.68	0.31			0.39		0.64	0.22				

Intersection Summary

Area Type: Other
Cycle Length: 86
Actuated Cycle Length: 86
Natural Cycle: 90
Control Type: Semi Act-Uncoord
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 61: Taunton Green & Broadway

HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	730	180	0	0	905	0	280	85	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1703	3406	1484			2547		1673	1256			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1703	3406	1484			2547		1673	1256			
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	187	802	198	0	0	984	0	311	94	0	0	0
RTOR Reduction (vph)	107	0	129	0	0	0	0	0	67	0	0	0
Lane Group Flow (vph)	80	802	69	0	0	984	0	311	27	0	0	0
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Actuated g/C Ratio	0.35	0.35	0.35			1.00		0.29	0.29			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	594	1188	518			2547		486	365			
v/s Ratio Prot		c0.24						c0.19				
v/s Ratio Perm	0.05		0.05			c0.39			0.02			
v/c Ratio	0.13	0.68	0.13			0.39		0.64	0.07			
Uniform Delay, d1	19.1	23.8	19.1			0.0		26.6	22.1			
Progression Factor	0.86	0.97	0.85			1.00		1.00	1.00			
Incremental Delay, d2	0.5	3.1	0.5			0.4		6.3	0.4			
Delay (s)	16.9	26.1	16.8			0.4		32.9	22.5			
Level of Service	B	C	B			A		C	C			
Approach Delay (s)		23.1			0.4			30.5			0.0	
Approach LOS		C			A			C			A	

Intersection Summary

HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

2008 Existing Condition - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations							
Volume (vph)	345	20	590	260	35	390	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.88	0.88	0.87	0.87	0.85	0.85	
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	392	23	678	299	41	459	
Turn Type		Perm		Perm	Perm		
Protected Phases	3		1			1	2
Permitted Phases		3		1	1		
Detector Phase	3	3	1	1	1	1	
Switch Phase							
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	3.0
Minimum Split (s)	10.0	10.0	15.0	15.0	15.0	15.0	18.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0	55.0	18.0
Total Split (%)	25.5%	25.5%	56.1%	56.1%	56.1%	56.1%	18%
Maximum Green (s)	20.0	20.0	50.0	50.0	50.0	50.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag			Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0	4.0	4.0	4.0	0.7
Recall Mode	Max	Max	Max	Max	Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.92	0.05	0.63	0.30	0.12	0.40	
Control Delay	58.4	18.1	12.6	1.7	7.1	8.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	58.4	18.1	12.6	1.7	7.1	8.8	
Queue Length 50th (ft)	191	6	186	0	7	102	
Queue Length 95th (ft)	#341	23	273	23	19	145	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	428	437	1076	986	356	1153	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.92	0.05	0.63	0.30	0.12	0.40	

Intersection Summary

Area Type: Other
Cycle Length: 98
Actuated Cycle Length: 80
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 71: Court Street & Washington Street

HCM Signalized Intersection Capacity Analysis
71: Court Street & Washington Street

2008 Existing Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	345	20	590	260	35	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1723	1722	1398	1805	1845
Flt Permitted	0.95	1.00	1.00	1.00	0.30	1.00
Satd. Flow (perm)	1711	1723	1722	1398	571	1845
Peak-hour factor, PHF	0.88	0.88	0.87	0.87	0.85	0.85
Adj. Flow (vph)	392	23	678	299	41	459
RTOR Reduction (vph)	0	6	0	112	0	0
Lane Group Flow (vph)	392	17	678	187	41	459
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%
Turn Type		Perm		Perm	Perm	
Protected Phases	3		1			1
Permitted Phases		3		1	1	
Actuated Green, G (s)	20.0	20.0	50.0	50.0	50.0	50.0
Effective Green, g (s)	20.0	20.0	50.0	50.0	50.0	50.0
Actuated g/C Ratio	0.25	0.25	0.62	0.62	0.62	0.62
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	428	431	1076	874	357	1153
v/s Ratio Prot	c0.23		c0.39			0.25
v/s Ratio Perm		0.01		0.13	0.07	
v/c Ratio	0.92	0.04	0.63	0.21	0.11	0.40
Uniform Delay, d1	29.2	22.7	9.3	6.5	6.1	7.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	26.8	0.2	2.8	0.6	0.7	1.0
Delay (s)	56.0	22.9	12.1	7.1	6.7	8.5
Level of Service	E	C	B	A	A	A
Approach Delay (s)	54.2		10.5			8.4
Approach LOS	D		B			A

Intersection Summary

HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

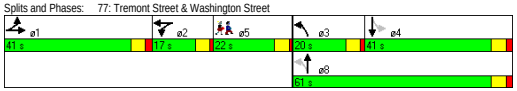
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø5
Lane Configurations													
Volume (vph)	430	150	50	35	120	50	80	365	55	30	230	350	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		698			192			1911			574		
Travel Time (s)		15.9			4.4			43.4			13.0		
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92	
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%	
Shared Lane Traffic (%)	27%												
Lane Group Flow (vph)	323	327	0	0	221	0	0	562	0	0	663	0	
Turn Type	Split			Split			pm+pt			Perm			
Protected Phases	1	1		2	2		3	8			4		5
Permitted Phases							8			4			
Detector Phase	1	1		2	2		3	8		4	4		
Switch Phase													
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0		3.0
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0		22.0
Total Split (s)	41.0	41.0	0.0	17.0	17.0	0.0	20.0	61.0	0.0	41.0	41.0	0.0	22.0
Total Split (%)	29.1%	29.1%	0.0%	12.1%	12.1%	0.0%	14.2%	43.3%	0.0%	29.1%	29.1%	0.0%	16%
Maximum Green (s)	35.0	35.0		12.0	12.0		15.0	55.0		35.0	35.0		17.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None		None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													10.0
Pedestrian Calls (#/hr)													0
v/c Ratio	0.65	0.69			0.86			0.67			0.58		
Control Delay	35.2	36.9			68.6			26.7			16.0		
Queue Delay	0.0	0.0			0.0			0.0			0.0		
Total Delay	35.2	36.9			68.6			26.7			16.0		
Queue Length 50th (ft)	160	161			112			123			91		
Queue Length 95th (ft)	302	307			#333			210			170		
Internal Link Dist (ft)		618			112			1831			494		
Turn Bay Length (ft)													
Base Capacity (vph)	737	694			258			1499			1329		
Starvation Cap Reductn	0	0			0			0			0		
Spillback Cap Reductn	0	0			0			0			0		
Storage Cap Reductn	0	0			0			0			0		
Reduced v/c Ratio	0.44	0.47			0.86			0.37			0.50		

Intersection Summary

Area Type: Other
Cycle Length: 141
Actuated Cycle Length: 86.4
Natural Cycle: 95
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 77: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
77: Tremont Street & Washington Street

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	430	150	50	35	120	50	80	365	55	30	230	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	
Lane Util. Factor	0.95	0.95			1.00			0.95			0.95	
Frt	1.00	0.98			0.97			0.98			0.91	
Flt Protected	0.95	0.98			0.99			0.99			1.00	
Satd. Flow (prot)	1759	1649			1745			3359			2974	
Flt Permitted	0.95	0.98			0.99			0.67			0.90	
Satd. Flow (perm)	1759	1649			1745			2273			2683	
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	443	155	52	38	129	54	90	410	62	33	250	380
RTOR Reduction (vph)	0	4	0	0	8	0	0	7	0	0	145	0
Lane Group Flow (vph)	323	323	0	0	213	0	0	555	0	0	518	0
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	24.5	24.5			12.4			31.8			31.8	
Effective Green, g (s)	24.5	24.5			12.4			31.8			31.8	
Actuated g/C Ratio	0.29	0.29			0.14			0.37			0.37	
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	503	471			252			843			996	
v/s Ratio Prot	0.18	c0.20			c0.12							
v/s Ratio Perm								c0.24			0.19	
v/c Ratio	0.64	0.69			0.85			0.66			0.52	
Uniform Delay, d1	26.8	27.2			35.7			22.4			21.0	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	2.1	3.3			21.4			1.4			0.2	
Delay (s)	28.9	30.5			57.1			23.9			21.2	
Level of Service	C	C			E			C			C	
Approach Delay (s)		29.7			57.1			23.9			21.2	
Approach LOS		C			E			C			C	

Intersection Summary

HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	85.7	Sum of lost time (s)	17.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
93: Washington Street & Broadway

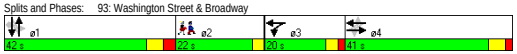
2008 Existing Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	265	85	5	20	90	5	5	495	15	10	355	215	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	12	12	12	12	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			No			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1068			1376			92			2042		
Travel Time (s)		24.3			31.3			2.1			46.4		
Peak Hour Factor	0.88	0.88	0.88	0.72	0.72	0.72	0.87	0.87	0.87	0.89	0.89	0.89	
Heavy Vehicles (%)	5%	2%	25%	6%	1%	0%	6%	0%	0%	13%	7%	4%	
Parking (#/hr)									2				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	404	0	0	160	0	0	592	0	0	410	242	
Turn Type	Perm			pm+pt			Perm			Perm		Perm	
Protected Phases		4		3	3 4			1			1		2
Permitted Phases	4			3 4			1			1		1	
Detector Phase	4	4		3	3 4		1	1		1	1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		4.0			18.0	18.0		18.0	18.0	18.0	1.0
Minimum Split (s)	14.0	14.0		9.0			25.0	25.0		25.0	25.0	25.0	22.0
Total Split (s)	41.0	41.0	0.0	20.0	61.0	0.0	42.0	42.0	0.0	42.0	42.0	42.0	22.0
Total Split (%)	32.8%	32.8%	0.0%	16.0%	48.8%	0.0%	33.6%	33.6%	0.0%	33.6%	33.6%	33.6%	18%
Maximum Green (s)	35.0	35.0		15.0			35.0	35.0		35.0	35.0	35.0	19.0
Yellow Time (s)	4.0	4.0		3.0			4.0	4.0		4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	7.0	7.0	4.0	7.0	7.0	7.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.0			3.0	3.0		3.0	3.0	3.0	2.0
Recall Mode	None	None		None			Min	Min		Min	Min	Min	None
Walk Time (s)													7.0
Flash Dont Walk (s)													12.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.75			0.19			0.54			0.74	0.49	
Control Delay		36.2			12.1			27.3			36.6	28.6	
Queue Delay		0.0			0.0			0.0			0.0	0.0	
Total Delay		36.2			12.1			27.3			36.6	28.6	
Queue Length 50th (ft)		203			45			145			208	111	
Queue Length 95th (ft)		#380			66			196			323	186	
Internal Link Dist (ft)		988			1296			12			1962		
Turn Bay Length (ft)												50	
Base Capacity (vph)		542			947			1322			670	601	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			0			0			0	0	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.75			0.17			0.45			0.61	0.40	

Intersection Summary	
Area Type:	Other
Cycle Length: 125	
Actuated Cycle Length: 91.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 93: Washington Street & Broadway



HCM Signalized Intersection Capacity Analysis
93: Washington Street & Broadway

2008 Existing Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	265	85	5	20	90	5	5	495	15	10	355	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			5.0			7.0			7.0	7.0
Lane Util. Factor		1.00			1.00			0.95			1.00	1.00
Frt		1.00			0.99			1.00			1.00	0.85
Flt Protected		0.96			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1981			1839			3590			1771	1553
Flt Permitted		0.68			0.92			0.95			0.98	1.00
Satd. Flow (perm)		1399			1701			3412			1732	1553
Peak-hour factor, PHF	0.88	0.88	0.88	0.72	0.72	0.72	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	301	97	6	28	125	7	6	569	17	11	399	242
RTOR Reduction (vph)	0	1	0	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	403	0	0	160	0	0	591	0	0	410	242
Heavy Vehicles (%)	5%	2%	25%	6%	1%	0%	6%	0%	0%	13%	7%	4%
Parking (#/hr)									2			
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Actuated Green, G (s)		35.3			43.9			29.2			29.2	29.2
Effective Green, g (s)		35.3			43.9			29.2			29.2	29.2
Actuated g/C Ratio		0.39			0.48			0.32			0.32	0.32
Clearance Time (s)		6.0						7.0			7.0	7.0
Vehicle Extension (s)		4.0						3.0			3.0	3.0
Lane Grp Cap (vph)		542			833			1094			555	498
v/s Ratio Prot					c0.02							
v/s Ratio Perm		c0.29			0.07			0.17			c0.24	0.16
v/c Ratio		0.74			0.19			0.54			0.74	0.49
Uniform Delay, d1		24.0			13.5			25.4			27.6	24.9
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		5.8			0.0			0.5			5.1	0.7
Delay (s)		29.9			13.5			25.9			32.7	25.7
Level of Service		C			B			C			C	C
Approach Delay (s)		29.9			13.5			25.9			30.1	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	91.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
66: Cohannet Street & Taunton Green

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	245	30	0	0	0	0	0	405	740	430	95
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.99	0.99	0.99	0.94	0.94	0.94
Hourly flow rate (vph)	0	263	32	0	0	0	0	0	409	787	457	101
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			Raised	
Median storage veh)											1	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2287	2492	508	2196	2133	0	559			409		
vC1, stage 1 conf vol	2082	2082		0	0							
vC2, stage 2 conf vol	205	409		2196	2133							
vCu, unblocked vol	2287	2492	508	2196	2133	0	559			409		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	0	94	0	100	100	100			32		
cM capacity (veh/h)	13	9	563	0	26	1085	1022			1150		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	SB 3
Volume Total	263	32	409	394	394	559
Volume Left	0	0	0	394	394	0
Volume Right	0	32	409	0	0	101
cSH	9	563	1700	1150	1150	1700
Volume to Capacity	29.10	0.06	0.24	0.68	0.68	0.33
Queue Length 95th (ft)	Err	5	0	144	144	0
Control Delay (s)	Err	11.8	0.0	14.6	14.6	0.0
Lane LOS	F	B		B	B	
Approach Delay (s)	8909.5		0.0	8.6		
Approach LOS	F					

Intersection Summary			
Average Delay	1290.4		
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
67: Post Office Square & Broadway

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	0	885	530	0	520
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.95	0.95	0.89	0.89
Hourly flow rate (vph)	0	0	932	558	0	584
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	932				932	466
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	932				932	466
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	730				269	543

Direction, Lane #	WB 1	WB 2	WB 3	SB 1
Volume Total	466	466	558	584
Volume Left	0	0	0	0
Volume Right	0	0	558	584
cSH	1700	1700	1700	543
Volume to Capacity	0.27	0.27	0.33	1.08
Queue Length 95th (ft)	0	0	0	439
Control Delay (s)	0.0	0.0	0.0	87.6
Lane LOS				F
Approach Delay (s)	0.0			87.6
Approach LOS				F

Intersection Summary			
Average Delay	24.7		
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
70: Post Office Square & Court Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	25	900	120	350	0	0	0	0	325	20
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.93	0.93	0.93	0.92	0.92	0.92	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	29	968	129	376	0	0	0	0	361	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					565							
pX, platoon unblocked												
vC, conflicting volume	129			29			2267	2065	0	2079	2094	129
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	129			29			2267	2065	0	2079	2094	129
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			39			0	100	100	100	0	98
cM capacity (veh/h)	1469			1584			0	21	1091	20	20	926

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	29	645	452	376	383
Volume Left	0	645	323	0	0
Volume Right	29	0	0	376	22
cSH	1700	1584	1584	1700	22
Volume to Capacity	0.02	0.61	0.61	0.22	17.78
Queue Length 95th (ft)	0	111	111	0	Err
Control Delay (s)	0.0	10.8	9.7	0.0	Err
Lane LOS		B	A		F
Approach Delay (s)	0.0	7.7			Err
Approach LOS					F

Intersection Summary				
Average Delay		2038.8		
Intersection Capacity Utilization		59.7%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
75: Frederick Martin Parkway & Washington Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	5	90	0	165	5	615	300	230	805	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.50	0.91	0.91	0.91	0.93	0.93	0.93	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	10	99	0	181	5	661	323	245	856	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								574			260	
pX, platoon unblocked	0.74	0.74	0.74	0.74	0.74		0.74					
vC, conflicting volume	1868	2340	856	2189	2179	492	856			984		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2000	2640	627	2435	2421	492	627			984		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	97	0	100	66	99			65		
cM capacity (veh/h)	13	11	318	9	16	528	711			704		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	10	99	181	336	653	245	856
Volume Left	0	99	0	5	0	245	0
Volume Right	10	0	181	0	323	0	0
cSH	318	9	528	711	1700	704	1700
Volume to Capacity	0.03	11.49	0.34	0.01	0.38	0.35	0.50
Queue Length 95th (ft)	2	Err	38	1	0	39	0
Control Delay (s)	16.7	Err	15.3	0.3	0.0	12.8	0.0
Lane LOS	C	F	C	A		B	
Approach Delay (s)	16.7	3539.0		0.1		2.8	
Approach LOS	C	F					

Intersection Summary				
Average Delay		418.0		
Intersection Capacity Utilization		90.8%	ICU Level of Service	E
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
78: Kilmer Street & Oak Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	80	20	25	200	340	80
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.91	0.91
Hourly flow rate (vph)	111	28	35	278	374	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	765	418	462			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	765	418	462			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	69	96	97			
cM capacity (veh/h)	357	640	1110			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	139	312	462
Volume Left	111	35	0
Volume Right	28	0	88
cSH	392	1110	1700
Volume to Capacity	0.35	0.03	0.27
Queue Length 95th (ft)	39	2	0
Control Delay (s)	19.2	1.2	0.0
Lane LOS	C	A	
Approach Delay (s)	19.2	1.2	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		3.3	
Intersection Capacity Utilization		43.8%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
87: Purchase Street & School Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	310	20	5	85	5	30	85	40	20	130	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.72	0.72	0.72	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	64	330	21	7	118	7	37	104	49	24	159	73
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	125			351			756	607	340	704	614	122
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	125			351			756	607	340	704	614	122
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			81	73	93	90	59	92
cM capacity (veh/h)	1462			1219			196	391	707	253	387	930

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	415	132	189	256
Volume Left	64	7	37	24
Volume Right	21	7	49	73
cSH	1462	1219	363	438
Volume to Capacity	0.04	0.01	0.52	0.58
Queue Length 95th (ft)	3	0	72	91
Control Delay (s)	1.5	0.5	25.3	24.2
Lane LOS	A	A	D	C
Approach Delay (s)	1.5	0.5	25.3	24.2
Approach LOS			D	C

Intersection Summary			
Average Delay		11.7	
Intersection Capacity Utilization		49.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Purchase Street & Washington Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	65	50	230	100	5	40	85	35	5	85	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.81	0.81	0.81	0.88	0.88	0.88	0.77	0.77	0.77
Hourly flow rate (vph)	11	69	53	284	123	6	45	97	40	6	110	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	130			122			873	815	96	900	838	127
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	130			122			873	815	96	900	838	127
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			81			70	61	96	96	55	99
cM capacity (veh/h)	1468			1459			150	250	958	150	244	929

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	133	414	182	123
Volume Left	11	284	45	6
Volume Right	53	6	40	6
cSH	1468	1459	249	245
Volume to Capacity	0.01	0.19	0.73	0.50
Queue Length 95th (ft)	1	18	127	65
Control Delay (s)	0.7	6.1	50.7	33.7
Lane LOS	A	A	F	D
Approach Delay (s)	0.7	6.1	50.7	33.7
Approach LOS			F	D

Intersection Summary			
Average Delay		18.7	
Intersection Capacity Utilization		47.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
89: Winter Street & School Street

2008 Existing Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	240	15	170	380	25	25	45	80	25	60	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.72	0.72	0.72	0.85	0.85	0.85	0.78	0.78	0.78	0.88	0.88	0.88
Hourly flow rate (vph)	7	333	21	200	447	29	32	58	103	28	68	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	476			354			1271	1234	344	1351	1230	462
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	476			354			1271	1234	344	1351	1230	462
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			83			59	61	85	57	54	97
cM capacity (veh/h)	1096			1210			78	148	694	66	147	604

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	361	676	192	114
Volume Left	7	200	32	28
Volume Right	21	29	103	17
cSH	1096	1210	203	123
Volume to Capacity	0.01	0.17	0.95	0.92
Queue Length 95th (ft)	0	15	197	149
Control Delay (s)	0.2	3.9	98.9	128.6
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	3.9	98.9	128.6
Approach LOS			F	F

Intersection Summary			
Average Delay		27.1	
Intersection Capacity Utilization		65.1%	ICU Level of Service C
Analysis Period (min)		15	

Appendix A – Capacity Analysis Results

- No-Build Condition
- Build Condition
- Build with Mitigation Condition

Capacity Analysis Results
No-Build Condition

Fall River

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

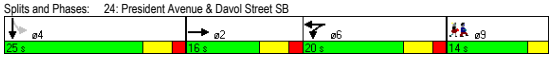
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	10	5	400	15	0	0	0	0	435	480	5	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	12	12	12	12	12	12	12	8	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		238			272			1959			1114		
Travel Time (s)		5.4			6.2			44.5			25.3		
Peak Hour Factor	0.57	0.57	0.57	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88	
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	2%	1%	0%	
Shared Lane Traffic (%)				48%									
Lane Group Flow (vph)	0	27	0	237	235	0	0	0	0	0	1045	0	
Turn Type				Split						Perm			
Protected Phases		2		6	6						4		9
Permitted Phases										4			
Detector Phase		2		6	6					4	4		
Switch Phase													
Minimum Initial (s)		4.0		12.0	12.0					12.0	12.0		7.0
Minimum Split (s)		10.0		18.0	18.0					18.0	18.0		14.0
Total Split (s)	0.0	16.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	14.0
Total Split (%)	0.0%	21.3%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	19%
Maximum Green (s)		10.0		14.0	14.0					19.0	19.0		11.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0		3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0		3.0
Recall Mode		None		Min	Min					C-Max	C-Max		None
Walk Time (s)													5.0
Flash Dont Walk (s)													6.0
Pedestrian Calls (#/hr)													5
v/c Ratio		0.17		0.73	0.67						0.57		
Control Delay		26.3		53.6	49.3						18.7		
Queue Delay		0.0		1.2	2.1						0.0		
Total Delay		26.3		54.7	51.4						18.7		
Queue Length 50th (ft)		8		125	121						128		
Queue Length 95th (ft)		17		#214	197						#422		
Internal Link Dist (ft)		158			192			1879			1034		
Turn Bay Length (ft)													
Base Capacity (vph)		250		333	359						1820		
Starvation Cap Reductn		0		19	45						0		
Spillback Cap Reductn		0		0	0						0		
Storage Cap Reductn		0		0	0						0		
Reduced v/c Ratio		0.11		0.75	0.75						0.57		

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: President Avenue & Davol Street SB



HCM Signalized Intersection Capacity Analysis
24: President Avenue & Davol Street SB

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	10	5	400	15	0	0	0	0	435	480	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	12	8
Total Lost time (s)		6.0		6.0	6.0						6.0	
Lane Util. Factor		1.00		0.95	0.95						0.95	
Frt		0.96		1.00	1.00						1.00	
Flt Protected		1.00		0.95	0.96						0.98	
Satd. Flow (prot)		1814		1569	1694						3473	
Flt Permitted		1.00		0.95	0.96						0.98	
Satd. Flow (perm)		1814		1569	1694						3473	
Peak-hour factor, PHF	0.57	0.57	0.57	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	18	9	455	17	0	0	0	0	494	545	6
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	18	0	237	235	0	0	0	0	0	1044	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	2%	1%	0%
Turn Type				Split						Perm		
Protected Phases		2		6	6						4	
Permitted Phases										4		
Actuated Green, G (s)		3.0		15.5	15.5						33.3	
Effective Green, g (s)		3.0		15.5	15.5						33.3	
Actuated g/C Ratio		0.04		0.21	0.21						0.44	
Clearance Time (s)		6.0		6.0	6.0						6.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		73		324	350						1542	
v/s Ratio Prot		c0.01		c0.15	0.14							
v/s Ratio Perm											0.30	
v/c Ratio		0.25		0.73	0.67						0.68	
Uniform Delay, d1		34.9		27.8	27.4						16.6	
Progression Factor		1.00		1.43	1.44						1.00	
Incremental Delay, d2		1.8		8.0	4.9						2.4	
Delay (s)		36.7		47.9	44.3						19.0	
Level of Service		D		D	D						B	
Approach Delay (s)		36.7			46.1			0.0			19.0	
Approach LOS		D			D			A			B	

Intersection Summary

HCM Average Control Delay	27.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	23.2
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

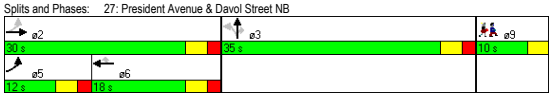
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	30	410	0	0	330	205	85	470	290	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12	
Storage Length (ft)	0		0	0		165	0		125	0		0	
Storage Lanes	0		0	0		1	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		272			959			475			333		
Travel Time (s)		6.2			21.8			10.8			7.6		
Peak Hour Factor	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	537	0	0	375	233	0	603	315	0	0	0	
Turn Type	pm+pt					Perm	Perm		Perm				
Protected Phases	5	2			6			3					9
Permitted Phases	2					6	3		3				
Detector Phase	5	2			6	6	3	3	3				
Switch Phase													
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0				7.0
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0				10.0
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0	10.0
Total Split (%)	16.0%	40.0%	0.0%	0.0%	24.0%	24.0%	46.7%	46.7%	46.7%	0.0%	0.0%	0.0%	13%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0				7.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead				Lag	Lag							
Lead-Lag Optimize?	Yes				Yes	Yes							
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None				Ped
Walk Time (s)													4.0
Flash Dont Walk (s)													3.0
Pedestrian Calls (#/hr)													1
v/c Ratio		0.39			0.25	0.34		0.61	0.68				
Control Delay		20.1			15.1	17.4		25.0	30.5				
Queue Delay		0.3			0.0	0.0		0.1	0.0				
Total Delay		20.4			15.1	17.4		25.1	30.5				
Queue Length 50th (ft)		38			55	68		126	129				
Queue Length 95th (ft)		162			99	141		149	179				
Internal Link Dist (ft)		192			879			395			253		
Turn Bay Length (ft)						165			125				
Base Capacity (vph)		1362			1498	693		1348	633				
Starvation Cap Reductn		315			0	0		0	0				
Spillback Cap Reductn		0			0	0		156	0				
Storage Cap Reductn		0			0	0		0	0				
Reduced v/c Ratio		0.51			0.25	0.34		0.51	0.50				

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	410	0	0	330	205	85	470	290	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3384			3388	1568		3372	1583			
Flt Permitted		0.91			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3080			3388	1568		3372	1583			
Peak-hour factor, PHF	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	500	0	0	375	233	92	511	315	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	537	0	0	375	233	0	603	315	0	0	0
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		33.2			33.2	33.2		21.8	21.8			
Effective Green, g (s)		33.2			33.2	33.2		21.8	21.8			
Actuated g/C Ratio		0.44			0.44	0.44		0.29	0.29			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		1363			1500	694		980	460			
v/s Ratio Prot					0.11							
v/s Ratio Perm		c0.17				0.15		0.18	c0.20			
v/c Ratio		0.39			0.25	0.34		0.62	0.68			
Uniform Delay, d1		14.1			13.1	13.7		23.0	23.6			
Progression Factor		1.22			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.2			0.4	1.3		1.2	4.2			
Delay (s)		17.4			13.5	15.0		24.1	27.8			
Level of Service		B			B	B		C	C			
Approach Delay (s)		17.4			14.1			25.4			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

HCM Average Control Delay	20.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
35: President Avenue & North Main Street

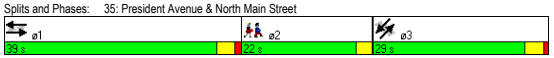
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR	ø2
Lane Configurations													
Volume (vph)	140	495	70	55	345	70	100	195	75	105	165	80	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	16	12	12	16	12	12	16	12	
Storage Length (ft)	0		0	125		0	0		0	0		0	
Storage Lanes	1		0	1		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		959			1952			265			1409		
Travel Time (s)		21.8			44.4			6.0			32.0		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75	
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0	
Parking (#/hr)			5										
Shared Lane Traffic (%)													
Lane Group Flow (vph)	161	649	0	63	477	0	0	425	0	0	467	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		1			1			3			3		2
Permitted Phases	1			1			3			3			
Detector Phase	1	1		1	1		3	3		3	3		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0		10.0
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		22.0
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0	22.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%	24%
Maximum Green (s)	35.0	35.0		35.0	35.0		25.0	25.0		25.0	25.0		19.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead		Lead	Lead								Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes								Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0		3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None		None
Walk Time (s)													10.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													14
v/c Ratio	0.56	0.68		0.40	0.50			0.79			0.88		
Control Delay	25.4	20.5		24.4	15.9			34.8			43.4		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	25.4	20.5		24.4	15.9			34.8			43.4		
Queue Length 50th (ft)	41	177		15	113			149			173		
Queue Length 95th (ft)	#161	439		69	289			#418			#376		
Internal Link Dist (ft)		879			1872			185			1329		
Turn Bay Length (ft)				125									
Base Capacity (vph)	321	1073		176	1076			539			531		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.50	0.60		0.36	0.44			0.79			0.88		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 69.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 35: President Avenue & North Main Street



HCM Signalized Intersection Capacity Analysis
35: President Avenue & North Main Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	140	495	70	55	345	70	100	195	75	105	165	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	12	12	16	12
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.97			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	2070		1805	2065			1924			1966	
Flt Permitted	0.33	1.00		0.18	1.00			0.73			0.70	
Satd. Flow (perm)	621	2070		341	2065			1433			1406	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75
Adj. Flow (vph)	161	569	80	63	397	80	115	224	86	140	220	107
RTOR Reduction (vph)	0	0	0	0	7	0	0	9	0	0	10	0
Lane Group Flow (vph)	161	649	0	63	470	0	0	416	0	0	457	0
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)	32.0	32.0		32.0	32.0			25.6			25.6	
Effective Green, g (s)	32.0	32.0		32.0	32.0			25.6			25.6	
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.36			0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Grp Cap (vph)	278	926		153	924			513			503	
v/s Ratio Prot		c0.31			0.23							
v/s Ratio Perm	0.26			0.18				0.29			c0.32	
v/c Ratio	0.58	0.70		0.41	0.51			0.81			0.91	
Uniform Delay, d1	14.7	15.9		13.4	14.1			20.8			21.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	4.6	3.0		3.7	0.9			11.1			21.8	
Delay (s)	19.3	18.9		17.1	15.0			31.8			43.6	
Level of Service	B	B		B	B			C			D	
Approach Delay (s)		19.0			15.3			31.8			43.6	
Approach LOS		B			B			C			D	

Intersection Summary

HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	71.5	Sum of lost time (s)	13.9
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
4: Ferry Street & Ponta Delgada

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	260	50	10	65	25	170
Sign Control	Stop		Free		Free	
Grade	1%		1%		1%	
Peak Hour Factor	0.90	0.90	0.62	0.62	0.78	0.78
Hourly flow rate (vph)	289	56	16	105	32	218
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	278	141	250			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	278	141	250			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	59	94	99			
cM capacity (veh/h)	705	912	1327			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	344	121	250
Volume Left	289	16	0
Volume Right	56	0	218
cSH	732	1327	1700
Volume to Capacity	0.47	0.01	0.15
Queue Length 95th (ft)	63	1	0
Control Delay (s)	14.2	1.1	0.0
Lane LOS	B	A	
Approach Delay (s)	14.2	1.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		7.0	
Intersection Capacity Utilization		43.9%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
7: Anawan Street & Ponta Delgada

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	20	0	35	10	5	5	10	310	20	160	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.64	0.64	0.64	0.72	0.72	0.72	0.91	0.91	0.91	0.87	0.87	0.87
Hourly flow rate (vph)	0	31	0	49	14	7	5	11	341	23	184	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	448	604	195	449	445	181	207			352		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	448	604	195	449	445	181	207			352		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	92	100	90	97	99	100			98		
cM capacity (veh/h)	500	386	851	482	499	866	1376			1191		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	31	69	357	230
Volume Left	0	49	5	23
Volume Right	0	7	341	23
cSH	386	508	1376	1191
Volume to Capacity	0.08	0.14	0.00	0.02
Queue Length 95th (ft)	7	12	0	1
Control Delay (s)	15.1	13.2	0.2	1.0
Lane LOS	C	B	A	A
Approach Delay (s)	15.1	13.2	0.2	1.0
Approach LOS	C	B		

Intersection Summary			
Average Delay		2.4	
Intersection Capacity Utilization		37.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: Central Street & Davol Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	75	105	140	0	320	0	0	470	85
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.76	0.76	0.76	0.86	0.86	0.86	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	99	138	184	0	372	0	0	588	106
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1266	1013	641	1013	1066	372	694			372		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1266	1013	641	1013	1066	372	694			372		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	54	37	72	100			100		
cM capacity (veh/h)	53	241	479	216	220	669	911			1198		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	168	253	372	694
Volume Left	99	0	0	0
Volume Right	0	184	0	106
cSH	218	430	911	1700
Volume to Capacity	0.77	0.59	0.00	0.41
Queue Length 95th (ft)	135	92	0	0
Control Delay (s)	61.6	24.6	0.0	0.0
Lane LOS	F	C		
Approach Delay (s)	39.4		0.0	0.0
Approach LOS	E			

Intersection Summary				
Average Delay		11.2		
Intersection Capacity Utilization		46.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Anawan Street & Davol Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	140	180	25	30	20	10	150	75	235	295	30
Peak Hour Factor	0.94	0.94	0.94	0.76	0.76	0.76	0.84	0.84	0.84	0.81	0.81	0.81
Hourly flow rate (vph)	37	149	191	33	39	26	12	179	89	290	364	37

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	378	99	280	691
Volume Left (vph)	37	33	12	290
Volume Right (vph)	191	26	89	37
Hadj (s)	0.04	-0.02	-0.17	0.07
Departure Headway (s)	6.8	7.7	6.7	6.4
Degree Utilization, x	0.72	0.21	0.52	1.22
Capacity (veh/h)	509	407	507	557
Control Delay (s)	25.3	12.8	16.7	137.8
Approach Delay (s)	25.3	12.8	16.7	137.8
Approach LOS	D	B	C	F

Intersection Summary				
Delay		76.6		
HCM Level of Service		F		
Intersection Capacity Utilization		74.8%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
29: Turner Street & Davol Street NB

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	45	720	165	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.68	0.68	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	66	791	181	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	882	486			973	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	882	486			973	
tC, single (s)	6.8	7.1			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	100	87			100	
cM capacity (veh/h)	290	509			717	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	66	527	445
Volume Left	0	0	0
Volume Right	66	0	181
cSH	509	1700	1700
Volume to Capacity	0.13	0.31	0.26
Queue Length 95th (ft)	11	0	0
Control Delay (s)	13.1	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.1	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
30: Pearce Street & North Davol Street

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	80	765	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	87	841	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						475
pX, platoon unblocked						
vC, conflicting volume	841	420			841	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	841	420			841	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	85			100	
cM capacity (veh/h)	308	585			803	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	87	420	420
Volume Left	0	0	0
Volume Right	87	0	0
cSH	585	1700	1700
Volume to Capacity	0.15	0.25	0.25
Queue Length 95th (ft)	13	0	0
Control Delay (s)	12.2	0.0	0.0
Lane LOS	B		
Approach Delay (s)	12.2	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
85: Davol St. SB & U-Turn to SB U-turn to SB Davol St

2030 No-Build Conditions - AM Peak Hour

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	0	0	770	20	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.86	0.86	0.75	0.75
Hourly flow rate (vph)	0	0	0	895	27	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		448	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		448	0
tC, single (s)			4.1		7.1	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			100		95	100
cM capacity (veh/h)			1636		510	1091

Direction, Lane #	SB 1	SB 2	SW 1
Volume Total	448	448	27
Volume Left	0	0	27
Volume Right	0	0	0
cSH	1700	1700	510
Volume to Capacity	0.26	0.26	0.05
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.0	0.0	12.5
Lane LOS			B
Approach Delay (s)	0.0		12.5
Approach LOS			B

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		49.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Davol St. NB & U-turn to NB Davol St

2030 No-Build Conditions - AM Peak Hour

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Volume (veh/h)	0	760	0	0	120	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.72	0.72
Hourly flow rate (vph)	0	844	0	0	167	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				422	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				422	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				70	100
cM capacity (veh/h)	1636				562	1091

Direction, Lane #	NB 1	NB 2	NE 1
Volume Total	422	422	167
Volume Left	0	0	167
Volume Right	0	0	0
cSH	1700	1700	562
Volume to Capacity	0.25	0.25	0.30
Queue Length 95th (ft)	0	0	31
Control Delay (s)	0.0	0.0	14.1
Lane LOS			B
Approach Delay (s)	0.0		14.1
Approach LOS			B

Intersection Summary			
Average Delay		2.3	
Intersection Capacity Utilization		52.7%	ICU Level of Service A
Analysis Period (min)		15	

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

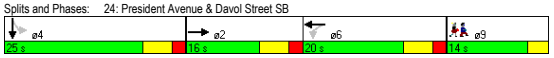
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	0	0	355	5	0	0	0	0	545	535	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	10	12	12	12	12	12	12	12	12	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		238			272			1959			1114		
Travel Time (s)		5.4			6.2			44.5			25.3		
Peak Hour Factor	0.38	0.38	0.38	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	0%	
Shared Lane Traffic (%)				49%									
Lane Group Flow (vph)	0	0	0	213	211	0	0	0	0	0	1200	0	
Turn Type				Perm						Perm			
Protected Phases		2			6						4		9
Permitted Phases				6						4			
Detector Phase		2		6	6					4	4		
Switch Phase													
Minimum Initial (s)		4.0		12.0	12.0					12.0	12.0		7.0
Minimum Split (s)		10.0		18.0	18.0					18.0	18.0		14.0
Total Split (s)	0.0	16.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	14.0
Total Split (%)	0.0%	21.3%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	19%
Maximum Green (s)		10.0		14.0	14.0					19.0	19.0		11.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0		3.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0		3.0
Recall Mode		None		Min	Min					C-Max	C-Max		None
Walk Time (s)													5.0
Flash Dont Walk (s)													6.0
Pedestrian Calls (#/hr)													5
v/c Ratio				0.52	0.48						0.64		
Control Delay				35.1	33.8						17.2		
Queue Delay				2.3	2.5						0.0		
Total Delay				37.4	36.3						17.2		
Queue Length 50th (ft)				104	103						174		
Queue Length 95th (ft)				162	158						#446		
Internal Link Dist (ft)		158			192			1879			1034		
Turn Bay Length (ft)													
Base Capacity (vph)				414	444						1884		
Starvation Cap Reductn				102	133						0		
Spillback Cap Reductn				0	0						0		
Storage Cap Reductn				0	0						0		
Reduced v/c Ratio				0.68	0.68						0.64		

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: President Avenue & Davol Street SB



HCM Signalized Intersection Capacity Analysis
24: President Avenue & Davol Street SB

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	355	5	0	0	0	0	545	535	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	12	12
Total Lost time (s)				6.0	6.0						6.0	
Lane Util. Factor				0.95	0.95						0.95	
Frt				1.00	1.00						1.00	
Flt Protected				0.95	0.95						0.98	
Satd. Flow (prot)				1600	1721						3452	
Flt Permitted				0.95	0.95						0.98	
Satd. Flow (perm)				1600	1715						3452	
Peak-hour factor, PHF	0.38	0.38	0.38	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	418	6	0	0	0	0	606	594	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	213	211	0	0	0	0	0	1200	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	0%
Turn Type				Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases				6						4		
Actuated Green, G (s)				19.3	19.3						38.5	
Effective Green, g (s)				19.3	19.3						38.5	
Actuated g/C Ratio				0.26	0.26						0.51	
Clearance Time (s)				6.0	6.0						6.0	
Vehicle Extension (s)				3.0	3.0						3.0	
Lane Grp Cap (vph)				412	441						1772	
v/s Ratio Prot												
v/s Ratio Perm				c0.13	0.12						0.35	
v/c Ratio				0.52	0.48						0.68	
Uniform Delay, d1				23.9	23.6						13.6	
Progression Factor				1.32	1.32						1.00	
Incremental Delay, d2				1.1	0.8						2.1	
Delay (s)				32.5	31.9						15.7	
Level of Service				C	C						B	
Approach Delay (s)		0.0			32.2			0.0			15.7	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	20.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

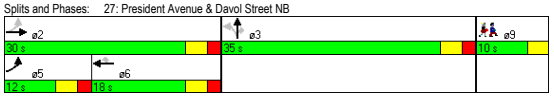
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	35	510	0	0	290	365	70	620	300	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12	
Storage Length (ft)	0		0	0		165	0		125	0		0	
Storage Lanes	0		0	0		1	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		272			959			475			333		
Travel Time (s)		6.2			21.8			10.8			7.6		
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92	
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	592	0	0	326	410	0	793	345	0	0	0	
Turn Type	pm+pt					Perm	Perm		Perm				
Protected Phases	5	2			6			3					9
Permitted Phases	2					6	3		3				
Detector Phase	5	2			6	6	3	3	3				
Switch Phase													
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0				7.0
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0				10.0
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0	10.0
Total Split (%)	16.0%	40.0%	0.0%	0.0%	24.0%	24.0%	46.7%	46.7%	46.7%	0.0%	0.0%	0.0%	13%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0				7.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead				Lag	Lag							
Lead-Lag Optimize?	Yes				Yes	Yes							
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				3.0
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None				Ped
Walk Time (s)													4.0
Flash Dont Walk (s)													3.0
Pedestrian Calls (#/hr)													5
v/c Ratio		0.46			0.23	0.63		0.71	0.65				
Control Delay		16.1			16.3	25.2		25.3	27.3				
Queue Delay		0.3			0.0	0.0		0.0	0.0				
Total Delay		16.4			16.3	25.2		25.3	27.3				
Queue Length 50th (ft)		37			51	149		166	135				
Queue Length 95th (ft)		147			88	#300		192	188				
Internal Link Dist (ft)		192			879			395			253		
Turn Bay Length (ft)						165			125				
Base Capacity (vph)		1281			1405	650		1376	646				
Starvation Cap Reductn		243			0	0		0	0				
Spillback Cap Reductn		0			0	0		0	0				
Storage Cap Reductn		0			0	0		0	0				
Reduced v/c Ratio		0.57			0.23	0.63		0.58	0.53				

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	510	0	0	290	365	70	620	300	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3440			3455	1599		3441	1615			
Flt Permitted		0.91			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3150			3455	1599		3441	1615			
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	38	554	0	0	326	410	80	713	345	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	592	0	0	326	410	0	793	345	0	0	0
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		30.5			30.5	30.5		24.5	24.5			
Effective Green, g (s)		30.5			30.5	30.5		24.5	24.5			
Actuated g/C Ratio		0.41			0.41	0.41		0.33	0.33			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		1281			1405	650		1124	528			
v/s Ratio Prot					0.09							
v/s Ratio Perm		0.19				c0.26		0.23	0.21			
v/c Ratio		0.46			0.23	0.63		0.71	0.65			
Uniform Delay, d1		16.3			14.6	17.8		22.1	21.6			
Progression Factor		0.86			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.2			0.4	4.6		2.0	2.9			
Delay (s)		14.2			15.0	22.4		24.1	24.5			
Level of Service		B			B	C		C	C			
Approach Delay (s)		14.2			19.1			24.3			0.0	
Approach LOS		B			B			C			A	

Intersection Summary

HCM Average Control Delay	20.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
35: President Avenue & North Main Street

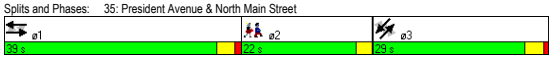
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR	ø2
Lane Configurations													
Volume (vph)	120	570	120	60	435	60	120	255	75	155	195	90	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	16	12	12	16	12	12	16	12	
Storage Length (ft)	0		0	125		0	0		0	0		0	
Storage Lanes	1		0	1		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		959			1952			265			1409		
Travel Time (s)		21.8			44.4			6.0			32.0		
Peak Hour Factor	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96	
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0	
Parking (#/hr)			5										
Shared Lane Traffic (%)													
Lane Group Flow (vph)	133	766	0	71	583	0	0	489	0	0	458	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		1			1			3			3		2
Permitted Phases	1			1			3			3			
Detector Phase	1	1		1	1		3	3		3	3		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0		10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0		22.0
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0	22.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%	24%
Maximum Green (s)	35.0	35.0		35.0	35.0		25.0	25.0		25.0	25.0		19.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead		Lead	Lead								Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes								Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0		3.0
Recall Mode	Min	Min		Min	Min		None	None		None	None		None
Walk Time (s)													10.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													8
v/c Ratio	0.57	0.76		0.71	0.57			0.90			1.02		
Control Delay	28.9	23.2		59.7	17.2			45.4			75.9		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	28.9	23.2		59.7	17.2			45.4			75.9		
Queue Length 50th (ft)	35	228		20	149			180			179		
Queue Length 95th (ft)	#162	#653		#114	360			#514			#519		
Internal Link Dist (ft)		879			1872			185			1329		
Turn Bay Length (ft)				125									
Base Capacity (vph)	233	1013		100	1029			545			447		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.57	0.76		0.71	0.57			0.90			1.02		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 72.4
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 35: President Avenue & North Main Street



HCM Signalized Intersection Capacity Analysis
35: President Avenue & North Main Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	120	570	120	60	435	60	120	255	75	155	195	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	12	12	16	12
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.98			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1752	2069		1719	2091			2060			2028	
Flt Permitted	0.26	1.00		0.11	1.00			0.74			0.61	
Satd. Flow (perm)	476	2069		204	2091			1535			1253	
Peak-hour factor, PHF	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	133	633	133	71	512	71	130	277	82	161	203	94
RTOR Reduction (vph)	0	0	0	0	5	0	0	7	0	0	9	0
Lane Group Flow (vph)	133	766	0	71	578	0	0	482	0	0	449	0
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)	35.4	35.4		35.4	35.4			25.3			25.3	
Effective Green, g (s)	35.4	35.4		35.4	35.4			25.3			25.3	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.34			0.34	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Grp Cap (vph)	225	979		97	990			519			424	
v/s Ratio Prot		c0.37			0.28							
v/s Ratio Perm	0.28			0.35				0.31			c0.36	
v/c Ratio	0.59	0.78		0.73	0.58			0.93			1.06	
Uniform Delay, d1	14.4	16.5		15.9	14.3			23.9			24.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	6.2	4.8		29.0	1.4			24.3			60.0	
Delay (s)	20.6	21.3		44.9	15.7			48.2			84.7	
Level of Service	C	C		D	B			D			F	
Approach Delay (s)		21.2			18.9			48.2			84.7	
Approach LOS		C			B			D			F	

Intersection Summary

HCM Average Control Delay	37.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	14.1
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
4: Ferry Street & Ponta Delgada

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	155	30	15	15	25	275
Sign Control	Stop		Free		Free	
Grade	1%		1%		1%	
Peak Hour Factor	0.89	0.89	0.91	0.91	0.74	0.74
Hourly flow rate (vph)	174	34	16	16	34	372
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	269	220	405			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	269	220	405			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	76	96	99			
cM capacity (veh/h)	712	825	1164			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	208	33	405
Volume Left	174	16	0
Volume Right	34	0	372
cSH	728	1164	1700
Volume to Capacity	0.29	0.01	0.24
Queue Length 95th (ft)	29	1	0
Control Delay (s)	11.9	4.1	0.0
Lane LOS	B	A	
Approach Delay (s)	11.9	4.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		4.0	
Intersection Capacity Utilization		42.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
7: Anawan Street & Ponta Delgada

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	25	5	70	0	5	0	10	165	35	230	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.67	0.67	0.67	0.91	0.91	0.91	0.78	0.78	0.78
Hourly flow rate (vph)	0	36	7	104	0	7	0	11	181	45	295	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	500	583	301	518	499	102	308			192		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	500	583	301	518	499	102	308			192		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	91	99	75	100	99	100			97		
cM capacity (veh/h)	469	402	743	425	461	959	1264			1375		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	112	192	353
Volume Left	0	104	0	45
Volume Right	7	7	181	13
cSH	436	441	1264	1375
Volume to Capacity	0.10	0.25	0.00	0.03
Queue Length 95th (ft)	8	25	0	3
Control Delay (s)	14.2	15.9	0.0	1.2
Lane LOS	B	C		A
Approach Delay (s)	14.2	15.9	0.0	1.2
Approach LOS	B	C		

Intersection Summary			
Average Delay		4.0	
Intersection Capacity Utilization		46.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: Central Street & Davol Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	130	120	275	5	330	0	0	470	125
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.78	0.78	0.78	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	151	140	320	6	423	0	0	522	139
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1417	1028	592	1028	1097	423	661			423		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1417	1028	592	1028	1097	423	661			423		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	28	34	50	99			100		
cM capacity (veh/h)	27	234	510	211	210	635	937			1147		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	221	390	429	661
Volume Left	151	0	6	0
Volume Right	0	320	0	139
cSH	211	466	937	1700
Volume to Capacity	1.05	0.84	0.01	0.39
Queue Length 95th (ft)	244	205	1	0
Control Delay (s)	123.1	41.2	0.2	0.0
Lane LOS	F	E	A	
Approach Delay (s)	70.8		0.2	0.0
Approach LOS	F			

Intersection Summary				
Average Delay		25.5		
Intersection Capacity Utilization	54.9%		ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Anawan Street & Davol Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	120	90	55	100	45	60	5	160	90	180	380	35
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.94	0.94	0.94	0.85	0.85	0.85
Hourly flow rate (vph)	138	103	63	132	59	79	5	170	96	212	447	41

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	305	270	271	700
Volume Left (vph)	138	132	5	212
Volume Right (vph)	63	79	96	41
Hadj (s)	0.01	-0.07	-0.19	0.04
Departure Headway (s)	7.6	7.6	7.4	7.0
Degree Utilization, x	0.64	0.57	0.56	1.36
Capacity (veh/h)	452	438	455	505
Control Delay (s)	23.1	20.4	19.3	195.2
Approach Delay (s)	23.1	20.4	19.3	195.2
Approach LOS	C	C	C	F

Intersection Summary				
Delay		99.9		
HCM Level of Service		F		
Intersection Capacity Utilization		74.3%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
29: Turner Street & Davol Street NB

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	60	840	125	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	0	107	933	139	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1003	536			1072	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1003	536			1072	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	78			100	
cM capacity (veh/h)	242	489			658	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	107	622	450
Volume Left	0	0	0
Volume Right	107	0	139
cSH	489	1700	1700
Volume to Capacity	0.22	0.37	0.26
Queue Length 95th (ft)	21	0	0
Control Delay (s)	14.4	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.4	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
30: Pearce Street & North Davol Street

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	75	915	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.67	0.67	0.86	0.86	0.92	0.92
Hourly flow rate (vph)	0	112	1064	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						475
pX, platoon unblocked						
vC, conflicting volume	1064	532			1064	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1064	532			1064	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	77			100	
cM capacity (veh/h)	221	495			663	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	112	532	532
Volume Left	0	0	0
Volume Right	112	0	0
cSH	495	1700	1700
Volume to Capacity	0.23	0.31	0.31
Queue Length 95th (ft)	22	0	0
Control Delay (s)	14.4	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.4	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
85: Davol St. SB & U-Turn to SB U-turn to SB Davol St

2030 No-Build Conditions - PM Peak Hour

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	0	0	785	20	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	0	0	0	853	40	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		427	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		427	0
tC, single (s)			4.1		7.0	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			100		93	100
cM capacity (veh/h)			1636		536	1091

Direction, Lane #	SB 1	SB 2	SW 1
Volume Total	427	427	40
Volume Left	0	0	40
Volume Right	0	0	0
cSH	1700	1700	536
Volume to Capacity	0.25	0.25	0.07
Queue Length 95th (ft)	0	0	6
Control Delay (s)	0.0	0.0	12.3
Lane LOS			B
Approach Delay (s)	0.0		12.3
Approach LOS			B

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		53.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Davol St. NB & U-turn to NB Davol St

2030 No-Build Conditions - PM Peak Hour

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Volume (veh/h)	0	885	0	0	80	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	0	994	0	0	90	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				497	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				497	0
tC, single (s)	4.1				6.9	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				82	100
cM capacity (veh/h)	1636				500	1091

Direction, Lane #	NB 1	NB 2	NE 1
Volume Total	497	497	90
Volume Left	0	0	90
Volume Right	0	0	0
cSH	1700	1700	500
Volume to Capacity	0.29	0.29	0.18
Queue Length 95th (ft)	0	0	16
Control Delay (s)	0.0	0.0	13.8
Lane LOS			B
Approach Delay (s)	0.0		13.8
Approach LOS			B

Intersection Summary			
Average Delay		1.1	
Intersection Capacity Utilization		56.1%	ICU Level of Service B
Analysis Period (min)		15	

Freetown

Lanes, Volumes, Timings
4: Payne's Crossing driveway & South Main St

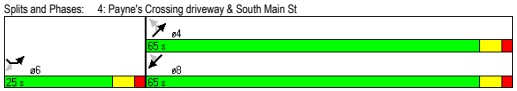
2030 No Build Conditions - AM Peak Hour

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	5	327	435	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			0
Storage Lanes	2	1	1			1
Taper Length (ft)	25	25	25			25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			1115	461	
Travel Time (s)	8.7			25.3	10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	5	5	355	473	0
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Detector Phase	6	6	4	4	8	8
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	27.8%	72.2%	72.2%	72.2%	72.2%
Maximum Green (s)	19.0	19.0	59.0	59.0	59.0	59.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.02	0.05	0.01	0.24	0.32	
Control Delay	39.4	25.4	1.8	2.6	0.6	
Queue Delay	0.0	0.0	0.0	0.0	0.1	
Total Delay	39.4	25.4	1.8	2.6	0.7	
Queue Length 50th (ft)	1	0	1	35	1	
Queue Length 95th (ft)	7	11	2	58	1	
Internal Link Dist (ft)	301			1035	381	
Turn Bay Length (ft)			200			
Base Capacity (vph)	725	338	732	1496	1496	
Starvation Cap Reductn	0	0	0	0	298	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.01	0.01	0.01	0.24	0.39	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 4:NETL and 8:SWT, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 4: Payne's Crossing driveway & South Main St



HCM Signalized Intersection Capacity Analysis
4: Payne's Crossing driveway & South Main St

2030 No Build Conditions - AM Peak Hour

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	5	327	435	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	3433	1583	1770	1863	1863	
Flt Permitted	0.95	1.00	0.49	1.00	1.00	
Satd. Flow (perm)	3433	1583	913	1863	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	5	355	473	0
RTOR Reduction (vph)	0	5	0	0	0	0
Lane Group Flow (vph)	5	0	5	355	473	0
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	5.8	5.8	72.2	72.2	72.2	
Effective Green, g (s)	5.8	5.8	72.2	72.2	72.2	
Actuated g/C Ratio	0.06	0.06	0.80	0.80	0.80	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	221	102	732	1495	1495	
v/s Ratio Prot	c0.00			0.19	c0.25	
v/s Ratio Perm		0.00	0.01			
v/c Ratio	0.02	0.00	0.01	0.24	0.32	
Uniform Delay, d1	39.4	39.4	1.8	2.2	2.4	
Progression Factor	1.00	1.00	1.00	1.00	0.01	
Incremental Delay, d2	0.0	0.0	0.0	0.4	0.5	
Delay (s)	39.5	39.4	1.8	2.5	0.6	
Level of Service	D	D	A	A	A	
Approach Delay (s)	39.4			2.5	0.6	
Approach LOS	D			A	A	

Intersection Summary

HCM Average Control Delay	1.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
7: South Main St & Route 24 SB Off-Ramp

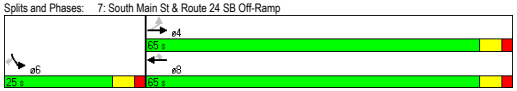
2030 No Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	275	430	875	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	16	12
Storage Length (ft)	0			240	0	0
Storage Lanes	1			2	1	1
Taper Length (ft)	25			25	25	25
Right Turn on Red				Yes		Yes
Link Speed (mph)		30	30		30	
Link Distance (ft)		461	773		388	
Travel Time (s)		10.5	17.6		8.8	
Peak Hour Factor	0.85	0.85	0.87	0.87	0.91	0.91
Heavy Vehicles (%)	9%	11%	12%	2%	15%	24%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	324	494	1006	132	5
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	65.0	65.0	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	72.2%	72.2%	27.8%	27.8%
Maximum Green (s)	59.0	59.0	59.0	59.0	19.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.09	0.26	0.21	0.67	0.56	0.03
Control Delay	4.3	4.6	0.5	1.2	45.0	19.6
Queue Delay	0.0	0.0	0.0	1.2	0.0	0.0
Total Delay	4.3	4.6	0.5	2.4	45.0	19.6
Queue Length 50th (ft)	7	49	3	0	71	0
Queue Length 95th (ft)	18	71	m4	m0	122	10
Internal Link Dist (ft)		381	693		308	
Turn Bay Length (ft)				240		
Base Capacity (vph)	602	1256	2365	1507	376	279
Starvation Cap Reductn	0	0	0	279	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.26	0.21	0.82	0.35	0.02

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 20 (22%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: South Main St & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
7: South Main St & Route 24 SB Off-Ramp

2030 No Build Conditions - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	275	430	875	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	16	12
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1656	1712	3223	1689	1779	1302
Flt Permitted	0.47	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	822	1712	3223	1689	1779	1302
Peak-hour factor, PHF	0.85	0.85	0.87	0.87	0.91	0.91
Adj. Flow (vph)	53	324	494	1006	132	5
RTOR Reduction (vph)	0	0	0	268	0	4
Lane Group Flow (vph)	53	324	494	738	132	1
Heavy Vehicles (%)	9%	11%	12%	2%	15%	24%
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)	66.0	66.0	66.0	66.0	12.0	12.0
Effective Green, g (s)	66.0	66.0	66.0	66.0	12.0	12.0
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.13	0.13
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	603	1255	2364	1239	237	174
v/s Ratio Prot		0.19	0.15		c0.07	
v/s Ratio Perm	0.06			c0.44		0.00
v/c Ratio	0.09	0.26	0.21	0.60	0.56	0.00
Uniform Delay, d1	3.4	3.9	3.8	5.7	36.5	33.8
Progression Factor	0.94	0.90	0.11	1.21	1.00	1.00
Incremental Delay, d2	0.3	0.5	0.1	0.6	2.8	0.0
Delay (s)	3.5	4.1	0.5	7.4	39.3	33.8
Level of Service	A	A	A	A	D	C
Approach Delay (s)		4.0	5.1		39.1	
Approach LOS		A	A		D	

Intersection Summary

HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

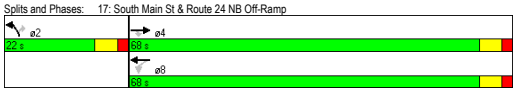
c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	325	60	120	1290	15	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	15	16	16
Storage Length (ft)		200	100		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	773			446	481	
Travel Time (s)	17.6			10.1	10.9	
Peak Hour Factor	0.82	0.82	0.88	0.88	0.80	0.80
Heavy Vehicles (%)	7%	26%	10%	3%	33%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	396	73	136	1466	19	644
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	68.0	68.0	68.0	68.0	22.0	22.0
Total Split (%)	75.6%	75.6%	75.6%	75.6%	24.4%	24.4%
Maximum Green (s)	62.0	62.0	62.0	62.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.31	0.07	0.21	1.00	0.08	0.92
Control Delay	4.0	0.5	5.7	39.9	32.1	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	0.5	5.7	39.9	32.1	27.3
Queue Length 50th (ft)	51	0	25	~917	9	62
Queue Length 95th (ft)	67	3	46	#1125	25	128
Internal Link Dist (ft)	693			366	401	
Turn Bay Length (ft)		200	100			
Base Capacity (vph)	1278	1066	645	1461	273	741
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.07	0.21	1.00	0.07	0.87

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 17: South Main St & Route 24 NB Off-Ramp



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	325	60	120	1290	15	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	15	16	16
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1776	1453	1641	2029	1538	1760
Flt Permitted	1.00	1.00	0.52	1.00	0.95	1.00
Satd. Flow (perm)	1776	1453	897	2029	1538	1760
Peak-hour factor, PHF	0.82	0.82	0.88	0.88	0.80	0.80
Adj. Flow (vph)	396	73	136	1466	19	644
RTOR Reduction (vph)	0	20	0	0	0	445
Lane Group Flow (vph)	396	53	136	1466	19	199
Heavy Vehicles (%)	7%	26%	10%	3%	33%	4%
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	64.8	64.8	64.8	64.8	13.2	13.2
Effective Green, g (s)	64.8	64.8	64.8	64.8	13.2	13.2
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.15	0.15
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1279	1046	646	1461	226	258
v/s Ratio Prot	0.22			c0.72	0.01	
v/s Ratio Perm		0.04	0.15			c0.11
v/c Ratio	0.31	0.05	0.21	1.00	0.08	0.77
Uniform Delay, d1	4.5	3.7	4.2	12.6	33.2	37.0
Progression Factor	0.65	0.28	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1	0.7	24.4	0.2	13.4
Delay (s)	3.6	1.1	4.9	37.0	33.3	50.4
Level of Service	A	A	A	D	C	D
Approach Delay (s)	3.2			34.2	49.9	
Approach LOS	A			C	D	

Intersection Summary

HCM Average Control Delay	32.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
1: Executive Park Drive & South Main Street

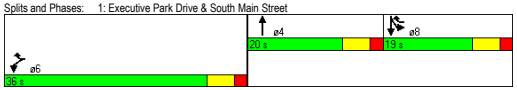
2030 No-Build Condition - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	1385	220	40	190	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	2		1	1	
Taper Length (ft)	100	100		100	100	
Right Turn on Red		No		No		
Link Speed (mph)	35		35			35
Link Distance (ft)	285		553			804
Travel Time (s)	5.6		10.8			15.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Shared Lane Traffic (%)					10%	
Lane Group Flow (vph)	11	1458	274	0	180	194
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Detector Phase	6	6 8	4		8	8
Switch Phase						
Minimum Initial (s)	6.0		6.0		6.0	6.0
Minimum Split (s)	12.0		12.0		12.0	12.0
Total Split (s)	36.0	55.0	20.0	0.0	19.0	19.0
Total Split (%)	48.0%	73.3%	26.7%	0.0%	25.3%	25.3%
Maximum Green (s)	30.0		14.0		13.0	13.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	C-Max		None		None	None
v/c Ratio	0.01	0.82	0.77		0.68	0.65
Control Delay	5.8	14.2	45.0		43.9	40.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	5.8	14.2	45.0		43.9	40.8
Queue Length 50th (ft)	1	113	121		83	89
Queue Length 95th (ft)	m4	186	#229		#173	#175
Internal Link Dist (ft)	205		473			724
Turn Bay Length (ft)					200	
Base Capacity (vph)	757	1771	370		265	297
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.01	0.82	0.74		0.68	0.65

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 6:WBL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Executive Park Drive & South Main Street



HCM Signalized Intersection Capacity Analysis
1: Executive Park Drive & South Main Street

2030 No-Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	1385	220	40	190	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Total Lost time (s)	5.0	5.0	5.0		6.0	6.0
Lane Util. Factor	1.00	0.88	1.00		0.95	0.95
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	0.99
Satd. Flow (prot)	1796	2623	1852		1528	1711
Flt Permitted	0.95	1.00	1.00		0.95	0.99
Satd. Flow (perm)	1796	2623	1852		1528	1711
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	1458	232	42	200	174
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	11	1458	274	0	180	194
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Actuated Green, G (s)	30.6	49.6	13.4		13.0	13.0
Effective Green, g (s)	31.6	50.6	14.4		13.0	13.0
Actuated g/C Ratio	0.42	0.67	0.19		0.17	0.17
Clearance Time (s)	6.0		6.0		6.0	6.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	757	1770	356		265	297
v/s Ratio Prot	0.01	c0.56	c0.15		0.12	0.11
v/s Ratio Perm						
v/c Ratio	0.01	0.82	0.77		0.68	0.65
Uniform Delay, d1	12.6	8.9	28.7		29.0	28.9
Progression Factor	0.44	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	3.0	9.6		6.8	5.1
Delay (s)	5.6	12.0	38.4		35.8	34.0
Level of Service	A	B	D		D	C
Approach Delay (s)	11.9		38.4			34.9
Approach LOS	B		D			C

Intersection Summary

HCM Average Control Delay	19.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

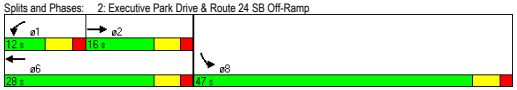
Lanes, Volumes, Timings
2: Executive Park Drive & Route 24 SB Off-Ramp

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	85	0	165	770	0	0	0	0	1575	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		1	2		0	0		0	2		1
Taper Length (ft)	100		100	100		100	100		100	100		100
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		307			406			405			737	
Travel Time (s)		6.0			7.9			7.9			14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	174	811	0	0	0	0	1658	0	0
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Detector Phase		2		1	6					8		
Switch Phase												
Minimum Initial (s)		10.0		6.0	10.0					10.0		
Minimum Split (s)		16.0		12.0	16.0					16.0		
Total Split (s)	0.0	16.0	0.0	12.0	28.0	0.0	0.0	0.0	0.0	47.0	0.0	0.0
Total Split (%)	0.0%	21.3%	0.0%	16.0%	37.3%	0.0%	0.0%	0.0%	0.0%	62.7%	0.0%	0.0%
Maximum Green (s)		10.0		6.0	22.0					41.0		
Yellow Time (s)		4.0		4.0	4.0					4.0		
All-Red Time (s)		2.0		2.0	2.0					2.0		
Lost Time Adjust (s)	0.0	0.0	0.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	6.0	4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Recall Mode		C-Max		None	C-Max					None		
v/c Ratio		0.19		0.54	0.77					0.92		
Control Delay		8.4		48.0	43.2					25.5		
Queue Delay		0.0		0.0	0.0					0.0		
Total Delay		8.4		48.0	43.2					25.5		
Queue Length 50th (ft)		4		45	187					329		
Queue Length 95th (ft)		m11		m58	m232					#506		
Internal Link Dist (ft)		227			326			325			657	
Turn Bay Length (ft)												
Base Capacity (vph)		458		322	1052					1830		
Starvation Cap Reductn		0		0	0					0		
Spillback Cap Reductn		0		0	0					0		
Storage Cap Reductn		0		0	0					0		
Reduced v/c Ratio		0.19		0.54	0.77					0.91		

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Executive Park Drive & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
2: Executive Park Drive & Route 24 SB Off-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	85	0	165	770	0	0	0	0	1575	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Total Lost time (s)		6.0		5.0	5.0					6.0		
Lane Util. Factor		0.95		0.97	0.95					0.97		
Frt		1.00		1.00	1.00					1.00		
Flt Protected		1.00		0.95	1.00					0.95		
Satd. Flow (prot)		3276		3450	3359					3347		
Flt Permitted		1.00		0.95	1.00					0.95		
Satd. Flow (perm)		3276		3450	3359					3347		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	89	0	174	811	0	0	0	0	1658	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	0	174	811	0	0	0	0	1658	0	0
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Actuated Green, G (s)		10.5		6.0	22.5					40.5		
Effective Green, g (s)		10.5		7.0	23.5					40.5		
Actuated g/C Ratio		0.14		0.09	0.31					0.54		
Clearance Time (s)		6.0		6.0	6.0					6.0		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		459		322	1052					1807		
v/s Ratio Prot		0.03		0.05	c0.24					c0.50		
v/s Ratio Perm												
v/c Ratio		0.19		0.54	0.77					0.92		
Uniform Delay, d1		28.5		32.5	23.3					15.7		
Progression Factor		0.26		1.33	1.65					1.00		
Incremental Delay, d2		0.7		1.3	3.8					7.8		
Delay (s)		8.2		44.4	42.2					23.6		
Level of Service		A		D	D					C		
Approach Delay (s)		8.2			42.6			0.0			23.6	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay	29.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
3: Executive Park Drive & Route 24 NB On-Ramp

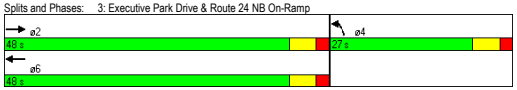
2030 No-Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1575	0	0	165	0	770	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Storage Length (ft)	0		0	0		0	400		615	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	100		100	100		100	100		100	100		100
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		352			205			1194			650	
Travel Time (s)		6.9			4.0			23.3			12.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1658	0	0	174	0	811	0	0	0	0	0
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Detector Phase		2			6		4					
Switch Phase												
Minimum Initial (s)		10.0			10.0		6.0					
Minimum Split (s)		16.0			16.0		12.0					
Total Split (s)	0.0	48.0	0.0	0.0	48.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	64.0%	0.0%	0.0%	64.0%	0.0%	36.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)		42.0			42.0		21.0					
Yellow Time (s)		4.0			4.0		4.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)	0.0	-1.0	0.0	0.0	-1.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0		3.0					
Recall Mode		C-Max			C-Max		None					
v/c Ratio		0.81			0.08		0.87					
Control Delay		6.8			7.3		37.0					
Queue Delay		0.0			0.0		0.0					
Total Delay		6.8			7.3		37.0					
Queue Length 50th (ft)		73			17		181					
Queue Length 95th (ft)		m126			30		#276					
Internal Link Dist (ft)		272			125			1114			570	
Turn Bay Length (ft)							400					
Base Capacity (vph)		2043			2063		956					
Starvation Cap Reductn		0			0		0					
Spillback Cap Reductn		0			0		0					
Storage Cap Reductn		0			0		0					
Reduced v/c Ratio		0.81			0.08		0.85					

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Executive Park Drive & Route 24 NB On-Ramp



HCM Signalized Intersection Capacity Analysis
3: Executive Park Drive & Route 24 NB On-Ramp

2030 No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1575	0	0	165	0	770	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Total Lost time (s)		5.0			5.0		5.0					
Lane Util. Factor		0.95			0.95		0.97					
Frt		1.00			1.00		1.00					
Flt Protected		1.00			1.00		0.95					
Satd. Flow (prot)		3522			3557		3259					
Flt Permitted		1.00			1.00		0.95					
Satd. Flow (perm)		3522			3557		3259					
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1658	0	0	174	0	811	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1658	0	0	174	0	811	0	0	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Actuated Green, G (s)		42.5			42.5		20.5					
Effective Green, g (s)		43.5			43.5		21.5					
Actuated g/C Ratio		0.58			0.58		0.29					
Clearance Time (s)		6.0			6.0		6.0					
Vehicle Extension (s)		3.0			3.0		3.0					
Lane Grp Cap (vph)		2043			2063		934					
v/s Ratio Prot		c0.47			0.05		c0.25					
v/s Ratio Perm												
v/c Ratio		0.81			0.08		0.87					
Uniform Delay, d1		12.5			7.0		25.4					
Progression Factor		0.39			1.00		1.00					
Incremental Delay, d2		1.7			0.1		8.6					
Delay (s)		6.6			7.0		34.0					
Level of Service		A			A		C					
Approach Delay (s)		6.6			7.0			34.0			0.0	
Approach LOS		A			A			C			A	

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
2: Narrows Rd & South Main St

2030 No Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	145	45	15	170	325	100
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.75	0.75	0.79	0.79
Hourly flow rate (vph)	177	55	20	227	411	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					1115	
pX, platoon unblocked						
vC, conflicting volume	741	475	538			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	741	475	538			
tC, single (s)	6.5	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.5	2.3			
p0 queue free %	51	90	98			
cM capacity (veh/h)	363	555	991			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	232	247	538
Volume Left	177	20	0
Volume Right	55	0	127
cSH	396	991	1700
Volume to Capacity	0.59	0.02	0.32
Queue Length 95th (ft)	90	2	0
Control Delay (s)	26.2	0.9	0.0
Lane LOS	D	A	
Approach Delay (s)	26.2	0.9	0.0
Approach LOS	D		

Intersection Summary			
Average Delay		6.2	
Intersection Capacity Utilization		40.6%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
11: Copicut Rd & South Main St

2030 No Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	40	5	180	5	5	375
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	43	5	225	6	6	469
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	709	228			231	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	709	228			231	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	99			100	
cM capacity (veh/h)	399	811			1337	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	49	231	475
Volume Left	43	0	6
Volume Right	5	6	0
cSH	422	1700	1337
Volume to Capacity	0.12	0.14	0.00
Queue Length 95th (ft)	10	0	0
Control Delay (s)	14.6	0.0	0.2
Lane LOS	B		A
Approach Delay (s)	14.6	0.0	0.2
Approach LOS	B		

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization		33.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
21: Ridge Hill Rd & South Main St

2030 No Build Conditions - AM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	20	5	155	70	0	20	35	540	265	75	1185	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.59	0.59	0.59	0.84	0.84	0.84	0.95	0.95	0.95
Hourly flow rate (vph)	26	7	204	119	0	34	42	643	315	79	1247	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.94	0.94		0.94	0.94	0.94				0.94		
vC, conflicting volume	2326	2450	1250	2499	2294	801	1253			958		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2382	2514	1250	2567	2349	753	1253			921		
tC, single (s)	7.1	7.0	6.2	7.3	6.5	6.4	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.4	3.3	3.7	4.0	3.5	2.3			2.3		
p0 queue free %	0	56	3	0	100	90	92			88		
cM capacity (veh/h)	17	15	210	0	28	351	519			671		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	237	153	1000	1332
Volume Left	26	119	42	79
Volume Right	204	34	315	5
cSH	81	0	519	671
Volume to Capacity	2.92	531.28	0.08	0.12
Queue Length 95th (ft)	582	Err	7	10
Control Delay (s)	976.5	Err	2.7	5.3
Lane LOS	F	F	A	A
Approach Delay (s)	976.5	Err	2.7	5.3
Approach LOS	F	F		

Intersection Summary				
Average Delay		649.2		
Intersection Capacity Utilization		117.0%	ICU Level of Service	H
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
30: South Main St & High St

2030 No Build Conditions - AM Peak Hour

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	5	540	5	5	1220	5	0	0	0	60	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.25	0.25	0.25	0.64	0.64	0.64
Hourly flow rate (vph)	5	581	5	5	1258	5	0	0	0	94	0	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1263			586			1880	1867	1260	1865	1867	583
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1263			586			1880	1867	1260	1865	1867	583
tC, single (s)	4.1			5.1			7.1	6.5	6.2	7.3	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.2			3.1			3.5	4.0	3.3	3.7	4.0	3.5
p0 queue free %	99			99			100	100	100	0	100	97
cM capacity (veh/h)	557			645			52	72	210	50	72	485

Direction, Lane #	NB 1	SB 1	SE 1	NW 1
Volume Total	591	1268	0	109
Volume Left	5	5	0	94
Volume Right	5	5	0	16
cSH	557	645	1700	58
Volume to Capacity	0.01	0.01	0.00	1.90
Queue Length 95th (ft)	1	1	0	260
Control Delay (s)	0.3	0.4	0.0	578.1
Lane LOS	A	A	A	F
Approach Delay (s)	0.3	0.4	0.0	578.1
Approach LOS			A	F

Intersection Summary				
Average Delay		32.4		
Intersection Capacity Utilization		78.2%	ICU Level of Service	D
Analysis Period (min)		15		

Lanes, Volumes, Timings
7: South Main St & Route 24 SB Off-Ramp

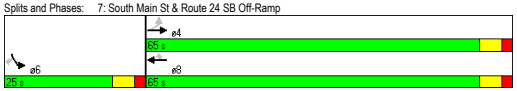
2030 No Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	210	670	600	495	155	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	12	12
Storage Length (ft)	0			240	0	0
Storage Lanes	1			2	1	1
Taper Length (ft)	25			25	25	25
Right Turn on Red				Yes		Yes
Link Speed (mph)		30	30		30	
Link Distance (ft)		496	772		360	
Travel Time (s)		11.3	17.5		8.2	
Peak Hour Factor	0.88	0.88	0.94	0.94	0.79	0.79
Heavy Vehicles (%)	8%	6%	6%	3%	6%	13%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	239	761	638	527	196	89
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	65.0	65.0	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	72.2%	72.2%	27.8%	27.8%
Maximum Green (s)	59.0	59.0	59.0	59.0	19.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.48	0.61	0.27	0.40	0.69	0.28
Control Delay	8.8	8.8	4.4	1.1	47.5	9.4
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay	8.8	9.3	4.4	1.1	47.5	9.4
Queue Length 50th (ft)	30	268	43	5	105	0
Queue Length 95th (ft)	73	328	m63	m3	145	28
Internal Link Dist (ft)		416	692		280	
Turn Bay Length (ft)				240		
Base Capacity (vph)	502	1253	2382	1328	360	372
Starvation Cap Reductn	0	175	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.71	0.27	0.40	0.54	0.24

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: South Main St & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
7: South Main St & Route 24 SB Off-Ramp

2030 No Build Conditions - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	210	670	600	495	155	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	12	12
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	1792	3406	1672	1703	1429
Flt Permitted	0.41	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	718	1792	3406	1672	1703	1429
Peak-hour factor, PHF	0.88	0.88	0.94	0.94	0.79	0.79
Adj. Flow (vph)	239	761	638	527	196	89
RTOR Reduction (vph)	0	0	0	159	0	74
Lane Group Flow (vph)	239	761	638	368	196	15
Heavy Vehicles (%)	8%	6%	6%	3%	6%	13%
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)	62.9	62.9	62.9	62.9	15.1	15.1
Effective Green, g (s)	62.9	62.9	62.9	62.9	15.1	15.1
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.17	0.17
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	502	1252	2380	1169	286	240
v/s Ratio Prot		c0.42	0.19		c0.12	
v/s Ratio Perm	0.33			0.22		0.01
v/c Ratio	0.48	0.61	0.27	0.32	0.69	0.06
Uniform Delay, d1	6.1	7.1	5.0	5.2	35.2	31.5
Progression Factor	0.76	0.82	0.78	0.93	1.00	1.00
Incremental Delay, d2	3.0	2.0	0.2	0.4	6.7	0.1
Delay (s)	7.6	7.9	4.1	5.2	41.9	31.6
Level of Service	A	A	A	A	D	C
Approach Delay (s)		7.8	4.6		38.7	
Approach LOS		A	A		D	

Intersection Summary

HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
10: Payne's Crossing driveway & South Main St

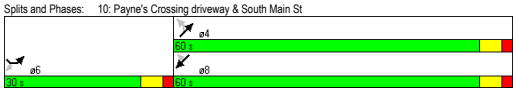
2030 No Build Conditions - PM Peak Hour

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	385	125	120	500	305	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	75	200			0
Storage Lanes	2	1	1			1
Taper Length (ft)	25	25	25			25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	230			1086	496	
Travel Time (s)	5.2			24.7	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	136	130	543	332	397
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Detector Phase	6	6	4	4	8	8
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	30.0	30.0	60.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Maximum Green (s)	24.0	24.0	54.0	54.0	54.0	54.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.66	0.34	0.18	0.43	0.26	0.33
Control Delay	39.1	7.9	6.7	8.2	2.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	7.9	6.7	8.2	2.4	0.9
Queue Length 50th (ft)	115	0	23	119	11	0
Queue Length 95th (ft)	153	44	54	216	29	0
Internal Link Dist (ft)	150			1006	416	
Turn Bay Length (ft)		75	200			
Base Capacity (vph)	915	522	708	1272	1272	1207
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	12	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.26	0.18	0.43	0.26	0.33

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 13 (14%), Referenced to phase 4:NETL and 8:SWT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 10: Payne's Crossing driveway & South Main St



HCM Signalized Intersection Capacity Analysis
10: Payne's Crossing driveway & South Main St

2030 No Build Conditions - PM Peak Hour

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	385	125	120	500	305	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583	1770	1863	1863	1583
Flt Permitted	0.95	1.00	0.56	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583	1036	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	418	136	130	543	332	397
RTOR Reduction (vph)	0	111	0	0	0	126
Lane Group Flow (vph)	418	25	130	543	332	271
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	16.5	16.5	61.5	61.5	61.5	61.5
Effective Green, g (s)	16.5	16.5	61.5	61.5	61.5	61.5
Actuated g/C Ratio	0.18	0.18	0.68	0.68	0.68	0.68
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	629	290	708	1273	1273	1082
v/s Ratio Prot	c0.12			c0.29	0.18	
v/s Ratio Perm		0.02	0.13			0.17
v/c Ratio	0.66	0.09	0.18	0.43	0.26	0.25
Uniform Delay, d1	34.2	30.5	5.2	6.4	5.5	5.4
Progression Factor	1.00	1.00	1.00	1.00	0.30	0.28
Incremental Delay, d2	2.7	0.1	0.6	1.0	0.5	0.5
Delay (s)	36.8	30.6	5.7	7.4	2.1	2.1
Level of Service	D	C	A	A	A	A
Approach Delay (s)	35.3			7.1	2.1	
Approach LOS	D			A	A	

Intersection Summary

HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		

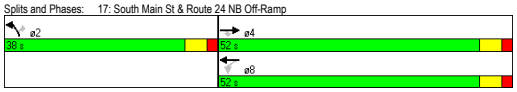
c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	630	130	140	890	205	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	15	16	16
Storage Length (ft)		200	100		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	772			440	420	
Travel Time (s)	17.5			10.0	9.5	
Peak Hour Factor	0.85	0.85	0.94	0.94	0.95	0.95
Heavy Vehicles (%)	4%	13%	4%	4%	16%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	741	153	149	947	216	879
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	52.0	52.0	52.0	52.0	38.0	38.0
Total Split (%)	57.8%	57.8%	57.8%	57.8%	42.2%	42.2%
Maximum Green (s)	46.0	46.0	46.0	46.0	32.0	32.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.79	0.17	0.90	0.92	0.34	1.18
Control Delay	17.1	2.1	73.9	36.4	23.3	120.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	2.1	73.9	36.4	23.3	120.2
Queue Length 50th (ft)	163	3	73	473	89	~545
Queue Length 95th (ft)	287	13	#198	#749	148	#776
Internal Link Dist (ft)	692			360	340	
Turn Bay Length (ft)		200	100			
Base Capacity (vph)	934	902	165	1027	627	743
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.17	0.90	0.92	0.34	1.18

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 17: South Main St & Route 24 NB Off-Ramp



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	630	130	140	890	205	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	15	16	16
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1827	1620	1736	2010	1764	1794
Flt Permitted	1.00	1.00	0.18	1.00	0.95	1.00
Satd. Flow (perm)	1827	1620	323	2010	1764	1794
Peak-hour factor, PHF	0.85	0.85	0.94	0.94	0.95	0.95
Adj. Flow (vph)	741	153	149	947	216	879
RTOR Reduction (vph)	0	74	0	0	0	105
Lane Group Flow (vph)	741	79	149	947	216	774
Heavy Vehicles (%)	4%	13%	4%	4%	16%	2%
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	46.0	46.0	46.0	46.0	32.0	32.0
Effective Green, g (s)	46.0	46.0	46.0	46.0	32.0	32.0
Actuated g/C Ratio	0.51	0.51	0.51	0.51	0.36	0.36
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	934	828	165	1027	627	638
v/s Ratio Prot	0.41			c0.47	0.12	
v/s Ratio Perm		0.05	0.46			c0.43
v/c Ratio	0.79	0.10	0.90	0.92	0.34	1.21
Uniform Delay, d1	18.1	11.3	20.0	20.3	21.3	29.0
Progression Factor	0.59	0.84	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.6	0.2	48.2	14.6	0.3	109.9
Delay (s)	16.4	9.7	68.2	35.0	21.6	138.9
Level of Service	B	A	E	C	C	F
Approach Delay (s)	15.2			39.5	115.8	
Approach LOS	B			D	F	

Intersection Summary

HCM Average Control Delay	59.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
1: Executive Park Drive & South Main Street

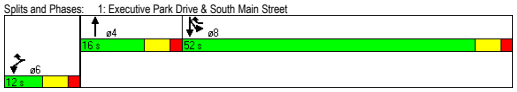
2030 No-Build Condition - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	245	195	20	1425	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	2		0	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		No		No		
Link Speed (mph)	35		35			35
Link Distance (ft)	282		553			804
Travel Time (s)	5.5		10.8			15.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Shared Lane Traffic (%)					41%	
Lane Group Flow (vph)	26	258	226	0	885	883
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Detector Phase	6	6 8	4		8	8
Switch Phase						
Minimum Initial (s)	6.0		6.0		6.0	6.0
Minimum Split (s)	12.0		12.0		12.0	12.0
Total Split (s)	12.0	64.0	16.0	0.0	52.0	52.0
Total Split (%)	15.0%	80.0%	20.0%	0.0%	65.0%	65.0%
Maximum Green (s)	6.0		10.0		46.0	46.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		None		C-Max	C-Max
v/c Ratio	0.17	0.13	0.88		1.01	0.97
Control Delay	33.1	3.2	68.6		51.5	41.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	33.1	3.2	68.6		51.5	41.4
Queue Length 50th (ft)	12	16	113		~438	407
Queue Length 95th (ft)	34	26	#237		#725	#704
Internal Link Dist (ft)	202		473			724
Turn Bay Length (ft)					200	
Base Capacity (vph)	157	1934	257		879	913
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.17	0.13	0.88		1.01	0.97

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 33 (41%), Referenced to phase 8:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Executive Park Drive & South Main Street



HCM Signalized Intersection Capacity Analysis
1: Executive Park Drive & South Main Street

2030 No-Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	245	195	20	1425	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Total Lost time (s)	5.0	5.0	5.0		6.0	6.0
Lane Util. Factor	1.00	0.88	1.00		0.95	0.95
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	0.97
Satd. Flow (prot)	1796	2623	1867		1528	1589
Flt Permitted	0.95	1.00	1.00		0.95	0.97
Satd. Flow (perm)	1796	2623	1867		1528	1589
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	258	205	21	1500	268
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	26	258	226	0	885	883
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Actuated Green, G (s)	6.0	58.0	10.0		46.0	46.0
Effective Green, g (s)	7.0	59.0	11.0		46.0	46.0
Actuated g/C Ratio	0.09	0.74	0.14		0.57	0.57
Clearance Time (s)	6.0		6.0		6.0	6.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	157	1934	257		879	914
v/s Ratio Prot	0.01	c0.10	c0.12		c0.58	0.56
v/s Ratio Perm						
v/c Ratio	0.17	0.13	0.88		1.01	0.97
Uniform Delay, d1	33.8	3.1	33.8		17.0	16.3
Progression Factor	0.90	0.97	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.0	27.0		32.0	22.6
Delay (s)	30.9	3.0	60.9		49.0	38.9
Level of Service	C	A	E		D	D
Approach Delay (s)	5.6		60.9			44.0
Approach LOS	A		E			D

Intersection Summary

HCM Average Control Delay	40.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

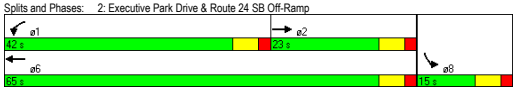
Lanes, Volumes, Timings
2: Executive Park Drive & Route 24 SB Off-Ramp

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	645	0	1395	135	0	0	0	0	235	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		1	2		0	0		0	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		307			406			405			737	
Travel Time (s)		6.0			7.9			7.9			14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	679	0	1468	142	0	0	0	0	247	0	0
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Detector Phase		2		1	6					8		
Switch Phase												
Minimum Initial (s)		10.0		6.0	10.0					6.0		
Minimum Split (s)		16.0		12.0	16.0					12.0		
Total Split (s)	0.0	23.0	0.0	42.0	65.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0
Total Split (%)	0.0%	28.8%	0.0%	52.5%	81.3%	0.0%	0.0%	0.0%	0.0%	18.8%	0.0%	0.0%
Maximum Green (s)		17.0		36.0	59.0					9.0		
Yellow Time (s)		4.0		4.0	4.0					4.0		
All-Red Time (s)		2.0		2.0	2.0					2.0		
Lost Time Adjust (s)	0.0	0.0	0.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	6.0	4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Recall Mode		C-Max		None	C-Max					None		
v/c Ratio		0.95		0.93	0.06					0.67		
Control Delay		28.0		26.8	2.1					43.8		
Queue Delay		0.0		0.0	0.0					0.0		
Total Delay		28.0		26.8	2.1					43.8		
Queue Length 50th (ft)		158		198	5					61		
Queue Length 95th (ft)		m158		#494	8					#99		
Internal Link Dist (ft)		227			326			325			657	
Turn Bay Length (ft)												
Base Capacity (vph)		712		1596	2527					377		
Starvation Cap Reductn		0		0	0					0		
Spillback Cap Reductn		0		0	0					0		
Storage Cap Reductn		0		0	0					0		
Reduced v/c Ratio		0.95		0.92	0.06					0.66		

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Executive Park Drive & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
2: Executive Park Drive & Route 24 SB Off-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	645	0	1395	135	0	0	0	0	235	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Total Lost time (s)		6.0		5.0	5.0					6.0		
Lane Util. Factor		0.95		0.97	0.95					0.97		
Frt		1.00		1.00	1.00					1.00		
Flt Protected		1.00		0.95	1.00					0.95		
Satd. Flow (prot)		3276		3450	3359					3347		
Flt Permitted		1.00		0.95	1.00					0.95		
Satd. Flow (perm)		3276		3450	3359					3347		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	679	0	1468	142	0	0	0	0	247	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	679	0	1468	142	0	0	0	0	247	0	0
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Actuated Green, G (s)		17.4		35.8	59.2					8.8		
Effective Green, g (s)		17.4		36.8	60.2					8.8		
Actuated g/C Ratio		0.22		0.46	0.75					0.11		
Clearance Time (s)		6.0		6.0	6.0					6.0		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		713		1587	2528					368		
v/s Ratio Prot		c0.21		c0.43	0.04					c0.07		
v/s Ratio Perm												
v/c Ratio		0.95		0.93	0.06					0.67		
Uniform Delay, d1		30.9		20.3	2.6					34.2		
Progression Factor		0.50		0.80	0.78					1.00		
Incremental Delay, d2		8.8		8.4	0.0					4.8		
Delay (s)		24.3		24.7	2.0					39.0		
Level of Service		C		C	A					D		
Approach Delay (s)		24.3			22.7			0.0			39.0	
Approach LOS		C			C			A			D	

Intersection Summary

HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
3: Executive Park Drive & Route 24 NB On-Ramp

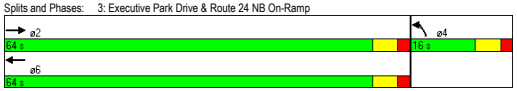
2030 No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	235	0	0	1395	0	135	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Storage Length (ft)	0		0	0		0	400		615	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		352			205			740			316	
Travel Time (s)		6.9			4.0			14.4			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	1468	0	142	0	0	0	0	0
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Detector Phase		2			6		4					
Switch Phase												
Minimum Initial (s)		10.0			10.0		6.0					
Minimum Split (s)		16.0			16.0		12.0					
Total Split (s)	0.0	64.0	0.0	0.0	64.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	80.0%	0.0%	0.0%	80.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)		58.0			58.0		10.0					
Yellow Time (s)		4.0			4.0		4.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)	0.0	-1.0	0.0	0.0	-1.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0		3.0					
Recall Mode		C-Max			C-Max		None					
v/c Ratio		0.09			0.55		0.37					
Control Delay		10.1			5.1		34.8					
Queue Delay		0.0			0.0		0.0					
Total Delay		10.1			5.1		34.8					
Queue Length 50th (ft)		53			126		34					
Queue Length 95th (ft)		m62			179		59					
Internal Link Dist (ft)		272			125			660			236	
Turn Bay Length (ft)							400					
Base Capacity (vph)		2661			2687		448					
Starvation Cap Reductn		0			0		0					
Spillback Cap Reductn		0			0		0					
Storage Cap Reductn		0			0		0					
Reduced v/c Ratio		0.09			0.55		0.32					

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 35 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Executive Park Drive & Route 24 NB On-Ramp



HCM Signalized Intersection Capacity Analysis
3: Executive Park Drive & Route 24 NB On-Ramp

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	235	0	0	1395	0	135	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Total Lost time (s)		5.0			5.0		5.0					
Lane Util. Factor		0.95			0.95		0.97					
Frt		1.00			1.00		1.00					
Flt Protected		1.00			1.00		0.95					
Satd. Flow (prot)		3522			3557		3259					
Flt Permitted		1.00			1.00		0.95					
Satd. Flow (perm)		3522			3557		3259					
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	247	0	0	1468	0	142	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	247	0	0	1468	0	142	0	0	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Actuated Green, G (s)		59.4			59.4		8.6					
Effective Green, g (s)		60.4			60.4		9.6					
Actuated g/C Ratio		0.76			0.76		0.12					
Clearance Time (s)		6.0			6.0		6.0					
Vehicle Extension (s)		3.0			3.0		3.0					
Lane Grp Cap (vph)		2659			2686		391					
v/s Ratio Prot		0.07			c0.41		c0.04					
v/s Ratio Perm												
v/c Ratio		0.09			0.55		0.36					
Uniform Delay, d1		2.6			4.1		32.4					
Progression Factor		3.66			1.00		1.00					
Incremental Delay, d2		0.0			0.8		0.6					
Delay (s)		9.5			4.9		33.0					
Level of Service		A			A		C					
Approach Delay (s)		9.5			4.9			33.0			0.0	
Approach LOS		A			A			C			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
2: Narrows Rd & South Main St

2030 No Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	130	25	50	500	315	120
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	159	30	56	562	332	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					1086	
pX, platoon unblocked						
vC, conflicting volume	1069	395	458			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1069	395	458			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	31	95	95			
cM capacity (veh/h)	229	633	1114			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	189	618	458
Volume Left	159	56	0
Volume Right	30	0	126
cSH	255	1114	1700
Volume to Capacity	0.74	0.05	0.27
Queue Length 95th (ft)	131	4	0
Control Delay (s)	50.9	1.3	0.0
Lane LOS	F	A	
Approach Delay (s)	50.9	1.3	0.0
Approach LOS	F		

Intersection Summary			
Average Delay		8.3	
Intersection Capacity Utilization		71.7%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
11: Copicut Rd & South Main St

2030 No Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	30	505	40	30	310
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	33	549	43	33	337
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	973	571			592	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	973	571			592	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	94			97	
cM capacity (veh/h)	270	521			983	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	43	592	370
Volume Left	11	0	33
Volume Right	33	43	0
cSH	423	1700	983
Volume to Capacity	0.10	0.35	0.03
Queue Length 95th (ft)	9	0	3
Control Delay (s)	14.5	0.0	1.1
Lane LOS	B		A
Approach Delay (s)	14.5	0.0	1.1
Approach LOS	B		

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization		51.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
21: Ridge Hill Rd & South Main St

2030 No Build Conditions - PM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	10	0	95	260	0	70	40	1355	105	20	675	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.87	0.87	0.87
Hourly flow rate (vph)	11	0	103	302	0	81	43	1473	114	23	776	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								440				
pX, platoon unblocked	0.64	0.64		0.64	0.64	0.64				0.64		
vC, conflicting volume	2520	2496	776	2542	2439	1530	776			1587		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3099	3061	776	3134	2972	1547	776			1636		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	74	0	100	10	95			91		
cM capacity (veh/h)	0	7	399	3	8	91	849			256		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	114	384	1630	799
Volume Left	11	302	43	23
Volume Right	103	81	114	0
cSH	4	3	849	256
Volume to Capacity	29.15	119.98	0.05	0.09
Queue Length 95th (ft)	Err	Err	4	7
Control Delay (s)	Err	Err	7.3	3.9
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	7.3	3.9
Approach LOS	F	F		

Intersection Summary				
Average Delay		1705.8		
Intersection Capacity Utilization		127.4%	ICU Level of Service	H
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
30: South Main St & High St

2030 No Build Conditions - PM Peak Hour

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	1360	60	20	690	5	0	0	0	10	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.25	0.25	0.25	0.83	0.83	0.83
Hourly flow rate (vph)	0	1495	66	22	742	5	0	0	0	12	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	747			1560			2327	2348	745	2315	2318	1527
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	747			1560			2327	2348	745	2315	2318	1527
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			100	100	100	53	100	92
cM capacity (veh/h)	870			410			23	35	418	26	36	146

Direction, Lane #	NB 1	SB 1	SE 1	NW 1
Volume Total	1560	769	0	24
Volume Left	0	22	0	12
Volume Right	66	5	0	12
cSH	870	410	1700	44
Volume to Capacity	0.00	0.05	0.00	0.55
Queue Length 95th (ft)	0	4	0	50
Control Delay (s)	0.0	1.7	0.0	160.3
Lane LOS		A	A	F
Approach Delay (s)	0.0	1.7	0.0	160.3
Approach LOS			A	F

Intersection Summary				
Average Delay		2.2		
Intersection Capacity Utilization		85.2%	ICU Level of Service	E
Analysis Period (min)		15		

New Bedford

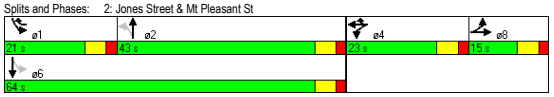
Lanes, Volumes, Timings
2: Jones Street & Mt Pleasant St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	5	0	180	10	550	0	75	230	180	195	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	16	12	11	11	12
Storage Length (ft)	0		0	0		0	0		300	300		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1031			525			388			877	
Travel Time (s)		23.4			11.9			8.8			19.9	
Peak Hour Factor	0.88	0.88	0.88	0.82	0.82	0.82	0.94	0.94	0.94	0.83	0.83	0.83
Heavy Vehicles (%)	0%	20%	0%	7%	25%	5%	0%	9%	8%	5%	11%	60%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	232	671	0	325	0	217	241	0
Turn Type	Split			Split		pt+ov	Perm			pm+pt		
Protected Phases	8	8		4	4	4 1		2		1	6	
Permitted Phases							2			6		
Detector Phase	8	8		4	4	4 1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		27.0	27.0		19.0	22.0	
Total Split (s)	15.0	15.0	0.0	23.0	23.0	44.0	43.0	43.0	0.0	21.0	64.0	0.0
Total Split (%)	14.7%	14.7%	0.0%	22.5%	22.5%	43.1%	42.2%	42.2%	0.0%	20.6%	62.7%	0.0%
Maximum Green (s)	9.0	9.0		17.0	17.0		37.0	37.0		15.0	58.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Min	Min		None	Min	
Walk Time (s)							5.0	5.0				
Flash Dont Walk (s)							16.0	16.0				
Pedestrian Calls (#/hr)							0	0				
v/c Ratio		0.02			0.56	0.59		0.67		0.50	0.30	
Control Delay		29.0			27.2	3.2		18.9		13.8	10.6	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		29.0			27.2	3.2		18.9		13.8	10.6	
Queue Length 50th (ft)		2			59	0		42		35	39	
Queue Length 95th (ft)		14			166	21		152		97	107	
Internal Link Dist (ft)		951			445			308			797	
Turn Bay Length (ft)										300		
Base Capacity (vph)		311			551	1195		1323		564	1535	
Starvation Cap Reductn		0			0	0		0		0	0	
Spillback Cap Reductn		0			0	0		0		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.02			0.42	0.56		0.25		0.38	0.16	

Intersection Summary

Area Type: Other
Cycle Length: 102
Actuated Cycle Length: 55.1
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Jones Street & Mt Pleasant St



HCM Signalized Intersection Capacity Analysis
2: Jones Street & Mt Pleasant St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	5	0	180	10	550	0	75	230	180	195	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	16	12	11	11	12
Total Lost time (s)		6.0			6.0	6.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		1.00			1.00	0.85		0.90		1.00	1.00	
Flt Protected		1.00			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1794			1681	1538		1787		1662	1631	
Flt Permitted		1.00			0.95	1.00		1.00		0.23	1.00	
Satd. Flow (perm)		1794			1681	1538		1787		409	1631	
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.94	0.94	0.94	0.83	0.83	0.83
Adj. Flow (vph)	0	6	0	220	12	671	0	80	245	217	235	6
RTOR Reduction (vph)	0	0	0	0	0	406	0	138	0	0	1	0
Lane Group Flow (vph)	0	6	0	0	232	265	0	187	0	217	240	0
Heavy Vehicles (%)	0%	20%	0%	7%	25%	5%	0%	9%	8%	5%	11%	60%
Turn Type	Split			Split		pt+ov	Perm			pm+pt		
Protected Phases	8	8		4	4	4 1		2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		0.9			13.5	23.5		11.1		27.1	27.1	
Effective Green, g (s)		0.9			13.5	23.5		11.1		27.1	27.1	
Actuated g/C Ratio		0.02			0.23	0.39		0.19		0.46	0.46	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		27			381	607		333		397	743	
v/s Ratio Prot		c0.00			c0.14	0.17		0.10		c0.09	0.15	
v/s Ratio Perm										c0.16		
v/c Ratio		0.22			0.61	0.44		0.56		0.55	0.32	
Uniform Delay, d1		29.0			20.6	13.2		22.0		11.3	10.3	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		1.5			1.9	0.2		1.3		0.8	0.1	
Delay (s)		30.5			22.5	13.3		23.3		12.2	10.4	
Level of Service		C			C	B		C		B	B	
Approach Delay (s)		30.5			15.7			23.3			11.3	
Approach LOS		C			B			C			B	

Intersection Summary

HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
14: Tarkiln Hill Road & Church Street

2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	305	0	30	470	60	225	200	40	45	170	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	12	11	11	12	11	11	11	11	11	12
Storage Length (ft)	50		0	0		0	0		0	0		145
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			1116			176			552	
Travel Time (s)		6.9			25.4			4.0			12.5	
Peak Hour Factor	0.81	0.81	0.81	0.87	0.87	0.87	0.84	0.84	0.84	0.90	0.90	0.90
Heavy Vehicles (%)	5%	2%	0%	8%	2%	2%	1%	2%	0%	11%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	377	0	34	609	0	268	286	0	0	239	100
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Minimum Split (s)	35.0	35.0		35.0	35.0		12.0	12.0		12.0	12.0	12.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	24.0	24.0	0.0	24.0	24.0	24.0
Total Split (%)	59.3%	59.3%	0.0%	59.3%	59.3%	0.0%	40.7%	40.7%	0.0%	40.7%	40.7%	40.7%
Maximum Green (s)	30.0	30.0		30.0	30.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lead	Lead		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
v/c Ratio	0.29	0.41		0.08	0.68		0.80	0.50			0.48	0.19
Control Delay	12.4	10.7		8.1	15.6		39.3	20.0			20.1	15.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	12.4	10.7		8.1	15.6		39.3	20.0			20.1	15.7
Queue Length 50th (ft)	14	76		6	149		85	81			67	25
Queue Length 95th (ft)	34	113		17	237		#179	131			125	55
Internal Link Dist (ft)		225			1036			96			472	
Turn Bay Length (ft)	50											145
Base Capacity (vph)	251	916		424	900		336	567			493	520
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.29	0.41		0.08	0.68		0.80	0.50			0.48	0.19

Intersection Summary

Area Type: Other
Cycle Length: 59
Actuated Cycle Length: 59
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle: 60
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Tarkiln Hill Road & Church Street

HCM Signalized Intersection Capacity Analysis
14: Tarkiln Hill Road & Church Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	305	0	30	470	60	225	200	40	45	170	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1604	1801		1616	1770		1728	1761			1723	1615
Flt Permitted	0.29	1.00		0.49	1.00		0.57	1.00			0.88	1.00
Satd. Flow (perm)	493	1801		833	1770		1044	1761			1531	1615
Peak-hour factor, PHF	0.81	0.81	0.81	0.87	0.87	0.87	0.84	0.84	0.84	0.90	0.90	0.90
Adj. Flow (vph)	74	377	0	34	540	69	268	238	48	50	189	100
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	377	0	34	609	0	268	286	0	0	239	100
Heavy Vehicles (%)	5%	2%	0%	8%	2%	2%	1%	2%	0%	11%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Effective Green, g (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.32	0.32			0.32	0.32
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	251	916		424	900		336	567			493	520
v/s Ratio Prot		0.21			c0.34			0.16				
v/s Ratio Perm	0.15			0.04			c0.26				0.16	0.06
v/c Ratio	0.29	0.41		0.08	0.68		0.80	0.50			0.48	0.19
Uniform Delay, d1	8.4	9.0		7.4	10.9		18.2	16.2			16.1	14.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.0	1.4		0.4	4.1		17.7	3.2			3.4	0.8
Delay (s)	11.4	10.4		7.8	14.9		35.9	19.4			19.5	15.3
Level of Service	B	B		A	B		D	B			B	B
Approach Delay (s)		10.5			14.6			27.4			18.2	
Approach LOS		B			B			C			B	

Intersection Summary

HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
19: Wood Street & Route 18

2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	25	80	10	55	120	40	10	290	60	60	370	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	14	16	16	14	16	11	11	16	11	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		197			310			393			488		
Travel Time (s)		4.5			7.0			8.9			11.1		
Peak Hour Factor	0.77	0.77	0.77	0.69	0.69	0.69	0.88	0.88	0.88	0.91	0.91	0.91	
Heavy Vehicles (%)	0%	8%	11%	4%	4%	3%	0%	4%	5%	0%	4%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	149	0	0	312	0	11	398	0	66	423	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	17.0	17.0		17.0	17.0		21.0	21.0		21.0	21.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	21.0
Total Split (%)	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	26%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		5.0
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													4.0
Pedestrian Calls (#/hr)													8
v/c Ratio		0.22			0.46		0.04	0.58		0.24	0.61		
Control Delay		15.4			18.2		16.2	20.9		18.8	22.1		
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0		
Total Delay		15.4			18.2		16.2	20.9		18.8	22.1		
Queue Length 50th (ft)		31			73		2	100		15	111		
Queue Length 95th (ft)		84			146		15	#272		61	#333		
Internal Link Dist (ft)		117			230			313			408		
Turn Bay Length (ft)													
Base Capacity (vph)		666			672		249	686		270	696		
Starvation Cap Reductn		0			0		0	0		0	0		
Spillback Cap Reductn		0			0		0	0		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		0.22			0.46		0.04	0.58		0.24	0.61		

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 64.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Wood Street & Route 18

HCM Signalized Intersection Capacity Analysis
19: Wood Street & Route 18

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	80	10	55	120	40	10	290	60	60	370	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	14	16	16	14	16	11	11	16	11	11	16
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1860			1879		1745	1718		1745	1759	
Flt Permitted		0.89			0.88		0.34	1.00		0.37	1.00	
Satd. Flow (perm)		1676			1678		632	1718		685	1759	
Peak-hour factor, PHF	0.77	0.77	0.77	0.69	0.69	0.69	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	32	104	13	80	174	58	11	330	68	66	407	16
RTOR Reduction (vph)	0	4	0	0	9	0	0	8	0	0	2	0
Lane Group Flow (vph)	0	145	0	0	303	0	11	390	0	66	421	0
Heavy Vehicles (%)	0%	8%	11%	4%	4%	3%	0%	4%	5%	0%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.4			25.4		25.4	25.4		25.4	25.4	
Effective Green, g (s)		25.4			25.4		25.4	25.4		25.4	25.4	
Actuated g/C Ratio		0.37			0.37		0.37	0.37		0.37	0.37	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		615			616		232	631		251	646	
v/s Ratio Prot								0.23			c0.24	
v/s Ratio Perm		0.09			c0.18		0.02			0.10		
v/c Ratio		0.24			0.49		0.05	0.62		0.26	0.65	
Uniform Delay, d1		15.2			16.9		14.1	17.9		15.3	18.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9			2.8		0.4	4.5		2.5	5.1	
Delay (s)		16.1			19.7		14.5	22.4		17.9	23.3	
Level of Service		B			B		B	C		B	C	
Approach Delay (s)		16.1			19.7			22.2			22.5	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	18.4
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
24: Nash Road & Church Street

2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	95	240	25	40	255	40	60	100	25	35	160	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	16	14	16	16	16	16
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1761			1229			1754			2421	
Travel Time (s)		40.0			27.9			39.9			55.0	
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.83	0.83	0.83	0.91	0.91	0.91
Heavy Vehicles (%)	15%	6%	12%	7%	2%	0%	2%	2%	8%	8%	10%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	405	0	0	350	0	0	222	0	0	373	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Minimum Split (s)	36.0	36.0		36.0	36.0		29.0	29.0		29.0	29.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	55.4%	55.4%	0.0%	55.4%	55.4%	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.54			0.40			0.46			0.62	
Control Delay		16.0			13.3			20.6			23.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.0			13.3			20.6			23.4	
Queue Length 50th (ft)		109			87			67			121	
Queue Length 95th (ft)		182			145			113			204	
Internal Link Dist (ft)		1681			1149			1674			2341	
Turn Bay Length (ft)												
Base Capacity (vph)		744			876			484			601	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.54			0.40			0.46			0.62	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 18 (28%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 65
Control Type: Pretimed

Splits and Phases: 24: Nash Road & Church Street

HCM Signalized Intersection Capacity Analysis
24: Nash Road & Church Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	95	240	25	40	255	40	60	100	25	35	160	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	16	14	16	16	16	16
Total Lost time (s)		6.0			6.0			7.0			7.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.98			0.94	
Flt Protected		0.99			0.99			0.98			0.99	
Satd. Flow (prot)		1935			2057			1904			1875	
Flt Permitted		0.82			0.92			0.74			0.94	
Satd. Flow (perm)		1613			1898			1430			1778	
Peak-hour factor, PHF	0.89	0.89	0.89	0.96	0.96	0.96	0.83	0.83	0.83	0.91	0.91	0.91
Adj. Flow (vph)	107	270	28	42	266	42	72	120	30	38	176	159
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	405	0	0	350	0	0	222	0	0	373	0
Heavy Vehicles (%)	15%	6%	12%	7%	2%	0%	2%	2%	8%	8%	10%	5%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)		30.0			30.0			22.0			22.0	
Effective Green, g (s)		30.0			30.0			22.0			22.0	
Actuated g/C Ratio		0.46			0.46			0.34			0.34	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Lane Grp Cap (vph)		744			876			484			602	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.18			0.16			c0.21	
v/c Ratio		0.54			0.40			0.46			0.62	
Uniform Delay, d1		12.6			11.6			16.8			18.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.9			1.4			3.1			4.7	
Delay (s)		15.4			12.9			19.9			22.7	
Level of Service		B			B			B			C	
Approach Delay (s)		15.4			12.9			19.9			22.7	
Approach LOS		B			B			B			C	

Intersection Summary

HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

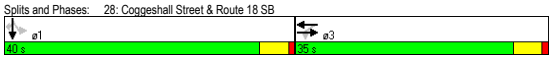
Lanes, Volumes, Timings
28: Coggeshall Street & Route 18 SB

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	200	95	195	205	0	0	0	0	120	690	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	12	12	12	12	12	10	10
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		686			474			1008			501	
Travel Time (s)		15.6			10.8			22.9			11.4	
Peak Hour Factor	0.78	0.78	0.78	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	5%	2%	2%	8%	0%	0%	0%	0%	7%	3%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	378	0	0	465	0	0	0	0	0	920	45
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Minimum Split (s)		35.0		35.0	35.0					40.0	40.0	40.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	40.0	40.0	40.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)		30.0		30.0	30.0					35.0	35.0	35.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.52			1.15						0.61	0.06
Control Delay		18.4			116.0						17.1	4.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		18.4			116.0						17.1	4.0
Queue Length 50th (ft)		116			~259						160	0
Queue Length 95th (ft)		157			#403						211	15
Internal Link Dist (ft)		606			394			928			421	
Turn Bay Length (ft)												130
Base Capacity (vph)		721			406						1507	694
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.52			1.15						0.61	0.06

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 28: Coggeshall Street & Route 18 SB



HCM Signalized Intersection Capacity Analysis
28: Coggeshall Street & Route 18 SB

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	200	95	195	205	0	0	0	0	120	690	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	15	12	12	12	12	12	10	10
Total Lost time (s)		5.0			5.0						5.0	5.0
Lane Util. Factor		1.00			1.00						0.95	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.99	1.00
Satd. Flow (prot)		1747			1942						3229	1436
Flt Permitted		1.00			0.51						0.99	1.00
Satd. Flow (perm)		1747			1014						3229	1436
Peak-hour factor, PHF	0.78	0.78	0.78	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	256	122	227	238	0	0	0	0	136	784	45
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	0	0	0	24
Lane Group Flow (vph)	0	355	0	0	465	0	0	0	0	0	920	21
Heavy Vehicles (%)	0%	5%	2%	2%	8%	0%	0%	0%	0%	7%	3%	5%
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Actuated Green, G (s)		30.0			30.0						35.0	35.0
Effective Green, g (s)		30.0			30.0						35.0	35.0
Actuated g/C Ratio		0.40			0.40						0.47	0.47
Clearance Time (s)		5.0			5.0						5.0	5.0
Lane Grp Cap (vph)		699			406						1507	670
v/s Ratio Prot		0.20										
v/s Ratio Perm					c0.46						0.28	0.01
v/c Ratio		0.51			1.15						0.61	0.03
Uniform Delay, d1		16.9			22.5						14.9	10.8
Progression Factor		1.00			1.00						1.00	1.00
Incremental Delay, d2		2.6			90.6						1.9	0.1
Delay (s)		19.6			113.1						16.8	10.9
Level of Service		B			F						B	B
Approach Delay (s)		19.6			113.1			0.0			16.5	
Approach LOS		B			F			A			B	

Intersection Summary

HCM Average Control Delay	42.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

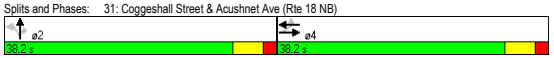
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	270	0	0	310	50	85	295	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	15	12	12	11	11	12	12	12
Storage Length (ft)	0		0	0		0	0		160	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		474			546			1002			363	
Travel Time (s)		10.8			12.4			22.8			8.3	
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.92	0.92	0.92
Heavy Vehicles (%)	7%	7%	0%	0%	4%	4%	12%	10%	4%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	331	0	0	418	0	101	351	274	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Minimum Split (s)	38.2	38.2			38.2		38.2	38.2	38.2			
Total Split (s)	38.2	38.2	0.0	0.0	38.2	0.0	38.2	38.2	38.2	0.0	0.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		32.0	32.0	32.0			
Yellow Time (s)	4.2	4.2			4.2		4.2	4.2	4.2			
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.0	4.0	6.2	4.0	6.2	6.2	6.2	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.45			0.50		0.15	0.50	0.35			
Control Delay		18.4			18.4		14.6	19.5	3.4			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		18.4			18.4		14.6	19.5	3.4			
Queue Length 50th (ft)		109			136		29	119	0			
Queue Length 95th (ft)		178			202		54	176	33			
Internal Link Dist (ft)		394			466			922			283	
Turn Bay Length (ft)									160			
Base Capacity (vph)		731			833		675	699	788			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.45			0.50		0.15	0.50	0.35			

Intersection Summary

Area Type: Other
Cycle Length: 76.4
Actuated Cycle Length: 76.4
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed

Splits and Phases: 31: Coggeshall Street & Acushnet Ave (Rte 18 NB)



HCM Signalized Intersection Capacity Analysis
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	270	0	0	310	50	85	295	230	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	15	12	12	11	11	12	12	12
Total Lost time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00			
Frt		1.00			0.98		1.00	1.00	0.85			
Flt Protected		0.99			1.00		0.95	1.00	1.00			
Satd. Flow (prot)		1940			1972		1612	1670	1501			
Flt Permitted		0.89			1.00		0.95	1.00	1.00			
Satd. Flow (perm)		1747			1972		1612	1670	1501			
Peak-hour factor, PHF	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	47	284	0	0	360	58	101	351	274	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	159	0	0	0
Lane Group Flow (vph)	0	331	0	0	410	0	101	351	115	0	0	0
Heavy Vehicles (%)	7%	7%	0%	0%	4%	4%	12%	10%	4%	0%	0%	0%
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		32.0			32.0		32.0	32.0	32.0			
Effective Green, g (s)		32.0			32.0		32.0	32.0	32.0			
Actuated g/C Ratio		0.42			0.42		0.42	0.42	0.42			
Clearance Time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Grp Cap (vph)		732			826		675	699	629			
v/s Ratio Prot					c0.21			c0.21				
v/s Ratio Perm		0.19					0.06		0.08			
v/c Ratio		0.45			0.50		0.15	0.50	0.18			
Uniform Delay, d1		15.9			16.3		13.8	16.3	14.0			
Progression Factor		1.00			1.00		1.00	1.00	1.00			
Incremental Delay, d2		2.0			2.1		0.5	2.6	0.6			
Delay (s)		17.9			18.4		14.2	18.9	14.6			
Level of Service		B			B		B	B	B			
Approach Delay (s)		17.9			18.4			16.6			0.0	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

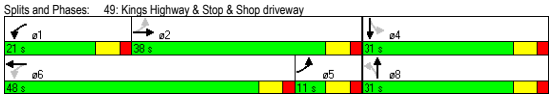
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	465	40	105	600	35	25	5	60	45	10	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			228			360			359	
Travel Time (s)		11.7			5.2			8.2			8.2	
Peak Hour Factor	0.81	0.81	0.81	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	3%	1%	4%	0%	12%	29%	2%	0%	13%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	722	0	0	823	0	0	101	0	0	159	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	13.0		11.0	13.0		13.0	13.0		19.0	19.0	
Total Split (s)	11.0	38.0	0.0	21.0	48.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	12.2%	42.2%	0.0%	23.3%	53.3%	0.0%	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%
Maximum Green (s)	5.0	32.0		15.0	42.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)										5.0	5.0	
Flash Dont Walk (s)										8.0	8.0	
Pedestrian Calls (#/hr)										0	0	
v/c Ratio		0.51			0.56			0.21			0.31	
Control Delay		7.3			7.9			10.2			11.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.3			7.9			10.2			11.6	
Queue Length 50th (ft)		46			56			3			7	
Queue Length 95th (ft)		71			99			22			23	
Internal Link Dist (ft)		435			148			280			279	
Turn Bay Length (ft)												
Base Capacity (vph)		1870			2395			1474			1565	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.39			0.34			0.07			0.10	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 44.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 49: Kings Highway & Stop & Shop driveway



HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	465	40	105	600	35	25	5	60	45	10	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.99			0.99			0.90			0.92	
Flt Protected		0.99			0.99			0.99			0.98	
Satd. Flow (prot)		3354			3443			3014			3227	
Flt Permitted		0.75			0.75			0.83			0.82	
Satd. Flow (perm)		2533			2610			2540			2685	
Peak-hour factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72
Adj. Flow (vph)	99	574	49	117	667	39	28	6	67	62	14	83
RTOR Reduction (vph)	0	4	0	0	3	0	0	56	0	0	69	0
Lane Group Flow (vph)	0	718	0	0	820	0	0	45	0	0	90	0
Heavy Vehicles (%)	6%	6%	3%	1%	4%	0%	12%	29%	2%	0%	13%	0%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		25.1			25.1			7.5			7.5	
Effective Green, g (s)		25.1			25.1			7.5			7.5	
Actuated g/C Ratio		0.56			0.56			0.17			0.17	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1426			1469			427			452	
v/s Ratio Prot												
v/s Ratio Perm		0.28			c0.31			0.02			c0.03	
v/c Ratio		0.50			0.56			0.11			0.20	
Uniform Delay, d1		5.9			6.2			15.7			16.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.3			0.0			0.1	
Delay (s)		6.1			6.5			15.8			16.0	
Level of Service		A			A			B			B	
Approach Delay (s)		6.1			6.5			15.8			16.0	
Approach LOS		A			A			B			B	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	44.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
91: Route 140 NB On/Off Ramps & Kings Highway

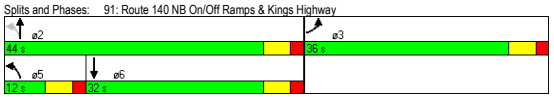
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	320	100	90	265	640	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	12	12	16
Storage Length (ft)	0	100	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				No
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			574	515	
Travel Time (s)	6.1			13.0	11.7	
Peak Hour Factor	0.83	0.83	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	3%	4%	7%	5%	5%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	506	0	0	418	806	0
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Detector Phase	3		5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	
Minimum Split (s)	13.0		11.0	13.0	13.0	
Total Split (s)	36.0	0.0	12.0	44.0	32.0	0.0
Total Split (%)	45.0%	0.0%	15.0%	55.0%	40.0%	0.0%
Maximum Green (s)	30.0		6.0	38.0	26.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	Min	Min	
v/c Ratio	0.68			0.55	0.64	
Control Delay	19.0			16.6	16.5	
Queue Delay	0.0			0.0	0.0	
Total Delay	19.0			16.6	16.5	
Queue Length 50th (ft)	115			47	96	
Queue Length 95th (ft)	214			100	175	
Internal Link Dist (ft)	188			494	435	
Turn Bay Length (ft)						
Base Capacity (vph)	1219			1598	1855	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.42			0.26	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 50.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 91: Route 140 NB On/Off Ramps & Kings Highway



HCM Signalized Intersection Capacity Analysis
91: Route 140 NB On/Off Ramps & Kings Highway

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	320	100	90	265	640	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.99	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1945			3379	3415	
Flt Permitted	0.96			0.60	1.00	
Satd. Flow (perm)	1945			2058	3415	
Peak-hour factor, PHF	0.83	0.83	0.85	0.85	0.85	0.85
Adj. Flow (vph)	386	120	106	312	753	53
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	506	0	0	418	806	0
Heavy Vehicles (%)	3%	4%	7%	5%	5%	0%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	19.2			18.6	18.6	
Effective Green, g (s)	19.2			18.6	18.6	
Actuated g/C Ratio	0.39			0.37	0.37	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	750			769	1275	
v/s Ratio Prot	c0.26				c0.24	
v/s Ratio Perm				0.20		
v/c Ratio	0.67			0.54	0.63	
Uniform Delay, d1	12.7			12.3	12.8	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	2.4			0.8	1.0	
Delay (s)	15.1			13.1	13.8	
Level of Service	B			B	B	
Approach Delay (s)	15.1			13.1	13.8	
Approach LOS	B			B	B	

Intersection Summary

HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	49.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

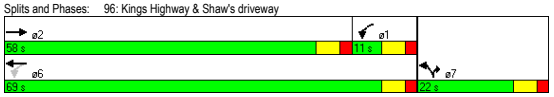
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	310	105	90	650	90	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	525			574	347	
Travel Time (s)	11.9			13.0	7.9	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.85	0.85
Heavy Vehicles (%)	6%	2%	5%	4%	7%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	446	0	0	805	106	53
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Detector Phase	2		1	6	7	7
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	7.0
Minimum Split (s)	13.0		11.0	13.0	13.0	13.0
Total Split (s)	58.0	0.0	11.0	69.0	22.0	22.0
Total Split (%)	63.7%	0.0%	12.1%	75.8%	24.2%	24.2%
Maximum Green (s)	52.0		5.0	63.0	16.0	16.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	Min		None	Min	None	None
v/c Ratio	0.22			0.46	0.31	0.15
Control Delay	4.7			7.4	16.3	6.4
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	4.7			7.4	16.3	6.4
Queue Length 50th (ft)	18			52	18	0
Queue Length 95th (ft)	40			98	50	18
Internal Link Dist (ft)	445			494	267	
Turn Bay Length (ft)						
Base Capacity (vph)	3308			2905	745	709
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.13			0.28	0.14	0.07

Intersection Summary

Area Type: Other
Cycle Length: 91
Actuated Cycle Length: 37.1
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 96: Kings Highway & Shaw's driveway



HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

2030 No-Build Conditions - AM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	310	105	90	650	90	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3308			3446	1687	1538
Flt Permitted	1.00			0.84	0.95	1.00
Satd. Flow (perm)	3308			2904	1687	1538
Peak-hour factor, PHF	0.93	0.93	0.92	0.92	0.85	0.85
Adj. Flow (vph)	333	113	98	707	106	53
RTOR Reduction (vph)	39	0	0	0	0	45
Lane Group Flow (vph)	407	0	0	805	106	8
Heavy Vehicles (%)	6%	2%	5%	4%	7%	5%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	20.7			20.7	5.7	5.7
Effective Green, g (s)	20.7			20.7	5.7	5.7
Actuated g/C Ratio	0.54			0.54	0.15	0.15
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	1783			1565	250	228
v/s Ratio Prot	0.12				c0.06	0.01
v/s Ratio Perm				c0.28		
v/c Ratio	0.23			0.51	0.42	0.03
Uniform Delay, d1	4.7			5.6	14.9	14.0
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.0			0.1	0.4	0.0
Delay (s)	4.7			5.8	15.3	14.0
Level of Service	A			A	B	B
Approach Delay (s)	4.7			5.8	14.9	
Approach LOS	A			A	B	

Intersection Summary

HCM Average Control Delay	6.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	38.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
104: Coggeshall Street & Belville Avenue

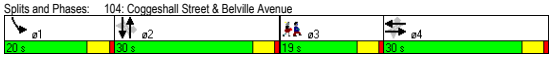
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	90	260	90	70	220	135	35	130	165	225	215	185	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	11	16	16	10	10	16	12	14	16	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		443			1111			850			178		
Travel Time (s)		10.1			25.3			19.3			4.0		
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82	0.84	0.84	0.84	
Heavy Vehicles (%)	1%	6%	5%	1%	6%	6%	3%	6%	11%	4%	4%	2%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	489	0	0	319	148	0	202	201	0	744	0	
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt			
Protected Phases		4			4			2		1	2		3
Permitted Phases	4			4		4	2		2	2			
Detector Phase	4	4		4	4	4	2	2	2	1	2		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		6.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0		19.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	30.0	30.0	30.0	30.0	20.0	30.0	0.0	19.0
Total Split (%)	30.3%	30.3%	0.0%	30.3%	30.3%	30.3%	30.3%	30.3%	30.3%	20.2%	30.3%	0.0%	19%
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	15.0	25.0		14.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		3.0
Recall Mode	Max	Max		Max	Max	Max	None	None	None	None	None		None
Walk Time (s)													6.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													6
v/c Ratio		0.47			0.58	0.22		0.39	0.28		0.76		
Control Delay		16.2			22.6	4.4		18.3	4.2		22.5		
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0		
Total Delay		16.2			22.6	4.4		18.3	4.2		22.5		
Queue Length 50th (ft)		59			84	0		48	0		98		
Queue Length 95th (ft)		150			#264	39		126	33		#238		
Internal Link Dist (ft)		363			1031			770			98		
Turn Bay Length (ft)													
Base Capacity (vph)		1040			548	669		560	753		1055		
Starvation Cap Reductn		0			0	0		0	0		0		
Spillback Cap Reductn		0			0	0		0	0		0		
Storage Cap Reductn		0			0	0		0	0		0		
Reduced v/c Ratio		0.47			0.58	0.22		0.36	0.27		0.71		

Intersection Summary

Area Type: Other
Cycle Length: 99
Actuated Cycle Length: 62.2
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 104: Coggeshall Street & Belville Avenue



HCM Signalized Intersection Capacity Analysis
104: Coggeshall Street & Belville Avenue

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	260	90	70	220	135	35	130	165	225	215	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	11	16	16	10	10	16	12	14	16	11	16
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		0.95	
Frt		0.97			1.00	0.85		1.00	0.85		0.96	
Flt Protected		0.99			0.99	1.00		0.99	1.00		0.98	
Satd. Flow (prot)		3196			1672	1422		1784	1552		3168	
Flt Permitted		0.77			0.79	1.00		0.76	1.00		0.77	
Satd. Flow (perm)		2499			1340	1422		1371	1552		2467	
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82	0.84	0.84	0.84
Adj. Flow (vph)	100	289	100	77	242	148	43	159	201	268	256	220
RTOR Reduction (vph)	0	19	0	0	0	91	0	0	129	0	50	0
Lane Group Flow (vph)	0	470	0	0	319	57	0	202	72	0	694	0
Heavy Vehicles (%)	1%	6%	5%	1%	6%	6%	3%	6%	11%	4%	4%	2%
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)		25.4			25.4	25.4		23.6	23.6		23.6	
Effective Green, g (s)		25.4			25.4	25.4		23.6	23.6		23.6	
Actuated g/C Ratio		0.38			0.38	0.38		0.36	0.36		0.36	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Grp Cap (vph)		959			514	546		489	553		879	
v/s Ratio Prot												
v/s Ratio Perm		0.19			c0.24	0.04		0.15	0.05		c0.28	
v/c Ratio		0.49			0.62	0.10		0.41	0.13		0.79	
Uniform Delay, d1		15.5			16.5	13.1		16.1	14.4		19.1	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		1.8			5.5	0.4		0.8	0.1		5.0	
Delay (s)		17.3			22.1	13.5		16.8	14.5		24.1	
Level of Service		B			C	B		B	B		C	
Approach Delay (s)		17.3			19.3			15.7			24.1	
Approach LOS		B			B			B			C	

Intersection Summary

HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	17.2
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
137: Hillman St & Pleasant Street

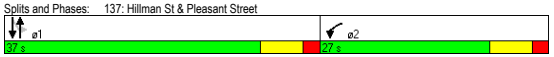
2030 No-Build Conditions - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	50	40	180	415	130	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	16	16	14
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	693		149			313
Travel Time (s)	15.8		3.4			7.1
Peak Hour Factor	0.84	0.84	0.86	0.86	0.90	0.90
Heavy Vehicles (%)	8%	18%	7%	5%	8%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	692	0	0	572
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Minimum Split (s)	27.0		37.0		37.0	37.0
Total Split (s)	27.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	42.2%	0.0%	57.8%	0.0%	57.8%	57.8%
Maximum Green (s)	20.0		30.0		30.0	30.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	4.0	7.0	4.0	7.0	7.0
Lead/Lag	Lag		Lead		Lead	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes
v/c Ratio	0.19		0.39			0.52
Control Delay	10.9		3.9			14.0
Queue Delay	0.0		0.0			0.0
Total Delay	10.9		3.9			14.0
Queue Length 50th (ft)	16		23			77
Queue Length 95th (ft)	43		45			119
Internal Link Dist (ft)	613		69			233
Turn Bay Length (ft)						
Base Capacity (vph)	581		1786			1103
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.19		0.39			0.52

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 35 (55%), Referenced to phase 2:WBL and 6:, Start of Green
Natural Cycle: 65
Control Type: Pretimed

Splits and Phases: 137: Hillman St & Pleasant Street



HCM Signalized Intersection Capacity Analysis
137: Hillman St & Pleasant Street

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	50	40	180	415	130	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	14	16	16	14
Total Lost time (s)	7.0		7.0			7.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.94		0.90			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1751		3265			3596
Flt Permitted	0.97		1.00			0.65
Satd. Flow (perm)	1751		3265			2352
Peak-hour factor, PHF	0.84	0.84	0.86	0.86	0.90	0.90
Adj. Flow (vph)	60	48	209	483	144	428
RTOR Reduction (vph)	33	0	257	0	0	0
Lane Group Flow (vph)	75	0	435	0	0	572
Heavy Vehicles (%)	8%	18%	7%	5%	8%	5%
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Actuated Green, G (s)	20.0		30.0			30.0
Effective Green, g (s)	20.0		30.0			30.0
Actuated g/C Ratio	0.31		0.47			0.47
Clearance Time (s)	7.0		7.0			7.0
Lane Grp Cap (vph)	547		1530			1103
v/s Ratio Prot	c0.04		0.13			
v/s Ratio Perm						c0.24
v/c Ratio	0.14		0.28			0.52
Uniform Delay, d1	15.8		10.4			11.9
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.5		0.5			1.7
Delay (s)	16.3		10.9			13.7
Level of Service	B		B			B
Approach Delay (s)	16.3		10.9			13.7
Approach LOS	B		B			B

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
140: Mill Street & Pleasant St

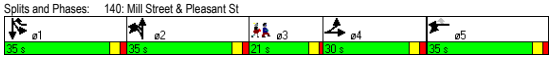
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations														
Volume (vph)	225	140	5	410	180	145	20	55	215	30	50	280	45	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	16	16	11	12	10	16	10	12	14	16	14	16	
Storage Length (ft)	0			0		0		100		0	0		0	
Storage Lanes	1			1		1		1		0	0		0	
Taper Length (ft)	25			25		25		25		25	25		25	
Right Turn on Red			Yes			No				Yes				
Link Speed (mph)		30			30				30			30		
Link Distance (ft)		168			308				709			499		
Travel Time (s)		3.8			7.0				16.1			11.3		
Peak Hour Factor	0.88	0.88	0.88	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.84	0.84	0.84	
Heavy Vehicles (%)	5%	1%	0%	3%	3%	4%	0%	9%	5%	3%	4%	0%	4%	
Shared Lane Traffic (%)														
Lane Group Flow (vph)	256	165	0	500	220	177	0	85	278	0	0	447	0	
Turn Type	Split			Split		pm+ov	Split	Split			Split			
Protected Phases	4	4		5	5	1	2	2	2		1	1		3
Permitted Phases						5								
Detector Phase	4	4		5	5	1	2	2	2		1	1		
Switch Phase														
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0		4.0
Minimum Split (s)	21.0	21.0		21.0	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0
Total Split (s)	30.0	30.0	0.0	35.0	35.0	35.0	35.0	35.0	35.0	0.0	35.0	35.0	0.0	21.0
Total Split (%)	19.2%	19.2%	0.0%	22.4%	22.4%	22.4%	22.4%	22.4%	22.4%	0.0%	22.4%	22.4%	0.0%	13%
Maximum Green (s)	25.0	25.0		30.0	30.0	30.0	30.0	30.0	30.0		30.0	30.0		17.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag				Lead	Lag	Lag	Lag		Lead	Lead		Lead
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		3.0
Recall Mode	Max	Max		Max	Max	Max	Max	Max	Max		Max	Max		None
Walk Time (s)														10.0
Flash Dont Walk (s)														7.0
Pedestrian Calls (#/hr)														9
v/c Ratio	0.80	0.43		1.37	0.55	0.26		0.25	0.38			0.56		
Control Delay	74.0	55.7		222.3	55.8	24.9		49.2	47.7			52.5		
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0			0.0		
Total Delay	74.0	55.7		222.3	55.8	24.9		49.2	47.7			52.5		
Queue Length 50th (ft)	216	128		~568	172	90		62	105			183		
Queue Length 95th (ft)	#409	228		#828	271	162		127	172			262		
Internal Link Dist (ft)		88			228				629			419		
Turn Bay Length (ft)								100						
Base Capacity (vph)	320	383		366	399	679		342	739			804		
Starvation Cap Reductn	0	0		0	0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0	0		0	0			0		
Storage Cap Reductn	0	0		0	0	0		0	0			0		
Reduced v/c Ratio	0.80	0.43		1.37	0.55	0.26		0.25	0.38			0.56		

Intersection Summary

Area Type: Other
Cycle Length: 156
Actuated Cycle Length: 139.2
Natural Cycle: 125
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 140: Mill Street & Pleasant St



HCM Signalized Intersection Capacity Analysis
140: Mill Street & Pleasant St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Volume (vph)	225	140	5	410	180	145	20	55	215	30	50	280	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	16	11	12	10	16	10	12	14	16	14	16
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	0.95			0.95	
Frt	1.00	0.99		1.00	1.00	0.85		1.00	0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1776	2121		1694	1845	1449		1581	3383			3718	
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1776	2121		1694	1845	1449		1581	3383			3718	
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	256	159	6	500	220	177	23	62	244	34	60	333	54
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	256	164	0	500	220	177	0	85	271	0	0	447	0
Heavy Vehicles (%)	5%	1%	0%	3%	3%	4%	0%	9%	5%	3%	4%	0%	4%
Turn Type	Split			Split		pm+ov	Split	Split			Split		
Protected Phases	4	4		5	5	1	2	2	2		1	1	
Permitted Phases						5							
Actuated Green, G (s)	25.1	25.1		30.1	30.1	60.2		30.1	30.1			30.1	
Effective Green, g (s)	25.1	25.1		30.1	30.1	60.2		30.1	30.1			30.1	
Actuated g/C Ratio	0.18	0.18		0.21	0.21	0.42		0.21	0.21			0.21	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0	
Lane Grp Cap (vph)	313	374		358	390	663		334	715			786	
v/s Ratio Prot	c0.14	0.08		c0.30	0.12	0.06		0.05	c0.08			c0.12	
v/s Ratio Perm						0.07							
v/c Ratio	0.82	0.44		1.40	0.56	0.27		0.25	0.38			0.57	
Uniform Delay, d1	56.5	52.4		56.2	50.3	26.7		46.8	48.1			50.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	20.6	3.7		194.7	5.8	1.0		1.8	1.5			3.0	
Delay (s)	77.1	56.1		250.9	56.1	27.7		48.6	49.7			53.3	
Level of Service	E	E		F	E	C		D	D			D	
Approach Delay (s)		68.8			159.1				49.4			53.3	
Approach LOS		E			F				D			D	

Intersection Summary

HCM Average Control Delay	100.3	HCM Level of Service	F
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	142.4	Sum of lost time (s)	27.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
174: Union Street & Rt 18

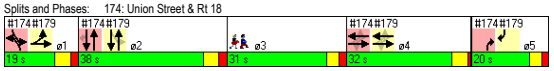
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	250	50	40	35	15	10	40	890	25	90	855	240	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	16	16	16	16	11	11	11	10	11	11	
Storage Length (ft)	0		0	0		0	150		225	150		225	
Storage Lanes	1		0	0		0	1		1	1		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		440			82			328			2491		
Travel Time (s)		10.0			1.9			7.5			56.6		
Peak Hour Factor	0.89	0.89	0.89	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	
Heavy Vehicles (%)	8%	6%	3%	6%	6%	10%	7%	7%	4%	7%	5%	3%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	281	101	0	0	73	0	45	1011	28	98	929	261	
Turn Type	Perm			Perm			Prot		custom	Prot		Perm	
Protected Phases		4			4		1	2	5	1	2		3
Permitted Phases	4			4								2	
Detector Phase	4	4		4	4		1	2	5	1	2	2	
Switch Phase													
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	7.0	4.0	4.0	7.0	7.0	17.0
Minimum Split (s)	12.0	12.0		12.0	12.0		10.0	13.0	9.0	10.0	13.0	13.0	31.0
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	19.0	38.0	20.0	19.0	38.0	38.0	31.0
Total Split (%)	22.9%	22.9%	0.0%	22.9%	22.9%	0.0%	13.6%	27.1%	14.3%	13.6%	27.1%	27.1%	22%
Maximum Green (s)	27.0	27.0		27.0	27.0		13.0	32.0	15.0	13.0	32.0	32.0	26.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	6.0	6.0	5.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lag		Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0	3.0
Recall Mode	None	None		None	None		None	None	None	None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													7
v/c Ratio	0.87	0.24			0.18		0.25	1.01	0.19	0.56	0.91	0.44	
Control Delay	68.0	38.5			67.8		52.6	70.2	52.2	62.4	51.6	14.9	
Queue Delay	0.0	0.0			0.0		0.0	128.2	0.8	0.1	0.0	0.0	
Total Delay	68.0	38.5			67.8		52.6	198.3	53.1	62.5	51.6	14.9	
Queue Length 50th (ft)	180	53			43		27	~362	17	62	313	41	
Queue Length 95th (ft)	#482	136			95		79	#746	54	#170	#681	155	
Internal Link Dist (ft)		360			2			248			2411		
Turn Bay Length (ft)							150		225	150		225	
Base Capacity (vph)	322	423			410		203	999	215	196	1018	588	
Starvation Cap Reductn	0	0			0		0	233	0	0	0	0	
Spillback Cap Reductn	0	0			0		0	0	89	2	0	0	
Storage Cap Reductn	0	0			0		0	0	0	0	0	0	
Reduced v/c Ratio	0.87	0.24			0.18		0.22	1.32	0.22	0.51	0.91	0.44	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 107.3
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 174: Union Street & Rt 18



HCM Signalized Intersection Capacity Analysis
174: Union Street & Rt 18

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	50	40	35	15	10	40	890	25	90	855	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.93			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1616	1638			1918		1631	3261	1501	1574	3323	1516
Flt Permitted	0.73	1.00			0.80		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1246	1638			1586		1631	3261	1501	1574	3323	1516
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	281	56	45	43	18	12	45	1011	28	98	929	261
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	126
Lane Group Flow (vph)	281	101	0	0	73	0	45	1011	28	98	929	135
Heavy Vehicles (%)	8%	6%	3%	6%	6%	10%	7%	7%	4%	7%	5%	3%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)	27.7	27.7			27.7		11.8	32.8	8.8	11.8	32.8	32.8
Effective Green, g (s)	27.7	27.7			27.7		11.8	32.8	8.8	11.8	32.8	32.8
Actuated g/C Ratio	0.25	0.25			0.25		0.11	0.29	0.08	0.11	0.29	0.29
Clearance Time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	308	405			392		172	954	118	166	972	444
v/s Ratio Prot		0.06					0.03	c0.31	c0.02	c0.06	0.28	
v/s Ratio Perm	c0.23				0.05							0.09
v/c Ratio	0.91	0.25			0.19		0.26	1.06	0.24	0.59	0.96	0.30
Uniform Delay, d1	41.0	33.9			33.3		46.1	39.6	48.5	47.8	38.9	30.8
Progression Factor	1.00	1.00			1.79		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	31.0	0.7			0.5		1.1	46.3	1.4	6.4	19.0	0.5
Delay (s)	72.0	34.5			60.1		47.3	86.0	49.9	54.3	58.0	31.3
Level of Service	E	C			E		D	F	D	D	E	C
Approach Delay (s)		62.1			60.1			83.4			52.3	
Approach LOS		E			E			F			D	

Intersection Summary

HCM Average Control Delay	65.8	HCM Level of Service	E
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	112.1	Sum of lost time (s)	31.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

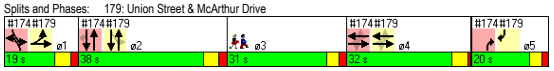
c Critical Lane Group

Lanes, Volumes, Timings
179: Union Street & McArthur Drive

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	50	20	95	5	10	5	0	160	20	15	175	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	16	16	16	15	16	16	16	16	16	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		82			609			920			687		
Travel Time (s)		1.9			13.8			20.9			15.6		
Peak Hour Factor	0.78	0.78	0.78	0.57	0.57	0.57	0.89	0.89	0.89	0.81	0.81	0.81	
Heavy Vehicles (%)	12%	14%	5%	0%	17%	33%	0%	22%	0%	14%	13%	4%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	212	0	0	36	0	0	202	0	0	235	62	
Turn Type	pm+pt			Perm						Perm		custom	
Protected Phases	1	1 4			4			2			2	5	3
Permitted Phases	1 4			4						2			
Detector Phase	1	1 4		4	4			2		2	2	5	
Switch Phase													
Minimum Initial (s)	4.0			7.0	7.0			7.0		7.0	7.0	4.0	17.0
Minimum Split (s)	10.0			12.0	12.0			13.0		13.0	13.0	9.0	31.0
Total Split (s)	19.0	51.0	0.0	32.0	32.0	0.0	0.0	38.0	0.0	38.0	38.0	20.0	31.0
Total Split (%)	13.6%	36.4%	0.0%	22.9%	22.9%	0.0%	0.0%	27.1%	0.0%	27.1%	27.1%	14.3%	22%
Maximum Green (s)	13.0			27.0	27.0			32.0		32.0	32.0	15.0	26.0
Yellow Time (s)	4.0			4.0	4.0			4.0		4.0	4.0	3.0	3.0
All-Red Time (s)	2.0			1.0	1.0			2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	5.0	
Lead/Lag	Lead			Lag	Lag			Lag		Lag	Lag		Lead
Lead-Lag Optimize?	Yes			Yes	Yes			Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0			5.0	5.0			4.0		4.0	4.0	4.0	3.0
Recall Mode	None			None	None			None		None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													7
v/c Ratio		0.35			0.09			0.37			0.47	0.41	
Control Delay		8.4			30.7			35.1			38.3	57.9	
Queue Delay		0.0			0.0			0.0			0.0	119.9	
Total Delay		8.4			30.7			35.1			38.3	177.7	
Queue Length 50th (ft)		25			14			103			127	40	
Queue Length 95th (ft)		41			30			238			254	92	
Internal Link Dist (ft)		2			529			840			607		
Turn Bay Length (ft)												50	
Base Capacity (vph)		637			420			546			497	223	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			11			0			0	170	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.33			0.09			0.37			0.47	1.17	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 107.3	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 179: Union Street & McArthur Drive



HCM Signalized Intersection Capacity Analysis
179: Union Street & McArthur Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	20	95	5	10	5	0	160	20	15	175	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.92			0.97			0.99			1.00	0.85
Flt Protected		0.99			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1808			1708			1774			1673	1553
Flt Permitted		0.90			0.92			1.00			0.97	1.00
Satd. Flow (perm)		1659			1598			1774			1622	1553
Peak-hour factor, PHF	0.78	0.78	0.78	0.57	0.57	0.57	0.89	0.89	0.89	0.81	0.81	0.81
Adj. Flow (vph)	64	26	122	9	18	9	0	180	22	19	216	62
RTOR Reduction (vph)	0	0	0	0	7	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	212	0	0	29	0	0	199	0	0	235	62
Heavy Vehicles (%)	12%	14%	5%	0%	17%	33%	0%	22%	0%	14%	13%	4%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		39.5			27.7			32.8			32.8	8.8
Effective Green, g (s)		39.5			27.7			32.8			32.8	8.8
Actuated g/C Ratio		0.35			0.25			0.29			0.29	0.08
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		600			395			519			475	122
v/s Ratio Prot		c0.04						0.11				c0.04
v/s Ratio Perm		c0.09			0.02						c0.14	
v/c Ratio		0.35			0.07			0.38			0.49	0.51
Uniform Delay, d1		26.9			32.4			31.6			32.8	49.6
Progression Factor		0.39			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.5			0.2			0.6			1.1	4.5
Delay (s)		11.0			32.5			32.2			33.9	54.1
Level of Service		B			C			C			C	D
Approach Delay (s)		11.0			32.5			32.2			38.1	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	28.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	112.1	Sum of lost time (s)	32.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
9: Tarkiln Hill Rd & Kings Highway

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	20	10	560	720	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.83	0.83	0.90	0.90
Hourly flow rate (vph)	12	24	12	675	800	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				394	611	
pX, platoon unblocked	0.82					
vC, conflicting volume	1532	833	867			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1539	833	867			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	93	98			
cM capacity (veh/h)	102	364	786			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	37	687	867
Volume Left	12	12	0
Volume Right	24	0	67
cSH	197	786	1700
Volume to Capacity	0.19	0.02	0.51
Queue Length 95th (ft)	17	1	0
Control Delay (s)	27.5	0.4	0.0
Lane LOS	D	A	
Approach Delay (s)	27.5	0.4	0.0
Approach LOS	D		

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		51.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
16: Park Avenue & Church Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	70	135	20	0	45	0	420	20	10	190	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.84	0.84	0.84	0.85	0.85	0.85	0.76	0.76	0.76
Hourly flow rate (vph)	0	90	173	24	0	54	0	494	24	13	250	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											176	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	836	794	250	1000	782	506	250			518		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	780	735	145	958	722	506	145			518		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	72	79	82	100	91	100			99		
cM capacity (veh/h)	261	316	813	134	324	570	1337			1059		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	263	77	518	263
Volume Left	0	24	0	13
Volume Right	173	54	24	0
cSH	529	285	1700	1059
Volume to Capacity	0.50	0.27	0.30	0.01
Queue Length 95th (ft)	68	27	0	1
Control Delay (s)	18.3	22.3	0.0	0.5
Lane LOS	C	C		A
Approach Delay (s)	18.3	22.3	0.0	0.5
Approach LOS	C	C		

Intersection Summary			
Average Delay		6.0	
Intersection Capacity Utilization		49.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
17: Irvington Street & Church Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	25	0	20	5	270	0	0	340	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.79	0.79	0.79	0.85	0.85	0.85	0.77	0.77	0.77
Hourly flow rate (vph)	7	0	7	32	0	25	6	318	0	0	442	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	803	777	448	784	784	318	455			318		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	803	777	448	784	784	318	455			318		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	89	100	97	99			100		
cM capacity (veh/h)	292	328	615	299	326	728	1117			1254		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	57	324	455
Volume Left	7	32	6	0
Volume Right	7	25	0	13
cSH	396	405	1117	1700
Volume to Capacity	0.03	0.14	0.01	0.27
Queue Length 95th (ft)	3	12	0	0
Control Delay (s)	14.4	15.3	0.2	0.0
Lane LOS	B	C	A	
Approach Delay (s)	14.4	15.3	0.2	0.0
Approach LOS	B	C		

Intersection Summary				
Average Delay		1.3		
Intersection Capacity Utilization	28.6%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	390	45	90	320	50	25	60	45	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92
Hourly flow rate (vph)	56	438	51	107	381	60	29	70	52	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			443							
pX, platoon unblocked	0.94			0.91			0.95	0.95	0.91	0.95	0.95	0.94
vC, conflicting volume	440			489			1201	1231	463	1288	1226	411
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	372			394			1038	1070	367	1130	1065	340
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	95			90			83	61	91	100	100	100
cM capacity (veh/h)	1104			1065			171	178	607	98	181	664

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	545	548	151
Volume Left	56	107	29
Volume Right	51	60	52
cSH	1104	1065	233
Volume to Capacity	0.05	0.10	0.65
Queue Length 95th (ft)	4	8	100
Control Delay (s)	1.4	2.7	45.2
Lane LOS	A	A	E
Approach Delay (s)	1.4	2.7	45.2
Approach LOS			E

Intersection Summary				
Average Delay		7.3		
Intersection Capacity Utilization	55.9%	ICU Level of Service	B	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
54: Rt 18 SB Exit Ramp & Purchase St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	10	245	5	35	0	225	0	0	260	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	11	266	5	38	0	245	0	0	283	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								822				
pX, platoon unblocked												
vC, conflicting volume	568	527	283	538	527	245	283			245		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	568	527	283	538	527	245	283			245		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	40	99	95	100			100		
cM capacity (veh/h)	409	456	756	447	456	794	1280			1322		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	11	310	245	283
Volume Left	0	266	0	0
Volume Right	11	38	0	0
cSH	756	473	1280	1700
Volume to Capacity	0.01	0.65	0.00	0.17
Queue Length 95th (ft)	1	116	0	0
Control Delay (s)	9.8	25.9	0.0	0.0
Lane LOS	A	D		
Approach Delay (s)	9.8	25.9	0.0	0.0
Approach LOS	A	D		

Intersection Summary				
Average Delay		9.6		
Intersection Capacity Utilization		43.0%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	155	35	35	105	90	10	195	60	95	170	15
Peak Hour Factor	0.80	0.80	0.80	0.83	0.83	0.83	0.89	0.89	0.89	0.88	0.88	0.88
Hourly flow rate (vph)	19	194	44	42	127	108	11	219	67	108	193	17

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	256	277	298	318
Volume Left (vph)	19	42	11	108
Volume Right (vph)	44	108	67	17
Hadj (s)	-0.04	-0.09	-0.04	0.20
Departure Headway (s)	6.6	6.5	6.4	6.6
Degree Utilization, x	0.47	0.50	0.53	0.58
Capacity (veh/h)	484	494	510	499
Control Delay (s)	15.3	15.8	16.4	18.3
Approach Delay (s)	15.3	15.8	16.4	18.3
Approach LOS	C	C	C	C

Intersection Summary				
Delay		16.6		
HCM Level of Service		C		
Intersection Capacity Utilization		61.4%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
72: Weld St & Purchase St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	120	55	25	55	220	0	0	235	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.89	0.89	0.89	0.83	0.83	0.83
Hourly flow rate (vph)	6	0	6	135	62	28	62	247	0	0	283	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	728	669	298	675	684	247	313			247		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	728	669	298	675	684	247	313			247		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.3			2.2		
p0 queue free %	98	100	99	61	82	96	95			100		
cM capacity (veh/h)	274	362	734	348	352	775	1203			1330		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	12	166	59	309	313
Volume Left	6	135	0	62	0
Volume Right	6	0	28	0	30
cSH	399	349	476	1203	1700
Volume to Capacity	0.03	0.48	0.12	0.05	0.18
Queue Length 95th (ft)	2	61	11	4	0
Control Delay (s)	14.3	24.3	13.6	2.0	0.0
Lane LOS	B	C	B	A	
Approach Delay (s)	14.3	21.5		2.0	0.0
Approach LOS	B	C			

Intersection Summary				
Average Delay		6.6		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
74: Logan St & Purchase St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	35	0	40	0	235	120	95	265	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.84	0.84	0.84	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	42	0	48	0	261	133	106	294	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	881	900	294	833	833	328	294			394		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	881	900	294	833	833	328	294			394		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.3	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.4	2.2			2.3		
p0 queue free %	100	100	100	84	100	93	100			91		
cM capacity (veh/h)	233	254	750	263	278	702	1279			1137		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	89	394	400
Volume Left	0	42	0	106
Volume Right	0	48	133	0
cSH	1700	395	1279	1137
Volume to Capacity	0.00	0.23	0.00	0.09
Queue Length 95th (ft)	0	21	0	8
Control Delay (s)	0.0	16.8	0.0	2.9
Lane LOS	A	C		A
Approach Delay (s)	0.0	16.8	0.0	2.9
Approach LOS	A	C		

Intersection Summary				
Average Delay		3.0		
Intersection Capacity Utilization	53.3%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
75: Logan St & North Front Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	15	15	5	5	15	5	135	5	55	200	65
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.69	0.69	0.69	0.78	0.78	0.78	0.93	0.93	0.93
Hourly flow rate (vph)	165	18	18	7	7	22	6	173	6	59	215	70
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											720	
pX, platoon unblocked												
vC, conflicting volume	583	561	250	584	592	176	285			179		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	583	561	250	584	592	176	285			179		
tC, single (s)	7.2	6.5	6.4	7.1	6.5	6.4	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.5	3.5	4.0	3.5	2.4			2.2		
p0 queue free %	57	96	98	98	98	97	99			96		
cM capacity (veh/h)	380	419	751	388	402	820	1196			1396		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	200	36	186	344
Volume Left	165	7	6	59
Volume Right	18	22	6	70
cSH	401	573	1196	1396
Volume to Capacity	0.50	0.06	0.01	0.04
Queue Length 95th (ft)	67	5	0	3
Control Delay (s)	22.6	11.7	0.3	1.6
Lane LOS	C	B	A	A
Approach Delay (s)	22.6	11.7	0.3	1.6
Approach LOS	C	B		

Intersection Summary				
Average Delay		7.3		
Intersection Capacity Utilization		51.3%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
77: Route 140 On/Off Ramps & Mt. Pleasant Street

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	160	0	225	400	55	220
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.69	0.69	0.85	0.85	0.75	0.75
Hourly flow rate (vph)	232	0	265	471	73	293
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			877			
pX, platoon unblocked						
vC, conflicting volume	940	500			265	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	940	500			265	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	12	100			94	
cM capacity (veh/h)	263	567			1299	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	232	735	367
Volume Left	232	0	73
Volume Right	0	471	0
cSH	263	1700	1299
Volume to Capacity	0.88	0.43	0.06
Queue Length 95th (ft)	190	0	4
Control Delay (s)	70.6	0.0	2.0
Lane LOS	F		A
Approach Delay (s)	70.6	0.0	2.0
Approach LOS	F		

Intersection Summary				
Average Delay		12.8		
Intersection Capacity Utilization		69.9%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
126: Logan St & Acushnet Ave.

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	145	50	20	55	0	20	5	35	0	5	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.88	0.88	0.88	0.67	0.67	0.67
Hourly flow rate (vph)	19	181	62	22	61	0	23	6	40	0	7	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	109	98	7	232	78	26	7			45		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	109	98	7	232	78	26	7			45		
tC, single (s)	7.2	6.5	6.3	7.2	6.6	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.6	4.1	3.3	2.3			2.2		
p0 queue free %	98	77	94	96	92	100	99			100		
cM capacity (veh/h)	788	776	1063	538	792	1056	1526			1575		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	262	83	68	7
Volume Left	19	22	23	0
Volume Right	62	0	40	0
cSH	830	704	1526	1575
Volume to Capacity	0.32	0.12	0.01	0.00
Queue Length 95th (ft)	34	10	1	0
Control Delay (s)	11.3	10.8	2.5	0.0
Lane LOS	B	B	A	
Approach Delay (s)	11.3	10.8	2.5	0.0
Approach LOS	B	B		

Intersection Summary				
Average Delay		9.6		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
130: Herman Melville Boulevard & McArthur Drive

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	120	35	130	100	60	135
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.99	0.99	0.81	0.81
Hourly flow rate (vph)	128	37	131	101	74	167
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	497	182			232	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	497	182			232	
tC, single (s)	6.6	6.4			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.3	
p0 queue free %	73	95			94	
cM capacity (veh/h)	481	821			1290	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	165	232	241
Volume Left	128	0	74
Volume Right	37	101	0
cSH	531	1700	1290
Volume to Capacity	0.31	0.14	0.06
Queue Length 95th (ft)	33	0	5
Control Delay (s)	14.8	0.0	2.8
Lane LOS	B		A
Approach Delay (s)	14.8	0.0	2.8
Approach LOS	B		

Intersection Summary				
Average Delay		4.9		
Intersection Capacity Utilization	42.2%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
136: Hillman St & Acushnet Ave.

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	45	165	120	45	30	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.91	0.91	0.82	0.82
Hourly flow rate (vph)	53	194	132	49	37	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	365	52	67			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	365	52	67			
tC, single (s)	6.4	6.3	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.4			
p0 queue free %	91	81	91			
cM capacity (veh/h)	576	1005	1433			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	247	181	67
Volume Left	53	132	0
Volume Right	194	0	30
cSH	867	1433	1700
Volume to Capacity	0.29	0.09	0.04
Queue Length 95th (ft)	29	8	0
Control Delay (s)	10.8	5.8	0.0
Lane LOS	B	A	
Approach Delay (s)	10.8	5.8	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
147: Wamsutta St & Acushnet Ave.

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	10	50	15	10	70
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.65	0.65	0.86	0.86	0.76	0.76
Hourly flow rate (vph)	31	15	58	17	13	92
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	185	67			58	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	185	67			58	
tC, single (s)	6.4	6.4			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.5			2.3	
p0 queue free %	96	98			99	
cM capacity (veh/h)	801	936			1502	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	46	76	105
Volume Left	31	0	13
Volume Right	15	17	0
cSH	842	1700	1502
Volume to Capacity	0.05	0.04	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	9.5	0.0	1.0
Lane LOS	A		A
Approach Delay (s)	9.5	0.0	1.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
148: Wamsutta St & North Front St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	0	10	5	0	10	5	115	15	10	160	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.64	0.64	0.64	0.58	0.58	0.58	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	23	0	16	9	0	17	5	124	16	11	180	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	376	367	194	374	373	132	208			140		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	376	367	194	374	373	132	208			140		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.3	4.1			4.5		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.4	2.2			2.5		
p0 queue free %	96	100	98	98	100	98	100			99		
cM capacity (veh/h)	568	558	853	536	554	894	1375			1259		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	39	26	145	219
Volume Left	23	9	5	11
Volume Right	16	17	16	28
cSH	656	731	1375	1259
Volume to Capacity	0.06	0.04	0.00	0.01
Queue Length 95th (ft)	5	3	0	1
Control Delay (s)	10.8	10.1	0.3	0.5
Lane LOS	B	B	A	A
Approach Delay (s)	10.8	10.1	0.3	0.5
Approach LOS	B	B		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
182: McArthur Blvd & McArthur Dr-Leonard's Wharf

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	185	50	5	5	25	20	35	30	5	25	10	205
Peak Hour Factor	0.88	0.88	0.88	0.72	0.72	0.72	0.64	0.64	0.64	0.90	0.90	0.90
Hourly flow rate (vph)	210	57	6	7	35	28	55	47	8	28	11	228

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	273	69	109	267
Volume Left (vph)	210	7	55	28
Volume Right (vph)	6	28	8	228
Hadj (s)	0.31	0.18	0.38	-0.19
Departure Headway (s)	5.3	5.5	5.6	4.9
Degree Utilization, x	0.40	0.11	0.17	0.36
Capacity (veh/h)	641	589	589	697
Control Delay (s)	11.8	9.2	9.8	10.6
Approach Delay (s)	11.8	9.2	9.8	10.6
Approach LOS	B	A	A	B

Intersection Summary			
Delay	10.8		
HCM Level of Service	B		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
184: McArthur Blvd & McArthur Dr

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	230	35	0	15	0	245	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.79	0.79	0.79	0.88	0.88	0.88	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	291	44	0	17	0	278	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	195	312	0	173	173	139	0			278		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	195	312	0	173	173	139	0			278		
tC, single (s)	7.1	6.5	6.2	7.2	7.1	6.2	4.4			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.5	3.3	2.5			2.2		
p0 queue free %	100	100	100	61	93	100	99			100		
cM capacity (veh/h)	720	599	1091	755	621	914	1463			1296		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	335	295	0
Volume Left	291	17	0
Volume Right	0	278	0
cSH	734	1463	1700
Volume to Capacity	0.46	0.01	0.00
Queue Length 95th (ft)	60	1	0
Control Delay (s)	14.0	0.5	0.0
Lane LOS	B	A	
Approach Delay (s)	14.0	0.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		7.7	
Intersection Capacity Utilization		37.2%	ICU Level of Service A
Analysis Period (min)		15	

Lanes, Volumes, Timings
2: Jones Street & Mt Pleasant St

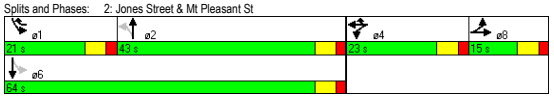
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	5	280	5	490	5	160	400	420	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	16	12	11	11	12
Storage Length (ft)	0		0	0		0	0		0	300		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1031			525			388			877	
Travel Time (s)		23.4			11.9			8.8			19.9	
Peak Hour Factor	0.54	0.54	0.54	0.97	0.97	0.97	0.94	0.94	0.94	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	2%	0%	3%	0%	2%	2%	1%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	294	505	0	601	0	525	412	0
Turn Type	Split			Split		pt+ov	Perm			pm+pt		
Protected Phases	8	8		4	4	4 1		2		1	6	
Permitted Phases							2			6		
Detector Phase	8	8		4	4	4 1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		27.0	27.0		19.0	22.0	
Total Split (s)	15.0	15.0	0.0	23.0	23.0	44.0	43.0	43.0	0.0	21.0	64.0	0.0
Total Split (%)	14.7%	14.7%	0.0%	22.5%	22.5%	43.1%	42.2%	42.2%	0.0%	20.6%	62.7%	0.0%
Maximum Green (s)	9.0	9.0		17.0	17.0		37.0	37.0		15.0	58.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Min	Min		None	Min	
Walk Time (s)							5.0	5.0				
Flash Dont Walk (s)							16.0	16.0				
Pedestrian Calls (#/hr)							0	0				
v/c Ratio		0.10			0.76	0.51		0.88		1.21	0.41	
Control Delay		31.1			48.3	3.4		36.3		136.7	11.5	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		31.1			48.3	3.4		36.3		136.7	11.5	
Queue Length 50th (ft)		4			124	0		200		~232	86	
Queue Length 95th (ft)		14			#355	49		402		#479	170	
Internal Link Dist (ft)		951			445			308			797	
Turn Bay Length (ft)										300		
Base Capacity (vph)		233			385	995		969		434	1295	
Starvation Cap Reductn		0			0	0		0		0	0	
Spillback Cap Reductn		0			0	0		0		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.08			0.76	0.51		0.62		1.21	0.32	

Intersection Summary

Area Type: Other
Cycle Length: 102
Actuated Cycle Length: 80.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Jones Street & Mt Pleasant St



HCM Signalized Intersection Capacity Analysis
2: Jones Street & Mt Pleasant St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	5	280	5	490	5	160	400	420	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	16	12	11	11	12
Total Lost time (s)		6.0			6.0	6.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.93			1.00	0.85		0.90		1.00	1.00	
Flt Protected		0.98			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1959			1776	1568		1909		1728	1749	
Flt Permitted		0.98			0.95	1.00		1.00		0.15	1.00	
Satd. Flow (perm)		1959			1776	1568		1902		267	1749	
Peak-hour factor, PHF	0.54	0.54	0.54	0.97	0.97	0.97	0.94	0.94	0.94	0.80	0.80	0.80
Adj. Flow (vph)	9	0	9	289	5	505	5	170	426	525	412	0
RTOR Reduction (vph)	0	9	0	0	0	308	0	95	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	294	197	0	506	0	525	412	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	3%	0%	2%	2%	1%	5%	0%
Turn Type	Split			Split		pt+ov	Perm			pm+pt		
Protected Phases	8	8		4	4	4 1		2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		2.3			17.5	33.0		25.2		46.7	46.7	
Effective Green, g (s)		2.3			17.5	33.0		25.2		46.7	46.7	
Actuated g/C Ratio		0.03			0.21	0.39		0.30		0.55	0.55	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		53			368	612		567		416	967	
v/s Ratio Prot		c0.00			c0.17	0.13				c0.23	0.24	
v/s Ratio Perm								0.27		c0.47		
v/c Ratio		0.17			0.80	0.32		0.89		1.26	0.43	
Uniform Delay, d1		40.2			31.8	18.0		28.4		23.0	11.1	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.6			10.8	0.1		15.9		136.0	0.1	
Delay (s)		40.7			42.6	18.1		44.3		159.0	11.2	
Level of Service		D			D	B		D		F	B	
Approach Delay (s)		40.7			27.1			44.3			94.0	
Approach LOS		D			C			D			F	

Intersection Summary

HCM Average Control Delay	58.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	84.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
14: Kings Highway & Church Street

2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	525	5	35	455	70	230	210	80	70	275	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	12	11	11	12	11	11	11	11	11	12
Storage Length (ft)	50		0	0		0	0		0	0		145
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			1116			176			552	
Travel Time (s)		6.9			25.4			4.0			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	576	0	38	577	0	267	337	0	0	388	135
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Minimum Split (s)	35.0	35.0		35.0	35.0		21.0	21.0		21.0	21.0	21.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	24.0	24.0	0.0	24.0	24.0	24.0
Total Split (%)	59.3%	59.3%	0.0%	59.3%	59.3%	0.0%	40.7%	40.7%	0.0%	40.7%	40.7%	40.7%
Maximum Green (s)	30.0	30.0		30.0	30.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lead	Lead		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
v/c Ratio	0.45	0.62		0.14	0.64		1.25	0.61			0.89	0.26
Control Delay	15.8	14.2		9.3	14.7		171.6	22.5			45.2	16.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	15.8	14.2		9.3	14.7		171.6	22.5			45.2	16.5
Queue Length 50th (ft)	26	135		7	137		~123	99			128	35
Queue Length 95th (ft)	69	227		21	232		#232	163			#269	71
Internal Link Dist (ft)		225			1036			96			472	
Turn Bay Length (ft)	50											145
Base Capacity (vph)	278	924		279	899		213	553			437	515
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.45	0.62		0.14	0.64		1.25	0.61			0.89	0.26

Intersection Summary

Area Type: Other
Cycle Length: 59
Actuated Cycle Length: 59
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle: 65
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Kings Highway & Church Street

HCM Signalized Intersection Capacity Analysis
14: Kings Highway & Church Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	525	5	35	455	70	230	210	80	70	275	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1636	1816		1631	1769		1728	1717			1786	1599
Flt Permitted	0.32	1.00		0.32	1.00		0.36	1.00			0.75	1.00
Satd. Flow (perm)	547	1816		547	1769		663	1717			1357	1599
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Adj. Flow (vph)	125	571	5	38	500	77	267	244	93	79	309	135
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	125	576	0	38	577	0	267	337	0	0	388	135
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Effective Green, g (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.32	0.32			0.32	0.32
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	278	923		278	899		214	553			437	515
v/s Ratio Prot		0.32			c0.33			0.20				
v/s Ratio Perm	0.23			0.07			c0.40				0.29	0.08
v/c Ratio	0.45	0.62		0.14	0.64		1.25	0.61			0.89	0.26
Uniform Delay, d1	9.2	10.4		7.7	10.6		20.0	16.9			19.0	14.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	5.2	3.2		1.0	3.5		144.2	4.9			22.5	1.2
Delay (s)	14.4	13.6		8.7	14.1		164.2	21.8			41.5	16.0
Level of Service	B	B		A	B		F	C			D	B
Approach Delay (s)		13.8			13.8			84.8			35.0	
Approach LOS		B			B			F			C	

Intersection Summary

HCM Average Control Delay	35.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	104.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
19: Wood Street & Route 18

2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	15	155	10	45	105	35	15	385	50	115	530	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	14	16	16	14	16	11	11	16	11	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		197			310			393			488		
Travel Time (s)		4.5			7.0			8.9			11.1		
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86	
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	3%	2%	1%	2%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	195	0	0	210	0	18	524	0	134	633	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	21.0
Total Split (%)	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	26%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		5.0
Recall Mode	None	None		None	None		None	None		None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													4.0
Pedestrian Calls (#/hr)													8
v/c Ratio		0.41			0.48		0.08	0.60		0.45	0.71		
Control Delay		20.1			20.8		13.7	17.2		20.9	20.3		
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0		
Total Delay		20.1			20.8		13.7	17.2		20.9	20.3		
Queue Length 50th (ft)		43			44		2	78		18	104		
Queue Length 95th (ft)		130			134		20	#364		#131	#506		
Internal Link Dist (ft)		117			230			313			408		
Turn Bay Length (ft)													
Base Capacity (vph)		960			860		212	878		300	895		
Starvation Cap Reductn		0			0		0	0		0	0		
Spillback Cap Reductn		0			0		0	0		0	0		
Storage Cap Reductn		0			0		0	0		0	0		
Reduced v/c Ratio		0.20			0.24		0.08	0.60		0.45	0.71		

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 52.4
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Wood Street & Route 18

HCM Signalized Intersection Capacity Analysis
19: Wood Street & Route 18

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	155	10	45	105	35	15	385	50	115	530	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	14	16	16	14	16	11	11	16	11	11	16
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.98		1.00	1.00	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1986			1918		1745	1754		1728	1794	
Flt Permitted		0.97			0.88		0.23	1.00		0.33	1.00	
Satd. Flow (perm)		1925			1713		427	1754		601	1794	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86
Adj. Flow (vph)	16	168	11	51	119	40	18	464	60	134	616	17
RTOR Reduction (vph)	0	3	0	0	12	0	0	4	0	0	1	0
Lane Group Flow (vph)	0	192	0	0	198	0	18	520	0	134	632	0
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	3%	2%	1%	2%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		13.0			13.0		26.1	26.1		26.1	26.1	
Effective Green, g (s)		13.0			13.0		26.1	26.1		26.1	26.1	
Actuated g/C Ratio		0.23			0.23		0.46	0.46		0.46	0.46	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		438			390		195	802		275	820	
v/s Ratio Prot								0.30			c0.35	
v/s Ratio Perm		0.10			c0.12		0.04			0.22		
v/c Ratio		0.44			0.51		0.09	0.65		0.49	0.77	
Uniform Delay, d1		18.9			19.3		8.8	12.0		10.8	13.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.0			1.4		0.3	2.0		1.9	4.8	
Delay (s)		19.9			20.7		9.1	14.0		12.7	17.8	
Level of Service		B			C		A	B		B	B	
Approach Delay (s)		19.9			20.7			13.8			16.9	
Approach LOS		B			C			B			B	

Intersection Summary

HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
24: Nash Road & Church Street

2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	415	80	40	275	55	60	165	30	75	245	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	16	14	16	16	16	16
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1761			1229			1754			2421	
Travel Time (s)		40.0			27.9			39.9			55.0	
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.89	0.89	0.89	0.86	0.86	0.86
Heavy Vehicles (%)	1%	3%	1%	3%	3%	0%	0%	3%	3%	0%	4%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	726	0	0	406	0	0	286	0	0	546	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Minimum Split (s)	36.0	36.0		36.0	36.0		29.0	29.0		29.0	29.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	55.4%	55.4%	0.0%	55.4%	55.4%	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.92			0.48			0.61			0.92	
Control Delay		36.8			14.5			24.7			44.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		36.8			14.5			24.7			44.6	
Queue Length 50th (ft)		254			105			93			203	
Queue Length 95th (ft)		#418			175			166			#354	
Internal Link Dist (ft)		1681			1149			1674			2341	
Turn Bay Length (ft)												
Base Capacity (vph)		788			845			467			596	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.92			0.48			0.61			0.92	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 18 (28%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: Nash Road & Church Street

HCM Signalized Intersection Capacity Analysis
24: Nash Road & Church Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	415	80	40	275	55	60	165	30	75	245	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	16	14	16	16	16	16
Total Lost time (s)		6.0			6.0			7.0			7.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.98			0.96	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		2047			2047			1927			1984	
Flt Permitted		0.83			0.89			0.71			0.88	
Satd. Flow (perm)		1708			1831			1380			1763	
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.89	0.89	0.89	0.86	0.86	0.86
Adj. Flow (vph)	137	494	95	44	302	60	67	185	34	87	285	174
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	726	0	0	406	0	0	286	0	0	546	0
Heavy Vehicles (%)	1%	3%	1%	3%	3%	0%	0%	3%	3%	0%	4%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)		30.0			30.0			22.0			22.0	
Effective Green, g (s)		30.0			30.0			22.0			22.0	
Actuated g/C Ratio		0.46			0.46			0.34			0.34	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Lane Grp Cap (vph)		788			845			467			597	
v/s Ratio Prot												
v/s Ratio Perm		c0.43			0.22			0.21			c0.31	
v/c Ratio		0.92			0.48			0.61			0.91	
Uniform Delay, d1		16.4			12.1			17.9			20.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		17.8			2.0			5.9			20.9	
Delay (s)		34.2			14.1			23.8			41.5	
Level of Service		C			B			C			D	
Approach Delay (s)		34.2			14.1			23.8			41.5	
Approach LOS		C			B			C			D	

Intersection Summary

HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
28: Coggeshall Street & Route 18 SB

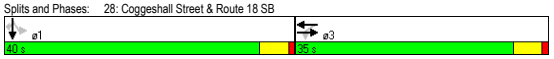
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	215	95	170	230	0	0	0	0	105	630	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	12	12	12	12	12	10	10
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		686			474			1008			501	
Travel Time (s)		15.6			10.8			22.9			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	4%	1%	1%	0%	0%	0%	0%	6%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	337	0	0	465	0	0	0	0	0	765	47
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Minimum Split (s)		35.0		35.0	35.0					40.0	40.0	40.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	40.0	40.0	40.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)		30.0		30.0	30.0					35.0	35.0	35.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.46			0.96						0.50	0.06
Control Delay		17.3			57.8						15.4	4.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		17.3			57.8						15.4	4.0
Queue Length 50th (ft)		99			205						124	0
Queue Length 95th (ft)		169			#365						172	16
Internal Link Dist (ft)		606			394			928			421	
Turn Bay Length (ft)												130
Base Capacity (vph)		727			483						1522	728
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.46			0.96						0.50	0.06

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 75
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 28: Coggeshall Street & Route 18 SB



HCM Signalized Intersection Capacity Analysis
28: Coggeshall Street & Route 18 SB

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	215	95	170	230	0	0	0	0	105	630	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	15	12	12	12	12	12	10	10
Total Lost time (s)		5.0			5.0						5.0	5.0
Lane Util. Factor		1.00			1.00						0.95	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.99	1.00
Satd. Flow (prot)		1763			2026						3262	1507
Flt Permitted		1.00			0.58						0.99	1.00
Satd. Flow (perm)		1763			1209						3262	1507
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	0	234	103	198	267	0	0	0	0	109	656	47
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	25
Lane Group Flow (vph)	0	316	0	0	465	0	0	0	0	0	765	22
Heavy Vehicles (%)	0%	3%	4%	1%	1%	0%	0%	0%	0%	6%	2%	0%
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Actuated Green, G (s)		30.0			30.0						35.0	35.0
Effective Green, g (s)		30.0			30.0						35.0	35.0
Actuated g/C Ratio		0.40			0.40						0.47	0.47
Clearance Time (s)		5.0			5.0						5.0	5.0
Lane Grp Cap (vph)		705			484						1522	703
v/s Ratio Prot		0.18										
v/s Ratio Perm					c0.38						0.23	0.01
v/c Ratio		0.45			0.96						0.50	0.03
Uniform Delay, d1		16.4			21.9						13.9	10.8
Progression Factor		1.00			1.00						1.00	1.00
Incremental Delay, d2		2.1			32.2						1.2	0.1
Delay (s)		18.5			54.2						15.1	10.9
Level of Service		B			D						B	B
Approach Delay (s)		18.5			54.2			0.0			14.9	
Approach LOS		B			D			A			B	

Intersection Summary

HCM Average Control Delay	27.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

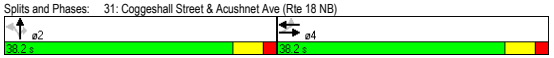
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	270	0	0	280	85	120	465	290	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	15	12	12	11	11	12	12	12
Storage Length (ft)	0		0	0		0	0		160	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		474			546			1002			363	
Travel Time (s)		10.8			12.4			22.8			8.3	
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	4%	3%	0%	0%	1%	1%	0%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	338	0	0	388	0	129	500	312	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Minimum Split (s)	38.2	38.2			38.2		38.2	38.2	38.2			
Total Split (s)	38.2	38.2	0.0	0.0	38.2	0.0	38.2	38.2	38.2	0.0	0.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		32.0	32.0	32.0			
Yellow Time (s)	4.2	4.2			4.2		4.2	4.2	4.2			
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.0	4.0	6.2	4.0	6.2	6.2	6.2	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.44			0.45		0.17	0.66	0.38			
Control Delay		18.2			17.0		14.7	23.1	3.4			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		18.2			17.0		14.7	23.1	3.4			
Queue Length 50th (ft)		111			119		37	185	0			
Queue Length 95th (ft)		179			192		71	289	44			
Internal Link Dist (ft)		394			466			922			283	
Turn Bay Length (ft)									160			
Base Capacity (vph)		763			854		756	754	823			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.44			0.45		0.17	0.66	0.38			

Intersection Summary

Area Type: Other
Cycle Length: 76.4
Actuated Cycle Length: 76.4
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 80
Control Type: Pretimed

Splits and Phases: 31: Coggeshall Street & Acushnet Ave (Rte 18 NB)



HCM Signalized Intersection Capacity Analysis
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	270	0	0	280	85	120	465	290	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	15	12	12	11	11	12	12	12
Total Lost time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00			
Frt		1.00			0.97		1.00	1.00	0.85			
Flt Protected		0.99			1.00		0.95	1.00	1.00			
Satd. Flow (prot)		2012			2005		1805	1801	1531			
Flt Permitted		0.90			1.00		0.95	1.00	1.00			
Satd. Flow (perm)		1821			2005		1805	1801	1531			
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	48	290	0	0	298	90	129	500	312	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	0	181	0	0	0
Lane Group Flow (vph)	0	338	0	0	374	0	129	500	131	0	0	0
Heavy Vehicles (%)	4%	3%	0%	0%	1%	1%	0%	2%	2%	0%	0%	0%
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		32.0			32.0		32.0	32.0	32.0			
Effective Green, g (s)		32.0			32.0		32.0	32.0	32.0			
Actuated g/C Ratio		0.42			0.42		0.42	0.42	0.42			
Clearance Time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Grp Cap (vph)		763			840		756	754	641			
v/s Ratio Prot					c0.19			c0.28				
v/s Ratio Perm		0.19					0.07		0.09			
v/c Ratio		0.44			0.45		0.17	0.66	0.20			
Uniform Delay, d1		15.8			15.9		13.9	17.9	14.1			
Progression Factor		1.00			1.00		1.00	1.00	1.00			
Incremental Delay, d2		1.9			1.7		0.5	4.6	0.7			
Delay (s)		17.7			17.6		14.4	22.4	14.8			
Level of Service		B			B		B	C	B			
Approach Delay (s)		17.7			17.6			18.8			0.0	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

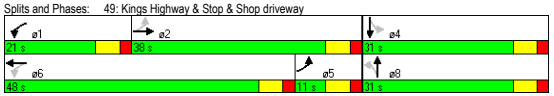
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	730	115	165	440	50	90	45	230	160	25	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			218			360			359	
Travel Time (s)		11.7			5.0			8.2			8.2	
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1092	0	0	690	0	0	430	0	0	399	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	13.0		11.0	13.0		13.0	13.0		19.0	19.0	
Total Split (s)	11.0	38.0	0.0	21.0	48.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	12.2%	42.2%	0.0%	23.3%	53.3%	0.0%	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%
Maximum Green (s)	5.0	32.0		15.0	42.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)										5.0	5.0	
Flash Dont Walk (s)										8.0	8.0	
Pedestrian Calls (#/hr)										0	0	
v/c Ratio		0.74			0.60			0.60			0.67	
Control Delay		13.6			10.9			11.4			16.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.6			10.9			11.4			16.3	
Queue Length 50th (ft)		113			61			23			31	
Queue Length 95th (ft)		#258			148			52			70	
Internal Link Dist (ft)		435			138			280			279	
Turn Bay Length (ft)												
Base Capacity (vph)		1467			1482			1274			1114	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.74			0.47			0.34			0.36	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 55.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 49: Kings Highway & Stop & Shop driveway



HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	730	115	165	440	50	90	45	230	160	25	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.99			0.91			0.93	
Flt Protected		0.99			0.99			0.99			0.98	
Satd. Flow (prot)		3488			3492			3213			3247	
Flt Permitted		0.71			0.55			0.77			0.67	
Satd. Flow (perm)		2494			1953			2495			2238	
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	183	785	124	174	463	53	106	53	271	180	28	191
RTOR Reduction (vph)	0	7	0	0	5	0	0	217	0	0	153	0
Lane Group Flow (vph)	0	1085	0	0	685	0	0	213	0	0	246	0
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		32.7			32.7			11.1			11.1	
Effective Green, g (s)		32.7			32.7			11.1			11.1	
Actuated g/C Ratio		0.59			0.59			0.20			0.20	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1462			1145			496			445	
v/s Ratio Prot												
v/s Ratio Perm		c0.44			0.35			0.09			c0.11	
v/c Ratio		0.74			0.60			0.43			0.55	
Uniform Delay, d1		8.5			7.4			19.6			20.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.8			0.6			0.2			0.8	
Delay (s)		10.3			7.9			19.8			21.0	
Level of Service		B			A			B			C	
Approach Delay (s)		10.3			7.9			19.8			21.0	
Approach LOS		B			A			B			C	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	55.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
91: Route 140 NB On/Off Ramps & Kings Highway

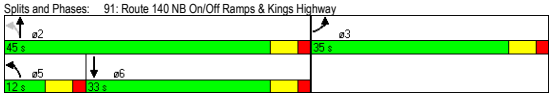
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	485	160	150	530	605	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	12	12	16
Storage Length (ft)	0	100	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				No
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			574	515	
Travel Time (s)	6.1			13.0	11.7	
Peak Hour Factor	0.92	0.92	0.83	0.83	0.79	0.79
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	701	0	0	820	886	0
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Detector Phase	3		5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	
Minimum Split (s)	13.0		11.0	13.0	13.0	
Total Split (s)	35.0	0.0	12.0	45.0	33.0	0.0
Total Split (%)	43.8%	0.0%	15.0%	56.3%	41.3%	0.0%
Maximum Green (s)	29.0		6.0	39.0	27.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	None		None	Min	Min	
v/c Ratio	0.94			0.86	0.55	
Control Delay	47.2			29.4	16.1	
Queue Delay	0.0			0.0	0.0	
Total Delay	47.2			29.4	16.1	
Queue Length 50th (ft)	340			175	152	
Queue Length 95th (ft)	#566			223	170	
Internal Link Dist (ft)	188			494	435	
Turn Bay Length (ft)						
Base Capacity (vph)	765			1068	1622	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.92			0.77	0.55	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 91: Route 140 NB On/Off Ramps & Kings Highway



HCM Signalized Intersection Capacity Analysis
91: Route 140 NB On/Off Ramps & Kings Highway

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	485	160	150	530	605	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.98	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1976			3520	3454	
Flt Permitted	0.96			0.58	1.00	
Satd. Flow (perm)	1976			2049	3454	
Peak-hour factor, PHF	0.92	0.92	0.83	0.83	0.79	0.79
Adj. Flow (vph)	527	174	181	639	766	120
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	701	0	0	820	886	0
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	28.5			34.9	34.9	
Effective Green, g (s)	28.5			34.9	34.9	
Actuated g/C Ratio	0.38			0.46	0.46	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	2.0			2.0	2.0	
Lane Grp Cap (vph)	747			948	1599	
v/s Ratio Prot	c0.35				0.26	
v/s Ratio Perm				c0.40		
v/c Ratio	0.94			0.86	0.55	
Uniform Delay, d1	22.6			18.1	14.6	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	19.0			8.0	0.2	
Delay (s)	41.6			26.2	14.9	
Level of Service	D			C	B	
Approach Delay (s)	41.6			26.2	14.9	
Approach LOS	D			C	B	

Intersection Summary

HCM Average Control Delay	26.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	75.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

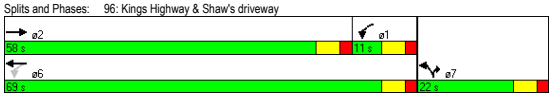
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	585	235	145	620	155	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	525			574	347	
Travel Time (s)	11.9			13.0	7.9	
Peak Hour Factor	0.91	0.91	0.96	0.96	0.89	0.89
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	901	0	0	797	174	107
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Detector Phase	2		1	6	7	7
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	7.0
Minimum Split (s)	13.0		11.0	13.0	13.0	13.0
Total Split (s)	58.0	0.0	11.0	69.0	22.0	22.0
Total Split (%)	63.7%	0.0%	12.1%	75.8%	24.2%	24.2%
Maximum Green (s)	52.0		5.0	63.0	16.0	16.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	Min		None	Min	None	None
v/c Ratio	0.48			0.66	0.49	0.27
Control Delay	6.9			11.0	22.2	6.7
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	6.9			11.0	22.2	6.7
Queue Length 50th (ft)	53			64	36	0
Queue Length 95th (ft)	106			134	101	31
Internal Link Dist (ft)	445			494	267	
Turn Bay Length (ft)						
Base Capacity (vph)	3337			2277	648	648
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.27			0.35	0.27	0.17

Intersection Summary

Area Type: Other
Cycle Length: 91
Actuated Cycle Length: 45.3
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 96: Kings Highway & Shaw's driveway



HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

2030 No-Build Conditions - PM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	585	235	145	620	155	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3406			3541	1787	1599
Flt Permitted	1.00			0.64	0.95	1.00
Satd. Flow (perm)	3406			2276	1787	1599
Peak-hour factor, PHF	0.91	0.91	0.96	0.96	0.89	0.89
Adj. Flow (vph)	643	258	151	646	174	107
RTOR Reduction (vph)	51	0	0	0	0	86
Lane Group Flow (vph)	850	0	0	797	174	21
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	24.1			24.1	8.9	8.9
Effective Green, g (s)	24.1			24.1	8.9	8.9
Actuated g/C Ratio	0.54			0.54	0.20	0.20
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	1824			1219	353	316
v/s Ratio Prot	0.25				c0.10	0.01
v/s Ratio Perm				c0.35		
v/c Ratio	0.47			0.65	0.49	0.07
Uniform Delay, d1	6.5			7.5	16.0	14.7
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			1.0	0.4	0.0
Delay (s)	6.5			8.4	16.4	14.7
Level of Service	A			A	B	B
Approach Delay (s)	6.5			8.4	15.8	
Approach LOS	A			A	B	

Intersection Summary

HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
104: Coggeshall Street & Belville Avenue

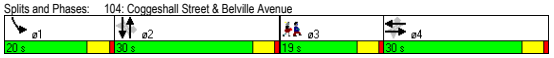
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	115	275	75	75	235	265	30	235	330	290	180	145	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	11	16	16	10	10	16	12	14	16	11	16	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		443			1111			850			178		
Travel Time (s)		10.1			25.3			19.3			4.0		
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	3%	6%	1%	1%	4%	3%	4%	1%	3%	3%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	506	0	0	330	282	0	294	367	0	669	0	
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt			
Protected Phases		4			4			2		1	2		3
Permitted Phases	4			4		4	2		2	2			
Detector Phase	4	4		4	4	4	2	2	2	1	2		
Switch Phase													
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		6.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0		19.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	30.0	30.0	30.0	30.0	20.0	30.0	0.0	19.0
Total Split (%)	30.3%	30.3%	0.0%	30.3%	30.3%	30.3%	30.3%	30.3%	30.3%	20.2%	30.3%	0.0%	19%
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	15.0	25.0		14.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		0.2
Recall Mode	Max	Max		Max	Max	Max	None	None	None	None	None		None
Walk Time (s)													6.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													7
v/c Ratio		0.52			0.59	0.37		0.47	0.42		0.76		
Control Delay		17.6			22.9	4.2		19.0	3.8		24.4		
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0		
Total Delay		17.6			22.9	4.2		19.0	3.8		24.4		
Queue Length 50th (ft)		64			87	0		72	0		93		
Queue Length 95th (ft)		161			#272	51		199	57		#264		
Internal Link Dist (ft)		363			1031			770			98		
Turn Bay Length (ft)													
Base Capacity (vph)		966			557	753		655	908		914		
Starvation Cap Reductn		0			0	0		0	0		0		
Spillback Cap Reductn		0			0	0		0	0		0		
Storage Cap Reductn		0			0	0		0	0		0		
Reduced v/c Ratio		0.52			0.59	0.37		0.45	0.40		0.73		

Intersection Summary

Area Type: Other
Cycle Length: 99
Actuated Cycle Length: 62.8
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 104: Coggeshall Street & Belville Avenue



HCM Signalized Intersection Capacity Analysis
104: Coggeshall Street & Belville Avenue

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	275	75	75	235	265	30	235	330	290	180	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	11	16	16	10	10	16	12	14	16	11	16
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		0.95	
Frt		0.98			1.00	0.85		1.00	0.85		0.96	
Flt Protected		0.99			0.99	1.00		0.99	1.00		0.98	
Satd. Flow (prot)		3266			1735	1449		1819	1706		3215	
Flt Permitted		0.71			0.78	1.00		0.89	1.00		0.67	
Satd. Flow (perm)		2356			1376	1449		1621	1706		2189	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	125	299	82	80	250	282	33	261	367	315	196	158
RTOR Reduction (vph)	0	14	0	0	0	175	0	0	234	0	32	0
Lane Group Flow (vph)	0	492	0	0	330	107	0	294	133	0	637	0
Heavy Vehicles (%)	1%	3%	6%	1%	1%	4%	3%	4%	1%	3%	3%	0%
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)		25.4			25.4	25.4		24.2	24.2		24.2	
Effective Green, g (s)		25.4			25.4	25.4		24.2	24.2		24.2	
Actuated g/C Ratio		0.38			0.38	0.38		0.36	0.36		0.36	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Grp Cap (vph)		896			523	551		587	618		793	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.24	0.07		0.18	0.08		c0.29	
v/c Ratio		0.55			0.63	0.19		0.50	0.22		0.80	
Uniform Delay, d1		16.2			16.9	13.9		16.6	14.7		19.2	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		2.4			5.7	0.8		0.9	0.2		6.2	
Delay (s)		18.6			22.6	14.6		17.5	15.0		25.4	
Level of Service		B			C	B		B	B		C	
Approach Delay (s)		18.6			18.9			16.1			25.4	
Approach LOS		B			B			B			C	

Intersection Summary

HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	66.8	Sum of lost time (s)	17.2
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
137: Hillman St & Pleasant Street

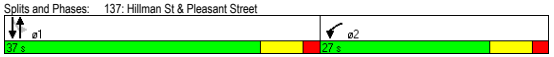
2030 No-Build Conditions - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	100	85	270	575	110	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	16	16	14
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	693		149			313
Travel Time (s)	15.8		3.4			7.1
Peak Hour Factor	0.77	0.77	0.94	0.94	0.73	0.73
Heavy Vehicles (%)	3%	6%	3%	3%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	240	0	899	0	0	630
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Minimum Split (s)	27.0		37.0		37.0	37.0
Total Split (s)	27.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	42.2%	0.0%	57.8%	0.0%	57.8%	57.8%
Maximum Green (s)	20.0		30.0		30.0	30.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	4.0	7.0	4.0	7.0	7.0
Lead/Lag	Lag		Lead		Lead	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes
v/c Ratio	0.38		0.47			0.62
Control Delay	14.1		4.3			16.0
Queue Delay	0.0		0.0			0.0
Total Delay	14.1		4.3			16.0
Queue Length 50th (ft)	50		32			91
Queue Length 95th (ft)	81		64			102
Internal Link Dist (ft)	613		69			233
Turn Bay Length (ft)						
Base Capacity (vph)	637		1899			1022
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.38		0.47			0.62

Intersection Summary

Area Type: Other
Cycle Length: 64
Actuated Cycle Length: 64
Offset: 35 (55%), Referenced to phase 2:WBL and 6:, Start of Green
Natural Cycle: 65
Control Type: Pretimed

Splits and Phases: 137: Hillman St & Pleasant Street



HCM Signalized Intersection Capacity Analysis
137: Hillman St & Pleasant Street

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	100	85	270	575	110	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	14	16	16	14
Total Lost time (s)	7.0		7.0			7.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.94		0.90			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1884		3357			3694
Flt Permitted	0.97		1.00			0.58
Satd. Flow (perm)	1884		3357			2180
Peak-hour factor, PHF	0.77	0.77	0.94	0.94	0.73	0.73
Adj. Flow (vph)	130	110	287	612	151	479
RTOR Reduction (vph)	47	0	325	0	0	0
Lane Group Flow (vph)	193	0	574	0	0	630
Heavy Vehicles (%)	3%	6%	3%	3%	3%	3%
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Actuated Green, G (s)	20.0		30.0			30.0
Effective Green, g (s)	20.0		30.0			30.0
Actuated g/C Ratio	0.31		0.47			0.47
Clearance Time (s)	7.0		7.0			7.0
Lane Grp Cap (vph)	589		1574			1022
v/s Ratio Prot	c0.10		0.17			
v/s Ratio Perm						c0.29
v/c Ratio	0.33		0.36			0.62
Uniform Delay, d1	16.8		10.9			12.7
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	1.5		0.7			2.8
Delay (s)	18.3		11.5			15.5
Level of Service	B		B			B
Approach Delay (s)	18.3		11.5			15.5
Approach LOS	B		B			B

Intersection Summary

HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
140: Mill Street & Pleasant St

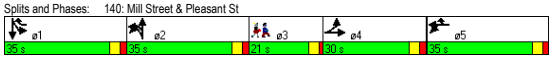
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	260	195	360	205	240	25	135	450	105	85	325	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	16	11	12	10	16	10	12	14	16	14	16	
Storage Length (ft)	0		0		0		100		0	0		0	
Storage Lanes	1		1		1		1		0	0		0	
Taper Length (ft)	25		25		25		25		25	25		25	
Right Turn on Red					No				Yes				
Link Speed (mph)		30		30				30			30		
Link Distance (ft)		168		308				709			499		
Travel Time (s)		3.8		7.0				16.1			11.3		
Peak Hour Factor	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83	
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	271	203	387	220	258	0	184	638	0	0	554	0	
Turn Type	Split		Split		pt+ov	Split	Split			Split			
Protected Phases	4	4	5	5	1 5	2	2	2		1	1		3
Permitted Phases													
Detector Phase	4	4	5	5	1 5	2	2	2		1	1		
Switch Phase													
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0		10.0
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	12.0		21.0
Total Split (s)	30.0	30.0	35.0	35.0	70.0	35.0	35.0	35.0	0.0	35.0	35.0	0.0	21.0
Total Split (%)	19.2%	19.2%	22.4%	22.4%	44.9%	22.4%	22.4%	22.4%	0.0%	22.4%	22.4%	0.0%	13%
Maximum Green (s)	25.0	25.0	30.0	30.0		30.0	30.0	30.0		30.0	30.0		17.0
Yellow Time (s)	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lag	Lag				Lag	Lag	Lag		Lead	Lead		Lead
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0		0.2
Recall Mode	Max	Max	Max	Max		Max	Max	Max		Max	Max		None
Walk Time (s)													10.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													16
v/c Ratio	0.84	0.54	1.10	0.56	0.39		0.54	0.88			0.70		
Control Delay	80.1	61.7	127.8	58.5	29.7		59.1	67.8			59.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0		
Total Delay	80.1	61.7	127.8	58.5	29.7		59.1	67.8			59.2		
Queue Length 50th (ft)	230	162	~365	171	139		143	276			235		
Queue Length 95th (ft)	#450	285	#690	301	269		250	#432			322		
Internal Link Dist (ft)		88		228				629			419		
Turn Bay Length (ft)							100						
Base Capacity (vph)	324	374	353	396	666		340	729			787		
Starvation Cap Reductn	0	0	0	0	0		0	0			0		
Spillback Cap Reductn	0	0	0	0	0		0	0			0		
Storage Cap Reductn	0	0	0	0	0		0	0			0		
Reduced v/c Ratio	0.84	0.54	1.10	0.56	0.39		0.54	0.88			0.70		

Intersection Summary

Area Type: Other
Cycle Length: 156
Actuated Cycle Length: 143.4
Natural Cycle: 130
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 140: Mill Street & Pleasant St



HCM Signalized Intersection Capacity Analysis
140: Mill Street & Pleasant St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	195	360	205	240	25	135	450	105	85	325	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	11	12	10	16	10	12	14	16	14	16
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	
Frt	1.00	1.00	1.00	1.00	0.85		1.00	0.97			0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1847	2132	1678	1881	1463		1617	3405			3741	
Flt Permitted	0.95	1.00	0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1847	2132	1678	1881	1463		1617	3405			3741	
Peak-hour factor, PHF	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83
Adj. Flow (vph)	271	203	387	220	258	29	155	517	121	102	392	60
RTOR Reduction (vph)	0	0	0	0	0	0	0	13	0	0	0	0
Lane Group Flow (vph)	271	203	387	220	258	0	184	625	0	0	554	0
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%
Turn Type	Split		Split		pt+ov	Split	Split			Split		
Protected Phases	4	4	5	5	1 5	2	2	2		1	1	
Permitted Phases												
Actuated Green, G (s)	25.1	25.1	30.2	30.2	65.4		30.2	30.2			30.2	
Effective Green, g (s)	25.1	25.1	30.2	30.2	65.4		30.2	30.2			30.2	
Actuated g/C Ratio	0.17	0.17	0.21	0.21	0.45		0.21	0.21			0.21	
Clearance Time (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Vehicle Extension (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Lane Grp Cap (vph)	318	367	347	389	655		334	704			774	
v/s Ratio Prot	c0.15	0.10	c0.23	0.12	0.18		0.11	c0.18			c0.15	
v/s Ratio Perm												
v/c Ratio	0.85	0.55	1.12	0.57	0.39		0.55	0.89			0.72	
Uniform Delay, d1	58.7	55.3	57.9	52.0	27.0		51.8	56.3			53.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	24.0	5.9	83.2	5.8	1.8		6.4	15.5			5.6	
Delay (s)	82.6	61.2	141.1	57.9	28.8		58.2	71.8			59.5	
Level of Service	F	E	F	E	C		E	E			E	
Approach Delay (s)		73.5		86.4				68.8			59.5	
Approach LOS		E		F				E			E	

Intersection Summary

HCM Average Control Delay	73.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	146.0	Sum of lost time (s)	30.3
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
174: Union Street & Route 18

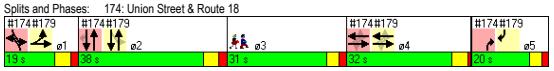
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	340	30	60	70	35	15	90	980	20	35	1150	145	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	16	16	16	16	16	11	11	11	10	11	11	
Storage Length (ft)	0		0	0		0	150		225	150		225	
Storage Lanes	0		0	0		0	1		1	1		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			No			No			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		432			82			365			2491		
Travel Time (s)		9.8			1.9			8.3			56.6		
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99	
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	463	0	0	141	0	99	1077	22	35	1162	146	
Turn Type	Perm			Perm			Prot		custom	Prot		Perm	
Protected Phases		4			4		1	2	5	1	2		3
Permitted Phases	4			4								2	
Detector Phase	4	4		4	4		1	2	5	1	2	2	
Switch Phase													
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	7.0	4.0	4.0	7.0	7.0	17.0
Minimum Split (s)	12.0	12.0		12.0	12.0		10.0	13.0	9.0	10.0	13.0	13.0	31.0
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	19.0	38.0	20.0	19.0	38.0	38.0	31.0
Total Split (%)	22.9%	22.9%	0.0%	22.9%	22.9%	0.0%	13.6%	27.1%	14.3%	13.6%	27.1%	27.1%	22%
Maximum Green (s)	27.0	27.0		27.0	27.0		13.0	32.0	15.0	13.0	32.0	32.0	26.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	6.0	6.0	5.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lag		Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0	0.2
Recall Mode	None	None		None	None		None	None	None	None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													14
v/c Ratio		1.41			0.34		0.59	1.17	0.12	0.25	1.26	0.30	
Control Delay		237.8			82.9		69.6	125.1	54.5	59.4	161.2	20.9	
Queue Delay		0.0			0.0		0.0	107.5	0.2	0.0	0.0	0.0	
Total Delay		237.8			82.9		69.6	232.6	54.8	59.4	161.2	20.9	
Queue Length 50th (ft)		~418			95		66	~445	14	22	~510	34	
Queue Length 95th (ft)		#835			195		#158	#827	47	67	#912	114	
Internal Link Dist (ft)		352			2			285			2411		
Turn Bay Length (ft)							150		225	150		225	
Base Capacity (vph)		328			412		193	924	202	161	924	484	
Starvation Cap Reductn		0			0		0	159	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	46	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	0	
Reduced v/c Ratio		1.41			0.34		0.51	1.41	0.14	0.22	1.26	0.30	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 118.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 174: Union Street & Route 18



HCM Signalized Intersection Capacity Analysis
174: Union Street & Route 18

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	30	60	70	35	15	90	980	20	35	1150	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.98			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.96			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		2012			2033		1728	3355	1561	1440	3355	1546
Flt Permitted		0.67			0.85		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1411			1773		1728	3355	1561	1440	3355	1546
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99
Adj. Flow (vph)	366	32	65	82	41	18	99	1077	22	35	1162	146
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	58
Lane Group Flow (vph)	0	463	0	0	141	0	99	1077	22	35	1162	88
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)		27.6			27.6		11.6	32.7	13.8	11.6	32.7	32.7
Effective Green, g (s)		27.6			27.6		11.6	32.7	13.8	11.6	32.7	32.7
Actuated g/C Ratio		0.23			0.23		0.10	0.27	0.11	0.10	0.27	0.27
Clearance Time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)		5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		321			403		165	903	177	137	903	416
v/s Ratio Prot							c0.06	0.32	c0.01	0.02	c0.35	
v/s Ratio Perm		c0.33			0.08							0.06
v/c Ratio		1.44			0.35		0.60	1.19	0.12	0.26	1.29	0.21
Uniform Delay, d1		46.9			39.4		52.7	44.4	48.4	50.9	44.4	34.4
Progression Factor		1.00			1.89		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		215.9			0.9		6.9	97.7	0.4	1.3	137.5	0.3
Delay (s)		262.9			75.6		59.7	142.1	48.8	52.3	181.9	34.7
Level of Service		F			E		E	F	D	D	F	C
Approach Delay (s)		262.9			75.6			133.5			162.5	
Approach LOS		F			E			F			F	

Intersection Summary

HCM Average Control Delay	162.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	121.5	Sum of lost time (s)	35.8
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
179: Union Street & McArthur Drive

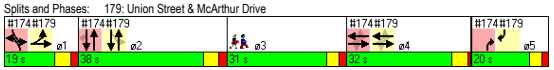
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø3
Lane Configurations													
Volume (vph)	45	5	35	0	15	5	0	200	5	5	245	105	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	16	16	16	16	15	16	16	16	16	16	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			No			Yes			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		82			609			920			687		
Travel Time (s)		1.9			13.8			20.9			15.6		
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83	
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	95	0	0	27	0	0	297	0	0	301	127	
Turn Type	pm+pt			Perm						Perm		custom	
Protected Phases	1	1 4			4			2			2	5	3
Permitted Phases	1 4			4						2			
Detector Phase	1	1 4		4	4			2		2	2	5	
Switch Phase													
Minimum Initial (s)	4.0			7.0	7.0			7.0		7.0	7.0	4.0	17.0
Minimum Split (s)	10.0			12.0	12.0			13.0		13.0	13.0	9.0	31.0
Total Split (s)	19.0	51.0	0.0	32.0	32.0	0.0	0.0	38.0	0.0	38.0	38.0	20.0	31.0
Total Split (%)	13.6%	36.4%	0.0%	22.9%	22.9%	0.0%	0.0%	27.1%	0.0%	27.1%	27.1%	14.3%	22%
Maximum Green (s)	13.0			27.0	27.0			32.0		32.0	32.0	15.0	26.0
Yellow Time (s)	4.0			4.0	4.0			4.0		4.0	4.0	3.0	3.0
All-Red Time (s)	2.0			1.0	1.0			2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	5.0	
Lead/Lag	Lead			Lag	Lag			Lag		Lag	Lag		Lead
Lead-Lag Optimize?	Yes			Yes	Yes			Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0			5.0	5.0			4.0		4.0	4.0	4.0	0.2
Recall Mode	None			None	None			None		None	None	None	None
Walk Time (s)													17.0
Flash Dont Walk (s)													9.0
Pedestrian Calls (#/hr)													14
v/c Ratio		0.18			0.06			0.53			0.61	0.68	
Control Delay		7.2			34.9			44.1			47.4	72.4	
Queue Delay		0.0			0.0			0.0			0.0	670.9	
Total Delay		7.2			34.9			44.1			47.4	743.3	
Queue Length 50th (ft)		20			11			170			177	84	
Queue Length 95th (ft)		m34			35			253			331	#184	
Internal Link Dist (ft)		2			529			840			607		
Turn Bay Length (ft)												50	
Base Capacity (vph)		567			446			557			490	206	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			7			0			0	174	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.17			0.06			0.53			0.61	3.97	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 118.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 179: Union Street & McArthur Drive



HCM Signalized Intersection Capacity Analysis
179: Union Street & McArthur Drive

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	5	35	0	15	5	0	200	5	5	245	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.94			0.96			1.00			1.00	0.85
Flt Protected		0.97			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1833			1894			2019			1793	1599
Flt Permitted		0.86			1.00			1.00			0.99	1.00
Satd. Flow (perm)		1615			1894			2019			1781	1599
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83
Adj. Flow (vph)	50	6	39	0	20	7	0	290	7	6	295	127
RTOR Reduction (vph)	0	0	0	0	5	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	95	0	0	22	0	0	296	0	0	301	127
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		39.2			27.6			32.7			32.7	13.8
Effective Green, g (s)		39.2			27.6			32.7			32.7	13.8
Actuated g/C Ratio		0.32			0.23			0.27			0.27	0.11
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		542			430			543			479	182
v/s Ratio Prot		c0.02			0.01			0.15				c0.08
v/s Ratio Perm		c0.04									c0.17	
v/c Ratio		0.18			0.05			0.55			0.63	0.70
Uniform Delay, d1		29.5			36.7			38.0			39.1	51.8
Progression Factor		0.33			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.2			0.1			1.4			2.9	11.9
Delay (s)		9.9			36.8			39.4			42.0	63.7
Level of Service		A			D			D			D	E
Approach Delay (s)		9.9			36.8			39.4			48.4	
Approach LOS		A			D			D			D	

Intersection Summary

HCM Average Control Delay	40.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	121.5	Sum of lost time (s)	36.8
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
9: Tarkiln Hill Rd & Kings Highway

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	50	15	30	1090	640	160
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	62	19	33	1198	711	178
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				393	611	
pX, platoon unblocked	0.72					
vC, conflicting volume	2064	800	889			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2288	800	889			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	95	96			
cM capacity (veh/h)	30	387	762			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	81	1231	889
Volume Left	62	33	0
Volume Right	19	0	178
cSH	38	762	1700
Volume to Capacity	2.16	0.04	0.52
Queue Length 95th (ft)	222	3	0
Control Delay (s)	762.8	1.7	0.0
Lane LOS	F	A	
Approach Delay (s)	762.8	1.7	0.0
Approach LOS	F		

Intersection Summary			
Average Delay		29.1	
Intersection Capacity Utilization		91.9%	ICU Level of Service F
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
16: Park Avenue & Church Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	165	325	15	0	35	0	485	20	5	310	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.80	0.80	0.80	0.85	0.85	0.85	0.79	0.79	0.79
Hourly flow rate (vph)	5	176	346	19	0	44	0	571	24	6	392	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											176	
pX, platoon unblocked	0.84	0.84	0.84	0.84	0.84		0.84					
vC, conflicting volume	1031	999	392	1421	987	582	392			594		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	939	900	174	1405	886	582	174			594		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	25	52	4	100	91	100			99		
cM capacity (veh/h)	187	233	726	20	237	511	1182			992		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	527	62	594	399
Volume Left	5	19	0	6
Volume Right	346	44	24	0
cSH	418	60	1700	992
Volume to Capacity	1.26	1.04	0.35	0.01
Queue Length 95th (ft)	559	125	0	0
Control Delay (s)	163.0	242.7	0.0	0.2
Lane LOS	F	F		A
Approach Delay (s)	163.0	242.7	0.0	0.2
Approach LOS	F	F		

Intersection Summary			
Average Delay		63.9	
Intersection Capacity Utilization		62.5%	ICU Level of Service B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
17: Irvington Street & Church Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	0	25	5	15	10	380	0	0	475	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.66	0.66	0.66	0.92	0.92	0.92	0.91	0.91	0.91
Hourly flow rate (vph)	7	0	0	38	8	23	11	413	0	0	522	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	986	960	525	960	962	413	527			413		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	986	960	525	960	962	413	527			413		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.3			2.2		
p0 queue free %	97	100	100	84	97	96	99			100		
cM capacity (veh/h)	214	256	557	232	255	628	995			1157		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	7	68	424	527
Volume Left	7	38	11	0
Volume Right	0	23	0	5
cSH	214	298	995	1700
Volume to Capacity	0.03	0.23	0.01	0.31
Queue Length 95th (ft)	3	22	1	0
Control Delay (s)	22.4	20.6	0.3	0.0
Lane LOS	C	C	A	
Approach Delay (s)	22.4	20.6	0.3	0.0
Approach LOS	C	C		

Intersection Summary				
Average Delay		1.7		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	405	40	50	330	45	25	135	55	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.79	0.79	0.79	0.92	0.92	0.92
Hourly flow rate (vph)	108	435	43	54	355	48	32	171	70	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			443							
pX, platoon unblocked	0.93			0.91			0.95	0.95	0.91	0.95	0.95	0.93
vC, conflicting volume	403			478			1159	1183	457	1314	1180	379
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	317			379			967	993	356	1131	990	291
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	91			95			84	15	89	100	100	100
cM capacity (veh/h)	1152			1065			199	200	615	39	203	698

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	586	457	272
Volume Left	108	54	32
Volume Right	43	48	70
cSH	1152	1065	242
Volume to Capacity	0.09	0.05	1.13
Queue Length 95th (ft)	8	4	304
Control Delay (s)	2.4	1.5	139.3
Lane LOS	A	A	F
Approach Delay (s)	2.4	1.5	139.3
Approach LOS			F

Intersection Summary				
Average Delay		30.4		
Intersection Capacity Utilization	64.2%	ICU Level of Service	C	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
54: Rt 18 SB Exit Ramp & Purchase St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	195	5	50	5	450	0	0	265	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	212	5	54	5	489	0	0	288	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								823				
pX, platoon unblocked												
vC, conflicting volume	845	788	288	788	788	489	288			489		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	845	788	288	788	788	489	288			489		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	31	98	91	100			100		
cM capacity (veh/h)	252	322	751	308	322	579	1274			1074		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	272	495	288
Volume Left	0	212	5	0
Volume Right	0	54	0	0
cSH	1700	340	1274	1700
Volume to Capacity	0.00	0.80	0.00	0.17
Queue Length 95th (ft)	0	167	0	0
Control Delay (s)	0.0	46.9	0.1	0.0
Lane LOS	A	E	A	
Approach Delay (s)	0.0	46.9	0.1	0.0
Approach LOS	A	E		

Intersection Summary				
Average Delay		12.2		
Intersection Capacity Utilization	48.5%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	135	10	20	145	105	20	325	75	110	230	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.83	0.83	0.83	0.94	0.94	0.94
Hourly flow rate (vph)	6	153	11	23	165	119	24	392	90	117	245	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	170	307	506	372
Volume Left (vph)	6	23	24	117
Volume Right (vph)	11	119	90	11
Hadj (s)	0.01	-0.20	-0.03	0.12
Departure Headway (s)	8.1	7.3	6.8	7.2
Degree Utilization, x	0.38	0.63	0.95	0.75
Capacity (veh/h)	399	468	526	482
Control Delay (s)	16.1	21.9	53.4	28.5
Approach Delay (s)	16.1	21.9	53.4	28.5
Approach LOS	C	C	F	D

Intersection Summary				
Delay		34.7		
HCM Level of Service		D		
Intersection Capacity Utilization		74.6%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
72: Weld St & Purchase St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	0	45	90	120	30	95	355	0	0	240	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.86	0.86	0.86	0.94	0.94	0.94	0.90	0.90	0.90
Hourly flow rate (vph)	28	0	51	105	140	35	101	378	0	0	267	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	968	863	283	914	880	378	300			378		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	968	863	283	914	880	378	300			378		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	76	100	93	53	47	95	92			100		
cM capacity (veh/h)	121	271	744	222	264	650	1267			1192		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	80	174	105	479	300
Volume Left	28	105	0	101	0
Volume Right	51	0	35	0	33
cSH	261	237	329	1267	1700
Volume to Capacity	0.30	0.74	0.32	0.08	0.18
Queue Length 95th (ft)	31	127	33	6	0
Control Delay (s)	24.7	53.3	21.0	2.4	0.0
Lane LOS	C	F	C	A	
Approach Delay (s)	24.7	41.2		2.4	0.0
Approach LOS	C	E			

Intersection Summary			
Average Delay		12.8	
Intersection Capacity Utilization		62.8%	ICU Level of Service B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
74: Logan St & Purchase St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	60	0	70	0	380	115	60	310	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.85	0.85	0.85	0.96	0.96	0.96	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	0	71	0	82	0	396	120	64	330	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	996	973	330	913	913	456	330			516		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	996	973	330	913	913	456	330			516		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	71	100	86	100			94		
cM capacity (veh/h)	185	238	716	242	258	605	1241			1025		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	153	516	394
Volume Left	0	71	0	64
Volume Right	0	82	120	0
cSH	1700	357	1241	1025
Volume to Capacity	0.00	0.43	0.00	0.06
Queue Length 95th (ft)	0	52	0	5
Control Delay (s)	0.0	22.4	0.0	2.0
Lane LOS	A	C		A
Approach Delay (s)	0.0	22.4	0.0	2.0
Approach LOS	A	C		

Intersection Summary			
Average Delay		4.0	
Intersection Capacity Utilization		64.2%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
75: Logan St & North Front Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	15	10	10	20	45	5	205	5	10	135	45
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.61	0.61	0.61	0.92	0.92	0.92	0.88	0.88	0.88
Hourly flow rate (vph)	161	17	11	16	33	74	5	223	5	11	153	51
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											720	
pX, platoon unblocked												
vC, conflicting volume	528	441	179	458	464	226	205			228		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	528	441	179	458	464	226	205			228		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	59	97	99	97	93	91	100			99		
cM capacity (veh/h)	393	507	869	492	492	819	1379			1352		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	190	123	234	216
Volume Left	161	16	5	11
Volume Right	11	74	5	51
cSH	415	647	1379	1352
Volume to Capacity	0.46	0.19	0.00	0.01
Queue Length 95th (ft)	58	17	0	1
Control Delay (s)	20.8	11.9	0.2	0.5
Lane LOS	C	B	A	A
Approach Delay (s)	20.8	11.9	0.2	0.5
Approach LOS	C	B		

Intersection Summary				
Average Delay		7.3		
Intersection Capacity Utilization		37.4%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
77: Route 140 On/Off Ramps & Mt. Pleasant Street

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	255	0	250	405	70	495
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.95	0.95	0.68	0.68
Hourly flow rate (vph)	290	0	263	426	103	728
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			877			
pX, platoon unblocked						
vC, conflicting volume	1410	476			263	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1410	476			263	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	0	100			92	
cM capacity (veh/h)	140	587			1278	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	290	689	831
Volume Left	290	0	103
Volume Right	0	426	0
cSH	140	1700	1278
Volume to Capacity	2.08	0.41	0.08
Queue Length 95th (ft)	586	0	7
Control Delay (s)	561.0	0.0	2.0
Lane LOS	F		A
Approach Delay (s)	561.0	0.0	2.0
Approach LOS	F		

Intersection Summary				
Average Delay		90.7		
Intersection Capacity Utilization		92.0%	ICU Level of Service	F
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
126: Logan St & Acushnet Ave.

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	135	25	25	85	0	40	15	25	0	5	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.61	0.61	0.61	0.93	0.93	0.93	0.75	0.75	0.75
Hourly flow rate (vph)	16	145	27	41	139	0	43	16	27	0	7	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	195	139	10	225	129	30	13			43		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	195	139	10	225	129	30	13			43		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	80	97	93	81	100	97			100		
cM capacity (veh/h)	644	732	1054	588	739	1051	1599			1579		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	188	180	86	13
Volume Left	16	41	43	0
Volume Right	27	0	27	7
cSH	756	698	1599	1579
Volume to Capacity	0.25	0.26	0.03	0.00
Queue Length 95th (ft)	25	26	2	0
Control Delay (s)	11.3	11.9	3.8	0.0
Lane LOS	B	B	A	
Approach Delay (s)	11.3	11.9	3.8	0.0
Approach LOS	B	B		

Intersection Summary				
Average Delay		9.9		
Intersection Capacity Utilization	29.4%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
130: Herman Melville Boulevard & McArthur Drive

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	140	70	155	95	30	175
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.95	0.95	0.73	0.73
Hourly flow rate (vph)	184	92	163	100	41	240
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	535	213			263	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	535	213			263	
tC, single (s)	6.4	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.3	
p0 queue free %	62	89			97	
cM capacity (veh/h)	486	807			1256	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	276	263	281
Volume Left	184	0	41
Volume Right	92	100	0
cSH	560	1700	1256
Volume to Capacity	0.49	0.15	0.03
Queue Length 95th (ft)	68	0	3
Control Delay (s)	17.5	0.0	1.4
Lane LOS	C		A
Approach Delay (s)	17.5	0.0	1.4
Approach LOS	C		

Intersection Summary				
Average Delay		6.4		
Intersection Capacity Utilization	46.9%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
136: Hillman St & Acushnet Ave.

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	45	150	190	30	55	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.87	0.87	0.77	0.77
Hourly flow rate (vph)	54	181	218	34	71	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	582	110	149			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	582	110	149			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	87	81	85			
cM capacity (veh/h)	405	932	1414			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	235	253	149
Volume Left	54	218	0
Volume Right	181	0	78
cSH	717	1414	1700
Volume to Capacity	0.33	0.15	0.09
Queue Length 95th (ft)	36	14	0
Control Delay (s)	12.5	7.1	0.0
Lane LOS	B	A	
Approach Delay (s)	12.5	7.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	37.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
147: Wamsutta St & Acushnet Ave.

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	15	15	70	15	5	50
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.72	0.72	0.63	0.63
Hourly flow rate (vph)	19	19	97	21	8	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	203	108			97	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	203	108			97	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	98			99	
cM capacity (veh/h)	786	952			1509	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	37	118	87
Volume Left	19	0	8
Volume Right	19	21	0
cSH	861	1700	1509
Volume to Capacity	0.04	0.07	0.01
Queue Length 95th (ft)	3	0	0
Control Delay (s)	9.4	0.0	0.7
Lane LOS	A		A
Approach Delay (s)	9.4	0.0	0.7
Approach LOS	A		

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
148: Wamsutta St & North Front St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	0	5	10	0	20	10	175	10	5	155	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.68	0.68	0.68	0.63	0.63	0.63	0.90	0.90	0.90	0.82	0.82	0.82
Hourly flow rate (vph)	22	0	7	16	0	32	11	194	11	6	189	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	467	441	201	443	448	200	213			206		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	467	441	201	443	448	200	213			206		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.4	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	95	100	99	97	100	96	99			100		
cM capacity (veh/h)	484	507	845	519	503	807	1369			1378		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	29	48	217	220
Volume Left	22	16	11	6
Volume Right	7	32	11	24
cSH	542	681	1369	1378
Volume to Capacity	0.05	0.07	0.01	0.00
Queue Length 95th (ft)	4	6	1	0
Control Delay (s)	12.0	10.7	0.5	0.2
Lane LOS	B	B	A	A
Approach Delay (s)	12.0	10.7	0.5	0.2
Approach LOS	B	B		

Intersection Summary				
Average Delay		2.0		
Intersection Capacity Utilization		24.4%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
182: McArthur Blvd & McArthur Dr-Leonard's Wharf

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	155	10	0	0	20	10	15	20	0	15	10	265
Peak Hour Factor	0.81	0.81	0.81	0.83	0.83	0.83	0.51	0.51	0.51	0.85	0.85	0.85
Hourly flow rate (vph)	191	12	0	0	24	12	29	39	0	18	12	312

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	204	36	69	341
Volume Left (vph)	191	0	29	18
Volume Right (vph)	0	12	0	312
Hadj (s)	0.30	-0.13	0.69	-0.41
Departure Headway (s)	5.2	5.0	5.6	4.2
Degree Utilization, x	0.29	0.05	0.11	0.40
Capacity (veh/h)	646	637	595	806
Control Delay (s)	10.4	8.3	9.3	10.1
Approach Delay (s)	10.4	8.3	9.3	10.1
Approach LOS	B	A	A	B

Intersection Summary				
Delay		10.0		
HCM Level of Service		A		
Intersection Capacity Utilization		40.3%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
184: McArthur Blvd & McArthur Dr

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	270	30	0	40	0	165	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.82	0.82	0.82	0.25	0.25	0.25
Hourly flow rate (vph)	0	0	0	325	36	0	49	0	201	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	216	299	0	198	198	101	0			201		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216	299	0	198	198	101	0			201		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	100	100	56	95	100	97			100		
cM capacity (veh/h)	698	598	1091	736	680	960	1591			1383		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	361	250	0
Volume Left	325	49	0
Volume Right	0	201	0
cSH	730	1591	1700
Volume to Capacity	0.49	0.03	0.00
Queue Length 95th (ft)	69	2	0
Control Delay (s)	14.7	1.6	0.0
Lane LOS	B	A	
Approach Delay (s)	14.7	1.6	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		9.3	
Intersection Capacity Utilization		35.6%	ICU Level of Service A
Analysis Period (min)		15	

Taunton

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

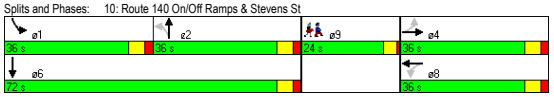
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	5	5	0	10	5	140	5	565	75	160	65	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	13	16	12	12	16	12	12	16	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	200		0	
Storage Lanes	0		0	0		0	0		0	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		819			376			787			471		
Travel Time (s)		18.6			8.5			17.9			10.7		
Peak Hour Factor	0.45	0.45	0.45	0.84	0.84	0.84	0.85	0.85	0.85	0.84	0.84	0.84	
Heavy Vehicles (%)	0%	0%	0%	33%	0%	3%	0%	7%	13%	11%	4%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	22	0	0	185	0	0	759	0	190	89	0	
Turn Type	Perm			Perm			Perm			Prot			
Protected Phases		4			8			2		1	6		9
Permitted Phases	4			8			2						
Detector Phase	4	4		8	8		2	2		1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		4.0
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		24.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0	36.0	72.0	0.0	24.0
Total Split (%)	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	54.5%	0.0%	18%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	66.0		20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag							Lag	Lag		Lead			
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		3.0
Recall Mode	None	None		None	None		None	None		None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.07			0.41			0.56		0.42	0.07		
Control Delay		23.4			9.0			14.4		24.8	3.1		
Queue Delay		0.0			0.0			0.0		0.0	0.0		
Total Delay		23.4			9.0			14.4		24.8	3.1		
Queue Length 50th (ft)		3			2			93		29	7		
Queue Length 95th (ft)		6			24			144		53	17		
Internal Link Dist (ft)		739			296			707			391		
Turn Bay Length (ft)										200			
Base Capacity (vph)		1502			1544			1661		1663	1800		
Starvation Cap Reductn		0			0			0		0	0		
Spillback Cap Reductn		0			0			0		0	0		
Storage Cap Reductn		0			0			0		0	0		
Reduced v/c Ratio		0.01			0.12			0.46		0.11	0.05		

Intersection Summary

Area Type: Other
Cycle Length: 132
Actuated Cycle Length: 57
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Route 140 On/Off Ramps & Stevens St



HCM Signalized Intersection Capacity Analysis
10: Route 140 On/Off Ramps & Stevens St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	5	0	10	5	140	5	565	75	160	65	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	16	12	12	16	12	12	16	12	12	12
Total Lost time (s)		6.0			6.0			6.0		6.0	6.0	
Lane Util. Factor		0.95			0.95			0.95		0.97	1.00	
Frt		1.00			0.86			0.98		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		3639			2967			3294		3155	1799	
Flt Permitted		0.76			0.93			0.95		0.95	1.00	
Satd. Flow (perm)		2851			2778			3142		3155	1799	
Peak-hour factor, PHF	0.45	0.45	0.45	0.84	0.84	0.84	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	11	11	0	12	6	167	6	665	88	190	77	12
RTOR Reduction (vph)	0	0	0	0	149	0	0	6	0	0	3	0
Lane Group Flow (vph)	0	22	0	0	36	0	0	753	0	190	86	0
Heavy Vehicles (%)	0%	0%	0%	33%	0%	3%	0%	7%	13%	11%	4%	0%
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		6.3			6.3			24.5		8.2	38.7	
Effective Green, g (s)		6.3			6.3			24.5		8.2	38.7	
Actuated g/C Ratio		0.11			0.11			0.43		0.14	0.68	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		315			307			1351		454	1221	
v/s Ratio Prot										c0.06	0.05	
v/s Ratio Perm		0.01			c0.01			c0.24				
v/c Ratio		0.07			0.12			0.56		0.42	0.07	
Uniform Delay, d1		22.7			22.8			12.2		22.2	3.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.0			0.1			0.3		0.2	0.0	
Delay (s)		22.8			22.9			12.5		22.5	3.1	
Level of Service		C			C			B		C	A	
Approach Delay (s)		22.8			22.9			12.5			16.3	
Approach LOS		C			C			B			B	

Intersection Summary

HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
18: Galleria Mall Entrance & County St

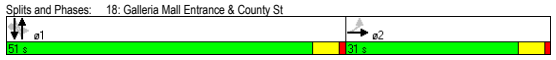
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	10	10	0	0	0	5	110	0	60	55	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	14	12	12	12	12	12	16	12	12	16
Storage Length (ft)	0		0	0		0	200		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			269			674			311	
Travel Time (s)		9.0			6.1			15.3			7.1	
Peak Hour Factor	0.83	0.83	0.83	0.77	0.77	0.77	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles (%)	41%	25%	38%	0%	0%	0%	36%	4%	0%	13%	8%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	0	0	0	135	0	0	132	92
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Detector Phase	2	2					1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0					8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	13.0	13.0					13.0	13.0		13.0	13.0	13.0
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0	51.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%	62.2%	62.2%	62.2%
Maximum Green (s)	26.0	26.0					46.0	46.0		46.0	46.0	46.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag					Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0					2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None					Min	Min		Min	Min	Min
v/c Ratio		0.06						0.05			0.05	0.06
Control Delay		8.2						1.9			2.0	1.2
Queue Delay		0.0						0.0			0.0	0.0
Total Delay		8.2						1.9			2.0	1.2
Queue Length 50th (ft)		1						0			0	0
Queue Length 95th (ft)		9						13			13	11
Internal Link Dist (ft)		316			189			594			231	
Turn Bay Length (ft)												
Base Capacity (vph)		2420						3243			2666	1679
Starvation Cap Reductn		0						0			0	0
Spillback Cap Reductn		0						0			0	0
Storage Cap Reductn		0						0			0	0
Reduced v/c Ratio		0.02						0.04			0.05	0.05

Intersection Summary

Area Type: Other
Cycle Length: 82
Actuated Cycle Length: 29.9
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Galleria Mall Entrance & County St



HCM Signalized Intersection Capacity Analysis
18: Galleria Mall Entrance & County St

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	10	10	0	0	0	5	110	0	60	55	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	14	12	12	12	12	12	16	12	12	16
Total Lost time (s)		5.0						5.0			5.0	5.0
Lane Util. Factor		0.95						0.95			0.95	1.00
Frt		0.96						1.00			1.00	0.85
Flt Protected		0.98						1.00			0.97	1.00
Satd. Flow (prot)		2745						3417			3180	1679
Flt Permitted		0.98						0.95			0.82	1.00
Satd. Flow (perm)		2745						3243			2668	1679
Peak-hour factor, PHF	0.83	0.83	0.83	0.77	0.77	0.77	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	18	12	12	0	0	0	6	129	0	69	63	92
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	30
Lane Group Flow (vph)	0	30	0	0	0	0	0	135	0	0	132	62
Heavy Vehicles (%)	41%	25%	38%	0%	0%	0%	36%	4%	0%	13%	8%	9%
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Actuated Green, G (s)		1.3						22.8			22.8	22.8
Effective Green, g (s)		1.3						22.8			22.8	22.8
Actuated g/C Ratio		0.04						0.67			0.67	0.67
Clearance Time (s)		5.0						5.0			5.0	5.0
Vehicle Extension (s)		2.0						2.0			2.0	2.0
Lane Grp Cap (vph)		105						2168			1784	1123
v/s Ratio Prot												
v/s Ratio Perm		0.01						0.04			c0.05	0.04
v/c Ratio		0.29						0.06			0.07	0.05
Uniform Delay, d1		16.0						2.0			2.0	1.9
Progression Factor		1.00						1.00			1.00	1.00
Incremental Delay, d2		0.6						0.0			0.0	0.0
Delay (s)		16.5						2.0			2.0	2.0
Level of Service		B						A			A	A
Approach Delay (s)		16.5			0.0			2.0			2.0	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.09		
Actuated Cycle Length (s)	34.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	25.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

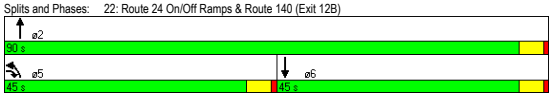
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	765	95	805	750	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	12	12	12
Storage Length (ft)	0	0	250			0
Storage Lanes	0	2	1			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	741			870	631	
Travel Time (s)	16.8			19.8	14.3	
Peak Hour Factor	0.85	0.85	0.90	0.90	0.84	0.84
Heavy Vehicles (%)	5%	9%	16%	4%	6%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	900	106	894	1173	0
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Detector Phase		5	5	2	6	
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0	4.0	
Minimum Split (s)		10.0	10.0	22.0	22.0	
Total Split (s)	0.0	45.0	45.0	90.0	45.0	0.0
Total Split (%)	0.0%	50.0%	50.0%	100.0%	50.0%	0.0%
Maximum Green (s)		40.0	40.0	85.0	40.0	
Yellow Time (s)		4.0	4.0	4.0	4.0	
All-Red Time (s)		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Recall Mode		None	None	C-Min	C-Min	
Walk Time (s)				5.0	5.0	
Flash Dont Walk (s)				11.0	11.0	
Pedestrian Calls (#/hr)				0	0	
v/c Ratio		0.85	0.17	0.26	0.72	
Control Delay		33.0	11.2	0.2	20.1	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		33.0	11.2	0.2	20.1	
Queue Length 50th (ft)		251	33	0	260	
Queue Length 95th (ft)		295	61	0	321	
Internal Link Dist (ft)	661			790	551	
Turn Bay Length (ft)			250			
Base Capacity (vph)		1159	692	3471	1636	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.78	0.15	0.26	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 22: Route 24 On/Off Ramps & Route 140 (Exit 12B)



HCM Signalized Intersection Capacity Analysis
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	765	95	805	750	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	15	12	12	12	12	12
Total Lost time (s)		5.0	5.0	5.0	5.0	
Lane Util. Factor		0.88	1.00	0.95	0.95	
Frt		0.85	1.00	1.00	0.96	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		2608	1556	3471	3314	
Flt Permitted		1.00	0.95	1.00	1.00	
Satd. Flow (perm)		2608	1556	3471	3314	
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.84	0.84
Adj. Flow (vph)	0	900	106	894	893	280
RTOR Reduction (vph)	0	0	0	0	31	0
Lane Group Flow (vph)	0	900	106	894	1142	0
Heavy Vehicles (%)	5%	9%	16%	4%	6%	2%
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		36.4	36.4	90.0	43.6	
Effective Green, g (s)		36.4	36.4	90.0	43.6	
Actuated g/C Ratio		0.40	0.40	1.00	0.48	
Clearance Time (s)		5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1055	629	3471	1605	
v/s Ratio Prot		c0.35	0.07	0.26	c0.34	
v/s Ratio Perm						
v/c Ratio		0.85	0.17	0.26	0.71	
Uniform Delay, d1		24.4	17.1	0.0	18.3	
Progression Factor		1.00	0.66	1.00	0.95	
Incremental Delay, d2		6.8	0.1	0.2	2.6	
Delay (s)		31.2	11.4	0.2	19.9	
Level of Service		C	B	A	B	
Approach Delay (s)	31.2			1.4	19.9	
Approach LOS	C			A	B	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

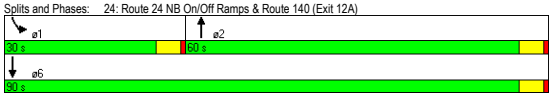
2030 No-Build Conditions - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	285	640	1175	285	1225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12
Storage Length (ft)	0	0		300	250	
Storage Lanes	0	1		1	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	736		624			870
Travel Time (s)	16.7		14.2			19.8
Peak Hour Factor	0.92	0.92	0.86	0.86	0.92	0.92
Heavy Vehicles (%)	0%	1%	7%	6%	6%	8%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	310	744	1366	310	1332
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Detector Phase			2		1	6
Switch Phase						
Minimum Initial (s)			8.0		16.0	16.0
Minimum Split (s)			13.0		21.0	21.0
Total Split (s)	0.0	0.0	60.0	0.0	30.0	90.0
Total Split (%)	0.0%	0.0%	66.7%	0.0%	33.3%	100.0%
Maximum Green (s)			55.0		25.0	85.0
Yellow Time (s)			4.0		4.0	4.0
All-Red Time (s)			1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)			2.0		2.0	2.0
Recall Mode			C-Max		None	C-Min
v/c Ratio		0.17	0.33	0.90	0.79	0.40
Control Delay		0.2	7.6	9.9	40.6	0.2
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		0.2	7.6	9.9	40.6	0.2
Queue Length 50th (ft)		0	86	0	172	0
Queue Length 95th (ft)		0	127	0	m217	0
Internal Link Dist (ft)	656		544			790
Turn Bay Length (ft)				300	250	
Base Capacity (vph)		1790	2227	1524	473	3343
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.17	0.33	0.90	0.66	0.40

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 13 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)



HCM Signalized Intersection Capacity Analysis
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	285	640	1175	285	1225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	12	12
Total Lost time (s)		4.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95
Frt		0.86	1.00	0.85	1.00	1.00
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1790	3374	1524	1703	3343
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1790	3374	1524	1703	3343
Peak-hour factor, PHF	0.92	0.92	0.86	0.86	0.92	0.92
Adj. Flow (vph)	0	310	744	1366	310	1332
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	310	744	1366	310	1332
Heavy Vehicles (%)	0%	1%	7%	6%	6%	8%
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)		90.0	59.4	90.0	20.6	90.0
Effective Green, g (s)		90.0	59.4	90.0	20.6	90.0
Actuated g/C Ratio		1.00	0.66	1.00	0.23	1.00
Clearance Time (s)			5.0		5.0	5.0
Vehicle Extension (s)			2.0		2.0	2.0
Lane Grp Cap (vph)		1790	2227	1524	390	3343
v/s Ratio Prot			0.22		0.18	0.40
v/s Ratio Perm		0.17		c0.90		
v/c Ratio		0.17	0.33	0.90	0.79	0.40
Uniform Delay, d1		0.0	6.7	0.0	32.7	0.0
Progression Factor		1.00	1.00	1.00	0.93	1.00
Incremental Delay, d2		0.2	0.4	8.6	6.7	0.2
Delay (s)		0.2	7.1	8.6	37.1	0.2
Level of Service		A	A	A	D	A
Approach Delay (s)	0.2		8.1			7.2
Approach LOS	A		A			A

Intersection Summary

HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
26: Route 140 (Exit 12B) & Mozzone Blvd

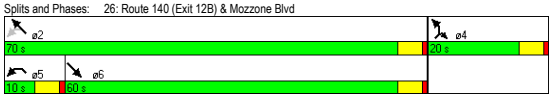
2030 No-Build Conditions - AM Peak Hour

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	970	20	35	980	5	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	0		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1723			724	1178	
Travel Time (s)	39.2			16.5	26.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1076	0	0	1103	5	16
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Detector Phase	6		5	2	4	4
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	15.0		10.0	10.0	15.0	15.0
Total Split (s)	60.0	0.0	10.0	70.0	20.0	20.0
Total Split (%)	66.7%	0.0%	11.1%	77.8%	22.2%	22.2%
Maximum Green (s)	55.0		5.0	65.0	15.0	15.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	C-Min		None	C-Min	None	None
v/c Ratio	0.33			0.38	0.04	0.13
Control Delay	1.4			0.9	39.6	20.5
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	1.4			0.9	39.6	20.5
Queue Length 50th (ft)	0			2	3	0
Queue Length 95th (ft)	81			28	14	20
Internal Link Dist (ft)	1643			644	1098	
Turn Bay Length (ft)						
Base Capacity (vph)	3267			2884	295	277
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.33			0.38	0.02	0.06

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (18%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 26: Route 140 (Exit 12B) & Mozzone Blvd



HCM Signalized Intersection Capacity Analysis
26: Route 140 (Exit 12B) & Mozzone Blvd

2030 No-Build Conditions - AM Peak Hour

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	970	20	35	980	5	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3528			3533	1770	1583
Flt Permitted	1.00			0.88	0.95	1.00
Satd. Flow (perm)	3528			3115	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1054	22	38	1065	5	16
RTOR Reduction (vph)	1	0	0	0	0	16
Lane Group Flow (vph)	1075	0	0	1103	5	0
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Actuated Green, G (s)	77.3			77.3	2.7	2.7
Effective Green, g (s)	77.3			77.3	2.7	2.7
Actuated g/C Ratio	0.86			0.86	0.03	0.03
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	3030			2675	53	47
v/s Ratio Prot	0.30				c0.00	0.00
v/s Ratio Perm				c0.35		
v/c Ratio	0.35			0.41	0.09	0.01
Uniform Delay, d1	1.3			1.4	42.5	42.4
Progression Factor	1.00			0.39	1.00	1.00
Incremental Delay, d2	0.3			0.1	0.8	0.1
Delay (s)	1.6			0.6	43.2	42.4
Level of Service	A			A	D	D
Approach Delay (s)	1.6			0.6	42.6	
Approach LOS	A			A	D	

Intersection Summary

HCM Average Control Delay	1.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Taunton Depot Dr & Route 140

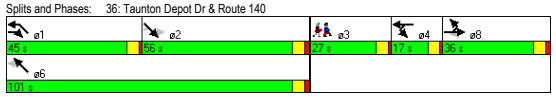
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	ø3
Lane Configurations													
Volume (vph)	60	0	65	5	0	0	5	895	125	85	730	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	12	12	
Storage Length (ft)	0		100	0		0	180		130	320		350	
Storage Lanes	1		1	0		0	1		1	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		846			205			2224			1723		
Travel Time (s)		19.2			4.7			50.5			39.2		
Peak Hour Factor	0.85	0.85	0.85	0.50	0.50	0.50	0.90	0.90	0.90	0.93	0.93	0.93	
Heavy Vehicles (%)	9%	0%	4%	0%	0%	0%	0%	4%	5%	0%	6%	0%	
Shared Lane Traffic (%)	50%												
Lane Group Flow (vph)	35	36	76	0	10	0	0	1000	139	91	785	0	
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt			
Protected Phases	8	8	1	4	4			2		1	6		3
Permitted Phases			8				2		2	6			
Detector Phase	8	8	1	4	4		2	2	2	1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	4.0	4.0		6.0	6.0	6.0	6.0	20.0		7.0
Minimum Split (s)	12.0	12.0	11.0	9.0	9.0		12.0	12.0	12.0	11.0	26.0		27.0
Total Split (s)	36.0	36.0	45.0	17.0	17.0	0.0	56.0	56.0	56.0	45.0	101.0	0.0	27.0
Total Split (%)	19.9%	19.9%	24.9%	9.4%	9.4%	0.0%	30.9%	30.9%	30.9%	24.9%	55.8%	0.0%	15%
Maximum Green (s)	30.0	30.0	40.0	12.0	12.0		50.0	50.0	50.0	40.0	95.0		22.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	1.0		2.0	2.0	2.0	1.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	5.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	6.0	4.0	
Lead/Lag			Lead	Lag	Lag		Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?				Yes	Yes								Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		4.0	4.0	4.0	2.0	4.0		3.0
Recall Mode	None	None	None	None	None		Min	Min	Min	None	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													15.0
Pedestrian Calls (#/hr)													2
v/c Ratio	0.26	0.27	0.19		0.08			0.51	0.15	0.23	0.31		
Control Delay	45.7	45.8	9.6		45.8			15.5	9.8	8.2	7.3		
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0	0.0	0.0		
Total Delay	45.7	45.8	9.6		45.8			15.5	9.8	8.2	7.3		
Queue Length 50th (ft)	14	15	0		4			122	16	8	45		
Queue Length 95th (ft)	62	64	36		15			448	96	64	253		
Internal Link Dist (ft)		766			125			2144			1643		
Turn Bay Length (ft)			100						130	320			
Base Capacity (vph)	584	584	1000		304			2164	1023	988	3241		
Starvation Cap Reductn	0	0	0		0			0	0	0	0		
Spillback Cap Reductn	0	0	0		0			0	0	0	0		
Storage Cap Reductn	0	0	0		0			0	0	0	0		
Reduced v/c Ratio	0.06	0.06	0.08		0.03			0.46	0.14	0.09	0.24		

Intersection Summary

Area Type: Other
Cycle Length: 181
Actuated Cycle Length: 84.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Taunton Depot Dr & Route 140



HCM Signalized Intersection Capacity Analysis
36: Taunton Depot Dr & Route 140

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	60	0	65	5	0	0	5	895	125	85	730	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	12	12
Total Lost time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00			0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		1.00			1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00		0.95			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1573	1573	1553		2046			3471	1538	1805	3406	
Flt Permitted	0.95	0.95	1.00		0.95			0.95	1.00	0.20	1.00	
Satd. Flow (perm)	1573	1573	1553		2046			3300	1538	376	3406	
Peak-hour factor, PHF	0.85	0.85	0.85	0.50	0.50	0.50	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	71	0	76	10	0	0	6	994	139	91	785	0
RTOR Reduction (vph)	0	0	65	0	0	0	0	0	21	0	0	0
Lane Group Flow (vph)	35	36	11	0	10	0	0	1000	118	91	785	0
Heavy Vehicles (%)	9%	0%	4%	0%	0%	0%	0%	4%	5%	0%	6%	0%
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Actuated Green, G (s)	6.0	6.0	13.0		0.8			50.2	50.2	62.2	62.2	
Effective Green, g (s)	6.0	6.0	13.0		0.8			50.2	50.2	62.2	62.2	
Actuated g/C Ratio	0.06	0.06	0.14		0.01			0.53	0.53	0.66	0.66	
Clearance Time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Vehicle Extension (s)	2.0	2.0	2.0		2.0			4.0	4.0	2.0	4.0	
Lane Grp Cap (vph)	100	100	215		17			1762	821	355	2254	
v/s Ratio Prot	0.02	c0.02	0.00		c0.00					0.02	c0.23	
v/s Ratio Perm			0.00					c0.30	0.08	0.15		
v/c Ratio	0.35	0.36	0.05		0.59			0.57	0.14	0.26	0.35	
Uniform Delay, d1	42.1	42.2	35.1		46.4			14.6	11.1	7.5	7.0	
Progression Factor	1.00	1.00	1.00		1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	0.8	0.0		29.3			0.5	0.1	0.1	0.1	
Delay (s)	42.9	43.0	35.2		75.7			15.2	11.2	7.7	7.1	
Level of Service	D	D	D		E			B	B	A	A	
Approach Delay (s)		38.9			75.7			14.7			7.2	
Approach LOS		D			E			B			A	

Intersection Summary

HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
40: Honorable Gordon Owen Riverway & Route 140

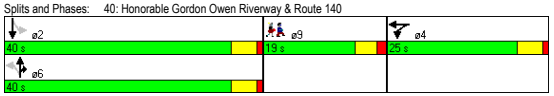
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	0	0	220	0	5	0	650	290	10	400	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	13	12	
Storage Length (ft)	0		0	0		0	0		175	0		0	
Storage Lanes	0		0	0		0	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		220			991			547			1888		
Travel Time (s)		5.0			22.5			12.4			42.9		
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.89	0.89	0.89	
Heavy Vehicles (%)	0%	0%	0%	8%	0%	0%	0%	6%	4%	8%	5%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	268	0	0	699	312	0	460	0	
Turn Type				Split			Perm		Prot	Perm			
Protected Phases				4	4			6	6		2		9
Permitted Phases							6			2			
Detector Phase				4	4		6	6	6	2	2		
Switch Phase													
Minimum Initial (s)				6.0	6.0		6.0	6.0	6.0	6.0	6.0		1.0
Minimum Split (s)				11.0	11.0		11.0	11.0	11.0	11.0	11.0		19.0
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	40.0	40.0	40.0	40.0	40.0	0.0	19.0
Total Split (%)	0.0%	0.0%	0.0%	29.8%	29.8%	0.0%	47.6%	47.6%	47.6%	47.6%	47.6%	0.0%	23%
Maximum Green (s)				20.0	20.0		35.0	35.0	35.0	35.0	35.0		14.0
Yellow Time (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		3.5
All-Red Time (s)				1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode				None	None		None	None	None	None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													1
v/c Ratio					0.63			0.74	0.32		0.46		
Control Delay					30.1			20.4	3.8		12.8		
Queue Delay					0.0			0.0	0.0		0.0		
Total Delay					30.1			20.4	3.8		12.8		
Queue Length 50th (ft)					86			156	7		81		
Queue Length 95th (ft)					191			#584	65		276		
Internal Link Dist (ft)		140			911			467			1808		
Turn Bay Length (ft)									175				
Base Capacity (vph)					582			1019	1021		1080		
Starvation Cap Reductn					0			0	0		0		
Spillback Cap Reductn					0			0	0		0		
Storage Cap Reductn					0			0	0		0		
Reduced v/c Ratio					0.46			0.69	0.31		0.43		

Intersection Summary

Area Type: Other
Cycle Length: 84
Actuated Cycle Length: 61.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Honorable Gordon Owen Riverway & Route 140



HCM Signalized Intersection Capacity Analysis
40: Honorable Gordon Owen Riverway & Route 140

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	220	0	5	0	650	290	10	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	13	12
Total Lost time (s)					5.0			5.0	5.0		5.0	
Lane Util. Factor					1.00			1.00	1.00		1.00	
Frt					1.00			1.00	0.85		1.00	
Flt Protected					0.95			1.00	1.00		1.00	
Satd. Flow (prot)					1731			1733	1553		1866	
Flt Permitted					0.95			1.00	1.00		0.98	
Satd. Flow (perm)					1731			1733	1553		1836	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	262	0	6	0	699	312	11	449	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	128	0	0	0
Lane Group Flow (vph)	0	0	0	0	267	0	0	699	184	0	460	0
Heavy Vehicles (%)	0%	0%	0%	8%	0%	0%	0%	6%	4%	8%	5%	0%
Turn Type				Split			Perm		Prot	Perm		
Protected Phases				4	4			6	6		2	
Permitted Phases							6			2		
Actuated Green, G (s)					15.1			33.5	33.5		33.5	
Effective Green, g (s)					15.1			33.5	33.5		33.5	
Actuated g/C Ratio					0.23			0.51	0.51		0.51	
Clearance Time (s)					5.0			5.0	5.0		5.0	
Vehicle Extension (s)					4.0			4.0	4.0		4.0	
Lane Grp Cap (vph)					398			884	792		936	
v/s Ratio Prot					c0.15			c0.40	0.12			
v/s Ratio Perm											0.25	
v/c Ratio					0.67			0.79	0.23		0.49	
Uniform Delay, d1					23.0			13.2	8.9		10.5	
Progression Factor					1.00			1.00	1.00		1.00	
Incremental Delay, d2					4.8			5.2	0.2		0.6	
Delay (s)					27.9			18.4	9.2		11.1	
Level of Service					C			B	A		B	
Approach Delay (s)		0.0			27.9			15.5			11.1	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	65.7	Sum of lost time (s)	17.1
Intersection Capacity Utilization	55.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

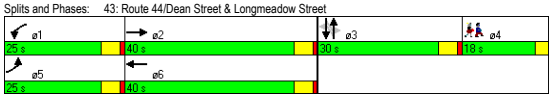
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø4
Lane Configurations													
Volume (vph)	10	810	285	185	640	95	115	350	270	125	220	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12	
Storage Length (ft)	100		70	100		70	0		50	0		100	
Storage Lanes	1		1	1		1	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1663			1440			2994			1249		
Travel Time (s)		37.8			32.7			68.0			28.4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68	
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	11	1165	0	197	782	0	0	855	0	0	530	0	
Turn Type	Prot			Prot			Perm			Perm			
Protected Phases	5	2		1	6			3			3		4
Permitted Phases							3			3			
Detector Phase	5	2		1	6		3	3		3	3		
Switch Phase													
Minimum Initial (s)	9.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0		8.0
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0		18.0
Total Split (s)	25.0	40.0	0.0	25.0	40.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	18.0
Total Split (%)	22.1%	35.4%	0.0%	22.1%	35.4%	0.0%	26.5%	26.5%	0.0%	26.5%	26.5%	0.0%	16%
Maximum Green (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0		0.2
Recall Mode	None	Min		None	Min		None	None		None	None		None
Walk Time (s)													8.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													6
v/c Ratio	0.08	0.91		0.70	0.40			1.43			2.36dl		
Control Delay	45.3	40.8		52.0	13.8			230.3			98.4		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	45.3	40.8		52.0	13.8			230.3			98.4		
Queue Length 50th (ft)	6	321		108	105			~337			~180		
Queue Length 95th (ft)	27	#626		#230	284			#542			#238		
Internal Link Dist (ft)		1583			1360			2914			1169		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	302	1274		339	1964			598			492		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.04	0.91		0.58	0.40			1.43			1.08		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 95.4
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	810	285	185	640	95	115	350	270	125	220	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.96		1.00	0.98			0.94			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1428	3368		1604	3412			3110			3193	
Flt Permitted	0.95	1.00		0.95	1.00			0.64			0.57	
Satd. Flow (perm)	1428	3368		1604	3412			2001			1853	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68
Adj. Flow (vph)	11	862	303	197	681	101	134	407	314	184	324	22
RTOR Reduction (vph)	0	28	0	0	7	0	0	71	0	0	3	0
Lane Group Flow (vph)	11	1137	0	197	775	0	0	784	0	0	527	0
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)	1.5	39.4		16.8	54.7			25.2			25.2	
Effective Green, g (s)	1.5	39.4		16.8	54.7			25.2			25.2	
Actuated g/C Ratio	0.01	0.39		0.16	0.54			0.25			0.25	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	21	1302		264	1832			495			458	
v/s Ratio Prot	0.01	c0.34		c0.12	0.23							
v/s Ratio Perm								c0.39			0.28	
v/c Ratio	0.52	0.87		0.75	0.42			1.58			2.36dl	
Uniform Delay, d1	49.8	28.9		40.5	14.1			38.4			38.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	27.4	7.3		11.6	0.3			272.5			90.3	
Delay (s)	77.3	36.3		52.1	14.5			310.8			128.7	
Level of Service	E	D		D	B			F			F	
Approach Delay (s)		36.6			22.0			310.8			128.7	
Approach LOS		D			C			F			F	

Intersection Summary

HCM Average Control Delay	112.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	101.9	Sum of lost time (s)	20.5
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
45: Hart Street & Route 140

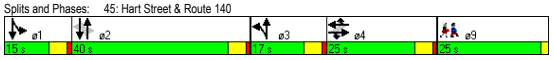
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2	ø9
Lane Configurations														
Volume (vph)	25	165	270	120	110	245	135	625	60	160	530	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12		
Storage Length (ft)	0		50	0		50	50		0	50		0		
Storage Lanes	0		1	0		1	1		0	1		0		
Taper Length (ft)	25		25	25		25	25		25	25		25		
Right Turn on Red			Yes			Yes			Yes			Yes		
Link Speed (mph)		30			30			35			35			
Link Distance (ft)		1373			971			2224			3692			
Travel Time (s)		31.2			22.1			43.3			71.9			
Peak Hour Factor	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73		
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	237	338	0	242	258	0	863	0	0	959	0		
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt				
Protected Phases		4	4		4	4	3	2 3		1	1 2		2	9
Permitted Phases	4			4			2 3			1 2				
Detector Phase	4	4	4	4	4	4	3	2 3		1	1 2			
Switch Phase														
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0			4.0			8.0	1.0
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0	13.0	9.0			9.0			13.0	25.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	17.0	57.0	0.0	15.0	55.0	0.0	40.0	25.0
Total Split (%)	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	13.9%	46.7%	0.0%	12.3%	45.1%	0.0%	33%	20%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	12.0			10.0			35.0	23.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0			4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0			1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0		
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lead			Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Recall Mode	Max	Max	Max	Max	Max	Max	None			None			None	None
Walk Time (s)														7.0
Flash Dont Walk (s)														16.0
Pedestrian Calls (#/hr)														4
v/c Ratio		0.91	0.80		1.48	0.64		0.78			0.99			
Control Delay		79.3	37.9		279.8	30.3		28.4			53.2			
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0			
Total Delay		79.3	37.9		279.8	30.3		28.4			53.2			
Queue Length 50th (ft)		143	111		~203	80		165			201			
Queue Length 95th (ft)		#315	#246		#452	#226		#400			#361			
Internal Link Dist (ft)		1293			891			2144			3612			
Turn Bay Length (ft)			50			50								
Base Capacity (vph)		260	421		163	401		1108			964			
Starvation Cap Reductn		0	0		0	0		0			0			
Spillback Cap Reductn		0	0		0	0		0			0			
Storage Cap Reductn		0	0		0	0		0			0			
Reduced v/c Ratio		0.91	0.80		1.48	0.64		0.78			0.99			

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 102
Natural Cycle: 150
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



HCM Signalized Intersection Capacity Analysis
45: Hart Street & Route 140

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	165	270	120	110	245	135	625	60	160	530	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.99			1.00	
Flt Protected		0.99	1.00		0.97	1.00		0.99			0.99	
Satd. Flow (prot)		1734	1516		1808	1568		3272			3328	
Flt Permitted		0.75	1.00		0.45	1.00		0.63			0.54	
Satd. Flow (perm)		1315	1516		826	1568		2069			1830	
Peak-hour factor, PHF	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73
Adj. Flow (vph)	31	206	338	126	116	258	142	658	63	219	726	14
RTOR Reduction (vph)	0	0	122	0	0	91	0	4	0	0	1	0
Lane Group Flow (vph)	0	237	216	0	242	167	0	859	0	0	958	0
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		20.2	20.2		20.2	20.2		47.4			45.4	
Effective Green, g (s)		20.2	20.2		20.2	20.2		47.4			45.4	
Actuated g/C Ratio		0.20	0.20		0.20	0.20		0.46			0.44	
Clearance Time (s)		5.0	5.0		5.0	5.0						
Vehicle Extension (s)		3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)		257	296		161	306		1088			949	
v/s Ratio Prot			0.14			0.11		c0.09			c0.10	
v/s Ratio Perm		0.18			c0.29			0.27			c0.34	
v/c Ratio		0.92	0.73		1.50	0.55		0.79			1.01	
Uniform Delay, d1		40.9	39.1		41.7	37.5		23.8			29.0	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		39.2	14.8		255.9	6.8		3.9			31.7	
Delay (s)		80.1	53.9		297.6	44.4		27.7			60.7	
Level of Service		F	D		F	D		C			E	
Approach Delay (s)		64.7			166.9			27.7			60.7	
Approach LOS		E			F			C			E	

Intersection Summary

HCM Average Control Delay	70.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	103.5	Sum of lost time (s)	25.8
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
52: Route 44/Dean Street & Arlington Street

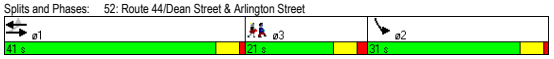
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	30	800	655	115	275	50	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.87	0.87	0.86	0.86	0.81	0.81	
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	34	920	896	0	402	0	
Turn Type	Perm						
Protected Phases		1	1		2		3
Permitted Phases	1						
Detector Phase	1	1	1		2		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0		5.0		5.0
Minimum Split (s)	15.0	15.0	15.0		10.0		21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	0.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	0.0%	23%
Maximum Green (s)	36.0	36.0	36.0		26.0		15.0
Yellow Time (s)	4.0	4.0	4.0		4.0		4.0
All-Red Time (s)	1.0	1.0	1.0		1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0	4.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		1.0
Recall Mode	None	None	None		None		None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							4
v/c Ratio	0.35	0.97	0.84		0.78		
Control Delay	29.3	43.8	26.6		36.0		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay	29.3	43.8	26.6		36.0		
Queue Length 50th (ft)	7	317	268		144		
Queue Length 95th (ft)	#57	#890	#795		287		
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	97	948	1061		684		
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.35	0.97	0.84		0.59		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 70.4
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



HCM Signalized Intersection Capacity Analysis
52: Route 44/Dean Street & Arlington Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	30	800	655	115	275	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.98	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1636	1810	2015		1809	
Flt Permitted	0.11	1.00	1.00		0.96	
Satd. Flow (perm)	187	1810	2015		1809	
Peak-hour factor, PHF	0.87	0.87	0.86	0.86	0.81	0.81
Adj. Flow (vph)	34	920	762	134	340	62
RTOR Reduction (vph)	0	0	6	0	0	0
Lane Group Flow (vph)	34	920	890	0	402	0
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%
Turn Type	Perm					
Protected Phases		1	1		2	
Permitted Phases	1					
Actuated Green, G (s)	36.9	36.9	36.9		20.1	
Effective Green, g (s)	36.9	36.9	36.9		20.1	
Actuated g/C Ratio	0.49	0.49	0.49		0.27	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	92	887	987		483	
v/s Ratio Prot		c0.51	0.44		c0.22	
v/s Ratio Perm	0.18					
v/c Ratio	0.37	1.04	0.90		0.83	
Uniform Delay, d1	12.0	19.2	17.5		26.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	2.5	40.3	11.2		11.7	
Delay (s)	14.5	59.5	28.8		37.7	
Level of Service	B	E	C		D	
Approach Delay (s)		57.9	28.8		37.7	
Approach LOS		E	C		D	

Intersection Summary

HCM Average Control Delay	42.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	75.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

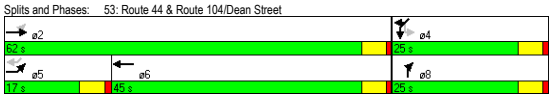
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	180	1000	0	0	725	20	0	0	30	5	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	12	12	16
Storage Length (ft)	50		0	0		50	0	0		0	50
Storage Lanes	1		0	0		0	0	1		1	1
Taper Length (ft)	25		25	25		25	25	25		25	25
Right Turn on Red			Yes			Yes					Yes
Link Speed (mph)		30			30		30			30	
Link Distance (ft)		825			1426		127			959	
Travel Time (s)		18.8			32.4		2.9			21.8	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	3%	3%	0%	0%	4%	0%	0%	0%	7%	0%	4%
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	1388	0	0	810	0	0	0	0	40	202
Turn Type	pm+pt							custom	Perm		custom
Protected Phases	5	2			6			8		4	4
Permitted Phases	2								4		5
Detector Phase	5	2			6			8	4	4	4
Switch Phase											
Minimum Initial (s)	6.0	12.0			12.0			6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	17.0			17.0			11.0	11.0	11.0	11.0
Total Split (s)	17.0	62.0	0.0	0.0	45.0	0.0	0.0	25.0	25.0	25.0	25.0
Total Split (%)	19.5%	71.3%	0.0%	0.0%	51.7%	0.0%	0.0%	28.7%	28.7%	28.7%	28.7%
Maximum Green (s)	12.0	57.0			40.0			20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0			4.0			4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0			1.0			1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead				Lag						
Lead-Lag Optimize?	Yes				Yes						
Vehicle Extension (s)	1.5	1.5			1.5			2.0	2.0	2.0	2.0
Recall Mode	None	Min			Min			None	None	None	None
v/c Ratio		0.82			0.33					0.18	0.61
Control Delay		12.4			4.1					30.2	22.6
Queue Delay		0.0			0.0					0.0	0.0
Total Delay		12.4			4.1					30.2	22.6
Queue Length 50th (ft)		152			47					16	35
Queue Length 95th (ft)		290			95					44	100
Internal Link Dist (ft)		745			1346		47			879	
Turn Bay Length (ft)											50
Base Capacity (vph)		2019			2516					521	616
Starvation Cap Reductn		0			0					0	0
Spillback Cap Reductn		0			0					0	0
Storage Cap Reductn		0			0					0	0
Reduced v/c Ratio		0.69			0.32					0.08	0.33

Intersection Summary

Area Type: Other
Cycle Length: 87
Actuated Cycle Length: 67.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 53: Route 44 & Route 104/Dean Street



HCM Signalized Intersection Capacity Analysis
53: Route 44 & Route 104/Dean Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	180	1000	0	0	725	20	0	0	30	5	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	16	12	12	12	12	16
Total Lost time (s)		5.0			5.0					5.0	5.0
Lane Util. Factor		0.95			0.95					1.00	1.00
Frt		1.00			1.00					1.00	0.85
Flt Protected		0.99			1.00					0.95	1.00
Satd. Flow (prot)		3478			3461					1704	1760
Flt Permitted		0.68			1.00					0.95	1.00
Satd. Flow (perm)		2371			3461					1704	1760
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	212	1176	0	0	788	22	0	0	34	6	202
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	98
Lane Group Flow (vph)	0	1388	0	0	809	0	0	0	0	40	104
Heavy Vehicles (%)	3%	3%	0%	0%	4%	0%	0%	0%	7%	0%	4%
Turn Type	pm+pt							custom	Perm		custom
Protected Phases	5	2			6			8		4	4
Permitted Phases	2								4		5
Actuated Green, G (s)		48.2			48.2					8.9	8.9
Effective Green, g (s)		48.2			48.2					8.9	8.9
Actuated g/C Ratio		0.72			0.72					0.13	0.13
Clearance Time (s)		5.0			5.0					5.0	5.0
Vehicle Extension (s)		1.5			1.5					2.0	2.0
Lane Grp Cap (vph)		1703			2486					226	233
v/s Ratio Prot					0.23						c0.06
v/s Ratio Perm		c0.59								0.02	
v/c Ratio		0.82			0.33					0.18	0.45
Uniform Delay, d1		6.4			3.5					25.8	26.8
Progression Factor		1.00			1.00					1.00	1.00
Incremental Delay, d2		3.0			0.0					0.1	0.5
Delay (s)		9.4			3.5					26.0	27.3
Level of Service		A			A					C	C
Approach Delay (s)		9.4			3.5		0.0			27.1	
Approach LOS		A			A		A			C	

Intersection Summary

HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	67.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
57: Spring Street & Summer Street

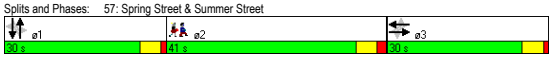
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	20	215	60	35	140	10	45	445	20	10	260	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	16	12	
Right Turn on Red			Yes			No			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		376			382			1581			384		
Travel Time (s)		8.5			8.7			35.9			8.7		
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.76	0.76	0.76	
Heavy Vehicles (%)	5%	4%	4%	3%	5%	13%	2%	5%	0%	0%	2%	5%	
Parking (#/hr)											0		
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	339	0	0	226	0	0	548	0	0	381	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	41.0
Total Split (%)	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	41%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		5.0
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													6
v/c Ratio		0.49			0.31			0.81			0.52		
Control Delay		18.8			16.7			31.2			19.6		
Queue Delay		0.0			0.0			0.0			0.1		
Total Delay		18.8			16.7			31.2			19.7		
Queue Length 50th (ft)		81			52			162			96		
Queue Length 95th (ft)		219			135			#498			207		
Internal Link Dist (ft)		296			302			1501			304		
Turn Bay Length (ft)													
Base Capacity (vph)		689			722			675			729		
Starvation Cap Reductn		0			0			0			32		
Spillback Cap Reductn		0			0			0			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.49			0.31			0.81			0.55		

Intersection Summary

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 64.2
Natural Cycle: 75
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 57: Spring Street & Summer Street



HCM Signalized Intersection Capacity Analysis
57: Spring Street & Summer Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	215	60	35	140	10	45	445	20	10	260	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	16	12
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.99	
Flt Protected		1.00			0.99			1.00			1.00	
Satd. Flow (prot)		1770			2016			1800			1877	
Flt Permitted		0.97			0.90			0.94			0.98	
Satd. Flow (perm)		1724			1825			1704			1840	
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.76	0.76	0.76
Adj. Flow (vph)	23	247	69	43	171	12	48	478	22	13	342	26
RTOR Reduction (vph)	0	8	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	331	0	0	226	0	0	547	0	0	379	0
Heavy Vehicles (%)	5%	4%	4%	3%	5%	13%	2%	5%	0%	0%	2%	5%
Parking (#/hr)											0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.4			25.4			25.4			25.4	
Effective Green, g (s)		25.4			25.4			25.4			25.4	
Actuated g/C Ratio		0.37			0.37			0.37			0.37	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		633			670			625			675	
v/s Ratio Prot												
v/s Ratio Perm		c0.19			0.12			c0.32			0.21	
v/c Ratio		0.52			0.34			0.87			0.56	
Uniform Delay, d1		17.2			15.8			20.4			17.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.1			1.4			15.7			3.4	
Delay (s)		20.2			17.2			36.1			20.8	
Level of Service		C			B			D			C	
Approach Delay (s)		20.2			17.2			36.1			20.8	
Approach LOS		C			B			D			C	

Intersection Summary

HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	18.4
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
58: Route 44/Main Street & Union Street

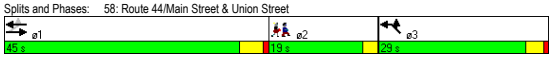
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2	ø2
Lane Configurations												
Volume (vph)	10	530	305	0	485	10	0	0	450	10	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	16	12	16	12	12	12	12	16	15	
Right Turn on Red			Yes			Yes		Yes			Yes	
Link Speed (mph)		30			30		30		30			
Link Distance (ft)		913			784		606		384			
Travel Time (s)		20.8			17.8		13.8		8.7			
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.97	0.97	0.97	
Heavy Vehicles (%)	0%	5%	5%	0%	6%	14%	0%	0%	7%	0%	0%	
Parking (#/hr)			0			0						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	939	0	0	556	0	0	0	464	31	0	
Turn Type	Perm									Prot		
Protected Phases		1			1				3	3		2
Permitted Phases	1											
Detector Phase	1	1			1				3	3		
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0				5.0	5.0		1.0
Minimum Split (s)	20.0	20.0			20.0				9.0	9.0		19.0
Total Split (s)	45.0	45.0	0.0	0.0	45.0	0.0	0.0	0.0	29.0	29.0	0.0	19.0
Total Split (%)	48.4%	48.4%	0.0%	0.0%	48.4%	0.0%	0.0%	0.0%	31.2%	31.2%	0.0%	20%
Maximum Green (s)	40.0	40.0			40.0				25.0	25.0		16.0
Yellow Time (s)	4.0	4.0			4.0				3.0	3.0		3.0
All-Red Time (s)	1.0	1.0			1.0				1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead			Lead							Lag
Lead-Lag Optimize?	Yes	Yes			Yes							Yes
Vehicle Extension (s)	3.0	3.0			3.0				3.0	3.0		3.0
Recall Mode	Max	Max			Max				Max	Max		None
Walk Time (s)												7.0
Flash Dont Walk (s)												9.0
Pedestrian Calls (#/hr)												7
v/c Ratio		0.92			0.53				0.85	0.05		
Control Delay		33.4			16.1				42.5	12.3		
Queue Delay		0.0			0.0				0.0	0.0		
Total Delay		33.4			16.1				42.5	12.3		
Queue Length 50th (ft)		337			149				191	3		
Queue Length 95th (ft)		#860			356				#481	26		
Internal Link Dist (ft)		833			704		526		304			
Turn Bay Length (ft)												
Base Capacity (vph)		1023			1048				547	607		
Starvation Cap Reductn		0			0				0	0		
Spillback Cap Reductn		0			0				0	0		
Storage Cap Reductn		0			0				0	0		
Reduced v/c Ratio		0.92			0.53				0.85	0.05		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 77.8
Natural Cycle: 110
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: Route 44/Main Street & Union Street



HCM Signalized Intersection Capacity Analysis
58: Route 44/Main Street & Union Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2
Lane Configurations											
Volume (vph)	10	530	305	0	485	10	0	0	450	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	16	12	16	12	12	12	12	16	15
Total Lost time (s)		5.0			5.0				4.0	4.0	
Lane Util. Factor		1.00			1.00				1.00	1.00	
Frt		0.95			1.00				1.00	0.85	
Flt Protected		1.00			1.00				0.95	1.00	
Satd. Flow (prot)		1951			2023				1687	1830	
Flt Permitted		0.99			1.00				0.95	1.00	
Satd. Flow (perm)		1938			2023				1687	1830	
Peak-hour factor, PHF	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	11	589	339	0	545	11	0	0	464	10	21
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	920	0	0	556	0	0	0	464	17	0
Heavy Vehicles (%)	0%	5%	5%	0%	6%	14%	0%	0%	7%	0%	0%
Parking (#/hr)			0			0					
Turn Type	Perm									Prot	
Protected Phases		1			1				3	3	
Permitted Phases	1										
Actuated Green, G (s)		40.3			40.3				25.2	25.2	
Effective Green, g (s)		40.3			40.3				25.2	25.2	
Actuated g/C Ratio		0.50			0.50				0.31	0.31	
Clearance Time (s)		5.0			5.0				4.0	4.0	
Vehicle Extension (s)		3.0			3.0				3.0	3.0	
Lane Grp Cap (vph)		974			1017				530	575	
v/s Ratio Prot					0.27				c0.28	0.01	
v/s Ratio Perm		c0.47									
v/c Ratio		0.94			0.55				0.88	0.03	
Uniform Delay, d1		18.9			13.7				26.0	19.0	
Progression Factor		1.00			1.00				1.00	1.00	
Incremental Delay, d2		18.2			2.1				18.1	0.1	
Delay (s)		37.1			15.8				44.1	19.1	
Level of Service		D			B				D	B	
Approach Delay (s)		37.1			15.8		0.0		42.5		
Approach LOS		D			B		A		D		

Intersection Summary

HCM Average Control Delay	32.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	80.2	Sum of lost time (s)	14.7
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
61: Taunton Green & Broadway

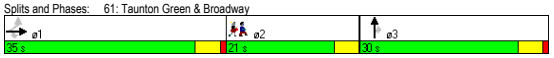
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	180	765	190	0	0	950	0	295	90	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		304			913			579			302		
Travel Time (s)		6.9			20.8			13.2			6.9		
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%	
Parking (#/hr)			0			0			0				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	198	841	209	0	0	1033	0	328	100	0	0	0	
Turn Type	Perm		Perm			Free			Perm				
Protected Phases		1						3					2
Permitted Phases	1		1			Free			3				
Detector Phase	1	1	1					3	3				
Switch Phase													
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0				1.0
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0				21.0
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	21.0
Total Split (%)	40.7%	40.7%	40.7%	0.0%	0.0%	0.0%	0.0%	34.9%	34.9%	0.0%	0.0%	0.0%	24%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0				17.0
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0				4.0
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead										Lag
Lead-Lag Optimize?	Yes	Yes	Yes										Yes
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0				2.0
Recall Mode	Max	Max	Max					Max	Max				Ped
Walk Time (s)													10.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													7
v/c Ratio	0.29	0.71	0.32			0.41		0.67	0.23				
Control Delay	6.5	27.3	4.0			0.5		35.0	6.6				
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0				
Total Delay	6.5	27.3	4.0			0.5		35.0	6.6				
Queue Length 50th (ft)	13	205	0			0		156	0				
Queue Length 95th (ft)	m57	268	m39			0		249	35				
Internal Link Dist (ft)		224			833			499			222		
Turn Bay Length (ft)													
Base Capacity (vph)	692	1188	654			2547		486	436				
Starvation Cap Reductn	0	0	0			0		0	0				
Spillback Cap Reductn	0	0	0			0		0	0				
Storage Cap Reductn	0	0	0			0		0	0				
Reduced v/c Ratio	0.29	0.71	0.32			0.41		0.67	0.23				

Intersection Summary

Area Type: Other
Cycle Length: 86
Actuated Cycle Length: 86
Natural Cycle: 90
Control Type: Semi Act-Uncoord
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 61: Taunton Green & Broadway



HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	765	190	0	0	950	0	295	90	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1703	3406	1484			2547		1673	1256			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1703	3406	1484			2547		1673	1256			
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	198	841	209	0	0	1033	0	328	100	0	0	0
RTOR Reduction (vph)	98	0	136	0	0	0	0	0	71	0	0	0
Lane Group Flow (vph)	100	841	73	0	0	1033	0	328	29	0	0	0
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Actuated g/C Ratio	0.35	0.35	0.35			1.00		0.29	0.29			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	594	1188	518			2547		486	365			
v/s Ratio Prot		c0.25						c0.20				
v/s Ratio Perm	0.06		0.05			c0.41			0.02			
v/c Ratio	0.17	0.71	0.14			0.41		0.67	0.08			
Uniform Delay, d1	19.4	24.2	19.2			0.0		26.9	22.1			
Progression Factor	0.89	0.97	0.86			1.00		1.00	1.00			
Incremental Delay, d2	0.6	3.6	0.6			0.5		7.3	0.4			
Delay (s)	17.9	26.9	17.0			0.5		34.2	22.6			
Level of Service	B	C	B			A		C	C			
Approach Delay (s)		23.8			0.5			31.5			0.0	
Approach LOS		C			A			C			A	

Intersection Summary

HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

2030 No-Build Conditions - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations							
Volume (vph)	360	20	620	270	35	410	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.88	0.88	0.87	0.87	0.85	0.85	
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	409	23	713	310	41	482	
Turn Type		Perm		Perm	Perm		
Protected Phases	3		1			1	2
Permitted Phases		3		1	1		
Detector Phase	3	3	1	1	1	1	
Switch Phase							
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	3.0
Minimum Split (s)	10.0	10.0	15.0	15.0	15.0	15.0	18.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0	55.0	18.0
Total Split (%)	25.5%	25.5%	56.1%	56.1%	56.1%	56.1%	18%
Maximum Green (s)	20.0	20.0	50.0	50.0	50.0	50.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag			Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0	4.0	4.0	4.0	0.7
Recall Mode	Max	Max	Max	Max	Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							6
v/c Ratio	0.99	0.05	0.69	0.32	0.14	0.43	
Control Delay	76.5	21.2	17.1	2.3	10.5	11.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	76.5	21.2	17.1	2.3	10.5	11.5	
Queue Length 50th (ft)	202	6	203	0	8	109	
Queue Length 95th (ft)	#469	28	482	35	31	251	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	413	422	1038	966	292	1113	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.99	0.05	0.69	0.32	0.14	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 98
Actuated Cycle Length: 83.4
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 71: Court Street & Washington Street

HCM Signalized Intersection Capacity Analysis
71: Court Street & Washington Street

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	360	20	620	270	35	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1723	1722	1398	1805	1845
Flt Permitted	0.95	1.00	1.00	1.00	0.25	1.00
Satd. Flow (perm)	1711	1723	1722	1398	484	1845
Peak-hour factor, PHF	0.88	0.88	0.87	0.87	0.85	0.85
Adj. Flow (vph)	409	23	713	310	41	482
RTOR Reduction (vph)	0	6	0	127	0	0
Lane Group Flow (vph)	409	17	713	183	41	482
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%
Turn Type		Perm		Perm	Perm	
Protected Phases	3		1			1
Permitted Phases		3		1	1	
Actuated Green, G (s)	20.1	20.1	50.3	50.3	50.3	50.3
Effective Green, g (s)	20.1	20.1	50.3	50.3	50.3	50.3
Actuated g/C Ratio	0.24	0.24	0.59	0.59	0.59	0.59
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	405	407	1019	827	286	1092
v/s Ratio Prot	c0.24		c0.41			0.26
v/s Ratio Perm		0.01		0.13	0.08	
v/c Ratio	1.01	0.04	0.70	0.22	0.14	0.44
Uniform Delay, d1	32.4	25.0	12.1	8.2	7.7	9.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	47.2	0.2	4.0	0.6	1.1	1.3
Delay (s)	79.7	25.2	16.1	8.8	8.8	10.9
Level of Service	E	C	B	A	A	B
Approach Delay (s)	76.8		13.9			10.7
Approach LOS	E		B			B

Intersection Summary

HCM Average Control Delay	26.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

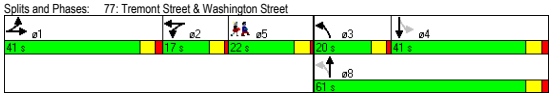
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø5
Lane Configurations													
Volume (vph)	450	155	50	35	125	50	85	380	60	30	240	365	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		698			192			1911			574		
Travel Time (s)		15.9			4.4			43.4			13.0		
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92	
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%	
Shared Lane Traffic (%)	27%												
Lane Group Flow (vph)	339	337	0	0	226	0	0	590	0	0	691	0	
Turn Type	Split			Split			pm+pt			Perm			
Protected Phases	1	1		2	2		3	8			4		5
Permitted Phases							8			4			
Detector Phase	1	1		2	2		3	8		4	4		
Switch Phase													
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0		3.0
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0		22.0
Total Split (s)	41.0	41.0	0.0	17.0	17.0	0.0	20.0	61.0	0.0	41.0	41.0	0.0	22.0
Total Split (%)	29.1%	29.1%	0.0%	12.1%	12.1%	0.0%	14.2%	43.3%	0.0%	29.1%	29.1%	0.0%	16%
Maximum Green (s)	35.0	35.0		12.0	12.0		15.0	55.0		35.0	35.0		17.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None		None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													10.0
Pedestrian Calls (#/hr)													8
v/c Ratio	0.71	0.74			0.95			0.73			0.60		
Control Delay	43.7	45.3			89.8			32.4			18.4		
Queue Delay	0.0	0.0			0.0			0.0			0.0		
Total Delay	43.7	45.3			89.8			32.4			18.4		
Queue Length 50th (ft)	182	180			126			142			103		
Queue Length 95th (ft)	#441	#465			#448			303			239		
Internal Link Dist (ft)		618			112			1831			494		
Turn Bay Length (ft)													
Base Capacity (vph)	679	640			239			1291			1287		
Starvation Cap Reductn	0	0			0			0			0		
Spillback Cap Reductn	0	0			0			0			0		
Storage Cap Reductn	0	0			0			0			0		
Reduced v/c Ratio	0.50	0.53			0.95			0.46			0.54		

Intersection Summary

Area Type: Other
Cycle Length: 141
Actuated Cycle Length: 96.5
Natural Cycle: 95
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 77: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
77: Tremont Street & Washington Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	450	155	50	35	125	50	85	380	60	30	240	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	
Lane Util. Factor	0.95	0.95			1.00			0.95			0.95	
Frt	1.00	0.98			0.97			0.98			0.91	
Flt Protected	0.95	0.98			0.99			0.99			1.00	
Satd. Flow (prot)	1759	1650			1748			3356			2973	
Flt Permitted	0.95	0.98			0.99			0.63			0.90	
Satd. Flow (perm)	1759	1650			1748			2123			2673	
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	464	160	52	38	134	54	96	427	67	33	261	397
RTOR Reduction (vph)	0	4	0	0	8	0	0	7	0	0	147	0
Lane Group Flow (vph)	339	333	0	0	218	0	0	583	0	0	544	0
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	26.3	26.3			12.8			36.4			36.4	
Effective Green, g (s)	26.3	26.3			12.8			36.4			36.4	
Actuated g/C Ratio	0.26	0.26			0.13			0.36			0.36	
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	464	435			224			774			975	
v/s Ratio Prot	0.19	c0.20			c0.12							
v/s Ratio Perm								c0.27			0.20	
v/c Ratio	0.73	0.76			0.97			0.75			0.56	
Uniform Delay, d1	33.5	33.9			43.3			27.8			25.3	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	5.0	7.1			52.1			3.7			0.4	
Delay (s)	38.6	40.9			95.5			31.5			25.7	
Level of Service	D	D			F			C			C	
Approach Delay (s)		39.8			95.5			31.5			25.7	
Approach LOS		D			F			C			C	

Intersection Summary

HCM Average Control Delay	38.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	24.3
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
93: Washington Street & Broadway

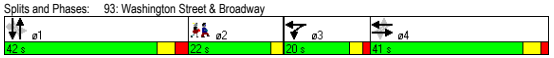
2030 No-Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	275	90	5	20	95	5	5	520	15	10	370	225	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	12	12	12	12	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			No			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1068			1376			92			2042		
Travel Time (s)		24.3			31.3			2.1			46.4		
Peak Hour Factor	0.88	0.88	0.88	0.72	0.72	0.72	0.87	0.87	0.87	0.89	0.89	0.89	
Heavy Vehicles (%)	5%	2%	25%	6%	1%	0%	6%	0%	0%	13%	7%	4%	
Parking (#/hr)									2				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	420	0	0	167	0	0	621	0	0	427	253	
Turn Type	Perm			pm+pt			Perm			Perm		Perm	
Protected Phases		4		3	3 4			1			1		2
Permitted Phases	4			3 4			1			1		1	
Detector Phase	4	4		3	3 4		1	1		1	1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		4.0			18.0	18.0		18.0	18.0	18.0	1.0
Minimum Split (s)	14.0	14.0		9.0			25.0	25.0		25.0	25.0	25.0	22.0
Total Split (s)	41.0	41.0	0.0	20.0	61.0	0.0	42.0	42.0	0.0	42.0	42.0	42.0	22.0
Total Split (%)	32.8%	32.8%	0.0%	16.0%	48.8%	0.0%	33.6%	33.6%	0.0%	33.6%	33.6%	33.6%	18%
Maximum Green (s)	35.0	35.0		15.0			35.0	35.0		35.0	35.0	35.0	19.0
Yellow Time (s)	4.0	4.0		3.0			4.0	4.0		4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	7.0	7.0	4.0	7.0	7.0	7.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.0			3.0	3.0		3.0	3.0	3.0	2.0
Recall Mode	None	None		None			Min	Min		Min	Min	Min	None
Walk Time (s)													7.0
Flash Dont Walk (s)													12.0
Pedestrian Calls (#/hr)													8
v/c Ratio		0.82			0.20			0.58			0.78	0.52	
Control Delay		46.0			15.4			31.5			43.1	33.4	
Queue Delay		0.0			0.0			0.0			0.0	0.0	
Total Delay		46.0			15.4			31.5			43.1	33.4	
Queue Length 50th (ft)		226			50			154			220	118	
Queue Length 95th (ft)		#565			99			285			#504	264	
Internal Link Dist (ft)		988			1296			12			1962		
Turn Bay Length (ft)												50	
Base Capacity (vph)		510			898			1250			634	568	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			0			0			0	0	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.82			0.19			0.50			0.67	0.45	

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 97.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 93: Washington Street & Broadway



HCM Signalized Intersection Capacity Analysis
93: Washington Street & Broadway

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	90	5	20	95	5	5	520	15	10	370	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			5.0			7.0			7.0	7.0
Lane Util. Factor		1.00			1.00			0.95			1.00	1.00
Frt		1.00			0.99			1.00			1.00	0.85
Flt Protected		0.96			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1982			1840			3591			1771	1553
Flt Permitted		0.68			0.92			0.95			0.98	1.00
Satd. Flow (perm)		1392			1699			3413			1732	1553
Peak-hour factor, PHF	0.88	0.88	0.88	0.72	0.72	0.72	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	312	102	6	28	132	7	6	598	17	11	416	253
RTOR Reduction (vph)	0	1	0	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	419	0	0	167	0	0	620	0	0	427	253
Heavy Vehicles (%)	5%	2%	25%	6%	1%	0%	6%	0%	0%	13%	7%	4%
Parking (#/hr)									2			
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Actuated Green, G (s)		35.7			45.0			30.8			30.8	30.8
Effective Green, g (s)		35.7			45.0			30.8			30.8	30.8
Actuated g/C Ratio		0.36			0.45			0.31			0.31	0.31
Clearance Time (s)		6.0						7.0			7.0	7.0
Vehicle Extension (s)		4.0						3.0			3.0	3.0
Lane Grp Cap (vph)		498			779			1053			535	479
v/s Ratio Prot					c0.02							
v/s Ratio Perm		c0.30			0.08			0.18			c0.25	0.16
v/c Ratio		0.84			0.21			0.59			0.80	0.53
Uniform Delay, d1		29.5			16.7			29.1			31.6	28.5
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		12.7			0.1			0.8			8.1	1.1
Delay (s)		42.1			16.7			30.0			39.8	29.6
Level of Service		D			B			C			D	C
Approach Delay (s)		42.1			16.7			30.0			36.0	
Approach LOS		D			B			C			D	

Intersection Summary

HCM Average Control Delay	33.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
25: Route 24 Slip Ramp & Route 140 (Exit 12A)

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	185	0	1830	1225	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	250	0	1968	1317	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					624	
pX, platoon unblocked						
vC, conflicting volume	2301	659	1317			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2301	659	1317			
tC, single (s)	6.8	7.1	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	35	100			
cM capacity (veh/h)	33	386	532			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	250	984	984	659	659
Volume Left	0	0	0	0	0
Volume Right	250	0	0	0	0
cSH	386	1700	1700	1700	1700
Volume to Capacity	0.65	0.58	0.58	0.39	0.39
Queue Length 95th (ft)	110	0	0	0	0
Control Delay (s)	30.0	0.0	0.0	0.0	0.0
Lane LOS	D				
Approach Delay (s)	30.0	0.0		0.0	
Approach LOS	D				

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
37: Route 140 (Exit 12B) &

2030 No-Build Conditions - AM Peak Hour

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	0	210	0	985	805	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	228	0	1071	875	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				724	631	
pX, platoon unblocked	0.99					
vC, conflicting volume	1410	438	875			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1393	438	875			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	60	100			
cM capacity (veh/h)	131	567	767			

Direction, Lane #	WB 1	SE 1	SE 2	NW 1	NW 2
Volume Total	228	535	535	438	438
Volume Left	0	0	0	0	0
Volume Right	228	0	0	0	0
cSH	567	1700	1700	1700	1700
Volume to Capacity	0.40	0.31	0.31	0.26	0.26
Queue Length 95th (ft)	48	0	0	0	0
Control Delay (s)	15.6	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	15.6	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
66: Cohannet Street & Taunton Green

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (veh/h)	0	135	10	0	0	0	590	230	90	0	430
Sign Control		Stop			Stop		Free			Free	
Grade		0%			0%		0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.93	0.93	0.93	0.83	0.83
Hourly flow rate (vph)	0	145	11	0	0	0	634	247	97	0	518
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type							Raised			None	
Median storage veh)							1				
Upstream signal (ft)											
pX, platoon unblocked											
vC, conflicting volume	1824	2083	296	1599	1613	0	518				
vC1, stage 1 conf vol	1565	1565		0	0						
vC2, stage 2 conf vol	259	518		1599	1613						
vCu, unblocked vol	1824	2083	296	1599	1613	0	518				
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.2				
tC, 2 stage (s)	6.1	5.6		6.1	5.5						
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.3				
p0 queue free %	100	0	99	0	100	100	38				
cM capacity (veh/h)	45	19	748	0	57	1091	1028				

Direction, Lane #	EB 1	EB 2	SB 1	SB 2	SB 3	NE 1
Volume Total	145	11	317	317	344	518
Volume Left	0	0	317	317	0	0
Volume Right	0	11	0	0	97	518
cSH	19	748	1028	1028	1700	1700
Volume to Capacity	7.46	0.01	0.62	0.62	0.20	0.30
Queue Length 95th (ft)	Err	1	111	111	0	0
Control Delay (s)	Err	9.9	14.0	14.0	0.0	0.0
Lane LOS	F	A	B	B		
Approach Delay (s)	9310.1		9.1			0.0
Approach LOS	F					

Intersection Summary				
Average Delay		883.8		
Intersection Capacity Utilization		40.4%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
67: Taunton Green & Broadway

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	0	700	730	0	400
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.91	0.91	0.96	0.96
Hourly flow rate (vph)	0	0	769	802	0	417
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	1571				769	385
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1571				769	385
tC, single (s)	4.1				6.8	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.4
p0 queue free %	100				100	31
cM capacity (veh/h)	425				342	605

Direction, Lane #	WB 1	WB 2	WB 3	SB 1
Volume Total	385	385	802	417
Volume Left	0	0	0	0
Volume Right	0	0	802	417
cSH	1700	1700	1700	605
Volume to Capacity	0.23	0.23	0.47	0.69
Queue Length 95th (ft)	0	0	0	135
Control Delay (s)	0.0	0.0	0.0	23.1
Lane LOS				C
Approach Delay (s)	0.0			23.1
Approach LOS				C

Intersection Summary				
Average Delay		4.8		
Intersection Capacity Utilization		50.8%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
70: Post Office Square & Court Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	10	630	60	400	0	0	0	0	275	0
Sign Control		Free			Free			Yield			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.46	0.46	0.46	0.94	0.94	0.94	0.92	0.92	0.92	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	22	670	64	426	0	0	0	0	309	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					565							
pX, platoon unblocked												
vC, conflicting volume	64			22			1559	1404	0	1415	1426	64
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	64			22			1559	1404	0	1415	1426	64
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.1	3.3
p0 queue free %	100			57			0	100	100	100	0	100
cM capacity (veh/h)	1551			1562			0	80	1091	77	76	1006

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	22	447	287	426	309
Volume Left	0	447	223	0	0
Volume Right	22	0	0	426	0
cSH	1700	1562	1562	1700	76
Volume to Capacity	0.01	0.43	0.43	0.25	4.08
Queue Length 95th (ft)	0	55	55	0	Err
Control Delay (s)	0.0	9.0	7.9	0.0	Err
Lane LOS		A	A		F
Approach Delay (s)	0.0	5.4			Err
Approach LOS					F

Intersection Summary			
Average Delay		2077.4	
Intersection Capacity Utilization		46.8%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
75: Frederick Marting Parkway & Washington Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	0	95	0	135	0	735	155	105	655	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.42	0.42	0.42	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	12	0	0	109	0	155	0	835	176	119	744	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								574			260	
pX, platoon unblocked	0.90	0.90	0.88	0.90	0.90	0.96	0.88			0.96		
vC, conflicting volume	1559	1997	747	1906	1912	506	750			1011		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1379	1865	644	1764	1771	389	647			918		
tC, single (s)	7.5	6.5	6.9	7.7	6.5	7.0	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	80	100	100	0	100	73	100			83		
cM capacity (veh/h)	60	55	370	39	63	580	834			688		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	12	109	155	418	594	119	750
Volume Left	12	109	0	0	0	119	0
Volume Right	0	0	155	0	176	0	6
cSH	60	39	580	834	1700	688	1700
Volume to Capacity	0.20	2.83	0.27	0.00	0.35	0.17	0.44
Queue Length 95th (ft)	17	305	27	0	0	16	0
Control Delay (s)	78.6	1045.0	13.5	0.0	0.0	11.3	0.0
Lane LOS	F	F	B			B	
Approach Delay (s)	78.6	439.5		0.0		1.6	
Approach LOS	F	F					

Intersection Summary			
Average Delay		54.9	
Intersection Capacity Utilization		75.0%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
78: Kilmer Street & Oak Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	95	10	20	345	175	100
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.79	0.79
Hourly flow rate (vph)	119	12	25	431	222	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	766	285	348			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	766	285	348			
tC, single (s)	6.4	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.3			
p0 queue free %	67	98	98			
cM capacity (veh/h)	362	713	1178			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	131	456	348
Volume Left	119	25	0
Volume Right	12	0	127
cSH	379	1178	1700
Volume to Capacity	0.35	0.02	0.20
Queue Length 95th (ft)	38	2	0
Control Delay (s)	19.4	0.7	0.0
Lane LOS	C	A	
Approach Delay (s)	19.4	0.7	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		3.0	
Intersection Capacity Utilization		47.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
87: Purchase Street & School Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	230	10	15	125	5	25	70	20	10	70	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.88	0.88	0.88	0.69	0.69	0.69	0.90	0.90	0.90
Hourly flow rate (vph)	41	271	12	17	142	6	36	101	29	11	78	67
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	148			282			643	541	276	618	544	145
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	148			282			643	541	276	618	544	145
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			88	76	96	96	82	93
cM capacity (veh/h)	1410			1292			300	428	755	308	426	908

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	324	165	167	156
Volume Left	41	17	36	11
Volume Right	12	6	29	67
cSH	1410	1292	421	533
Volume to Capacity	0.03	0.01	0.40	0.29
Queue Length 95th (ft)	2	1	46	30
Control Delay (s)	1.2	0.9	19.1	14.5
Lane LOS	A	A	C	B
Approach Delay (s)	1.2	0.9	19.1	14.5
Approach LOS			C	B

Intersection Summary			
Average Delay		7.4	
Intersection Capacity Utilization		40.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Purchase Street & Washington Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	105	5	20	130	35	5	65	40	105	45	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.68	0.70	0.70	0.70
Hourly flow rate (vph)	0	152	7	29	191	51	7	96	59	150	64	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	243			159			478	457	156	538	435	217
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	243			159			478	457	156	538	435	217
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			98	80	93	58	87	98
cM capacity (veh/h)	1336			1432			435	489	895	357	507	828

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	159	272	162	229
Volume Left	0	29	7	150
Volume Right	7	51	59	14
cSH	1336	1432	582	405
Volume to Capacity	0.00	0.02	0.28	0.56
Queue Length 95th (ft)	0	2	28	84
Control Delay (s)	0.0	1.0	13.5	24.8
Lane LOS		A	B	C
Approach Delay (s)	0.0	1.0	13.5	24.8
Approach LOS			B	C

Intersection Summary			
Average Delay		9.9	
Intersection Capacity Utilization		38.9%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
89: Winter Street & School Street

2030 No-Build Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	220	10	75	370	20	25	35	65	20	40	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.63	0.63	0.63	0.84	0.84	0.84	0.56	0.56	0.56
Hourly flow rate (vph)	11	237	11	119	587	32	30	42	77	36	71	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	619			247			1158	1121	242	1203	1110	603
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	619			247			1158	1121	242	1203	1110	603
tC, single (s)	4.2			4.1			7.1	6.6	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.1	3.3	3.6	4.0	3.3
p0 queue free %	99			91			73	77	90	66	62	96
cM capacity (veh/h)	933			1324			109	182	790	105	190	503

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	258	738	149	125
Volume Left	11	119	30	36
Volume Right	11	32	77	18
cSH	933	1324	248	166
Volume to Capacity	0.01	0.09	0.60	0.75
Queue Length 95th (ft)	1	7	88	118
Control Delay (s)	0.5	2.2	39.2	73.1
Lane LOS	A	A	E	F
Approach Delay (s)	0.5	2.2	39.2	73.1
Approach LOS			E	F

Intersection Summary			
Average Delay		13.2	
Intersection Capacity Utilization		56.2%	ICU Level of Service B
Analysis Period (min)		15	

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

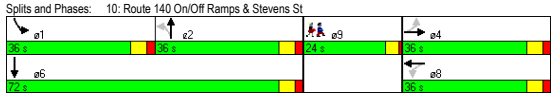
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	40	85	5	30	40	55	5	265	320	530	210	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	13	16	12	12	16	12	12	16	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	200		0	
Storage Lanes	0		0	0		0	0		0	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		819			376			787			471		
Travel Time (s)		18.6			8.5			17.9			10.7		
Peak Hour Factor	0.76	0.76	0.76	0.84	0.84	0.84	0.89	0.89	0.89	0.80	0.80	0.80	
Heavy Vehicles (%)	0%	0%	0%	10%	0%	2%	0%	8%	0%	1%	1%	3%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	172	0	0	149	0	0	664	0	662	306	0	
Turn Type	Perm			Perm			Perm			Prot			
Protected Phases		4			8			2		1	6		9
Permitted Phases	4			8			2						
Detector Phase	4	4		8	8		2	2		1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		4.0
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		24.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0	36.0	72.0	0.0	24.0
Total Split (%)	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	54.5%	0.0%	18%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	66.0		20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag							Lag	Lag		Lead			
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None		None	None		None	None		None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													0
v/c Ratio		0.39			0.33			0.70		0.64	0.25		
Control Delay		28.8			18.7			18.9		22.9	4.8		
Queue Delay		0.0			0.0			0.0		0.0	0.0		
Total Delay		28.8			18.7			18.9		22.9	4.8		
Queue Length 50th (ft)		30			14			76		108	37		
Queue Length 95th (ft)		58			42			153		165	62		
Internal Link Dist (ft)		739			296			707			391		
Turn Bay Length (ft)										200			
Base Capacity (vph)		1529			1406			1635		1741	1761		
Starvation Cap Reductn		0			0			0		0	0		
Spillback Cap Reductn		0			0			0		0	0		
Storage Cap Reductn		0			0			0		0	0		
Reduced v/c Ratio		0.11			0.11			0.41		0.38	0.17		

Intersection Summary

Area Type: Other
Cycle Length: 132
Actuated Cycle Length: 61.9
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Route 140 On/Off Ramps & Stevens St



HCM Signalized Intersection Capacity Analysis
10: Route 140 On/Off Ramps & Stevens St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	85	5	30	40	55	5	265	320	530	210	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	16	12	12	16	12	12	16	12	12	12
Total Lost time (s)		6.0			6.0			6.0		6.0	6.0	
Lane Util. Factor		0.95			0.95			0.95		0.97	1.00	
Frt		0.99			0.93			0.92		1.00	0.98	
Flt Protected		0.98			0.99			1.00		0.95	1.00	
Satd. Flow (prot)		3651			3227			3200		3467	1835	
Flt Permitted		0.82			0.84			0.95		0.95	1.00	
Satd. Flow (perm)		3042			2733			3044		3467	1835	
Peak-hour factor, PHF	0.76	0.76	0.76	0.84	0.84	0.84	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	53	112	7	36	48	65	6	298	360	662	262	44
RTOR Reduction (vph)	0	3	0	0	56	0	0	156	0	0	3	0
Lane Group Flow (vph)	0	169	0	0	93	0	0	508	0	662	303	0
Heavy Vehicles (%)	0%	0%	0%	10%	0%	2%	0%	8%	0%	1%	1%	3%
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		8.9			8.9			16.1		18.4	40.5	
Effective Green, g (s)		8.9			8.9			16.1		18.4	40.5	
Actuated g/C Ratio		0.14			0.14			0.26		0.30	0.66	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		441			396			798		1039	1210	
v/s Ratio Prot										c0.19	0.17	
v/s Ratio Perm		c0.06			0.03			c0.17				
v/c Ratio		0.38			0.24			0.64		0.64	0.25	
Uniform Delay, d1		23.8			23.2			20.1		18.6	4.3	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.2			0.1			1.2		0.9	0.0	
Delay (s)		24.0			23.4			21.3		19.6	4.3	
Level of Service		C			C			C		B	A	
Approach Delay (s)		24.0			23.4			21.3			14.7	
Approach LOS		C			C			C			B	

Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	61.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
18: Galleria Mall Entrance & County St

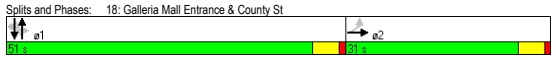
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	155	45	0	0	0	25	65	0	165	145	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	14	12	12	12	12	12	16	12	12	16
Storage Length (ft)	0		0	0		0	200		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			269			674			311	
Travel Time (s)		9.0			6.1			15.3			7.1	
Peak Hour Factor	0.94	0.94	0.94	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Heavy Vehicles (%)	1%	4%	0%	0%	0%	11%	0%	0%	0%	3%	1%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	548	0	0	0	0	0	119	0	0	344	506
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Detector Phase	2	2					1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0					8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	13.0	13.0					13.0	13.0		13.0	13.0	13.0
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0	51.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%	62.2%	62.2%	62.2%
Maximum Green (s)	26.0	26.0					46.0	46.0		46.0	46.0	46.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag					Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0					2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None					Min	Min		Min	Min	Min
v/c Ratio		0.47						0.12			0.36	0.53
Control Delay		10.0						6.9			8.5	3.3
Queue Delay		0.0						0.0			0.0	0.0
Total Delay		10.0						6.9			8.5	3.3
Queue Length 50th (ft)		31						5			17	0
Queue Length 95th (ft)		71						13			41	34
Internal Link Dist (ft)		316			189			594			231	
Turn Bay Length (ft)												
Base Capacity (vph)		3345						2949			2720	1794
Starvation Cap Reductn		0						0			0	0
Spillback Cap Reductn		0						0			0	0
Storage Cap Reductn		0						0			0	0
Reduced v/c Ratio		0.16						0.04			0.13	0.28

Intersection Summary

Area Type: Other
Cycle Length: 82
Actuated Cycle Length: 29.5
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Galleria Mall Entrance & County St



HCM Signalized Intersection Capacity Analysis
18: Galleria Mall Entrance & County St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	155	45	0	0	0	25	65	0	165	145	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	14	12	12	12	12	12	16	12	12	16
Total Lost time (s)		5.0						5.0			5.0	5.0
Lane Util. Factor		0.95						0.95			0.95	1.00
Frt		0.99						1.00			1.00	0.85
Flt Protected		0.97						0.99			0.97	1.00
Satd. Flow (prot)		3735						3561			3445	1794
Flt Permitted		0.97						0.82			0.77	1.00
Satd. Flow (perm)		3735						2950			2719	1794
Peak-hour factor, PHF	0.94	0.94	0.94	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Adj. Flow (vph)	335	165	48	0	0	0	33	86	0	183	161	506
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	0	329
Lane Group Flow (vph)	0	539	0	0	0	0	0	119	0	0	344	177
Heavy Vehicles (%)	1%	4%	0%	0%	0%	11%	0%	0%	0%	3%	1%	2%
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Actuated Green, G (s)		9.1						10.3			10.3	10.3
Effective Green, g (s)		9.1						10.3			10.3	10.3
Actuated g/C Ratio		0.31						0.35			0.35	0.35
Clearance Time (s)		5.0						5.0			5.0	5.0
Vehicle Extension (s)		2.0						2.0			2.0	2.0
Lane Grp Cap (vph)		1156						1034			953	629
v/s Ratio Prot												
v/s Ratio Perm		0.14						0.04			c0.13	0.10
v/c Ratio		0.47						0.12			0.36	0.28
Uniform Delay, d1		8.2						6.5			7.1	6.9
Progression Factor		1.00						1.00			1.00	1.00
Incremental Delay, d2		0.1						0.0			0.1	0.1
Delay (s)		8.3						6.5			7.2	7.0
Level of Service		A						A			A	A
Approach Delay (s)		8.3			0.0			6.5			7.1	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	29.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

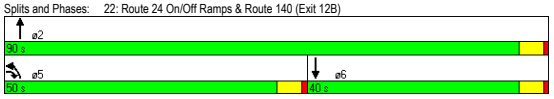
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	1440	285	965	1085	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	12	12	12
Storage Length (ft)	0	0	250			200
Storage Lanes	0	2	1			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	729			870	625	
Travel Time (s)	16.6			19.8	14.2	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	0%	3%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1500	310	1049	1543	0
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Detector Phase		5	5	2	6	
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0	4.0	
Minimum Split (s)		9.0	9.0	21.0	21.0	
Total Split (s)	0.0	50.0	50.0	90.0	40.0	0.0
Total Split (%)	0.0%	55.6%	55.6%	100.0%	44.4%	0.0%
Maximum Green (s)		45.0	45.0	85.0	35.0	
Yellow Time (s)		4.0	4.0	4.0	4.0	
All-Red Time (s)		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Recall Mode		None	None	C-Min	C-Min	
Walk Time (s)				5.0	5.0	
Flash Dont Walk (s)				11.0	11.0	
Pedestrian Calls (#/hr)				0	0	
v/c Ratio		1.10	0.34	0.30	1.13	
Control Delay		79.5	18.0	0.2	94.0	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		79.5	18.0	0.2	94.0	
Queue Length 50th (ft)		~554	137	0	~535	
Queue Length 95th (ft)		#699	167	0	#674	
Internal Link Dist (ft)	649			790	545	
Turn Bay Length (ft)			250			
Base Capacity (vph)		1367	903	3505	1360	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		1.10	0.34	0.30	1.13	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 22: Route 24 On/Off Ramps & Route 140 (Exit 12B)



HCM Signalized Intersection Capacity Analysis
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	1440	285	965	1085	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	15	12	12	12	12	12
Total Lost time (s)		5.0	5.0	5.0	5.0	
Lane Util. Factor		0.88	1.00	0.95	0.95	
Frt		0.85	1.00	1.00	0.96	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		2733	1805	3505	3414	
Flt Permitted		1.00	0.95	1.00	1.00	
Satd. Flow (perm)		2733	1805	3505	3414	
Peak-hour factor, PHF	0.96	0.96	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1500	310	1049	1179	364
RTOR Reduction (vph)	0	0	0	0	32	0
Lane Group Flow (vph)	0	1500	310	1049	1511	0
Heavy Vehicles (%)	2%	4%	0%	3%	2%	2%
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		45.0	45.0	90.0	35.0	
Effective Green, g (s)		45.0	45.0	90.0	35.0	
Actuated g/C Ratio		0.50	0.50	1.00	0.39	
Clearance Time (s)		5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1367	903	3505	1328	
v/s Ratio Prot		c0.55	0.17	0.30	c0.44	
v/s Ratio Perm						
v/c Ratio		1.10	0.34	0.30	1.14	
Uniform Delay, d1		22.5	13.6	0.0	27.5	
Progression Factor		1.00	1.22	1.00	0.92	
Incremental Delay, d2		55.5	0.2	0.2	69.9	
Delay (s)		78.0	16.8	0.2	95.3	
Level of Service		E	B	A	F	
Approach Delay (s)	78.0			4.0	95.3	
Approach LOS	E			A	F	

Intersection Summary

HCM Average Control Delay	61.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	99.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
23: Route 140 (Exit 12B) & Mozzone Blvd

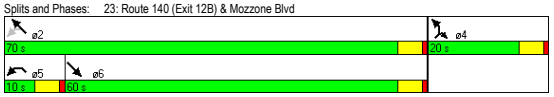
2030 No-Build Conditions - PM Peak Hour

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	1200	190	225	995	175	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	0		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1713			740	1061	
Travel Time (s)	38.9			16.8	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1511	0	0	1327	190	239
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Detector Phase	6		5	2	4	4
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	15.0		10.0	15.0	15.0	15.0
Total Split (s)	60.0	0.0	10.0	70.0	20.0	20.0
Total Split (%)	66.7%	0.0%	11.1%	77.8%	22.2%	22.2%
Maximum Green (s)	55.0		5.0	65.0	15.0	15.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	C-Min		None	C-Min	None	None
v/c Ratio	0.59			1.30dl	0.72	0.66
Control Delay	6.6			35.1	52.4	23.4
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	6.6			35.1	52.4	23.4
Queue Length 50th (ft)	180			~383	102	46
Queue Length 95th (ft)	232			#560	#177	123
Internal Link Dist (ft)	1633			660	981	
Turn Bay Length (ft)						
Base Capacity (vph)	2574			1331	295	388
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.59			1.00	0.64	0.62

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 40 (44%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 23: Route 140 (Exit 12B) & Mozzone Blvd



HCM Signalized Intersection Capacity Analysis
23: Route 140 (Exit 12B) & Mozzone Blvd

2030 No-Build Conditions - PM Peak Hour

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	1200	190	225	995	175	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.98			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3466			3507	1770	1583
Flt Permitted	1.00			0.51	0.95	1.00
Satd. Flow (perm)	3466			1798	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1304	207	245	1082	190	239
RTOR Reduction (vph)	9	0	0	0	0	127
Lane Group Flow (vph)	1502	0	0	1327	190	112
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Actuated Green, G (s)	66.6			66.6	13.4	13.4
Effective Green, g (s)	66.6			66.6	13.4	13.4
Actuated g/C Ratio	0.74			0.74	0.15	0.15
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2565			1331	264	236
v/s Ratio Prot	0.43				c0.11	0.07
v/s Ratio Perm				c0.74		
v/c Ratio	0.59			1.30dl	0.72	0.48
Uniform Delay, d1	5.4			11.6	36.5	35.1
Progression Factor	1.00			0.71	1.00	1.00
Incremental Delay, d2	1.0			23.6	9.0	1.5
Delay (s)	6.4			31.8	45.6	36.6
Level of Service	A			C	D	D
Approach Delay (s)	6.4			31.8	40.6	
Approach LOS	A			C	D	

Intersection Summary

HCM Average Control Delay	21.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

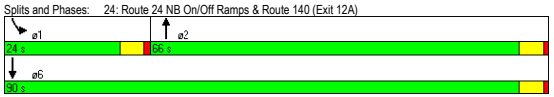
2030 No-Build Conditions - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	245	985	880	170	2390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12
Storage Length (ft)	0	0		300	250	
Storage Lanes	0	1		1	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	736		624			870
Travel Time (s)	16.7		14.2			19.8
Peak Hour Factor	0.94	0.94	0.98	0.98	0.97	0.97
Heavy Vehicles (%)	0%	2%	3%	6%	6%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	261	1005	898	175	2464
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Detector Phase			2		1	6
Switch Phase						
Minimum Initial (s)			8.0		16.0	16.0
Minimum Split (s)			13.0		21.0	21.0
Total Split (s)	0.0	0.0	66.0	0.0	24.0	90.0
Total Split (%)	0.0%	0.0%	73.3%	0.0%	26.7%	100.0%
Maximum Green (s)			61.0		19.0	85.0
Yellow Time (s)			4.0		4.0	4.0
All-Red Time (s)			1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)			2.0		2.0	2.0
Recall Mode			C-Min		None	C-Min
v/c Ratio		0.15	0.41	0.59	0.56	0.70
Control Delay		0.2	6.2	1.7	35.7	0.1
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		0.2	6.2	1.7	35.7	0.1
Queue Length 50th (ft)		0	103	0	97	0
Queue Length 95th (ft)		0	154	0	m75	m0
Internal Link Dist (ft)	656		544			790
Turn Bay Length (ft)				300	250	
Base Capacity (vph)		1772	2469	1524	360	3505
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.15	0.41	0.59	0.49	0.70

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 30 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)



HCM Signalized Intersection Capacity Analysis
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	245	985	880	170	2390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	12	12
Total Lost time (s)		4.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95
Frt		0.86	1.00	0.85	1.00	1.00
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1772	3505	1524	1703	3505
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1772	3505	1524	1703	3505
Peak-hour factor, PHF	0.94	0.94	0.98	0.98	0.97	0.97
Adj. Flow (vph)	0	261	1005	898	175	2464
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	261	1005	898	175	2464
Heavy Vehicles (%)	0%	2%	3%	6%	6%	3%
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)		90.0	63.4	90.0	16.6	90.0
Effective Green, g (s)		90.0	63.4	90.0	16.6	90.0
Actuated g/C Ratio		1.00	0.70	1.00	0.18	1.00
Clearance Time (s)			5.0		5.0	5.0
Vehicle Extension (s)			2.0		2.0	2.0
Lane Grp Cap (vph)		1772	2469	1524	314	3505
v/s Ratio Prot			0.29		0.10	c0.70
v/s Ratio Perm		0.15		0.59		
v/c Ratio		0.15	0.41	0.59	0.56	0.70
Uniform Delay, d1		0.0	5.5	0.0	33.4	0.0
Progression Factor		1.00	1.00	1.00	1.04	1.00
Incremental Delay, d2		0.2	0.5	1.7	0.1	0.1
Delay (s)		0.2	6.0	1.7	34.8	0.1
Level of Service		A	A	A	C	A
Approach Delay (s)	0.2		4.0			2.4
Approach LOS	A		A			A

Intersection Summary

HCM Average Control Delay	2.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Taunton Depot Dr & Route 140

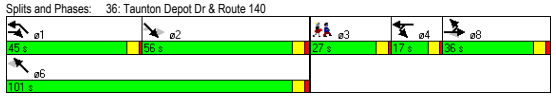
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	ø3
Lane Configurations													
Volume (vph)	235	5	230	5	0	0	0	885	260	195	930	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	12	12	
Storage Length (ft)	0		100	0		0	180		130	320		350	
Storage Lanes	1		1	0		0	1		1	1		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		846			205			2224			1713		
Travel Time (s)		19.2			4.7			50.5			38.9		
Peak Hour Factor	0.93	0.93	0.93	0.63	0.63	0.63	0.98	0.98	0.98	0.94	0.94	0.94	
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	2%	2%	0%	1%	0%	
Shared Lane Traffic (%)	49%												
Lane Group Flow (vph)	129	129	247	0	8	0	0	903	265	207	989	0	
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt			
Protected Phases	8	8	1	4	4			2		1	6		3
Permitted Phases			8				2		2	6			
Detector Phase	8	8	1	4	4		2	2	2	1	6		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	4.0	4.0		6.0	6.0	6.0	6.0	20.0		4.0
Minimum Split (s)	12.0	12.0	11.0	9.0	9.0		12.0	12.0	12.0	11.0	26.0		27.0
Total Split (s)	36.0	36.0	45.0	17.0	17.0	0.0	56.0	56.0	56.0	45.0	101.0	0.0	27.0
Total Split (%)	19.9%	19.9%	24.9%	9.4%	9.4%	0.0%	30.9%	30.9%	30.9%	24.9%	55.8%	0.0%	15%
Maximum Green (s)	30.0	30.0	40.0	12.0	12.0		50.0	50.0	50.0	40.0	95.0		22.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	1.0		2.0	2.0	2.0	1.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	5.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	6.0	4.0	
Lead/Lag			Lead	Lag	Lag		Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes	Yes				Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		4.0	4.0	4.0	2.0	4.0		3.0
Recall Mode	None	None	None	None	None		Min	Min	Min	None	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													15.0
Pedestrian Calls (#/hr)													6
v/c Ratio	0.50	0.50	0.33		0.06			0.60	0.36	0.48	0.43		
Control Delay	47.6	47.5	4.9		55.0			24.6	15.6	12.9	10.9		
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0	0.0	0.0		
Total Delay	47.6	47.5	4.9		55.0			24.6	15.6	12.9	10.9		
Queue Length 50th (ft)	55	55	0		3			147	44	27	88		
Queue Length 95th (ft)	203	203	61		20			507	219	157	393		
Internal Link Dist (ft)		766			125			2144			1633		
Turn Bay Length (ft)			100						130	320			
Base Capacity (vph)	669	672	1276		326			2348	1082	1005	3307		
Starvation Cap Reductn	0	0	0		0			0	0	0	0		
Spillback Cap Reductn	0	0	0		0			0	0	0	0		
Storage Cap Reductn	0	0	0		0			0	0	0	0		
Reduced v/c Ratio	0.19	0.19	0.19		0.02			0.38	0.24	0.21	0.30		

Intersection Summary

Area Type: Other
Cycle Length: 181
Actuated Cycle Length: 85.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Taunton Depot Dr & Route 140



HCM Signalized Intersection Capacity Analysis
36: Taunton Depot Dr & Route 140

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	235	5	230	5	0	0	0	885	260	195	930	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	12	12
Total Lost time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00			0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		1.00			1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00		0.95			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1690	1599		2046			3539	1583	1805	3574	
Flt Permitted	0.95	0.95	1.00		0.95			1.00	1.00	0.17	1.00	
Satd. Flow (perm)	1681	1690	1599		2046			3539	1583	330	3574	
Peak-hour factor, PHF	0.93	0.93	0.93	0.63	0.63	0.63	0.98	0.98	0.98	0.94	0.94	0.94
Adj. Flow (vph)	253	5	247	8	0	0	0	903	265	207	989	0
RTOR Reduction (vph)	0	0	179	0	0	0	0	0	57	0	0	0
Lane Group Flow (vph)	129	129	68	0	8	0	0	903	208	207	989	0
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	2%	2%	0%	1%	0%
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Actuated Green, G (s)	13.2	13.2	25.5		0.7			37.3	37.3	54.6	54.6	
Effective Green, g (s)	13.2	13.2	25.5		0.7			37.3	37.3	54.6	54.6	
Actuated g/C Ratio	0.14	0.14	0.27		0.01			0.40	0.40	0.59	0.59	
Clearance Time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Vehicle Extension (s)	2.0	2.0	2.0		2.0			4.0	4.0	2.0	4.0	
Lane Grp Cap (vph)	239	240	438		15			1419	635	389	2098	
v/s Ratio Prot	c0.08	0.08	0.02		c0.00			c0.26		0.07	c0.28	
v/s Ratio Perm			0.02						0.13	0.24		
v/c Ratio	0.54	0.54	0.15		0.53			0.64	0.33	0.53	0.47	
Uniform Delay, d1	37.1	37.1	25.6		46.0			22.4	19.2	11.9	11.0	
Progression Factor	1.00	1.00	1.00		1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	1.2	0.1		17.0			1.1	0.4	0.7	0.2	
Delay (s)	38.3	38.2	25.6		63.0			23.5	19.6	12.6	11.2	
Level of Service	D	D	C		E			C	B	B	B	
Approach Delay (s)		32.1			63.0			22.6			11.4	
Approach LOS		C			E			C			B	

Intersection Summary

HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	93.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
40: Honorable Gordon M. Owen Riverway & Route 140

2030 No-Build Conditions - PM Peak Hour

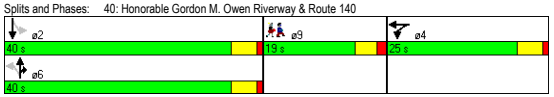
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	0	0	0	470	0	5	0	525	340	15	675	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	13	12	
Storage Length (ft)	0		0	0		0	0		175	0		0	
Storage Lanes	0		0	0		0	0		1	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		220			991			547			1888		
Travel Time (s)		5.0			22.5			12.4			42.9		
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.96	0.96	0.96	0.89	0.89	0.89	
Heavy Vehicles (%)	2%	2%	2%	1%	0%	100%	0%	3%	1%	0%	2%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	579	0	0	547	354	0	775	0	
Turn Type				Split			Perm		Prot	Perm			
Protected Phases				4	4			6	6		2		9
Permitted Phases							6			2			
Detector Phase				4	4		6	6	6	2	2		
Switch Phase													
Minimum Initial (s)				6.0	6.0		6.0	6.0	6.0	6.0	6.0		1.0
Minimum Split (s)				11.0	11.0		11.0	11.0	11.0	11.0	11.0		19.0
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	40.0	40.0	40.0	40.0	40.0	0.0	19.0
Total Split (%)	0.0%	0.0%	0.0%	29.8%	29.8%	0.0%	47.6%	47.6%	47.6%	47.6%	47.6%	0.0%	23%
Maximum Green (s)				20.0	20.0		35.0	35.0	35.0	35.0	35.0		14.0
Yellow Time (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		3.5
All-Red Time (s)				1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Vehicle Extension (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode				None	None		None	None	None	None	None		None
Walk Time (s)													7.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													1
v/c Ratio					1.06			0.60	0.36		0.80		
Control Delay					83.3			16.9	2.8		24.1		
Queue Delay					0.0			0.0	0.0		0.0		
Total Delay					83.3			16.9	2.8		24.1		
Queue Length 50th (ft)					~239			132	0		219		
Queue Length 95th (ft)					#527			360	48		#625		
Internal Link Dist (ft)		140			911			467			1808		
Turn Bay Length (ft)									175				
Base Capacity (vph)					546			929	1002		988		
Starvation Cap Reductn					0			0	0		0		
Spillback Cap Reductn					0			0	0		0		
Storage Cap Reductn					0			0	0		0		
Reduced v/c Ratio					1.06			0.59	0.35		0.78		

Intersection Summary	
Area Type:	Other
Cycle Length: 84	
Actuated Cycle Length: 68	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Honorable Gordon M. Owen Riverway & Route 140



HCM Signalized Intersection Capacity Analysis
40: Honorable Gordon M. Owen Riverway & Route 140

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	470	0	5	0	525	340	15	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	13	12
Total Lost time (s)					5.0			5.0	5.0		5.0	
Lane Util. Factor					1.00			1.00	1.00		1.00	
Frt					1.00			1.00	0.85		1.00	
Flt Protected					0.95			1.00	1.00		1.00	
Satd. Flow (prot)					1831			1783	1599		1924	
Flt Permitted					0.95			1.00	1.00		0.99	
Satd. Flow (perm)					1831			1783	1599		1897	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.96	0.96	0.96	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	573	0	6	0	547	354	17	758	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	184	0	0	0
Lane Group Flow (vph)	0	0	0	0	578	0	0	547	170	0	775	0
Heavy Vehicles (%)	2%	2%	2%	1%	0%	100%	0%	3%	1%	0%	2%	0%
Turn Type				Split			Perm		Prot	Perm		
Protected Phases				4	4			6	6		2	
Permitted Phases							6			2		
Actuated Green, G (s)					20.2			34.6	34.6		34.6	
Effective Green, g (s)					20.2			34.6	34.6		34.6	
Actuated g/C Ratio					0.28			0.48	0.48		0.48	
Clearance Time (s)					5.0			5.0	5.0		5.0	
Vehicle Extension (s)					4.0			4.0	4.0		4.0	
Lane Grp Cap (vph)					513			856	767		910	
v/s Ratio Prot					c0.32			0.31	0.11			
v/s Ratio Perm											c0.41	
v/c Ratio					1.13			0.64	0.22		0.85	
Uniform Delay, d1					26.0			14.1	10.9		16.5	
Progression Factor					1.00			1.00	1.00		1.00	
Incremental Delay, d2					79.6			1.8	0.2		8.0	
Delay (s)					105.6			15.8	11.1		24.5	
Level of Service					F			B	B		C	
Approach Delay (s)		0.0			105.6			14.0			24.5	
Approach LOS		A			F			B			C	

Intersection Summary			
HCM Average Control Delay	41.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	72.1	Sum of lost time (s)	17.3
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

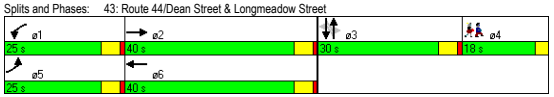
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø4
Lane Configurations													
Volume (vph)	10	815	350	405	765	220	75	330	220	150	235	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12	
Storage Length (ft)	100		70	100		70	0		50	0		100	
Storage Lanes	1		1	1		1	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1663			1440			2994			1249		
Travel Time (s)		37.8			32.7			68.0			28.4		
Peak Hour Factor	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84	
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	11	1252	0	422	1026	0	0	680	0	0	471	0	
Turn Type	Prot			Prot			Perm			Perm			
Protected Phases	5	2		1	6			3			3		4
Permitted Phases							3			3			
Detector Phase	5	2		1	6		3	3		3	3		
Switch Phase													
Minimum Initial (s)	9.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0		8.0
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0		18.0
Total Split (s)	25.0	40.0	0.0	25.0	40.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	18.0
Total Split (%)	22.1%	35.4%	0.0%	22.1%	35.4%	0.0%	26.5%	26.5%	0.0%	26.5%	26.5%	0.0%	16%
Maximum Green (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0		15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0		3.0
Recall Mode	None	Min		None	Min		None	None		None	None		None
Walk Time (s)													8.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													4
v/c Ratio	0.07	1.02		1.25	0.51			1.08			2.36dl		
Control Delay	45.1	60.6		171.0	15.0			90.9			69.5		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay	45.1	60.6		171.0	15.0			90.9			69.5		
Queue Length 50th (ft)	6	374		~314	149			~216			145		
Queue Length 95th (ft)	27	#692		#615	396			#416			#281		
Internal Link Dist (ft)		1583			1360			2914			1169		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	344	1233		337	2002			631			491		
Starvation Cap Reductn	0	0		0	0			0			0		
Spillback Cap Reductn	0	0		0	0			0			0		
Storage Cap Reductn	0	0		0	0			0			0		
Reduced v/c Ratio	0.03	1.02		1.25	0.51			1.08			0.96		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 98.6
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	815	350	405	765	220	75	330	220	150	235	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.95		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1685	3347		1652	3388			3236			3379	
Flt Permitted	0.95	1.00		0.95	1.00			0.69			0.56	
Satd. Flow (perm)	1685	3347		1652	3388			2237			1922	
Peak-hour factor, PHF	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	11	876	376	422	797	229	82	359	239	179	280	12
RTOR Reduction (vph)	0	38	0	0	15	0	0	62	0	0	2	0
Lane Group Flow (vph)	11	1214	0	422	1011	0	0	618	0	0	469	0
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)	1.6	39.3		20.1	57.8			25.1			25.1	
Effective Green, g (s)	1.6	39.3		20.1	57.8			25.1			25.1	
Actuated g/C Ratio	0.02	0.37		0.19	0.55			0.24			0.24	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	26	1252		316	1863			534			459	
v/s Ratio Prot	0.01	c0.36		c0.26	0.30							
v/s Ratio Perm								c0.28			0.24	
v/c Ratio	0.42	0.97		1.34	0.54			1.16			2.36dl	
Uniform Delay, d1	51.3	32.3		42.5	15.2			40.0			40.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	14.4	18.6		171.0	0.6			89.9			47.9	
Delay (s)	65.7	50.9		213.5	15.7			129.9			87.9	
Level of Service	E	D		F	B			F			F	
Approach Delay (s)		51.1			73.4			129.9			87.9	
Approach LOS		D			E			F			F	

Intersection Summary

HCM Average Control Delay	77.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	105.1	Sum of lost time (s)	20.6
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
45: Hart Street & Route 140

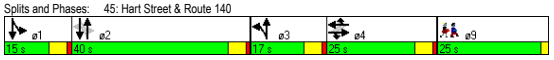
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2	ø9
Lane Configurations														
Volume (vph)	35	105	170	105	170	240	260	770	115	120	880	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12		
Storage Length (ft)	0		50	0		50	50		0	50		0		
Storage Lanes	0		1	0		1	1		0	1		0		
Taper Length (ft)	25		25	25		25	25		25	25		25		
Right Turn on Red			Yes			Yes			Yes			Yes		
Link Speed (mph)		30			30			35			35			
Link Distance (ft)		1373			971			2224			3692			
Travel Time (s)		31.2			22.1			43.3			71.9			
Peak Hour Factor	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96		
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	205	250	0	290	253	0	1206	0	0	1052	0		
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt				
Protected Phases		4	4		4	4	3	2 3		1	1 2		2	9
Permitted Phases	4			4			2 3			1 2				
Detector Phase	4	4	4	4	4	4	3	2 3		1	1 2			
Switch Phase														
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0			4.0			8.0	1.0
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0	13.0	9.0			9.0			13.0	25.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	17.0	57.0	0.0	15.0	55.0	0.0	40.0	25.0
Total Split (%)	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	13.9%	46.7%	0.0%	12.3%	45.1%	0.0%	33%	20%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	12.0			10.0			35.0	23.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0			4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0			1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0		
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lead			Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0			3.0	3.0
Recall Mode	Max	Max	Max	Max	Max	Max	None			None			None	None
Walk Time (s)														7.0
Flash Dont Walk (s)														16.0
Pedestrian Calls (#/hr)														0
v/c Ratio		1.05	0.60		1.27	0.63		1.07			1.04			
Control Delay		118.3	23.2		184.3	29.8		72.8			63.5			
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0			
Total Delay		118.3	23.2		184.3	29.8		72.8			63.5			
Queue Length 50th (ft)		~139	65		~227	90		~307			~248			
Queue Length 95th (ft)		#180	83		#388	174		#398			#415			
Internal Link Dist (ft)		1293			891			2144			3612			
Turn Bay Length (ft)			50			50								
Base Capacity (vph)		195	418		229	403		1128			1007			
Starvation Cap Reductn		0	0		0	0		0			0			
Spillback Cap Reductn		0	0		0	0		0			0			
Storage Cap Reductn		0	0		0	0		0			0			
Reduced v/c Ratio		1.05	0.60		1.27	0.63		1.07			1.04			

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 97
Natural Cycle: 150
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



HCM Signalized Intersection Capacity Analysis
45: Hart Street & Route 140

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	105	170	105	170	240	260	770	115	120	880	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.98			1.00	
Flt Protected		0.99	1.00		0.98	1.00		0.99			0.99	
Satd. Flow (prot)		1801	1531		1839	1599		3365			3484	
Flt Permitted		0.52	1.00		0.59	1.00		0.58			0.51	
Satd. Flow (perm)		948	1531		1114	1599		1957			1795	
Peak-hour factor, PHF	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	51	154	250	111	179	253	274	811	121	125	917	10
RTOR Reduction (vph)	0	0	102	0	0	73	0	6	0	0	1	0
Lane Group Flow (vph)	0	205	148	0	290	180	0	1200	0	0	1051	0
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		20.0	20.0		20.0	20.0		47.0			45.0	
Effective Green, g (s)		20.0	20.0		20.0	20.0		47.0			45.0	
Actuated g/C Ratio		0.21	0.21		0.21	0.21		0.48			0.46	
Clearance Time (s)		5.0	5.0		5.0	5.0						
Vehicle Extension (s)		3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)		195	316		230	330		1122			1007	
v/s Ratio Prot			0.10			0.11		c0.13			c0.11	
v/s Ratio Perm		0.22			c0.26			c0.39			0.38	
v/c Ratio		1.05	0.47		1.26	0.55		1.07			1.04	
Uniform Delay, d1		38.5	33.8		38.5	34.4		25.0			26.0	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		78.6	4.9		147.5	6.3		47.6			40.6	
Delay (s)		117.1	38.7		186.0	40.8		72.6			66.6	
Level of Service		F	D		F	D		E			E	
Approach Delay (s)		74.0			118.3			72.6			66.6	
Approach LOS		E			F			E			E	

Intersection Summary

HCM Average Control Delay	78.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	97.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
52: Route 44/Dean Street & Arlington Street

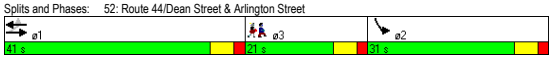
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	20	795	750	85	385	70	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.89	0.89	0.98	0.98	0.97	0.97	
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	22	893	852	0	469	0	
Turn Type	Perm						
Protected Phases		1	1		2		3
Permitted Phases	1						
Detector Phase	1	1	1		2		
Switch Phase							
Minimum Initial (s)	9.0	9.0	9.0		4.0		5.0
Minimum Split (s)	15.0	15.0	15.0		10.0		21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	0.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	0.0%	23%
Maximum Green (s)	35.0	35.0	35.0		25.0		15.0
Yellow Time (s)	4.0	4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	4.0	6.0	4.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		1.0
Recall Mode	None	None	None		None		None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.23	1.02	0.86		0.79		
Control Delay	23.7	58.1	30.6		36.3		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay	23.7	58.1	30.6		36.3		
Queue Length 50th (ft)	5	373	309		178		
Queue Length 95th (ft)	32	#890	#802		#458		
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	95	877	986		636		
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.23	1.02	0.86		0.74		

Intersection Summary	
Area Type:	Other
Cycle Length: 93	
Actuated Cycle Length: 74.6	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



HCM Signalized Intersection Capacity Analysis
52: Route 44/Dean Street & Arlington Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	20	795	750	85	385	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	6.0	6.0	6.0		6.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.98	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1685	1845	2068		1874	
Flt Permitted	0.11	1.00	1.00		0.96	
Satd. Flow (perm)	200	1845	2068		1874	
Peak-hour factor, PHF	0.89	0.89	0.98	0.98	0.97	0.97
Adj. Flow (vph)	22	893	765	87	397	72
RTOR Reduction (vph)	0	0	4	0	0	0
Lane Group Flow (vph)	22	893	848	0	469	0
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%
Turn Type	Perm					
Protected Phases		1	1		2	
Permitted Phases	1					
Actuated Green, G (s)	35.5	35.5	35.5		23.6	
Effective Green, g (s)	35.5	35.5	35.5		23.6	
Actuated g/C Ratio	0.45	0.45	0.45		0.30	
Clearance Time (s)	6.0	6.0	6.0		6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	89	824	923		556	
v/s Ratio Prot		c0.48	0.41		c0.25	
v/s Ratio Perm	0.11					
v/c Ratio	0.25	1.08	0.92		0.84	
Uniform Delay, d1	13.7	22.0	20.6		26.2	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.5	56.5	13.7		11.2	
Delay (s)	15.1	78.5	34.4		37.4	
Level of Service	B	E	C		D	
Approach Delay (s)		77.0	34.4		37.4	
Approach LOS		E	C		D	

Intersection Summary			
HCM Average Control Delay	52.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	79.5	Sum of lost time (s)	20.4
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

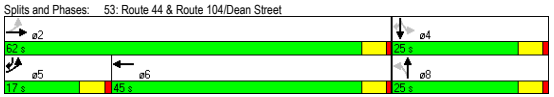
Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	1010	0	0	1035	15	15	10	5	65	15	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	12	12	12	16
Storage Length (ft)	50		0	0		50	0		0	0		50
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		825			1426			127			959	
Travel Time (s)		18.8			32.4			2.9			21.8	
Peak Hour Factor	0.97	0.97	0.97	0.84	0.84	0.84	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	0%	0%	2%	6%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1185	0	0	1250	0	0	40	0	0	86	306
Turn Type	pm+pt						Perm			Perm		pm+ov
Protected Phases	5	2			6			8			4	5
Permitted Phases	2						8			4		4
Detector Phase	5	2			6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	6.0	12.0			12.0		6.0	6.0		6.0	6.0	6.0
Minimum Split (s)	11.0	17.0			17.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	17.0	62.0	0.0	0.0	45.0	0.0	25.0	25.0	0.0	25.0	25.0	17.0
Total Split (%)	19.5%	71.3%	0.0%	0.0%	51.7%	0.0%	28.7%	28.7%	0.0%	28.7%	28.7%	19.5%
Maximum Green (s)	12.0	57.0			40.0		20.0	20.0		20.0	20.0	12.0
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?	Yes				Yes							Yes
Vehicle Extension (s)	1.5	1.5			1.5		2.0	2.0		2.0	2.0	1.5
Recall Mode	None	Min			Min		None	None		None	None	None
v/c Ratio		0.70			0.73			0.17			0.39	0.51
Control Delay		6.9			15.0			26.1			33.8	20.0
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.9			15.0			26.1			33.8	20.0
Queue Length 50th (ft)		84			175			11			30	81
Queue Length 95th (ft)		148			270			34			81	175
Internal Link Dist (ft)		745			1346			47			879	
Turn Bay Length (ft)												50
Base Capacity (vph)		2005			2496			575			540	753
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.59			0.50			0.07			0.16	0.41

Intersection Summary	
Area Type:	Other
Cycle Length: 87	
Actuated Cycle Length: 59.7	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 53: Route 44 & Route 104/Dean Street



HCM Signalized Intersection Capacity Analysis
53: Route 44 & Route 104/Dean Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	1010	0	0	1035	15	15	10	5	65	15	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	16	12	12	12	12	12	16
Total Lost time (s)		5.0			5.0			5.0			5.0	5.0
Lane Util. Factor		0.95			0.95			1.00			1.00	1.00
Frt		1.00			1.00			0.98			1.00	0.85
Flt Protected		0.99			1.00			0.98			0.96	1.00
Satd. Flow (prot)		3518			3530			1810			1826	1794
Flt Permitted		0.58			1.00			0.80			0.74	1.00
Satd. Flow (perm)		2062			3530			1480			1403	1794
Peak-hour factor, PHF	0.97	0.97	0.97	0.84	0.84	0.84	0.75	0.75	0.75	0.93	0.93	0.93
Adj. Flow (vph)	144	1041	0	0	1232	18	20	13	7	70	16	306
RTOR Reduction (vph)	0	0	0	0	1	0	0	6	0	0	0	22
Lane Group Flow (vph)	0	1185	0	0	1249	0	0	34	0	0	86	284
Heavy Vehicles (%)	2%	2%	0%	0%	2%	6%	0%	0%	0%	0%	0%	2%
Turn Type	pm+pt						Perm			Perm		pm+ov
Protected Phases	5	2			6			8			4	5
Permitted Phases	2						8			4		4
Actuated Green, G (s)		43.2			29.7			7.0			7.0	15.5
Effective Green, g (s)		43.2			29.7			7.0			7.0	15.5
Actuated g/C Ratio		0.72			0.49			0.12			0.12	0.26
Clearance Time (s)		5.0			5.0			5.0			5.0	5.0
Vehicle Extension (s)		1.5			1.5			2.0			2.0	1.5
Lane Grp Cap (vph)		1685			1742			172			163	611
v/s Ratio Prot		c0.10			0.35							c0.07
v/s Ratio Perm		c0.41						0.02			0.06	0.09
v/c Ratio		0.70			0.72			0.20			0.53	0.47
Uniform Delay, d1		4.8			12.0			24.1			25.0	18.9
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		1.1			1.2			0.2			1.4	0.2
Delay (s)		6.0			13.1			24.3			26.5	19.1
Level of Service		A			B			C			C	B
Approach Delay (s)		6.0			13.1			24.3			20.7	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
57: Spring Street & Summer Street

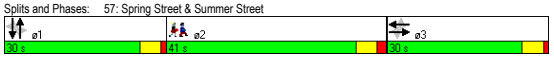
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	40	215	110	15	245	10	60	370	10	10	350	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	16	12	
Right Turn on Red			Yes			No			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		376			382			1581			384		
Travel Time (s)		8.5			8.7			35.9			8.7		
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.85	0.85	0.85	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	2%	1%	0%	1%	0%	0%	2%	0%	0%	1%	3%	
Parking (#/hr)											0		
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	457	0	0	355	0	0	518	0	0	419	0	
Turn Type	Perm			Perm			Perm			Perm			
Protected Phases		3			3			1			1		2
Permitted Phases	3			3			1			1			
Detector Phase	3	3		3	3		1	1		1	1		
Switch Phase													
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0		15.0
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0		21.0
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	41.0
Total Split (%)	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	41%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0		35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	
Lead/Lag							Lead	Lead		Lead	Lead		Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max		None
Walk Time (s)													7.0
Flash Dont Walk (s)													8.0
Pedestrian Calls (#/hr)													8
v/c Ratio		0.68			0.44			0.81			0.57		
Control Delay		24.1			18.0			31.6			20.5		
Queue Delay		0.0			0.0			0.0			0.2		
Total Delay		24.1			18.0			31.6			20.7		
Queue Length 50th (ft)		120			87			153			108		
Queue Length 95th (ft)		#301			187			#435			289		
Internal Link Dist (ft)		296			302			1501			304		
Turn Bay Length (ft)													
Base Capacity (vph)		672			809			641			740		
Starvation Cap Reductn		0			0			0			40		
Spillback Cap Reductn		0			0			0			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.68			0.44			0.81			0.60		

Intersection Summary

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 64.2
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 57: Spring Street & Summer Street



HCM Signalized Intersection Capacity Analysis
57: Spring Street & Summer Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	215	110	15	245	10	60	370	10	10	350	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	16	12
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			1.00			1.00			0.99	
Flt Protected		0.99			1.00			0.99			1.00	
Satd. Flow (prot)		1782			2117			1850			1894	
Flt Permitted		0.93			0.96			0.87			0.98	
Satd. Flow (perm)		1672			2047			1620			1866	
Peak-hour factor, PHF	0.80	0.80	0.80	0.76	0.76	0.76	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	50	269	138	20	322	13	71	435	12	11	376	32
RTOR Reduction (vph)	0	13	0	0	0	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	444	0	0	355	0	0	517	0	0	416	0
Heavy Vehicles (%)	2%	2%	1%	0%	1%	0%	0%	2%	0%	0%	1%	3%
Parking (#/hr)											0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.4			25.4			25.4			25.4	
Effective Green, g (s)		25.4			25.4			25.4			25.4	
Actuated g/C Ratio		0.37			0.37			0.37			0.37	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		614			751			595			685	
v/s Ratio Prot												
v/s Ratio Perm		c0.27			0.17			c0.32			0.22	
v/c Ratio		0.72			0.47			0.87			0.61	
Uniform Delay, d1		18.9			16.8			20.4			17.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		7.3			2.1			15.9			4.0	
Delay (s)		26.1			18.9			36.2			21.8	
Level of Service		C			B			D			C	
Approach Delay (s)		26.1			18.9			36.2			21.8	
Approach LOS		C			B			D			C	

Intersection Summary

HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	18.4
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
58: Route 44/Main Street & Union Street

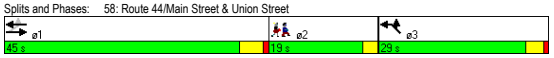
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2	ø2
Lane Configurations												
Volume (vph)	15	480	395	0	510	20	0	0	395	25	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	16	12	16	12	12	12	12	16	15	
Right Turn on Red			Yes			Yes		Yes			Yes	
Link Speed (mph)		30			30		30		30			
Link Distance (ft)		913			784		606		384			
Travel Time (s)		20.8			17.8		13.8		8.7			
Peak Hour Factor	0.93	0.93	0.93	0.86	0.86	0.86	0.92	0.92	0.91	0.91	0.91	
Heavy Vehicles (%)	7%	3%	1%	0%	4%	0%	0%	0%	2%	4%	0%	
Parking (#/hr)			0			0						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	957	0	0	616	0	0	0	434	43	0	
Turn Type	Perm									Prot		
Protected Phases		1			1				3	3		2
Permitted Phases	1											
Detector Phase	1	1			1				3	3		
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0				5.0	5.0		1.0
Minimum Split (s)	20.0	20.0			20.0				9.0	9.0		19.0
Total Split (s)	45.0	45.0	0.0	0.0	45.0	0.0	0.0	0.0	29.0	29.0	0.0	19.0
Total Split (%)	48.4%	48.4%	0.0%	0.0%	48.4%	0.0%	0.0%	0.0%	31.2%	31.2%	0.0%	20%
Maximum Green (s)	40.0	40.0			40.0				25.0	25.0		16.0
Yellow Time (s)	4.0	4.0			4.0				3.0	3.0		3.0
All-Red Time (s)	1.0	1.0			1.0				1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead			Lead							Lag
Lead-Lag Optimize?	Yes	Yes			Yes							Yes
Vehicle Extension (s)	3.0	3.0			3.0				3.0	3.0		3.0
Recall Mode	Max	Max			Max				Max	Max		None
Walk Time (s)												7.0
Flash Dont Walk (s)												9.0
Pedestrian Calls (#/hr)												12
v/c Ratio		0.92			0.58				0.76	0.07		
Control Delay		33.1			16.8				35.3	15.4		
Queue Delay		0.0			0.0				0.2	0.0		
Total Delay		33.1			16.8				35.5	15.4		
Queue Length 50th (ft)		340			170				172	8		
Queue Length 95th (ft)		#867			381				#426	38		
Internal Link Dist (ft)		833			704		526		304			
Turn Bay Length (ft)												
Base Capacity (vph)		1041			1071				574	590		
Starvation Cap Reductn		0			0				9	0		
Spillback Cap Reductn		0			0				0	0		
Storage Cap Reductn		0			0				0	0		
Reduced v/c Ratio		0.92			0.58				0.77	0.07		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 77.8
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: Route 44/Main Street & Union Street



HCM Signalized Intersection Capacity Analysis
58: Route 44/Main Street & Union Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2
Lane Configurations											
Volume (vph)	15	480	395	0	510	20	0	0	395	25	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	16	12	16	12	12	12	12	16	15
Total Lost time (s)		5.0			5.0				4.0	4.0	
Lane Util. Factor		1.00			1.00				1.00	1.00	
Frt		0.94			0.99				1.00	0.85	
Flt Protected		1.00			1.00				0.95	1.00	
Satd. Flow (prot)		1979			2063				1770	1785	
Flt Permitted		0.99			1.00				0.95	1.00	
Satd. Flow (perm)		1956			2063				1770	1785	
Peak-hour factor, PHF	0.93	0.93	0.93	0.86	0.86	0.86	0.92	0.92	0.91	0.91	0.91
Adj. Flow (vph)	16	516	425	0	593	23	0	0	434	27	16
RTOR Reduction (vph)	0	27	0	0	1	0	0	0	0	11	0
Lane Group Flow (vph)	0	930	0	0	615	0	0	0	434	32	0
Heavy Vehicles (%)	7%	3%	1%	0%	4%	0%	0%	0%	2%	4%	0%
Parking (#/hr)			0			0					
Turn Type	Perm									Prot	
Protected Phases		1			1				3	3	
Permitted Phases	1										
Actuated Green, G (s)		40.3			40.3				25.2	25.2	
Effective Green, g (s)		40.3			40.3				25.2	25.2	
Actuated g/C Ratio		0.50			0.50				0.31	0.31	
Clearance Time (s)		5.0			5.0				4.0	4.0	
Vehicle Extension (s)		3.0			3.0				3.0	3.0	
Lane Grp Cap (vph)		983			1037				556	561	
v/s Ratio Prot					0.30				c0.25	0.02	
v/s Ratio Perm		c0.48									
v/c Ratio		0.95			0.59				0.78	0.06	
Uniform Delay, d1		18.9			14.1				25.0	19.2	
Progression Factor		1.00			1.00				1.00	1.00	
Incremental Delay, d2		18.3			2.5				10.4	0.2	
Delay (s)		37.3			16.6				35.4	19.4	
Level of Service		D			B				D	B	
Approach Delay (s)		37.3			16.6		0.0		34.0		
Approach LOS		D			B		A		C		

Intersection Summary

HCM Average Control Delay	30.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	80.2	Sum of lost time (s)	14.7
Intersection Capacity Utilization	91.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
61: Taunton Green & Broadway St

2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	170	895	335	0	0	1125	0	200	130	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		304			913			579			302		
Travel Time (s)		6.9			20.8			13.2			6.9		
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%	
Parking (#/hr)			0			0			0				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	183	962	360	0	0	1223	0	227	148	0	0	0	
Turn Type	Perm		Perm			Free			Perm				
Protected Phases		1						3					2
Permitted Phases	1		1			Free			3				
Detector Phase	1	1	1					3	3				
Switch Phase													
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0				1.0
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0				21.0
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	21.0
Total Split (%)	40.7%	40.7%	40.7%	0.0%	0.0%	0.0%	0.0%	34.9%	34.9%	0.0%	0.0%	0.0%	24%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0				17.0
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0				4.0
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0				0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead										Lag
Lead-Lag Optimize?	Yes	Yes	Yes										Yes
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0				2.0
Recall Mode	Max	Max	Max					Max	Max				Ped
Walk Time (s)													10.0
Flash Dont Walk (s)													7.0
Pedestrian Calls (#/hr)													8
v/c Ratio	0.26	0.79	0.45			0.46		0.45	0.30				
Control Delay	7.0	30.1	4.0			0.6		28.3	6.0				
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0				
Total Delay	7.0	30.1	4.0			0.6		28.3	6.0				
Queue Length 50th (ft)	16	242	0			0		100	0				
Queue Length 95th (ft)	58	316	50			0		162	40				
Internal Link Dist (ft)		224			833			499			222		
Turn Bay Length (ft)													
Base Capacity (vph)	705	1223	798			2647		506	492				
Starvation Cap Reductn	0	0	0			0		0	0				
Spillback Cap Reductn	0	0	0			0		0	0				
Storage Cap Reductn	0	0	0			0		0	0				
Reduced v/c Ratio	0.26	0.79	0.45			0.46		0.45	0.30				

Intersection Summary

Area Type: Other
Cycle Length: 86
Actuated Cycle Length: 86
Natural Cycle: 90
Control Type: Semi Act-Uncoord

Splits and Phases: 61: Taunton Green & Broadway St

HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway St

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	895	335	0	0	1125	0	200	130	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1770	3505	1615			2647		1739	1330			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1770	3505	1615			2647		1739	1330			
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	183	962	360	0	0	1223	0	227	148	0	0	0
RTOR Reduction (vph)	87	0	234	0	0	0	0	0	105	0	0	0
Lane Group Flow (vph)	96	962	126	0	0	1223	0	227	43	0	0	0
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Actuated g/C Ratio	0.35	0.35	0.35			1.00		0.29	0.29			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	617	1223	563			2647		506	387			
v/s Ratio Prot		c0.27						0.13				
v/s Ratio Perm	0.05		0.08			c0.46			0.03			
v/c Ratio	0.16	0.79	0.22			0.46		0.45	0.11			
Uniform Delay, d1	19.3	25.1	19.8			0.0		24.9	22.4			
Progression Factor	0.92	0.98	0.86			1.00		1.00	1.00			
Incremental Delay, d2	0.5	5.1	0.9			0.6		2.9	0.6			
Delay (s)	18.3	29.7	17.9			0.6		27.7	22.9			
Level of Service	B	C	B			A		C	C			
Approach Delay (s)		25.5			0.6			25.8			0.0	
Approach LOS		C			A			C			A	

Intersection Summary

HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

2030 No-Build Conditions - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations							
Volume (vph)	435	20	565	240	50	680	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.94	0.94	0.92	0.92	0.95	0.95	
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	463	21	614	261	53	716	
Turn Type		Perm		Perm	Perm		
Protected Phases	3		1			1	2
Permitted Phases		3		1	1		
Minimum Split (s)	10.0	10.0	15.0	15.0	15.0	15.0	17.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0	55.0	17.0
Total Split (%)	25.8%	25.8%	56.7%	56.7%	56.7%	56.7%	18%
Maximum Green (s)	20.0	20.0	50.0	50.0	50.0	50.0	15.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag			Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							10
v/c Ratio	1.24	0.06	0.68	0.30	0.22	0.74	
Control Delay	164.1	25.3	22.3	2.6	15.9	24.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	164.1	25.3	22.3	2.6	15.9	24.1	
Queue Length 50th (ft)	~357	7	269	0	17	329	
Queue Length 95th (ft)	#548	28	396	37	43	477	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	373	360	905	861	240	970	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	1.24	0.06	0.68	0.30	0.22	0.74	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 97
Offset: 0 (0%), Referenced to phase 2:Ped and 6:, Start of Green
Natural Cycle: 90
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 71: Court Street & Washington Street

HCM Signalized Intersection Capacity Analysis
71: Court Street & Washington Street

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	435	20	565	240	50	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1811	1723	1756	1425	1671	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.27	1.00
Satd. Flow (perm)	1811	1723	1756	1425	466	1881
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.95	0.95
Adj. Flow (vph)	463	21	614	261	53	716
RTOR Reduction (vph)	0	5	0	126	0	0
Lane Group Flow (vph)	463	16	614	135	53	716
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%
Turn Type		Perm		Perm	Perm	
Protected Phases	3		1			1
Permitted Phases		3		1	1	
Actuated Green, G (s)	20.0	20.0	50.0	50.0	50.0	50.0
Effective Green, g (s)	20.0	20.0	50.0	50.0	50.0	50.0
Actuated g/C Ratio	0.21	0.21	0.52	0.52	0.52	0.52
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	373	355	905	735	240	970
v/s Ratio Prot	c0.26		0.35			c0.38
v/s Ratio Perm		0.01		0.09	0.11	
v/c Ratio	1.24	0.05	0.68	0.18	0.22	0.74
Uniform Delay, d1	38.5	30.9	17.5	12.6	12.8	18.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	129.4	0.2	4.1	0.5	2.1	5.0
Delay (s)	167.9	31.1	21.6	13.1	15.0	23.4
Level of Service	F	C	C	B	B	C
Approach Delay (s)	162.0		19.1			22.8
Approach LOS	F		B			C

Intersection Summary

HCM Average Control Delay	52.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	97.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

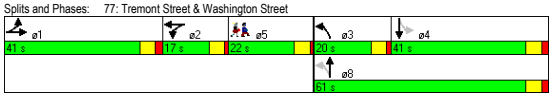
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø5
Lane Configurations													
Volume (vph)	505	175	100	25	130	35	105	315	60	35	355	515	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		698			192			1911			574		
Travel Time (s)		15.9			4.4			43.4			13.0		
Peak Hour Factor	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88	
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%	
Shared Lane Traffic (%)	22%												
Lane Group Flow (vph)	406	398	0	0	234	0	0	511	0	0	1028	0	
Turn Type	Split			Split			pm+pt			Perm			
Protected Phases	1	1		2	2		3	8			4		5
Permitted Phases							8			4			
Detector Phase	1	1		2	2		3	8		4	4		
Switch Phase													
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0		3.0
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0		22.0
Total Split (s)	41.0	41.0	0.0	17.0	17.0	0.0	20.0	61.0	0.0	41.0	41.0	0.0	22.0
Total Split (%)	29.1%	29.1%	0.0%	12.1%	12.1%	0.0%	14.2%	43.3%	0.0%	29.1%	29.1%	0.0%	16%
Maximum Green (s)	35.0	35.0		12.0	12.0		15.0	55.0		35.0	35.0		17.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None		None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													10.0
Pedestrian Calls (#/hr)													11
v/c Ratio	0.78	0.81			1.06			1.15dl			0.83		
Control Delay	47.0	48.6			121.6			35.9			29.6		
Queue Delay	0.0	0.0			0.0			0.0			0.0		
Total Delay	47.0	48.6			121.6			35.9			29.6		
Queue Length 50th (ft)	222	213			~140			138			240		
Queue Length 95th (ft)	#574	#574			#399			283			440		
Internal Link Dist (ft)		618			112			1831			494		
Turn Bay Length (ft)													
Base Capacity (vph)	631	594			221			952			1244		
Starvation Cap Reductn	0	0			0			0			0		
Spillback Cap Reductn	0	0			0			0			0		
Storage Cap Reductn	0	0			0			0			0		
Reduced v/c Ratio	0.64	0.67			1.06			0.54			0.83		

Intersection Summary

Area Type: Other
Cycle Length: 141
Actuated Cycle Length: 103.6
Natural Cycle: 145
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 77: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
77: Tremont Street & Washington Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	505	175	100	25	130	35	105	315	60	35	355	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	
Lane Util. Factor	0.95	0.95			1.00			0.95			0.95	
Frt	1.00	0.96			0.98			0.98			0.91	
Flt Protected	0.95	0.99			0.99			0.99			1.00	
Satd. Flow (prot)	1811	1681			1806			3350			3102	
Flt Permitted	0.95	0.99			0.99			0.51			0.91	
Satd. Flow (perm)	1811	1681			1806			1728			2822	
Peak-hour factor, PHF	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	521	180	103	31	160	43	112	335	64	40	403	585
RTOR Reduction (vph)	0	9	0	0	5	0	0	8	0	0	140	0
Lane Group Flow (vph)	406	389	0	0	229	0	0	503	0	0	888	0
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	29.8	29.8			12.4			40.6			40.6	
Effective Green, g (s)	29.8	29.8			12.4			40.6			40.6	
Actuated g/C Ratio	0.28	0.28			0.12			0.38			0.38	
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	503	467			209			654			1068	
v/s Ratio Prot	0.22	c0.23			c0.13							
v/s Ratio Perm								0.29			c0.31	
v/c Ratio	0.81	0.83			1.09			1.15dl			0.83	
Uniform Delay, d1	36.1	36.4			47.4			29.2			30.2	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	8.7	11.6			89.7			4.9			5.4	
Delay (s)	44.8	48.0			137.1			34.1			35.6	
Level of Service	D	D			F			C			D	
Approach Delay (s)		46.4			137.1			34.1			35.6	
Approach LOS		D			F			C			D	

Intersection Summary

HCM Average Control Delay	47.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	107.3	Sum of lost time (s)	24.5
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
93: Washington Street & Broadway

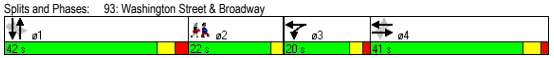
2030 No-Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø2
Lane Configurations													
Volume (vph)	285	145	5	35	145	5	5	505	60	20	480	375	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	12	12	12	12	12	12	12	12	12	12	
Storage Length (ft)	0		0	0		0	0		0	0		50	
Storage Lanes	0		0	0		0	0		1	0		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			No			Yes			No	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1068			1376			92			2042		
Travel Time (s)		24.3			31.3			2.1			46.4		
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.98	0.98	0.98	0.95	0.95	0.95	
Heavy Vehicles (%)	3%	2%	0%	3%	3%	50%	29%	4%	15%	9%	4%	3%	
Parking (#/hr)									2				
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	473	0	0	221	0	0	581	0	0	526	395	
Turn Type	Perm			pm+pt			Perm			Perm		Perm	
Protected Phases		4		3	3 4			1			1		2
Permitted Phases	4			3 4			1			1		1	
Detector Phase	4	4		3	3 4		1	1		1	1	1	
Switch Phase													
Minimum Initial (s)	8.0	8.0		4.0			18.0	18.0		18.0	18.0	18.0	1.0
Minimum Split (s)	14.0	14.0		9.0			25.0	25.0		25.0	25.0	25.0	22.0
Total Split (s)	41.0	41.0	0.0	20.0	61.0	0.0	42.0	42.0	0.0	42.0	42.0	42.0	22.0
Total Split (%)	32.8%	32.8%	0.0%	16.0%	48.8%	0.0%	33.6%	33.6%	0.0%	33.6%	33.6%	33.6%	18%
Maximum Green (s)	35.0	35.0		15.0			35.0	35.0		35.0	35.0	35.0	19.0
Yellow Time (s)	4.0	4.0		3.0			4.0	4.0		4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	7.0	7.0	4.0	7.0	7.0	7.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.0			3.0	3.0		3.0	3.0	3.0	2.0
Recall Mode	None	None		None			Max	Max		Max	Max	Max	None
Walk Time (s)													7.0
Flash Dont Walk (s)													12.0
Pedestrian Calls (#/hr)													9
v/c Ratio		0.98			0.29			0.54			0.88	0.74	
Control Delay		72.1			16.9			30.7			51.1	41.5	
Queue Delay		0.0			0.0			0.0			0.0	0.0	
Total Delay		72.1			16.9			30.7			51.1	41.5	
Queue Length 50th (ft)		286			72			147			303	213	
Queue Length 95th (ft)		#674			155			279			#689	#493	
Internal Link Dist (ft)		988			1296			12			1962		
Turn Bay Length (ft)												50	
Base Capacity (vph)		483			823			1085			598	535	
Starvation Cap Reductn		0			0			0			0	0	
Spillback Cap Reductn		0			0			0			0	0	
Storage Cap Reductn		0			0			0			0	0	
Reduced v/c Ratio		0.98			0.27			0.54			0.88	0.74	

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 103.6
Natural Cycle: 110
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 93: Washington Street & Broadway



HCM Signalized Intersection Capacity Analysis
93: Washington Street & Broadway

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	285	145	5	35	145	5	5	505	60	20	480	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			5.0			7.0			7.0	7.0
Lane Util. Factor		1.00			1.00			0.95			1.00	1.00
Frt		1.00			1.00			0.98			1.00	0.85
Flt Protected		0.97			0.99			1.00			1.00	1.00
Satd. Flow (prot)		2029			1798			3371			1820	1568
Flt Permitted		0.67			0.89			0.94			0.96	1.00
Satd. Flow (perm)		1414			1623			3164			1752	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.98	0.98	0.98	0.95	0.95	0.95
Adj. Flow (vph)	310	158	5	42	173	6	5	515	61	21	505	395
RTOR Reduction (vph)	0	0	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	473	0	0	221	0	0	574	0	0	526	395
Heavy Vehicles (%)	3%	2%	0%	3%	3%	50%	29%	4%	15%	9%	4%	3%
Parking (#/hr)									2			
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Actuated Green, G (s)		35.3			46.4			35.3			35.3	35.3
Effective Green, g (s)		35.3			46.4			35.3			35.3	35.3
Actuated g/C Ratio		0.33			0.44			0.33			0.33	0.33
Clearance Time (s)		6.0						7.0			7.0	7.0
Vehicle Extension (s)		4.0						3.0			3.0	3.0
Lane Grp Cap (vph)		472			730			1056			585	523
v/s Ratio Prot					c0.03							
v/s Ratio Perm		c0.33			0.10			0.18			c0.30	0.25
v/c Ratio		1.00			0.30			0.54			0.90	0.76
Uniform Delay, d1		35.2			19.2			28.7			33.6	31.4
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		41.9			0.1			2.0			19.3	9.8
Delay (s)		77.2			19.3			30.7			52.8	41.2
Level of Service		E			B			C			D	D
Approach Delay (s)		77.2			19.3			30.7			47.8	
Approach LOS		E			B			C			D	

Intersection Summary

HCM Average Control Delay	46.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	105.8	Sum of lost time (s)	24.1
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
25: Route 24 Slip Ramp & Route 140 (Exit 12A)

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	205	0	1850	2425	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.97	0.97	0.95	0.95
Hourly flow rate (vph)	0	244	0	1907	2553	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					624	
pX, platoon unblocked	0.05	0.05	0.05			
vC, conflicting volume	3506	1276	2553			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	13593	0	0			
tC, single (s)	6.8	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	0	100			
cM capacity (veh/h)	0	52	78			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	244	954	954	1276	1276
Volume Left	0	0	0	0	0
Volume Right	244	0	0	0	0
cSH	52	1700	1700	1700	1700
Volume to Capacity	4.74	0.56	0.56	0.75	0.75
Queue Length 95th (ft)	Err	0	0	0	0
Control Delay (s)	Err	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	Err	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	518.8		
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
38: Rt. 24 SB Slip Ramp & Route 140 (Exit 12B)

2030 No-Build Conditions - PM Peak Hour

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (veh/h)	0	250	0	1420	965	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	272	0	1543	1049	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				740	625	
pX, platoon unblocked	0.82					
vC, conflicting volume	1821	524	1049			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1562	524	1049			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	45	100			
cM capacity (veh/h)	84	498	659			

Direction, Lane #	WB 1	SE 1	SE 2	NW 1	NW 2
Volume Total	272	772	772	524	524
Volume Left	0	0	0	0	0
Volume Right	272	0	0	0	0
cSH	498	1700	1700	1700	1700
Volume to Capacity	0.55	0.45	0.45	0.31	0.31
Queue Length 95th (ft)	81	0	0	0	0
Control Delay (s)	20.6	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	20.6	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
66: Cohannet Street & Taunton Green

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	255	30	0	0	0	0	0	420	775	450	100
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.99	0.99	0.99	0.94	0.94	0.94
Hourly flow rate (vph)	0	274	32	0	0	0	0	0	424	824	479	106
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			Raised	
Median storage veh)											1	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2393	2605	532	2297	2234	0	585			424		
vC1, stage 1 conf vol	2181	2181		0	0							
vC2, stage 2 conf vol	212	424		2297	2234							
vCu, unblocked vol	2393	2605	532	2297	2234	0	585			424		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	0	94	0	100	100	100			27		
cM capacity (veh/h)	10	7	546	0	20	1085	1000			1135		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	SB 3
Volume Total	274	32	424	412	412	585
Volume Left	0	0	0	412	412	0
Volume Right	0	32	424	0	0	106
cSH	7	546	1700	1135	1135	1700
Volume to Capacity	41.34	0.06	0.25	0.73	0.73	0.34
Queue Length 95th (ft)	Err	5	0	170	170	0
Control Delay (s)	Err	12.0	0.0	16.1	16.1	0.0
Lane LOS	F	B		C	C	
Approach Delay (s)	8947.7		0.0	9.4		
Approach LOS	F					

Intersection Summary				
Average Delay		1287.4		
Intersection Capacity Utilization		71.5%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
67: Post Office Square & Broadway

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	0	925	555	0	545
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.95	0.95	0.89	0.89
Hourly flow rate (vph)	0	0	974	584	0	612
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	974				974	487
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	974				974	487
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	704				253	527

Direction, Lane #	WB 1	WB 2	WB 3	SB 1
Volume Total	487	487	584	612
Volume Left	0	0	0	0
Volume Right	0	0	584	612
cSH	1700	1700	1700	527
Volume to Capacity	0.29	0.29	0.34	1.16
Queue Length 95th (ft)	0	0	0	536
Control Delay (s)	0.0	0.0	0.0	118.7
Lane LOS				F
Approach Delay (s)	0.0			118.7
Approach LOS				F

Intersection Summary				
Average Delay		33.5		
Intersection Capacity Utilization		66.0%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
70: Post Office Square & Court Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	25	940	125	365	0	0	0	0	340	20
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.93	0.93	0.93	0.92	0.92	0.92	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	29	1011	134	392	0	0	0	0	378	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					565							
pX, platoon unblocked												
vC, conflicting volume	134			29			2367	2156	0	2170	2185	134
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134			29			2367	2156	0	2170	2185	134
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			36			0	100	100	100	0	98
cM capacity (veh/h)	1463			1584			0	18	1091	17	17	920

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	29	674	471	392	400
Volume Left	0	674	337	0	0
Volume Right	29	0	0	392	22
cSH	1700	1584	1584	1700	18
Volume to Capacity	0.02	0.64	0.64	0.23	22.83
Queue Length 95th (ft)	0	124	124	0	Err
Control Delay (s)	0.0	11.2	10.2	0.0	Err
Lane LOS		B	B		F
Approach Delay (s)	0.0	8.0			Err
Approach LOS					F

Intersection Summary			
Average Delay	2039.9		
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
75: Frederick Martin Parkway & Washington Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	5	95	0	175	5	645	315	240	845	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.50	0.91	0.91	0.91	0.93	0.93	0.93	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	10	104	0	192	5	694	339	255	899	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								574			260	
pX, platoon unblocked	0.72	0.72	0.72	0.72	0.72		0.72					
vC, conflicting volume	1959	2453	899	2293	2283	516	899			1032		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2142	2832	660	2609	2595	516	660			1032		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	97	0	100	62	99			62		
cM capacity (veh/h)	9	8	294	6	11	509	671			675		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	10	104	192	352	685	255	899
Volume Left	0	104	0	5	0	255	0
Volume Right	10	0	192	0	339	0	0
cSH	294	6	509	671	1700	675	1700
Volume to Capacity	0.03	17.70	0.38	0.01	0.40	0.38	0.53
Queue Length 95th (ft)	3	Err	44	1	0	44	0
Control Delay (s)	17.7	Err	16.3	0.3	0.0	13.5	0.0
Lane LOS	C	F	C	A		B	
Approach Delay (s)	17.7	3528.7		0.1		3.0	
Approach LOS	C	F					

Intersection Summary			
Average Delay	420.5		
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
78: Kilmer Street & Oak Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	80	20	25	210	355	85
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.91	0.91
Hourly flow rate (vph)	111	28	35	292	390	93
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	798	437	484			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	798	437	484			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	67	96	97			
cM capacity (veh/h)	341	624	1090			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	139	326	484
Volume Left	111	35	0
Volume Right	28	0	93
cSH	375	1090	1700
Volume to Capacity	0.37	0.03	0.28
Queue Length 95th (ft)	42	2	0
Control Delay (s)	20.1	1.2	0.0
Lane LOS	C	A	
Approach Delay (s)	20.1	1.2	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		3.4	
Intersection Capacity Utilization		44.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
87: Purchase Street & School Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	325	20	5	90	5	30	90	40	20	135	65
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.72	0.72	0.72	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	69	346	21	7	125	7	37	110	49	24	165	79
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	132			367			799	641	356	741	648	128
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	132			367			799	641	356	741	648	128
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			79	71	93	89	55	91
cM capacity (veh/h)	1453			1203			173	372	692	231	369	921

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	436	139	195	268
Volume Left	69	7	37	24
Volume Right	21	7	49	79
cSH	1453	1203	338	420
Volume to Capacity	0.05	0.01	0.58	0.64
Queue Length 95th (ft)	4	0	86	108
Control Delay (s)	1.6	0.4	29.2	27.5
Lane LOS	A	A	D	D
Approach Delay (s)	1.6	0.4	29.2	27.5
Approach LOS			D	D

Intersection Summary			
Average Delay		13.3	
Intersection Capacity Utilization		50.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Purchase Street & Washington Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	70	50	240	105	5	40	90	35	5	90	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.81	0.81	0.81	0.88	0.88	0.88	0.77	0.77	0.77
Hourly flow rate (vph)	11	74	53	296	130	6	45	102	40	6	117	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136			128			913	851	101	939	874	133
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			128			913	851	101	939	874	133
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			80			65	57	96	95	49	99
cM capacity (veh/h)	1461			1452			130	236	952	133	229	922

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	138	432	188	130
Volume Left	11	296	45	6
Volume Right	53	6	40	6
cSH	1461	1452	227	230
Volume to Capacity	0.01	0.20	0.82	0.57
Queue Length 95th (ft)	1	19	156	78
Control Delay (s)	0.6	6.1	67.7	39.3
Lane LOS	A	A	F	E
Approach Delay (s)	0.6	6.1	67.7	39.3
Approach LOS			F	E

Intersection Summary			
Average Delay		23.1	
Intersection Capacity Utilization		48.2%	ICU Level of Service
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
89: Winter Street & School Street

2030 No-Build Conditions - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	250	15	180	400	25	25	45	85	25	65	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.72	0.72	0.72	0.85	0.85	0.85	0.78	0.78	0.78	0.88	0.88	0.88
Hourly flow rate (vph)	7	347	21	212	471	29	32	58	109	28	74	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	500			368			1334	1295	358	1418	1291	485
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	500			368			1334	1295	358	1418	1291	485
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			82			48	57	84	48	45	97
cM capacity (veh/h)	1075			1196			62	134	682	55	134	586

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	375	712	199	119
Volume Left	7	212	32	28
Volume Right	21	29	109	17
cSH	1075	1196	179	109
Volume to Capacity	0.01	0.18	1.11	1.10
Queue Length 95th (ft)	0	16	248	185
Control Delay (s)	0.2	4.1	152.7	190.5
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	4.1	152.7	190.5
Approach LOS			F	F

Intersection Summary			
Average Delay		39.9	
Intersection Capacity Utilization		67.6%	ICU Level of Service
Analysis Period (min)		15	

Norton

HCM Unsignalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2030 No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	355	135	50	310	50	175	115	120	70	60	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.81	0.81	0.81	0.79	0.79	0.79	0.67	0.67	0.67
Hourly flow rate (vph)	16	390	148	62	383	62	222	146	152	104	90	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	444			538			1094	1065	464	1259	1108	414
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	444			538			1094	1065	464	1259	1108	414
tC, single (s)	4.2			4.1			7.1	6.6	6.2	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.6	4.1	3.4
p0 queue free %	98			94			0	28	74	0	53	98
cM capacity (veh/h)	1060			1040			112	204	592	41	189	624

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	555	506	519	209
Volume Left	16	62	222	104
Volume Right	148	62	152	15
cSH	1060	1040	176	69
Volume to Capacity	0.02	0.06	2.96	3.02
Queue Length 95th (ft)	1	5	1176	Err
Control Delay (s)	0.4	1.7	935.4	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	1.7	935.4	Err
Approach LOS			F	F

Intersection Summary			
Average Delay		1439.8	
Intersection Capacity Utilization		77.3%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
2: S Worcester St & S. Worcerster Street

2030 No-Build Condition - AM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	35	225	0	0	360	75	0	0	5	10	0	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.56	0.56	0.56	0.69	0.69	0.69
Hourly flow rate (vph)	39	250	0	0	400	83	0	0	9	14	0	72
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	483			250			842	811	250	778	769	442
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	483			250			842	811	250	778	769	442
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.3
p0 queue free %	96			100			100	100	99	95	100	88
cM capacity (veh/h)	1074			1327			246	304	794	279	322	616

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	289	483	9	87
Volume Left	39	0	0	14
Volume Right	0	83	9	72
cSH	1074	1327	794	513
Volume to Capacity	0.04	0.00	0.01	0.17
Queue Length 95th (ft)	3	0	1	15
Control Delay (s)	1.5	0.0	9.6	13.4
Lane LOS	A		A	B
Approach Delay (s)	1.5	0.0	9.6	13.4
Approach LOS			A	B

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization		57.6%	ICU Level of Service B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: John B. Scott Blvd & Harvey Street

2030 No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	185	5	5	220	0	15	0	10	5	0	5
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.75	0.75	0.75	0.69	0.69	0.69
Hourly flow rate (vph)	0	201	5	5	232	0	20	0	13	7	0	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	207	237	33	14
Volume Left (vph)	0	5	20	7
Volume Right (vph)	5	0	13	7
Hadj (s)	0.11	0.06	0.32	0.23
Departure Headway (s)	4.4	4.3	5.2	5.2
Degree Utilization, x	0.25	0.28	0.05	0.02
Capacity (veh/h)	803	811	629	628
Control Delay (s)	8.9	9.0	8.5	8.3
Approach Delay (s)	8.9	9.0	8.5	8.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay			8.9	
HCM Level of Service			A	
Intersection Capacity Utilization			25.6%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
14: Barrows St & S. Worcester St

2030 No-Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	40	85	195	60	35	45
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.72	0.72	0.72	0.72	0.70	0.70
Hourly flow rate (vph)	56	118	271	83	50	64
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	477	312			354	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	477	312			354	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	89	84			96	
cM capacity (veh/h)	514	723			1216	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	174	354	114
Volume Left	56	0	50
Volume Right	118	83	0
cSH	640	1700	1216
Volume to Capacity	0.27	0.21	0.04
Queue Length 95th (ft)	27	0	3
Control Delay (s)	12.7	0.0	3.7
Lane LOS	B		A
Approach Delay (s)	12.7	0.0	3.7
Approach LOS	B		

Intersection Summary			
Average Delay		4.1	
Intersection Capacity Utilization		35.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
16: John B. Scott Blvd & Dean Stret

2030 No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	170	20	5	165	10	60	155	5	10	40	0
Peak Hour Factor	0.86	0.86	0.86	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	198	23	7	220	13	67	172	6	11	44	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	227	240	244	56
Volume Left (vph)	6	7	67	11
Volume Right (vph)	23	13	6	0
Hadj (s)	-0.03	0.11	0.16	0.23
Departure Headway (s)	5.1	5.2	5.4	5.8
Degree Utilization, x	0.32	0.35	0.37	0.09
Capacity (veh/h)	658	649	616	546
Control Delay (s)	10.5	11.0	11.5	9.4
Approach Delay (s)	10.5	11.0	11.5	9.4
Approach LOS	B	B	B	A

Intersection Summary			
Delay		10.9	
HCM Level of Service		B	
Intersection Capacity Utilization		36.9%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	295	245	150	425	75	155	70	115	65	155	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.93	0.93	0.93	0.88	0.88	0.88
Hourly flow rate (vph)	15	304	253	169	478	84	167	75	124	74	176	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	562			557			1429	1360	430	1479	1444	520
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	562			557			1429	1360	430	1479	1444	520
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	98			83			0	38	80	0	0	96
cM capacity (veh/h)	1020			1019			0	122	627	38	109	549

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	572	730	366	273
Volume Left	15	169	167	74
Volume Right	253	84	124	23
cSH	1020	1019	0	75
Volume to Capacity	0.02	0.17	Err	3.62
Queue Length 95th (ft)	1	15	Err	Err
Control Delay (s)	0.4	3.9	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	3.9	Err	Err
Approach LOS			F	F

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		109.1%	ICU Level of Service H
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
2: S Worcester St & S. Worcerster Street

2030 No-Build Condition - PM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	75	475	5	5	250	35	0	0	5	40	0	85
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.44	0.44	0.44	0.67	0.67	0.67
Hourly flow rate (vph)	82	522	5	6	284	40	0	0	11	60	0	127
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	324			527			1132	1025	525	1016	1008	304
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	324			527			1132	1025	525	1016	1008	304
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			99			100	100	98	70	100	83
cM capacity (veh/h)	1247			1050			143	220	557	199	225	738

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	610	330	11	187
Volume Left	82	6	0	60
Volume Right	5	40	11	127
cSH	1247	1050	557	396
Volume to Capacity	0.07	0.01	0.02	0.47
Queue Length 95th (ft)	5	0	2	61
Control Delay (s)	1.8	0.2	11.6	21.9
Lane LOS	A	A	B	C
Approach Delay (s)	1.8	0.2	11.6	21.9
Approach LOS			B	C

Intersection Summary			
Average Delay		4.7	
Intersection Capacity Utilization		69.1%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: John B. Scott Blvd & Harvey Street

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	310	15	10	190	0	5	5	5	0	0	5
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75	0.42	0.42	0.42
Hourly flow rate (vph)	6	356	17	11	216	0	7	7	7	0	0	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	379	227	20	12
Volume Left (vph)	6	11	7	0
Volume Right (vph)	17	0	7	12
Hadj (s)	0.00	0.04	-0.02	-0.60
Departure Headway (s)	4.2	4.4	5.2	4.6
Degree Utilization, x	0.44	0.28	0.03	0.02
Capacity (veh/h)	841	794	613	674
Control Delay (s)	10.5	9.1	8.4	7.7
Approach Delay (s)	10.5	9.1	8.4	7.7
Approach LOS	B	A	A	A

Intersection Summary				
Delay		9.9		
HCM Level of Service		A		
Intersection Capacity Utilization		30.7%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
14: Barrows St & S. Worcester St

2030 No-Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	110	55	105	55	45	140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.86	0.86	0.79	0.79
Hourly flow rate (vph)	129	65	122	64	57	177
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	445	154			186	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	445	154			186	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	76	93			96	
cM capacity (veh/h)	549	887			1401	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	194	186	234
Volume Left	129	0	57
Volume Right	65	64	0
cSH	629	1700	1401
Volume to Capacity	0.31	0.11	0.04
Queue Length 95th (ft)	33	0	3
Control Delay (s)	13.3	0.0	2.1
Lane LOS	B		A
Approach Delay (s)	13.3	0.0	2.1
Approach LOS	B		

Intersection Summary				
Average Delay		5.0		
Intersection Capacity Utilization		38.2%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
16: John B. Scott Blvd & Dean Stret

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	200	95	15	165	15	35	65	10	10	130	5
Peak Hour Factor	0.86	0.86	0.86	0.88	0.88	0.88	0.86	0.86	0.86	0.96	0.96	0.96
Hourly flow rate (vph)	6	233	110	17	188	17	41	76	12	10	135	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	349	222	128	151
Volume Left (vph)	6	17	41	10
Volume Right (vph)	110	17	12	5
Hadj (s)	-0.16	-0.01	0.05	0.01
Departure Headway (s)	4.9	5.2	5.7	5.6
Degree Utilization, x	0.47	0.32	0.20	0.24
Capacity (veh/h)	699	644	558	573
Control Delay (s)	12.2	10.6	10.1	10.3
Approach Delay (s)	12.2	10.6	10.1	10.3
Approach LOS	B	B	B	B

Intersection Summary			
Delay		11.1	
HCM Level of Service		B	
Intersection Capacity Utilization		41.1%	ICU Level of Service	A
Analysis Period (min)		15	

Raynham

Lanes, Volumes, Timings
12: Carver Street & Route 138

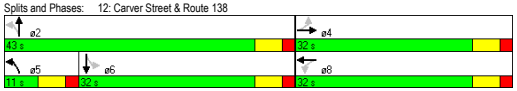
2030 No-Build Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	25	40	15	45	175	45	1255	5	50	515	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Storage Length (ft)	250		70	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			737			2001			1020	
Travel Time (s)		5.7			16.8			45.5			23.2	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.95	0.95	0.95	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	268	78	0	0	255	0	0	1373	0	0	699	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	11.0	43.0	0.0	32.0	32.0	0.0
Total Split (%)	42.7%	42.7%	0.0%	42.7%	42.7%	0.0%	14.7%	57.3%	0.0%	42.7%	42.7%	0.0%
Maximum Green (s)	26.0	26.0		26.0	26.0		5.0	37.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	C-Min		C-Min	C-Min	
v/c Ratio	0.91	0.15			0.49			0.82			0.57	
Control Delay	61.3	9.3			21.6			21.0			14.3	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	61.3	9.3			21.6			21.0			14.3	
Queue Length 50th (ft)	114	10			81			274			109	
Queue Length 95th (ft)	#207	32			140			#448			166	
Internal Link Dist (ft)		171			657			1921			940	
Turn Bay Length (ft)	250											
Base Capacity (vph)	345	623			613			1669			1231	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.78	0.13			0.42			0.82			0.57	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Carver Street & Route 138



HCM Signalized Intersection Capacity Analysis
12: Carver Street & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	25	40	15	45	175	45	1255	5	50	515	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	11	12
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.91			0.90			1.00			0.99	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1787	1708			1743			3380			3208	
Flt Permitted	0.53	1.00			0.98			0.90			0.70	
Satd. Flow (perm)	995	1708			1716			3057			2242	
Peak-hour factor, PHF	0.84	0.84	0.84	0.92	0.92	0.92	0.95	0.95	0.95	0.88	0.88	0.88
Adj. Flow (vph)	268	30	48	16	49	190	47	1321	5	57	585	57
RTOR Reduction (vph)	0	34	0	0	20	0	0	0	0	0	6	0
Lane Group Flow (vph)	268	44	0	0	235	0	0	1373	0	0	693	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	7%	7%	7%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.0	22.0			22.0			41.0			41.0	
Effective Green, g (s)	22.0	22.0			22.0			41.0			41.0	
Actuated g/C Ratio	0.29	0.29			0.29			0.55			0.55	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	292	501			503			1671			1226	
v/s Ratio Prot		0.03										
v/s Ratio Perm	c0.27				0.14			c0.45			0.31	
v/c Ratio	0.92	0.09			0.47			0.82			0.57	
Uniform Delay, d1	25.6	19.2			21.7			14.0			11.2	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	31.3	0.0			0.2			3.2			1.9	
Delay (s)	56.9	19.3			21.9			17.2			13.0	
Level of Service	E	B			C			B			B	
Approach Delay (s)		48.4			21.9			17.2			13.0	
Approach LOS		D			C			B			B	

Intersection Summary

HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
14: I-495 SB Off-Ramp & Route 138

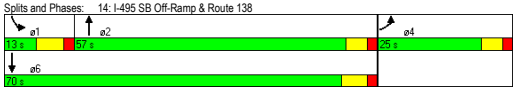
2030 No-Build Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	255	0	175	0	0	0	0	1440	230	65	435	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	16	14	16	16	16	12	12	16	10	12	12
Storage Length (ft)	0		500	0		0	0		0	200		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1388			1423			507			722	
Travel Time (s)		31.5			32.3			11.5			16.4	
Peak Hour Factor	0.77	0.77	0.77	0.92	0.92	0.92	0.25	0.96	0.96	0.79	0.79	0.25
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	0%	3%	3%	8%	8%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	331	0	227	0	0	0	0	1740	0	82	551	0
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Detector Phase	4							2		1	6	
Switch Phase												
Minimum Initial (s)	10.0							10.0		5.0	10.0	
Minimum Split (s)	22.0							22.0		12.0	23.0	
Total Split (s)	25.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	13.0	70.0	0.0
Total Split (%)	26.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	13.7%	73.7%	0.0%
Maximum Green (s)	19.0							51.0		6.0	63.0	
Yellow Time (s)	4.0							4.0		5.0	5.0	
All-Red Time (s)	2.0							2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0	7.0	7.0	4.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Recall Mode	None							C-Max		None	C-Max	
v/c Ratio	0.93		0.14					0.94		0.80	0.25	
Control Delay	71.6		0.2					33.0		99.6	1.2	
Queue Delay	0.0		0.0					0.0		0.0	0.0	
Total Delay	71.6		0.2					33.0		99.6	1.2	
Queue Length 50th (ft)	197		0					490		48	3	
Queue Length 95th (ft)	#275		0					#682		m#102	4	
Internal Link Dist (ft)		1308			1343			427			642	
Turn Bay Length (ft)			500							200		
Base Capacity (vph)	360		1610					1842		102	2223	
Starvation Cap Reductn	0		0					0		0	0	
Spillback Cap Reductn	0		0					0		0	0	
Storage Cap Reductn	0		0					0		0	0	
Reduced v/c Ratio	0.92		0.14					0.94		0.80	0.25	

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: I-495 SB Off-Ramp & Route 138



HCM Signalized Intersection Capacity Analysis
14: I-495 SB Off-Ramp & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	255	0	175	0	0	0	0	1440	230	65	435	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	16	14	16	16	16	12	12	16	10	12	12
Total Lost time (s)	6.0		4.0					6.0		7.0	7.0	
Lane Util. Factor	1.00		1.00					0.95		1.00	0.95	
Frt	1.00		0.85					0.98		1.00	1.00	
Flt Protected	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1799		1610					3432		1560	3343	
Flt Permitted	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1799		1610					3432		1560	3343	
Peak-hour factor, PHF	0.77	0.77	0.77	0.92	0.92	0.92	0.25	0.96	0.96	0.79	0.79	0.25
Adj. Flow (vph)	331	0	227	0	0	0	0	1500	240	82	551	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	331	0	227	0	0	0	0	1740	0	82	551	0
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	0%	3%	3%	8%	8%	0%
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Actuated Green, G (s)	18.8		95.0					51.0		6.2	63.2	
Effective Green, g (s)	18.8		95.0					51.0		6.2	63.2	
Actuated g/C Ratio	0.20		1.00					0.54		0.07	0.67	
Clearance Time (s)	6.0							6.0		7.0	7.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	356		1610					1842		102	2224	
v/s Ratio Prot	c0.18							c0.51		c0.05	0.16	
v/s Ratio Perm			0.14									
v/c Ratio	0.93		0.14					0.94		0.80	0.25	
Uniform Delay, d1	37.5		0.0					20.7		43.8	6.4	
Progression Factor	1.00		1.00					1.00		1.29	0.15	
Incremental Delay, d2	30.0		0.2					11.4		31.1	0.2	
Delay (s)	67.4		0.2					32.1		87.6	1.2	
Level of Service	E		A					C		F	A	
Approach Delay (s)		40.1			0.0			32.1			12.4	
Approach LOS		D			A			C			B	

Intersection Summary

HCM Average Control Delay	29.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
15: I-495 NB On-Ramp & Route 138

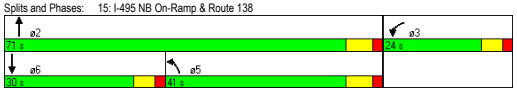
2030 No-Build Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	110	0	180	335	1345	0	0	375	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	10	12	12	12	12	16
Storage Length (ft)	0		0	0		300	225		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1384			1299			722			1195	
Travel Time (s)		31.5			29.5			16.4			27.2	
Peak Hour Factor	0.25	0.25	0.25	0.91	0.91	0.91	0.91	0.91	0.25	0.25	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	4%	4%	4%	3%	3%	0%	0%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	121	0	198	368	1478	0	0	800	0
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Detector Phase				3			5	2			6	
Switch Phase												
Minimum Initial (s)				5.0			5.0	10.0			10.0	
Minimum Split (s)				22.0			12.0	23.0			22.0	
Total Split (s)	0.0	0.0	0.0	24.0	0.0	0.0	41.0	71.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	25.3%	0.0%	0.0%	43.2%	74.7%	0.0%	0.0%	31.6%	0.0%
Maximum Green (s)				18.0			34.0	64.0			24.0	
Yellow Time (s)				4.0			5.0	5.0			4.0	
All-Red Time (s)				2.0			2.0	2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	6.0	4.0	4.0	7.0	7.0	4.0	4.0	6.0	4.0
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Recall Mode				None			None	C-Min			C-Min	
v/c Ratio				0.53		0.11	0.81	0.56			0.64	
Control Delay				47.1		0.1	28.3	4.9			34.8	
Queue Delay				0.0		0.0	0.0	0.0			0.0	
Total Delay				47.1		0.1	28.3	4.9			34.8	
Queue Length 50th (ft)				70		0	169	141			244	
Queue Length 95th (ft)				120		0	m147	m146			288	
Internal Link Dist (ft)		1304			1219			642			1115	
Turn Bay Length (ft)						300	225					
Base Capacity (vph)				373		1760	586	2616			1257	
Starvation Cap Reductn				0		0	0	0			0	
Spillback Cap Reductn				0		0	0	0			0	
Storage Cap Reductn				0		0	0	0			0	
Reduced v/c Ratio				0.32		0.11	0.63	0.56			0.64	

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 93 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: I-495 NB On-Ramp & Route 138



HCM Signalized Intersection Capacity Analysis
15: I-495 NB On-Ramp & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	110	0	180	335	1345	0	0	375	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	12	12	12	12	16
Total Lost time (s)				6.0		4.0	7.0	7.0			6.0	
Lane Util. Factor				1.00		1.00	1.00	0.95			0.95	
Frt				1.00		0.85	1.00	1.00			0.94	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1967		1760	1636	3505			3106	
Flt Permitted				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1967		1760	1636	3505			3106	
Peak-hour factor, PHF	0.25	0.25	0.25	0.91	0.91	0.91	0.91	0.91	0.25	0.25	0.80	0.80
Adj. Flow (vph)	0	0	0	121	0	198	368	1478	0	0	469	331
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	121	0	198	368	1478	0	0	800	0
Heavy Vehicles (%)	0%	0%	0%	4%	4%	4%	3%	3%	0%	0%	9%	9%
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Actuated Green, G (s)				11.1		95.0	26.5	70.9			38.4	
Effective Green, g (s)				11.1		95.0	26.5	70.9			38.4	
Actuated g/C Ratio				0.12		1.00	0.28	0.75			0.40	
Clearance Time (s)				6.0			7.0	7.0			6.0	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)				230		1760	456	2616			1255	
v/s Ratio Prot				c0.06			c0.22	0.42			c0.26	
v/s Ratio Perm						0.11						
v/c Ratio				0.53		0.11	0.81	0.56			0.64	
Uniform Delay, d1				39.5		0.0	31.9	5.3			22.7	
Progression Factor				1.00		1.00	0.73	0.79			1.30	
Incremental Delay, d2				2.2		0.1	3.8	0.3			2.1	
Delay (s)				41.6		0.1	27.1	4.5			31.7	
Level of Service				D		A	C	A			C	
Approach Delay (s)		0.0			15.9			9.0			31.7	
Approach LOS		A			B			A			C	

Intersection Summary

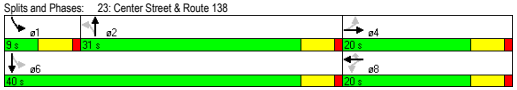
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	140	0	1160	40	90	475	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	14	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		60	0		200	200		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		129			915			1524			2001	
Travel Time (s)		2.9			20.8			34.6			45.5	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.93	0.93	0.86	0.86	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	2%	3%	2%	4%	4%	8%	8%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	22	156	0	1290	0	0	657	0
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0		9.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	20.0	31.0	31.0	0.0	9.0	40.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	33.3%	51.7%	51.7%	0.0%	15.0%	66.7%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	26.0	26.0		4.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
v/c Ratio					0.08	0.53		0.54			0.43	
Control Delay					18.6	26.9		7.2			6.8	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					18.6	26.9		7.2			6.8	
Queue Length 50th (ft)					6	47		111			50	
Queue Length 95th (ft)					21	94		201			95	
Internal Link Dist (ft)		49			835			1444			1921	
Turn Bay Length (ft)						60						
Base Capacity (vph)					371	417		2395			1516	
Starvation Cap Reductn					0	0		0			0	
Spillback Cap Reductn					0	0		0			0	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.06	0.37		0.54			0.43	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 56.5	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	

Splits and Phases: 23: Center Street & Route 138



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	140	0	1160	40	90	475	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	14	12	12	12	12	12	12	12	12
Total Lost time (s)					5.0	5.0		5.0			5.0	
Lane Util. Factor					1.00	1.00		0.95			0.95	
Frt					1.00	0.85		1.00			1.00	
Flt Protected					0.95	1.00		1.00			0.99	
Satd. Flow (prot)					1752	1568		3454			3316	
Flt Permitted					0.76	1.00		1.00			0.65	
Satd. Flow (perm)					1397	1568		3454			2185	
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.93	0.93	0.86	0.86	0.92
Adj. Flow (vph)	0	0	0	22	0	156	0	1247	43	105	552	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	22	156	0	1290	0	0	657	0
Heavy Vehicles (%)	2%	2%	2%	3%	2%	3%	2%	4%	4%	8%	8%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)					9.3	9.3		38.1			38.1	
Effective Green, g (s)					9.3	9.3		38.1			38.1	
Actuated g/C Ratio					0.16	0.16		0.66			0.66	
Clearance Time (s)					5.0	5.0		5.0			5.0	
Vehicle Extension (s)					3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)					226	254		2293			1450	
v/s Ratio Prot								c0.37				
v/s Ratio Perm					0.02	c0.10					0.30	
v/c Ratio					0.10	0.61		0.56			0.45	
Uniform Delay, d1					20.5	22.4		5.2			4.6	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					0.2	4.4		1.0			0.2	
Delay (s)					20.7	26.7		6.2			4.9	
Level of Service					C	C		A			A	
Approach Delay (s)		0.0			26.0			6.2			4.9	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
36: Elm Street & Route 138

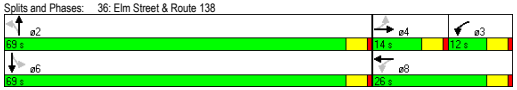
2030 No-Build Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	20	25	225	5	60	5	1140	205	40	340	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	0	326	94	0	0	1436	0	0	494	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		35.0	35.0		35.0	35.0	
Total Split (s)	14.0	14.0	0.0	12.0	26.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	14.7%	14.7%	0.0%	12.6%	27.4%	0.0%	72.6%	72.6%	0.0%	72.6%	72.6%	0.0%
Maximum Green (s)	9.0	9.0		7.0	21.0		64.0	64.0		64.0	64.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
v/c Ratio		0.66		0.83	0.22			0.72			0.36	
Control Delay		62.1		54.6	30.2			8.2			9.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		62.1		54.6	30.2			8.2			9.4	
Queue Length 50th (ft)		58		178	44			181			68	
Queue Length 95th (ft)		#125		#254	68			161			73	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		160		395	429			2201			1504	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.64		0.83	0.22			0.65			0.33	

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 28 (29%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 36: Elm Street & Route 138



HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	20	25	225	5	60	5	1140	205	40	340	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Frt		0.96		1.00	0.86			0.98			0.99	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1798		1686	1529			3424			3150	
Flt Permitted		0.80		0.67	1.00			0.95			0.70	
Satd. Flow (perm)		1478		1194	1529			3266			2231	
Peak-hour factor, PHF	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Adj. Flow (vph)	48	24	30	326	7	87	5	1213	218	49	415	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	102	0	326	94	0	0	1436	0	0	494	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.0		26.6	26.6			58.4			58.4	
Effective Green, g (s)		10.0		26.6	26.6			58.4			58.4	
Actuated g/C Ratio		0.11		0.28	0.28			0.61			0.61	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		156		394	428			2008			1371	
v/s Ratio Prot				c0.10	0.06							
v/s Ratio Perm		0.07		c0.13				c0.44			0.22	
v/c Ratio		0.65		0.83	0.22			0.72			0.36	
Uniform Delay, d1		40.8		33.0	26.2			12.6			9.1	
Progression Factor		1.00		1.00	1.00			0.51			1.00	
Incremental Delay, d2		9.5		13.3	0.3			1.9			0.7	
Delay (s)		50.3		46.3	26.5			8.3			9.8	
Level of Service		D		D	C			A			A	
Approach Delay (s)		50.3			41.9			8.3			9.8	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
44: Route 106 & Route 138

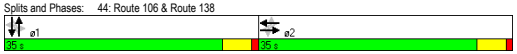
2030 No-Build Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	365	25	180	355	165	60	755	375	85	170	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1742			2236			4525			923	
Travel Time (s)		39.6			50.8			102.8			21.0	
Confl. Peds. (#/hr)			3									
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	9%	9%	9%	3%	3%	3%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	545	0	0	786	0	0	1294	0	0	392	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phase	2	2		2	2		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.58			0.85			0.92			0.48	
Control Delay		17.9			26.6			29.5			12.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.9			26.6			29.5			12.0	
Queue Length 50th (ft)		87			137			246			41	
Queue Length 95th (ft)		129			#238			#397			78	
Internal Link Dist (ft)		1662			2156			4445			843	
Turn Bay Length (ft)												
Base Capacity (vph)		1000			981			1406			816	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.55			0.80			0.92			0.48	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 68.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 44: Route 106 & Route 138



HCM Signalized Intersection Capacity Analysis
44: Route 106 & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	365	25	180	355	165	60	755	375	85	170	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.96			0.95			0.95	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		3441			3154			3331			3098	
Flt Permitted		0.65			0.67			0.91			0.55	
Satd. Flow (perm)		2266			2141			3030			1709	
Peak-hour factor, PHF	0.88	0.88	0.88	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	102	415	28	202	399	185	65	821	408	91	183	118
RTOR Reduction (vph)	0	6	0	0	43	0	0	76	0	0	66	0
Lane Group Flow (vph)	0	539	0	0	743	0	0	1218	0	0	326	0
Confl. Peds. (#/hr)			3									
Heavy Vehicles (%)	3%	3%	3%	9%	9%	9%	3%	3%	3%	10%	10%	10%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Actuated Green, G (s)		28.4			28.4			30.1			30.1	
Effective Green, g (s)		28.4			28.4			30.1			30.1	
Actuated g/C Ratio		0.41			0.41			0.44			0.44	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		939			888			1331			751	
v/s Ratio Prot												
v/s Ratio Perm		0.24			c0.35			c0.40			0.19	
v/c Ratio		0.57			0.84			0.92			0.43	
Uniform Delay, d1		15.4			18.0			18.0			13.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			7.2			10.1			0.5	
Delay (s)		16.4			25.2			28.1			13.8	
Level of Service		B			C			C			B	
Approach Delay (s)		16.4			25.2			28.1			13.8	
Approach LOS		B			C			C			B	

Intersection Summary

HCM Average Control Delay	23.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	68.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
10: Dog Track driveway & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	25	45	1245	360	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.68	0.68	0.91	0.91	0.79	0.79
Hourly flow rate (vph)	7	37	49	1368	456	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1923	456	456			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1923	456	456			
tC, single (s)	7.2	6.7	4.2			
tC, 2 stage (s)						
tF (s)	4.2	3.8	2.3			
p0 queue free %	84	93	95			
cM capacity (veh/h)	45	516	1059			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	44	1418	456
Volume Left	7	49	0
Volume Right	37	0	0
cSH	188	1059	1700
Volume to Capacity	0.23	0.05	0.27
Queue Length 95th (ft)	22	4	0
Control Delay (s)	29.9	2.3	0.0
Lane LOS	D	A	
Approach Delay (s)	29.9	2.3	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
24: Britton Street & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	30	25	1175	20	5	485
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.57	0.57	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	53	44	1335	23	5	505
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1862	1347			1358	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1862	1347			1358	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	35	77			99	
cM capacity (veh/h)	80	187			491	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	96	1358	510
Volume Left	53	0	5
Volume Right	44	23	0
cSH	108	1700	491
Volume to Capacity	0.89	0.80	0.01
Queue Length 95th (ft)	133	0	1
Control Delay (s)	131.2	0.0	0.3
Lane LOS	F		A
Approach Delay (s)	131.2	0.0	0.3
Approach LOS	F		

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
27: Britton Street & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	30	5	5	1160	495	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	0.89	0.89
Hourly flow rate (vph)	30	5	5	1160	556	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1729	559	562			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1729	559	562			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	69	99	99			
cM capacity (veh/h)	97	529	1000			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	35	1165	562
Volume Left	30	5	0
Volume Right	5	0	6
cSH	109	1000	1700
Volume to Capacity	0.32	0.01	0.33
Queue Length 95th (ft)	31	0	0
Control Delay (s)	52.7	0.2	0.0
Lane LOS	F	A	
Approach Delay (s)	52.7	0.2	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
50: Wilbur Street & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	5	1260	5	0	380
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.63	0.63	0.94	0.94	0.85	0.85
Hourly flow rate (vph)	8	8	1340	5	0	447
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1790	1343			1346	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1790	1343			1346	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	91	96			100	
cM capacity (veh/h)	90	188			481	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	16	1346	447
Volume Left	8	0	0
Volume Right	8	5	0
cSH	122	1700	481
Volume to Capacity	0.13	0.79	0.00
Queue Length 95th (ft)	11	0	0
Control Delay (s)	39.0	0.0	0.0
Lane LOS	E		
Approach Delay (s)	39.0	0.0	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
52: Robinson Street & Route 138

2030 No-Build Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	20	1265	0	5	385
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.91	0.91	0.79	0.79
Hourly flow rate (vph)	0	36	1390	0	6	487
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1890	1390			1390	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1890	1390			1390	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	80			99	
cM capacity (veh/h)	77	176			499	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	36	1390	494
Volume Left	0	0	6
Volume Right	36	0	0
cSH	176	1700	499
Volume to Capacity	0.20	0.82	0.01
Queue Length 95th (ft)	18	0	1
Control Delay (s)	30.6	0.0	0.4
Lane LOS	D		A
Approach Delay (s)	30.6	0.0	0.4
Approach LOS	D		

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		76.6%	ICU Level of Service D
Analysis Period (min)		15	

Lanes, Volumes, Timings
12: Carver Street & Route 138

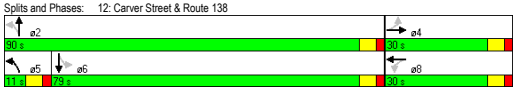
2030 No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	85	100	60	70	40	70	775	45	110	1395	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Storage Length (ft)	250		70	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			737			2001			1020	
Travel Time (s)		5.7			16.8			45.5			23.2	
Confl. Peds. (#/hr)						5	2					
Peak Hour Factor	0.92	0.92	0.92	0.79	0.79	0.79	0.88	0.88	0.88	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	201	0	0	216	0	0	1012	0	0	1759	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	11.0	90.0	0.0	79.0	79.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	9.2%	75.0%	0.0%	65.8%	65.8%	0.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		5.0	84.0		73.0	73.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	C-Min		C-Min	C-Min	
v/c Ratio	0.91	0.54			0.97			0.74			1.03	
Control Delay	95.4	39.5			99.7			15.2			47.8	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	95.4	39.5			99.7			15.2			47.8	
Queue Length 50th (ft)	128	109			158			231			~769	
Queue Length 95th (ft)	#262	188			#252			304			#911	
Internal Link Dist (ft)		171			657			1921			940	
Turn Bay Length (ft)	250											
Base Capacity (vph)	189	381			228			1363			1712	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.89	0.53			0.95			0.74			1.03	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Carver Street & Route 138



HCM Signalized Intersection Capacity Analysis
12: Carver Street & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	85	100	60	70	40	70	775	45	110	1395	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	11	12
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.92			0.97			0.99			0.98	
Flt Protected	0.95	1.00			0.98			1.00			1.00	
Satd. Flow (prot)	1787	1728			1823			3317			3345	
Flt Permitted	0.50	1.00			0.59			0.58			0.72	
Satd. Flow (perm)	945	1728			1095			1928			2415	
Peak-hour factor, PHF	0.92	0.92	0.92	0.79	0.79	0.79	0.88	0.88	0.88	0.98	0.98	0.98
Adj. Flow (vph)	168	92	109	76	89	51	80	881	51	112	1423	224
RTOR Reduction (vph)	0	35	0	0	10	0	0	3	0	0	7	0
Lane Group Flow (vph)	168	166	0	0	206	0	0	1009	0	0	1752	0
Confl. Peds. (#/hr)						5	2					
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.3	23.3			23.3			84.7			84.7	
Effective Green, g (s)	23.3	23.3			23.3			84.7			84.7	
Actuated g/C Ratio	0.19	0.19			0.19			0.71			0.71	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	183	336			213			1361			1705	
v/s Ratio Prot		0.10										
v/s Ratio Perm	0.18				c0.19			0.52			c0.73	
v/c Ratio	0.92	0.49			0.97			0.74			1.03	
Uniform Delay, d1	47.4	43.1			48.0			10.9			17.7	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	42.8	0.4			51.8			1.9			29.1	
Delay (s)	90.2	43.5			99.8			12.8			46.8	
Level of Service	F	D			F			B			D	
Approach Delay (s)		64.7			99.8			12.8			46.8	
Approach LOS		E			F			B			D	

Intersection Summary

HCM Average Control Delay	41.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
14: I-495 SB Off-Ramp & Route 138

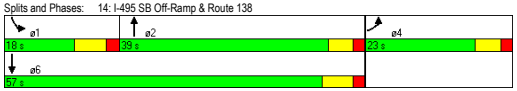
2030 No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	220	0	515	0	0	0	0	850	140	105	1230	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	16	10	12	12
Storage Length (ft)	0		500	0		0	0		0	300		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1388			1423			507			722	
Travel Time (s)		31.5			32.3			11.5			16.4	
Peak Hour Factor	0.81	0.81	0.81	0.25	0.25	0.25	0.25	0.95	0.95	0.98	0.98	0.25
Heavy Vehicles (%)	4%	4%	4%	0%	0%	0%	0%	3%	3%	2%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	272	0	636	0	0	0	0	1042	0	107	1255	0
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Detector Phase	4							2		1	6	
Switch Phase												
Minimum Initial (s)	10.0							10.0		5.0	10.0	
Minimum Split (s)	22.0							22.0		12.0	23.0	
Total Split (s)	23.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	18.0	57.0	0.0
Total Split (%)	28.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.8%	0.0%	22.5%	71.3%	0.0%
Maximum Green (s)	17.0							33.0		11.0	50.0	
Yellow Time (s)	4.0							4.0		5.0	5.0	
All-Red Time (s)	2.0							2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0	7.0	7.0	4.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Recall Mode	None							C-Min		None	C-Min	
v/c Ratio	0.74		0.36					0.62		0.55	0.54	
Control Delay	43.3		0.6					19.0		40.2	11.9	
Queue Delay	0.0		0.0					0.0		0.0	0.0	
Total Delay	43.3		0.6					19.0		40.2	11.9	
Queue Length 50th (ft)	127		0					216		59	174	
Queue Length 95th (ft)	179		0					298		m73	m204	
Internal Link Dist (ft)		1308			1343			427			642	
Turn Bay Length (ft)			500							300		
Base Capacity (vph)	418		1760					1683		227	2304	
Starvation Cap Reductn	0		0					0		0	0	
Spillback Cap Reductn	0		0					0		0	0	
Storage Cap Reductn	0		0					0		0	0	
Reduced v/c Ratio	0.65		0.36					0.62		0.47	0.54	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: I-495 SB Off-Ramp & Route 138



HCM Signalized Intersection Capacity Analysis
14: I-495 SB Off-Ramp & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	220	0	515	0	0	0	0	850	140	105	1230	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	12	12	16	10	12	12
Total Lost time (s)	6.0		4.0					6.0		7.0	7.0	
Lane Util. Factor	1.00		1.00					0.95		1.00	0.95	
Frt	1.00		0.85					0.98		1.00	1.00	
Flt Protected	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1967		1760					3431		1652	3539	
Flt Permitted	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1967		1760					3431		1652	3539	
Peak-hour factor, PHF	0.81	0.81	0.81	0.25	0.25	0.25	0.25	0.95	0.95	0.98	0.98	0.25
Adj. Flow (vph)	272	0	636	0	0	0	0	895	147	107	1255	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	272	0	636	0	0	0	0	1042	0	107	1255	0
Heavy Vehicles (%)	4%	4%	4%	0%	0%	0%	0%	3%	3%	2%	2%	0%
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Actuated Green, G (s)	14.9		80.0					37.9		8.2	52.1	
Effective Green, g (s)	14.9		80.0					37.9		8.2	52.1	
Actuated g/C Ratio	0.19		1.00					0.47		0.10	0.65	
Clearance Time (s)	6.0							6.0		7.0	7.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	366		1760					1625		169	2305	
v/s Ratio Prot	c0.14							c0.30		0.06	c0.35	
v/s Ratio Perm			0.36									
v/c Ratio	0.74		0.36					0.64		0.63	0.54	
Uniform Delay, d1	30.7		0.0					15.9		34.5	7.5	
Progression Factor	1.00		1.00					1.00		1.04	1.42	
Incremental Delay, d2	7.9		0.6					2.0		4.2	0.5	
Delay (s)	38.7		0.6					17.9		39.9	11.2	
Level of Service	D		A					B		D	B	
Approach Delay (s)		12.0			0.0			17.9			13.4	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
15: I-495 NB On-Ramp & Route 138

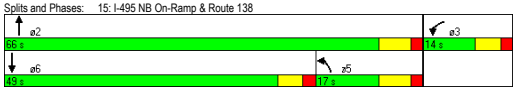
2030 No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	140	0	80	145	900	0	0	1195	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	10	12	12	12	12	16
Storage Length (ft)	0		0	0		300	225		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1384			1299			722			1195	
Travel Time (s)		31.5			29.5			16.4			27.2	
Peak Hour Factor	0.25	0.25	0.25	0.78	0.78	0.78	0.92	0.92	0.25	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	4%	4%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	179	0	103	158	978	0	0	1505	0
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Detector Phase				3			5	2			6	
Switch Phase												
Minimum Initial (s)				5.0			5.0	10.0			10.0	
Minimum Split (s)				11.0			12.0	23.0			22.0	
Total Split (s)	0.0	0.0	0.0	14.0	0.0	0.0	17.0	66.0	0.0	0.0	49.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	17.5%	0.0%	0.0%	21.3%	82.5%	0.0%	0.0%	61.3%	0.0%
Maximum Green (s)				8.0			10.0	59.0			43.0	
Yellow Time (s)				4.0			5.0	5.0			4.0	
All-Red Time (s)				2.0			2.0	2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	6.0	4.0	4.0	7.0	7.0	4.0	4.0	6.0	4.0
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Recall Mode				None			None	C-Min			C-Min	
v/c Ratio				0.85		0.06	0.76	0.39			0.83	
Control Delay				71.6		0.1	50.4	3.4			20.6	
Queue Delay				0.0		0.0	0.0	0.0			0.0	
Total Delay				71.6		0.1	50.4	3.4			20.6	
Queue Length 50th (ft)				90		0	82	46			357	
Queue Length 95th (ft)				#164		0	m#169	81			481	
Internal Link Dist (ft)		1304			1219			642			1115	
Turn Bay Length (ft)						300	225					
Base Capacity (vph)				210		1777	211	2560			1853	
Starvation Cap Reductn				0		0	0	0			0	
Spillback Cap Reductn				0		0	0	0			0	
Storage Cap Reductn				0		0	0	0			0	
Reduced v/c Ratio				0.85		0.06	0.75	0.38			0.81	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 76 (95%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: I-495 NB On-Ramp & Route 138



HCM Signalized Intersection Capacity Analysis
15: I-495 NB On-Ramp & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	140	0	80	145	900	0	0	1195	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	12	12	12	12	16
Total Lost time (s)				6.0		4.0	7.0	7.0			6.0	
Lane Util. Factor				1.00		1.00	1.00	0.95			0.95	
Frt				1.00		0.85	1.00	1.00			0.97	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1986		1777	1620	3471			3448	
Flt Permitted				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1986		1777	1620	3471			3448	
Peak-hour factor, PHF	0.25	0.25	0.25	0.78	0.78	0.78	0.92	0.92	0.25	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	179	0	103	158	978	0	0	1245	260
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	179	0	103	158	978	0	0	1505	0
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	4%	4%	0%	2%	2%	2%
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Actuated Green, G (s)				8.5		80.0	10.2	58.5			42.3	
Effective Green, g (s)				8.5		80.0	10.2	58.5			42.3	
Actuated g/C Ratio				0.11		1.00	0.13	0.73			0.53	
Clearance Time (s)				6.0			7.0	7.0			6.0	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)				211		1777	207	2538			1823	
v/s Ratio Prot				c0.09			c0.10	0.28			c0.44	
v/s Ratio Perm						0.06						
v/c Ratio				0.85		0.06	0.76	0.39			0.83	
Uniform Delay, d1				35.1		0.0	33.7	4.0			15.8	
Progression Factor				1.00		1.00	0.86	0.77			1.07	
Incremental Delay, d2				25.8		0.1	12.2	0.3			3.4	
Delay (s)				60.9		0.1	41.3	3.4			20.3	
Level of Service				E		A	D	A			C	
Approach Delay (s)		0.0			38.7			8.7			20.3	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

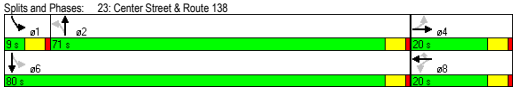
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	0	110	0	795	40	315	1280	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	14	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		60	0		200	200		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		155			915			1524			2001	
Travel Time (s)		3.5			20.8			34.6			45.5	
Peak Hour Factor	0.38	0.38	0.38	0.82	0.82	0.82	0.90	0.90	0.90	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	37	134	0	927	0	0	1627	0
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0		9.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	20.0	71.0	71.0	0.0	9.0	80.0	0.0
Total Split (%)	20.0%	20.0%	0.0%	20.0%	20.0%	20.0%	71.0%	71.0%	0.0%	9.0%	80.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	66.0	66.0		4.0	75.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
v/c Ratio					0.21	0.69		0.35			0.99	
Control Delay					40.8	58.9		4.2			32.5	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					40.8	58.9		4.2			32.5	
Queue Length 50th (ft)					21	81		83			~446	
Queue Length 95th (ft)					47	129		112			#715	
Internal Link Dist (ft)		75			835			1444			1921	
Turn Bay Length (ft)						60						
Base Capacity (vph)					207	232		2673			1648	
Starvation Cap Reductn					0	0		0			0	
Spillback Cap Reductn					0	0		0			0	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.18	0.58		0.35			0.99	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 97.7
Natural Cycle: 100
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Center Street & Route 138



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	0	110	0	795	40	315	1280	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	14	12	12	12	12	12	12	12	12
Total Lost time (s)					5.0	5.0		5.0			5.0	
Lane Util. Factor					1.00	1.00		0.95			0.95	
Frt					1.00	0.85		0.99			1.00	
Flt Protected					0.95	1.00		1.00			0.99	
Satd. Flow (prot)					1687	1509		3480			3505	
Flt Permitted					0.76	1.00		1.00			0.61	
Satd. Flow (perm)					1345	1509		3480			2144	
Peak-hour factor, PHF	0.38	0.38	0.38	0.82	0.82	0.82	0.90	0.90	0.90	0.98	0.98	0.98
Adj. Flow (vph)	0	0	0	37	0	134	0	883	44	321	1306	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	37	134	0	927	0	0	1627	0
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	3%	3%	3%	2%	2%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)					12.7	12.7		75.1			75.1	
Effective Green, g (s)					12.7	12.7		75.1			75.1	
Actuated g/C Ratio					0.13	0.13		0.77			0.77	
Clearance Time (s)					5.0	5.0		5.0			5.0	
Vehicle Extension (s)					3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)					175	196		2672			1646	
v/s Ratio Prot								0.27				
v/s Ratio Perm					0.03	c0.09					c0.76	
v/c Ratio					0.21	0.68		0.35			0.99	
Uniform Delay, d1					38.1	40.6		3.6			10.9	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					0.6	9.5		0.4			19.3	
Delay (s)					38.7	50.1		3.9			30.2	
Level of Service					D	D		A			C	
Approach Delay (s)		0.0			47.6			3.9			30.2	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay		22.4	HCM Level of Service		C
HCM Volume to Capacity ratio		0.94			
Actuated Cycle Length (s)		97.8	Sum of lost time (s)		10.0
Intersection Capacity Utilization		83.6%	ICU Level of Service		E
Analysis Period (min)		15			
c Critical Lane Group					

Lanes, Volumes, Timings
36: Elm Street & Route 138

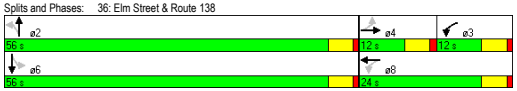
2030 No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	40	350	15	25	30	600	325	45	1045	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Peak Hour Factor	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	398	45	0	0	1049	0	0	1163	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		35.0	35.0		35.0	35.0	
Total Split (s)	12.0	12.0	0.0	12.0	24.0	0.0	56.0	56.0	0.0	56.0	56.0	0.0
Total Split (%)	15.0%	15.0%	0.0%	15.0%	30.0%	0.0%	70.0%	70.0%	0.0%	70.0%	70.0%	0.0%
Maximum Green (s)	7.0	7.0		7.0	19.0		51.0	51.0		51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
v/c Ratio		0.48		0.80	0.09			0.65			0.68	
Control Delay		43.8		42.2	22.1			8.7			14.3	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		43.8		42.2	22.1			8.7			14.3	
Queue Length 50th (ft)		37		172	16			72			204	
Queue Length 95th (ft)		67		#376	42			92			218	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		171		500	525			1837			1941	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.46		0.80	0.09			0.57			0.60	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 36 (45%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 36: Elm Street & Route 138



HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	40	350	15	25	30	600	325	45	1045	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.91		1.00	0.91			0.95			1.00	
Flt Protected		0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1703		1770	1689			3257			3525	
Flt Permitted		0.93		0.76	1.00			0.88			0.86	
Satd. Flow (perm)		1600		1417	1689			2882			3046	
Peak-hour factor, PHF	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	13	13	53	398	17	28	33	659	357	47	1100	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	79	0	398	45	0	0	1049	0	0	1163	0
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.1		25.8	25.8			44.2			44.2	
Effective Green, g (s)		7.1		25.8	25.8			44.2			44.2	
Actuated g/C Ratio		0.09		0.32	0.32			0.55			0.55	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		142		517	545			1592			1683	
v/s Ratio Prot				c0.13	0.03							
v/s Ratio Perm		0.05		c0.12				0.36			c0.38	
v/c Ratio		0.56		0.77	0.08			0.66			0.69	
Uniform Delay, d1		34.9		24.3	18.9			12.6			13.0	
Progression Factor		1.00		1.00	1.00			0.58			1.00	
Incremental Delay, d2		4.7		6.8	0.1			2.1			2.4	
Delay (s)		39.6		31.1	18.9			9.4			15.3	
Level of Service		D		C	B			A			B	
Approach Delay (s)		39.6			29.9			9.4			15.3	
Approach LOS		D			C			A			B	

Intersection Summary

HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
44: Route 106 & Route 138

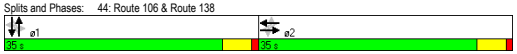
2030 No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	260	50	420	405	120	70	325	225	145	640	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1742			2236			4525			923	
Travel Time (s)		39.6			50.8			102.8			21.0	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.79	0.79	0.79	0.94	0.94	0.94	0.89	0.89	1.00	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	5%	5%	5%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	493	0	0	1006	0	0	669	0	0	963	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phase	2	2		2	2		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.56			1.23dl			0.64			0.96	
Control Delay		17.0			77.6			15.2			40.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.0			77.6			15.2			40.9	
Queue Length 50th (ft)		75			~258			85			198	
Queue Length 95th (ft)		98			#376			138			#333	
Internal Link Dist (ft)		1662			2156			4445			843	
Turn Bay Length (ft)												
Base Capacity (vph)		887			927			1040			1005	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.56			1.09			0.64			0.96	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 44: Route 106 & Route 138



HCM Signalized Intersection Capacity Analysis
44: Route 106 & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	260	50	420	405	120	70	325	225	145	640	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.95			0.98	
Flt Protected		0.99			0.98			0.99			0.99	
Satd. Flow (prot)		3436			3299			3245			3402	
Flt Permitted		0.59			0.63			0.68			0.67	
Satd. Flow (perm)		2032			2124			2214			2303	
Peak-hour factor, PHF	0.79	0.79	0.79	0.94	0.94	0.94	0.89	0.89	1.00	0.94	0.94	0.94
Adj. Flow (vph)	101	329	63	447	431	128	79	365	225	154	681	128
RTOR Reduction (vph)	0	17	0	0	17	0	0	91	0	0	17	0
Lane Group Flow (vph)	0	476	0	0	989	0	0	578	0	0	946	0
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	5%	5%	5%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.43			0.43			0.43			0.43	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		871			910			949			987	
v/s Ratio Prot												
v/s Ratio Perm		0.23			c0.47			0.26			c0.41	
v/c Ratio		0.55			1.23dl			0.61			0.96	
Uniform Delay, d1		14.9			20.0			15.5			19.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.9			56.4			1.3			19.2	
Delay (s)		15.8			76.4			16.8			38.6	
Level of Service		B			E			B			D	
Approach Delay (s)		15.8			76.4			16.8			38.6	
Approach LOS		B			E			B			D	

Intersection Summary

HCM Average Control Delay	42.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
13: Dog Track driveway & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	65	30	605	1085	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.68	0.68	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	7	96	33	672	1192	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1931	1192	1192			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1931	1192	1192			
tC, single (s)	6.7	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.3			
p0 queue free %	87	58	94			
cM capacity (veh/h)	57	230	572			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	103	706	1192
Volume Left	7	33	0
Volume Right	96	0	0
cSH	189	572	1700
Volume to Capacity	0.55	0.06	0.70
Queue Length 95th (ft)	71	5	0
Control Delay (s)	44.8	1.6	0.0
Lane LOS	E	A	
Approach Delay (s)	44.8	1.6	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
24: Britton Street & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	35	20	825	30	25	1300
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.85	0.85	0.97	0.97
Hourly flow rate (vph)	47	27	971	35	26	1340
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2380	988			1006	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2380	988			1006	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	91			96	
cM capacity (veh/h)	36	300			689	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	73	1006	1366
Volume Left	47	0	26
Volume Right	27	35	0
cSH	54	1700	689
Volume to Capacity	1.37	0.59	0.04
Queue Length 95th (ft)	166	0	3
Control Delay (s)	375.6	0.0	2.0
Lane LOS	F		A
Approach Delay (s)	375.6	0.0	2.0
Approach LOS	F		

Intersection Summary			
Average Delay	12.4		
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
27: Britton Street & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	15	5	5	810	1260	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	18	6	6	920	1312	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2265	1333	1354			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2265	1333	1354			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	59	97	99			
cM capacity (veh/h)	45	190	505			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	926	1354
Volume Left	18	6	0
Volume Right	6	0	42
cSH	55	505	1700
Volume to Capacity	0.44	0.01	0.80
Queue Length 95th (ft)	41	1	0
Control Delay (s)	113.3	0.4	0.0
Lane LOS	F	A	
Approach Delay (s)	113.3	0.4	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
50: Wilbur Street & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	5	615	10	10	1130
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.39	0.39	0.97	0.97	0.96	0.96
Hourly flow rate (vph)	13	13	634	10	10	1177
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1837	639			644	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1837	639			644	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	85	97			99	
cM capacity (veh/h)	83	479			941	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	644	1188
Volume Left	13	0	10
Volume Right	13	10	0
cSH	142	1700	941
Volume to Capacity	0.18	0.38	0.01
Queue Length 95th (ft)	16	0	1
Control Delay (s)	35.9	0.0	0.4
Lane LOS	E		A
Approach Delay (s)	35.9	0.0	0.4
Approach LOS	E		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
52: Robinson Street & Route 138

2030 No-Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	620	0	10	1140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.63	0.63	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	0	24	689	0	11	1253
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1964	689			689	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1964	689			689	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	100	95			99	
cM capacity (veh/h)	69	436			915	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	689	1264
Volume Left	0	0	11
Volume Right	24	0	0
cSH	436	1700	915
Volume to Capacity	0.05	0.41	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	13.7	0.0	0.5
Lane LOS	B		A
Approach Delay (s)	13.7	0.0	0.5
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		78.0%	ICU Level of Service D
Analysis Period (min)		15	

Easton

Lanes, Volumes, Timings
1: Main Street & Route 138

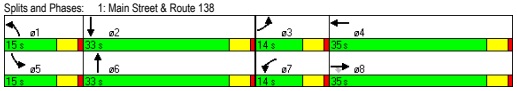
No-Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	370	365	220	45	140	120	120	735	50	70	330	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	11	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4953			2928	
Travel Time (s)		26.1			62.7			84.4			49.9	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	416	410	247	51	295	0	130	853	0	80	449	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	21.0	21.0	12.0	23.0		12.0	23.0		12.0	21.0	
Total Split (s)	14.0	35.0	35.0	14.0	35.0	0.0	15.0	33.0	0.0	15.0	33.0	0.0
Total Split (%)	14.4%	36.1%	36.1%	14.4%	36.1%	0.0%	15.5%	34.0%	0.0%	15.5%	34.0%	0.0%
Maximum Green (s)	9.0	30.0	30.0	9.0	30.0		10.0	28.0		10.0	28.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					7.0			7.0				
Flash Dont Walk (s)					8.0			8.0				
Pedestrian Calls (#/hr)					0			0				
v/c Ratio	2.21	0.72	0.38	0.33	0.38		0.66	0.75		0.44	0.45	
Control Delay	586.8	35.5	5.3	45.7	15.1		56.1	31.7		47.1	25.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	586.8	35.5	5.3	45.7	15.1		56.1	31.7		47.1	25.1	
Queue Length 50th (ft)	~387	212	0	27	36		70	223		43	98	
Queue Length 95th (ft)	#616	330	52	66	67		#169	#374		92	155	
Internal Link Dist (ft)		1645			3138			4873			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	188	699	749	183	1263		223	1189		220	1203	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	2.21	0.59	0.33	0.28	0.23		0.58	0.72		0.36	0.37	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 81.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Route 138



HCM Signalized Intersection Capacity Analysis
1: Main Street & Route 138

No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	370	365	220	45	140	120	120	735	50	70	330	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	11	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1626	1818	1553	1586	3064		1736	3298		1719	3310	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1626	1818	1553	1586	3064		1736	3298		1719	3310	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	416	410	247	51	159	136	130	799	54	80	375	74
RTOR Reduction (vph)	0	0	172	0	103	0	0	5	0	0	17	0
Lane Group Flow (vph)	416	410	75	51	192	0	130	848	0	80	432	0
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	9.4	25.5	25.5	4.3	20.4		9.3	28.1		6.6	25.4	
Effective Green, g (s)	9.4	25.5	25.5	4.3	20.4		9.3	28.1		6.6	25.4	
Actuated g/C Ratio	0.11	0.30	0.30	0.05	0.24		0.11	0.33		0.08	0.30	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	181	549	469	81	740		191	1097		134	995	
v/s Ratio Prot	c0.26	c0.23		0.03	0.06		c0.07	c0.26		0.05	0.13	
v/s Ratio Perm			0.05									
v/c Ratio	2.30	0.75	0.16	0.63	0.26		0.68	0.77		0.60	0.43	
Uniform Delay, d1	37.6	26.6	21.6	39.3	25.9		36.2	25.3		37.7	23.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	601.4	4.8	0.1	10.5	0.1		7.7	3.7		4.7	0.4	
Delay (s)	638.9	31.4	21.7	49.8	26.0		43.9	29.0		42.4	24.2	
Level of Service	F	C	C	D	C		D	C		D	C	
Approach Delay (s)		264.7			29.5			31.0			26.9	
Approach LOS		F			C			C			C	

Intersection Summary

HCM Average Control Delay	115.6	HCM Level of Service	F
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	84.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
2: Belmont St (Rt. 123) & Route 138

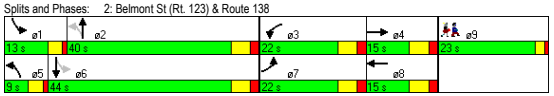
No-Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	20	55	35	250	50	190	85	690	435	195	305	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	13	12	11	12	12	12	11	12	11	12	13	
Storage Length (ft)	0		0	475		0	0		0	200		300	
Storage Lanes	1		0	2		0	1		0	1		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		45			45			45			45		
Link Distance (ft)		387			2550			980			872		
Travel Time (s)		5.9			38.6			14.8			13.2		
Peak Hour Factor	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92	
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	28	125	0	305	293	0	91	1210	0	212	348	0	
Turn Type	Prot			Prot			pm+pt			pm+pt			
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases							2			6			
Detector Phase	7	4		3	8		5	2		1	6		
Switch Phase													
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	22.0	10.0		22.0	10.0		8.0	10.0		8.0	10.0		23.0
Total Split (s)	22.0	15.0	0.0	22.0	15.0	0.0	9.0	40.0	0.0	13.0	44.0	0.0	23.0
Total Split (%)	19.5%	13.3%	0.0%	19.5%	13.3%	0.0%	8.0%	35.4%	0.0%	11.5%	38.9%	0.0%	20%
Maximum Green (s)	16.0	9.0		16.0	9.0		5.0	34.0		9.0	38.0		20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0		3.0	4.0		2.0
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max		None
Walk Time (s)													6.0
Flash Dont Walk (s)													14.0
Pedestrian Calls (#/hr)													2
v/c Ratio	0.27	0.69		0.72	0.74		0.17	0.91		0.65	0.20		
Control Delay	55.8	61.7		57.1	37.6		14.0	40.9		39.4	21.6		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Total Delay	55.8	61.7		57.1	37.6		14.0	40.9		39.4	21.6		
Queue Length 50th (ft)	20	74		109	118		23	377		100	66		
Queue Length 95th (ft)	38	#112		141	#240		72	#650		#295	157		
Internal Link Dist (ft)		307			2470			900			792		
Turn Bay Length (ft)				475						200			
Base Capacity (vph)	219	182		465	395		531	1328		324	1735		
Starvation Cap Reductn	0	0		0	0		0	0		0	0		
Spillback Cap Reductn	0	0		0	0		0	0		0	0		
Storage Cap Reductn	0	0		0	0		0	0		0	0		
Reduced v/c Ratio	0.13	0.69		0.66	0.74		0.17	0.91		0.65	0.20		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 113
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 140
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Belmont St (Rt. 123) & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St (Rt. 123) & Route 138

No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	55	35	250	50	190	85	690	435	195	305	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	13	12	11	12	12	12	11	12	11	12	13
Total Lost time (s)	6.0	6.0		6.0	6.0		4.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.88		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1544	1772		3286	1476		1805	3191		1662	3453	
Flt Permitted	0.95	1.00		0.95	1.00		0.54	1.00		0.09	1.00	
Satd. Flow (perm)	1544	1772		3286	1476		1032	3191		161	3453	
Peak-hour factor, PHF	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	28	76	49	305	61	232	91	742	468	212	332	16
RTOR Reduction (vph)	0	20	0	0	106	0	0	82	0	0	3	0
Lane Group Flow (vph)	28	105	0	305	187	0	91	1128	0	212	345	0
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)	5.2	12.7		14.6	22.1		45.1	39.5		60.7	51.1	
Effective Green, g (s)	5.2	12.7		14.6	22.1		45.1	39.5		60.7	51.1	
Actuated g/C Ratio	0.05	0.11		0.13	0.20		0.40	0.35		0.54	0.45	
Clearance Time (s)	6.0	6.0		6.0	6.0		4.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	71	199		425	289		450	1115		315	1561	
v/s Ratio Prot	0.02	0.06		c0.09	c0.13		0.01	c0.35		c0.10	0.10	
v/s Ratio Perm							0.07			0.26		
v/c Ratio	0.39	0.53		0.72	0.65		0.20	1.01		0.67	0.22	
Uniform Delay, d1	52.4	47.3		47.2	41.9		21.5	36.8		27.1	18.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.49	1.21	
Incremental Delay, d2	3.6	2.7		5.7	4.9		0.2	29.9		5.2	0.3	
Delay (s)	56.0	50.0		52.9	46.8		21.7	66.6		45.4	23.1	
Level of Service	E	D		D	D		C	E		D	C	
Approach Delay (s)		51.1			49.9			63.5			31.6	
Approach LOS		D			D			E			C	

Intersection Summary

HCM Average Control Delay	52.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
6: Roche Brothers Way & Route 138

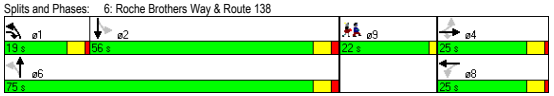
No-Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	80	0	65	5	0	5	190	990	0	0	350	90	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	10	11	11	12	11	11	
Storage Length (ft)	0		100	0		0	350		0	0		0	
Storage Lanes	0		1	0		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		635			332			1623			2417		
Travel Time (s)		14.4			7.5			36.9			54.9		
Peak Hour Factor	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84	
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	98	79	0	16	0	0	1389	0	0	524	0	
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm			
Protected Phases		4	1		8		1	6			2		9
Permitted Phases	4		4	8			6			2			
Detector Phase	4	4	1	8	8		1	6		2	2		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	10.0		10.0	10.0		7.0
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	21.0		21.0	21.0		22.0
Total Split (s)	25.0	25.0	19.0	25.0	25.0	0.0	19.0	75.0	0.0	56.0	56.0	0.0	22.0
Total Split (%)	20.5%	20.5%	15.6%	20.5%	20.5%	0.0%	15.6%	61.5%	0.0%	45.9%	45.9%	0.0%	18%
Maximum Green (s)	20.0	20.0	14.0	20.0	20.0		14.0	69.0		50.0	50.0		20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag			Lead				Lead			Lag	Lag		
Lead-Lag Optimize?			Yes				Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None	None	None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													2
v/c Ratio		0.58	0.18		0.07			0.78			0.26		
Control Delay		53.8	8.8		28.9			14.8			10.1		
Queue Delay		0.0	0.0		0.0			0.0			0.0		
Total Delay		53.8	8.8		28.9			14.8			10.1		
Queue Length 50th (ft)		50	0		4			136			56		
Queue Length 95th (ft)		115	31		17			#468			148		
Internal Link Dist (ft)		555			252			1543			2337		
Turn Bay Length (ft)			100										
Base Capacity (vph)		308	568		381			1924			2052		
Starvation Cap Reductn		0	0		0			0			0		
Spillback Cap Reductn		0	0		0			0			0		
Storage Cap Reductn		0	0		0			0			0		
Reduced v/c Ratio		0.32	0.14		0.04			0.72			0.26		

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 91.1
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Roche Brothers Way & Route 138



HCM Signalized Intersection Capacity Analysis
6: Roche Brothers Way & Route 138

No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	0	65	5	0	5	190	990	0	0	350	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	10	11	11	12	11	11
Total Lost time (s)		5.0	5.0		5.0			6.0			6.0	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frt		1.00	0.85		0.93			1.00			0.97	
Flt Protected		0.95	1.00		0.98			0.99			1.00	
Satd. Flow (prot)		1736	1524		1911			3361			3240	
Flt Permitted		0.75	1.00		0.85			0.71			1.00	
Satd. Flow (perm)		1365	1524		1667			2422			3240	
Peak-hour factor, PHF	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	98	0	79	8	0	8	224	1165	0	0	417	107
RTOR Reduction (vph)	0	0	65	0	7	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	98	14	0	9	0	0	1389	0	0	511	0
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		11.3	16.1		11.3			66.2			56.4	
Effective Green, g (s)		11.3	16.1		11.3			66.2			56.4	
Actuated g/C Ratio		0.12	0.17		0.12			0.71			0.60	
Clearance Time (s)		5.0	5.0		5.0			6.0			6.0	
Vehicle Extension (s)		2.0	2.0		2.0			2.0			2.0	
Lane Grp Cap (vph)		165	344		201			1763			1954	
v/s Ratio Prot			0.00					c0.04			0.16	
v/s Ratio Perm		c0.07	0.01		0.01			c0.52				
v/c Ratio		0.59	0.04		0.04			0.79			0.26	
Uniform Delay, d1		38.9	32.3		36.3			9.0			8.7	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		3.8	0.0		0.0			2.2			0.0	
Delay (s)		42.7	32.3		36.4			11.2			8.8	
Level of Service		D	C		D			B			A	
Approach Delay (s)		38.1			36.4			11.2			8.8	
Approach LOS		D			D			B			A	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	93.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
49: Roosevelt Circle & Route 138

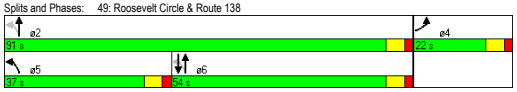
No-Build Condition - AM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø2
Lane Configurations							
Volume (vph)	40	15	5	895	540	55	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	50			0	
Storage Lanes	1	0	1			0	
Taper Length (ft)	25	25	25			25	
Right Turn on Red		Yes				Yes	
Link Speed (mph)	30			40	45		
Link Distance (ft)	613			872	4953		
Travel Time (s)	13.9			14.9	75.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	59	0	5	973	647	0	
Turn Type			pm+pt				
Protected Phases	4		5	2 6	6		2
Permitted Phases			2 6				
Detector Phase	4		5	2 6	6		
Switch Phase							
Minimum Initial (s)	4.0		4.0		4.0		4.0
Minimum Split (s)	22.0		22.0		22.0		22.0
Total Split (s)	22.0	0.0	37.0	145.0	54.0	0.0	91.0
Total Split (%)	19.5%	0.0%	32.7%	128.3%	47.8%	0.0%	81%
Maximum Green (s)	16.0		31.0		48.0		85.0
Yellow Time (s)	4.0		4.0		4.0		4.0
All-Red Time (s)	2.0		2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0	
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		None		C-Max		C-Min
Walk Time (s)	5.0		5.0		5.0		5.0
Flash Dont Walk (s)	11.0		11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0		0
v/c Ratio	0.41		0.01	0.61	0.42		
Control Delay	47.7		0.4	3.6	5.2		
Queue Delay	0.0		0.0	0.7	0.0		
Total Delay	47.7		0.4	4.4	5.2		
Queue Length 50th (ft)	32		0	32	98		
Queue Length 95th (ft)	72		m0	m188	286		
Internal Link Dist (ft)	533			792	4873		
Turn Bay Length (ft)			50				
Base Capacity (vph)	257		856	1583	1526		
Starvation Cap Reductn	0		0	291	0		
Spillback Cap Reductn	0		0	0	0		
Storage Cap Reductn	0		0	0	0		
Reduced v/c Ratio	0.23		0.01	0.75	0.42		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 113
Offset: 41 (36%), Referenced to phase 2:NBTL and 6:NBSB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 49: Roosevelt Circle & Route 138



HCM Signalized Intersection Capacity Analysis
49: Roosevelt Circle & Route 138

No-Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	40	15	5	895	540	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.96		1.00	1.00	0.99	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1731		1770	1863	1839	
Flt Permitted	0.96		0.35	1.00	1.00	
Satd. Flow (perm)	1731		655	1863	1839	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	16	5	973	587	60
RTOR Reduction (vph)	13	0	0	0	1	0
Lane Group Flow (vph)	46	0	5	973	646	0
Turn Type			pm+pt			
Protected Phases	4		5	2 6	6	
Permitted Phases			2 6			
Actuated Green, G (s)	7.4		93.6	93.6	86.5	
Effective Green, g (s)	7.4		93.6	93.6	86.5	
Actuated g/C Ratio	0.07		0.83	0.83	0.77	
Clearance Time (s)	6.0		6.0		6.0	
Vehicle Extension (s)	3.0		3.0		3.0	
Lane Grp Cap (vph)	113		553	1543	1408	
v/s Ratio Prot	c0.03		0.00	c0.52	0.35	
v/s Ratio Perm			0.01			
v/c Ratio	0.41		0.01	0.63	0.46	
Uniform Delay, d1	50.7		2.7	3.5	4.8	
Progression Factor	1.00		0.18	0.66	1.00	
Incremental Delay, d2	2.4		0.0	1.0	1.1	
Delay (s)	53.1		0.5	3.3	5.9	
Level of Service	D		A	A	A	
Approach Delay (s)	53.1			3.3	5.9	
Approach LOS	D			A	A	

Intersection Summary

HCM Average Control Delay	6.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
3: Elm St & Route 138

No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	30	35	10	15	25	30	1245	15	0	415	45
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.68	0.68	0.68	0.91	0.91	0.91	0.89	0.89	0.89
Hourly flow rate (vph)	143	36	42	15	22	37	33	1368	16	0	466	51
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1982	1942	492	1993	1959	1376	517			1385		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1982	1942	492	1993	1959	1376	517			1385		
tC, single (s)	7.1	6.5	6.2	7.1	6.6	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	0	43	93	35	61	79	97			100		
cM capacity (veh/h)	25	63	575	23	57	176	1039			501		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	220	74	1418	517
Volume Left	143	15	33	0
Volume Right	42	37	16	51
cSH	35	59	1039	501
Volume to Capacity	6.33	1.25	0.03	0.00
Queue Length 95th (ft)	Err	156	2	0
Control Delay (s)	Err	313.9	1.6	0.0
Lane LOS	F	F	A	
Approach Delay (s)	9999.0	313.9	1.6	0.0
Approach LOS	F	F		

Intersection Summary				
Average Delay		999.7		
Intersection Capacity Utilization		114.3%	ICU Level of Service	H
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Lincoln Street & Main Street

No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	470	15	145	110	60	5	60	480	90	45	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.87	0.87	0.80	0.80	0.80	0.87	0.87	0.87
Hourly flow rate (vph)	5	516	16	167	126	69	6	75	600	103	52	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	126			533			1062	995	525	1067	1038	161
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	126			533			1062	995	525	1067	1038	161
tC, single (s)	4.1			4.1			7.3	6.5	6.2	7.1	6.7	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.1	3.3
p0 queue free %	100			84			95	63	0	0	72	99
cM capacity (veh/h)	1472			1025			129	204	553	0	182	889

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	538	362	681	161
Volume Left	5	167	6	103
Volume Right	16	69	600	6
cSH	1472	1025	454	0
Volume to Capacity	0.00	0.16	1.50	Err
Queue Length 95th (ft)	0	14	891	Err
Control Delay (s)	0.1	5.1	260.4	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.1	5.1	260.4	Err
Approach LOS			F	F

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization		97.4%	ICU Level of Service	F
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
11: Lincoln Street & Barrows Street

No-Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	145	485	0	0	120	0	0	0	5	0	0	75
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.59
Hourly flow rate (vph)	151	505	0	0	136	0	0	0	6	0	0	127
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136			505			1071	944	505	949	944	136
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			505			1071	944	505	949	944	136
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			100			100	100	99	100	100	86
cM capacity (veh/h)	1448			1059			157	235	567	221	235	915

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	656	136	6	127
Volume Left	151	0	0	0
Volume Right	0	0	6	127
cSH	1448	1700	567	915
Volume to Capacity	0.10	0.08	0.01	0.14
Queue Length 95th (ft)	9	0	1	12
Control Delay (s)	2.7	0.0	11.4	9.6
Lane LOS	A		B	A
Approach Delay (s)	2.7	0.0	11.4	9.6
Approach LOS			B	A

Intersection Summary			
Average Delay		3.3	
Intersection Capacity Utilization		51.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
12: Union Street & Route 138

No-Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	65	90	1095	255	75	380
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.89	0.89	0.81	0.81
Hourly flow rate (vph)	74	102	1230	287	93	469
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2028	1374			1517	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2028	1374			1517	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	42			79	
cM capacity (veh/h)	50	176			437	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	176	1517	562
Volume Left	74	0	93
Volume Right	102	287	0
cSH	86	1700	437
Volume to Capacity	2.05	0.89	0.21
Queue Length 95th (ft)	388	0	20
Control Delay (s)	588.6	0.0	6.3
Lane LOS	F		A
Approach Delay (s)	588.6	0.0	6.3
Approach LOS	F		

Intersection Summary			
Average Delay		47.5	
Intersection Capacity Utilization		99.9%	ICU Level of Service F
Analysis Period (min)		15	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	45	15	150	95	50	150
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.86	0.86	0.73	0.73
Hourly flow rate (vph)	51	17	174	110	68	205
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	572	230			285	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	572	230			285	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	89	98			95	
cM capacity (veh/h)	446	797			1277	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	68	285	274
Volume Left	51	0	68
Volume Right	17	110	0
cSH	502	1700	1277
Volume to Capacity	0.14	0.17	0.05
Queue Length 95th (ft)	12	0	4
Control Delay (s)	13.3	0.0	2.4
Lane LOS	B		A
Approach Delay (s)	13.3	0.0	2.4
Approach LOS	B		

Intersection Summary			
Average Delay		2.5	
Intersection Capacity Utilization		37.8%	ICU Level of Service A
Analysis Period (min)		15	

Lanes, Volumes, Timings
1: Main Street & Rte 138

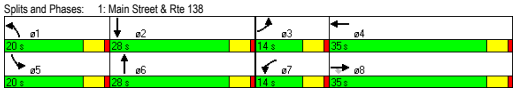
No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	195	270	105	360	85	290	480	85	135	625	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	12	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4944			2928	
Travel Time (s)		26.1			62.7			84.3			49.9	
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	213	238	329	124	524	0	322	627	0	152	994	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	21.0		12.0	21.0		12.0	20.0	
Total Split (s)	14.0	35.0	35.0	14.0	35.0	0.0	20.0	28.0	0.0	20.0	28.0	0.0
Total Split (%)	14.4%	36.1%	36.1%	14.4%	36.1%	0.0%	20.6%	28.9%	0.0%	20.6%	28.9%	0.0%
Maximum Green (s)	9.0	30.0	30.0	9.0	30.0		15.0	23.0		15.0	23.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					5.0			5.0				
Flash Dont Walk (s)					11.0			11.0				
Pedestrian Calls (#/hr)					0			0				
v/c Ratio	1.12	0.64	0.56	0.70	0.76		1.02	0.57		0.66	1.06	
Control Delay	139.3	38.9	7.4	59.6	37.0		92.0	26.9		48.5	77.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	139.3	38.9	7.4	59.6	37.0		92.0	26.9		48.5	77.2	
Queue Length 50th (ft)	~130	116	0	64	129		~174	138		77	~293	
Queue Length 95th (ft)	#252	168	43	#141	170		#372	226		139	#455	
Internal Link Dist (ft)		1645			3138			4864			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	190	651	778	186	1220		317	1097		311	936	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	1.12	0.37	0.42	0.67	0.43		1.02	0.57		0.49	1.06	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 83.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Rte 138



HCM Signalized Intersection Capacity Analysis
1: Main Street & Rte 138

No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	195	270	105	360	85	290	480	85	135	625	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	12	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1818	1583	1728	3350		1770	3385		1736	3248	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1818	1583	1728	3350		1770	3385		1736	3248	
Peak-hour factor, PHF	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Adj. Flow (vph)	213	238	329	124	424	100	322	533	94	152	702	292
RTOR Reduction (vph)	0	0	262	0	25	0	0	13	0	0	44	0
Lane Group Flow (vph)	213	238	67	124	499	0	322	614	0	152	950	0
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	9.0	17.2	17.2	8.6	16.8		15.0	26.9		11.2	23.1	
Effective Green, g (s)	9.0	17.2	17.2	8.6	16.8		15.0	26.9		11.2	23.1	
Actuated g/C Ratio	0.11	0.21	0.21	0.10	0.20		0.18	0.32		0.13	0.28	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	190	373	325	177	671		316	1085		232	894	
v/s Ratio Prot	c0.12	0.13		0.07	c0.15		c0.18	c0.18		0.09	c0.29	
v/s Ratio Perm			0.04									
v/c Ratio	1.12	0.64	0.21	0.70	0.74		1.02	0.57		0.66	1.06	
Uniform Delay, d1	37.5	30.5	27.7	36.4	31.5		34.4	23.7		34.5	30.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	101.5	2.6	0.1	9.8	3.9		55.6	0.8		5.0	48.1	
Delay (s)	139.0	33.1	27.8	46.2	35.4		90.0	24.5		39.5	78.5	
Level of Service	F	C	C	D	D		F	C		D	E	
Approach Delay (s)		59.8			37.5			46.7			73.3	
Approach LOS		E			D			D			E	

Intersection Summary

HCM Average Control Delay	56.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	83.9	Sum of lost time (s)	25.0
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
2: Belmont St & Route 138

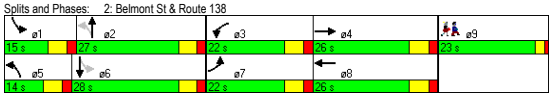
No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	70	125	275	500	150	170	230	395	300	220	650	60	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	13	12	11	13	12	11	12	12	11	12	13	
Storage Length (ft)	0		0	475		0	0		0	200		300	
Storage Lanes	1		0	2		0	1		0	1		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		45			45			45			45		
Link Distance (ft)		387			2550			908			876		
Travel Time (s)		5.9			38.6			13.8			13.3		
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91	
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	79	449	0	568	363	0	247	748	0	242	780	0	
Turn Type	Prot			Prot			pm+pt			pm+pt			
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases							2			6			
Detector Phase	7	4		3	8		5	2		1	6		
Switch Phase													
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	22.0	10.0		22.0	10.0		10.0	10.0		10.0	10.0		23.0
Total Split (s)	22.0	26.0	0.0	22.0	26.0	0.0	14.0	27.0	0.0	15.0	28.0	0.0	23.0
Total Split (%)	19.5%	23.0%	0.0%	19.5%	23.0%	0.0%	12.4%	23.9%	0.0%	13.3%	24.8%	0.0%	20%
Maximum Green (s)	16.0	20.0		16.0	20.0		8.0	21.0		9.0	22.0		20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max		None
Walk Time (s)													6.0
Flash Dont Walk (s)													14.0
Pedestrian Calls (#/hr)													5
v/c Ratio	0.49	1.18		1.20	0.76		0.62	0.85		0.61	0.92		
Control Delay	58.2	137.1		150.3	48.0		32.5	43.4		29.9	47.4		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Total Delay	58.2	137.1		150.3	48.0		32.5	43.4		29.9	47.4		
Queue Length 50th (ft)	56	~338		~258	224		96	213		65	275		
Queue Length 95th (ft)	101	#532		#356	#410		#355	#379		m#272	#467		
Internal Link Dist (ft)		307			2470			828			796		
Turn Bay Length (ft)				475						200			
Base Capacity (vph)	247	382		474	477		400	880		396	847		
Starvation Cap Reductn	0	0		0	0		0	0		0	0		
Spillback Cap Reductn	0	0		0	0		0	0		0	0		
Storage Cap Reductn	0	0		0	0		0	0		0	0		
Reduced v/c Ratio	0.32	1.18		1.20	0.76		0.62	0.85		0.61	0.92		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 113
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Belmont St & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St & Route 138

No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	125	275	500	150	170	230	395	300	220	650	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	13	12	11	13	12	11	12	12	11	12	13
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.90		1.00	0.92		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1745	1761		3351	1788		1745	3287		1662	3469	
Flt Permitted	0.95	1.00		0.95	1.00		0.18	1.00		0.17	1.00	
Satd. Flow (perm)	1745	1761		3351	1788		324	3287		294	3469	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91
Adj. Flow (vph)	79	140	309	568	170	193	247	425	323	242	714	66
RTOR Reduction (vph)	0	69	0	0	33	0	0	119	0	0	6	0
Lane Group Flow (vph)	79	380	0	568	330	0	247	629	0	242	774	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)	9.2	21.2		16.0	28.0		43.7	22.7		45.9	23.8	
Effective Green, g (s)	9.2	21.2		16.0	28.0		43.7	22.7		45.9	23.8	
Actuated g/C Ratio	0.08	0.19		0.14	0.25		0.39	0.20		0.41	0.21	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	142	330		474	443		389	660		387	731	
v/s Ratio Prot	0.05	c0.22		c0.17	0.18		0.12	0.19		c0.12	c0.22	
v/s Ratio Perm							0.13			0.13		
v/c Ratio	0.56	1.15		1.20	0.74		0.63	0.95		0.63	1.06	
Uniform Delay, d1	49.9	45.9		48.5	39.2		26.5	44.6		25.3	44.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.05	0.83	
Incremental Delay, d2	4.7	97.2		108.2	6.7		3.4	25.2		2.1	43.7	
Delay (s)	54.6	143.1		156.7	45.9		29.9	69.8		28.7	80.9	
Level of Service	D	F		F	D		C	E		C	F	
Approach Delay (s)		129.8			113.5			59.9			68.5	
Approach LOS		F			F			E			E	

Intersection Summary

HCM Average Control Delay	87.4	HCM Level of Service	F
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	25.0
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

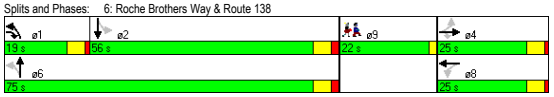
Lanes, Volumes, Timings
6: Roche Brothers Way & Route 138

No-Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	90	0	305	1	0	0	200	490	5	5	835	140	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	11	12	12	12	11	11	11	12	12	12	
Storage Length (ft)	0		100	0		0	0		0	0		0	
Storage Lanes	0		1	0		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		635			332			1623			2417		
Travel Time (s)		14.4			7.5			36.9			54.9		
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30	
Peak Hour Factor	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90	
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	100	339	0	4	0	0	848	0	0	1090	0	
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm			
Protected Phases		4	1		8		1	6			2		9
Permitted Phases	4		4	8			6			2			
Detector Phase	4	4	1	8	8		1	6		2	2		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		10.0	10.0		7.0
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	22.0		22.0	22.0		22.0
Total Split (s)	25.0	25.0	19.0	25.0	25.0	0.0	19.0	75.0	0.0	56.0	56.0	0.0	22.0
Total Split (%)	20.5%	20.5%	15.6%	20.5%	20.5%	0.0%	15.6%	61.5%	0.0%	45.9%	45.9%	0.0%	18%
Maximum Green (s)	20.0	20.0	14.0	20.0	20.0		14.0	69.0		50.0	50.0		20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag			Lead				Lead			Lag	Lag		
Lead-Lag Optimize?			Yes				Yes			Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None	None	None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													2
v/c Ratio		0.40	0.55		0.02			0.66			0.71		
Control Delay		36.6	7.3		33.0			12.7			18.7		
Queue Delay		0.0	0.0		0.0			0.0			0.0		
Total Delay		36.6	7.3		33.0			12.7			18.7		
Queue Length 50th (ft)		32	0		1			68			160		
Queue Length 95th (ft)		130	76		4			214			420		
Internal Link Dist (ft)		555			252			1543			2337		
Turn Bay Length (ft)			100										
Base Capacity (vph)		471	780		435			1740			2596		
Starvation Cap Reductn		0	0		0			0			0		
Spillback Cap Reductn		0	0		0			0			0		
Storage Cap Reductn		0	0		0			0			0		
Reduced v/c Ratio		0.21	0.43		0.01			0.49			0.42		

Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 68.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 6: Roche Brothers Way & Route 138



HCM Signalized Intersection Capacity Analysis
6: Roche Brothers Way & Route 138

No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	0	305	1	0	0	200	490	5	5	835	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0			6.0			6.0	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.93		1.00			1.00			0.99	
Flpb, ped/bikes		0.95	1.00		0.95			1.00			1.00	
Frt		1.00	0.85		1.00			1.00			0.98	
Flt Protected		0.95	1.00		0.95			0.99			1.00	
Satd. Flow (prot)		1710	1436		1722			3331			3442	
Flt Permitted		0.76	1.00		0.69			0.52			0.95	
Satd. Flow (perm)		1359	1436		1255			1758			3271	
Peak-hour factor, PHF	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90
Adj. Flow (vph)	100	0	339	4	0	0	244	598	6	6	928	156
RTOR Reduction (vph)	0	0	257	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	100	82	0	4	0	0	848	0	0	1080	0
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		9.9	16.9		9.9			44.8			32.8	
Effective Green, g (s)		9.9	16.9		9.9			44.8			32.8	
Actuated g/C Ratio		0.14	0.24		0.14			0.64			0.47	
Clearance Time (s)		5.0	5.0		5.0			6.0			6.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		192	450		178			1284			1535	
v/s Ratio Prot			0.02					c0.07				
v/s Ratio Perm		c0.07	0.04		0.00			c0.36			0.33	
v/c Ratio		0.52	0.18		0.02			0.66			0.70	
Uniform Delay, d1		27.8	21.0		25.8			7.8			14.7	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		2.5	0.2		0.1			1.3			1.5	
Delay (s)		30.3	21.2		25.9			9.1			16.2	
Level of Service		C	C		C			A			B	
Approach Delay (s)		23.3			25.9			9.1			16.2	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	69.9	Sum of lost time (s)	15.2
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
48: Roosevelt Circle & Route 138

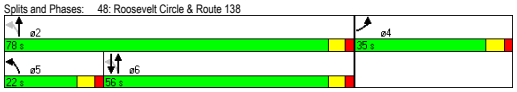
No-Build Condition - PM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø2
Lane Configurations							
Volume (vph)	160	50	0	605	830	155	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	50			0	
Storage Lanes	1	0	1			0	
Taper Length (ft)	25	25	25			25	
Right Turn on Red		Yes				Yes	
Link Speed (mph)	30			40	45		
Link Distance (ft)	1067			876	4944		
Travel Time (s)	24.3			14.9	74.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	228	0	0	658	1070	0	
Turn Type			pm+pt				
Protected Phases	4		5	2 6	6		2
Permitted Phases			2 6				
Detector Phase	4		5	2 6	6		
Switch Phase							
Minimum Initial (s)	4.0		4.0		4.0		4.0
Minimum Split (s)	22.0		22.0		22.0		22.0
Total Split (s)	35.0	0.0	22.0	134.0	56.0	0.0	78.0
Total Split (%)	31.0%	0.0%	19.5%	118.6%	49.6%	0.0%	69%
Maximum Green (s)	29.0		16.0		50.0		72.0
Yellow Time (s)	4.0		4.0		4.0		4.0
All-Red Time (s)	2.0		2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0	
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		None		C-Min		C-Max
Walk Time (s)	5.0		5.0		5.0		5.0
Flash Dont Walk (s)	11.0		11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0		0
v/c Ratio	0.74			0.49	0.81		
Control Delay	55.7			10.3	18.1		
Queue Delay	0.0			0.0	0.0		
Total Delay	55.7			10.3	18.1		
Queue Length 50th (ft)	150			152	452		
Queue Length 95th (ft)	220			m391	#955		
Internal Link Dist (ft)	987			796	4864		
Turn Bay Length (ft)							
Base Capacity (vph)	455			1346	1321		
Starvation Cap Reductn	0			0	0		
Spillback Cap Reductn	0			0	0		
Storage Cap Reductn	0			0	0		
Reduced v/c Ratio	0.50			0.49	0.81		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 113
Offset: 93 (82%), Referenced to phase 2:NBTL and 6:NBSB, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 48: Roosevelt Circle & Route 138



HCM Signalized Intersection Capacity Analysis
48: Roosevelt Circle & Route 138

No-Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	160	50	0	605	830	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			1.00	1.00	
Frt	0.97			1.00	0.98	
Flt Protected	0.96			1.00	1.00	
Satd. Flow (prot)	1737			1863	1823	
Flt Permitted	0.96			1.00	1.00	
Satd. Flow (perm)	1737			1863	1823	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	54	0	658	902	168
RTOR Reduction (vph)	11	0	0	0	3	0
Lane Group Flow (vph)	217	0	0	658	1067	0
Turn Type			pm+pt			
Protected Phases	4		5	2 6	6	
Permitted Phases			2 6			
Actuated Green, G (s)	19.4			81.6	81.6	
Effective Green, g (s)	19.4			81.6	81.6	
Actuated g/C Ratio	0.17			0.72	0.72	
Clearance Time (s)	6.0				6.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	298			1345	1316	
v/s Ratio Prot	c0.13			0.35	c0.59	
v/s Ratio Perm						
v/c Ratio	0.73			0.49	0.81	
Uniform Delay, d1	44.3			6.7	10.5	
Progression Factor	1.00			1.23	1.00	
Incremental Delay, d2	8.6			0.8	5.5	
Delay (s)	52.9			9.1	16.0	
Level of Service	D			A	B	
Approach Delay (s)	52.9			9.1	16.0	
Approach LOS	D			A	B	

Intersection Summary

HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
3: Elm St & Route 138

No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	15	35	25	50	35	65	685	30	20	1000	185
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	88	18	41	29	58	41	74	778	34	24	1176	218
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2345	2293	1285	2326	2384	795	1394			812		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2345	2293	1285	2326	2384	795	1394			812		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	46	79	0	0	89	85			97		
cM capacity (veh/h)	0	33	199	11	29	386	491			823		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	147	128	886	1418
Volume Left	88	29	74	24
Volume Right	41	41	34	218
cSH	0	26	491	823
Volume to Capacity	Err	4.89	0.15	0.03
Queue Length 95th (ft)	Err	Err	13	2
Control Delay (s)	Err	Err	4.7	1.6
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	4.7	1.6
Approach LOS	F	F		

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization	95.4%	ICU Level of Service	F	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
10: Lincoln Street & Main Street

No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	255	25	420	440	105	15	50	220	85	70	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.89	0.89	0.89	0.93	0.93	0.93
Hourly flow rate (vph)	6	300	29	488	512	122	17	56	247	91	75	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	512			329			1924	1815	315	1904	1891	573
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	512			329			1924	1815	315	1904	1891	573
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.6	4.0	3.3
p0 queue free %	99			60			0	0	66	0	0	98
cM capacity (veh/h)	1064			1236			0	47	723	0	42	523

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	335	1122	320	177
Volume Left	6	488	17	91
Volume Right	29	122	247	11
cSH	1064	1236	0	0
Volume to Capacity	0.01	0.40	Err	Err
Queue Length 95th (ft)	0	48	Err	Err
Control Delay (s)	0.2	7.8	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	7.8	Err	Err
Approach LOS			F	F

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization	107.3%	ICU Level of Service	G	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
11: Lincoln Street & Barrows Street

No-Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	270	0	0	465	5	10	5	15	0	0	180
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.92	0.92	0.89	0.89	0.92	0.92	0.92	0.89	0.92	0.89
Hourly flow rate (vph)	83	321	0	0	522	6	11	5	16	0	0	202
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	528			321			1216	1016	321	1032	1013	525
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	528			321			1216	1016	321	1032	1013	525
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			100			88	98	98	100	100	64
cM capacity (veh/h)	1049			1238			94	219	719	192	220	556

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	405	528	33	202
Volume Left	83	0	11	0
Volume Right	0	6	16	202
cSH	1049	1700	201	556
Volume to Capacity	0.08	0.31	0.16	0.36
Queue Length 95th (ft)	6	0	14	41
Control Delay (s)	2.5	0.0	26.4	15.1
Lane LOS	A		D	C
Approach Delay (s)	2.5	0.0	26.4	15.1
Approach LOS			D	C

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
12: Union Street & Route 138

No-Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	185	125	595	170	130	1040
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.84	0.84	0.92	0.92
Hourly flow rate (vph)	231	156	708	202	141	1130
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2223	810			911	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2223	810			911	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	59			81	
cM capacity (veh/h)	39	382			752	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	388	911	1272
Volume Left	231	0	141
Volume Right	156	202	0
cSH	61	1700	752
Volume to Capacity	6.30	0.54	0.19
Queue Length 95th (ft)	Err	0	17
Control Delay (s)	Err	0.0	6.6
Lane LOS	F		A
Approach Delay (s)	Err	0.0	6.6
Approach LOS	F		

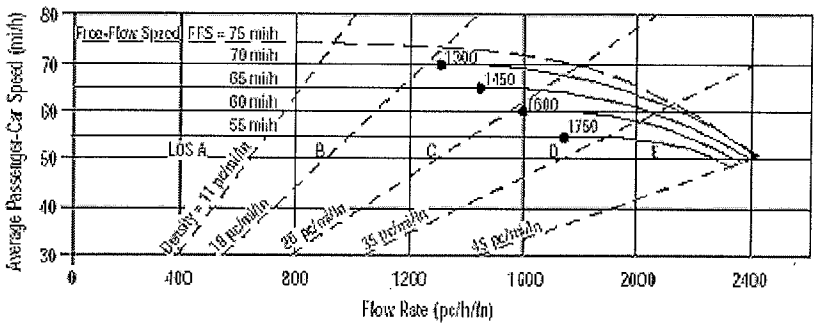
Intersection Summary			
Average Delay	1510.9		
Intersection Capacity Utilization	131.5%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	130	100	165	55	35	180
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.92	0.92	0.95	0.95
Hourly flow rate (vph)	155	119	179	60	37	189
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	472	209			239	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	472	209			239	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	71	86			97	
cM capacity (veh/h)	535	834			1340	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	274	239	226
Volume Left	155	0	37
Volume Right	119	60	0
cSH	634	1700	1340
Volume to Capacity	0.43	0.14	0.03
Queue Length 95th (ft)	54	0	2
Control Delay (s)	14.9	0.0	1.5
Lane LOS	B		A
Approach Delay (s)	14.9	0.0	1.5
Approach LOS	B		

Intersection Summary			
Average Delay		6.0	
Intersection Capacity Utilization		46.8%	ICU Level of Service A
Analysis Period (min)		15	

BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route I-93 South of F.B.P.*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8760*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*58.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*58.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2369*	pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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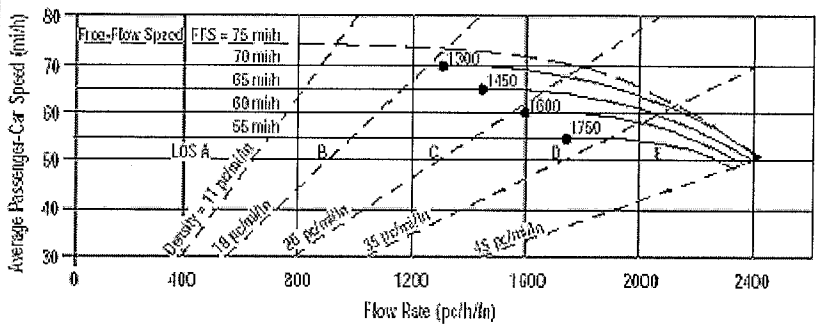

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route I-93 South of F.B.P.*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5450*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*58.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*58.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1469*	pc/h/ln
S	*58.3*	mi/h
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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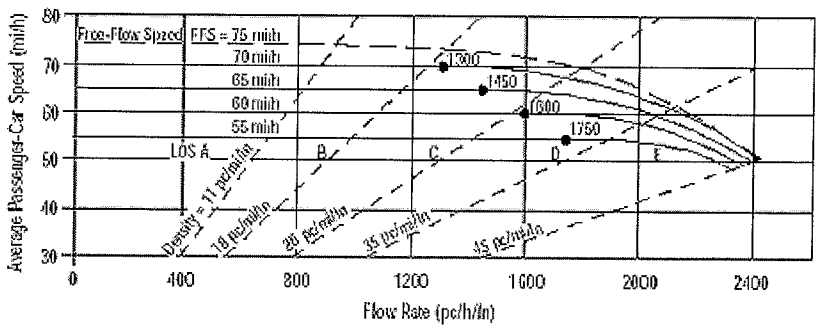

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route I-93 South of F.B.P.*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5220*	veh/h	Peak-Hour Factor, PHF	*0.95*	
AADT		veh/day	%Trucks and Buses, P_T	*7*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*59.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*59.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1422*	pc/h/ln
S	*59.0*	mi/h
D = v_p / S	*24.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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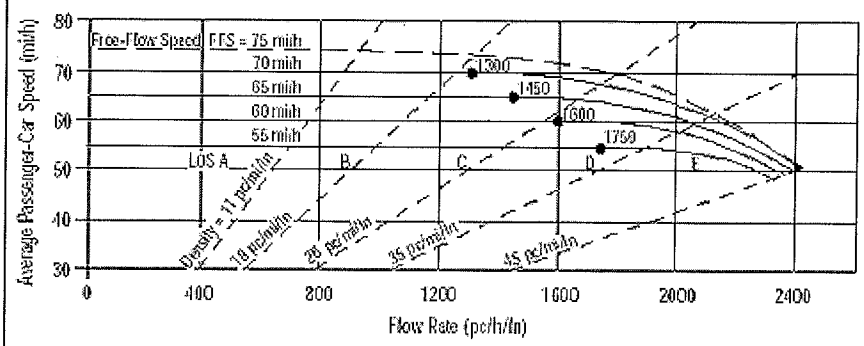
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/5/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route I-93 South of F.B.P.*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8100*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*59.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*59.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2161*	pc/h/ln
S	*54.4*	mi/h
D = v_p / S	*39.7*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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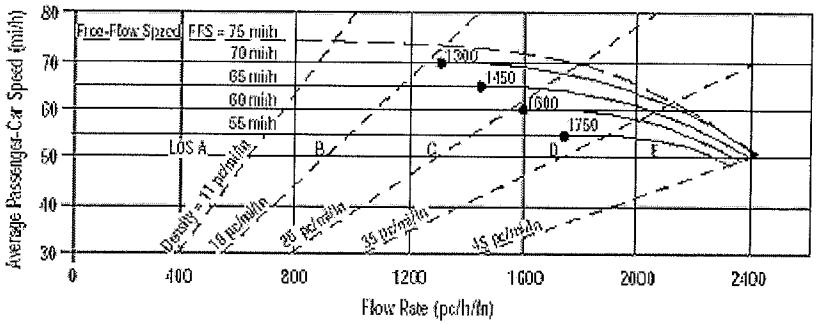

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route I-93 South of Route 3*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6645*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*66.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1817*	pc/h/ln
S	*64.6*	mi/h
D = v_p / S	*28.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits23-8, 23-10
E_T - Exhibits 23-8, 23-10, 23-11
f_p - Page 23-12
LOS, S, FFS, v_p - Exhibits 23-2, 23-3
f_{LW} - Exhibit 23-4
f_{LC} - Exhibit 23-5
f_N - Exhibit 23-6
f_{ID} - Exhibit 23-7

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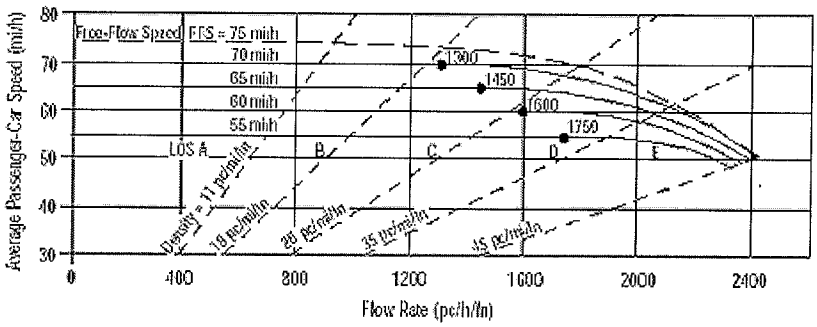

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route I-93 South of Route 3*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4880*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*66.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1309*	pc/h/ln
S	*66.0*	mi/h
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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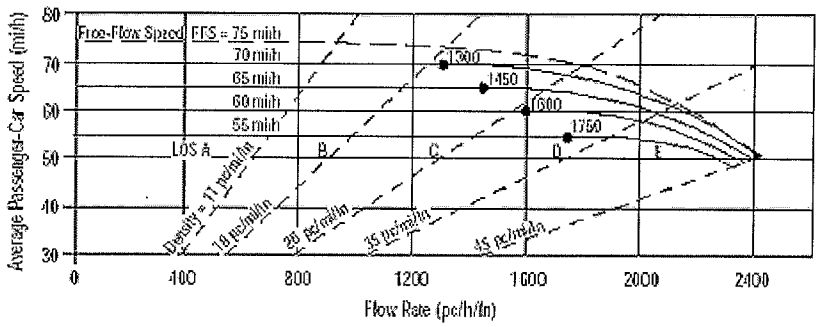

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route I-93 South of Route 3*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7160*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*64.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*64.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1891*	pc/h/ln
S	*62.2*	mi/h
D = v_p / S	*30.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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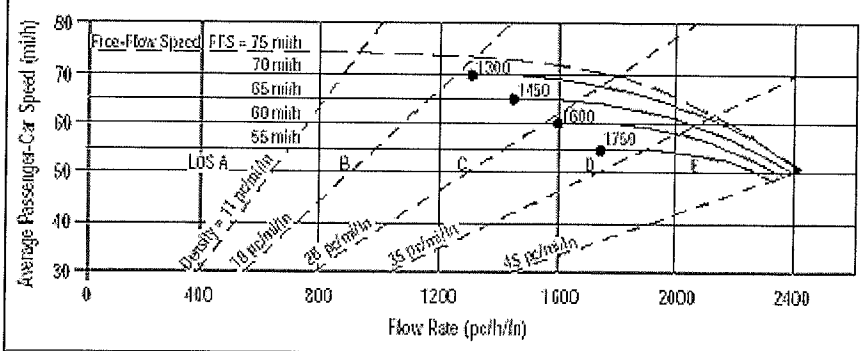

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route I-93 South of Route 3*
Jurisdiction	*Braintree*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8235*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*4*	
FFS (measured)	*64.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*64.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2175*	pc/h/ln
S	*57.1*	mi/h
D = v_p / S	*38.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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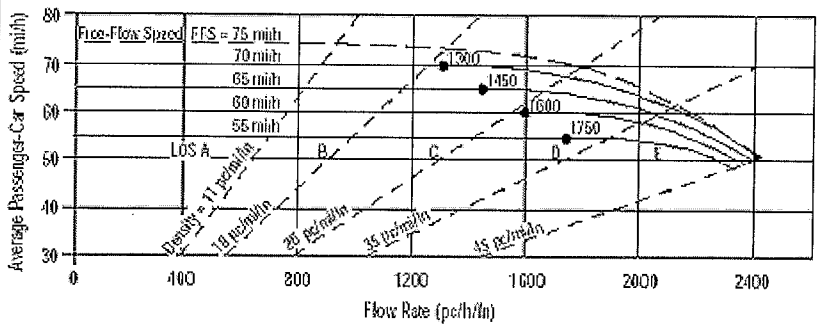

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 South of Route I-93*
Jurisdiction	*Randolph*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5700*	veh/h	Peak-Hour Factor, PHF	*0.89*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*63.9*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*63.9*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2306*	pc/h/ln
S	*53.1*	mi/h
D = v_p / S	*43.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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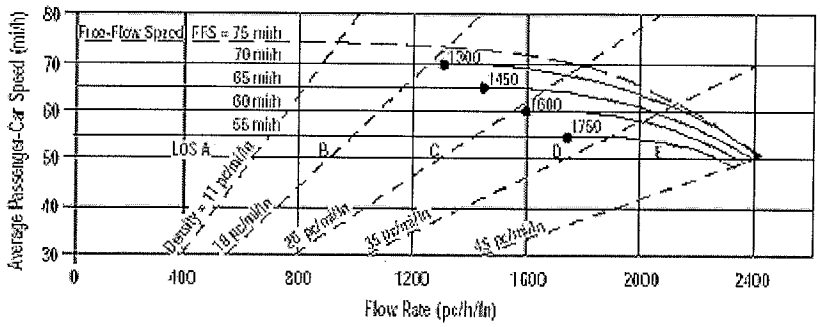
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 South of Route I-93*
Jurisdiction	*Randolph*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2875*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*63.9*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*63.9*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1034*	pc/h/ln
S	*63.9*	mi/h
D = v_p / S	*16.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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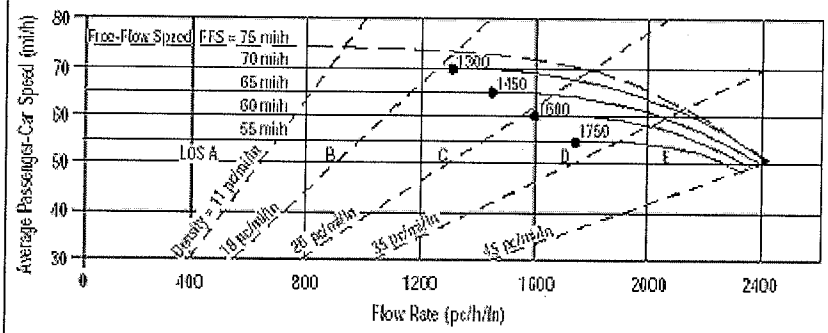
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 South of Route I-93*
Jurisdiction	*Randolph*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3520*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*65.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*65.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1306*	pc/h/ln
S	*65.8*	mi/h
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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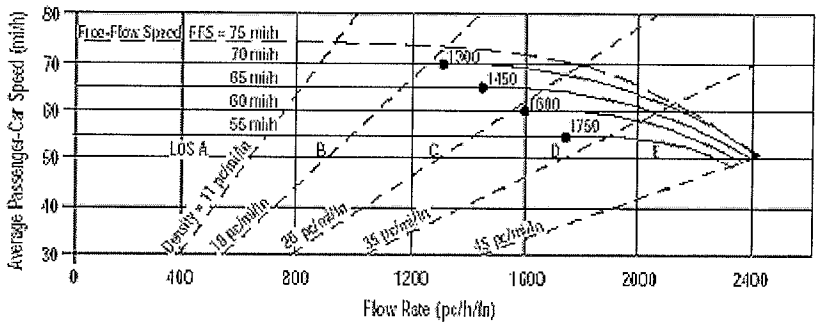
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 South of Route I-93*
Jurisdiction	*Randolph*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6830*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*65.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*65.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2393*	pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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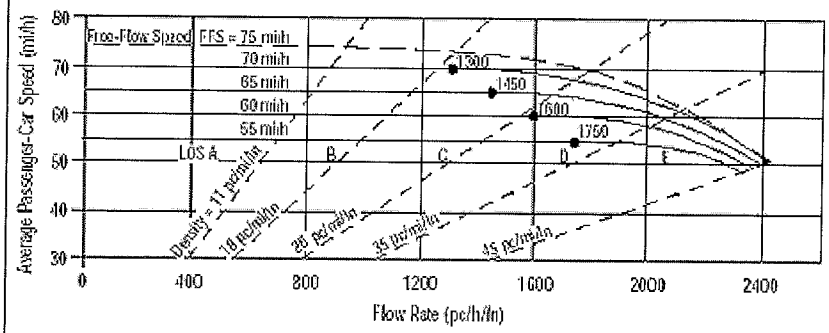

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24, South of Pond St.*
Jurisdiction	*Avon*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5985*	veh/h	Peak-Hour Factor, PHF	*0.99*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*66.4*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.4*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2116*	pc/h/ln
S	*60.0*	mi/h
D = v_p / S	*35.2*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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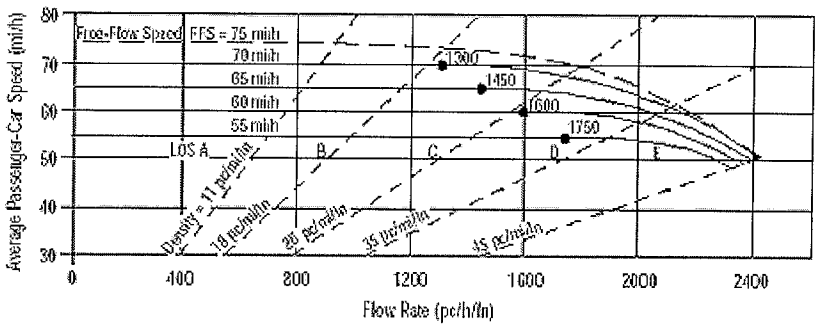
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24, South of Pond St.*
Jurisdiction	*Avon*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3445*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1225*	pc/h/ln
S	*70.0*	mi/h
D = v_p / S	*17.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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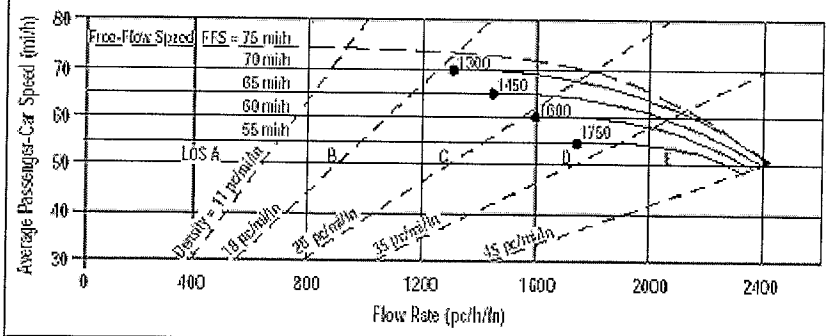

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24, South of Pond St.*
Jurisdiction	*Avon*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3180*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*67.1*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1142*	pc/h/ln
S	*67.1*	mi/h
D = v_p / S	*17.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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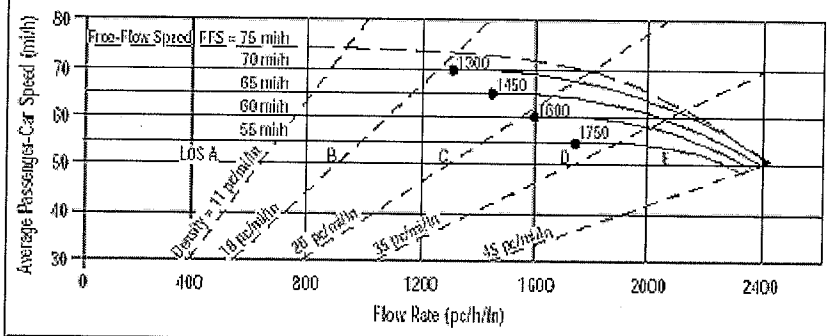
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24, South of Pond St.*
Jurisdiction	*Avon*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6715*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*67.1*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2365*	pc/h/ln
S	*52.9*	mi/h
D = v_p / S	*44.7*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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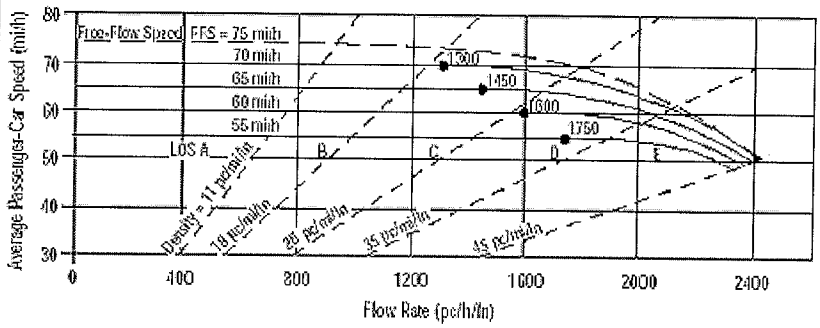
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of Route 123*
Jurisdiction	*Brockton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6050*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*67.1*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2183*	pc/h/ln
S	*58.8*	mi/h
D = v_p / S	*37.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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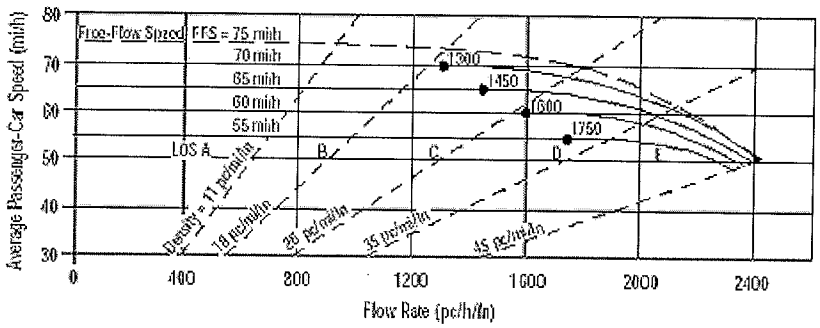
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of Route 123*
Jurisdiction	*Brockton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3435*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*67.1*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1235*	pc/h/ln
S	*67.1*	mi/h
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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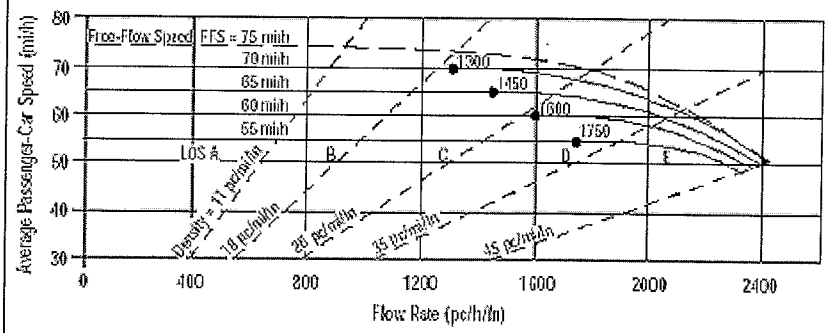
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of Route 123*
Jurisdiction	*Brockton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2510*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*916*	pc/h/ln
S	*69.3*	mi/h
D = v_p / S	*13.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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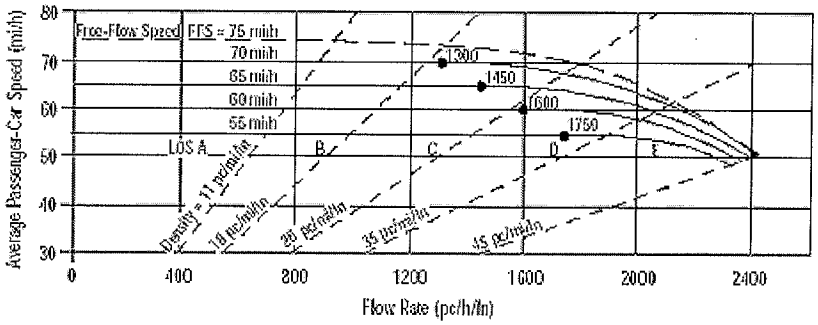

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of Route 123*
Jurisdiction	*Brockton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6100*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2116*	pc/h/ln
S	*61.9*	mi/h
D = v_p / S	*34.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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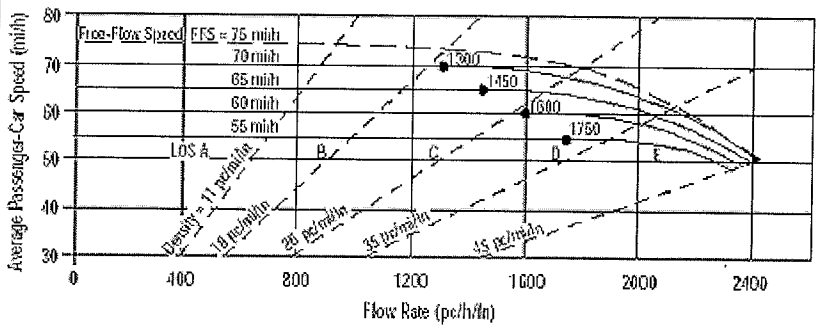

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of Route I-495*
Jurisdiction	*Raynham*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5910*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2114*	pc/h/ln
S	*60.3*	mi/h
D = v_p / S	*35.0*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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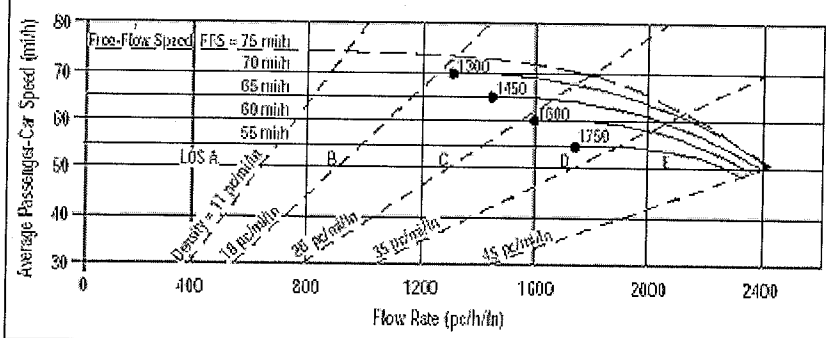

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of I-495*
Jurisdiction	*Raynham*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3720*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1344*	pc/h/ln
S	*66.8*	mi/h
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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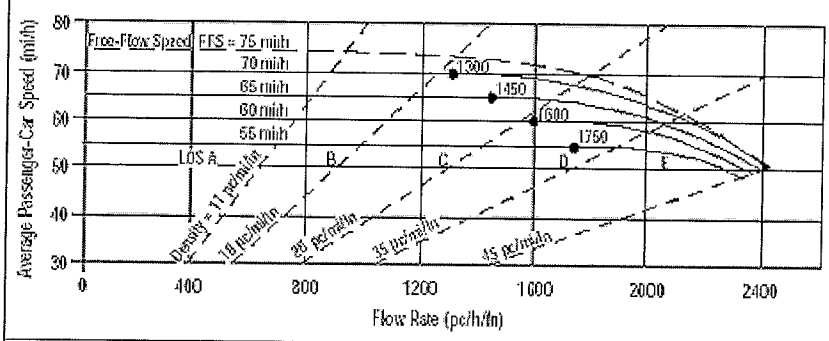

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of I-495*
Jurisdiction	*Raynham*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2900*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*63.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*63.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1046*	pc/h/ln
S	*63.0*	mi/h
D = v_p / S	*16.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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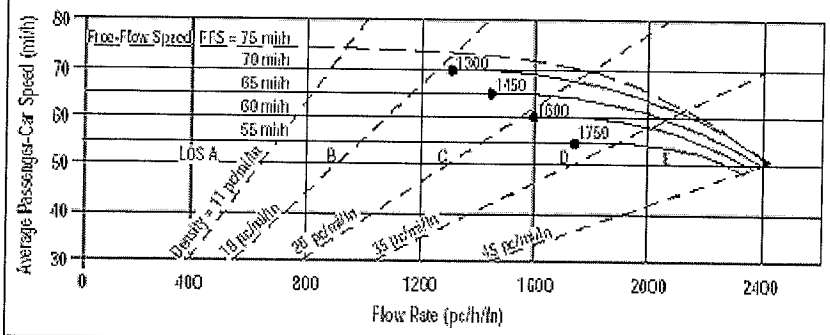
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of I-495*
Jurisdiction	*Raynham*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5355*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*63.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*63.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1876*	pc/h/ln
S	*61.6*	mi/h
D = v_p / S	*30.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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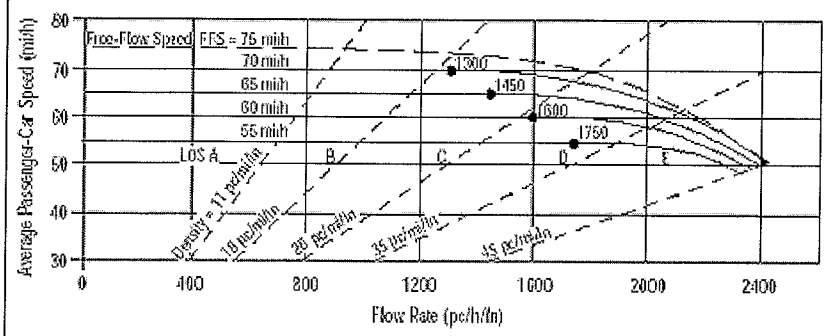

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/7/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of Route 44*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5105*	veh/h	Peak-Hour Factor, PHF	*0.97*	
AADT		veh/day	%Trucks and Buses, P_T	*11*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*71.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1851*	pc/h/ln
S	*67.9*	mi/h
D = v_p / S	*27.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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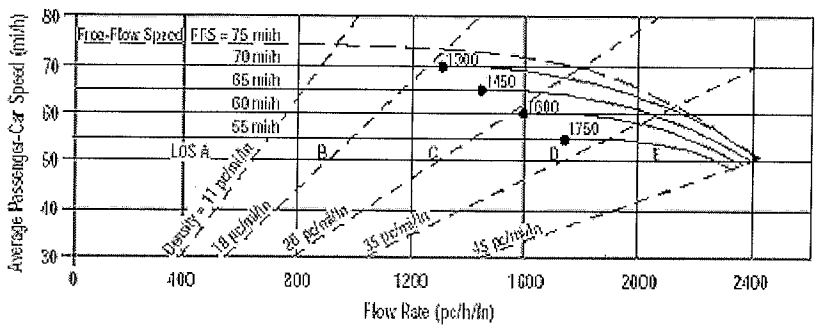

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/7/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of Route 44*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3705*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*71.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1394*	pc/h/ln
S	*70.9*	mi/h
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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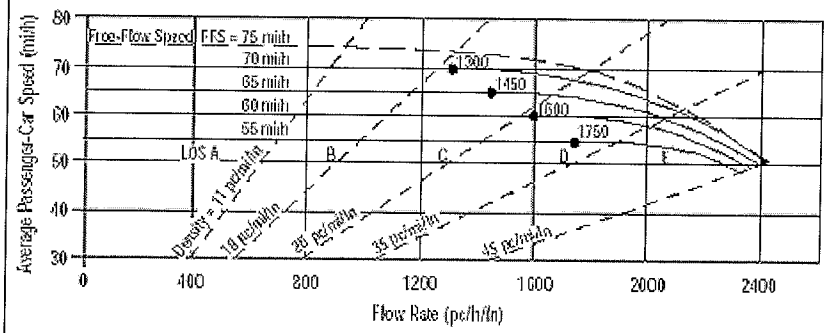

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/7/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of Route 44*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3320*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.7*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1216*	pc/h/ln
S	*69.7*	mi/h
D = v_p / S	*17.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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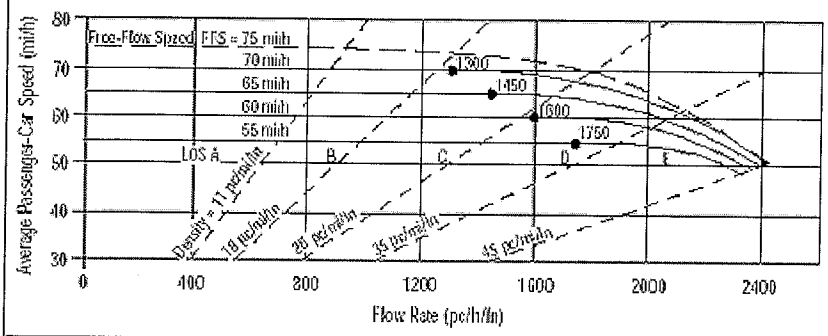

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/7/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of Route 44*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5070*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*3*	
FFS (measured)	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.7*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1828*	pc/h/ln
S	*67.3*	mi/h
D = v_p / S	*27.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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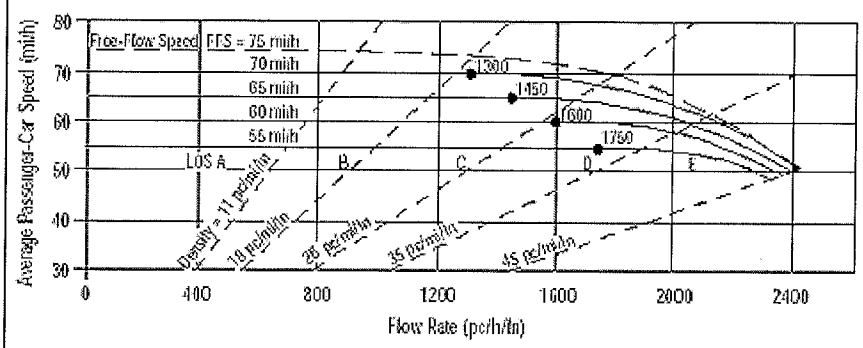

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/5/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 South of Route 140*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3535*	veh/h	Peak-Hour Factor, PHF	*0.91*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.2*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.2*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1981*	pc/h/ln
S	*64.7*	mi/h
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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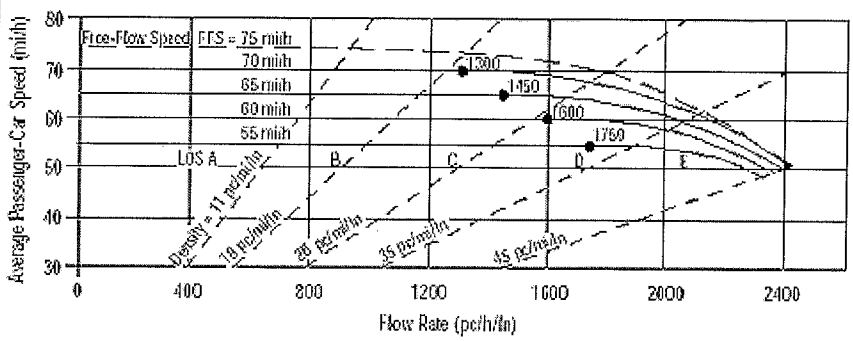

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/5/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 South of Route 140*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3560*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.2*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.2*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1952*	pc/h/ln
S	*65.2*	mi/h
D = v_p / S	*30.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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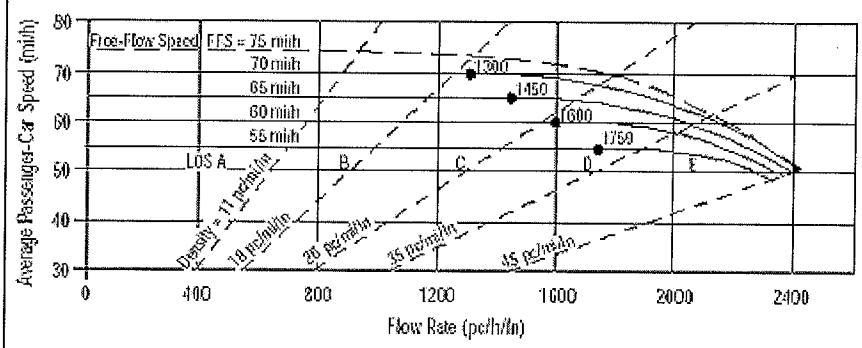
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/5/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 South of Route 140*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3285*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1866*	pc/h/ln
S	*67.0*	mi/h
D = v_p / S	*27.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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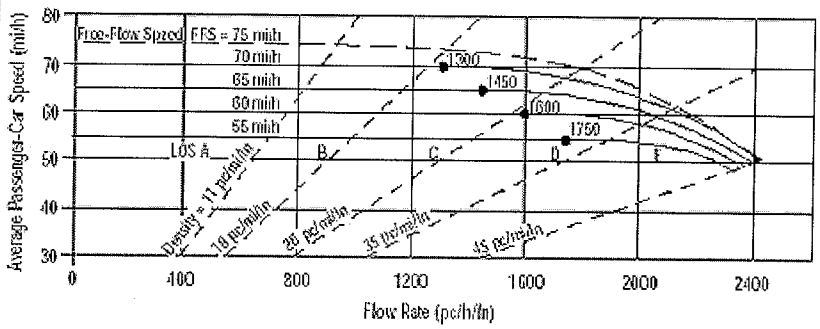

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 South of Route 140*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3705*	veh/h	Peak-Hour Factor, PHF	*0.94*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2010*	pc/h/ln
S	*64.7*	mi/h
D = v_p / S	*31.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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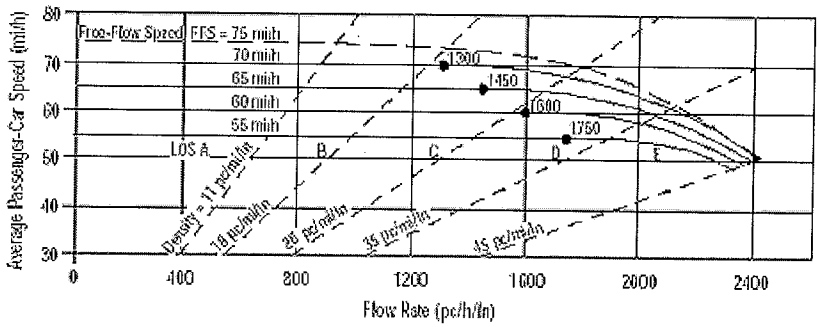

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Eastbound*
From/To	*Route 140 South of Route 24*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1320*	veh/h	Peak-Hour Factor, PHF	*0.93*	
AADT		veh/day	%Trucks and Buses, P_T	*10*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*65.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*65.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*745*	pc/h/ln
S	*65.0*	mi/h
D = v_p / S	*11.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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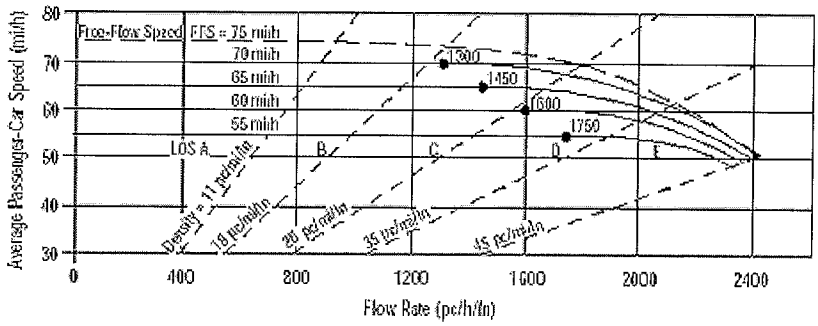

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Eastbound*
From/To	*Route 140 South of Route 24*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2150*	veh/h	Peak-Hour Factor, PHF	*0.96*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*65.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*65.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1142*	pc/h/ln
S	*65.0*	mi/h
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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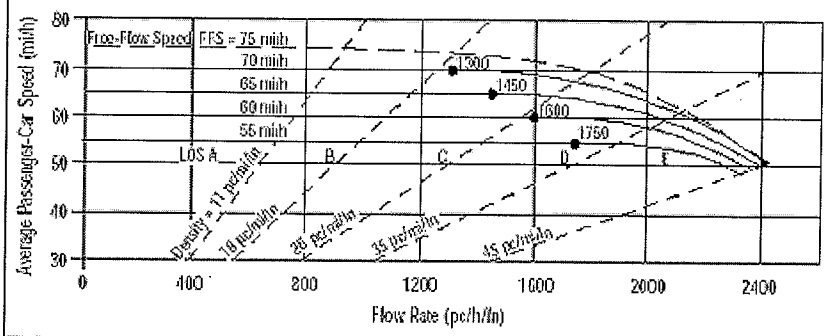

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Westbound*
From/To	*Route 140 South of Route 24*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1985*	veh/h	Peak-Hour Factor, PHF	*0.93*	
AADT		veh/day	%Trucks and Buses, P_T	*6*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*	
Driver type adjustment	*1.00*		Up/Down %		

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1099*	pc/h/ln
S	*66.8*	mi/h
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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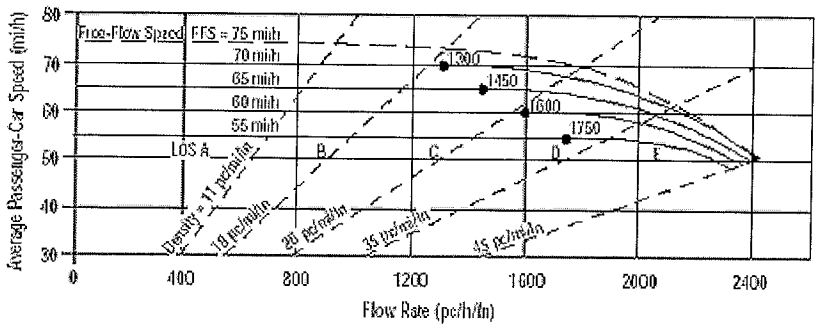

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Westbound*
From/To	*Route 140 South of Route 24*
Jurisdiction	*Taunton*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1590*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*66.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*890*	pc/h/ln
S	*66.8*	mi/h
D = v_p / S	*13.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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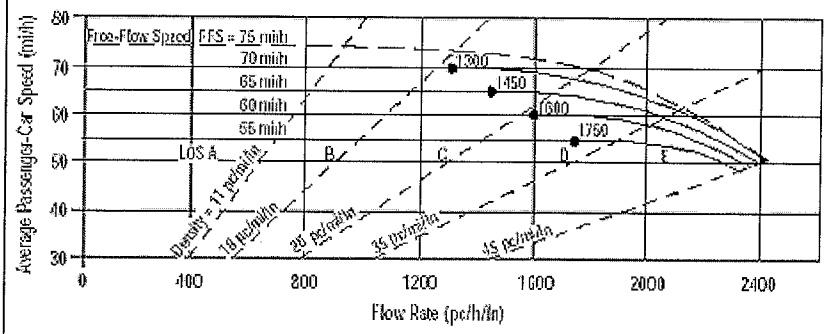
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 140 North of Hathaway Rd*
Jurisdiction	*New Bedford*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2300*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1278*	pc/h/ln
S	*69.3*	mi/h
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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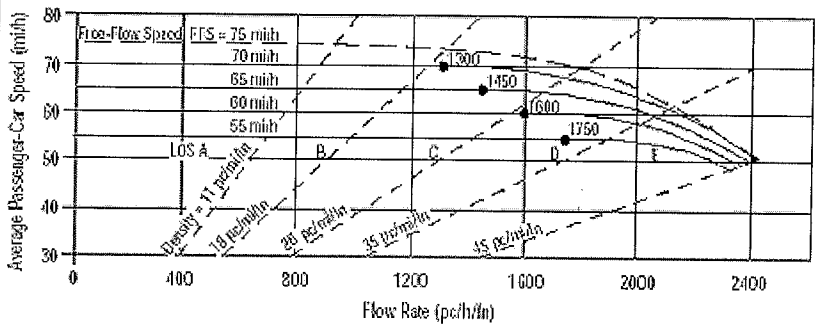

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 140 North of Hathaway Rd*
Jurisdiction	*New Bedford*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2390*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1322*	pc/h/ln
S	*69.3*	mi/h
D = v_p / S	*19.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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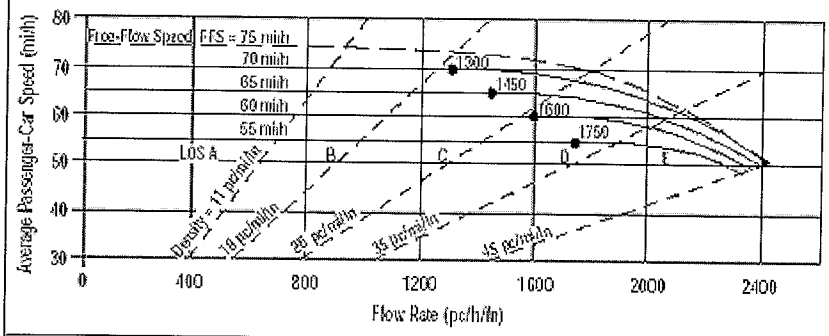

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 140 North of Hathaway Rd*
Jurisdiction	*New Bedford*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2465*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*62.2*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*62.2*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1365*	pc/h/ln
S	*62.2*	mi/h
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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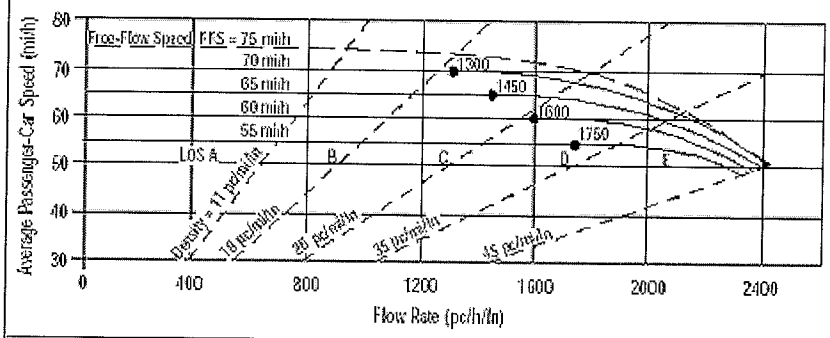

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 140 North of Hathaway Rd*
Jurisdiction	*New Bedford*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2545*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*62.2*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*62.2*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1366*	pc/h/ln
S	*62.2*	mi/h
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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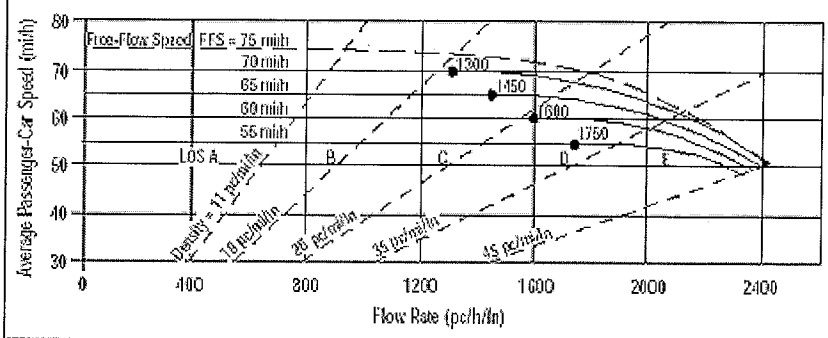

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 at Freetown Line*
Jurisdiction	*Fall River*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4840*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2770*	pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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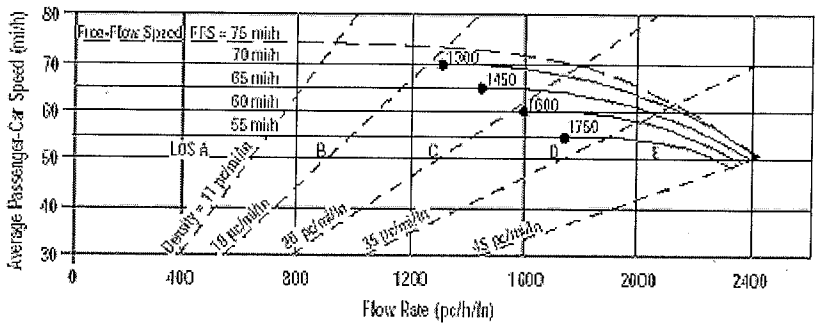

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 at Freetown Line*
Jurisdiction	*Fall River*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2585*	veh/h	Peak-Hour Factor, PHF	*0.86*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*70.8*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1525*	pc/h/ln
S	*70.5*	mi/h
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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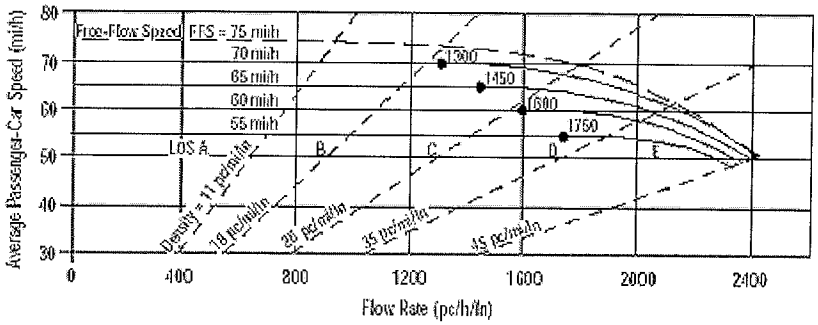

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 at Freetown Line*
Jurisdiction	*Fall River*
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2740*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*62.5*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1541*	pc/h/ln
S	*62.5*	mi/h
D = v_p / S	*24.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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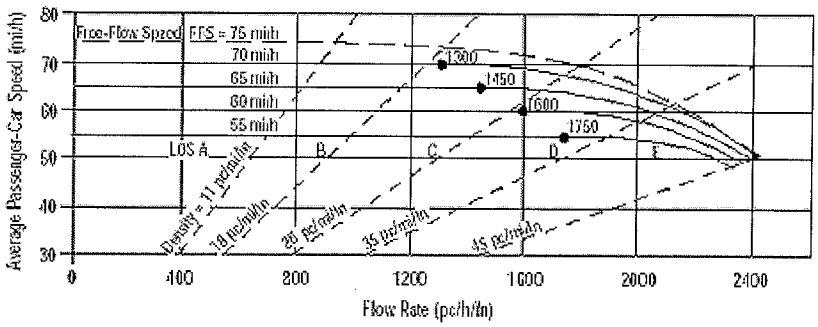
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*6/3/09*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 at Freetown Line*
Jurisdiction	*Fall River*
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5490*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*62.5*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*3040*	pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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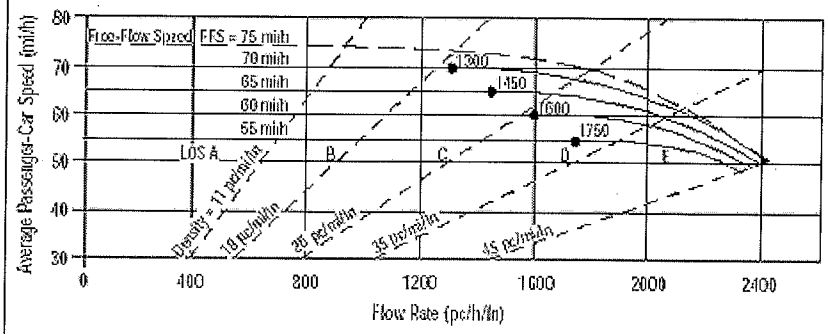
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/28/2009*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of Route 140*
Jurisdiction	
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5020*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*71.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2717*	pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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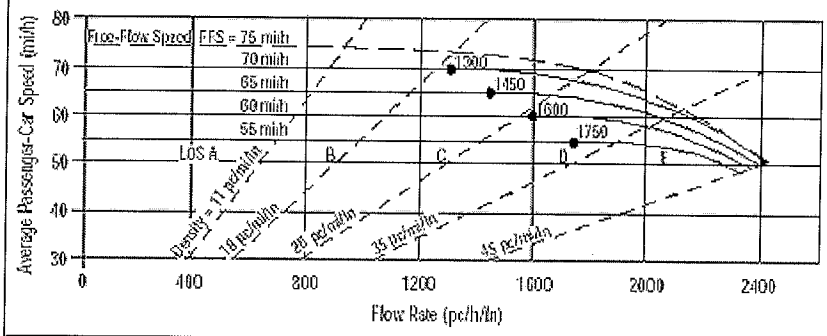
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/28/2009*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 24 North of Route 140*
Jurisdiction	
Analysis Year	*2030*

Project Description South Coast Rail

☐ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3740*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*71.0*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2111*	pc/h/ln
S	*62.8*	mi/h
D = v_p / S	*33.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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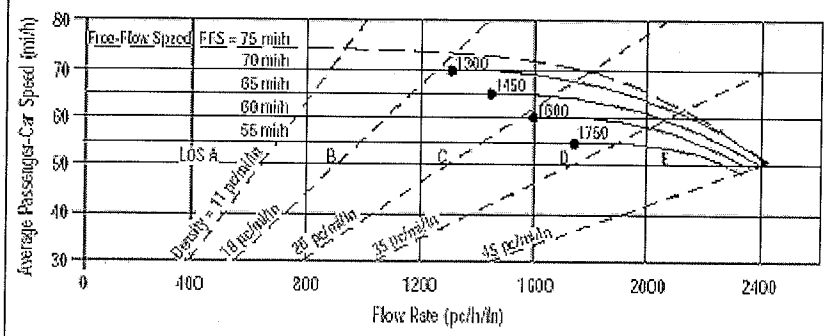
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/28/2009*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of Route 140*
Jurisdiction	
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3520*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.7*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1925*	pc/h/ln
S	*66.0*	mi/h
D = v_p / S	*29.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S		mi/h
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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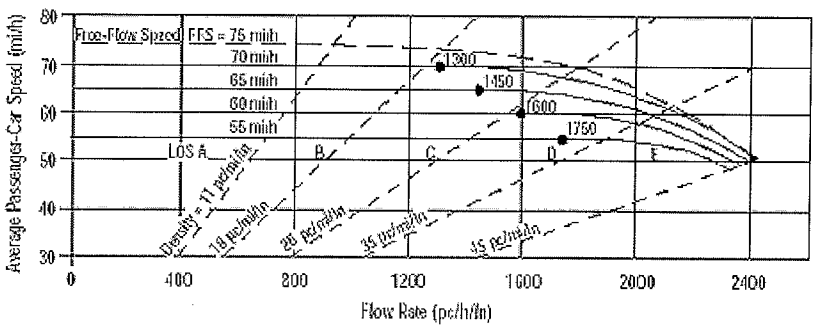
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBB*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*7/28/2009*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Southbound*
From/To	*Route 24 North of Route 140*
Jurisdiction	
Analysis Year	*2030*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5240*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.7*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2807*	pc/h/ln
S		mi/h
D = v_p / S		pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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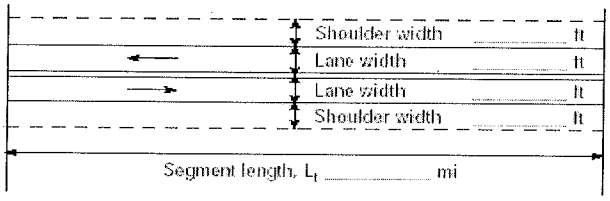
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	JBB	Highway	Route 138
Agency or Company	Coler & Colantonio, Inc.	From/To	Foundry Street/Robinson Street
Date Performed	5/14/08	Jurisdiction	Easton
Analysis Time Period	AM Peak	Analysis Year	2008

Project Description: *South Coast Rail - EIR/EIS*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	1570 veh/h
Directional split	77 / 23
Peak-hour factor, PHF	0.94
No-passing zone	0
% Trucks and Buses , P_T	7%
% Recreational vehicles, P_R	0%
Access points/ *mi*	0

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.993
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1682
v_p * highest directional split proportion[2] (pc/h)	1295

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	42 *mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	487 *veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	45.8 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	1.7
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	31.1

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.993
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1682
v_p * highest directional split proportion[2] (pc/h)	1295
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	77.2
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	0.0
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	77.2

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio v/c $v/c=V_p/3{,}200$	0.53
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	835
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	3140
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	26.9

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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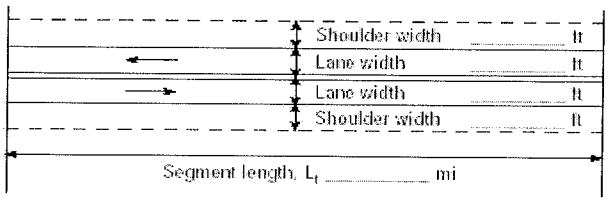
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	JBB	Highway	Route 138
Agency or Company	Coler & Colantonio, Inc.	From/To	Foundry Street/Robinson Street
Date Performed	5/14/08	Jurisdiction	Easton
Analysis Time Period	PM Peak	Analysis Year	2008

Project Description: *South Coast Rail - EIR/EIS*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	1750 veh/h
Directional split	64 / 36
Peak-hour factor, PHF	0.92
No-passing zone	0
% Trucks and Buses , P_T	7 %
% Recreational vehicles, P_R	0%
Access points/ mi	0

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.993
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1915
v_p * highest directional split proportion[2] (pc/h)	1226

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	42 mi/h	Base free-flow speed, $BFFS_{FM}$	mi/h
Observed volume, V_f	296 veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	44.3 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	1.7
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	27.8

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.993
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1915
v_p * highest directional split proportion[2] (pc/h)	1226
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	81.4
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	0.0
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	81.4

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio v/c $v/c=V_p/3{,}200$	0.60
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi) $VMT_{15}=0.25L_t(V/PHF)$	951
Peak-hour vehicle-miles of travel, VMT_{60} (veh- mi) $VMT_{60}=V*L_t$	3500
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	34.3

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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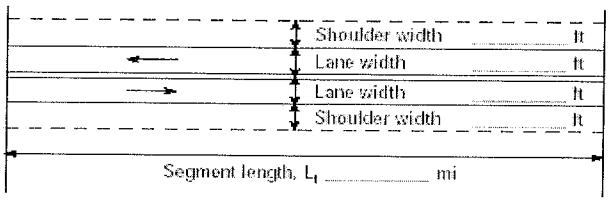
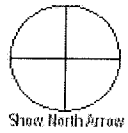
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	JBB	Highway	Route 138
Agency or Company	Coler & Colantonio, Inc.	From/To	Washington Street / Bay Street
Date Performed	5/14/09	Jurisdiction	Taunton
Analysis Time Period	AM Peak	Analysis Year	2030

Project Description: *South Coast Rail - EIR/EIS*

Input Data





☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	1510 veh/h
Directional split	50 / 50
Peak-hour factor, PHF	0.96
No-passing zone	0
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	5

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1579
v_p * highest directional split proportion[2] (pc/h)	790

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	37 *mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	495 *veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	40.9 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	1.7
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	26.9

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1579
v_p * highest directional split proportion[2] (pc/h)	790
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	75.0
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	0.0
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	75.0

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio v/c $v/c=V_p/3{,}200$	0.49
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	157
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	604
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	5.8

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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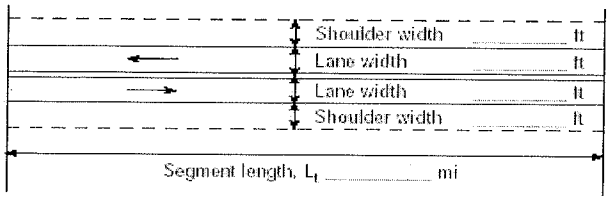
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	JBB	Highway	Route 138
Agency or Company	Coler & Colantonio, Inc.	From/To	Washington Street / Bay Street
Date Performed	5/14/09	Jurisdiction	Taunton
Analysis Time Period	PM Peak	Analysis Year	2008

Project Description: *South Coast Rail - EIR/EIS*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	1760 veh/h
Directional split	56 / 44
Peak-hour factor, PHF	0.97
No-passing zone	0
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	5

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1822
v_p * highest directional split proportion[2] (pc/h)	1020

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	37 *mi/h*	Base free-flow speed, $BFFS_{FM}$	*mi/h*
Observed volume, V_f	408 *veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	*mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	*mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	40.2 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	1.7
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	24.3

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV} $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h) $v_p=V/(PHF * f_G * f_{HV})$	1822
v_p * highest directional split proportion[2] (pc/h)	1020
Base percent time-spent-following, BPTSF(%) $BPTSF=100(1-e^{-0.000879v_p})$	79.8
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	0.0
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{d/np}$	79.8

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio v/c $v/c=V_p/3{,}200$	0.57
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*) $VMT_{15}=0.25L_t(V/PHF)$	181
Peak-hour vehicle-miles of travel, VMT_{60} (veh- *mi*) $VMT_{60}=V*L_t$	704
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	7.4

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	918	42	79	1132	43	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.993				0.946	
Flt Protected				0.997	0.971	
Satd. Flow (prot)	3485	0	0	3501	1978	0
Flt Permitted				0.997	0.971	
Satd. Flow (perm)	3485	0	0	3501	1978	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	600			600	423	
Travel Time (s)	9.1			9.1	9.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	0%	0%	3%	0%	0%
Adj. Flow (vph)	956	44	82	1179	45	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1000	0	0	1261	75	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			10	16	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.85	0.85
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	918	42	79	1132	43	29
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	956	44	82	1179	45	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1000		1732	500
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1000		1732	500
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		37	94
cM capacity (veh/h)			700		71	522

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	638	362	475	786	75
Volume Left	0	0	82	0	45
Volume Right	0	44	0	0	30
cSH	1700	1700	700	1700	109
Volume to Capacity	0.38	0.21	0.12	0.46	0.69
Queue Length 95th (ft)	0	0	10	0	90
Control Delay (s)	0.0	0.0	3.2	0.0	90.7
Lane LOS			A		F
Approach Delay (s)	0.0		1.2		90.7
Approach LOS					F

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1147	79	72	1022	36	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.990				0.904	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	3476	0	0	3501	1919	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	3476	0	0	3501	1919	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	600			600	423	
Travel Time (s)	9.1			9.1	9.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	0%	0%	3%	0%	0%
Adj. Flow (vph)	1207	83	76	1076	38	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1290	0	0	1152	133	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			10	16	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.85	0.85
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 82.1% ICU Level of Service E
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1147	79	72	1022	36	90
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1207	83	76	1076	38	95
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1291		1938	645
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1291		1938	645
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		25	77
cM capacity (veh/h)			544		51	420

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	805	486	434	717	133
Volume Left	0	0	76	0	38
Volume Right	0	83	0	0	95
cSH	1700	1700	544	1700	136
Volume to Capacity	0.47	0.29	0.14	0.42	0.98
Queue Length 95th (ft)	0	0	12	0	171
Control Delay (s)	0.0	0.0	4.1	0.0	133.9
Lane LOS			A		F
Approach Delay (s)	0.0		1.5		133.9
Approach LOS					F

Intersection Summary			
Average Delay	7.6		
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	4	0	249	18	0	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.991			
Flt Protected	0.950					
Satd. Flow (prot)	2046	0	1883	0	0	1900
Flt Permitted	0.950					
Satd. Flow (perm)	2046	0	1883	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	100		540			313
Travel Time (s)	2.3		12.3			7.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	4	0	277	20	0	330
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	297	0	0	330
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 25.6% ICU Level of Service A
Analysis Period (min) 15

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	4	0	249	18	0	297
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	4	0	277	20	0	330
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	617	287			297	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	617	287			297	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	457	757			1276	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	4	297	330
Volume Left	4	0	0
Volume Right	0	20	0
cSH	457	1700	1276
Volume to Capacity	0.01	0.17	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	13.0	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.0	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	63	4	388	20	2	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992		0.993			
Flt Protected	0.955					
Satd. Flow (prot)	2040	0	1887	0	0	1900
Flt Permitted	0.955					
Satd. Flow (perm)	2040	0	1887	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	100		540			313
Travel Time (s)	2.3		12.3			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	68	4	422	22	2	470
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	0	444	0	0	472
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	16		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.85	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 34.7% ICU Level of Service A
Analysis Period (min) 15

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	63	4	388	20	2	432
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	68	4	422	22	2	470
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	907	433			443	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	907	433			443	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	78	99			100	
cM capacity (veh/h)	308	627			1127	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	73	443	472
Volume Left	68	0	2
Volume Right	4	22	0
cSH	318	1700	1127
Volume to Capacity	0.23	0.26	0.00
Queue Length 95th (ft)	22	0	0
Control Delay (s)	19.7	0.0	0.1
Lane LOS	C		A
Approach Delay (s)	19.7	0.0	0.1
Approach LOS	C		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	JGM	Intersection	Whale's Tooth Access
Agency/Co.	Coler & Colantonio	Jurisdiction	New Bedford
Date Performed	6/26/2009	Analysis Year	2030
Analysis Time Period	AM Peak		

Project Description *South Coast Rail*

East/West Street: *Site Drive* | North/South Street: *Acushnet Avenue*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		99	125	76	61	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	99	125	76	61	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				9		18
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	0	0	9	0	18
Percent Heavy Vehicles	0	0	0	0	0	67
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		76		27				
C (m) (vph)		1357		683				
v/c		0.06		0.04				
95% queue length		0.18		0.12				
Control Delay		7.8		10.5				
LOS		A		B				
Approach Delay	--	--	10.5					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	JGM
Agency/Co.	Coler & Colantonio
Date Performed	6/26/2009
Analysis Time Period	PM Peak

Site Information

Intersection	Whale's Tooth Access
Jurisdiction	New Bedford
Analysis Year	2030

Project Description: South Coast Rail

East/West Street: Site Drive

North/South Street: Acushnet Avenue

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		83	6	21	127	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	83	6	21	127	0
Percent Heavy Vehicles	0	--	--	57	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				122		79
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	0	0	122	0	79
Percent Heavy Vehicles	0	0	0	0	0	10
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (vph)		21		201				
C (m) (vph)		1222		800				
v/c		0.02		0.25				
95% queue length		0.05		0.99				
Control Delay		8.0		11.0				
LOS		A		B				
Approach Delay	--	--	11.0					
Approach LOS	--	--	B					

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Capacity Analysis Results
Build Condition

Fall River

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	11	5	436	16	0	0	0	0	434	522	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			272			1959			1114	
Travel Time (s)		5.4			6.2			44.5			25.3	
Peak Hour Factor	0.57	0.57	0.57	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	2%	1%	0%
Shared Lane Traffic (%)				48%								
Lane Group Flow (vph)	0	28	0	257	256	0	0	0	0	0	1092	0
Turn Type				Split						Perm		
Protected Phases		2		6	6						4	
Permitted Phases										4		
Detector Phase		2		6	6					4	4	
Switch Phase												
Minimum Initial (s)		4.0		12.0	12.0					12.0	12.0	
Minimum Split (s)		10.0		18.0	18.0					18.0	18.0	
Total Split (s)	0.0	16.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0
Total Split (%)	0.0%	20.5%	0.0%	25.6%	25.6%	0.0%	0.0%	0.0%	0.0%	32.1%	32.1%	0.0%
Maximum Green (s)		10.0		14.0	14.0					19.0	19.0	
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Recall Mode		None		Min	Min					C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.18		0.74	0.69						0.60	
Control Delay		27.8		44.0	39.4						19.0	
Queue Delay		0.0		6.6	7.1						0.0	
Total Delay		27.8		50.6	46.5						19.0	
Queue Length 50th (ft)		9		115	112						155	
Queue Length 95th (ft)		19		#242	#227						#434	
Internal Link Dist (ft)		158			192			1879			1034	
Turn Bay Length (ft)												
Base Capacity (vph)		241		345	372						1812	
Starvation Cap Reductn		0		52	77						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.12		0.88	0.87						0.60	

Intersection Summary	
Area Type:	Other

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	17.0
Total Split (s)	17.0
Total Split (%)	22%
Maximum Green (s)	14.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

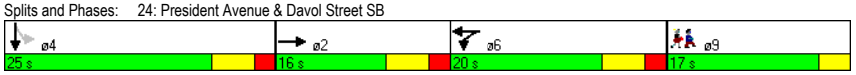
Intersection Summary

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

2030 Build Condition - AM Peak Hour

Cycle Length: 78
Actuated Cycle Length: 78
Offset: 5 (6%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: President Avenue & Davol Street SB



HCM Signalized Intersection Capacity Analysis
24: President Avenue & Davol Street SB

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	11	5	436	16	0	0	0	0	434	522	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0		6.0	6.0						6.0	
Lane Util. Factor		1.00		0.95	0.95						0.95	
Frt		0.96		1.00	1.00						1.00	
Flt Protected		1.00		0.95	0.96						0.98	
Satd. Flow (prot)		1818		1569	1693						3477	
Flt Permitted		1.00		0.95	0.96						0.98	
Satd. Flow (perm)		1818		1569	1693						3477	
Peak-hour factor, PHF	0.57	0.57	0.57	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	19	9	495	18	0	0	0	0	493	593	6
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	19	0	257	256	0	0	0	0	0	1091	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	0%	0%	2%	1%	0%
Turn Type				Split						Perm		
Protected Phases		2		6	6						4	
Permitted Phases										4		
Actuated Green, G (s)		3.0		17.1	17.1						34.7	
Effective Green, g (s)		3.0		17.1	17.1						34.7	
Actuated g/C Ratio		0.04		0.22	0.22						0.44	
Clearance Time (s)		6.0		6.0	6.0						6.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		70		344	371						1547	
v/s Ratio Prot		c0.01		c0.16	0.15							
v/s Ratio Perm											0.31	
v/c Ratio		0.28		0.75	0.69						0.71	
Uniform Delay, d1		36.4		28.4	28.0						17.5	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		2.1		8.6	5.4						2.7	
Delay (s)		38.6		37.0	33.5						20.2	
Level of Service		D		D	C						C	
Approach Delay (s)		38.6			35.2			0.0			20.2	
Approach LOS		D			D			A			C	

Intersection Summary			
HCM Average Control Delay	25.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	78.0	Sum of lost time (s)	23.2
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	412	0	0	352	203	100	492	308	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12
Storage Length (ft)	0		0	0		165	0		125	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		272			959			475			333	
Travel Time (s)		6.2			21.8			10.8			7.6	
Peak Hour Factor	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	541	0	0	400	231	0	644	335	0	0	0
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Detector Phase	5	2			6	6	3	3	3			
Switch Phase												
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0			
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0			
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0
Total Split (%)	16.0%	40.0%	0.0%	0.0%	24.0%	24.0%	46.7%	46.7%	46.7%	0.0%	0.0%	0.0%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.42			0.28	0.35		0.60	0.67			
Control Delay		18.2			16.5	18.8		23.4	28.2			
Queue Delay		0.7			0.0	0.0		0.0	0.0			
Total Delay		18.9			16.5	18.8		23.4	28.2			
Queue Length 50th (ft)		92			63	72		130	132			
Queue Length 95th (ft)		135			106	141		159	192			
Internal Link Dist (ft)		192			879			395			253	
Turn Bay Length (ft)						165			125			
Base Capacity (vph)		1273			1410	653		1349	633			
Starvation Cap Reductn		405			0	0		0	0			
Spillback Cap Reductn		0			0	0		0	0			
Storage Cap Reductn		0			0	0		0	0			
Reduced v/c Ratio		0.62			0.28	0.35		0.48	0.53			

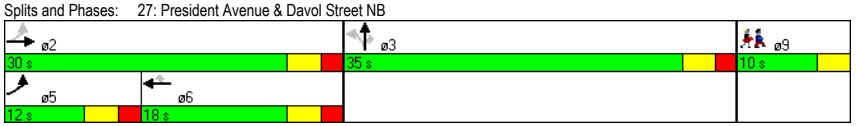
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	10.0
Total Split (s)	10.0
Total Split (%)	13%
Maximum Green (s)	7.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	4.0
Flash Dont Walk (s)	3.0
Pedestrian Calls (#/hr)	7
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

2030 Build Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	412	0	0	352	203	100	492	308	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3383			3388	1568		3371	1583			
Flt Permitted		0.90			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3057			3388	1568		3371	1583			
Peak-hour factor, PHF	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	502	0	0	400	231	109	535	335	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	541	0	0	400	231	0	644	335	0	0	0
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		31.2			31.2	31.2		23.8	23.8			
Effective Green, g (s)		31.2			31.2	31.2		23.8	23.8			
Actuated g/C Ratio		0.42			0.42	0.42		0.32	0.32			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		1272			1409	652		1070	502			
v/s Ratio Prot					0.12							
v/s Ratio Perm		c0.18				0.15		0.19	c0.21			
v/c Ratio		0.43			0.28	0.35		0.60	0.67			
Uniform Delay, d1		15.5			14.5	15.0		21.6	22.2			
Progression Factor		1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.2			0.5	1.5		1.0	3.3			
Delay (s)		15.8			15.0	16.5		22.6	25.5			
Level of Service		B			B	B		C	C			
Approach Delay (s)		15.8			15.6			23.6			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM Average Control Delay	19.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

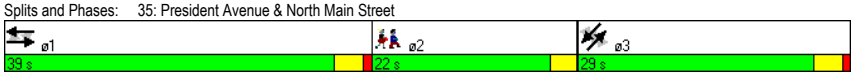
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	143	507	71	54	355	70	102	193	75	107	166	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	16	12	12	16	12
Storage Length (ft)	0		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		959			1952			265			1409	
Travel Time (s)		21.8			44.4			6.0			32.0	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Shared Lane Traffic (%)												
Lane Group Flow (vph)	164	665	0	62	488	0	0	425	0	0	481	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Detector Phase	1	1		1	1		3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%
Maximum Green (s)	35.0	35.0		35.0	35.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lead		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.62	0.71		0.47	0.52			0.89			1.01	
Control Delay	32.5	24.4		33.7	18.8			49.7			73.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	32.5	24.4		33.7	18.8			49.7			73.4	
Queue Length 50th (ft)	43	184		15	116			152			183	
Queue Length 95th (ft)	#172	#461		#81	298			#429			#398	
Internal Link Dist (ft)		879			1872			185			1329	
Turn Bay Length (ft)				125								
Base Capacity (vph)	280	989		140	993			478			476	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	24%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	10.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	20
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.59	0.67		0.44	0.49			0.89			1.01	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 75.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 35: President Avenue & North Main Street



Lane Group	ø2
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	143	507	71	54	355	70	102	193	75	107	166	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	12	12	16	12
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	2070		1805	2066			1923			1961	
Flt Permitted	0.31	1.00		0.15	1.00			0.70			0.68	
Satd. Flow (perm)	584	2070		294	2066			1373			1360	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75
Adj. Flow (vph)	164	583	82	62	408	80	117	222	86	143	221	117
RTOR Reduction (vph)	0	0	0	0	7	0	0	9	0	0	12	0
Lane Group Flow (vph)	164	665	0	62	481	0	0	416	0	0	469	0
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)	34.0	34.0		34.0	34.0			25.7			25.7	
Effective Green, g (s)	34.0	34.0		34.0	34.0			25.7			25.7	
Actuated g/C Ratio	0.44	0.44		0.44	0.44			0.33			0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Grp Cap (vph)	258	913		130	911			458			453	
v/s Ratio Prot		c0.32			0.23							
v/s Ratio Perm	0.28			0.21				0.30			c0.34	
v/c Ratio	0.64	0.73		0.48	0.53			0.91			1.04	
Uniform Delay, d1	16.7	17.7		15.3	15.7			24.6			25.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	7.0	3.6		5.7	1.1			23.3			51.7	
Delay (s)	23.7	21.3		20.9	16.8			47.8			77.4	
Level of Service	C	C		C	B			D			E	
Approach Delay (s)		21.8			17.2			47.8			77.4	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM Average Control Delay	37.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	77.1	Sum of lost time (s)	17.4
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
2: Fall River Depot Station & Davol Street NB

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	51	765	210	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	55	841	231	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						1021
pX, platoon unblocked						
vC, conflicting volume	956	536			1071	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	956	536			1071	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	89			100	
cM capacity (veh/h)	256	489			646	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	55	560	511
Volume Left	0	0	0
Volume Right	55	0	231
cSH	489	1700	1700
Volume to Capacity	0.11	0.33	0.30
Queue Length 95th (ft)	10	0	0
Control Delay (s)	13.3	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.3	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Ferry Street & Ponta Delgada

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	280	48	11	68	30	193
Sign Control	Stop		Free		Free	
Grade	1%		1%		1%	
Peak Hour Factor	0.90	0.90	0.62	0.62	0.78	0.78
Hourly flow rate (vph)	311	53	18	110	38	247
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	307	162	286			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	307	162	286			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	54	94	99			
cM capacity (veh/h)	677	888	1288			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	364	127	286
Volume Left	311	18	0
Volume Right	53	0	247
cSH	702	1288	1700
Volume to Capacity	0.52	0.01	0.17
Queue Length 95th (ft)	76	1	0
Control Delay (s)	15.5	1.2	0.0
Lane LOS	C	A	
Approach Delay (s)	15.5	1.2	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
7: Anawan Street & Water Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	21	0	39	11	5	5	12	332	21	171	21
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.64	0.64	0.64	0.72	0.72	0.72	0.91	0.91	0.91	0.87	0.87	0.87
Hourly flow rate (vph)	0	33	0	54	15	7	5	13	365	24	197	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	478	646	209	480	476	196	221			378		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	478	646	209	480	476	196	221			378		
tC, single (s)	7.1	6.7	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	91	100	88	97	99	100			98		
cM capacity (veh/h)	476	365	837	457	479	851	1360			1164		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	33	76	384	245
Volume Left	0	54	5	24
Volume Right	0	7	365	24
cSH	365	481	1360	1164
Volume to Capacity	0.09	0.16	0.00	0.02
Queue Length 95th (ft)	7	14	0	2
Control Delay (s)	15.8	13.9	0.1	1.0
Lane LOS	C	B	A	A
Approach Delay (s)	15.8	13.9	0.1	1.0
Approach LOS	C	B		

Intersection Summary				
Average Delay			2.5	
Intersection Capacity Utilization			39.4%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
9: Central Street & Davol Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	75	107	140	0	327	0	0	474	86
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.76	0.76	0.76	0.86	0.86	0.86	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	99	141	184	0	380	0	0	592	108
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1281	1026	646	1026	1080	380	700			380		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1281	1026	646	1026	1080	380	700			380		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	53	35	72	100			100		
cM capacity (veh/h)	49	236	475	211	216	662	906			1189		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	169	255	380	700
Volume Left	99	0	0	0
Volume Right	0	184	0	108
cSH	213	422	906	1700
Volume to Capacity	0.79	0.60	0.00	0.41
Queue Length 95th (ft)	142	96	0	0
Control Delay (s)	65.9	25.7	0.0	0.0
Lane LOS	F	D		
Approach Delay (s)	41.7		0.0	0.0
Approach LOS	E			

Intersection Summary				
Average Delay			11.8	
Intersection Capacity Utilization			46.5%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
10: Anawan Street & Davol Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	147	192	27	33	21	11	153	75	237	296	33
Peak Hour Factor	0.94	0.94	0.94	0.76	0.76	0.76	0.84	0.84	0.84	0.81	0.81	0.81
Hourly flow rate (vph)	43	156	204	36	43	28	13	182	89	293	365	41

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	403	107	285	699
Volume Left (vph)	43	36	13	293
Volume Right (vph)	204	28	89	41
Hadj (s)	0.04	-0.02	-0.16	0.07
Departure Headway (s)	6.9	7.9	6.9	6.6
Degree Utilization, x	0.78	0.23	0.54	1.28
Capacity (veh/h)	507	399	494	534
Control Delay (s)	29.9	13.3	17.8	159.1
Approach Delay (s)	29.9	13.3	17.8	159.1
Approach LOS	D	B	C	F

Intersection Summary				
Delay		86.9		
HCM Level of Service		F		
Intersection Capacity Utilization		76.9%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
20: Battleship Cove Station driveway & Ponta Delgada

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	13	21	329	21	13	198
Sign Control	Stop		Free			Free
Grade	0%		0%			1%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	23	358	23	14	215
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	612	369			380	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	612	369			380	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	97			99	
cM capacity (veh/h)	451	677			1178	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	37	380	229
Volume Left	14	0	14
Volume Right	23	23	0
cSH	568	1700	1178
Volume to Capacity	0.07	0.22	0.01
Queue Length 95th (ft)	5	0	1
Control Delay (s)	11.8	0.0	0.6
Lane LOS	B		A
Approach Delay (s)	11.8	0.0	0.6
Approach LOS	B		

Intersection Summary				
Average Delay		0.9		
Intersection Capacity Utilization		31.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
29: Turner Street & Davol Street NB

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	69	906	166	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.68	0.68	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	101	996	182	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1087	589			1178	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1087	589			1178	
tC, single (s)	6.8	7.1			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	100	77			100	
cM capacity (veh/h)	214	434			600	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	101	664	514
Volume Left	0	0	0
Volume Right	101	0	182
cSH	434	1700	1700
Volume to Capacity	0.23	0.39	0.30
Queue Length 95th (ft)	22	0	0
Control Delay (s)	15.8	0.0	0.0
Lane LOS	C		
Approach Delay (s)	15.8	0.0	
Approach LOS	C		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
30: Pearce Street & Davol Street NB

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	80	819	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.91	0.91	0.92	0.92
Hourly flow rate (vph)	0	87	900	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						475
pX, platoon unblocked						
vC, conflicting volume	900	450			900	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	900	450			900	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	84			100	
cM capacity (veh/h)	282	559			763	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	87	450	450
Volume Left	0	0	0
Volume Right	87	0	0
cSH	559	1700	1700
Volume to Capacity	0.16	0.26	0.26
Queue Length 95th (ft)	14	0	0
Control Delay (s)	12.6	0.0	0.0
Lane LOS	B		
Approach Delay (s)	12.6	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
85: Davol St. SB & U-turn to SB Davol St

2030 Build Condition - AM Peak Hour

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	0	0	786	21	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.86	0.86	0.75	0.75
Hourly flow rate (vph)	0	0	0	914	28	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		457	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		457	0
tC, single (s)			4.1		7.1	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			100		94	100
cM capacity (veh/h)			1636		503	1091

Direction, Lane #	SB 1	SB 2	SW 1
Volume Total	457	457	28
Volume Left	0	0	28
Volume Right	0	0	0
cSH	1700	1700	503
Volume to Capacity	0.27	0.27	0.06
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.0	0.0	12.6
Lane LOS			B
Approach Delay (s)	0.0		12.6
Approach LOS			B

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		53.6%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Davol St. NB & U-turn to NB Davol St

2030 Build Condition - AM Peak Hour

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Volume (veh/h)	0	890	0	0	177	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.72	0.72
Hourly flow rate (vph)	0	989	0	0	246	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				494	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				494	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				51	100
cM capacity (veh/h)	1636				507	1091

Direction, Lane #	NB 1	NB 2	NE 1
Volume Total	494	494	246
Volume Left	0	0	246
Volume Right	0	0	0
cSH	1700	1700	507
Volume to Capacity	0.29	0.29	0.49
Queue Length 95th (ft)	0	0	65
Control Delay (s)	0.0	0.0	18.6
Lane LOS			C
Approach Delay (s)	0.0		18.6
Approach LOS			C

Intersection Summary			
Average Delay		3.7	
Intersection Capacity Utilization		58.1%	ICU Level of Service B
Analysis Period (min)		15	

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	431	5	0	0	0	0	546	541	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			272			1959			1114	
Travel Time (s)		5.4			6.2			44.5			25.3	
Peak Hour Factor	0.38	0.38	0.38	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	0%
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	259	254	0	0	0	0	0	1208	0
Turn Type				Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases				6						4		
Detector Phase		2		6	6					4	4	
Switch Phase												
Minimum Initial (s)		4.0		12.0	12.0					12.0	12.0	
Minimum Split (s)		10.0		18.0	18.0					18.0	18.0	
Total Split (s)	0.0	16.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0
Total Split (%)	0.0%	21.3%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%
Maximum Green (s)		10.0		14.0	14.0					19.0	19.0	
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Recall Mode		None		Min	Min					C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio				0.47	0.43						0.77	
Control Delay				27.6	26.6						24.3	
Queue Delay				2.8	2.6						0.0	
Total Delay				30.4	29.2						24.4	
Queue Length 50th (ft)				116	111						210	
Queue Length 95th (ft)				174	168						#523	
Internal Link Dist (ft)		158			192			1879			1034	
Turn Bay Length (ft)												
Base Capacity (vph)				553	593						1576	
Starvation Cap Reductn				191	228						0	
Spillback Cap Reductn				0	0						11	
Storage Cap Reductn				0	0						0	
Reduced v/c Ratio				0.72	0.70						0.77	

Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

2030 Build Condition - PM Peak Hour

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	14.0
Total Split (%)	19%
Maximum Green (s)	11.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	6.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lanes, Volumes, Timings
24: President Avenue & Davol Street SB

2030 Build Condition - PM Peak Hour

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 5 (7%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: President Avenue & Davol Street SB

HCM Signalized Intersection Capacity Analysis
24: President Avenue & Davol Street SB

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	431	5	0	0	0	0	546	541	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	12	12
Total Lost time (s)				6.0	6.0						6.0	
Lane Util. Factor				0.95	0.95						0.95	
Frt				1.00	1.00						1.00	
Flt Protected				0.95	0.95						0.98	
Satd. Flow (prot)				1600	1721						3453	
Flt Permitted				0.95	0.95						0.98	
Satd. Flow (perm)				1600	1715						3453	
Peak-hour factor, PHF	0.38	0.38	0.38	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	507	6	0	0	0	0	607	601	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	259	254	0	0	0	0	0	1208	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	0%
Turn Type				Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases				6						4		
Actuated Green, G (s)				25.9	25.9						31.9	
Effective Green, g (s)				25.9	25.9						31.9	
Actuated g/C Ratio				0.35	0.35						0.43	
Clearance Time (s)				6.0	6.0						6.0	
Vehicle Extension (s)				3.0	3.0						3.0	
Lane Grp Cap (vph)				553	592						1469	
v/s Ratio Prot												
v/s Ratio Perm				c0.16	0.15						0.35	
v/c Ratio				0.47	0.43						0.82	
Uniform Delay, d1				19.2	18.9						19.0	
Progression Factor				1.30	1.30						1.00	
Incremental Delay, d2				0.6	0.5						5.3	
Delay (s)				25.5	24.9						24.4	
Level of Service				C	C						C	
Approach Delay (s)		0.0			25.2			0.0			24.4	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	509	0	0	291	364	146	666	371	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12
Storage Length (ft)	0		0	0		165	0		125	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		272			959			475			333	
Travel Time (s)		6.2			21.8			10.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	593	0	0	327	409	0	934	426	0	0	0
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Detector Phase	5	2			6	6	3	3	3			
Switch Phase												
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0			
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0			
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0
Total Split (%)	16.0%	40.0%	0.0%	0.0%	24.0%	24.0%	46.7%	46.7%	46.7%	0.0%	0.0%	0.0%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.53			0.27	0.72		0.72	0.70			
Control Delay		21.2			18.5	30.7		23.5	26.5			
Queue Delay		0.6			0.0	0.0		0.2	0.0			
Total Delay		21.9			18.5	30.7		23.6	26.5			
Queue Length 50th (ft)		37			57	168		183	157			
Queue Length 95th (ft)		m192			88	#299		235	242			
Internal Link Dist (ft)		192			879			395			253	
Turn Bay Length (ft)						165			125			
Base Capacity (vph)		1119			1232	570		1372	646			
Starvation Cap Reductn		223			0	0		0	0			
Spillback Cap Reductn		0			0	0		57	0			
Storage Cap Reductn		0			0	0		0	0			
Reduced v/c Ratio		0.66			0.27	0.72		0.71	0.66			

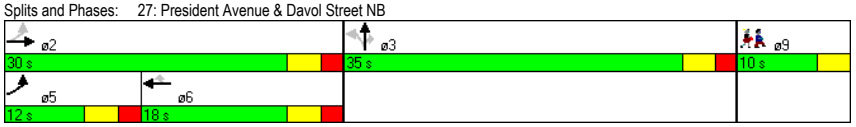
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	10.0
Total Split (s)	10.0
Total Split (%)	13%
Maximum Green (s)	7.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	4.0
Flash Dont Walk (s)	3.0
Pedestrian Calls (#/hr)	10
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

2030 Build Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	509	0	0	291	364	146	666	371	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3439			3455	1599		3430	1615			
Flt Permitted		0.91			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3135			3455	1599		3430	1615			
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	40	553	0	0	327	409	168	766	426	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	593	0	0	327	409	0	934	426	0	0	0
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		26.7			26.7	26.7		28.3	28.3			
Effective Green, g (s)		26.7			26.7	26.7		28.3	28.3			
Actuated g/C Ratio		0.36			0.36	0.36		0.38	0.38			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		1116			1230	569		1294	609			
v/s Ratio Prot					0.09							
v/s Ratio Perm		0.19				c0.26		0.27	0.26			
v/c Ratio		0.53			0.27	0.72		0.72	0.70			
Uniform Delay, d1		19.2			17.2	20.9		20.0	19.8			
Progression Factor		1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.3			0.5	7.6		2.0	3.5			
Delay (s)		19.5			17.7	28.5		22.0	23.3			
Level of Service		B			B	C		C	C			
Approach Delay (s)		19.5			23.7			22.4			0.0	
Approach LOS		B			C			C			A	

Intersection Summary			
HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

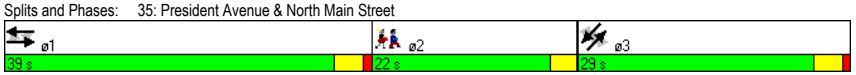
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	134	622	119	59	435	59	116	257	75	155	193	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	16	12	12	16	12
Storage Length (ft)	0		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		959			1952			265			1409	
Travel Time (s)		21.8			44.4			6.0			32.0	
Peak Hour Factor	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	823	0	69	581	0	0	487	0	0	458	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Detector Phase	1	1		1	1		3	3		3	3	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%
Maximum Green (s)	35.0	35.0		35.0	35.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lead		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.63	0.81		0.69	0.56			0.89			1.03	
Control Delay	32.2	25.7		57.1	17.1			43.8			76.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	32.2	25.7		57.1	17.1			43.8			76.5	
Queue Length 50th (ft)	41	256		20	148			178			179	
Queue Length 95th (ft)	#185	#724		#110	359			#510			#520	
Internal Link Dist (ft)		879			1872			185			1329	
Turn Bay Length (ft)				125								
Base Capacity (vph)	235	1016		100	1029			549			446	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	24%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	10.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	13
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.63	0.81		0.69	0.56			0.89			1.03	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 72.4	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 35: President Avenue & North Main Street



Lane Group	ø2
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	134	622	119	59	435	59	116	257	75	155	193	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	12	12	16	12
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1752	2074		1719	2092			2060			2027	
Flt Permitted	0.26	1.00		0.11	1.00			0.74			0.60	
Satd. Flow (perm)	479	2074		204	2092			1551			1246	
Peak-hour factor, PHF	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	149	691	132	69	512	69	126	279	82	161	201	96
RTOR Reduction (vph)	0	0	0	0	5	0	0	7	0	0	10	0
Lane Group Flow (vph)	149	823	0	69	576	0	0	480	0	0	448	0
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)	35.4	35.4		35.4	35.4			25.3			25.3	
Effective Green, g (s)	35.4	35.4		35.4	35.4			25.3			25.3	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.34			0.34	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			6.0			6.0	
Lane Grp Cap (vph)	227	982		97	990			525			421	
v/s Ratio Prot		c0.40			0.28							
v/s Ratio Perm	0.31			0.34				0.31			c0.36	
v/c Ratio	0.66	0.84		0.71	0.58			0.91			1.06	
Uniform Delay, d1	15.1	17.2		15.6	14.3			23.7			24.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	8.9	7.1		26.2	1.4			21.9			62.0	
Delay (s)	23.9	24.3		41.9	15.7			45.7			86.7	
Level of Service	C	C		D	B			D			F	
Approach Delay (s)		24.2			18.5			45.7			86.7	
Approach LOS		C			B			D			F	

Intersection Summary			
HCM Average Control Delay	38.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	14.1
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
2: Fall River Depot Station driveway & North Davol Street

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	188	905	36	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	0	204	1006	40	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						980
pX, platoon unblocked						
vC, conflicting volume	1026	523			1046	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1026	523			1046	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	59			100	
cM capacity (veh/h)	231	499			661	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	204	670	375
Volume Left	0	0	0
Volume Right	204	0	40
cSH	499	1700	1700
Volume to Capacity	0.41	0.39	0.22
Queue Length 95th (ft)	49	0	0
Control Delay (s)	17.1	0.0	0.0
Lane LOS	C		
Approach Delay (s)	17.1	0.0	
Approach LOS	C		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Ferry Street & Ponta Delgada

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	165	32	16	17	29	303
Sign Control	Stop		Free		Free	
Grade	1%		1%		1%	
Peak Hour Factor	0.89	0.89	0.91	0.91	0.74	0.74
Hourly flow rate (vph)	185	36	18	19	39	409
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	298	244	449			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	298	244	449			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	73	96	98			
cM capacity (veh/h)	685	800	1122			

Direction, Lane #	EB 1	NB 1	SW 1
Volume Total	221	36	449
Volume Left	185	18	0
Volume Right	36	0	409
cSH	701	1122	1700
Volume to Capacity	0.32	0.02	0.26
Queue Length 95th (ft)	34	1	0
Control Delay (s)	12.5	4.1	0.0
Lane LOS	B	A	
Approach Delay (s)	12.5	4.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
7: Anawan Street & Water Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	27	5	74	0	5	0	11	177	37	242	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.67	0.67	0.67	0.91	0.91	0.91	0.78	0.78	0.78
Hourly flow rate (vph)	0	39	7	110	0	7	0	12	195	47	310	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	529	619	317	548	529	109	324			207		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	529	619	317	548	529	109	324			207		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	90	99	72	100	99	100			97		
cM capacity (veh/h)	448	383	728	401	442	950	1247			1359		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	46	118	207	372
Volume Left	0	110	0	47
Volume Right	7	7	195	14
cSH	413	416	1247	1359
Volume to Capacity	0.11	0.28	0.00	0.03
Queue Length 95th (ft)	9	29	0	3
Control Delay (s)	14.8	17.0	0.0	1.3
Lane LOS	B	C		A
Approach Delay (s)	14.8	17.0	0.0	1.3
Approach LOS	B	C		

Intersection Summary				
Average Delay		4.3		
Intersection Capacity Utilization		48.0%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
9: Central Street & Davol Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	129	118	279	5	343	0	0	473	123
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.78	0.78	0.78	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	150	137	324	6	440	0	0	526	137
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1439	1046	594	1046	1115	440	662			440		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1439	1046	594	1046	1115	440	662			440		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	27	33	48	99			100		
cM capacity (veh/h)	24	229	509	205	205	622	936			1131		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	219	393	446	662
Volume Left	150	0	6	0
Volume Right	0	324	0	137
cSH	205	459	936	1700
Volume to Capacity	1.07	0.86	0.01	0.39
Queue Length 95th (ft)	248	218	1	0
Control Delay (s)	130.4	44.4	0.2	0.0
Lane LOS	F	E	A	
Approach Delay (s)	75.1		0.2	0.0
Approach LOS	F			

Intersection Summary				
Average Delay		26.8		
Intersection Capacity Utilization		55.0%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Anawan Street & Davol Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	125	94	56	102	45	60	5	164	91	182	380	39
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.94	0.94	0.94	0.85	0.85	0.85
Hourly flow rate (vph)	144	108	64	134	59	79	5	174	97	214	447	46

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	316	272	277	707
Volume Left (vph)	144	134	5	214
Volume Right (vph)	64	79	97	46
Hadj (s)	0.01	-0.06	-0.18	0.04
Departure Headway (s)	7.6	7.7	7.5	7.1
Degree Utilization, x	0.67	0.59	0.58	1.40
Capacity (veh/h)	449	433	449	502
Control Delay (s)	24.9	21.1	20.2	211.1
Approach Delay (s)	24.9	21.1	20.2	211.1
Approach LOS	C	C	C	F

Intersection Summary				
Delay		107.1		
HCM Level of Service		F		
Intersection Capacity Utilization		75.5%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
20: Battleship Cove Station driveway & Ponta Delgada

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	16	9	173	9	16	305
Sign Control	Stop		Free			Free
Grade	0%		0%			1%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	10	188	10	17	332
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	559	193			198	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	559	193			198	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	99			99	
cM capacity (veh/h)	484	849			1375	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	27	198	349
Volume Left	17	0	17
Volume Right	10	10	0
cSH	572	1700	1375
Volume to Capacity	0.05	0.12	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	11.6	0.0	0.5
Lane LOS	B		A
Approach Delay (s)	11.6	0.0	0.5
Approach LOS	B		

Intersection Summary				
Average Delay		0.9		
Intersection Capacity Utilization		39.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
29: Turner Street & Davol Street NB

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	63	878	123	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	0	112	976	137	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1044	556			1112	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1044	556			1112	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	76			100	
cM capacity (veh/h)	228	474			635	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	112	650	462
Volume Left	0	0	0
Volume Right	112	0	137
cSH	474	1700	1700
Volume to Capacity	0.24	0.38	0.27
Queue Length 95th (ft)	23	0	0
Control Delay (s)	14.9	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.9	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
30: Pearce Street & North Davol Street

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	75	1108	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.67	0.67	0.86	0.86	0.92	0.92
Hourly flow rate (vph)	0	112	1288	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						475
pX, platoon unblocked						
vC, conflicting volume	1288	644			1288	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1288	644			1288	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	73			100	
cM capacity (veh/h)	158	418			545	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	112	644	644
Volume Left	0	0	0
Volume Right	112	0	0
cSH	418	1700	1700
Volume to Capacity	0.27	0.38	0.38
Queue Length 95th (ft)	27	0	0
Control Delay (s)	16.7	0.0	0.0
Lane LOS	C		
Approach Delay (s)	16.7	0.0	
Approach LOS	C		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
85: Davol St SB & U-Turn to SB U-turn to SB Davol St

2030 Build Condition - PM Peak Hour

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	0	0	865	21	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	0	0	0	940	42	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		470	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		470	0
tC, single (s)			4.1		7.0	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			100		92	100
cM capacity (veh/h)			1636		502	1091

Direction, Lane #	SB 1	SB 2	SW 1
Volume Total	470	470	42
Volume Left	0	0	42
Volume Right	0	0	0
cSH	1700	1700	502
Volume to Capacity	0.28	0.28	0.08
Queue Length 95th (ft)	0	0	7
Control Delay (s)	0.0	0.0	12.8
Lane LOS			B
Approach Delay (s)	0.0		12.8
Approach LOS			B

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		56.5%	ICU Level of Service B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Davol St NB & U-turn to NB Davol St

2030 Build Condition - PM Peak Hour

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Volume (veh/h)	0	915	0	0	86	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.92	0.92	0.89	0.89
Hourly flow rate (vph)	0	1028	0	0	97	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				514	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				514	0
tC, single (s)	4.1				6.9	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				80	100
cM capacity (veh/h)	1636				488	1091

Direction, Lane #	NB 1	NB 2	NE 1
Volume Total	514	514	97
Volume Left	0	0	97
Volume Right	0	0	0
cSH	1700	1700	488
Volume to Capacity	0.30	0.30	0.20
Queue Length 95th (ft)	0	0	18
Control Delay (s)	0.0	0.0	14.2
Lane LOS			B
Approach Delay (s)	0.0		14.2
Approach LOS			B

Intersection Summary			
Average Delay		1.2	
Intersection Capacity Utilization		58.4%	ICU Level of Service B
Analysis Period (min)		15	

Freetown

Lanes, Volumes, Timings
4: Payne's Crossing driveway & South Main St

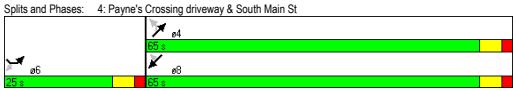
2030 Build Conditions - AM Peak Hour

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	5	327	489	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			0
Storage Lanes	2	1	1			1
Taper Length (ft)	25	25	25			25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	381			1115	461	
Travel Time (s)	8.7			25.3	10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	5	5	355	532	0
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Detector Phase	6	6	4	4	8	8
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	27.8%	72.2%	72.2%	72.2%	72.2%
Maximum Green (s)	19.0	19.0	59.0	59.0	59.0	59.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.02	0.05	0.01	0.24	0.36	
Control Delay	39.4	25.4	1.8	2.6	0.9	
Queue Delay	0.0	0.0	0.0	0.0	0.1	
Total Delay	39.4	25.4	1.8	2.6	1.0	
Queue Length 50th (ft)	1	0	0	35	2	
Queue Length 95th (ft)	7	11	2	58	12	
Internal Link Dist (ft)	301			1035	381	
Turn Bay Length (ft)			200			
Base Capacity (vph)	725	338	683	1496	1496	
Starvation Cap Reductn	0	0	0	0	249	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.01	0.01	0.01	0.24	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 4:NETL and 8:SWT, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 4: Payne's Crossing driveway & South Main St



HCM Signalized Intersection Capacity Analysis
4: Payne's Crossing driveway & South Main St

2030 Build Conditions - AM Peak Hour

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	5	5	5	327	489	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	3433	1583	1770	1863	1863	
Flt Permitted	0.95	1.00	0.46	1.00	1.00	
Satd. Flow (perm)	3433	1583	851	1863	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	5	355	532	0
RTOR Reduction (vph)	0	5	0	0	0	0
Lane Group Flow (vph)	5	0	5	355	532	0
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	5.8	5.8	72.2	72.2	72.2	
Effective Green, g (s)	5.8	5.8	72.2	72.2	72.2	
Actuated g/C Ratio	0.06	0.06	0.80	0.80	0.80	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	221	102	683	1495	1495	
v/s Ratio Prot	c0.00			0.19	c0.29	
v/s Ratio Perm		0.00	0.01			
v/c Ratio	0.02	0.00	0.01	0.24	0.36	
Uniform Delay, d1	39.4	39.4	1.8	2.2	2.5	
Progression Factor	1.00	1.00	1.00	1.00	0.08	
Incremental Delay, d2	0.0	0.0	0.0	0.4	0.7	
Delay (s)	39.5	39.4	1.8	2.5	0.9	
Level of Service	D	D	A	A	A	
Approach Delay (s)	39.4			2.5	0.9	
Approach LOS	D			A	A	

Intersection Summary

HCM Average Control Delay	2.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

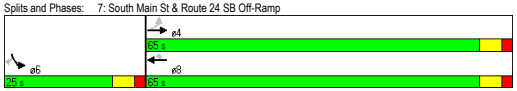
Lanes, Volumes, Timings
7: South Main St & Route 24 SB Off-Ramp

2030 Build Conditions - AM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	46	286	466	875	120	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	16	12
Storage Length (ft)	0			240	0	0
Storage Lanes	1			2	1	1
Taper Length (ft)	25			25	25	25
Right Turn on Red				Yes		Yes
Link Speed (mph)		30	30		30	
Link Distance (ft)		461	773		388	
Travel Time (s)		10.5	17.6		8.8	
Peak Hour Factor	0.85	0.85	0.87	0.87	0.91	0.91
Heavy Vehicles (%)	9%	11%	12%	2%	15%	24%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	336	536	1006	132	25
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	65.0	65.0	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	72.2%	72.2%	27.8%	27.8%
Maximum Green (s)	59.0	59.0	59.0	59.0	19.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.09	0.27	0.23	0.67	0.56	0.13
Control Delay	4.4	4.6	0.6	0.7	45.0	14.3
Queue Delay	0.0	0.0	0.0	1.2	0.0	0.0
Total Delay	4.4	4.6	0.6	1.9	45.0	14.3
Queue Length 50th (ft)	7	52	5	0	71	0
Queue Length 95th (ft)	18	74	m5	m0	122	21
Internal Link Dist (ft)		381	693		308	
Turn Bay Length (ft)				240		
Base Capacity (vph)	580	1256	2365	1507	376	295
Starvation Cap Reductn	0	0	0	271	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.27	0.23	0.81	0.35	0.08

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 20 (22%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 7: South Main St & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
7: South Main St & Route 24 SB Off-Ramp

2030 Build Conditions - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	46	286	466	875	120	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	16	12
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1656	1712	3223	1689	1779	1302
Flt Permitted	0.45	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	789	1712	3223	1689	1779	1302
Peak-hour factor, PHF	0.85	0.85	0.87	0.87	0.91	0.91
Adj. Flow (vph)	54	336	536	1006	132	25
RTOR Reduction (vph)	0	0	0	268	0	22
Lane Group Flow (vph)	54	336	536	738	132	3
Heavy Vehicles (%)	9%	11%	12%	2%	15%	24%
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)	66.0	66.0	66.0	66.0	12.0	12.0
Effective Green, g (s)	66.0	66.0	66.0	66.0	12.0	12.0
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.13	0.13
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	579	1255	2364	1239	237	174
v/s Ratio Prot		0.20	0.17		c0.07	
v/s Ratio Perm	0.07			c0.44		0.00
v/c Ratio	0.09	0.27	0.23	0.60	0.56	0.02
Uniform Delay, d1	3.4	4.0	3.8	5.7	36.5	33.9
Progression Factor	0.94	0.90	0.13	1.08	1.00	1.00
Incremental Delay, d2	0.3	0.5	0.0	0.2	2.8	0.0
Delay (s)	3.6	4.1	0.5	6.3	39.3	33.9
Level of Service	A	A	A	A	D	C
Approach Delay (s)		4.0	4.3		38.5	
Approach LOS		A	A		D	

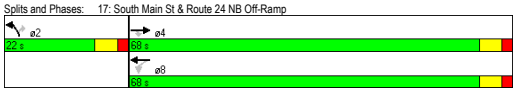
Intersection Summary			
HCM Average Control Delay	6.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	333	63	120	1317	23	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	15	16	16
Storage Length (ft)		200	100		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	773			446	481	
Travel Time (s)	17.6			10.1	10.9	
Peak Hour Factor	0.82	0.82	0.88	0.88	0.80	0.80
Heavy Vehicles (%)	7%	26%	10%	3%	33%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	406	77	136	1497	29	644
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	68.0	68.0	68.0	68.0	22.0	22.0
Total Split (%)	75.6%	75.6%	75.6%	75.6%	24.4%	24.4%
Maximum Green (s)	62.0	62.0	62.0	62.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.32	0.07	0.21	1.03	0.13	0.92
Control Delay	4.1	0.5	5.8	47.4	32.9	28.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	0.5	5.8	47.4	32.9	28.7
Queue Length 50th (ft)	54	0	25	~954	14	68
Queue Length 95th (ft)	70	3	47	#1163	34	137
Internal Link Dist (ft)	693			366	401	
Turn Bay Length (ft)		200	100			
Base Capacity (vph)	1272	1063	633	1454	273	733
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.07	0.21	1.03	0.11	0.88

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 17: South Main St & Route 24 NB Off-Ramp



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	333	63	120	1317	23	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	15	16	16
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1776	1453	1641	2029	1538	1760
Flt Permitted	1.00	1.00	0.51	1.00	0.95	1.00
Satd. Flow (perm)	1776	1453	884	2029	1538	1760
Peak-hour factor, PHF	0.82	0.82	0.88	0.88	0.80	0.80
Adj. Flow (vph)	406	77	136	1497	29	644
RTOR Reduction (vph)	0	22	0	0	0	434
Lane Group Flow (vph)	406	55	136	1497	29	210
Heavy Vehicles (%)	7%	26%	10%	3%	33%	4%
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	64.5	64.5	64.5	64.5	13.5	13.5
Effective Green, g (s)	64.5	64.5	64.5	64.5	13.5	13.5
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.15	0.15
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1273	1041	634	1454	231	264
v/s Ratio Prot	0.23			c0.74	0.02	
v/s Ratio Perm		0.04	0.15			c0.12
v/c Ratio	0.32	0.05	0.21	1.03	0.13	0.79
Uniform Delay, d1	4.7	3.8	4.3	12.8	33.1	36.9
Progression Factor	0.66	0.29	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1	0.8	31.5	0.2	15.1
Delay (s)	3.7	1.2	5.0	44.3	33.4	52.0
Level of Service	A	A	A	D	C	D
Approach Delay (s)	3.3			41.0	51.2	
Approach LOS	A			D	D	

Intersection Summary

HCM Average Control Delay	36.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
1: Executive Park Drive & South Main Street

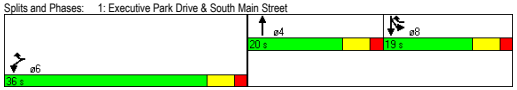
2030 Build Condition - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	1404	242	40	197	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	2		1	1	
Taper Length (ft)	100	100		100	100	
Right Turn on Red		No		No		
Link Speed (mph)	35		35			35
Link Distance (ft)	285		553			804
Travel Time (s)	5.6		10.8			15.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Shared Lane Traffic (%)					10%	
Lane Group Flow (vph)	11	1478	297	0	186	201
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Detector Phase	6	6 8	4		8	8
Switch Phase						
Minimum Initial (s)	6.0		6.0		6.0	6.0
Minimum Split (s)	12.0		12.0		12.0	12.0
Total Split (s)	36.0	55.0	20.0	0.0	19.0	19.0
Total Split (%)	48.0%	73.3%	26.7%	0.0%	25.3%	25.3%
Maximum Green (s)	30.0		14.0		13.0	13.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	C-Max		None		None	None
v/c Ratio	0.01	0.84	0.82		0.70	0.68
Control Delay	5.8	14.9	49.3		45.5	42.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	5.8	14.9	49.3		45.5	42.2
Queue Length 50th (ft)	1	118	133		86	93
Queue Length 95th (ft)	m4	192	#255		#181	#185
Internal Link Dist (ft)	205		473			724
Turn Bay Length (ft)					200	
Base Capacity (vph)	752	1763	371		265	297
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.01	0.84	0.80		0.70	0.68

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 6:WBL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Executive Park Drive & South Main Street



HCM Signalized Intersection Capacity Analysis
1: Executive Park Drive & South Main Street

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	1404	242	40	197	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Total Lost time (s)	5.0	5.0	5.0		6.0	6.0
Lane Util. Factor	1.00	0.88	1.00		0.95	0.95
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	0.99
Satd. Flow (prot)	1796	2623	1855		1528	1711
Flt Permitted	0.95	1.00	1.00		0.95	0.99
Satd. Flow (perm)	1796	2623	1855		1528	1711
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	1478	255	42	207	180
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	11	1478	297	0	186	201
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Actuated Green, G (s)	30.4	49.4	13.6		13.0	13.0
Effective Green, g (s)	31.4	50.4	14.6		13.0	13.0
Actuated g/C Ratio	0.42	0.67	0.19		0.17	0.17
Clearance Time (s)	6.0		6.0		6.0	6.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	752	1763	361		265	297
v/s Ratio Prot	0.01	c0.56	c0.16		0.12	0.12
v/s Ratio Perm						
v/c Ratio	0.01	0.84	0.82		0.70	0.68
Uniform Delay, d1	12.8	9.2	29.0		29.2	29.0
Progression Factor	0.44	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	3.4	14.0		8.1	6.0
Delay (s)	5.7	12.6	43.0		37.3	35.0
Level of Service	A	B	D		D	D
Approach Delay (s)	12.6		43.0			36.1
Approach LOS	B		D			D

Intersection Summary

HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
2: Executive Park Drive & Route 24 SB Off-Ramp

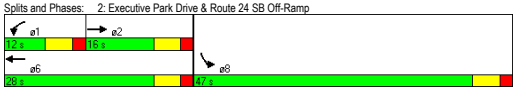
2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	87	0	181	770	0	0	0	0	1575	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		1	2		0	0		0	2		1
Taper Length (ft)	100		100	100		100	100		100	100		100
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		307			406			405			737	
Travel Time (s)		6.0			7.9			7.9			14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	191	811	0	0	0	0	1658	0	0
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Detector Phase		2		1	6					8		
Switch Phase												
Minimum Initial (s)		10.0		6.0	10.0					10.0		
Minimum Split (s)		16.0		12.0	16.0					16.0		
Total Split (s)	0.0	16.0	0.0	12.0	28.0	0.0	0.0	0.0	0.0	47.0	0.0	0.0
Total Split (%)	0.0%	21.3%	0.0%	16.0%	37.3%	0.0%	0.0%	0.0%	0.0%	62.7%	0.0%	0.0%
Maximum Green (s)		10.0		6.0	22.0					41.0		
Yellow Time (s)		4.0		4.0	4.0					4.0		
All-Red Time (s)		2.0		2.0	2.0					2.0		
Lost Time Adjust (s)	0.0	0.0	0.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	6.0	4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Recall Mode		C-Max		None	C-Max					None		
v/c Ratio		0.20		0.59	0.77					0.92		
Control Delay		8.7		49.0	43.2					25.5		
Queue Delay		0.0		0.0	0.0					0.0		
Total Delay		8.7		49.0	43.2					25.5		
Queue Length 50th (ft)		4		50	188					329		
Queue Length 95th (ft)		m11		m62	m228					#506		
Internal Link Dist (ft)		227			326			325			657	
Turn Bay Length (ft)												
Base Capacity (vph)		458		322	1052					1830		
Starvation Cap Reductn		0		0	0					0		
Spillback Cap Reductn		0		0	0					0		
Storage Cap Reductn		0		0	0					0		
Reduced v/c Ratio		0.20		0.59	0.77					0.91		

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Executive Park Drive & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
2: Executive Park Drive & Route 24 SB Off-Ramp

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	87	0	181	770	0	0	0	0	1575	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Total Lost time (s)		6.0		5.0	5.0					6.0		
Lane Util. Factor		0.95		0.97	0.95					0.97		
Frt		1.00		1.00	1.00					1.00		
Flt Protected		1.00		0.95	1.00					0.95		
Satd. Flow (prot)		3276		3450	3359					3347		
Flt Permitted		1.00		0.95	1.00					0.95		
Satd. Flow (perm)		3276		3450	3359					3347		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	92	0	191	811	0	0	0	0	1658	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	92	0	191	811	0	0	0	0	1658	0	0
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Actuated Green, G (s)		10.5		6.0	22.5					40.5		
Effective Green, g (s)		10.5		7.0	23.5					40.5		
Actuated g/C Ratio		0.14		0.09	0.31					0.54		
Clearance Time (s)		6.0		6.0	6.0					6.0		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		459		322	1052					1807		
v/s Ratio Prot		0.03		0.06	c0.24					c0.50		
v/s Ratio Perm												
v/c Ratio		0.20		0.59	0.77					0.92		
Uniform Delay, d1		28.5		32.6	23.3					15.7		
Progression Factor		0.27		1.32	1.65					1.00		
Incremental Delay, d2		0.7		2.0	3.7					7.8		
Delay (s)		8.5		45.1	42.2					23.6		
Level of Service		A		D	D					C		
Approach Delay (s)		8.5			42.7			0.0			23.6	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay	30.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
3: Executive Park Drive & Route 24 NB On-Ramp

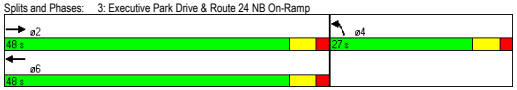
2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1575	0	0	170	0	785	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Storage Length (ft)	0		0	0		0	400		615	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	100		100	100		100	100		100	100		100
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		352			205			1194			650	
Travel Time (s)		6.9			4.0			23.3			12.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1658	0	0	179	0	826	0	0	0	0	0
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Detector Phase		2			6		4					
Switch Phase												
Minimum Initial (s)		10.0			10.0		6.0					
Minimum Split (s)		16.0			16.0		12.0					
Total Split (s)	0.0	48.0	0.0	0.0	48.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	64.0%	0.0%	0.0%	64.0%	0.0%	36.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)		42.0			42.0		21.0					
Yellow Time (s)		4.0			4.0		4.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)	0.0	-1.0	0.0	0.0	-1.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0		3.0					
Recall Mode		C-Max			C-Max		None					
v/c Ratio		0.81			0.09		0.88					
Control Delay		6.9			7.3		38.1					
Queue Delay		0.0			0.0		0.0					
Total Delay		6.9			7.3		38.1					
Queue Length 50th (ft)		73			17		186					
Queue Length 95th (ft)		m126			31		#285					
Internal Link Dist (ft)		272			125			1114			570	
Turn Bay Length (ft)							400					
Base Capacity (vph)		2039			2059		956					
Starvation Cap Reductn		0			0		0					
Spillback Cap Reductn		0			0		0					
Storage Cap Reductn		0			0		0					
Reduced v/c Ratio		0.81			0.09		0.86					

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 20 (27%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Executive Park Drive & Route 24 NB On-Ramp



HCM Signalized Intersection Capacity Analysis
3: Executive Park Drive & Route 24 NB On-Ramp

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1575	0	0	170	0	785	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Total Lost time (s)		5.0			5.0		5.0					
Lane Util. Factor		0.95			0.95		0.97					
Frt		1.00			1.00		1.00					
Flt Protected		1.00			1.00		0.95					
Satd. Flow (prot)		3522			3557		3259					
Flt Permitted		1.00			1.00		0.95					
Satd. Flow (perm)		3522			3557		3259					
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1658	0	0	179	0	826	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1658	0	0	179	0	826	0	0	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Actuated Green, G (s)		42.4			42.4		20.6					
Effective Green, g (s)		43.4			43.4		21.6					
Actuated g/C Ratio		0.58			0.58		0.29					
Clearance Time (s)		6.0			6.0		6.0					
Vehicle Extension (s)		3.0			3.0		3.0					
Lane Grp Cap (vph)		2038			2058		939					
v/s Ratio Prot		c0.47			0.05		c0.25					
v/s Ratio Perm												
v/c Ratio		0.81			0.09		0.88					
Uniform Delay, d1		12.6			7.0		25.5					
Progression Factor		0.39			1.00		1.00					
Incremental Delay, d2		1.8			0.1		9.4					
Delay (s)		6.6			7.1		34.9					
Level of Service		A			A		C					
Approach Delay (s)		6.6			7.1			34.9			0.0	
Approach LOS		A			A			C			A	

Intersection Summary

HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
2: Narrows Rd & South Main St

2030 Build Conditions - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	145	48	17	182	379	100
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.75	0.75	0.79	0.79
Hourly flow rate (vph)	177	59	23	243	480	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					1115	
pX, platoon unblocked						
vC, conflicting volume	831	543	606			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	831	543	606			
tC, single (s)	6.5	6.4	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.5	2.3			
p0 queue free %	45	88	98			
cM capacity (veh/h)	320	506	934			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	235	265	606
Volume Left	177	23	0
Volume Right	59	0	127
cSH	352	934	1700
Volume to Capacity	0.67	0.02	0.36
Queue Length 95th (ft)	115	2	0
Control Delay (s)	33.6	1.0	0.0
Lane LOS	D	A	
Approach Delay (s)	33.6	1.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay		7.4	
Intersection Capacity Utilization		43.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
5: Freetown Station driveway & S. Main St.

2030 Build Conditions - AM Peak Hour

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	12	14	199	41	57	415
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	13	15	249	51	71	519
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	936	274			300	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	936	274			300	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	98			94	
cM capacity (veh/h)	278	764			1273	

Direction, Lane #	NW 1	NW 2	NE 1	SW 1
Volume Total	13	15	300	590
Volume Left	13	0	0	71
Volume Right	0	15	51	0
cSH	278	764	1700	1273
Volume to Capacity	0.05	0.02	0.18	0.06
Queue Length 95th (ft)	4	2	0	4
Control Delay (s)	18.6	9.8	0.0	1.5
Lane LOS	C	A		A
Approach Delay (s)	13.9		0.0	1.5
Approach LOS	B			

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization		51.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
11: Copicut Rd & South Main St

2030 Build Conditions - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	40	5	194	5	5	432
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	43	5	242	6	6	540
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	798	246			249	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	798	246			249	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	99			100	
cM capacity (veh/h)	353	793			1317	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	49	249	546
Volume Left	43	0	6
Volume Right	5	6	0
cSH	377	1700	1317
Volume to Capacity	0.13	0.15	0.00
Queue Length 95th (ft)	11	0	0
Control Delay (s)	16.0	0.0	0.1
Lane LOS	C		A
Approach Delay (s)	16.0	0.0	0.1
Approach LOS	C		

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization		36.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
21: Ridge Hill Rd & South Main St

2030 Build Conditions - AM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	20	5	155	70	0	20	35	546	267	75	1212	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.59	0.59	0.59	0.84	0.84	0.84	0.95	0.95	0.95
Hourly flow rate (vph)	26	7	204	119	0	34	42	650	318	79	1276	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93				0.93		
vC, conflicting volume	2362	2488	1278	2536	2331	809	1281			968		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2426	2561	1278	2612	2393	758	1281			928		
tC, single (s)	7.1	7.0	6.2	7.3	6.5	6.4	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.4	3.3	3.7	4.0	3.5	2.3			2.3		
p0 queue free %	0	53	0	0	100	90	92			88		
cM capacity (veh/h)	16	14	202	0	26	346	506			663		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	237	153	1010	1360
Volume Left	26	119	42	79
Volume Right	204	34	318	5
cSH	76	0	506	663
Volume to Capacity	3.13	Err	0.08	0.12
Queue Length 95th (ft)	Err	Err	7	10
Control Delay (s)	Err	Err	2.9	5.7
Lane LOS	F	F	A	A
Approach Delay (s)	9999.0	Err	2.9	5.7
Approach LOS	F	F		

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		118.5%	ICU Level of Service H
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
30: South Main St & High St

2030 Build Conditions - AM Peak Hour

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	5	545	5	5	1247	5	0	0	0	60	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.25	0.25	0.25	0.64	0.64	0.64
Hourly flow rate (vph)	5	586	5	5	1286	5	0	0	0	94	0	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1291			591			1914	1901	1288	1898	1900	589
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1291			591			1914	1901	1288	1898	1900	589
tC, single (s)	4.1			5.1			7.1	6.5	6.2	7.3	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.2			3.1			3.5	4.0	3.3	3.7	4.0	3.5
p0 queue free %	99			99			100	100	100	0	100	97
cM capacity (veh/h)	544			641			50	69	202	47	69	481

Direction, Lane #	NB 1	SB 1	SE 1	NW 1
Volume Total	597	1296	0	109
Volume Left	5	5	0	94
Volume Right	5	5	0	16
cSH	544	641	1700	54
Volume to Capacity	0.01	0.01	0.00	2.01
Queue Length 95th (ft)	1	1	0	267
Control Delay (s)	0.3	0.4	0.0	631.5
Lane LOS	A	A	A	F
Approach Delay (s)	0.3	0.4	0.0	631.5
Approach LOS			A	F

Intersection Summary				
Average Delay		34.8		
Intersection Capacity Utilization		79.7%	ICU Level of Service	D
Analysis Period (min)		15		

Lanes, Volumes, Timings
7: South Main St & Route 24 SB Off-Ramp

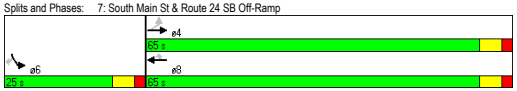
2030 Build Conditions - PM Peak Hour

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	214	694	606	485	155	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	12	12
Storage Length (ft)	0			240	0	0
Storage Lanes	1			2	1	1
Taper Length (ft)	25			25	25	25
Right Turn on Red				Yes		Yes
Link Speed (mph)		30	30		30	
Link Distance (ft)		496	772		360	
Travel Time (s)		11.3	17.5		8.2	
Peak Hour Factor	0.88	0.88	0.94	0.94	0.79	0.79
Heavy Vehicles (%)	8%	6%	6%	3%	6%	13%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	243	789	645	516	196	90
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	65.0	65.0	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	72.2%	72.2%	27.8%	27.8%
Maximum Green (s)	59.0	59.0	59.0	59.0	19.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.49	0.63	0.27	0.39	0.69	0.29
Control Delay	9.0	9.1	4.4	1.0	47.5	9.4
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay	9.0	9.6	4.4	1.0	47.5	9.4
Queue Length 50th (ft)	31	275	43	5	105	0
Queue Length 95th (ft)	73	333	m64	m3	145	28
Internal Link Dist (ft)		416	692		280	
Turn Bay Length (ft)				240		
Base Capacity (vph)	498	1253	2382	1324	360	373
Starvation Cap Reductn	0	153	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.72	0.27	0.39	0.54	0.24

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 88 (98%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: South Main St & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
7: South Main St & Route 24 SB Off-Ramp

2030 Build Conditions - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	214	694	606	485	155	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	12	12
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	1792	3406	1672	1703	1429
Flt Permitted	0.40	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	712	1792	3406	1672	1703	1429
Peak-hour factor, PHF	0.88	0.88	0.94	0.94	0.79	0.79
Adj. Flow (vph)	243	789	645	516	196	90
RTOR Reduction (vph)	0	0	0	155	0	75
Lane Group Flow (vph)	243	789	645	361	196	15
Heavy Vehicles (%)	8%	6%	6%	3%	6%	13%
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)	62.9	62.9	62.9	62.9	15.1	15.1
Effective Green, g (s)	62.9	62.9	62.9	62.9	15.1	15.1
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.17	0.17
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	498	1252	2380	1169	286	240
v/s Ratio Prot		c0.44	0.19		c0.12	
v/s Ratio Perm	0.34			0.22		0.01
v/c Ratio	0.49	0.63	0.27	0.31	0.69	0.06
Uniform Delay, d1	6.2	7.3	5.0	5.2	35.2	31.5
Progression Factor	0.76	0.82	0.78	0.92	1.00	1.00
Incremental Delay, d2	3.1	2.2	0.2	0.4	6.7	0.1
Delay (s)	7.8	8.2	4.1	5.2	41.9	31.6
Level of Service	A	A	A	A	D	C
Approach Delay (s)		8.1	4.6		38.6	
Approach LOS		A	A		D	

Intersection Summary

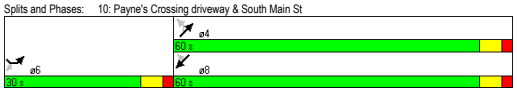
HCM Average Control Delay	10.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	385	125	120	523	312	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	75	200			0
Storage Lanes	2	1	1			1
Taper Length (ft)	25	25	25			25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	230			1086	496	
Travel Time (s)	5.2			24.7	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	136	130	568	339	397
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Detector Phase	6	6	4	4	8	8
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	30.0	30.0	60.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Maximum Green (s)	24.0	24.0	54.0	54.0	54.0	54.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.66	0.34	0.19	0.45	0.27	0.33
Control Delay	39.1	7.9	6.7	8.4	2.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	7.9	6.7	8.5	2.4	0.9
Queue Length 50th (ft)	115	0	23	126	11	0
Queue Length 95th (ft)	153	44	54	229	29	0
Internal Link Dist (ft)	150			1006	416	
Turn Bay Length (ft)		75	200			
Base Capacity (vph)	915	522	701	1272	1272	1207
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	14	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.26	0.19	0.45	0.27	0.33

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 13 (14%), Referenced to phase 4:NETL and 8:SWT, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: Payne's Crossing driveway & South Main St



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	385	125	120	523	312	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583	1770	1863	1863	1583
Flt Permitted	0.95	1.00	0.55	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583	1027	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	418	136	130	568	339	397
RTOR Reduction (vph)	0	111	0	0	0	126
Lane Group Flow (vph)	418	25	130	568	339	271
Turn Type		Perm	Perm			Perm
Protected Phases	6			4	8	
Permitted Phases		6	4			8
Actuated Green, G (s)	16.5	16.5	61.5	61.5	61.5	61.5
Effective Green, g (s)	16.5	16.5	61.5	61.5	61.5	61.5
Actuated g/C Ratio	0.18	0.18	0.68	0.68	0.68	0.68
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	629	290	702	1273	1273	1082
v/s Ratio Prot	c0.12			c0.30	0.18	
v/s Ratio Perm		0.02	0.13			0.17
v/c Ratio	0.66	0.09	0.19	0.45	0.27	0.25
Uniform Delay, d1	34.2	30.5	5.2	6.5	5.5	5.4
Progression Factor	1.00	1.00	1.00	1.00	0.30	0.27
Incremental Delay, d2	2.7	0.1	0.6	1.1	0.5	0.5
Delay (s)	36.8	30.6	5.7	7.6	2.2	2.0
Level of Service	D	C	A	A	A	A
Approach Delay (s)	35.3			7.3	2.1	
Approach LOS	D			A	A	

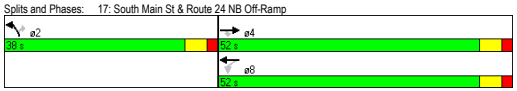
Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	708	140	140	895	206	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	15	16	16
Storage Length (ft)		200	100		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	772			440	420	
Travel Time (s)	17.5			10.0	9.5	
Peak Hour Factor	0.85	0.85	0.94	0.94	0.95	0.95
Heavy Vehicles (%)	4%	13%	4%	4%	16%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	833	165	149	952	217	879
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	52.0	52.0	52.0	52.0	38.0	38.0
Total Split (%)	57.8%	57.8%	57.8%	57.8%	42.2%	42.2%
Maximum Green (s)	46.0	46.0	46.0	46.0	32.0	32.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	Min
v/c Ratio	0.89	0.18	1.48	0.93	0.35	1.22
Control Delay	24.2	2.7	284.1	37.1	23.3	136.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	2.7	284.1	37.1	23.3	136.9
Queue Length 50th (ft)	185	4	~118	477	89	~574
Queue Length 95th (ft)	#511	18	#183	#756	148	#805
Internal Link Dist (ft)	692			360	340	
Turn Bay Length (ft)		200	100			
Base Capacity (vph)	934	899	101	1027	627	720
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.18	1.48	0.93	0.35	1.22

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 17: South Main St & Route 24 NB Off-Ramp



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	708	140	140	895	206	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	15	16	16
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1827	1620	1736	2010	1764	1794
Flt Permitted	1.00	1.00	0.11	1.00	0.95	1.00
Satd. Flow (perm)	1827	1620	197	2010	1764	1794
Peak-hour factor, PHF	0.85	0.85	0.94	0.94	0.95	0.95
Adj. Flow (vph)	833	165	149	952	217	879
RTOR Reduction (vph)	0	71	0	0	0	82
Lane Group Flow (vph)	833	94	149	952	217	797
Heavy Vehicles (%)	4%	13%	4%	4%	16%	2%
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	46.0	46.0	46.0	46.0	32.0	32.0
Effective Green, g (s)	46.0	46.0	46.0	46.0	32.0	32.0
Actuated g/C Ratio	0.51	0.51	0.51	0.51	0.36	0.36
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	934	828	101	1027	627	638
v/s Ratio Prot	0.46			0.47	0.12	
v/s Ratio Perm		0.06	c0.76			c0.44
v/c Ratio	0.89	0.11	1.48	0.93	0.35	1.25
Uniform Delay, d1	19.8	11.4	22.0	20.4	21.3	29.0
Progression Factor	0.62	0.82	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.4	0.2	259.5	15.2	0.3	125.0
Delay (s)	22.6	9.6	281.5	35.6	21.6	154.0
Level of Service	C	A	F	D	C	F
Approach Delay (s)	20.5			68.9	127.8	
Approach LOS	C			E	F	

Intersection Summary

HCM Average Control Delay	74.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
1: Executive Park Drive & South Main Street

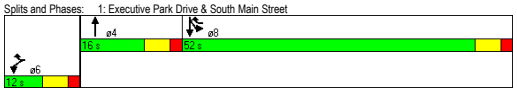
2030 Build Condition - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	248	198	20	1440	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	2		0	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		No		No		
Link Speed (mph)	35		35			35
Link Distance (ft)	282		553			804
Travel Time (s)	5.5		10.8			15.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Shared Lane Traffic (%)					41%	
Lane Group Flow (vph)	26	261	229	0	894	902
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Detector Phase	6	6 8	4		8	8
Switch Phase						
Minimum Initial (s)	6.0		6.0		6.0	6.0
Minimum Split (s)	12.0		12.0		12.0	12.0
Total Split (s)	12.0	64.0	16.0	0.0	52.0	52.0
Total Split (%)	15.0%	80.0%	20.0%	0.0%	65.0%	65.0%
Maximum Green (s)	6.0		10.0		46.0	46.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		None		C-Max	C-Max
v/c Ratio	0.17	0.13	0.89		1.02	0.99
Control Delay	32.9	3.1	70.6		54.3	45.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	32.9	3.1	70.6		54.3	45.5
Queue Length 50th (ft)	12	16	114		~461	427
Queue Length 95th (ft)	34	26	#240		#736	#725
Internal Link Dist (ft)	202		473			724
Turn Bay Length (ft)					200	
Base Capacity (vph)	157	1934	257		879	915
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.17	0.13	0.89		1.02	0.99

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 33 (41%), Referenced to phase 8:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Executive Park Drive & South Main Street



HCM Signalized Intersection Capacity Analysis
1: Executive Park Drive & South Main Street

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	248	198	20	1440	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		-3%			4%
Total Lost time (s)	5.0	5.0	5.0		6.0	6.0
Lane Util. Factor	1.00	0.88	1.00		0.95	0.95
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	0.97
Satd. Flow (prot)	1796	2623	1867		1528	1590
Flt Permitted	0.95	1.00	1.00		0.95	0.97
Satd. Flow (perm)	1796	2623	1867		1528	1590
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	261	208	21	1516	280
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	26	261	229	0	894	902
Heavy Vehicles (%)	2%	10%	2%	2%	10%	2%
Turn Type		pt+ov			Split	
Protected Phases	6	6 8	4		8	8
Permitted Phases						
Actuated Green, G (s)	6.0	58.0	10.0		46.0	46.0
Effective Green, g (s)	7.0	59.0	11.0		46.0	46.0
Actuated g/C Ratio	0.09	0.74	0.14		0.57	0.57
Clearance Time (s)	6.0		6.0		6.0	6.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	157	1934	257		879	914
v/s Ratio Prot	0.01	c0.10	c0.12		c0.59	0.57
v/s Ratio Perm						
v/c Ratio	0.17	0.13	0.89		1.02	0.99
Uniform Delay, d1	33.8	3.1	33.9		17.0	16.7
Progression Factor	0.89	0.97	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.0	29.5		34.7	26.8
Delay (s)	30.7	3.0	63.4		51.7	43.5
Level of Service	C	A	E		D	D
Approach Delay (s)	5.5		63.4			47.6
Approach LOS	A		E			D

Intersection Summary

HCM Average Control Delay	43.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
2: Executive Park Drive & Route 24 SB Off-Ramp

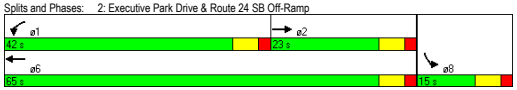
2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	648	0	1398	135	0	0	0	0	235	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Storage Length (ft)	0		0	0		0	0		0	0		300
Storage Lanes	0		1	2		0	0		0	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		307			406			405			737	
Travel Time (s)		6.0			7.9			7.9			14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	682	0	1472	142	0	0	0	0	247	0	0
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Detector Phase		2		1	6					8		
Switch Phase												
Minimum Initial (s)		10.0		6.0	10.0					6.0		
Minimum Split (s)		16.0		12.0	16.0					12.0		
Total Split (s)	0.0	23.0	0.0	42.0	65.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0
Total Split (%)	0.0%	28.8%	0.0%	52.5%	81.3%	0.0%	0.0%	0.0%	0.0%	18.8%	0.0%	0.0%
Maximum Green (s)		17.0		36.0	59.0					9.0		
Yellow Time (s)		4.0		4.0	4.0					4.0		
All-Red Time (s)		2.0		2.0	2.0					2.0		
Lost Time Adjust (s)	0.0	0.0	0.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	6.0	4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Recall Mode		C-Max		None	C-Max					None		
v/c Ratio		0.96		0.93	0.06					0.67		
Control Delay		23.3		27.0	2.1					43.8		
Queue Delay		0.0		0.0	0.0					0.0		
Total Delay		23.3		27.0	2.1					43.8		
Queue Length 50th (ft)		158		200	5					61		
Queue Length 95th (ft)		m156		#496	8					#99		
Internal Link Dist (ft)		227			326			325			657	
Turn Bay Length (ft)												
Base Capacity (vph)		712		1596	2527					377		
Starvation Cap Reductn		0		0	0					0		
Spillback Cap Reductn		0		0	0					0		
Storage Cap Reductn		0		0	0					0		
Reduced v/c Ratio		0.96		0.92	0.06					0.66		

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Executive Park Drive & Route 24 SB Off-Ramp



HCM Signalized Intersection Capacity Analysis
2: Executive Park Drive & Route 24 SB Off-Ramp

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	648	0	1398	135	0	0	0	0	235	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			-1%			0%			5%	
Total Lost time (s)		6.0		5.0	5.0					6.0		
Lane Util. Factor		0.95		0.97	0.95					0.97		
Frt		1.00		1.00	1.00					1.00		
Flt Protected		1.00		0.95	1.00					0.95		
Satd. Flow (prot)		3276		3450	3359					3347		
Flt Permitted		1.00		0.95	1.00					0.95		
Satd. Flow (perm)		3276		3450	3359					3347		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	682	0	1472	142	0	0	0	0	247	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	682	0	1472	142	0	0	0	0	247	0	0
Heavy Vehicles (%)	2%	8%	8%	2%	8%	2%	2%	2%	2%	2%	2%	8%
Turn Type			Free	Prot						Prot		Free
Protected Phases		2		1	6					8		
Permitted Phases			Free									Free
Actuated Green, G (s)		17.4		35.8	59.2					8.8		
Effective Green, g (s)		17.4		36.8	60.2					8.8		
Actuated g/C Ratio		0.22		0.46	0.75					0.11		
Clearance Time (s)		6.0		6.0	6.0					6.0		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		713		1587	2528					368		
v/s Ratio Prot		c0.21		c0.43	0.04					c0.07		
v/s Ratio Perm												
v/c Ratio		0.96		0.93	0.06					0.67		
Uniform Delay, d1		30.9		20.3	2.6					34.2		
Progression Factor		0.50		0.80	0.78					1.00		
Incremental Delay, d2		4.1		8.6	0.0					4.8		
Delay (s)		19.6		24.9	2.0					39.0		
Level of Service		B		C	A					D		
Approach Delay (s)		19.6			22.9			0.0			39.0	
Approach LOS		B			C			A			D	

Intersection Summary

HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
3: Executive Park Drive & Route 24 NB On-Ramp

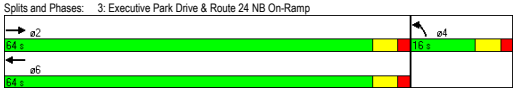
2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	235	0	0	1396	0	137	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Storage Length (ft)	0		0	0		0	400		615	0		0
Storage Lanes	0		0	0		1	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		352			205			740			316	
Travel Time (s)		6.9			4.0			14.4			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	1469	0	144	0	0	0	0	0
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Detector Phase		2			6		4					
Switch Phase												
Minimum Initial (s)		10.0			10.0		6.0					
Minimum Split (s)		16.0			16.0		12.0					
Total Split (s)	0.0	64.0	0.0	0.0	64.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	80.0%	0.0%	0.0%	80.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)		58.0			58.0		10.0					
Yellow Time (s)		4.0			4.0		4.0					
All-Red Time (s)		2.0			2.0		2.0					
Lost Time Adjust (s)	0.0	-1.0	0.0	0.0	-1.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0		3.0					
Recall Mode		C-Max			C-Max		None					
v/c Ratio		0.09			0.55		0.37					
Control Delay		10.1			5.2		34.8					
Queue Delay		0.0			0.0		0.0					
Total Delay		10.1			5.2		34.8					
Queue Length 50th (ft)		53			127		34					
Queue Length 95th (ft)		m62			179		60					
Internal Link Dist (ft)		272			125			660			236	
Turn Bay Length (ft)							400					
Base Capacity (vph)		2658			2685		448					
Starvation Cap Reductn		0			0		0					
Spillback Cap Reductn		0			0		0					
Storage Cap Reductn		0			0		0					
Reduced v/c Ratio		0.09			0.55		0.32					

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 35 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Executive Park Drive & Route 24 NB On-Ramp



HCM Signalized Intersection Capacity Analysis
3: Executive Park Drive & Route 24 NB On-Ramp

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	235	0	0	1396	0	137	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-1%			-1%			0%	
Total Lost time (s)		5.0			5.0		5.0					
Lane Util. Factor		0.95			0.95		0.97					
Frt		1.00			1.00		1.00					
Flt Protected		1.00			1.00		0.95					
Satd. Flow (prot)		3522			3557		3259					
Flt Permitted		1.00			1.00		0.95					
Satd. Flow (perm)		3522			3557		3259					
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	247	0	0	1469	0	144	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	247	0	0	1469	0	144	0	0	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type						Free	Prot		Free			
Protected Phases		2			6		4					
Permitted Phases						Free			Free			
Actuated Green, G (s)		59.4			59.4		8.6					
Effective Green, g (s)		60.4			60.4		9.6					
Actuated g/C Ratio		0.76			0.76		0.12					
Clearance Time (s)		6.0			6.0		6.0					
Vehicle Extension (s)		3.0			3.0		3.0					
Lane Grp Cap (vph)		2659			2686		391					
v/s Ratio Prot		0.07			c0.41		c0.04					
v/s Ratio Perm												
v/c Ratio		0.09			0.55		0.37					
Uniform Delay, d1		2.6			4.1		32.4					
Progression Factor		3.66			1.00		1.00					
Incremental Delay, d2		0.0			0.8		0.6					
Delay (s)		9.5			4.9		33.0					
Level of Service		A			A		C					
Approach Delay (s)		9.5			4.9			33.0			0.0	
Approach LOS		A			A			C			A	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
2: Narrows Rd & South Main St

2030 Build Conditions - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	130	26	50	528	322	120
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	159	32	56	593	339	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					1086	
pX, platoon unblocked						
vC, conflicting volume	1108	402	465			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1108	402	465			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	27	95	95			
cM capacity (veh/h)	217	627	1107			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	190	649	465
Volume Left	159	56	0
Volume Right	32	0	126
cSH	243	1107	1700
Volume to Capacity	0.78	0.05	0.27
Queue Length 95th (ft)	144	4	0
Control Delay (s)	58.1	1.3	0.0
Lane LOS	F	A	
Approach Delay (s)	58.1	1.3	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	9.1		
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Copicut Rd & South Main St

2030 Build Conditions - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	30	533	40	30	318
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	33	579	43	33	346
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1012	601			623	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1012	601			623	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	93			97	
cM capacity (veh/h)	256	500			958	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	43	623	378
Volume Left	11	0	33
Volume Right	33	43	0
cSH	404	1700	958
Volume to Capacity	0.11	0.37	0.03
Queue Length 95th (ft)	9	0	3
Control Delay (s)	15.0	0.0	1.1
Lane LOS	B		A
Approach Delay (s)	15.0	0.0	1.1
Approach LOS	B		

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
21: Ridge Hill Rd & South Main St

2030 Build Conditions - PM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	10	0	95	260	0	70	40	1368	105	20	680	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.87	0.87	0.87
Hourly flow rate (vph)	11	0	103	302	0	81	43	1487	114	23	782	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								440				
pX, platoon unblocked	0.56	0.56		0.56	0.56	0.56				0.56		
vC, conflicting volume	2540	2516	782	2562	2459	1544	782			1601		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3363	3320	782	3402	3217	1579	782			1681		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	74	0	100	0	95			89		
cM capacity (veh/h)	0	4	396	1	5	76	845			215		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	114	384	1645	805
Volume Left	11	302	43	23
Volume Right	103	81	114	0
cSH	0	2	845	215
Volume to Capacity	Err	222.22	0.05	0.11
Queue Length 95th (ft)	Err	Err	4	9
Control Delay (s)	Err	Err	8.4	5.2
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	8.4	5.2
Approach LOS	F	F		

Intersection Summary				
Average Delay			Err	
Intersection Capacity Utilization			128.1%	ICU Level of Service	H
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
30: South Main St & High St

2030 Build Conditions - PM Peak Hour

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	1372	61	20	694	5	0	0	0	11	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.25	0.25	0.25	0.83	0.83	0.83
Hourly flow rate (vph)	0	1508	67	22	746	5	0	0	0	13	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	752			1575			2345	2367	749	2333	2336	1541
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	752			1575			2345	2367	749	2333	2336	1541
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			100	100	100	47	100	92
cM capacity (veh/h)	867			404			22	34	415	25	35	143

Direction, Lane #	NB 1	SB 1	SE 1	NW 1
Volume Total	1575	773	0	25
Volume Left	0	22	0	13
Volume Right	67	5	0	12
cSH	867	404	1700	41
Volume to Capacity	0.00	0.05	0.00	0.61
Queue Length 95th (ft)	0	4	0	56
Control Delay (s)	0.0	1.7	0.0	183.0
Lane LOS		A	A	F
Approach Delay (s)	0.0	1.7	0.0	183.0
Approach LOS			A	F

Intersection Summary				
Average Delay			2.5	
Intersection Capacity Utilization			85.9%	ICU Level of Service	E
Analysis Period (min)			15	

New Bedford

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	5	0	189	10	563	0	75	294	193	195	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	16	12	12	16	12
Storage Length (ft)	0		0	0		0	0		0	300		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1031			525			388			877	
Travel Time (s)		23.4			11.9			8.8			19.9	
Peak Hour Factor	0.88	0.88	0.88	0.82	0.82	0.82	0.94	0.94	0.94	0.83	0.83	0.83
Heavy Vehicles (%)	0%	20%	0%	7%	25%	5%	0%	9%	8%	5%	11%	60%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	242	687	0	393	0	233	241	0
Turn Type	Perm			Perm		pt+ov	Perm			pm+pt		
Protected Phases		8			4	4 1		2		1	6	
Permitted Phases	8			4			2			6		
Detector Phase	8	8		4	4	4 1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		27.0	27.0		19.0	22.0	
Total Split (s)	15.0	15.0	0.0	15.0	15.0	38.0	62.0	62.0	0.0	23.0	85.0	0.0
Total Split (%)	15.0%	15.0%	0.0%	15.0%	15.0%	38.0%	62.0%	62.0%	0.0%	23.0%	85.0%	0.0%
Maximum Green (s)	9.0	9.0		9.0	9.0		56.0	56.0		17.0	79.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		C-Max	C-Max		Min	Min		None	Min	
Walk Time (s)							5.0	5.0				
Flash Dont Walk (s)							16.0	16.0				
Pedestrian Calls (#/hr)							0	0				
v/c Ratio		0.01			0.34	0.51		0.81		0.70	0.38	
Control Delay		14.2			17.8	3.4		22.7		36.4	25.5	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		14.2			17.8	3.4		22.7		36.4	25.5	
Queue Length 50th (ft)		2			44	35		49		115	115	
Queue Length 95th (ft)		9			179	26		138		135	134	
Internal Link Dist (ft)		951			445			308			797	
Turn Bay Length (ft)										300		
Base Capacity (vph)		987			710	1351		1132		357	1511	
Starvation Cap Reductn		0			0	23		0		0	0	
Spillback Cap Reductn		0			0	0		0		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.01			0.34	0.52		0.35		0.65	0.16	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 12 (12%), Referenced to phase 4:WBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: Jones Street & Mt Pleasant St

HCM Signalized Intersection Capacity Analysis
2: Jones Street & Mt Pleasant St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	5	0	189	10	563	0	75	294	193	195	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	16	12	12	16	12
Total Lost time (s)		6.0			6.0	6.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		1.00			1.00	0.85		0.89		1.00	1.00	
Flt Protected		1.00			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1794			1681	1538		1776		1719	1912	
Flt Permitted		1.00			0.73	1.00		1.00		0.22	1.00	
Satd. Flow (perm)		1794			1290	1538		1776		402	1912	
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.94	0.94	0.94	0.83	0.83	0.83
Adj. Flow (vph)	0	6	0	230	12	687	0	80	313	233	235	6
RTOR Reduction (vph)	0	0	0	0	0	165	0	275	0	0	3	0
Lane Group Flow (vph)	0	6	0	0	242	522	0	118	0	233	238	0
Heavy Vehicles (%)	0%	20%	0%	7%	25%	5%	0%	9%	8%	5%	11%	60%
Turn Type	Perm			Perm		pt+ov	Perm			pm+pt		
Protected Phases		8			4	4 1		2		1	6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		55.0			55.0	76.0		12.0		33.0	33.0	
Effective Green, g (s)		55.0			55.0	76.0		12.0		33.0	33.0	
Actuated g/C Ratio		0.55			0.55	0.76		0.12		0.33	0.33	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		987			710	1169		213		330	631	
v/s Ratio Prot		0.00				c0.34		0.07		c0.11	0.12	
v/s Ratio Perm					0.19					c0.13		
v/c Ratio		0.01			0.34	0.45		0.55		0.71	0.38	
Uniform Delay, d1		10.2			12.5	4.4		41.5		27.1	25.6	
Progression Factor		1.00			1.11	3.84		1.00		1.00	1.00	
Incremental Delay, d2		0.0			1.3	0.1		1.8		5.5	0.1	
Delay (s)		10.2			15.0	16.8		43.2		32.6	25.8	
Level of Service		B			B	B		D		C	C	
Approach Delay (s)		10.2			16.4			43.2			29.1	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
14: Tarkiln Hill Road & Church Street

2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	315	0	30	504	60	241	200	40	45	170	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	12	11	11	12	11	11	11	11	11	12
Storage Length (ft)	50		0	0		0	0		0	0		145
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			1116			176			552	
Travel Time (s)		6.9			25.4			4.0			12.5	
Peak Hour Factor	0.81	0.81	0.81	0.87	0.87	0.87	0.84	0.84	0.84	0.90	0.90	0.90
Heavy Vehicles (%)	5%	2%	0%	8%	2%	2%	1%	2%	0%	11%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	389	0	34	648	0	287	286	0	0	239	102
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Detector Phase	1	1		1	1		2	2		2	2	2
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.0	35.0		35.0	35.0		12.0	12.0		12.0	12.0	12.0
Total Split (s)	54.0	54.0	0.0	54.0	54.0	0.0	46.0	46.0	0.0	46.0	46.0	46.0
Total Split (%)	54.0%	54.0%	0.0%	54.0%	54.0%	0.0%	46.0%	46.0%	0.0%	46.0%	46.0%	46.0%
Maximum Green (s)	49.0	49.0		49.0	49.0		41.0	41.0		41.0	41.0	41.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lead	Lead		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	0.2	0.2		0.2	0.2		5.0	5.0		5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	C-Min
v/c Ratio	0.82	0.53		0.13	0.89		0.56	0.33			0.32	0.13
Control Delay	82.1	23.9		16.9	42.1		25.6	18.7			18.8	16.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	82.1	23.9		16.9	42.1		25.6	18.7			18.8	16.8
Queue Length 50th (ft)	40	176		13	363		129	111			92	36
Queue Length 95th (ft)	#101	201		28	437		221	179			169	76
Internal Link Dist (ft)		225			1036			96			472	
Turn Bay Length (ft)	50											145
Base Capacity (vph)	109	882		321	868		512	862			754	791
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.69	0.44		0.11	0.75		0.56	0.33			0.32	0.13

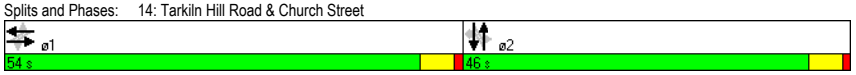
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
14: Tarkiln Hill Road & Church Street

2030 Build Condition - AM Peak Hour

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Tarkiln Hill Road & Church Street



HCM Signalized Intersection Capacity Analysis
14: Tarkiln Hill Road & Church Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	315	0	30	504	60	241	200	40	45	170	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1604	1801		1616	1772		1728	1761			1723	1615
Flt Permitted	0.13	1.00		0.39	1.00		0.57	1.00			0.89	1.00
Satd. Flow (perm)	223	1801		657	1772		1045	1761			1542	1615
Peak-hour factor, PHF	0.81	0.81	0.81	0.87	0.87	0.87	0.84	0.84	0.84	0.90	0.90	0.90
Adj. Flow (vph)	75	389	0	34	579	69	287	238	48	50	189	102
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	75	389	0	34	648	0	287	286	0	0	239	102
Heavy Vehicles (%)	5%	2%	0%	8%	2%	2%	1%	2%	0%	11%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	41.1	41.1		41.1	41.1		48.9	48.9			48.9	48.9
Effective Green, g (s)	41.1	41.1		41.1	41.1		48.9	48.9			48.9	48.9
Actuated g/C Ratio	0.41	0.41		0.41	0.41		0.49	0.49			0.49	0.49
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	92	740		270	728		511	861			754	790
v/s Ratio Prot		0.22			c0.37			0.16				
v/s Ratio Perm	0.34			0.05			c0.27				0.15	0.06
v/c Ratio	0.82	0.53		0.13	0.89		0.56	0.33			0.32	0.13
Uniform Delay, d1	26.1	22.1		18.3	27.4		18.0	15.6			15.5	13.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	38.7	0.3		0.1	12.8		4.4	1.0			1.1	0.3
Delay (s)	64.8	22.4		18.4	40.1		22.4	16.6			16.6	14.3
Level of Service	E	C		B	D		C	B			B	B
Approach Delay (s)		29.3			39.0			19.5			15.9	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM Average Control Delay	27.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	81	10	55	120	47	10	290	60	61	370	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	14	16	16	14	16	11	11	16	11	11	16
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		197			310			393			488	
Travel Time (s)		4.5			7.0			8.9			11.1	
Peak Hour Factor	0.77	0.77	0.77	0.69	0.69	0.69	0.88	0.88	0.88	0.91	0.91	0.91
Heavy Vehicles (%)	0%	8%	11%	4%	4%	3%	0%	4%	5%	0%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	322	0	11	398	0	67	423	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Detector Phase	3	3		3	3		1	1		1	1	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		21.0	21.0		21.0	21.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.23			0.48		0.04	0.58		0.25	0.61	
Control Delay		15.5			18.3		16.2	20.9		18.8	22.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		15.5			18.3		16.2	20.9		18.8	22.1	
Queue Length 50th (ft)		32			75		2	100		15	111	
Queue Length 95th (ft)		85			150		15	#272		62	#333	
Internal Link Dist (ft)		117			230			313			408	
Turn Bay Length (ft)												
Base Capacity (vph)		664			673		249	686		270	696	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.23			0.48		0.04	0.58		0.25	0.61	

Intersection Summary	
Area Type:	Other

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	26%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	5.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	10
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lanes, Volumes, Timings
19: Wood Street & Route 18

2030 Build Condition - AM Peak Hour

Cycle Length: 81
Actuated Cycle Length: 64.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Wood Street & Route 18

HCM Signalized Intersection Capacity Analysis
19: Wood Street & Route 18

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	81	10	55	120	47	10	290	60	61	370	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	14	16	16	14	16	11	11	16	11	11	16
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1860			1874		1745	1718		1745	1759	
Flt Permitted		0.89			0.88		0.34	1.00		0.37	1.00	
Satd. Flow (perm)		1674			1678		632	1718		685	1759	
Peak-hour factor, PHF	0.77	0.77	0.77	0.69	0.69	0.69	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	32	105	13	80	174	68	11	330	68	67	407	16
RTOR Reduction (vph)	0	4	0	0	11	0	0	8	0	0	2	0
Lane Group Flow (vph)	0	146	0	0	311	0	11	390	0	67	421	0
Heavy Vehicles (%)	0%	8%	11%	4%	4%	3%	0%	4%	5%	0%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.4			25.4		25.4	25.4		25.4	25.4	
Effective Green, g (s)		25.4			25.4		25.4	25.4		25.4	25.4	
Actuated g/C Ratio		0.37			0.37		0.37	0.37		0.37	0.37	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		614			616		232	631		251	646	
v/s Ratio Prot								0.23			c0.24	
v/s Ratio Perm		0.09			c0.19		0.02			0.10		
v/c Ratio		0.24			0.51		0.05	0.62		0.27	0.65	
Uniform Delay, d1		15.2			17.0		14.1	17.9		15.4	18.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9			2.9		0.4	4.5		2.6	5.1	
Delay (s)		16.1			20.0		14.5	22.4		18.0	23.3	
Level of Service		B			B		B	C		B	C	
Approach Delay (s)		16.1			20.0			22.2			22.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	18.4
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	240	25	40	255	42	60	102	25	35	161	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	16	14	16	16	16	16
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1761			1229			1754			2421	
Travel Time (s)		40.0			27.9			39.9			55.0	
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.83	0.83	0.83	0.91	0.91	0.91
Heavy Vehicles (%)	15%	6%	12%	7%	2%	0%	2%	2%	8%	8%	10%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	407	0	0	352	0	0	225	0	0	375	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Minimum Split (s)	36.0	36.0		36.0	36.0		29.0	29.0		29.0	29.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	55.4%	55.4%	0.0%	55.4%	55.4%	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.55			0.40			0.46			0.62	
Control Delay		16.2			13.3			20.7			23.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.2			13.3			20.7			23.5	
Queue Length 50th (ft)		110			87			69			122	
Queue Length 95th (ft)		184			146			114			205	
Internal Link Dist (ft)		1681			1149			1674			2341	
Turn Bay Length (ft)												
Base Capacity (vph)		740			876			485			601	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.55			0.40			0.46			0.62	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 18 (28%), Referenced to phase 2: and 6:, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Splits and Phases: 24: Nash Road & Church Street

HCM Signalized Intersection Capacity Analysis
24: Nash Road & Church Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	240	25	40	255	42	60	102	25	35	161	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	16	14	16	16	16	16
Total Lost time (s)		6.0			6.0			7.0			7.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.98			0.94	
Flt Protected		0.99			0.99			0.98			0.99	
Satd. Flow (prot)		1934			2056			1905			1875	
Flt Permitted		0.82			0.92			0.74			0.94	
Satd. Flow (perm)		1604			1898			1432			1778	
Peak-hour factor, PHF	0.89	0.89	0.89	0.96	0.96	0.96	0.83	0.83	0.83	0.91	0.91	0.91
Adj. Flow (vph)	109	270	28	42	266	44	72	123	30	38	177	160
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	407	0	0	352	0	0	225	0	0	375	0
Heavy Vehicles (%)	15%	6%	12%	7%	2%	0%	2%	2%	8%	8%	10%	5%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)		30.0			30.0			22.0			22.0	
Effective Green, g (s)		30.0			30.0			22.0			22.0	
Actuated g/C Ratio		0.46			0.46			0.34			0.34	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Lane Grp Cap (vph)		740			876			485			602	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.19			0.16			c0.21	
v/c Ratio		0.55			0.40			0.46			0.62	
Uniform Delay, d1		12.6			11.6			16.9			18.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.9			1.4			3.2			4.8	
Delay (s)		15.6			12.9			20.0			22.8	
Level of Service		B			B			C			C	
Approach Delay (s)		15.6			12.9			20.0			22.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
28: Coggeshall Street & Route 18 SB

2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	200	95	196	212	0	0	0	0	126	690	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	12	12	12	12	12	10	10
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		686			474			1008			501	
Travel Time (s)		15.6			10.8			22.9			11.4	
Peak Hour Factor	0.78	0.78	0.78	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	5%	2%	2%	8%	0%	0%	0%	0%	7%	3%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	378	0	0	475	0	0	0	0	0	927	45
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Minimum Split (s)		35.0		35.0	35.0					40.0	40.0	40.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	40.0	40.0	40.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)		30.0		30.0	30.0					35.0	35.0	35.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.52			1.16						0.62	0.06
Control Delay		18.4			122.9						17.2	4.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		18.4			122.9						17.2	4.0
Queue Length 50th (ft)		116			~267						161	0
Queue Length 95th (ft)		157			#412						213	15
Internal Link Dist (ft)		606			394			928			421	
Turn Bay Length (ft)												130
Base Capacity (vph)		721			408						1505	694
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.52			1.16						0.62	0.06

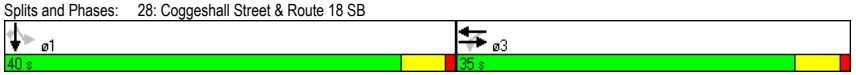
Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Lanes, Volumes, Timings
28: Coggeshall Street & Route 18 SB

2030 Build Condition - AM Peak Hour

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 28: Coggeshall Street & Route 18 SB



HCM Signalized Intersection Capacity Analysis
28: Coggeshall Street & Route 18 SB

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	200	95	196	212	0	0	0	0	126	690	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	15	12	12	12	12	12	10	10
Total Lost time (s)		5.0			5.0						5.0	5.0
Lane Util. Factor		1.00			1.00						0.95	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.99	1.00
Satd. Flow (prot)		1747			1942						3227	1436
Flt Permitted		1.00			0.51						0.99	1.00
Satd. Flow (perm)		1747			1020						3227	1436
Peak-hour factor, PHF	0.78	0.78	0.78	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	256	122	228	247	0	0	0	0	143	784	45
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	0	0	0	24
Lane Group Flow (vph)	0	355	0	0	475	0	0	0	0	0	927	21
Heavy Vehicles (%)	0%	5%	2%	2%	8%	0%	0%	0%	0%	7%	3%	5%
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Actuated Green, G (s)		30.0			30.0						35.0	35.0
Effective Green, g (s)		30.0			30.0						35.0	35.0
Actuated g/C Ratio		0.40			0.40						0.47	0.47
Clearance Time (s)		5.0			5.0						5.0	5.0
Lane Grp Cap (vph)		699			408						1506	670
v/s Ratio Prot		0.20										
v/s Ratio Perm					c0.47						0.29	0.01
v/c Ratio		0.51			1.16						0.62	0.03
Uniform Delay, d1		16.9			22.5						15.0	10.8
Progression Factor		1.00			1.00						1.00	1.00
Incremental Delay, d2		2.6			97.6						1.9	0.1
Delay (s)		19.6			120.1						16.9	10.9
Level of Service		B			F						B	B
Approach Delay (s)		19.6			120.1			0.0			16.6	
Approach LOS		B			F			A			B	

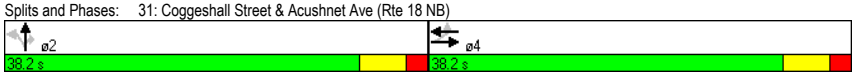
Intersection Summary			
HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	278	0	0	318	54	85	295	231	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	15	12	12	11	11	12	12	12
Storage Length (ft)	0		0	0		0	0		160	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		474			546			1002			363	
Travel Time (s)		10.8			12.4			22.8			8.3	
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.92	0.92	0.92
Heavy Vehicles (%)	7%	7%	0%	0%	4%	4%	12%	10%	4%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	340	0	0	433	0	101	351	275	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Minimum Split (s)	38.2	38.2			38.2		38.2	38.2	38.2			
Total Split (s)	38.2	38.2	0.0	0.0	38.2	0.0	38.2	38.2	38.2	0.0	0.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		32.0	32.0	32.0			
Yellow Time (s)	4.2	4.2			4.2		4.2	4.2	4.2			
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.0	4.0	6.2	4.0	6.2	6.2	6.2	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.47			0.52		0.15	0.50	0.35			
Control Delay		18.8			18.7		14.6	19.5	3.4			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		18.8			18.7		14.6	19.5	3.4			
Queue Length 50th (ft)		113			143		29	119	0			
Queue Length 95th (ft)		184			210		54	176	33			
Internal Link Dist (ft)		394			466			922			283	
Turn Bay Length (ft)									160			
Base Capacity (vph)		721			833		675	699	789			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.47			0.52		0.15	0.50	0.35			

Intersection Summary	
Area Type:	Other
Cycle Length: 76.4	
Actuated Cycle Length: 76.4	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 31: Coggeshall Street & Acushnet Ave (Rte 18 NB)



HCM Signalized Intersection Capacity Analysis
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	278	0	0	318	54	85	295	231	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	15	12	12	11	11	12	12	12
Total Lost time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00			
Frt		1.00			0.98		1.00	1.00	0.85			
Flt Protected		0.99			1.00		0.95	1.00	1.00			
Satd. Flow (prot)		1940			1970		1612	1670	1501			
Flt Permitted		0.88			1.00		0.95	1.00	1.00			
Satd. Flow (perm)		1720			1970		1612	1670	1501			
Peak-hour factor, PHF	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	47	293	0	0	370	63	101	351	275	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	160	0	0	0
Lane Group Flow (vph)	0	340	0	0	425	0	101	351	115	0	0	0
Heavy Vehicles (%)	7%	7%	0%	0%	4%	4%	12%	10%	4%	0%	0%	0%
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		32.0			32.0		32.0	32.0	32.0			
Effective Green, g (s)		32.0			32.0		32.0	32.0	32.0			
Actuated g/C Ratio		0.42			0.42		0.42	0.42	0.42			
Clearance Time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Grp Cap (vph)		720			825		675	699	629			
v/s Ratio Prot					c0.22			c0.21				
v/s Ratio Perm		0.20					0.06		0.08			
v/c Ratio		0.47			0.51		0.15	0.50	0.18			
Uniform Delay, d1		16.1			16.4		13.8	16.3	14.0			
Progression Factor		1.00			1.00		1.00	1.00	1.00			
Incremental Delay, d2		2.2			2.3		0.5	2.6	0.6			
Delay (s)		18.3			18.7		14.2	18.9	14.6			
Level of Service		B			B		B	B	B			
Approach Delay (s)		18.3			18.7			16.6			0.0	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	465	159	157	600	35	52	5	78	45	10	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			208			360			359	
Travel Time (s)		11.7			4.7			8.2			8.2	
Peak Hour Factor	0.81	0.81	0.81	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	3%	1%	4%	0%	12%	29%	2%	0%	13%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	869	0	0	880	0	0	151	0	0	159	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	13.0		11.0	13.0		13.0	13.0		19.0	19.0	
Total Split (s)	11.0	70.0	0.0	11.0	70.0	0.0	19.0	19.0	0.0	19.0	19.0	0.0
Total Split (%)	11.0%	70.0%	0.0%	11.0%	70.0%	0.0%	19.0%	19.0%	0.0%	19.0%	19.0%	0.0%
Maximum Green (s)	5.0	64.0		5.0	64.0		13.0	13.0		13.0	13.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)										5.0	5.0	
Flash Dont Walk (s)										8.0	8.0	
Pedestrian Calls (#/hr)										0	0	
v/c Ratio		0.45			0.51			0.53			0.54	
Control Delay		1.5			4.8			26.9			28.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.5			4.8			26.9			28.7	
Queue Length 50th (ft)		10			71			21			24	
Queue Length 95th (ft)		36			127			51			38	
Internal Link Dist (ft)		435			128			280			279	
Turn Bay Length (ft)												
Base Capacity (vph)		1935			1734			395			413	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.45			0.51			0.38			0.38	

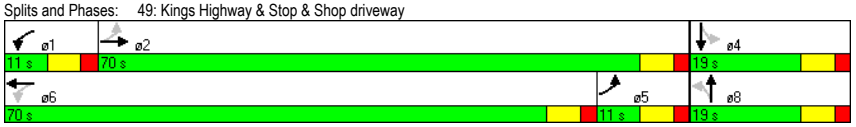
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

2030 Build Condition - AM Peak Hour

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 49: Kings Highway & Stop & Shop driveway



HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	465	159	157	600	35	52	5	78	45	10	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.99			0.91			0.92	
Flt Protected		0.99			0.99			0.98			0.98	
Satd. Flow (prot)		3293			3440			3027			3227	
Flt Permitted		0.73			0.63			0.80			0.80	
Satd. Flow (perm)		2412			2173			2455			2622	
Peak-hour factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72
Adj. Flow (vph)	99	574	196	174	667	39	58	6	87	62	14	83
RTOR Reduction (vph)	0	15	0	0	2	0	0	80	0	0	76	0
Lane Group Flow (vph)	0	854	0	0	878	0	0	71	0	0	83	0
Heavy Vehicles (%)	6%	6%	3%	1%	4%	0%	12%	29%	2%	0%	13%	0%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		79.7			79.7			8.3			8.3	
Effective Green, g (s)		79.7			79.7			8.3			8.3	
Actuated g/C Ratio		0.80			0.80			0.08			0.08	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1922			1732			204			218	
v/s Ratio Prot												
v/s Ratio Perm		0.35			c0.40			0.03			c0.03	
v/c Ratio		0.44			0.51			0.35			0.38	
Uniform Delay, d1		3.2			3.5			43.3			43.4	
Progression Factor		0.29			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.1			0.4			0.4	
Delay (s)		1.0			3.5			43.7			43.8	
Level of Service		A			A			D			D	
Approach Delay (s)		1.0			3.5			43.7			43.8	
Approach LOS		A			A			D			D	

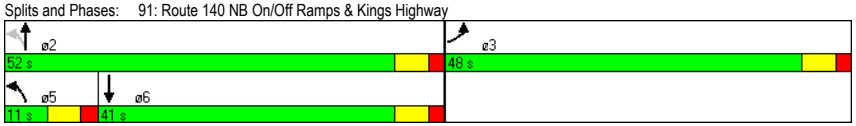
Intersection Summary			
HCM Average Control Delay	8.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	361	100	90	342	664	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	12	12	16
Storage Length (ft)	0	100	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				No
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			574	515	
Travel Time (s)	6.1			13.0	11.7	
Peak Hour Factor	0.83	0.83	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	3%	4%	7%	5%	5%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	555	0	0	508	837	0
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Detector Phase	3		5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	
Minimum Split (s)	13.0		11.0	13.0	13.0	
Total Split (s)	48.0	0.0	11.0	52.0	41.0	0.0
Total Split (%)	48.0%	0.0%	11.0%	52.0%	41.0%	0.0%
Maximum Green (s)	42.0		5.0	46.0	35.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Min	C-Min	
v/c Ratio	0.84			0.44	0.45	
Control Delay	41.8			16.6	15.5	
Queue Delay	0.0			0.0	0.0	
Total Delay	41.8			16.6	15.5	
Queue Length 50th (ft)	320			102	177	
Queue Length 95th (ft)	355			203	249	
Internal Link Dist (ft)	188			494	435	
Turn Bay Length (ft)						
Base Capacity (vph)	819			1149	1843	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.68			0.44	0.45	

Intersection Summary	
Area Type:	Other

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 3 (3%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 91: Route 140 NB On/Off Ramps & Kings Highway



HCM Signalized Intersection Capacity Analysis
91: Route 140 NB On/Off Ramps & Kings Highway

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	361	100	90	342	664	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.99	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1949			3389	3414	
Flt Permitted	0.96			0.62	1.00	
Satd. Flow (perm)	1949			2128	3414	
Peak-hour factor, PHF	0.83	0.83	0.85	0.85	0.85	0.85
Adj. Flow (vph)	435	120	106	402	781	56
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	555	0	0	508	837	0
Heavy Vehicles (%)	3%	4%	7%	5%	5%	0%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	34.0			54.0	54.0	
Effective Green, g (s)	34.0			54.0	54.0	
Actuated g/C Ratio	0.34			0.54	0.54	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	663			1149	1844	
v/s Ratio Prot	c0.28				c0.25	
v/s Ratio Perm				0.24		
v/c Ratio	0.84			0.44	0.45	
Uniform Delay, d1	30.4			13.9	14.0	
Progression Factor	1.00			0.99	0.97	
Incremental Delay, d2	9.0			0.3	0.7	
Delay (s)	39.5			14.1	14.3	
Level of Service	D			B	B	
Approach Delay (s)	39.5			14.1	14.3	
Approach LOS	D			B	B	

Intersection Summary			
HCM Average Control Delay	21.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

2030 Build Condition - AM Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	388	105	91	673	90	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	525			574	347	
Travel Time (s)	11.9			13.0	7.9	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.85	0.85
Heavy Vehicles (%)	6%	2%	5%	4%	7%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	530	0	0	831	106	53
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Detector Phase	2		1	6	7	7
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	7.0
Minimum Split (s)	13.0		11.0	13.0	13.0	13.0
Total Split (s)	60.0	0.0	11.0	71.0	29.0	29.0
Total Split (%)	60.0%	0.0%	11.0%	71.0%	29.0%	29.0%
Maximum Green (s)	54.0		5.0	65.0	23.0	23.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Min		None	C-Min	None	None
v/c Ratio	0.21			0.39	0.58	0.25
Control Delay	5.2			2.0	54.2	13.8
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	5.2			2.0	54.2	13.8
Queue Length 50th (ft)	50			23	65	0
Queue Length 95th (ft)	97			31	108	30
Internal Link Dist (ft)	445			494	267	
Turn Bay Length (ft)						
Base Capacity (vph)	2575			2145	388	395
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.21			0.39	0.27	0.13

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 38 (38%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

2030 Build Condition - AM Peak Hour

Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 96: Kings Highway & Shaw's driveway

HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

2030 Build Condition - AM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	388	105	91	673	90	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.97			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3323			3447	1687	1538
Flt Permitted	1.00			0.80	0.95	1.00
Satd. Flow (perm)	3323			2780	1687	1538
Peak-hour factor, PHF	0.93	0.93	0.92	0.92	0.85	0.85
Adj. Flow (vph)	417	113	99	732	106	53
RTOR Reduction (vph)	12	0	0	0	0	47
Lane Group Flow (vph)	518	0	0	831	106	6
Heavy Vehicles (%)	6%	2%	5%	4%	7%	5%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	77.1			77.1	10.9	10.9
Effective Green, g (s)	77.1			77.1	10.9	10.9
Actuated g/C Ratio	0.77			0.77	0.11	0.11
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	2562			2143	184	168
v/s Ratio Prot	0.16				c0.06	0.00
v/s Ratio Perm				c0.30		
v/c Ratio	0.20			0.39	0.58	0.03
Uniform Delay, d1	3.1			3.7	42.4	39.8
Progression Factor	1.66			0.38	1.00	1.00
Incremental Delay, d2	0.2			0.0	2.7	0.0
Delay (s)	5.3			1.5	45.1	39.9
Level of Service	A			A	D	D
Approach Delay (s)	5.3			1.5	43.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	266	90	70	231	135	35	130	165	225	215	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	11	16	16	10	10	16	12	14	16	11	16
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		443			1111			850			178	
Travel Time (s)		10.1			25.3			19.3			4.0	
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82	0.84	0.84	0.84
Heavy Vehicles (%)	1%	6%	5%	1%	6%	6%	3%	6%	11%	4%	4%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	497	0	0	331	148	0	202	201	0	764	0
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Detector Phase	4	4		4	4	4	2	2	2	1	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	30.0	30.0	30.0	30.0	20.0	30.0	0.0
Total Split (%)	30.3%	30.3%	0.0%	30.3%	30.3%	30.3%	30.3%	30.3%	30.3%	20.2%	30.3%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	Max	Max		Max	Max	Max	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.49			0.61	0.22		0.39	0.28		0.76	
Control Delay		16.7			23.5	4.4		18.3	4.1		22.4	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		16.7			23.5	4.4		18.3	4.1		22.4	
Queue Length 50th (ft)		61			89	0		48	0		100	
Queue Length 95th (ft)		153			#279	39		126	33		#245	
Internal Link Dist (ft)		363			1031			770			98	
Turn Bay Length (ft)												
Base Capacity (vph)		1014			545	664		548	749		1055	
Starvation Cap Reductn		0			0	0		0	0		0	
Spillback Cap Reductn		0			0	0		0	0		0	
Storage Cap Reductn		0			0	0		0	0		0	
Reduced v/c Ratio		0.49			0.61	0.22		0.37	0.27		0.72	

Intersection Summary	
Area Type:	Other

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	6.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	19%
Maximum Green (s)	14.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	8
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

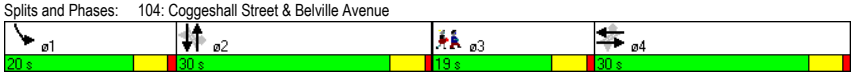
Intersection Summary

Lanes, Volumes, Timings
104: Coggeshall Street & Belville Avenue

2030 Build Condition - AM Peak Hour

Cycle Length: 99
Actuated Cycle Length: 62.7
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 104: Coggeshall Street & Belville Avenue



HCM Signalized Intersection Capacity Analysis
104: Coggeshall Street & Belville Avenue

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	266	90	70	231	135	35	130	165	225	215	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	11	16	16	10	10	16	12	14	16	11	16
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		0.95	
Frt		0.97			1.00	0.85		1.00	0.85		0.95	
Flt Protected		0.99			0.99	1.00		0.99	1.00		0.98	
Satd. Flow (prot)		3197			1672	1422		1784	1552		3161	
Flt Permitted		0.76			0.80	1.00		0.75	1.00		0.77	
Satd. Flow (perm)		2459			1345	1422		1354	1552		2470	
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82	0.84	0.84	0.84
Adj. Flow (vph)	101	296	100	77	254	148	43	159	201	268	256	240
RTOR Reduction (vph)	0	19	0	0	0	92	0	0	128	0	57	0
Lane Group Flow (vph)	0	478	0	0	331	56	0	202	73	0	707	0
Heavy Vehicles (%)	1%	6%	5%	1%	6%	6%	3%	6%	11%	4%	4%	2%
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)		25.4			25.4	25.4		24.1	24.1		24.1	
Effective Green, g (s)		25.4			25.4	25.4		24.1	24.1		24.1	
Actuated g/C Ratio		0.38			0.38	0.38		0.36	0.36		0.36	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Grp Cap (vph)		936			512	542		489	561		892	
v/s Ratio Prot												
v/s Ratio Perm		0.19			c0.25	0.04		0.15	0.05		c0.29	
v/c Ratio		0.51			0.65	0.10		0.41	0.13		0.79	
Uniform Delay, d1		15.9			17.0	13.3		16.0	14.3		19.1	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		2.0			6.2	0.4		0.8	0.1		5.1	
Delay (s)		17.9			23.2	13.7		16.8	14.4		24.2	
Level of Service		B			C	B		B	B		C	
Approach Delay (s)		17.9			20.2			15.6			24.2	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	17.2
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	67	46	180	505	151	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	16	16	14
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	693		149			313
Travel Time (s)	15.8		3.4			7.1
Peak Hour Factor	0.84	0.84	0.86	0.86	0.90	0.90
Heavy Vehicles (%)	8%	18%	7%	5%	8%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	135	0	796	0	0	596
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Minimum Split (s)	27.0		37.0		37.0	37.0
Total Split (s)	27.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	42.2%	0.0%	57.8%	0.0%	57.8%	57.8%
Maximum Green (s)	20.0		30.0		30.0	30.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	4.0	7.0	4.0	7.0	7.0
Lead/Lag	Lag		Lead		Lead	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes
v/c Ratio	0.23		0.43			0.58
Control Delay	11.5		3.6			15.3
Queue Delay	0.0		0.0			0.0
Total Delay	11.5		3.6			15.3
Queue Length 50th (ft)	22		23			84
Queue Length 95th (ft)	53		46			131
Internal Link Dist (ft)	613		69			233
Turn Bay Length (ft)						
Base Capacity (vph)	589		1832			1021
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.23		0.43			0.58

Intersection Summary	
Area Type:	Other
Cycle Length: 64	
Actuated Cycle Length: 64	
Offset: 35 (55%), Referenced to phase 2:WBL and 6:, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Splits and Phases: 137: Hillman St & Pleasant Street

HCM Signalized Intersection Capacity Analysis
137: Hillman St & Pleasant Street

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	67	46	180	505	151	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	14	16	16	14
Total Lost time (s)	7.0		7.0			7.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.94		0.89			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1763		3245			3587
Flt Permitted	0.97		1.00			0.60
Satd. Flow (perm)	1763		3245			2178
Peak-hour factor, PHF	0.84	0.84	0.86	0.86	0.90	0.90
Adj. Flow (vph)	80	55	209	587	168	428
RTOR Reduction (vph)	38	0	312	0	0	0
Lane Group Flow (vph)	97	0	484	0	0	596
Heavy Vehicles (%)	8%	18%	7%	5%	8%	5%
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Actuated Green, G (s)	20.0		30.0			30.0
Effective Green, g (s)	20.0		30.0			30.0
Actuated g/C Ratio	0.31		0.47			0.47
Clearance Time (s)	7.0		7.0			7.0
Lane Grp Cap (vph)	551		1521			1021
v/s Ratio Prot	c0.06		0.15			
v/s Ratio Perm						c0.27
v/c Ratio	0.18		0.32			0.58
Uniform Delay, d1	16.0		10.6			12.4
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.7		0.6			2.4
Delay (s)	16.7		11.2			14.9
Level of Service	B		B			B
Approach Delay (s)	16.7		11.2			14.9
Approach LOS	B		B			B

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
140: Mill Street & Pleasant St

2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	225	185	5	410	180	187	20	55	219	30	57	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	16	16	11	12	10	16	10	12	14	16	14
Storage Length (ft)	0			0		0		100		0	0	
Storage Lanes	1			1		1		1		0	0	
Taper Length (ft)	25			25		25		25		25	25	
Right Turn on Red			Yes			No				Yes		
Link Speed (mph)		30			30				30			30
Link Distance (ft)		168			308				709			499
Travel Time (s)		3.8			7.0				16.1			11.3
Peak Hour Factor	0.88	0.88	0.88	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.84	0.84
Heavy Vehicles (%)	5%	1%	0%	3%	3%	4%	0%	9%	5%	3%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	256	216	0	500	220	228	0	85	283	0	0	466
Turn Type	Split			Split		pm+ov	Split	Split			Split	
Protected Phases	4	4		5	5	1	2	2	2		1	1
Permitted Phases						5						
Detector Phase	4	4		5	5	1	2	2	2		1	1
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0
Minimum Split (s)	21.0	21.0		21.0	21.0	21.0	21.0	21.0	21.0		21.0	21.0
Total Split (s)	30.0	30.0	0.0	35.0	35.0	35.0	35.0	35.0	35.0	0.0	35.0	35.0
Total Split (%)	19.2%	19.2%	0.0%	22.4%	22.4%	22.4%	22.4%	22.4%	22.4%	0.0%	22.4%	22.4%
Maximum Green (s)	25.0	25.0		30.0	30.0	30.0	30.0	30.0	30.0		30.0	30.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0
Lead/Lag	Lag	Lag				Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Recall Mode	Max	Max		Max	Max	Max	Max	Max	Max		Max	Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.82	0.58		1.40	0.57	0.35		0.26	0.39			0.60
Control Delay	79.2	62.7		239.0	59.0	28.8		52.1	50.6			56.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0			0.0
Total Delay	79.2	62.7		239.0	59.0	28.8		52.1	50.6			56.0
Queue Length 50th (ft)	216	173		~568	172	120		62	108			193
Queue Length 95th (ft)	#409	293		#828	271	210		127	175			274
Internal Link Dist (ft)		88			228				629			419
Turn Bay Length (ft)								100				
Base Capacity (vph)	311	373		356	388	660		332	718			781
Starvation Cap Reductn	0	0		0	0	0		0	0			0
Spillback Cap Reductn	0	0		0	0	0		0	0			0
Storage Cap Reductn	0	0		0	0	0		0	0			0
Reduced v/c Ratio	0.82	0.58		1.40	0.57	0.35		0.26	0.39			0.60

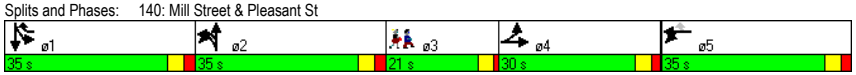
Lane Group	SBR	ø3
Lane Configurations		
Volume (vph)	47	
Ideal Flow (vphpl)	1900	
Lane Width (ft)	16	
Storage Length (ft)	0	
Storage Lanes	0	
Taper Length (ft)	25	
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor	0.84	
Heavy Vehicles (%)	4%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	
Turn Type		
Protected Phases		3
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)		4.0
Minimum Split (s)		21.0
Total Split (s)	0.0	21.0
Total Split (%)	0.0%	13%
Maximum Green (s)		17.0
Yellow Time (s)		3.0
All-Red Time (s)		1.0
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	4.0	
Lead/Lag		Lead
Lead-Lag Optimize?		Yes
Vehicle Extension (s)		3.0
Recall Mode		None
Walk Time (s)		10.0
Flash Dont Walk (s)		7.0
Pedestrian Calls (#/hr)		11
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary	
Area Type:	Other
Cycle Length: 156	
Actuated Cycle Length: 143.4	
Natural Cycle: 125	
Control Type: Semi Act-Uncoord	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 140: Mill Street & Pleasant St



Movement	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	225	185	5	410	180	187	20	55	219	30	57	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	16	11	12	10	16	10	12	14	16	14
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	0.95			0.95
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.98			0.98
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00			0.99
Satd. Flow (prot)	1776	2124		1694	1845	1449		1581	3384			3714
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00			0.99
Satd. Flow (perm)	1776	2124		1694	1845	1449		1581	3384			3714
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.84	0.84
Adj. Flow (vph)	256	210	6	500	220	228	23	62	249	34	68	342
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	6	0	0	0
Lane Group Flow (vph)	256	215	0	500	220	228	0	85	277	0	0	466
Heavy Vehicles (%)	5%	1%	0%	3%	3%	4%	0%	9%	5%	3%	4%	0%
Turn Type	Split			Split		pm+ov	Split	Split			Split	
Protected Phases	4	4		5	5	1	2	2	2		1	1
Permitted Phases						5						
Actuated Green, G (s)	25.1	25.1		30.2	30.2	60.4		30.2	30.2			30.2
Effective Green, g (s)	25.1	25.1		30.2	30.2	60.4		30.2	30.2			30.2
Actuated g/C Ratio	0.17	0.17		0.21	0.21	0.41		0.21	0.21			0.21
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0
Lane Grp Cap (vph)	305	365		350	382	649		327	700			768
v/s Ratio Prot	c0.14	0.10		c0.30	0.12	0.07		0.05	c0.08			c0.13
v/s Ratio Perm						0.08						
v/c Ratio	0.84	0.59		1.43	0.58	0.35		0.26	0.40			0.61
Uniform Delay, d1	58.5	55.7		57.9	52.1	29.4		48.5	50.0			52.5
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	23.3	6.8		208.7	6.2	1.5		1.9	1.7			3.5
Delay (s)	81.8	62.5		266.6	58.3	30.9		50.5	51.7			56.1
Level of Service	F	E		F	E	C		D	D			E
Approach Delay (s)		73.0			161.6				51.4			56.1
Approach LOS		E			F				D			E

Intersection Summary			
HCM Average Control Delay	103.2	HCM Level of Service	F
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	146.0	Sum of lost time (s)	30.3
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	47
Ideal Flow (vphpl)	1900
Lane Width	16
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.84
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

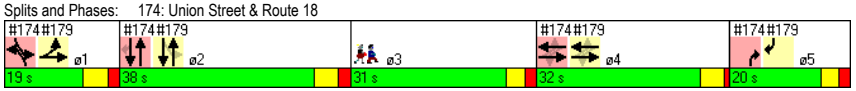
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	54	40	39	16	10	40	890	51	91	855	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	16	16	16	16	11	11	11	10	11	11
Storage Length (ft)	0		0	0		0	150		225	150		225
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		440			82			328			2491	
Travel Time (s)		10.0			1.9			7.5			56.6	
Peak Hour Factor	0.89	0.89	0.89	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	8%	6%	3%	6%	6%	10%	7%	7%	4%	7%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	281	106	0	0	80	0	45	1011	58	99	929	261
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Detector Phase	4	4		4	4		1	2	5	1	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	7.0	4.0	4.0	7.0	7.0
Minimum Split (s)	12.0	12.0		12.0	12.0		10.0	13.0	9.0	10.0	13.0	13.0
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	19.0	38.0	20.0	19.0	38.0	38.0
Total Split (%)	22.9%	22.9%	0.0%	22.9%	22.9%	0.0%	13.6%	27.1%	14.3%	13.6%	27.1%	27.1%
Maximum Green (s)	27.0	27.0		27.0	27.0		13.0	32.0	15.0	13.0	32.0	32.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	6.0	6.0	5.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.94	0.26			0.21		0.26	1.07	0.39	0.60	0.96	0.46
Control Delay	84.3	43.4			76.9		58.0	88.6	61.8	69.5	62.9	16.8
Queue Delay	0.0	0.0			0.0		0.0	149.8	289.8	0.4	0.0	0.0
Total Delay	84.3	43.4			76.9		58.0	238.4	351.6	69.9	62.9	16.8
Queue Length 50th (ft)	182	57			49		28	~366	37	63	315	41
Queue Length 95th (ft)	#486	142			110		79	#746	95	#172	#681	155
Internal Link Dist (ft)		360			2			248			2411	
Turn Bay Length (ft)							150		225	150		225
Base Capacity (vph)	299	403			384		193	948	205	186	967	567
Starvation Cap Reductn	0	0			0		0	231	0	0	0	0
Spillback Cap Reductn	0	0			0		0	0	168	6	0	0
Storage Cap Reductn	0	0			0		0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.26			0.21		0.23	1.41	1.57	0.55	0.96	0.46

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	22%
Maximum Green (s)	26.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	17.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	13
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 114.2	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 174: Union Street & Route 18



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	54	40	39	16	10	40	890	51	91	855	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.94			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1616	1642			1921		1631	3261	1501	1574	3323	1516
Flt Permitted	0.72	1.00			0.79		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1221	1642			1563		1631	3261	1501	1574	3323	1516
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	281	61	45	48	20	12	45	1011	58	99	929	261
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	128
Lane Group Flow (vph)	281	106	0	0	80	0	45	1011	58	99	929	133
Heavy Vehicles (%)	8%	6%	3%	6%	6%	10%	7%	7%	4%	7%	5%	3%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)	28.0	28.0			28.0		12.0	33.2	9.3	12.0	33.2	33.2
Effective Green, g (s)	28.0	28.0			28.0		12.0	33.2	9.3	12.0	33.2	33.2
Actuated g/C Ratio	0.24	0.24			0.24		0.10	0.28	0.08	0.10	0.28	0.28
Clearance Time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	290	390			371		166	918	118	160	935	427
v/s Ratio Prot		0.06					0.03	c0.31	c0.04	c0.06	0.28	
v/s Ratio Perm	c0.23				0.05							0.09
v/c Ratio	0.97	0.27			0.22		0.27	1.10	0.49	0.62	0.99	0.31
Uniform Delay, d1	44.6	36.7			36.2		49.0	42.4	52.1	50.8	42.3	33.4
Progression Factor	1.00	1.00			1.80		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	44.5	0.8			0.6		1.2	61.4	4.3	7.9	27.7	0.6
Delay (s)	89.0	37.5			65.6		50.2	103.8	56.4	58.7	70.0	34.0
Level of Service	F	D			E		D	F	E	E	E	C
Approach Delay (s)		74.9			65.6			99.2			61.9	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM Average Control Delay	78.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	118.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	20	95	5	10	5	0	168	20	15	183	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	15	16	16	16	16	16	12	12
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		82			609			920			687	
Travel Time (s)		1.9			13.8			20.9			15.6	
Peak Hour Factor	0.78	0.78	0.78	0.57	0.57	0.57	0.89	0.89	0.89	0.81	0.81	0.81
Heavy Vehicles (%)	12%	14%	5%	0%	17%	33%	0%	22%	0%	14%	13%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	252	0	0	36	0	0	211	0	0	245	69
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Detector Phase	1	1 4		4	4			2		2	2	5
Switch Phase												
Minimum Initial (s)	4.0			7.0	7.0			7.0		7.0	7.0	4.0
Minimum Split (s)	10.0			12.0	12.0			13.0		13.0	13.0	9.0
Total Split (s)	19.0	51.0	0.0	32.0	32.0	0.0	0.0	38.0	0.0	38.0	38.0	20.0
Total Split (%)	13.6%	36.4%	0.0%	22.9%	22.9%	0.0%	0.0%	27.1%	0.0%	27.1%	27.1%	14.3%
Maximum Green (s)	13.0			27.0	27.0			32.0		32.0	32.0	15.0
Yellow Time (s)	4.0			4.0	4.0			4.0		4.0	4.0	3.0
All-Red Time (s)	2.0			1.0	1.0			2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	5.0
Lead/Lag	Lead			Lag	Lag			Lag		Lag	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes			Yes		Yes	Yes	
Vehicle Extension (s)	4.0			5.0	5.0			4.0		4.0	4.0	4.0
Recall Mode	None			None	None			None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.45			0.09			0.41			0.52	0.45
Control Delay		16.0			34.7			40.1			43.9	63.7
Queue Delay		0.0			0.0			0.0			0.0	335.7
Total Delay		16.0			34.7			40.1			43.9	399.4
Queue Length 50th (ft)		48			14			109			134	44
Queue Length 95th (ft)		76			30			247			266	100
Internal Link Dist (ft)		2			529			840			607	
Turn Bay Length (ft)												50
Base Capacity (vph)		586			395			519			472	212
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			11			0			0	171
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.43			0.09			0.41			0.52	1.68

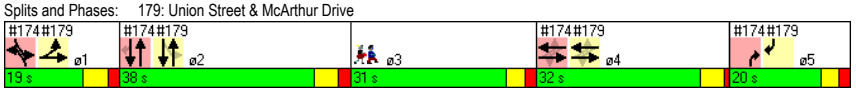
Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	22%
Maximum Green (s)	26.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	17.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	13
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
179: Union Street & McArthur Drive

2030 Build Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 114.2	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 179: Union Street & McArthur Drive



HCM Signalized Intersection Capacity Analysis
179: Union Street & McArthur Drive

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	20	95	5	10	5	0	168	20	15	183	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.93			0.97			0.99			1.00	0.85
Flt Protected		0.98			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1812			1708			1774			1674	1553
Flt Permitted		0.85			0.92			1.00			0.97	1.00
Satd. Flow (perm)		1573			1585			1774			1622	1553
Peak-hour factor, PHF	0.78	0.78	0.78	0.57	0.57	0.57	0.89	0.89	0.89	0.81	0.81	0.81
Adj. Flow (vph)	104	26	122	9	18	9	0	189	22	19	226	69
RTOR Reduction (vph)	0	0	0	0	7	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	252	0	0	29	0	0	208	0	0	245	69
Heavy Vehicles (%)	12%	14%	5%	0%	17%	33%	0%	22%	0%	14%	13%	4%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		40.0			28.0			33.2			33.2	9.3
Effective Green, g (s)		40.0			28.0			33.2			33.2	9.3
Actuated g/C Ratio		0.34			0.24			0.28			0.28	0.08
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		558			376			499			456	122
v/s Ratio Prot		c0.05						0.12				c0.04
v/s Ratio Perm		c0.11			0.02						c0.15	
v/c Ratio		0.45			0.08			0.42			0.54	0.57
Uniform Delay, d1		30.4			35.0			34.5			35.9	52.4
Progression Factor		0.64			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.8			0.2			0.8			1.6	7.1
Delay (s)		20.2			35.1			35.3			37.5	59.5
Level of Service		C			D			D			D	E
Approach Delay (s)		20.2			35.1			35.3			42.3	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	33.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	118.0	Sum of lost time (s)	36.5
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
9: Tarkiln Hill Rd & Kings Highway

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	21	10	578	771	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.83	0.83	0.90	0.90
Hourly flow rate (vph)	12	26	12	696	857	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				393	611	
pX, platoon unblocked	0.91					
vC, conflicting volume	1610	890	923			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1621	890	923			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	92	98			
cM capacity (veh/h)	101	337	748			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	38	708	923
Volume Left	12	12	0
Volume Right	26	0	67
cSH	192	748	1700
Volume to Capacity	0.20	0.02	0.54
Queue Length 95th (ft)	18	1	0
Control Delay (s)	28.3	0.4	0.0
Lane LOS	D	A	
Approach Delay (s)	28.3	0.4	0.0
Approach LOS	D		

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		54.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
16: Park Avenue & Church Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	73	140	20	0	52	0	428	20	10	190	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.84	0.84	0.84	0.85	0.85	0.85	0.76	0.76	0.76
Hourly flow rate (vph)	0	94	179	24	0	62	0	504	24	13	250	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											176	
pX, platoon unblocked	0.94	0.94	0.94	0.94	0.94		0.94					
vC, conflicting volume	854	803	250	1018	792	515	250			527		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	809	756	165	985	743	515	165			527		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	70	78	81	100	89	100			99		
cM capacity (veh/h)	248	312	804	127	319	564	1335			1050		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	273	86	527	263
Volume Left	0	24	0	13
Volume Right	179	62	24	0
cSH	522	288	1700	1050
Volume to Capacity	0.52	0.30	0.31	0.01
Queue Length 95th (ft)	75	30	0	1
Control Delay (s)	19.2	22.7	0.0	0.5
Lane LOS	C	C		A
Approach Delay (s)	19.2	22.7	0.0	0.5
Approach LOS	C	C		

Intersection Summary			
Average Delay		6.4	
Intersection Capacity Utilization		50.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
17: Irvington Street & Church Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	25	0	20	5	274	0	0	343	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.79	0.79	0.79	0.85	0.85	0.85	0.77	0.77	0.77
Hourly flow rate (vph)	7	0	7	32	0	25	6	322	0	0	445	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	811	786	452	793	793	322	458			322		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	811	786	452	793	793	322	458			322		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	89	100	96	99			100		
cM capacity (veh/h)	288	325	612	295	322	723	1113			1249		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	57	328	458
Volume Left	7	32	6	0
Volume Right	7	25	0	13
cSH	392	400	1113	1700
Volume to Capacity	0.03	0.14	0.01	0.27
Queue Length 95th (ft)	3	12	0	0
Control Delay (s)	14.5	15.5	0.2	0.0
Lane LOS	B	C	A	
Approach Delay (s)	14.5	15.5	0.2	0.0
Approach LOS	B	C		

Intersection Summary				
Average Delay		1.3		
Intersection Capacity Utilization	28.7%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	390	54	119	320	50	37	67	52	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92
Hourly flow rate (vph)	56	438	61	142	381	60	43	78	60	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			443							
pX, platoon unblocked	0.93			0.91			0.95	0.95	0.91	0.95	0.95	0.93
vC, conflicting volume	440			499			1275	1305	469	1374	1305	411
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	357			398			1089	1120	365	1194	1121	325
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	95			87			72	51	90	100	100	100
cM capacity (veh/h)	1104			1054			153	160	604	76	161	668

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	555	582	181
Volume Left	56	142	43
Volume Right	61	60	60
cSH	1104	1054	209
Volume to Capacity	0.05	0.13	0.87
Queue Length 95th (ft)	4	12	168
Control Delay (s)	1.4	3.4	80.0
Lane LOS	A	A	F
Approach Delay (s)	1.4	3.4	80.0
Approach LOS			F

Intersection Summary				
Average Delay		13.1		
Intersection Capacity Utilization	66.0%	ICU Level of Service	C	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
55: Rt 18 SB Exit Ramp & Purchase St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	10	248	5	35	0	231	0	0	279	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	11	270	5	38	0	251	0	0	303	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								823				
pX, platoon unblocked												
vC, conflicting volume	595	554	303	565	554	251	303			251		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	595	554	303	565	554	251	303			251		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	37	99	95	100			100		
cM capacity (veh/h)	392	440	736	429	440	788	1258			1314		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	11	313	251	303
Volume Left	0	270	0	0
Volume Right	11	38	0	0
cSH	736	454	1258	1700
Volume to Capacity	0.01	0.69	0.00	0.18
Queue Length 95th (ft)	1	129	0	0
Control Delay (s)	10.0	28.7	0.0	0.0
Lane LOS	A	D		
Approach Delay (s)	10.0	28.7	0.0	0.0
Approach LOS	A	D		

Intersection Summary			
Average Delay	10.4		
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	155	36	35	109	98	10	202	60	97	177	15
Peak Hour Factor	0.80	0.80	0.80	0.83	0.83	0.83	0.89	0.89	0.89	0.88	0.88	0.88
Hourly flow rate (vph)	19	194	45	42	131	118	11	227	67	110	201	17

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	258	292	306	328
Volume Left (vph)	19	42	11	110
Volume Right (vph)	45	118	67	17
Hadj (s)	-0.04	-0.10	-0.04	0.20
Departure Headway (s)	6.8	6.6	6.6	6.7
Degree Utilization, x	0.48	0.54	0.56	0.61
Capacity (veh/h)	469	487	498	491
Control Delay (s)	15.9	17.0	17.5	19.8
Approach Delay (s)	15.9	17.0	17.5	19.8
Approach LOS	C	C	C	C

Intersection Summary			
Delay	17.7		
HCM Level of Service	C		
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
72: Weld St & Purchase St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	121	55	25	57	229	0	0	256	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.89	0.89	0.89	0.83	0.83	0.83
Hourly flow rate (vph)	6	0	6	136	62	28	64	257	0	0	308	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	768	709	323	715	724	257	339			257		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	768	709	323	715	724	257	339			257		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.3			2.2		
p0 queue free %	98	100	99	58	81	96	95			100		
cM capacity (veh/h)	254	342	711	326	333	765	1177			1319		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	12	167	59	321	339
Volume Left	6	136	0	64	0
Volume Right	6	0	28	0	30
cSH	375	328	455	1177	1700
Volume to Capacity	0.03	0.51	0.13	0.05	0.20
Queue Length 95th (ft)	2	69	11	4	0
Control Delay (s)	14.9	26.9	14.1	2.1	0.0
Lane LOS	B	D	B	A	
Approach Delay (s)	14.9	23.5		2.1	0.0
Approach LOS	B	C			

Intersection Summary				
Average Delay		6.9		
Intersection Capacity Utilization	52.6%		ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
74: Logan St & Purchase St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	35	0	46	0	240	120	106	279	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.25	0.84	0.84	0.84	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	42	0	55	0	267	133	118	310	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	934	946	310	879	879	333	310			400		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	934	946	310	879	879	333	310			400		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.3	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.4	2.2			2.3		
p0 queue free %	100	100	100	83	100	92	100			90		
cM capacity (veh/h)	211	236	735	243	258	697	1262			1132		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	96	400	428
Volume Left	0	42	0	118
Volume Right	0	55	133	0
cSH	1700	385	1262	1132
Volume to Capacity	0.00	0.25	0.00	0.10
Queue Length 95th (ft)	0	24	0	9
Control Delay (s)	0.0	17.4	0.0	3.1
Lane LOS	A	C		A
Approach Delay (s)	0.0	17.4	0.0	3.1
Approach LOS	A	C		

Intersection Summary				
Average Delay		3.3		
Intersection Capacity Utilization	55.3%		ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
75: Logan St & North Front Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	156	15	15	5	5	15	5	146	5	55	219	89
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.69	0.69	0.69	0.78	0.78	0.78	0.93	0.93	0.93
Hourly flow rate (vph)	184	18	18	7	7	22	6	187	6	59	235	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											720	
pX, platoon unblocked												
vC, conflicting volume	630	608	283	631	653	190	331			194		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	630	608	283	631	653	190	331			194		
tC, single (s)	7.2	6.5	6.4	7.1	6.5	6.4	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.5	3.5	4.0	3.5	2.4			2.2		
p0 queue free %	48	96	98	98	98	97	99			96		
cM capacity (veh/h)	352	393	719	360	371	805	1149			1380		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	219	36	200	390
Volume Left	184	7	6	59
Volume Right	18	22	6	96
cSH	371	543	1149	1380
Volume to Capacity	0.59	0.07	0.01	0.04
Queue Length 95th (ft)	91	5	0	3
Control Delay (s)	27.8	12.1	0.3	1.5
Lane LOS	D	B	A	A
Approach Delay (s)	27.8	12.1	0.3	1.5
Approach LOS	D	B		

Intersection Summary				
Average Delay		8.5		
Intersection Capacity Utilization		55.3%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
77: Route 140 On/Off Ramps & Mt. Pleasant Street

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	167	0	230	408	55	226
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.69	0.69	0.85	0.85	0.75	0.75
Hourly flow rate (vph)	242	0	271	480	73	301
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			877			
pX, platoon unblocked						
vC, conflicting volume	959	511			271	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	959	511			271	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	5	100			94	
cM capacity (veh/h)	256	559			1293	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	242	751	375
Volume Left	242	0	73
Volume Right	0	480	0
cSH	256	1700	1293
Volume to Capacity	0.95	0.44	0.06
Queue Length 95th (ft)	217	0	5
Control Delay (s)	85.2	0.0	2.0
Lane LOS	F		A
Approach Delay (s)	85.2	0.0	2.0
Approach LOS	F		

Intersection Summary				
Average Delay		15.6		
Intersection Capacity Utilization		71.3%	ICU Level of Service	C
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
126: Logan St & Acushnet Ave.

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	145	61	39	55	0	26	7	51	0	6	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.88	0.88	0.88	0.67	0.67	0.67
Hourly flow rate (vph)	19	181	76	43	61	0	30	8	58	0	9	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136	134	9	272	105	37	9			66		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136	134	9	272	105	37	9			66		
tC, single (s)	7.2	6.5	6.3	7.2	6.6	6.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.6	4.1	3.3	2.3			2.2		
p0 queue free %	98	75	93	91	92	100	98			100		
cM capacity (veh/h)	752	739	1061	492	763	1041	1524			1549		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	276	104	95	9
Volume Left	19	43	30	0
Volume Right	76	0	58	0
cSH	807	621	1524	1549
Volume to Capacity	0.34	0.17	0.02	0.00
Queue Length 95th (ft)	38	15	1	0
Control Delay (s)	11.8	12.0	2.4	0.0
Lane LOS	B	B	A	
Approach Delay (s)	11.8	12.0	2.4	0.0
Approach LOS	B	B		

Intersection Summary				
Average Delay		9.7		
Intersection Capacity Utilization	35.4%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
129: Whale's Tooth Station driveway & Acushnet Ave.

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	36	35	80	151	50	75
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.86	0.86	0.76	0.76
Hourly flow rate (vph)	39	38	93	176	66	99
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	411	181			269	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	411	181			269	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	96			95	
cM capacity (veh/h)	567	862			1295	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	77	269	164
Volume Left	39	0	66
Volume Right	38	176	0
cSH	682	1700	1295
Volume to Capacity	0.11	0.16	0.05
Queue Length 95th (ft)	10	0	4
Control Delay (s)	11.0	0.0	3.4
Lane LOS	B		A
Approach Delay (s)	11.0	0.0	3.4
Approach LOS	B		

Intersection Summary				
Average Delay		2.8		
Intersection Capacity Utilization	34.3%	ICU Level of Service	A	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
130: Herman Melville Boulevard & McArthur Drive

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	120	35	169	100	60	149
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.99	0.99	0.81	0.81
Hourly flow rate (vph)	128	37	171	101	74	184
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	553	221			272	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	553	221			272	
tC, single (s)	6.6	6.4			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.5			2.3	
p0 queue free %	71	95			94	
cM capacity (veh/h)	444	780			1247	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	165	272	258
Volume Left	128	0	74
Volume Right	37	101	0
cSH	492	1700	1247
Volume to Capacity	0.34	0.16	0.06
Queue Length 95th (ft)	36	0	5
Control Delay (s)	16.0	0.0	2.7
Lane LOS	C		A
Approach Delay (s)	16.0	0.0	2.7
Approach LOS	C		

Intersection Summary			
Average Delay		4.8	
Intersection Capacity Utilization		44.9%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
136: Hillman St & Acushnet Ave.

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	156	165	120	84	44	47
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.91	0.91	0.82	0.82
Hourly flow rate (vph)	184	194	132	92	54	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	438	82	111			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	438	82	111			
tC, single (s)	6.4	6.3	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.4			
p0 queue free %	65	80	90			
cM capacity (veh/h)	521	966	1379			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	378	224	111
Volume Left	184	132	0
Volume Right	194	0	57
cSH	682	1379	1700
Volume to Capacity	0.55	0.10	0.07
Queue Length 95th (ft)	85	8	0
Control Delay (s)	16.6	5.0	0.0
Lane LOS	C	A	
Approach Delay (s)	16.6	5.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		10.4	
Intersection Capacity Utilization		43.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
147: Wamsutta St & Acushnet Ave.

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	39	10	74	26	10	101
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.65	0.65	0.86	0.86	0.76	0.76
Hourly flow rate (vph)	60	15	86	30	13	133
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	260	101			86	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	260	101			86	
tC, single (s)	6.4	6.4			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.5			2.3	
p0 queue free %	92	98			99	
cM capacity (veh/h)	726	895			1467	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	75	116	146
Volume Left	60	0	13
Volume Right	15	30	0
cSH	755	1700	1467
Volume to Capacity	0.10	0.07	0.01
Queue Length 95th (ft)	8	0	1
Control Delay (s)	10.3	0.0	0.7
Lane LOS	B		A
Approach Delay (s)	10.3	0.0	0.7
Approach LOS	B		

Intersection Summary			
Average Delay		2.6	
Intersection Capacity Utilization		22.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
148: Wamsutta St & North Front St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	0	10	5	0	10	5	115	15	10	160	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.64	0.64	0.64	0.58	0.58	0.58	0.93	0.93	0.93	0.89	0.89	0.89
Hourly flow rate (vph)	41	0	16	9	0	17	5	124	16	11	180	49
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	387	378	204	385	394	132	229			140		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	387	378	204	385	394	132	229			140		
tC, single (s)	7.1	6.5	6.2	7.3	6.5	6.3	4.1			4.5		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.7	4.0	3.4	2.2			2.5		
p0 queue free %	93	100	98	98	100	98	100			99		
cM capacity (veh/h)	559	550	841	527	538	894	1351			1259		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	56	26	145	240
Volume Left	41	9	5	11
Volume Right	16	17	16	49
cSH	616	725	1351	1259
Volume to Capacity	0.09	0.04	0.00	0.01
Queue Length 95th (ft)	7	3	0	1
Control Delay (s)	11.4	10.1	0.3	0.4
Lane LOS	B	B	A	A
Approach Delay (s)	11.4	10.1	0.3	0.4
Approach LOS	B	B		

Intersection Summary			
Average Delay		2.3	
Intersection Capacity Utilization		25.9%	ICU Level of Service A
Analysis Period (min)		15	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	5	328	5	502	5	160	407	424	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	16	12	11	11	12
Storage Length (ft)	0		0	0		0	0		0	300		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1031			525			388			877	
Travel Time (s)		23.4			11.9			8.8			19.9	
Peak Hour Factor	0.54	0.54	0.54	0.97	0.97	0.97	0.94	0.94	0.94	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	2%	0%	3%	0%	2%	2%	1%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	343	518	0	608	0	530	412	0
Turn Type	Split			Split		pt+ov	Perm			pm+pt		
Protected Phases	8	8		4	4	4 1		2		1	6	
Permitted Phases							2			6		
Detector Phase	8	8		4	4	4 1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		27.0	27.0		19.0	22.0	
Total Split (s)	15.0	15.0	0.0	23.0	23.0	44.0	43.0	43.0	0.0	21.0	64.0	0.0
Total Split (%)	14.7%	14.7%	0.0%	22.5%	22.5%	43.1%	42.2%	42.2%	0.0%	20.6%	62.7%	0.0%
Maximum Green (s)	9.0	9.0		17.0	17.0		37.0	37.0		15.0	58.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Min	Min		None	Min	
Walk Time (s)							5.0	5.0				
Flash Dont Walk (s)							16.0	16.0				
Pedestrian Calls (#/hr)							0	0				
v/c Ratio		0.10			0.90	0.52		0.88		1.22	0.41	
Control Delay		31.2			62.8	3.5		35.5		139.4	11.4	
Queue Delay		0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay		31.2			62.8	3.5		35.5		139.4	11.4	
Queue Length 50th (ft)		4			153	0		204		~239	86	
Queue Length 95th (ft)		14			#430	50		408		#481	170	
Internal Link Dist (ft)		951			445			308			797	
Turn Bay Length (ft)										300		
Base Capacity (vph)		231			382	998		963		435	1283	
Starvation Cap Reductn		0			0	0		0		0	0	
Spillback Cap Reductn		0			0	0		0		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.08			0.90	0.52		0.63		1.22	0.32	

Intersection Summary

Area Type: Other
Cycle Length: 102
Actuated Cycle Length: 81.6
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Jones Street & Mt Pleasant St

HCM Signalized Intersection Capacity Analysis
2: Jones Street & Mt Pleasant St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	5	328	5	502	5	160	407	424	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	16	12	11	11	12
Total Lost time (s)		6.0			6.0	6.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.93			1.00	0.85		0.90		1.00	1.00	
Flt Protected		0.98			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1959			1776	1568		1908		1728	1749	
Flt Permitted		0.98			0.95	1.00		1.00		0.15	1.00	
Satd. Flow (perm)		1959			1776	1568		1901		274	1749	
Peak-hour factor, PHF	0.54	0.54	0.54	0.97	0.97	0.97	0.94	0.94	0.94	0.80	0.80	0.80
Adj. Flow (vph)	9	0	9	338	5	518	5	170	433	530	412	0
RTOR Reduction (vph)	0	9	0	0	0	317	0	95	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	343	201	0	513	0	530	412	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	3%	0%	2%	2%	1%	5%	0%
Turn Type	Split			Split		pt+ov	Perm			pm+pt		
Protected Phases	8	8		4	4	4 1		2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		2.3			17.5	33.0		25.9		47.4	47.4	
Effective Green, g (s)		2.3			17.5	33.0		25.9		47.4	47.4	
Actuated g/C Ratio		0.03			0.21	0.39		0.30		0.56	0.56	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		53			365	607		578		417	973	
v/s Ratio Prot		c0.00			c0.19	0.13				c0.23	0.24	
v/s Ratio Perm								0.27		c0.48		
v/c Ratio		0.17			0.94	0.33		0.89		1.27	0.42	
Uniform Delay, d1		40.5			33.3	18.3		28.3		22.9	11.0	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.6			31.2	0.1		14.8		139.6	0.1	
Delay (s)		41.1			64.6	18.5		43.1		162.5	11.1	
Level of Service		D			E	B		D		F	B	
Approach Delay (s)		41.1			36.8			43.1			96.3	
Approach LOS		D			D			D			F	

Intersection Summary			
HCM Average Control Delay	61.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	85.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
14: Kings Highway & Church Street

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	554	5	35	461	70	233	210	80	70	275	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	12	11	11	12	11	11	11	11	11	12
Storage Length (ft)	50		0	0		0	0		0	0		145
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			1116			176			552	
Travel Time (s)		6.9			25.4			4.0			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	607	0	38	584	0	271	337	0	0	388	136
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Minimum Split (s)	35.0	35.0		35.0	35.0		21.0	21.0		21.0	21.0	21.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	24.0	24.0	0.0	24.0	24.0	24.0
Total Split (%)	59.3%	59.3%	0.0%	59.3%	59.3%	0.0%	40.7%	40.7%	0.0%	40.7%	40.7%	40.7%
Maximum Green (s)	30.0	30.0		30.0	30.0		19.0	19.0		19.0	19.0	19.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lead	Lead		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
v/c Ratio	0.46	0.66		0.15	0.65		1.27	0.61			0.89	0.26
Control Delay	16.3	15.0		9.6	14.9		178.8	22.5			45.2	16.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	16.3	15.0		9.6	14.9		178.8	22.5			45.2	16.6
Queue Length 50th (ft)	26	146		7	139		~126	99			128	35
Queue Length 95th (ft)	71	245		21	237		#236	163			#269	72
Internal Link Dist (ft)		225			1036			96			472	
Turn Bay Length (ft)	50											145
Base Capacity (vph)	273	924		256	899		213	553			437	515
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.46	0.66		0.15	0.65		1.27	0.61			0.89	0.26

Intersection Summary	
Area Type:	Other
Cycle Length: 59	
Actuated Cycle Length: 59	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Lanes, Volumes, Timings
14: Kings Highway & Church Street

2030 Build Condition - PM Peak Hour

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Kings Highway & Church Street

HCM Signalized Intersection Capacity Analysis
14: Kings Highway & Church Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	554	5	35	461	70	233	210	80	70	275	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1636	1816		1631	1770		1728	1717			1786	1599
Flt Permitted	0.31	1.00		0.29	1.00		0.36	1.00			0.75	1.00
Satd. Flow (perm)	537	1816		504	1770		663	1717			1357	1599
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Adj. Flow (vph)	126	602	5	38	507	77	271	244	93	79	309	136
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	126	607	0	38	584	0	271	337	0	0	388	136
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Effective Green, g (s)	30.0	30.0		30.0	30.0		19.0	19.0			19.0	19.0
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.32	0.32			0.32	0.32
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	273	923		256	900		214	553			437	515
v/s Ratio Prot		c0.33			0.33			0.20				
v/s Ratio Perm	0.23			0.08			c0.41				0.29	0.09
v/c Ratio	0.46	0.66		0.15	0.65		1.27	0.61			0.89	0.26
Uniform Delay, d1	9.3	10.7		7.7	10.6		20.0	16.9			19.0	14.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	5.5	3.7		1.2	3.6		151.5	4.9			22.5	1.2
Delay (s)	14.8	14.4		8.9	14.3		171.5	21.8			41.5	16.1
Level of Service	B	B		A	B		F	C			D	B
Approach Delay (s)		14.4			13.9			88.5			34.9	
Approach LOS		B			B			F			C	

Intersection Summary			
HCM Average Control Delay	36.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	161	10	45	105	35	15	385	50	125	530	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	14	16	16	14	16	11	11	16	11	11	16
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		197			310			393			488	
Travel Time (s)		4.5			7.0			8.9			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	3%	2%	1%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	202	0	0	210	0	18	524	0	145	633	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Detector Phase	3	3		3	3		1	1		1	1	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%	37.0%	37.0%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.41			0.47		0.09	0.60		0.49	0.71	
Control Delay		19.8			20.2		14.4	17.8		23.1	20.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		19.8			20.2		14.4	17.8		23.1	20.9	
Queue Length 50th (ft)		44			44		2	83		22	111	
Queue Length 95th (ft)		134			133		21	#380		#151	#525	
Internal Link Dist (ft)		117			230			313			408	
Turn Bay Length (ft)												
Base Capacity (vph)		952			853		208	871		294	888	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.21			0.25		0.09	0.60		0.49	0.71	

Intersection Summary	
Area Type:	Other

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	26%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	5.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	4.0
Pedestrian Calls (#/hr)	10
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lanes, Volumes, Timings
19: Wood Street & Route 18

2030 Build Condition - PM Peak Hour

Cycle Length: 81
Actuated Cycle Length: 53
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Wood Street & Route 18

HCM Signalized Intersection Capacity Analysis
19: Wood Street & Route 18

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	161	10	45	105	35	15	385	50	125	530	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	14	16	16	14	16	11	11	16	11	11	16
Total Lost time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.97		1.00	0.98		1.00	1.00	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1987			1918		1745	1754		1728	1794	
Flt Permitted		0.96			0.88		0.23	1.00		0.33	1.00	
Satd. Flow (perm)		1923			1712		420	1754		595	1794	
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.83	0.83	0.83	0.86	0.86	0.86
Adj. Flow (vph)	16	175	11	51	119	40	18	464	60	145	616	17
RTOR Reduction (vph)	0	3	0	0	11	0	0	4	0	0	1	0
Lane Group Flow (vph)	0	199	0	0	199	0	18	520	0	145	632	0
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	3%	2%	1%	2%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		13.5			13.5		26.2	26.2		26.2	26.2	
Effective Green, g (s)		13.5			13.5		26.2	26.2		26.2	26.2	
Actuated g/C Ratio		0.23			0.23		0.45	0.45		0.45	0.45	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		450			401		191	796		270	815	
v/s Ratio Prot								0.30			c0.35	
v/s Ratio Perm		0.10			c0.12		0.04			0.24		
v/c Ratio		0.44			0.50		0.09	0.65		0.54	0.78	
Uniform Delay, d1		18.9			19.1		9.0	12.2		11.4	13.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9			1.3		0.3	2.1		2.6	4.9	
Delay (s)		19.8			20.5		9.3	14.4		14.0	18.2	
Level of Service		B			C		A	B		B	B	
Approach Delay (s)		19.8			20.5			14.2			17.4	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	415	80	40	275	55	60	166	30	76	247	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	16	14	16	16	16	16
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1761			1229			1754			2421	
Travel Time (s)		40.0			27.9			39.9			55.0	
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.89	0.89	0.89	0.86	0.86	0.86
Heavy Vehicles (%)	1%	3%	1%	3%	3%	0%	0%	3%	3%	0%	4%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	727	0	0	406	0	0	288	0	0	551	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Minimum Split (s)	36.0	36.0		36.0	36.0		29.0	29.0		29.0	29.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	55.4%	55.4%	0.0%	55.4%	55.4%	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.92			0.48			0.62			0.92	
Control Delay		37.4			14.5			24.9			46.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		37.4			14.5			24.9			46.0	
Queue Length 50th (ft)		256			105			94			206	
Queue Length 95th (ft)		#420			175			167			#359	
Internal Link Dist (ft)		1681			1149			1674			2341	
Turn Bay Length (ft)												
Base Capacity (vph)		786			845			466			596	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.92			0.48			0.62			0.92	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 18 (28%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 70
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: Nash Road & Church Street

HCM Signalized Intersection Capacity Analysis
24: Nash Road & Church Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	415	80	40	275	55	60	166	30	76	247	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	16	14	16	16	16	16
Total Lost time (s)		6.0			6.0			7.0			7.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.98			0.96	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		2047			2047			1927			1984	
Flt Permitted		0.83			0.89			0.71			0.88	
Satd. Flow (perm)		1705			1830			1378			1760	
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.89	0.89	0.89	0.86	0.86	0.86
Adj. Flow (vph)	138	494	95	44	302	60	67	187	34	88	287	176
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	727	0	0	406	0	0	288	0	0	551	0
Heavy Vehicles (%)	1%	3%	1%	3%	3%	0%	0%	3%	3%	0%	4%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		
Actuated Green, G (s)		30.0			30.0			22.0			22.0	
Effective Green, g (s)		30.0			30.0			22.0			22.0	
Actuated g/C Ratio		0.46			0.46			0.34			0.34	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Lane Grp Cap (vph)		787			845			466			596	
v/s Ratio Prot												
v/s Ratio Perm		c0.43			0.22			0.21			c0.31	
v/c Ratio		0.92			0.48			0.62			0.92	
Uniform Delay, d1		16.4			12.1			18.0			20.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		18.1			2.0			6.0			22.3	
Delay (s)		34.6			14.1			24.0			43.0	
Level of Service		C			B			C			D	
Approach Delay (s)		34.6			14.1			24.0			43.0	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
28: Coggeshall Street & Route 18 SB

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	217	95	170	257	0	0	0	0	106	630	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	12	12	12	12	12	10	10
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		686			474			1008			501	
Travel Time (s)		15.6			10.8			22.9			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	4%	1%	1%	0%	0%	0%	0%	6%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	339	0	0	497	0	0	0	0	0	766	47
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Minimum Split (s)		35.0		35.0	35.0					40.0	40.0	40.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	40.0	40.0	40.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)		30.0		30.0	30.0					35.0	35.0	35.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.47			1.01						0.50	0.06
Control Delay		17.3			69.5						15.4	4.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		17.3			69.5						15.4	4.0
Queue Length 50th (ft)		100			~231						124	0
Queue Length 95th (ft)		171			#395						172	16
Internal Link Dist (ft)		606			394			928			421	
Turn Bay Length (ft)												130
Base Capacity (vph)		727			491						1522	728
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.47			1.01						0.50	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

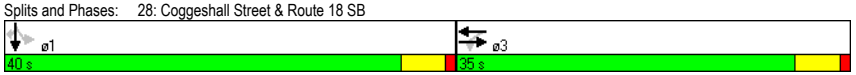
Lanes, Volumes, Timings
28: Coggeshall Street & Route 18 SB

2030 Build Condition - PM Peak Hour

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 28: Coggeshall Street & Route 18 SB



HCM Signalized Intersection Capacity Analysis
28: Coggeshall Street & Route 18 SB

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	217	95	170	257	0	0	0	0	106	630	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	15	12	12	12	12	12	10	10
Total Lost time (s)		5.0			5.0						5.0	5.0
Lane Util. Factor		1.00			1.00						0.95	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.99	1.00
Satd. Flow (prot)		1764			2029						3261	1507
Flt Permitted		1.00			0.59						0.99	1.00
Satd. Flow (perm)		1764			1226						3261	1507
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	0	236	103	198	299	0	0	0	0	110	656	47
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	25
Lane Group Flow (vph)	0	318	0	0	497	0	0	0	0	0	766	22
Heavy Vehicles (%)	0%	3%	4%	1%	1%	0%	0%	0%	0%	6%	2%	0%
Turn Type				Perm						Perm		Perm
Protected Phases		3			3						1	
Permitted Phases				3						1		1
Actuated Green, G (s)		30.0			30.0						35.0	35.0
Effective Green, g (s)		30.0			30.0						35.0	35.0
Actuated g/C Ratio		0.40			0.40						0.47	0.47
Clearance Time (s)		5.0			5.0						5.0	5.0
Lane Grp Cap (vph)		706			490						1522	703
v/s Ratio Prot		0.18										
v/s Ratio Perm					c0.41						0.23	0.01
v/c Ratio		0.45			1.01						0.50	0.03
Uniform Delay, d1		16.5			22.5						13.9	10.8
Progression Factor		1.00			1.00						1.00	1.00
Incremental Delay, d2		2.1			44.3						1.2	0.1
Delay (s)		18.5			66.8						15.1	10.9
Level of Service		B			E						B	B
Approach Delay (s)		18.5			66.8			0.0			14.9	
Approach LOS		B			E			A			B	

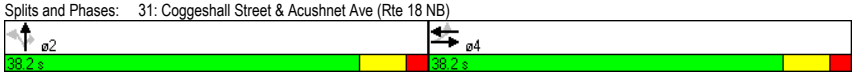
Intersection Summary			
HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	273	0	0	307	103	120	465	292	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	15	12	12	11	11	12	12	12
Storage Length (ft)	0		0	0		0	0		160	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		474			546			1002			363	
Travel Time (s)		10.8			12.4			22.8			8.3	
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	4%	3%	0%	0%	1%	1%	0%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	342	0	0	437	0	129	500	314	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Minimum Split (s)	38.2	38.2			38.2		38.2	38.2	38.2			
Total Split (s)	38.2	38.2	0.0	0.0	38.2	0.0	38.2	38.2	38.2	0.0	0.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		32.0	32.0	32.0			
Yellow Time (s)	4.2	4.2			4.2		4.2	4.2	4.2			
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.0	4.0	6.2	4.0	6.2	6.2	6.2	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.46			0.51		0.17	0.66	0.38			
Control Delay		18.6			17.9		14.7	23.1	3.4			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		18.6			17.9		14.7	23.1	3.4			
Queue Length 50th (ft)		113			139		37	185	0			
Queue Length 95th (ft)		184			220		71	289	44			
Internal Link Dist (ft)		394			466			922			283	
Turn Bay Length (ft)									160			
Base Capacity (vph)		738			853		756	754	824			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.46			0.51		0.17	0.66	0.38			

Intersection Summary	
Area Type:	Other
Cycle Length: 76.4	
Actuated Cycle Length: 76.4	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 31: Coggeshall Street & Acushnet Ave (Rte 18 NB)



HCM Signalized Intersection Capacity Analysis
31: Coggeshall Street & Acushnet Ave (Rte 18 NB)

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	273	0	0	307	103	120	465	292	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	15	12	12	11	11	12	12	12
Total Lost time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00			
Frt		1.00			0.97		1.00	1.00	0.85			
Flt Protected		0.99			1.00		0.95	1.00	1.00			
Satd. Flow (prot)		2012			1999		1805	1801	1531			
Flt Permitted		0.87			1.00		0.95	1.00	1.00			
Satd. Flow (perm)		1761			1999		1805	1801	1531			
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	48	294	0	0	327	110	129	500	314	0	0	0
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	182	0	0	0
Lane Group Flow (vph)	0	342	0	0	421	0	129	500	132	0	0	0
Heavy Vehicles (%)	4%	3%	0%	0%	1%	1%	0%	2%	2%	0%	0%	0%
Turn Type	Perm						Perm		Perm			
Protected Phases		4			4			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		32.0			32.0		32.0	32.0	32.0			
Effective Green, g (s)		32.0			32.0		32.0	32.0	32.0			
Actuated g/C Ratio		0.42			0.42		0.42	0.42	0.42			
Clearance Time (s)		6.2			6.2		6.2	6.2	6.2			
Lane Grp Cap (vph)		738			837		756	754	641			
v/s Ratio Prot					c0.21			c0.28				
v/s Ratio Perm		0.19					0.07		0.09			
v/c Ratio		0.46			0.50		0.17	0.66	0.21			
Uniform Delay, d1		16.0			16.3		13.9	17.9	14.1			
Progression Factor		1.00			1.00		1.00	1.00	1.00			
Incremental Delay, d2		2.1			2.2		0.5	4.6	0.7			
Delay (s)		18.1			18.5		14.4	22.4	14.8			
Level of Service		B			B		B	C	B			
Approach Delay (s)		18.1			18.5			18.8			0.0	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	730	134	175	440	50	166	45	289	160	25	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			196			360			359	
Travel Time (s)		11.7			4.5			8.2			8.2	
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1112	0	0	700	0	0	588	0	0	399	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	13.0		11.0	13.0		13.0	13.0		19.0	19.0	
Total Split (s)	11.0	38.0	0.0	21.0	48.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	12.2%	42.2%	0.0%	23.3%	53.3%	0.0%	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%
Maximum Green (s)	5.0	32.0		15.0	42.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)										5.0	5.0	
Flash Dont Walk (s)										8.0	8.0	
Pedestrian Calls (#/hr)										0	0	
v/c Ratio		0.78			0.64			0.74			0.66	
Control Delay		16.2			12.9			14.9			16.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.2			12.9			14.9			16.0	
Queue Length 50th (ft)		133			73			38			32	
Queue Length 95th (ft)		#321			177			84			77	
Internal Link Dist (ft)		435			116			280			279	
Turn Bay Length (ft)												
Base Capacity (vph)		1421			1389			1218			998	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.78			0.50			0.48			0.40	

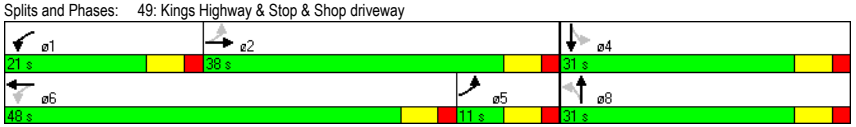
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

2030 Build Condition - PM Peak Hour

Cycle Length: 90
Actuated Cycle Length: 59.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 49: Kings Highway & Stop & Shop driveway



HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	730	134	175	440	50	166	45	289	160	25	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.99			0.91			0.93	
Flt Protected		0.99			0.99			0.98			0.98	
Satd. Flow (prot)		3481			3490			3222			3247	
Flt Permitted		0.70			0.54			0.73			0.62	
Satd. Flow (perm)		2470			1915			2377			2067	
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	183	785	144	184	463	53	195	53	340	180	28	191
RTOR Reduction (vph)	0	9	0	0	6	0	0	264	0	0	148	0
Lane Group Flow (vph)	0	1103	0	0	694	0	0	324	0	0	251	0
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		33.7			33.7			13.1			13.1	
Effective Green, g (s)		33.7			33.7			13.1			13.1	
Actuated g/C Ratio		0.57			0.57			0.22			0.22	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1416			1098			530			461	
v/s Ratio Prot												
v/s Ratio Perm		c0.45			0.36			c0.14			0.12	
v/c Ratio		0.78			0.63			0.61			0.54	
Uniform Delay, d1		9.7			8.4			20.6			20.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.5			0.9			1.5			0.7	
Delay (s)		12.2			9.3			22.0			20.9	
Level of Service		B			A			C			C	
Approach Delay (s)		12.2			9.3			22.0			20.9	
Approach LOS		B			A			C			C	

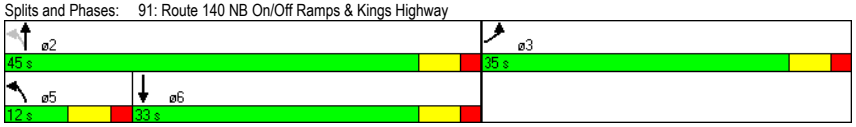
Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	58.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	493	160	150	541	666	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	12	12	16
Storage Length (ft)	0	100	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				No
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			574	515	
Travel Time (s)	6.1			13.0	11.7	
Peak Hour Factor	0.92	0.92	0.83	0.83	0.79	0.79
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	710	0	0	833	984	0
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Detector Phase	3		5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	
Minimum Split (s)	13.0		11.0	13.0	13.0	
Total Split (s)	35.0	0.0	12.0	45.0	33.0	0.0
Total Split (%)	43.8%	0.0%	15.0%	56.3%	41.3%	0.0%
Maximum Green (s)	29.0		6.0	39.0	27.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	None		None	Min	Min	
v/c Ratio	0.95			1.04dl	0.62	
Control Delay	48.4			36.0	17.2	
Queue Delay	0.0			0.0	0.0	
Total Delay	48.4			36.0	17.2	
Queue Length 50th (ft)	346			185	176	
Queue Length 95th (ft)	#576			#239	193	
Internal Link Dist (ft)	188			494	435	
Turn Bay Length (ft)						
Base Capacity (vph)	754			1004	1605	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.94			0.83	0.61	

Intersection Summary	
Area Type:	Other

Cycle Length: 80
Actuated Cycle Length: 76.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 91: Route 140 NB On/Off Ramps & Kings Highway



HCM Signalized Intersection Capacity Analysis
91: Route 140 NB On/Off Ramps & Kings Highway

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	493	160	150	541	666	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.98	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1977			3521	3449	
Flt Permitted	0.96			0.55	1.00	
Satd. Flow (perm)	1977			1958	3449	
Peak-hour factor, PHF	0.92	0.92	0.83	0.83	0.79	0.79
Adj. Flow (vph)	536	174	181	652	843	141
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	710	0	0	833	984	0
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	29.0			35.4	35.4	
Effective Green, g (s)	29.0			35.4	35.4	
Actuated g/C Ratio	0.38			0.46	0.46	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	2.0			2.0	2.0	
Lane Grp Cap (vph)	750			907	1598	
v/s Ratio Prot	c0.36				0.29	
v/s Ratio Perm				c0.43		
v/c Ratio	0.95			1.04dl	0.62	
Uniform Delay, d1	23.0			19.2	15.4	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	20.5			13.6	0.5	
Delay (s)	43.4			32.8	15.9	
Level of Service	D			C	B	
Approach Delay (s)	43.4			32.8	15.9	
Approach LOS	D			C	B	

Intersection Summary			
HCM Average Control Delay	29.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

2030 Build Condition - PM Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	596	235	145	681	155	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	525			574	347	
Travel Time (s)	11.9			13.0	7.9	
Peak Hour Factor	0.91	0.91	0.96	0.96	0.89	0.89
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	913	0	0	860	174	107
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Detector Phase	2		1	6	7	7
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	7.0
Minimum Split (s)	13.0		11.0	13.0	13.0	13.0
Total Split (s)	58.0	0.0	11.0	69.0	22.0	22.0
Total Split (%)	63.7%	0.0%	12.1%	75.8%	24.2%	24.2%
Maximum Green (s)	52.0		5.0	63.0	16.0	16.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	Min		None	Min	None	None
v/c Ratio	0.47			0.66	0.51	0.28
Control Delay	6.5			10.7	25.0	7.3
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	6.5			10.7	25.0	7.3
Queue Length 50th (ft)	56			73	41	0
Queue Length 95th (ft)	112			152	111	34
Internal Link Dist (ft)	445			494	267	
Turn Bay Length (ft)						
Base Capacity (vph)	3275			2298	596	605
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.28			0.37	0.29	0.18

Intersection Summary	
Area Type:	Other
Cycle Length: 91	
Actuated Cycle Length: 49.4	
Natural Cycle: 50	

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

2030 Build Condition - PM Peak Hour

Control Type: Actuated-Uncoordinated

Splits and Phases: 96: Kings Highway & Shaw's driveway

HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

2030 Build Condition - PM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	596	235	145	681	155	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3408			3543	1787	1599
Flt Permitted	1.00			0.65	0.95	1.00
Satd. Flow (perm)	3408			2309	1787	1599
Peak-hour factor, PHF	0.91	0.91	0.96	0.96	0.89	0.89
Adj. Flow (vph)	655	258	151	709	174	107
RTOR Reduction (vph)	47	0	0	0	0	87
Lane Group Flow (vph)	866	0	0	860	174	20
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	27.7			27.7	9.3	9.3
Effective Green, g (s)	27.7			27.7	9.3	9.3
Actuated g/C Ratio	0.57			0.57	0.19	0.19
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	1927			1305	339	303
v/s Ratio Prot	0.25				c0.10	0.01
v/s Ratio Perm				c0.37		
v/c Ratio	0.45			0.66	0.51	0.07
Uniform Delay, d1	6.2			7.4	17.8	16.3
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.9	0.5	0.0
Delay (s)	6.3			8.3	18.4	16.3
Level of Service	A			A	B	B
Approach Delay (s)	6.3			8.3	17.6	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	49.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	284	75	75	239	265	30	235	330	290	180	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	11	16	16	10	10	16	12	14	16	11	16
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		443			1111			850			178	
Travel Time (s)		10.1			25.3			19.3			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90	0.92	0.92	0.92
Heavy Vehicles (%)	1%	3%	6%	1%	1%	4%	3%	4%	1%	3%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	516	0	0	334	282	0	294	367	0	673	0
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Detector Phase	4	4		4	4	4	2	2	2	1	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	30.0	30.0	30.0	30.0	20.0	30.0	0.0
Total Split (%)	30.3%	30.3%	0.0%	30.3%	30.3%	30.3%	30.3%	30.3%	30.3%	20.2%	30.3%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Recall Mode	Max	Max		Max	Max	Max	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.54			0.61	0.38		0.46	0.41		0.76	
Control Delay		18.0			23.4	4.2		18.9	3.8		24.1	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		18.0			23.4	4.2		18.9	3.8		24.1	
Queue Length 50th (ft)		66			89	0		72	0		93	
Queue Length 95th (ft)		165			#277	51		199	57		#266	
Internal Link Dist (ft)		363			1031			770			98	
Turn Bay Length (ft)												
Base Capacity (vph)		952			550	750		649	904		909	
Starvation Cap Reductn		0			0	0		0	0		0	
Spillback Cap Reductn		0			0	0		0	0		0	
Storage Cap Reductn		0			0	0		0	0		0	
Reduced v/c Ratio		0.54			0.61	0.38		0.45	0.41		0.74	

Intersection Summary	
Area Type:	Other

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	6.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	19%
Maximum Green (s)	14.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	9
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

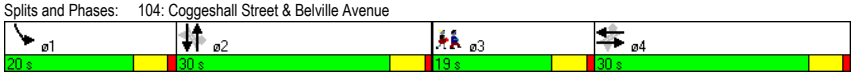
Intersection Summary

Lanes, Volumes, Timings
104: Coggeshall Street & Belville Avenue

2030 Build Condition - PM Peak Hour

Cycle Length: 99
Actuated Cycle Length: 63.2
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 104: Coggeshall Street & Belville Avenue



HCM Signalized Intersection Capacity Analysis
104: Coggeshall Street & Belville Avenue

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	284	75	75	239	265	30	235	330	290	180	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	11	16	16	10	10	16	12	14	16	11	16
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		0.95	
Frt		0.98			1.00	0.85		1.00	0.85		0.96	
Flt Protected		0.99			0.99	1.00		0.99	1.00		0.98	
Satd. Flow (prot)		3268			1735	1449		1819	1706		3214	
Flt Permitted		0.71			0.78	1.00		0.89	1.00		0.67	
Satd. Flow (perm)		2343			1374	1449		1620	1706		2192	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	125	309	82	80	254	282	33	261	367	315	196	162
RTOR Reduction (vph)	0	13	0	0	0	176	0	0	232	0	32	0
Lane Group Flow (vph)	0	503	0	0	334	106	0	294	135	0	641	0
Heavy Vehicles (%)	1%	3%	6%	1%	1%	4%	3%	4%	1%	3%	3%	0%
Turn Type	Perm			Perm		Perm	Perm		Perm	pm+pt		
Protected Phases		4			4			2		1	2	
Permitted Phases	4			4		4	2		2	2		
Actuated Green, G (s)		25.3			25.3	25.3		24.7	24.7		24.7	
Effective Green, g (s)		25.3			25.3	25.3		24.7	24.7		24.7	
Actuated g/C Ratio		0.38			0.38	0.38		0.37	0.37		0.37	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Grp Cap (vph)		882			517	546		595	627		806	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.24	0.07		0.18	0.08		c0.29	
v/c Ratio		0.57			0.65	0.19		0.49	0.22		0.79	
Uniform Delay, d1		16.6			17.3	14.1		16.4	14.6		19.0	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		2.7			6.1	0.8		0.9	0.2		5.8	
Delay (s)		19.3			23.4	14.9		17.3	14.8		24.7	
Level of Service		B			C	B		B	B		C	
Approach Delay (s)		19.3			19.5			15.9			24.7	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	17.2
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	161	98	370	595	114	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	14	16	16	14
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	693		149			313
Travel Time (s)	15.8		3.4			7.1
Peak Hour Factor	0.77	0.77	0.94	0.94	0.73	0.73
Heavy Vehicles (%)	3%	6%	3%	3%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	336	0	1027	0	0	635
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Minimum Split (s)	27.0		37.0		37.0	37.0
Total Split (s)	27.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	42.2%	0.0%	57.8%	0.0%	57.8%	57.8%
Maximum Green (s)	20.0		30.0		30.0	30.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	4.0	7.0	4.0	7.0	7.0
Lead/Lag	Lag		Lead		Lead	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes
v/c Ratio	0.53		0.53			0.66
Control Delay	19.0		5.3			17.2
Queue Delay	0.0		0.0			0.0
Total Delay	19.0		5.3			17.2
Queue Length 50th (ft)	89		45			94
Queue Length 95th (ft)	128		84			106
Internal Link Dist (ft)	613		69			233
Turn Bay Length (ft)						
Base Capacity (vph)	629		1928			960
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.53		0.53			0.66

Intersection Summary	
Area Type:	Other
Cycle Length: 64	
Actuated Cycle Length: 64	
Offset: 35 (55%), Referenced to phase 2:WBL and 6:, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Splits and Phases: 137: Hillman St & Pleasant Street

HCM Signalized Intersection Capacity Analysis
137: Hillman St & Pleasant Street

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	161	98	370	595	114	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	14	16	16	14
Total Lost time (s)	7.0		7.0			7.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.95		0.91			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1903		3393			3693
Flt Permitted	0.97		1.00			0.55
Satd. Flow (perm)	1903		3393			2048
Peak-hour factor, PHF	0.77	0.77	0.94	0.94	0.73	0.73
Adj. Flow (vph)	209	127	394	633	156	479
RTOR Reduction (vph)	34	0	336	0	0	0
Lane Group Flow (vph)	302	0	691	0	0	635
Heavy Vehicles (%)	3%	6%	3%	3%	3%	3%
Turn Type					Perm	
Protected Phases	2		1			1
Permitted Phases					1	
Actuated Green, G (s)	20.0		30.0			30.0
Effective Green, g (s)	20.0		30.0			30.0
Actuated g/C Ratio	0.31		0.47			0.47
Clearance Time (s)	7.0		7.0			7.0
Lane Grp Cap (vph)	595		1590			960
v/s Ratio Prot	c0.16		0.20			
v/s Ratio Perm						c0.31
v/c Ratio	0.51		0.43			0.66
Uniform Delay, d1	18.0		11.3			13.1
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	3.1		0.9			3.6
Delay (s)	21.0		12.2			16.7
Level of Service	C		B			B
Approach Delay (s)	21.0		12.2			16.7
Approach LOS	C		B			B

Intersection Summary			
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
140: Mill Street & Pleasant St

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	203	360	205	248	25	135	455	105	117	345	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	16	11	12	10	16	10	12	14	16	14	16
Storage Length (ft)	0		0		0		100		0	0		0
Storage Lanes	1		1		1		1		0	0		0
Taper Length (ft)	25		25		25		25		25	25		25
Right Turn on Red					No				Yes			
Link Speed (mph)		30		30				30			30	
Link Distance (ft)		168		308				709			499	
Travel Time (s)		3.8		7.0				16.1			11.3	
Peak Hour Factor	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	271	211	387	220	267	0	184	644	0	0	628	0
Turn Type	Split		Split		pt+ov	Split	Split			Split		
Protected Phases	4	4	5	5	1 5	2	2	2		1	1	
Permitted Phases												
Detector Phase	4	4	5	5	1 5	2	2	2		1	1	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	12.0	
Total Split (s)	30.0	30.0	35.0	35.0	70.0	35.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	19.2%	19.2%	22.4%	22.4%	44.9%	22.4%	22.4%	22.4%	0.0%	22.4%	22.4%	0.0%
Maximum Green (s)	25.0	25.0	30.0	30.0		30.0	30.0	30.0		30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag				Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0	
Recall Mode	Max	Max	Max	Max		Max	Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.86	0.58	1.13	0.57	0.41		0.56	0.91			0.82	
Control Delay	85.9	65.3	139.7	61.3	32.2		62.0	74.1			67.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	85.9	65.3	139.7	61.3	32.2		62.0	74.1			67.2	
Queue Length 50th (ft)	276	203	~477	208	193		173	339			331	
Queue Length 95th (ft)	#450	295	#690	301	278		250	#439			368	
Internal Link Dist (ft)		88		228				629			419	
Turn Bay Length (ft)							100					
Base Capacity (vph)	314	363	343	384	648		330	709			762	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	
Reduced v/c Ratio	0.86	0.58	1.13	0.57	0.41		0.56	0.91			0.82	

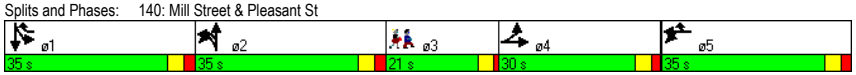
Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	13%
Maximum Green (s)	17.0
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	10.0
Flash Dont Walk (s)	7.0
Pedestrian Calls (#/hr)	18
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 156	
Actuated Cycle Length: 147.6	
Natural Cycle: 140	
Control Type: Semi Act-Uncoord	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 140: Mill Street & Pleasant St



HCM Signalized Intersection Capacity Analysis
140: Mill Street & Pleasant St

Movement	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	203	360	205	248	25	135	455	105	117	345	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	11	12	10	16	10	12	14	16	14	16
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95			0.95	
Frt	1.00	1.00	1.00	1.00	0.85		1.00	0.97			0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1847	2132	1678	1881	1463		1617	3406			3731	
Flt Permitted	0.95	1.00	0.95	1.00	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1847	2132	1678	1881	1463		1617	3406			3731	
Peak-hour factor, PHF	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83
Adj. Flow (vph)	271	211	387	220	267	29	155	523	121	141	416	71
RTOR Reduction (vph)	0	0	0	0	0	0	0	13	0	0	0	0
Lane Group Flow (vph)	271	211	387	220	267	0	184	631	0	0	628	0
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%
Turn Type	Split		Split		pt+ov	Split	Split			Split		
Protected Phases	4	4	5	5	1 5	2	2	2		1	1	
Permitted Phases												
Actuated Green, G (s)	25.1	25.1	30.2	30.2	65.4		30.2	30.2			30.2	
Effective Green, g (s)	25.1	25.1	30.2	30.2	65.4		30.2	30.2			30.2	
Actuated g/C Ratio	0.17	0.17	0.20	0.20	0.44		0.20	0.20			0.20	
Clearance Time (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Vehicle Extension (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Lane Grp Cap (vph)	310	358	339	380	640		327	688			754	
v/s Ratio Prot	c0.15	0.10	c0.23	0.12	0.18		0.11	c0.19			c0.17	
v/s Ratio Perm												
v/c Ratio	0.87	0.59	1.14	0.58	0.42		0.56	0.92			0.83	
Uniform Delay, d1	60.6	57.4	59.6	53.9	28.9		53.7	58.4			57.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	27.2	7.0	93.0	6.3	2.0		6.8	19.2			10.4	
Delay (s)	87.9	64.3	152.6	60.2	30.9		60.5	77.6			67.6	
Level of Service	F	E	F	E	C		E	E			E	
Approach Delay (s)		77.6		92.2				73.8			67.6	
Approach LOS		E		F				E			E	

Intersection Summary			
HCM Average Control Delay	78.8	HCM Level of Service	E
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	149.4	Sum of lost time (s)	33.7
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

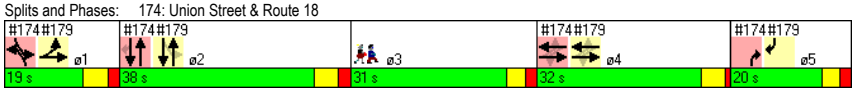
Lanes, Volumes, Timings
174: Union Street & Route 18

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	31	60	85	38	15	90	980	24	36	1150	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	10	11	11
Storage Length (ft)	0		0	0		0	150		225	150		225
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		432			82			365			2491	
Travel Time (s)		9.8			1.9			8.3			56.6	
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	163	0	99	1077	26	36	1162	146
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Detector Phase	4	4		4	4		1	2	5	1	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	7.0	4.0	4.0	7.0	7.0
Minimum Split (s)	12.0	12.0		12.0	12.0		10.0	13.0	9.0	10.0	13.0	13.0
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	19.0	38.0	20.0	19.0	38.0	38.0
Total Split (%)	22.9%	22.9%	0.0%	22.9%	22.9%	0.0%	13.6%	27.1%	14.3%	13.6%	27.1%	27.1%
Maximum Green (s)	27.0	27.0		27.0	27.0		13.0	32.0	15.0	13.0	32.0	32.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	6.0	6.0	5.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.44			0.40		0.59	1.18	0.13	0.26	1.27	0.30
Control Delay		248.8			85.3		70.0	129.7	54.6	59.7	166.5	20.9
Queue Delay		0.0			0.0		0.0	110.0	0.3	0.0	0.0	0.0
Total Delay		248.8			85.3		70.0	239.7	54.9	59.7	166.5	20.9
Queue Length 50th (ft)		~421			119		66	~445	16	23	~510	34
Queue Length 95th (ft)		#841			m212		#158	#827	53	68	#912	114
Internal Link Dist (ft)		352			2			285			2411	
Turn Bay Length (ft)							150		225	150		225
Base Capacity (vph)		323			406		191	915	200	160	915	480
Starvation Cap Reductn		0			0		0	159	0	0	0	0
Spillback Cap Reductn		0			0		0	0	46	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		1.44			0.40		0.52	1.42	0.17	0.23	1.27	0.30

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	22%
Maximum Green (s)	26.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	17.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	19
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 119.5	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 174: Union Street & Route 18



HCM Signalized Intersection Capacity Analysis
174: Union Street & Route 18

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	31	60	85	38	15	90	980	24	36	1150	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.98			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.96			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		2012			2033		1728	3355	1561	1440	3355	1546
Flt Permitted		0.67			0.84		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1401			1764		1728	3355	1561	1440	3355	1546
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99
Adj. Flow (vph)	366	33	65	100	45	18	99	1077	26	36	1162	146
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	59
Lane Group Flow (vph)	0	464	0	0	163	0	99	1077	26	36	1162	87
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)		27.5			27.5		11.6	32.6	14.8	11.6	32.6	32.6
Effective Green, g (s)		27.5			27.5		11.6	32.6	14.8	11.6	32.6	32.6
Actuated g/C Ratio		0.22			0.22		0.09	0.27	0.12	0.09	0.27	0.27
Clearance Time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)		5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		315			396		164	894	189	136	894	412
v/s Ratio Prot							c0.06	0.32	c0.02	0.03	c0.35	
v/s Ratio Perm		c0.33			0.09							0.06
v/c Ratio		1.47			0.41		0.60	1.20	0.14	0.26	1.30	0.21
Uniform Delay, d1		47.5			40.5		53.2	44.9	48.1	51.4	44.9	34.9
Progression Factor		1.00			1.92		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		229.4			1.1		7.1	102.7	0.5	1.4	143.1	0.4
Delay (s)		276.8			78.7		60.3	147.6	48.5	52.9	188.0	35.3
Level of Service		F			E		E	F	D	D	F	D
Approach Delay (s)		276.8			78.7			138.3			167.8	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM Average Control Delay	168.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	122.4	Sum of lost time (s)	35.9
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
179: Union Street & McArthur Drive

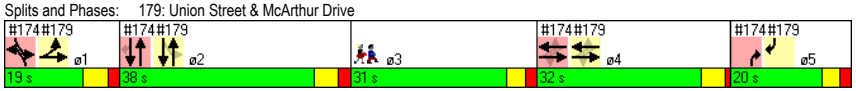
2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	5	35	0	15	5	0	206	5	5	252	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	15	16	16	16	16	16	12	12
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		82			609			920			687	
Travel Time (s)		1.9			13.8			20.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	101	0	0	27	0	0	306	0	0	310	149
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Detector Phase	1	1 4		4	4			2		2	2	5
Switch Phase												
Minimum Initial (s)	4.0			7.0	7.0			7.0		7.0	7.0	4.0
Minimum Split (s)	10.0			12.0	12.0			13.0		13.0	13.0	9.0
Total Split (s)	19.0	51.0	0.0	32.0	32.0	0.0	0.0	38.0	0.0	38.0	38.0	20.0
Total Split (%)	13.6%	36.4%	0.0%	22.9%	22.9%	0.0%	0.0%	27.1%	0.0%	27.1%	27.1%	14.3%
Maximum Green (s)	13.0			27.0	27.0			32.0		32.0	32.0	15.0
Yellow Time (s)	4.0			4.0	4.0			4.0		4.0	4.0	3.0
All-Red Time (s)	2.0			1.0	1.0			2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	5.0
Lead/Lag	Lead			Lag	Lag			Lag		Lag	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes			Yes		Yes	Yes	
Vehicle Extension (s)	4.0			5.0	5.0			4.0		4.0	4.0	4.0
Recall Mode	None			None	None			None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.19			0.06			0.55			0.64	0.76
Control Delay		7.6			34.9			44.9			48.5	77.0
Queue Delay		0.0			0.0			0.0			0.0	668.2
Total Delay		7.6			34.9			44.9			48.5	745.2
Queue Length 50th (ft)		23			11			176			184	100
Queue Length 95th (ft)		m40			35			261			341	#231
Internal Link Dist (ft)		2			529			840			607	
Turn Bay Length (ft)												50
Base Capacity (vph)		560			442			552			486	204
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			7			0			0	175
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.18			0.06			0.55			0.64	5.14

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	22%
Maximum Green (s)	26.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	17.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	19
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 119.5	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 179: Union Street & McArthur Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	5	35	0	15	5	0	206	5	5	252	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.95			0.96			1.00			1.00	0.85
Flt Protected		0.97			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1845			1894			2019			1793	1599
Flt Permitted		0.85			1.00			1.00			0.99	1.00
Satd. Flow (perm)		1602			1894			2019			1781	1599
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83
Adj. Flow (vph)	56	6	39	0	20	7	0	299	7	6	304	149
RTOR Reduction (vph)	0	0	0	0	5	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	101	0	0	22	0	0	305	0	0	310	149
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		39.1			27.5			32.6			32.6	14.8
Effective Green, g (s)		39.1			27.5			32.6			32.6	14.8
Actuated g/C Ratio		0.32			0.22			0.27			0.27	0.12
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		535			426			538			474	193
v/s Ratio Prot		c0.02			0.01			0.15				c0.09
v/s Ratio Perm		c0.04									c0.17	
v/c Ratio		0.19			0.05			0.57			0.65	0.77
Uniform Delay, d1		30.2			37.2			38.8			39.9	52.2
Progression Factor		0.35			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.2			0.1			1.7			3.6	18.2
Delay (s)		10.7			37.3			40.5			43.5	70.4
Level of Service		B			D			D			D	E
Approach Delay (s)		10.7			37.3			40.5			52.2	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM Average Control Delay	43.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	122.4	Sum of lost time (s)	36.9
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
9: Tarkiln Hill Rd & Kings Highway

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	50	15	30	1149	650	160
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	62	19	33	1263	722	178
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				393	611	
pX, platoon unblocked	0.71					
vC, conflicting volume	2140	811	900			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2401	811	900			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	95	96			
cM capacity (veh/h)	25	381	755			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	81	1296	900
Volume Left	62	33	0
Volume Right	19	0	178
cSH	32	755	1700
Volume to Capacity	2.56	0.04	0.53
Queue Length 95th (ft)	236	3	0
Control Delay (s)	972.6	1.9	0.0
Lane LOS	F	A	
Approach Delay (s)	972.6	1.9	0.0
Approach LOS	F		

Intersection Summary			
Average Delay		35.8	
Intersection Capacity Utilization		95.0%	ICU Level of Service F
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
16: Park Avenue & Church Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	177	341	15	0	31	0	488	20	5	310	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.80	0.80	0.80	0.85	0.85	0.85	0.79	0.79	0.79
Hourly flow rate (vph)	5	188	363	19	0	39	0	574	24	6	392	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											176	
pX, platoon unblocked	0.84	0.84	0.84	0.84	0.84		0.84					
vC, conflicting volume	1030	1003	392	1448	991	586	392			598		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	937	905	174	1438	891	586	174			598		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	19	50	0	100	92	100			99		
cM capacity (veh/h)	190	231	726	15	236	508	1182			989		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	556	58	598	399
Volume Left	5	19	0	6
Volume Right	363	39	24	0
cSH	415	43	1700	989
Volume to Capacity	1.34	1.33	0.35	0.01
Queue Length 95th (ft)	645	140	0	0
Control Delay (s)	196.3	396.5	0.0	0.2
Lane LOS	F	F		A
Approach Delay (s)	196.3	396.5	0.0	0.2
Approach LOS	F	F		

Intersection Summary			
Average Delay		82.0	
Intersection Capacity Utilization		64.2%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
17: Irvington Street & Church Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	0	25	5	15	10	382	0	0	479	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.66	0.66	0.66	0.92	0.92	0.92	0.91	0.91	0.91
Hourly flow rate (vph)	7	0	0	38	8	23	11	415	0	0	526	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	993	966	529	966	969	415	532			415		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	993	966	529	966	969	415	532			415		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.3			2.2		
p0 queue free %	97	100	100	84	97	96	99			100		
cM capacity (veh/h)	211	254	553	230	253	627	992			1155		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	7	68	426	532
Volume Left	7	38	11	0
Volume Right	0	23	0	5
cSH	211	295	992	1700
Volume to Capacity	0.03	0.23	0.01	0.31
Queue Length 95th (ft)	3	22	1	0
Control Delay (s)	22.6	20.8	0.3	0.0
Lane LOS	C	C	A	
Approach Delay (s)	22.6	20.8	0.3	0.0
Approach LOS	C	C		

Intersection Summary				
Average Delay		1.7		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	405	45	58	330	45	70	139	65	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.79	0.79	0.79	0.92	0.92	0.92
Hourly flow rate (vph)	108	435	48	62	355	48	89	176	82	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			443							
pX, platoon unblocked	0.92			0.91			0.95	0.95	0.91	0.95	0.95	0.92
vC, conflicting volume	403			484			1178	1203	460	1349	1203	379
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	313			382			979	1005	356	1159	1005	286
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	91			94			54	10	87	100	100	100
cM capacity (veh/h)	1153			1059			194	195	614	29	197	700

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	591	466	347
Volume Left	108	62	89
Volume Right	48	48	82
cSH	1153	1059	233
Volume to Capacity	0.09	0.06	1.49
Queue Length 95th (ft)	8	5	515
Control Delay (s)	2.4	1.7	281.3
Lane LOS	A	A	F
Approach Delay (s)	2.4	1.7	281.3
Approach LOS			F

Intersection Summary				
Average Delay		71.1		
Intersection Capacity Utilization	65.7%	ICU Level of Service	C	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
55: Rt 18 SB Exit Ramp & Purchase St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	195	5	50	5	463	0	0	269	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	212	5	54	5	503	0	0	292	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								828				
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92		
vC, conflicting volume	864	807	292	807	807	503	292			503		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	812	750	292	750	750	422	292			422		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	30	98	91	100			100		
cM capacity (veh/h)	246	313	747	302	313	584	1269			1051		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	272	509	292
Volume Left	0	212	5	0
Volume Right	0	54	0	0
cSH	1700	334	1269	1700
Volume to Capacity	0.00	0.81	0.00	0.17
Queue Length 95th (ft)	0	173	0	0
Control Delay (s)	0.0	49.2	0.1	0.0
Lane LOS	A	E	A	
Approach Delay (s)	0.0	49.2	0.1	0.0
Approach LOS	A	E		

Intersection Summary				
Average Delay		12.5		
Intersection Capacity Utilization		49.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	136	10	20	158	118	20	333	75	111	234	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.83	0.83	0.83	0.94	0.94	0.94
Hourly flow rate (vph)	6	155	11	23	180	134	24	401	90	118	249	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	172	336	516	378
Volume Left (vph)	6	23	24	118
Volume Right (vph)	11	134	90	11
Hadj (s)	0.01	-0.21	-0.03	0.12
Departure Headway (s)	8.3	7.4	7.1	7.4
Degree Utilization, x	0.40	0.69	1.01	0.78
Capacity (veh/h)	388	468	516	473
Control Delay (s)	16.7	25.6	69.2	31.9
Approach Delay (s)	16.7	25.6	69.2	31.9
Approach LOS	C	D	F	D

Intersection Summary				
Delay		42.3		
HCM Level of Service		E		
Intersection Capacity Utilization		76.8%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
72: Weld St & Purchase St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	0	46	92	120	30	97	367	0	0	246	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.86	0.86	0.86	0.94	0.94	0.94	0.90	0.90	0.90
Hourly flow rate (vph)	28	0	52	107	140	35	103	390	0	0	273	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	991	887	290	939	903	390	307			390		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	991	887	290	939	903	390	307			390		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	75	100	93	50	45	95	92			100		
cM capacity (veh/h)	113	262	737	213	255	639	1260			1179		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	81	177	105	494	307
Volume Left	28	107	0	103	0
Volume Right	52	0	35	0	33
cSH	250	228	319	1260	1700
Volume to Capacity	0.32	0.78	0.33	0.08	0.18
Queue Length 95th (ft)	34	139	35	7	0
Control Delay (s)	26.1	60.3	21.7	2.4	0.0
Lane LOS	D	F	C	A	
Approach Delay (s)	26.1	45.9		2.4	0.0
Approach LOS	D	E			

Intersection Summary				
Average Delay		13.9		
Intersection Capacity Utilization	63.9%	ICU Level of Service	B	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
74: Logan St & Purchase St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	60	0	76	0	389	115	66	314	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.85	0.85	0.85	0.96	0.96	0.96	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	0	71	0	89	0	405	120	70	334	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1029	999	334	940	940	465	334			525		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1029	999	334	940	940	465	334			525		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	100	100	100	69	100	85	100			93		
cM capacity (veh/h)	172	228	712	231	247	597	1237			1017		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	160	525	404
Volume Left	0	71	0	70
Volume Right	0	89	120	0
cSH	1700	351	1237	1017
Volume to Capacity	0.00	0.46	0.00	0.07
Queue Length 95th (ft)	0	57	0	6
Control Delay (s)	0.0	23.5	0.0	2.2
Lane LOS	A	C		A
Approach Delay (s)	0.0	23.5	0.0	2.2
Approach LOS	A	C		

Intersection Summary				
Average Delay		4.3		
Intersection Capacity Utilization	65.6%	ICU Level of Service	C	
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
75: Logan St & North Front Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	170	15	10	10	20	45	5	234	5	10	141	52
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.61	0.61	0.61	0.92	0.92	0.92	0.88	0.88	0.88
Hourly flow rate (vph)	195	17	11	16	33	74	5	254	5	11	160	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											720	
pX, platoon unblocked												
vC, conflicting volume	571	483	190	501	510	257	219			260		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	571	483	190	501	510	257	219			260		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	47	96	99	96	93	91	100			99		
cM capacity (veh/h)	365	480	857	460	464	786	1362			1316		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	224	123	265	231
Volume Left	195	16	5	11
Volume Right	11	74	5	59
cSH	384	614	1362	1316
Volume to Capacity	0.58	0.20	0.00	0.01
Queue Length 95th (ft)	89	19	0	1
Control Delay (s)	26.7	12.3	0.2	0.5
Lane LOS	D	B	A	A
Approach Delay (s)	26.7	12.3	0.2	0.5
Approach LOS	D	B		

Intersection Summary				
Average Delay		9.1		
Intersection Capacity Utilization		40.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
77: Route 140 On/Off Ramps & Mt. Pleasant Street

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	257	0	255	412	70	497
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.95	0.95	0.68	0.68
Hourly flow rate (vph)	292	0	268	434	103	731
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			877			
pX, platoon unblocked						
vC, conflicting volume	1422	485			268	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1422	485			268	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	0	100			92	
cM capacity (veh/h)	137	580			1272	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	292	702	834
Volume Left	292	0	103
Volume Right	0	434	0
cSH	137	1700	1272
Volume to Capacity	2.13	0.41	0.08
Queue Length 95th (ft)	598	0	7
Control Delay (s)	585.0	0.0	2.0
Lane LOS	F		A
Approach Delay (s)	585.0	0.0	2.0
Approach LOS	F		

Intersection Summary				
Average Delay		94.4		
Intersection Capacity Utilization		93.0%	ICU Level of Service	F
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
126: Logan St & Acushnet Ave.

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	135	31	32	85	0	46	17	55	0	6	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.61	0.61	0.61	0.93	0.93	0.93	0.75	0.75	0.75
Hourly flow rate (vph)	16	145	33	52	139	0	49	18	59	0	8	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	228	188	11	264	161	48	15			77		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	228	188	11	264	161	48	15			77		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	79	97	90	80	100	97			100		
cM capacity (veh/h)	607	685	1052	542	706	1027	1597			1534		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	195	192	127	15
Volume Left	16	52	49	0
Volume Right	33	0	59	7
cSH	720	652	1597	1534
Volume to Capacity	0.27	0.29	0.03	0.00
Queue Length 95th (ft)	27	31	2	0
Control Delay (s)	11.8	12.8	3.0	0.0
Lane LOS	B	B	A	
Approach Delay (s)	11.8	12.8	3.0	0.0
Approach LOS	B	B		

Intersection Summary				
Average Delay		9.7		
Intersection Capacity Utilization		34.2%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
129: Whale's Tooth Station driveway & Acushnet Ave.

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	99	67	80	36	20	90
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.72	0.72	0.63	0.63
Hourly flow rate (vph)	108	73	111	50	32	143
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	342	136			161	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	342	136			161	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	83	92			98	
cM capacity (veh/h)	639	913			1418	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	180	161	175
Volume Left	108	0	32
Volume Right	73	50	0
cSH	727	1700	1418
Volume to Capacity	0.25	0.09	0.02
Queue Length 95th (ft)	24	0	2
Control Delay (s)	11.6	0.0	1.5
Lane LOS	B		A
Approach Delay (s)	11.6	0.0	1.5
Approach LOS	B		

Intersection Summary				
Average Delay		4.6		
Intersection Capacity Utilization		28.8%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
130: Herman Melville Boulevard & McArthur Drive

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	140	70	166	95	30	201
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.95	0.95	0.73	0.73
Hourly flow rate (vph)	184	92	175	100	41	275
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	582	225			275	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	582	225			275	
tC, single (s)	6.4	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.3	
p0 queue free %	60	88			97	
cM capacity (veh/h)	456	795			1244	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	276	275	316
Volume Left	184	0	41
Volume Right	92	100	0
cSH	532	1700	1244
Volume to Capacity	0.52	0.16	0.03
Queue Length 95th (ft)	74	0	3
Control Delay (s)	18.9	0.0	1.3
Lane LOS	C		A
Approach Delay (s)	18.9	0.0	1.3
Approach LOS	C		

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
136: Hillman St & Acushnet Ave.

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	70	150	190	41	81	133
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.87	0.87	0.77	0.77
Hourly flow rate (vph)	84	181	218	47	105	173
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	675	192	278			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	675	192	278			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	76	78	83			
cM capacity (veh/h)	349	840	1268			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	265	266	278
Volume Left	84	218	0
Volume Right	181	0	173
cSH	581	1268	1700
Volume to Capacity	0.46	0.17	0.16
Queue Length 95th (ft)	59	16	0
Control Delay (s)	16.3	7.2	0.0
Lane LOS	C	A	
Approach Delay (s)	16.3	7.2	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	7.7		
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
147: Wamsutta St & Acushnet Ave.

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	21	15	108	44	5	64
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.72	0.72	0.63	0.63
Hourly flow rate (vph)	26	19	150	61	8	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	298	181			150	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	298	181			150	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	98			99	
cM capacity (veh/h)	694	867			1444	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	44	211	110
Volume Left	26	0	8
Volume Right	19	61	0
cSH	757	1700	1444
Volume to Capacity	0.06	0.12	0.01
Queue Length 95th (ft)	5	0	0
Control Delay (s)	10.1	0.0	0.6
Lane LOS	B		A
Approach Delay (s)	10.1	0.0	0.6
Approach LOS	B		

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization		18.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
148: Wamsutta St & North Front St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	0	5	10	0	20	10	175	10	5	155	26
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.68	0.68	0.68	0.63	0.63	0.63	0.90	0.90	0.90	0.82	0.82	0.82
Hourly flow rate (vph)	65	0	7	16	0	32	11	194	11	6	189	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	471	445	205	447	455	200	221			206		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	471	445	205	447	455	200	221			206		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.4	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	87	100	99	97	100	96	99			100		
cM capacity (veh/h)	482	504	841	516	498	807	1360			1378		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	72	48	217	227
Volume Left	65	16	11	6
Volume Right	7	32	11	32
cSH	504	679	1360	1378
Volume to Capacity	0.14	0.07	0.01	0.00
Queue Length 95th (ft)	12	6	1	0
Control Delay (s)	13.3	10.7	0.5	0.2
Lane LOS	B	B	A	A
Approach Delay (s)	13.3	10.7	0.5	0.2
Approach LOS	B	B		

Intersection Summary			
Average Delay		2.9	
Intersection Capacity Utilization		27.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
182: McArthur Blvd & McArthur Dr-Leonard's Wharf

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	155	10	0	0	20	10	15	20	0	15	10	265
Peak Hour Factor	0.81	0.81	0.81	0.83	0.83	0.83	0.51	0.51	0.51	0.85	0.85	0.85
Hourly flow rate (vph)	191	12	0	0	24	12	29	39	0	18	12	312

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	204	36	69	341
Volume Left (vph)	191	0	29	18
Volume Right (vph)	0	12	0	312
Hadj (s)	0.30	-0.13	0.69	-0.41
Departure Headway (s)	5.2	5.0	5.6	4.2
Degree Utilization, x	0.29	0.05	0.11	0.40
Capacity (veh/h)	646	637	595	806
Control Delay (s)	10.4	8.3	9.3	10.1
Approach Delay (s)	10.4	8.3	9.3	10.1
Approach LOS	B	A	A	B

Intersection Summary				
Delay			10.0	
HCM Level of Service			A	
Intersection Capacity Utilization			40.3%	ICU Level of Service
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
184: McArthur Blvd & McArthur Dr

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	270	30	0	40	0	165	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.82	0.82	0.82	0.25	0.25	0.25
Hourly flow rate (vph)	0	0	0	325	36	0	49	0	201	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	216	299	0	198	198	101	0			201		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216	299	0	198	198	101	0			201		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	100	100	56	95	100	97			100		
cM capacity (veh/h)	698	598	1091	736	680	960	1591			1383		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	361	250	0
Volume Left	325	49	0
Volume Right	0	201	0
cSH	730	1591	1700
Volume to Capacity	0.49	0.03	0.00
Queue Length 95th (ft)	69	2	0
Control Delay (s)	14.7	1.6	0.0
Lane LOS	B	A	
Approach Delay (s)	14.7	1.6	0.0
Approach LOS	B		

Intersection Summary				
Average Delay			9.3	
Intersection Capacity Utilization			35.6%	ICU Level of Service
Analysis Period (min)			15	

Taunton

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	5	0	10	5	140	5	565	81	165	65	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	16	12	12	16	12	12	16	12	12	12
Storage Length (ft)	0		0	0		0	0		0	200		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		819			376			787			471	
Travel Time (s)		18.6			8.5			17.9			10.7	
Peak Hour Factor	0.45	0.45	0.45	0.84	0.84	0.84	0.85	0.85	0.85	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	33%	0%	3%	0%	7%	13%	11%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	185	0	0	766	0	196	89	0
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0	36.0	72.0	0.0
Total Split (%)	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	54.5%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	66.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.07			0.41			0.55		0.44	0.07	
Control Delay		24.2			9.3			14.0		26.0	3.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		24.2			9.3			14.0		26.0	3.0	
Queue Length 50th (ft)		3			3			95		31	7	
Queue Length 95th (ft)		6			24			145		55	17	
Internal Link Dist (ft)		739			296			707			391	
Turn Bay Length (ft)										200		
Base Capacity (vph)		1461			1506			1612		1617	1800	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.02			0.12			0.48		0.12	0.05	

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

2030 Build Condition - AM Peak Hour

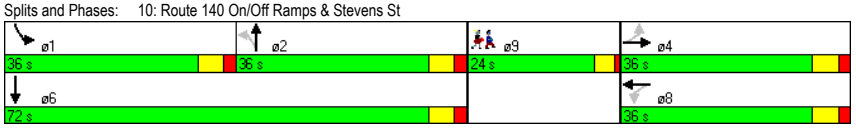
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	18%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

2030 Build Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 132	
Actuated Cycle Length: 58.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 10: Route 140 On/Off Ramps & Stevens St



HCM Signalized Intersection Capacity Analysis
10: Route 140 On/Off Ramps & Stevens St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	5	0	10	5	140	5	565	81	165	65	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	16	12	12	16	12	12	16	12	12	12
Total Lost time (s)		6.0			6.0			6.0		6.0	6.0	
Lane Util. Factor		0.95			0.95			0.95		0.97	1.00	
Frt		1.00			0.86			0.98		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		3639			2967			3289		3155	1799	
Flt Permitted		0.76			0.93			0.95		0.95	1.00	
Satd. Flow (perm)		2851			2778			3137		3155	1799	
Peak-hour factor, PHF	0.45	0.45	0.45	0.84	0.84	0.84	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	11	11	0	12	6	167	6	665	95	196	77	12
RTOR Reduction (vph)	0	0	0	0	149	0	0	6	0	0	3	0
Lane Group Flow (vph)	0	22	0	0	36	0	0	760	0	196	86	0
Heavy Vehicles (%)	0%	0%	0%	33%	0%	3%	0%	7%	13%	11%	4%	0%
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		6.3			6.3			26.0		8.3	40.3	
Effective Green, g (s)		6.3			6.3			26.0		8.3	40.3	
Actuated g/C Ratio		0.11			0.11			0.44		0.14	0.69	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		307			299			1392		447	1237	
v/s Ratio Prot										c0.06	0.05	
v/s Ratio Perm		0.01			c0.01			c0.24				
v/c Ratio		0.07			0.12			0.55		0.44	0.07	
Uniform Delay, d1		23.5			23.6			12.0		23.0	3.0	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.0			0.1			0.2		0.3	0.0	
Delay (s)		23.6			23.7			12.2		23.3	3.0	
Level of Service		C			C			B		C	A	
Approach Delay (s)		23.6			23.7			12.2			16.9	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	58.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	10	10	0	0	0	5	116	0	60	56	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	14	12	12	12	12	12	16	12	12	16
Storage Length (ft)	0		0	0		0	200		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			269			674			311	
Travel Time (s)		9.0			6.1			15.3			7.1	
Peak Hour Factor	0.83	0.83	0.83	0.77	0.77	0.77	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles (%)	41%	25%	38%	0%	0%	0%	36%	4%	0%	13%	8%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	0	0	0	142	0	0	133	92
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Detector Phase	2	2					1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0					8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	13.0	13.0					13.0	13.0		13.0	13.0	13.0
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0	51.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%	62.2%	62.2%	62.2%
Maximum Green (s)	26.0	26.0					46.0	46.0		46.0	46.0	46.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag					Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0					2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None					Min	Min		Min	Min	Min
v/c Ratio		0.06						0.05			0.06	0.06
Control Delay		7.9						2.0			2.1	1.2
Queue Delay		0.0						0.0			0.0	0.0
Total Delay		7.9						2.0			2.1	1.2
Queue Length 50th (ft)		1						0			0	0
Queue Length 95th (ft)		8						13			13	11
Internal Link Dist (ft)		316			189			594			231	
Turn Bay Length (ft)												
Base Capacity (vph)		2433						3245			2664	1679
Starvation Cap Reductn		0						0			0	0
Spillback Cap Reductn		0						0			0	0
Storage Cap Reductn		0						0			0	0
Reduced v/c Ratio		0.02						0.04			0.05	0.05

Intersection Summary	
Area Type:	Other

Cycle Length: 82
Actuated Cycle Length: 29.7
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Galleria Mall Entrance & County St

HCM Signalized Intersection Capacity Analysis
18: Galleria Mall Entrance & County St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	10	10	0	0	0	5	116	0	60	56	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	14	12	12	12	12	12	16	12	12	16
Total Lost time (s)		5.0						5.0			5.0	5.0
Lane Util. Factor		0.95						0.95			0.95	1.00
Frt		0.96						1.00			1.00	0.85
Flt Protected		0.98						1.00			0.97	1.00
Satd. Flow (prot)		2745						3419			3182	1679
Flt Permitted		0.98						0.95			0.82	1.00
Satd. Flow (perm)		2745						3246			2664	1679
Peak-hour factor, PHF	0.83	0.83	0.83	0.77	0.77	0.77	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	18	12	12	0	0	0	6	136	0	69	64	92
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	31
Lane Group Flow (vph)	0	30	0	0	0	0	0	142	0	0	133	61
Heavy Vehicles (%)	41%	25%	38%	0%	0%	0%	36%	4%	0%	13%	8%	9%
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Actuated Green, G (s)		1.3						22.5			22.5	22.5
Effective Green, g (s)		1.3						22.5			22.5	22.5
Actuated g/C Ratio		0.04						0.67			0.67	0.67
Clearance Time (s)		5.0						5.0			5.0	5.0
Vehicle Extension (s)		2.0						2.0			2.0	2.0
Lane Grp Cap (vph)		106						2161			1773	1118
v/s Ratio Prot												
v/s Ratio Perm		0.01						0.04			c0.05	0.04
v/c Ratio		0.29						0.07			0.08	0.05
Uniform Delay, d1		15.8						2.0			2.0	2.0
Progression Factor		1.00						1.00			1.00	1.00
Incremental Delay, d2		0.5						0.0			0.0	0.0
Delay (s)		16.3						2.0			2.0	2.0
Level of Service		B						A			A	A
Approach Delay (s)		16.3			0.0			2.0			2.0	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.09		
Actuated Cycle Length (s)	33.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	25.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 Build Condition - AM Peak Hour

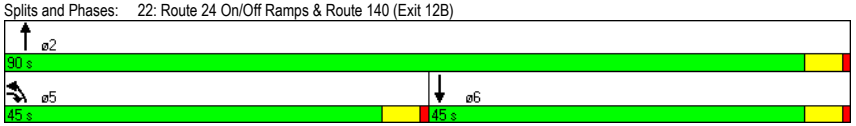
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	765	95	891	764	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	12	12	12
Storage Length (ft)	0	0	250			0
Storage Lanes	0	2	1			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	741			870	631	
Travel Time (s)	16.8			19.8	14.3	
Peak Hour Factor	0.85	0.85	0.90	0.90	0.84	0.84
Heavy Vehicles (%)	5%	9%	16%	4%	6%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	900	106	990	1198	0
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Detector Phase		5	5	2	6	
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0	4.0	
Minimum Split (s)		10.0	10.0	22.0	22.0	
Total Split (s)	0.0	45.0	45.0	90.0	45.0	0.0
Total Split (%)	0.0%	50.0%	50.0%	100.0%	50.0%	0.0%
Maximum Green (s)		40.0	40.0	85.0	40.0	
Yellow Time (s)		4.0	4.0	4.0	4.0	
All-Red Time (s)		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Recall Mode		None	None	C-Min	C-Min	
Walk Time (s)				5.0	5.0	
Flash Dont Walk (s)				11.0	11.0	
Pedestrian Calls (#/hr)				0	0	
v/c Ratio		0.86	0.17	0.29	0.73	
Control Delay		33.6	24.6	0.2	20.3	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		33.6	24.6	0.2	20.3	
Queue Length 50th (ft)		251	52	0	269	
Queue Length 95th (ft)		295	92	0	331	
Internal Link Dist (ft)	661			790	551	
Turn Bay Length (ft)			250			
Base Capacity (vph)		1159	692	3471	1645	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.78	0.15	0.29	0.73	

Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 Build Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 22: Route 24 On/Off Ramps & Route 140 (Exit 12B)



HCM Signalized Intersection Capacity Analysis
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	765	95	891	764	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	15	12	12	12	12	12
Total Lost time (s)		5.0	5.0	5.0	5.0	
Lane Util. Factor		0.88	1.00	0.95	0.95	
Frt		0.85	1.00	1.00	0.96	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		2608	1556	3471	3313	
Flt Permitted		1.00	0.95	1.00	1.00	
Satd. Flow (perm)		2608	1556	3471	3313	
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.84	0.84
Adj. Flow (vph)	0	900	106	990	910	288
RTOR Reduction (vph)	0	0	0	0	31	0
Lane Group Flow (vph)	0	900	106	990	1167	0
Heavy Vehicles (%)	5%	9%	16%	4%	6%	2%
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		36.1	36.1	90.0	43.9	
Effective Green, g (s)		36.1	36.1	90.0	43.9	
Actuated g/C Ratio		0.40	0.40	1.00	0.49	
Clearance Time (s)		5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1046	624	3471	1616	
v/s Ratio Prot		c0.35	0.07	0.29	c0.35	
v/s Ratio Perm						
v/c Ratio		0.86	0.17	0.29	0.72	
Uniform Delay, d1		24.6	17.3	0.0	18.2	
Progression Factor		1.00	1.47	1.00	0.95	
Incremental Delay, d2		7.4	0.1	0.2	2.7	
Delay (s)		32.0	25.7	0.2	20.0	
Level of Service		C	C	A	C	
Approach Delay (s)	32.0			2.7	20.0	
Approach LOS	C			A	C	

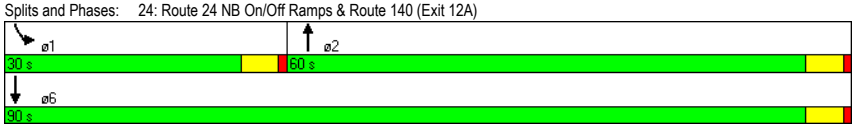
Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	330	681	1175	286	1237
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12
Storage Length (ft)	0	0		300	250	
Storage Lanes	0	1		1	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		Yes		No		
Link Speed (mph)	30		30			30
Link Distance (ft)	736		624			870
Travel Time (s)	16.7		14.2			19.8
Peak Hour Factor	0.92	0.92	0.86	0.86	0.92	0.92
Heavy Vehicles (%)	0%	1%	7%	6%	6%	8%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	359	792	1366	311	1345
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Detector Phase			2		1	6
Switch Phase						
Minimum Initial (s)			8.0		8.0	8.0
Minimum Split (s)			13.0		13.0	13.0
Total Split (s)	0.0	0.0	60.0	0.0	30.0	90.0
Total Split (%)	0.0%	0.0%	66.7%	0.0%	33.3%	100.0%
Maximum Green (s)			55.0		25.0	85.0
Yellow Time (s)			4.0		4.0	4.0
All-Red Time (s)			1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)			2.0		2.0	2.0
Recall Mode			C-Min		None	C-Min
v/c Ratio		0.20	0.36	0.90	0.80	0.40
Control Delay		0.3	8.1	9.9	46.8	0.2
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		0.3	8.1	9.9	46.8	0.2
Queue Length 50th (ft)		0	94	0	182	0
Queue Length 95th (ft)		0	148	0	m228	0
Internal Link Dist (ft)	656		544			790
Turn Bay Length (ft)				300	250	
Base Capacity (vph)		1790	2246	1524	482	3343
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.20	0.35	0.90	0.65	0.40

Intersection Summary	
Area Type:	Other

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)



HCM Signalized Intersection Capacity Analysis
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	330	681	1175	286	1237
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	12	12
Total Lost time (s)		4.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95
Frt		0.86	1.00	0.85	1.00	1.00
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1790	3374	1524	1703	3343
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1790	3374	1524	1703	3343
Peak-hour factor, PHF	0.92	0.92	0.86	0.86	0.92	0.92
Adj. Flow (vph)	0	359	792	1366	311	1345
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	359	792	1366	311	1345
Heavy Vehicles (%)	0%	1%	7%	6%	6%	8%
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)		90.0	59.4	90.0	20.6	90.0
Effective Green, g (s)		90.0	59.4	90.0	20.6	90.0
Actuated g/C Ratio		1.00	0.66	1.00	0.23	1.00
Clearance Time (s)			5.0		5.0	5.0
Vehicle Extension (s)			2.0		2.0	2.0
Lane Grp Cap (vph)		1790	2227	1524	390	3343
v/s Ratio Prot			0.23		0.18	0.40
v/s Ratio Perm		0.20		c0.90		
v/c Ratio		0.20	0.36	0.90	0.80	0.40
Uniform Delay, d1		0.0	6.8	0.0	32.7	0.0
Progression Factor		1.00	1.00	1.00	1.14	1.00
Incremental Delay, d2		0.3	0.4	8.6	6.7	0.2
Delay (s)		0.3	7.2	8.6	43.9	0.2
Level of Service		A	A	A	D	A
Approach Delay (s)	0.3		8.1			8.4
Approach LOS	A		A			A

Intersection Summary			
HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
26: Route 140 (Exit 12B) & Mozzone Blvd

2030 Build Condition - AM Peak Hour

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	990	20	35	1079	5	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	0		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1723			724	1178	
Travel Time (s)	39.2			16.5	26.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1098	0	0	1211	5	16
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Detector Phase	6		5	2	4	4
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	15.0		10.0	15.0	15.0	15.0
Total Split (s)	60.0	0.0	10.0	70.0	20.0	20.0
Total Split (%)	66.7%	0.0%	11.1%	77.8%	22.2%	22.2%
Maximum Green (s)	55.0		5.0	65.0	15.0	15.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	C-Min		None	C-Min	None	None
v/c Ratio	0.34			0.42	0.04	0.13
Control Delay	1.4			3.9	39.6	20.5
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	1.4			3.9	39.6	20.5
Queue Length 50th (ft)	0			1	3	0
Queue Length 95th (ft)	84			263	14	20
Internal Link Dist (ft)	1643			644	1098	
Turn Bay Length (ft)						
Base Capacity (vph)	3267			2897	295	277
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.34			0.42	0.02	0.06

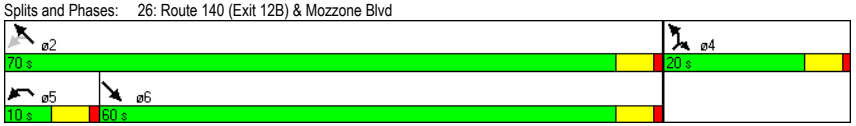
Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Lanes, Volumes, Timings
26: Route 140 (Exit 12B) & Mozzone Blvd

2030 Build Condition - AM Peak Hour

Offset: 16 (18%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 26: Route 140 (Exit 12B) & Mozzone Blvd



HCM Signalized Intersection Capacity Analysis
26: Route 140 (Exit 12B) & Mozzone Blvd

2030 Build Condition - AM Peak Hour

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	990	20	35	1079	5	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3529			3534	1770	1583
Flt Permitted	1.00			0.88	0.95	1.00
Satd. Flow (perm)	3529			3127	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1076	22	38	1173	5	16
RTOR Reduction (vph)	1	0	0	0	0	16
Lane Group Flow (vph)	1097	0	0	1211	5	0
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Actuated Green, G (s)	77.3			77.3	2.7	2.7
Effective Green, g (s)	77.3			77.3	2.7	2.7
Actuated g/C Ratio	0.86			0.86	0.03	0.03
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	3031			2686	53	47
v/s Ratio Prot	0.31				c0.00	0.00
v/s Ratio Perm				c0.39		
v/c Ratio	0.36			0.45	0.09	0.01
Uniform Delay, d1	1.3			1.5	42.5	42.4
Progression Factor	1.00			2.62	1.00	1.00
Incremental Delay, d2	0.3			0.1	0.8	0.1
Delay (s)	1.6			3.9	43.2	42.4
Level of Service	A			A	D	D
Approach Delay (s)	1.6			3.9	42.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	3.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	78	0	85	5	0	0	5	895	204	184	730	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	0		100	0		0	180		130	320		350
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		846			205			2224			1723	
Travel Time (s)		19.2			4.7			50.5			39.2	
Peak Hour Factor	0.85	0.85	0.85	0.50	0.50	0.50	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	9%	0%	4%	0%	0%	0%	0%	4%	5%	0%	6%	0%
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	46	46	100	0	10	0	0	1000	227	198	785	0
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Detector Phase	8	8	1	4	4		2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	4.0	4.0		6.0	6.0	6.0	6.0	20.0	
Minimum Split (s)	12.0	12.0	11.0	9.0	9.0		12.0	12.0	12.0	11.0	26.0	
Total Split (s)	36.0	36.0	45.0	17.0	17.0	0.0	56.0	56.0	56.0	45.0	101.0	0.0
Total Split (%)	19.9%	19.9%	24.9%	9.4%	9.4%	0.0%	30.9%	30.9%	30.9%	24.9%	55.8%	0.0%
Maximum Green (s)	30.0	30.0	40.0	12.0	12.0		50.0	50.0	50.0	40.0	95.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	1.0	1.0	1.0		2.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	6.0	4.0
Lead/Lag			Lead	Lag	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		4.0	4.0	4.0	2.0	4.0	
Recall Mode	None	None	None	None	None		Min	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.34	0.34	0.22		0.08			0.52	0.25	0.44	0.30	
Control Delay	52.8	52.8	7.9		52.8			18.6	12.0	9.5	7.0	
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0	0.0	0.0	
Total Delay	52.8	52.8	7.9		52.8			18.6	12.0	9.5	7.0	
Queue Length 50th (ft)	24	24	0		5			142	32	19	48	
Queue Length 95th (ft)	82	82	38		17			525	173	130	259	
Internal Link Dist (ft)		766			125			2144			1643	
Turn Bay Length (ft)			100						130	320		
Base Capacity (vph)	547	547	949		285			1912	923	949	3191	
Starvation Cap Reductn	0	0	0		0			0	0	0	0	
Spillback Cap Reductn	0	0	0		0			0	0	0	0	
Storage Cap Reductn	0	0	0		0			0	0	0	0	
Reduced v/c Ratio	0.08	0.08	0.11		0.04			0.52	0.25	0.21	0.25	

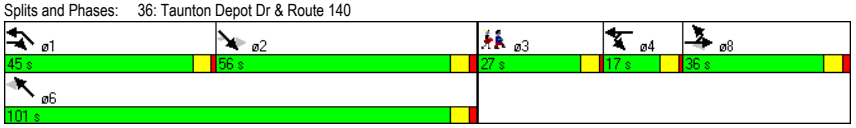
Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	15%
Maximum Green (s)	22.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
36: Taunton Depot Dr & Route 140

2030 Build Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 181	
Actuated Cycle Length: 91.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 36: Taunton Depot Dr & Route 140



HCM Signalized Intersection Capacity Analysis
36: Taunton Depot Dr & Route 140

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	78	0	85	5	0	0	5	895	204	184	730	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	12	12
Total Lost time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00			0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		1.00			1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00		0.95			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1573	1573	1553		2046			3471	1538	1805	3406	
Flt Permitted	0.95	0.95	1.00		0.95			0.95	1.00	0.19	1.00	
Satd. Flow (perm)	1573	1573	1553		2046			3300	1538	370	3406	
Peak-hour factor, PHF	0.85	0.85	0.85	0.50	0.50	0.50	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	92	0	100	10	0	0	6	994	227	198	785	0
RTOR Reduction (vph)	0	0	83	0	0	0	0	0	35	0	0	0
Lane Group Flow (vph)	46	46	17	0	10	0	0	1000	192	198	785	0
Heavy Vehicles (%)	9%	0%	4%	0%	0%	0%	0%	4%	5%	0%	6%	0%
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Actuated Green, G (s)	6.3	6.3	17.0		0.8			53.3	53.3	69.0	69.0	
Effective Green, g (s)	6.3	6.3	17.0		0.8			53.3	53.3	69.0	69.0	
Actuated g/C Ratio	0.06	0.06	0.17		0.01			0.53	0.53	0.68	0.68	
Clearance Time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Vehicle Extension (s)	2.0	2.0	2.0		2.0			4.0	4.0	2.0	4.0	
Lane Grp Cap (vph)	98	98	261		16			1741	812	405	2327	
v/s Ratio Prot	c0.03	0.03	0.01		c0.00					c0.05	0.23	
v/s Ratio Perm			0.00					c0.30	0.12	0.28		
v/c Ratio	0.47	0.47	0.06		0.62			0.57	0.24	0.49	0.34	
Uniform Delay, d1	45.7	45.7	35.3		50.0			16.2	12.9	8.4	6.6	
Progression Factor	1.00	1.00	1.00		1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.3	1.3	0.0		44.0			0.6	0.2	0.3	0.1	
Delay (s)	47.0	47.0	35.4		94.0			16.7	13.1	8.8	6.7	
Level of Service	D	D	D		F			B	B	A	A	
Approach Delay (s)		40.9			94.0			16.0			7.1	
Approach LOS		D			F			B			A	

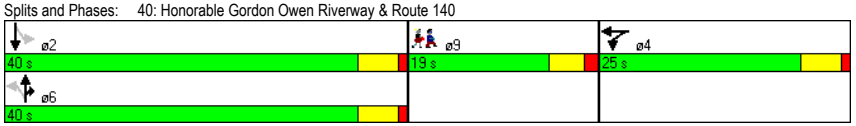
Intersection Summary			
HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	101.0	Sum of lost time (s)	29.9
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	231	0	5	0	650	302	10	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	13	12
Storage Length (ft)	0		0	0		0	0		175	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		220			991			547			1888	
Travel Time (s)		5.0			22.5			12.4			42.9	
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	8%	0%	0%	0%	6%	4%	8%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	281	0	0	699	325	0	460	0
Turn Type				Split			Perm		Prot	Perm		
Protected Phases				4	4			6	6		2	
Permitted Phases							6			2		
Detector Phase				4	4		6	6	6	2	2	
Switch Phase												
Minimum Initial (s)				6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Minimum Split (s)				11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	40.0	40.0	40.0	40.0	40.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	29.8%	29.8%	0.0%	47.6%	47.6%	47.6%	47.6%	47.6%	0.0%
Maximum Green (s)				20.0	20.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Recall Mode				None	None		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.66			0.74	0.34		0.46	
Control Delay					31.0			20.5	3.9		12.9	
Queue Delay					0.0			0.0	0.0		0.0	
Total Delay					31.0			20.5	3.9		12.9	
Queue Length 50th (ft)					91			161	7		85	
Queue Length 95th (ft)					201			#584	67		276	
Internal Link Dist (ft)		140			911			467			1808	
Turn Bay Length (ft)									175			
Base Capacity (vph)					568			994	1008		1054	
Starvation Cap Reductn					0			0	0		0	
Spillback Cap Reductn					0			0	0		0	
Storage Cap Reductn					0			0	0		0	
Reduced v/c Ratio					0.49			0.70	0.32		0.44	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	23%
Maximum Green (s)	14.0
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	7.0
Pedestrian Calls (#/hr)	3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 84	
Actuated Cycle Length: 63	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 40: Honorable Gordon Owen Riverway & Route 140



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	231	0	5	0	650	302	10	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	13	12
Total Lost time (s)					5.0			5.0	5.0		5.0	
Lane Util. Factor					1.00			1.00	1.00		1.00	
Frt					1.00			1.00	0.85		1.00	
Flt Protected					0.95			1.00	1.00		1.00	
Satd. Flow (prot)					1731			1733	1553		1866	
Flt Permitted					0.95			1.00	1.00		0.98	
Satd. Flow (perm)					1731			1733	1553		1836	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.93	0.93	0.93	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	275	0	6	0	699	325	11	449	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	133	0	0	0
Lane Group Flow (vph)	0	0	0	0	280	0	0	699	192	0	460	0
Heavy Vehicles (%)	0%	0%	0%	8%	0%	0%	0%	6%	4%	8%	5%	0%
Turn Type				Split			Perm		Prot	Perm		
Protected Phases				4	4			6	6		2	
Permitted Phases							6			2		
Actuated Green, G (s)					15.6			34.2	34.2		34.2	
Effective Green, g (s)					15.6			34.2	34.2		34.2	
Actuated g/C Ratio					0.23			0.51	0.51		0.51	
Clearance Time (s)					5.0			5.0	5.0		5.0	
Vehicle Extension (s)					4.0			4.0	4.0		4.0	
Lane Grp Cap (vph)					404			886	794		939	
v/s Ratio Prot					c0.16			c0.40	0.12			
v/s Ratio Perm											0.25	
v/c Ratio					0.69			0.79	0.24		0.49	
Uniform Delay, d1					23.5			13.4	9.1		10.7	
Progression Factor					1.00			1.00	1.00		1.00	
Incremental Delay, d2					5.5			5.0	0.2		0.6	
Delay (s)					29.0			18.4	9.3		11.2	
Level of Service					C			B	A		B	
Approach Delay (s)		0.0			29.0			15.5			11.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	66.9	Sum of lost time (s)	17.1
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	819	296	185	655	95	127	350	270	125	220	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12
Storage Length (ft)	100		70	100		70	0		50	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1663			1440			2994			1249	
Travel Time (s)		37.8			32.7			68.0			28.4	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1186	0	197	798	0	0	869	0	0	530	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Detector Phase	5	2		1	6		3	3		3	3	
Switch Phase												
Minimum Initial (s)	9.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	25.0	40.0	0.0	25.0	40.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	22.1%	35.4%	0.0%	22.1%	35.4%	0.0%	26.5%	26.5%	0.0%	26.5%	26.5%	0.0%
Maximum Green (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.08	0.93		0.70	0.41			1.47			2.36dl	
Control Delay	45.3	42.8		52.0	13.9			248.5			97.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	45.3	42.8		52.0	13.9			248.5			97.1	
Queue Length 50th (ft)	6	330		108	107			~350			~179	
Queue Length 95th (ft)	27	#642		#230	290			#558			#238	
Internal Link Dist (ft)		1583			1360			2914			1169	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	302	1274		339	1964			590			494	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.04	0.93		0.58	0.41			1.47			1.07	

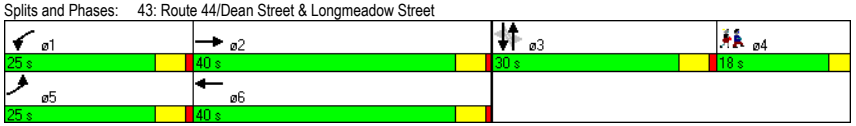
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	8.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	16%
Maximum Green (s)	15.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	7.0
Pedestrian Calls (#/hr)	12
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 113	
Actuated Cycle Length: 95.4	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	819	296	185	655	95	127	350	270	125	220	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.96		1.00	0.98			0.95			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1428	3365		1604	3414			3109			3193	
Flt Permitted	0.95	1.00		0.95	1.00			0.63			0.57	
Satd. Flow (perm)	1428	3365		1604	3414			1981			1860	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68
Adj. Flow (vph)	11	871	315	197	697	101	148	407	314	184	324	22
RTOR Reduction (vph)	0	29	0	0	7	0	0	68	0	0	3	0
Lane Group Flow (vph)	11	1157	0	197	791	0	0	801	0	0	527	0
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)	1.5	39.4		16.8	54.7			25.2			25.2	
Effective Green, g (s)	1.5	39.4		16.8	54.7			25.2			25.2	
Actuated g/C Ratio	0.01	0.39		0.16	0.54			0.25			0.25	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	21	1301		264	1833			490			460	
v/s Ratio Prot	0.01	c0.34		c0.12	0.23							
v/s Ratio Perm								c0.40			0.28	
v/c Ratio	0.52	0.89		0.75	0.43			1.64			2.36dl	
Uniform Delay, d1	49.8	29.2		40.5	14.2			38.4			38.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	27.4	8.3		11.6	0.3			295.0			88.4	
Delay (s)	77.3	37.6		52.1	14.6			333.4			126.7	
Level of Service	E	D		D	B			F			F	
Approach Delay (s)		37.9			22.0			333.4			126.7	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM Average Control Delay	118.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	101.9	Sum of lost time (s)	20.5
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	165	307	134	110	245	141	636	62	160	558	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12
Storage Length (ft)	0		50	0		50	50		0	50		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1373			971			2224			3692	
Travel Time (s)		31.2			22.1			43.3			71.9	
Peak Hour Factor	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	384	0	257	258	0	882	0	0	997	0
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Detector Phase	4	4	4	4	4	4	3	2 3		1	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	6.0			6.0		
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0	13.0	11.0			11.0		
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	17.0	57.0	0.0	15.0	55.0	0.0
Total Split (%)	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	13.9%	46.7%	0.0%	12.3%	45.1%	0.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	12.0			10.0		
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0		
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0		
Recall Mode	Max	Max	Max	Max	Max	Max	None			None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.97	0.88		1.60	0.65		0.81			1.04	
Control Delay		92.9	44.5		325.6	31.8		30.3			64.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		92.9	44.5		325.6	31.8		30.3			64.8	
Queue Length 50th (ft)		145	131		~224	84		170			213	
Queue Length 95th (ft)		#326	#291		#481	#236		#433			#398	
Internal Link Dist (ft)		1293			891			2144			3612	
Turn Bay Length (ft)			50			50						
Base Capacity (vph)		245	438		161	395		1088			960	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.97	0.88		1.60	0.65		0.81			1.04	

Lane Group	ø2	ø9
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	1.0
Minimum Split (s)	13.0	25.0
Total Split (s)	40.0	25.0
Total Split (%)	33%	20%
Maximum Green (s)	35.0	23.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	1.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		16.0
Pedestrian Calls (#/hr)		4
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Lanes, Volumes, Timings
45: Hart Street & Route 140

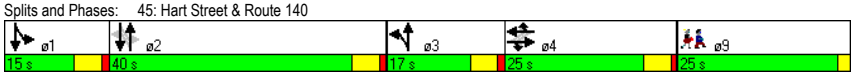
2030 Build Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 102	
Natural Cycle: 150	
Control Type: Semi Act-Uncoord	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



HCM Signalized Intersection Capacity Analysis
45: Hart Street & Route 140

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	165	307	134	110	245	141	636	62	160	558	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.99			1.00	
Flt Protected		0.99	1.00		0.97	1.00		0.99			0.99	
Satd. Flow (prot)		1734	1516		1807	1568		3272			3331	
Flt Permitted		0.71	1.00		0.44	1.00		0.61			0.54	
Satd. Flow (perm)		1238	1516		814	1568		2010			1821	
Peak-hour factor, PHF	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73
Adj. Flow (vph)	31	206	384	141	116	258	148	669	65	219	764	14
RTOR Reduction (vph)	0	0	138	0	0	85	0	4	0	0	1	0
Lane Group Flow (vph)	0	237	246	0	257	173	0	878	0	0	996	0
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		20.2	20.2		20.2	20.2		47.4			45.4	
Effective Green, g (s)		20.2	20.2		20.2	20.2		47.4			45.4	
Actuated g/C Ratio		0.20	0.20		0.20	0.20		0.46			0.44	
Clearance Time (s)		5.0	5.0		5.0	5.0						
Vehicle Extension (s)		3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)		242	296		159	306		1068			946	
v/s Ratio Prot			0.16			0.11		c0.10			c0.10	
v/s Ratio Perm		0.19			c0.32			0.28			c0.36	
v/c Ratio		0.98	0.83		1.62	0.56		0.82			1.05	
Uniform Delay, d1		41.4	40.0		41.6	37.7		24.4			29.1	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		52.8	22.8		304.4	7.3		5.2			44.3	
Delay (s)		94.2	62.8		346.1	45.0		29.6			73.4	
Level of Service		F	E		F	D		C			E	
Approach Delay (s)		74.8			195.2			29.6			73.4	
Approach LOS		E			F			C			E	

Intersection Summary			
HCM Average Control Delay	81.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	103.5	Sum of lost time (s)	25.8
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

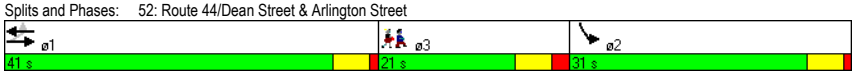
c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	48	800	655	142	296	57	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.87	0.87	0.86	0.86	0.81	0.81	
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	55	920	927	0	435	0	
Turn Type	Perm						
Protected Phases		1	1		2		3
Permitted Phases	1						
Detector Phase	1	1	1		2		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0		5.0		5.0
Minimum Split (s)	15.0	15.0	15.0		10.0		21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	0.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	0.0%	23%
Maximum Green (s)	36.0	36.0	36.0		26.0		15.0
Yellow Time (s)	4.0	4.0	4.0		4.0		4.0
All-Red Time (s)	1.0	1.0	1.0		1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0	4.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		1.0
Recall Mode	None	None	None		None		None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							8
v/c Ratio	0.57	1.00	0.90		0.79		
Control Delay	46.9	52.2	32.7		35.9		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay	46.9	52.2	32.7		35.9		
Queue Length 50th (ft)	15	352	317		159		
Queue Length 95th (ft)	#96	#890	#835		#337		
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	96	919	1027		663		
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.57	1.00	0.90		0.66		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 72.3
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



HCM Signalized Intersection Capacity Analysis
52: Route 44/Dean Street & Arlington Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	48	800	655	142	296	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.98	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1636	1810	2008		1807	
Flt Permitted	0.11	1.00	1.00		0.96	
Satd. Flow (perm)	188	1810	2008		1807	
Peak-hour factor, PHF	0.87	0.87	0.86	0.86	0.81	0.81
Adj. Flow (vph)	55	920	762	165	365	70
RTOR Reduction (vph)	0	0	7	0	0	0
Lane Group Flow (vph)	55	920	920	0	435	0
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%
Turn Type	Perm					
Protected Phases		1	1		2	
Permitted Phases	1					
Actuated Green, G (s)	36.7	36.7	36.7		22.1	
Effective Green, g (s)	36.7	36.7	36.7		22.1	
Actuated g/C Ratio	0.48	0.48	0.48		0.29	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	89	862	956		518	
v/s Ratio Prot		c0.51	0.46		c0.24	
v/s Ratio Perm	0.29					
v/c Ratio	0.62	1.07	0.96		0.84	
Uniform Delay, d1	15.0	20.2	19.5		25.8	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	12.1	50.2	20.4		11.4	
Delay (s)	27.1	70.4	39.9		37.3	
Level of Service	C	E	D		D	
Approach Delay (s)		68.0	39.9		37.3	
Approach LOS		E	D		D	

Intersection Summary			
HCM Average Control Delay	51.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	77.1	Sum of lost time (s)	18.3
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	182	1008	0	0	736	20	0	0	30	5	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	12	12	16
Storage Length (ft)	50		0	0		50	0	0		0	50
Storage Lanes	1		0	0		0	0	1		1	1
Taper Length (ft)	25		25	25		25	25	25		25	25
Right Turn on Red			Yes			Yes					Yes
Link Speed (mph)		30			30		30			30	
Link Distance (ft)		825			1426		127			959	
Travel Time (s)		18.8			32.4		2.9			21.8	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	3%	3%	0%	0%	4%	0%	0%	0%	7%	0%	4%
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	1400	0	0	822	0	0	0	0	40	207
Turn Type	pm+pt							custom	Perm		custom
Protected Phases	5	2			6			8		4	4
Permitted Phases	2								4		5
Detector Phase	5	2			6			8	4	4	4
Switch Phase											
Minimum Initial (s)	6.0	12.0			12.0			6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	17.0			17.0			11.0	11.0	11.0	11.0
Total Split (s)	17.0	62.0	0.0	0.0	45.0	0.0	0.0	25.0	25.0	25.0	25.0
Total Split (%)	19.5%	71.3%	0.0%	0.0%	51.7%	0.0%	0.0%	28.7%	28.7%	28.7%	28.7%
Maximum Green (s)	12.0	57.0			40.0			20.0	20.0	20.0	20.0
Yellow Time (s)	4.0	4.0			4.0			4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0			1.0			1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead				Lag						
Lead-Lag Optimize?	Yes				Yes						
Vehicle Extension (s)	1.5	1.5			1.5			2.0	2.0	2.0	2.0
Recall Mode	None	Min			Min			None	None	None	None
v/c Ratio		0.82			0.33					0.18	0.63
Control Delay		12.8			4.1					30.8	24.7
Queue Delay		0.0			0.0					0.0	0.0
Total Delay		12.8			4.1					30.8	24.7
Queue Length 50th (ft)		162			50					17	44
Queue Length 95th (ft)		308			100					44	106
Internal Link Dist (ft)		745			1346		47			879	
Turn Bay Length (ft)											50
Base Capacity (vph)		1945			2504					495	588
Starvation Cap Reductn		0			0					0	0
Spillback Cap Reductn		0			0					0	0
Storage Cap Reductn		0			0					0	0
Reduced v/c Ratio		0.72			0.33					0.08	0.35

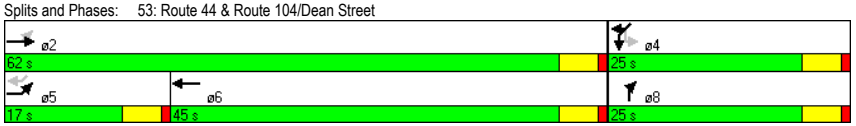
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

2030 Build Condition - AM Peak Hour

Cycle Length: 87
Actuated Cycle Length: 70.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 53: Route 44 & Route 104/Dean Street



HCM Signalized Intersection Capacity Analysis
53: Route 44 & Route 104/Dean Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	182	1008	0	0	736	20	0	0	30	5	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	16	12	12	12	12	16
Total Lost time (s)		5.0			5.0					5.0	5.0
Lane Util. Factor		0.95			0.95					1.00	1.00
Frt		1.00			1.00					1.00	0.85
Flt Protected		0.99			1.00					0.95	1.00
Satd. Flow (prot)		3478			3461					1704	1760
Flt Permitted		0.67			1.00					0.95	1.00
Satd. Flow (perm)		2352			3461					1704	1760
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	214	1186	0	0	800	22	0	0	34	6	207
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	95
Lane Group Flow (vph)	0	1400	0	0	821	0	0	0	0	40	112
Heavy Vehicles (%)	3%	3%	0%	0%	4%	0%	0%	0%	7%	0%	4%
Turn Type	pm+pt							custom	Perm		custom
Protected Phases	5	2			6			8		4	4
Permitted Phases	2								4		5
Actuated Green, G (s)		51.0			51.0					9.3	9.3
Effective Green, g (s)		51.0			51.0					9.3	9.3
Actuated g/C Ratio		0.73			0.73					0.13	0.13
Clearance Time (s)		5.0			5.0					5.0	5.0
Vehicle Extension (s)		1.5			1.5					2.0	2.0
Lane Grp Cap (vph)		1706			2511					225	233
v/s Ratio Prot					0.24						c0.06
v/s Ratio Perm		c0.60								0.02	
v/c Ratio		0.82			0.33					0.18	0.48
Uniform Delay, d1		6.5			3.5					27.1	28.3
Progression Factor		1.00			1.00					1.00	1.00
Incremental Delay, d2		3.1			0.0					0.1	0.6
Delay (s)		9.7			3.5					27.2	28.8
Level of Service		A			A					C	C
Approach Delay (s)		9.7			3.5		0.0			28.6	
Approach LOS		A			A		A			C	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	70.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	228	60	35	144	10	45	445	20	10	260	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	16	12
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		376			382			1581			384	
Travel Time (s)		8.5			8.7			35.9			8.7	
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.76	0.76	0.76
Heavy Vehicles (%)	5%	4%	4%	3%	5%	13%	2%	5%	0%	0%	2%	5%
Parking (#/hr)											0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	354	0	0	231	0	0	548	0	0	381	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Detector Phase	3	3		3	3		1	1		1	1	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.51			0.32			0.81			0.52	
Control Delay		19.2			16.8			31.2			19.6	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		19.2			16.8			31.2			19.7	
Queue Length 50th (ft)		86			53			162			96	
Queue Length 95th (ft)		230			138			#498			207	
Internal Link Dist (ft)		296			302			1501			304	
Turn Bay Length (ft)												
Base Capacity (vph)		690			722			675			729	
Starvation Cap Reductn		0			0			0			32	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.32			0.81			0.55	

Intersection Summary

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	21.0
Total Split (s)	41.0
Total Split (%)	41%
Maximum Green (s)	35.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	5.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	11
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lanes, Volumes, Timings
57: Spring Street & Summer Street

2030 Build Condition - AM Peak Hour

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 64.2
Natural Cycle: 75
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 57: Spring Street & Summer Street

HCM Signalized Intersection Capacity Analysis
57: Spring Street & Summer Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	228	60	35	144	10	45	445	20	10	260	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	16	12
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.99	
Flt Protected		1.00			0.99			1.00			1.00	
Satd. Flow (prot)		1772			2017			1800			1877	
Flt Permitted		0.97			0.90			0.94			0.98	
Satd. Flow (perm)		1728			1828			1704			1840	
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.76	0.76	0.76
Adj. Flow (vph)	23	262	69	43	176	12	48	478	22	13	342	26
RTOR Reduction (vph)	0	7	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	347	0	0	231	0	0	547	0	0	379	0
Heavy Vehicles (%)	5%	4%	4%	3%	5%	13%	2%	5%	0%	0%	2%	5%
Parking (#/hr)											0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.4			25.4			25.4			25.4	
Effective Green, g (s)		25.4			25.4			25.4			25.4	
Actuated g/C Ratio		0.37			0.37			0.37			0.37	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		634			671			625			675	
v/s Ratio Prot												
v/s Ratio Perm		c0.20			0.13			c0.32			0.21	
v/c Ratio		0.55			0.34			0.87			0.56	
Uniform Delay, d1		17.3			15.9			20.4			17.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.4			1.4			15.7			3.4	
Delay (s)		20.7			17.3			36.1			20.8	
Level of Service		C			B			D			C	
Approach Delay (s)		20.7			17.3			36.1			20.8	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	18.4
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

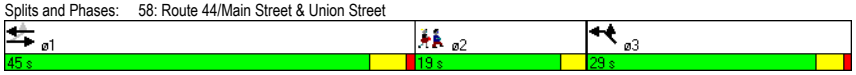
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2	ø2
Lane Configurations												
Volume (vph)	10	535	305	0	488	10	0	0	450	10	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	16	12	16	12	12	12	12	16	15	
Right Turn on Red			Yes			Yes		Yes			Yes	
Link Speed (mph)		30			30		30		30			
Link Distance (ft)		913			784		606		384			
Travel Time (s)		20.8			17.8		13.8		8.7			
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.97	0.97	0.97	
Heavy Vehicles (%)	0%	5%	5%	0%	6%	14%	0%	0%	7%	0%	0%	
Parking (#/hr)			0			0						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	944	0	0	559	0	0	0	464	31	0	
Turn Type	Perm									Prot		
Protected Phases		1			1				3	3		2
Permitted Phases	1											
Detector Phase	1	1			1				3	3		
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0				5.0	5.0		1.0
Minimum Split (s)	20.0	20.0			20.0				9.0	9.0		19.0
Total Split (s)	45.0	45.0	0.0	0.0	45.0	0.0	0.0	0.0	29.0	29.0	0.0	19.0
Total Split (%)	48.4%	48.4%	0.0%	0.0%	48.4%	0.0%	0.0%	0.0%	31.2%	31.2%	0.0%	20%
Maximum Green (s)	40.0	40.0			40.0				25.0	25.0		16.0
Yellow Time (s)	4.0	4.0			4.0				3.0	3.0		3.0
All-Red Time (s)	1.0	1.0			1.0				1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead			Lead							Lag
Lead-Lag Optimize?	Yes	Yes			Yes							Yes
Vehicle Extension (s)	3.0	3.0			3.0				3.0	3.0		3.0
Recall Mode	Max	Max			Max				Max	Max		None
Walk Time (s)												7.0
Flash Dont Walk (s)												9.0
Pedestrian Calls (#/hr)												18
v/c Ratio		0.96			0.56				0.89	0.05		
Control Delay		43.4			18.8				50.2	13.7		
Queue Delay		0.0			0.0				0.0	0.0		
Total Delay		43.4			18.8				50.2	13.7		
Queue Length 50th (ft)		341			150				191	3		
Queue Length 95th (ft)		#864			359				#481	26		
Internal Link Dist (ft)		833			704		526		304			
Turn Bay Length (ft)												
Base Capacity (vph)		982			1004				523	582		
Starvation Cap Reductn		0			0				0	0		
Spillback Cap Reductn		0			0				0	0		
Storage Cap Reductn		0			0				0	0		
Reduced v/c Ratio		0.96			0.56				0.89	0.05		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 81.6
Natural Cycle: 110
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: Route 44/Main Street & Union Street



HCM Signalized Intersection Capacity Analysis
58: Route 44/Main Street & Union Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2
Lane Configurations											
Volume (vph)	10	535	305	0	488	10	0	0	450	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	16	12	16	12	12	12	12	16	15
Total Lost time (s)		5.0			5.0				4.0	4.0	
Lane Util. Factor		1.00			1.00				1.00	1.00	
Frt		0.95			1.00				1.00	0.85	
Flt Protected		1.00			1.00				0.95	1.00	
Satd. Flow (prot)		1951			2023				1687	1830	
Flt Permitted		0.99			1.00				0.95	1.00	
Satd. Flow (perm)		1939			2023				1687	1830	
Peak-hour factor, PHF	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	11	594	339	0	548	11	0	0	464	10	21
RTOR Reduction (vph)	0	20	0	0	1	0	0	0	0	15	0
Lane Group Flow (vph)	0	924	0	0	558	0	0	0	464	16	0
Heavy Vehicles (%)	0%	5%	5%	0%	6%	14%	0%	0%	7%	0%	0%
Parking (#/hr)			0			0					
Turn Type	Perm									Prot	
Protected Phases		1			1				3	3	
Permitted Phases	1										
Actuated Green, G (s)		40.5			40.5				25.3	25.3	
Effective Green, g (s)		40.5			40.5				25.3	25.3	
Actuated g/C Ratio		0.49			0.49				0.30	0.30	
Clearance Time (s)		5.0			5.0				4.0	4.0	
Vehicle Extension (s)		3.0			3.0				3.0	3.0	
Lane Grp Cap (vph)		942			982				512	555	
v/s Ratio Prot					0.28				c0.28	0.01	
v/s Ratio Perm		c0.48									
v/c Ratio		0.98			0.57				0.91	0.03	
Uniform Delay, d1		21.1			15.2				27.9	20.4	
Progression Factor		1.00			1.00				1.00	1.00	
Incremental Delay, d2		25.2			2.4				22.2	0.1	
Delay (s)		46.2			17.6				50.2	20.5	
Level of Service		D			B				D	C	
Approach Delay (s)		46.2			17.6		0.0		48.3		
Approach LOS		D			B		A		D		

Intersection Summary			
HCM Average Control Delay	38.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	83.4	Sum of lost time (s)	17.6
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
61: Taunton Green & Broadway

2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	794	193	0	0	1051	0	306	89	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			913			579			302	
Travel Time (s)		6.9			20.8			13.2			6.9	
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%
Parking (#/hr)			0			0			0			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	197	873	212	0	0	1142	0	340	99	0	0	0
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Detector Phase	1	1	1					3	3			
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0			
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0			
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0
Total Split (%)	40.7%	40.7%	40.7%	0.0%	0.0%	0.0%	0.0%	34.9%	34.9%	0.0%	0.0%	0.0%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0			
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0			
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead	Lead	Lead									
Lead-Lag Optimize?	Yes	Yes	Yes									
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Recall Mode	Max	Max	Max					Max	Max			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.29	0.73	0.32			0.45		0.70	0.23			
Control Delay	8.2	28.1	4.0			0.6		36.2	6.7			
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0			
Total Delay	8.2	28.1	4.0			0.6		36.2	6.7			
Queue Length 50th (ft)	21	215	0			0		163	0			
Queue Length 95th (ft)	m66	283	m39			0		259	35			
Internal Link Dist (ft)		224			833			499			222	
Turn Bay Length (ft)												
Base Capacity (vph)	678	1188	656			2547		486	435			
Starvation Cap Reductn	0	0	0			0		0	0			
Spillback Cap Reductn	0	0	0			0		0	0			
Storage Cap Reductn	0	0	0			0		0	0			
Reduced v/c Ratio	0.29	0.73	0.32			0.45		0.70	0.23			

Intersection Summary

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	24%
Maximum Green (s)	17.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Ped
Walk Time (s)	10.0
Flash Dont Walk (s)	7.0
Pedestrian Calls (#/hr)	26
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 86
Actuated Cycle Length: 86
Natural Cycle: 90
Control Type: Semi Act-Uncoord
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 61: Taunton Green & Broadway

HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	794	193	0	0	1051	0	306	89	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1703	3406	1484			2547		1673	1256			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1703	3406	1484			2547		1673	1256			
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	197	873	212	0	0	1142	0	340	99	0	0	0
RTOR Reduction (vph)	84	0	138	0	0	0	0	0	70	0	0	0
Lane Group Flow (vph)	113	873	74	0	0	1142	0	340	29	0	0	0
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Actuated g/C Ratio	0.35	0.35	0.35			1.00		0.29	0.29			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	594	1188	518			2547		486	365			
v/s Ratio Prot		c0.26						c0.20				
v/s Ratio Perm	0.07		0.05			c0.45			0.02			
v/c Ratio	0.19	0.73	0.14			0.45		0.70	0.08			
Uniform Delay, d1	19.5	24.5	19.2			0.0		27.2	22.1			
Progression Factor	0.90	0.96	0.85			1.00		1.00	1.00			
Incremental Delay, d2	0.7	4.1	0.6			0.6		8.1	0.4			
Delay (s)	18.3	27.7	16.8			0.6		35.3	22.6			
Level of Service	B	C	B			A		D	C			
Approach Delay (s)		24.5			0.6			32.4			0.0	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

2030 Build Condition - AM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations							
Volume (vph)	438	21	638	295	37	421	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.88	0.88	0.87	0.87	0.85	0.85	
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	498	24	733	339	44	495	
Turn Type		Perm		Perm	Perm		
Protected Phases	3		1			1	2
Permitted Phases		3		1	1		
Detector Phase	3	3	1	1	1	1	
Switch Phase							
Minimum Initial (s)	5.0	5.0	10.0	10.0	10.0	10.0	3.0
Minimum Split (s)	10.0	10.0	15.0	15.0	15.0	15.0	18.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0	55.0	18.0
Total Split (%)	25.5%	25.5%	56.1%	56.1%	56.1%	56.1%	18%
Maximum Green (s)	20.0	20.0	50.0	50.0	50.0	50.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag			Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0	4.0	4.0	4.0	0.7
Recall Mode	Max	Max	Max	Max	Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							19
v/c Ratio	1.25	0.06	0.73	0.35	0.18	0.46	
Control Delay	163.8	24.0	20.9	2.6	13.4	13.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	163.8	24.0	20.9	2.6	13.4	13.7	
Queue Length 50th (ft)	~300	6	213	0	8	113	
Queue Length 95th (ft)	#593	29	504	36	34	260	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	398	406	1001	955	250	1072	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	1.25	0.06	0.73	0.35	0.18	0.46	

Intersection Summary	
Area Type:	Other
Cycle Length: 98	
Actuated Cycle Length: 86.8	
Natural Cycle: 90	
Control Type: Semi Act-Uncoord	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 71: Court Street & Washington Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	438	21	638	295	37	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1723	1722	1398	1805	1845
Flt Permitted	0.95	1.00	1.00	1.00	0.23	1.00
Satd. Flow (perm)	1711	1723	1722	1398	431	1845
Peak-hour factor, PHF	0.88	0.88	0.87	0.87	0.85	0.85
Adj. Flow (vph)	498	24	733	339	44	495
RTOR Reduction (vph)	0	5	0	145	0	0
Lane Group Flow (vph)	498	19	733	194	44	495
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%
Turn Type		Perm		Perm	Perm	
Protected Phases	3		1			1
Permitted Phases		3		1	1	
Actuated Green, G (s)	20.2	20.2	50.4	50.4	50.4	50.4
Effective Green, g (s)	20.2	20.2	50.4	50.4	50.4	50.4
Actuated g/C Ratio	0.23	0.23	0.57	0.57	0.57	0.57
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	393	396	986	801	247	1057
v/s Ratio Prot	c0.29		c0.43			0.27
v/s Ratio Perm		0.01		0.14	0.10	
v/c Ratio	1.27	0.05	0.74	0.24	0.18	0.47
Uniform Delay, d1	33.9	26.4	14.0	9.3	8.9	11.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	139.0	0.2	5.1	0.7	1.6	1.5
Delay (s)	172.9	26.6	19.1	10.0	10.5	12.5
Level of Service	F	C	B	B	B	B
Approach Delay (s)	166.2		16.2			12.3
Approach LOS	F		B			B

Intersection Summary			
HCM Average Control Delay	51.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	88.0	Sum of lost time (s)	17.4
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	450	157	108	39	126	52	112	431	63	31	341	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		698			192			448			574	
Travel Time (s)		15.9			4.4			10.2			13.0	
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%
Shared Lane Traffic (%)	20%											
Lane Group Flow (vph)	371	366	0	0	233	0	0	681	0	0	803	0
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Detector Phase	1	1		2	2		3	8		4	4	
Switch Phase												
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0	
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0	
Total Split (s)	41.0	41.0	0.0	17.0	17.0	0.0	20.0	61.0	0.0	41.0	41.0	0.0
Total Split (%)	29.1%	29.1%	0.0%	12.1%	12.1%	0.0%	14.2%	43.3%	0.0%	29.1%	29.1%	0.0%
Maximum Green (s)	35.0	35.0		12.0	12.0		15.0	55.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.83	0.87			1.23			0.87			0.68	
Control Delay	62.1	66.0			182.6			48.4			28.2	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	62.1	66.0			182.6			48.4			28.2	
Queue Length 50th (ft)	344	331			~288			302			260	
Queue Length 95th (ft)	#520	#526			#464			#417			338	
Internal Link Dist (ft)		618			112			368			494	
Turn Bay Length (ft)												
Base Capacity (vph)	536	500			190			930			1178	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.69	0.73			1.23			0.73			0.68	

Intersection Summary	
Area Type:	Other

Lane Group	ø5
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	16%
Maximum Green (s)	17.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	21
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

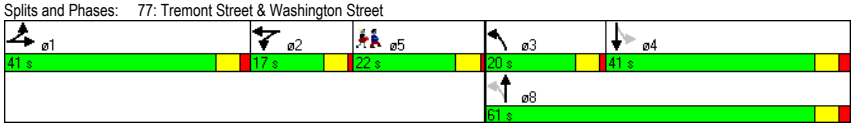
Intersection Summary

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

2030 Build Condition - AM Peak Hour

Cycle Length: 141
Actuated Cycle Length: 120.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 77: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
77: Tremont Street & Washington Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	450	157	108	39	126	52	112	431	63	31	341	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	
Lane Util. Factor	0.95	0.95			1.00			0.95			0.95	
Frt	1.00	0.95			0.97			0.98			0.93	
Flt Protected	0.95	0.99			0.99			0.99			1.00	
Satd. Flow (prot)	1759	1608			1745			3355			3016	
Flt Permitted	0.95	0.99			0.99			0.57			0.89	
Satd. Flow (perm)	1759	1608			1745			1934			2688	
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	464	162	111	42	135	56	126	484	71	34	371	398
RTOR Reduction (vph)	0	11	0	0	8	0	0	6	0	0	101	0
Lane Group Flow (vph)	371	355	0	0	225	0	0	675	0	0	702	0
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	30.6	30.6			12.6			48.4			48.4	
Effective Green, g (s)	30.6	30.6			12.6			48.4			48.4	
Actuated g/C Ratio	0.25	0.25			0.10			0.40			0.40	
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	440	402			180			765			1064	
v/s Ratio Prot	0.21	c0.22			c0.13							
v/s Ratio Perm								c0.35			0.26	
v/c Ratio	0.84	0.88			1.25			0.88			0.66	
Uniform Delay, d1	43.6	44.1			54.9			34.3			30.2	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	13.2	19.3			149.8			11.4			1.1	
Delay (s)	56.8	63.4			204.7			45.7			31.4	
Level of Service	E	E			F			D			C	
Approach Delay (s)		60.1			204.7			45.7			31.4	
Approach LOS		E			F			D			C	

Intersection Summary			
HCM Average Control Delay	60.4	HCM Level of Service	E
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	122.3	Sum of lost time (s)	30.7
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	92	5	20	96	5	5	520	15	10	370	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1068			1376			92			2042	
Travel Time (s)		24.3			31.3			2.1			46.4	
Peak Hour Factor	0.88	0.88	0.88	0.72	0.72	0.72	0.87	0.87	0.87	0.89	0.89	0.89
Heavy Vehicles (%)	5%	2%	25%	6%	1%	0%	6%	0%	0%	13%	7%	4%
Parking (#/hr)									2			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	423	0	0	168	0	0	621	0	0	427	253
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Detector Phase	4	4		3	3 4		1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0		4.0			18.0	18.0		18.0	18.0	18.0
Minimum Split (s)	14.0	14.0		9.0			25.0	25.0		25.0	25.0	25.0
Total Split (s)	41.0	41.0	0.0	20.0	61.0	0.0	42.0	42.0	0.0	42.0	42.0	42.0
Total Split (%)	32.8%	32.8%	0.0%	16.0%	48.8%	0.0%	33.6%	33.6%	0.0%	33.6%	33.6%	33.6%
Maximum Green (s)	35.0	35.0		15.0			35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		3.0			4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	7.0	7.0	4.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.0			3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None			Min	Min		Min	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.88			0.22			0.59			0.80	0.53
Control Delay		55.6			18.0			34.5			47.4	36.8
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		55.6			18.0			34.5			47.4	36.8
Queue Length 50th (ft)		237			53			155			221	118
Queue Length 95th (ft)		#569			100			285			#504	264
Internal Link Dist (ft)		988			1296			12			1962	
Turn Bay Length (ft)												50
Base Capacity (vph)		483			849			1183			599	538
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0

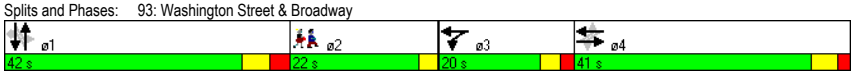
Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	19
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.88			0.20			0.52			0.71	0.47

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 103.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 93: Washington Street & Broadway



Lane Group	ø2
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	92	5	20	96	5	5	520	15	10	370	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			5.0			7.0			7.0	7.0
Lane Util. Factor		1.00			1.00			0.95			1.00	1.00
Frt		1.00			0.99			1.00			1.00	0.85
Flt Protected		0.96			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1983			1841			3591			1771	1553
Flt Permitted		0.68			0.91			0.95			0.98	1.00
Satd. Flow (perm)		1395			1697			3413			1732	1553
Peak-hour factor, PHF	0.88	0.88	0.88	0.72	0.72	0.72	0.87	0.87	0.87	0.89	0.89	0.89
Adj. Flow (vph)	312	105	6	28	133	7	6	598	17	11	416	253
RTOR Reduction (vph)	0	1	0	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	422	0	0	168	0	0	620	0	0	427	253
Heavy Vehicles (%)	5%	2%	25%	6%	1%	0%	6%	0%	0%	13%	7%	4%
Parking (#/hr)									2			
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Actuated Green, G (s)		36.0			46.0			32.1			32.1	32.1
Effective Green, g (s)		36.0			46.0			32.1			32.1	32.1
Actuated g/C Ratio		0.34			0.44			0.30			0.30	0.30
Clearance Time (s)		6.0						7.0			7.0	7.0
Vehicle Extension (s)		4.0						3.0			3.0	3.0
Lane Grp Cap (vph)		476			754			1038			527	473
v/s Ratio Prot					c0.02							
v/s Ratio Perm		c0.30			0.08			0.18			c0.25	0.16
v/c Ratio		0.89			0.22			0.60			0.81	0.53
Uniform Delay, d1		32.8			18.6			31.2			33.9	30.5
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		18.2			0.1			0.9			9.2	1.2
Delay (s)		51.1			18.6			32.1			43.1	31.7
Level of Service		D			B			C			D	C
Approach Delay (s)		51.1			18.6			32.1			38.8	
Approach LOS		D			B			C			D	

Intersection Summary			
HCM Average Control Delay	37.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	27.4
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
46: Taunton Station driveway & Arlington Street

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	26	11	144	46	15	327
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	12	157	50	16	355
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			729			
pX, platoon unblocked						
vC, conflicting volume	570	182			207	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	570	182			207	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	99			99	
cM capacity (veh/h)	477	861			1365	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	28	12	207	372
Volume Left	28	0	0	16
Volume Right	0	12	50	0
cSH	477	861	1700	1365
Volume to Capacity	0.06	0.01	0.12	0.01
Queue Length 95th (ft)	5	1	0	1
Control Delay (s)	13.0	9.2	0.0	0.4
Lane LOS	B	A		A
Approach Delay (s)	11.9		0.0	0.4
Approach LOS	B			

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization		39.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
66: Cohannet Street & Taunton Green

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (veh/h)	0	151	10	0	0	0	613	232	131	0	429
Sign Control		Stop			Stop		Free			Free	
Grade		0%			0%		0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.93	0.93	0.93	0.83	0.83
Hourly flow rate (vph)	0	162	11	0	0	0	659	249	141	0	517
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type							Raised			None	
Median storage veh)							1				
Upstream signal (ft)											
pX, platoon unblocked											
vC, conflicting volume	1897	2155	320	1660	1709	0	517				
vC1, stage 1 conf vol	1638	1638		0	0						
vC2, stage 2 conf vol	258	517		1660	1709						
vCu, unblocked vol	1897	2155	320	1660	1709	0	517				
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.2				
tC, 2 stage (s)	6.1	5.6		6.1	5.5						
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.3				
p0 queue free %	100	0	99	0	100	100	36				
cM capacity (veh/h)	38	16	726	0	48	1091	1029				

Direction, Lane #	EB 1	EB 2	SB 1	SB 2	SB 3	NE 1
Volume Total	162	11	330	330	390	517
Volume Left	0	0	330	330	0	0
Volume Right	0	11	0	0	141	517
cSH	16	726	1029	1029	1700	1700
Volume to Capacity	9.89	0.01	0.64	0.64	0.23	0.30
Queue Length 95th (ft)	Err	1	121	121	0	0
Control Delay (s)	Err	10.0	14.5	14.5	0.0	0.0
Lane LOS	F	B	B	B		
Approach Delay (s)	9378.6		9.1			0.0
Approach LOS	F					

Intersection Summary			
Average Delay		938.9	
Intersection Capacity Utilization		41.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
67: Post Office Square & Broadway

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	0	817	729	0	400
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.91	0.91	0.96	0.96
Hourly flow rate (vph)	0	0	898	801	0	417
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	1699				898	449
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1699				898	449
tC, single (s)	4.1				6.8	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	24
cM capacity (veh/h)	380				283	549

Direction, Lane #	WB 1	WB 2	WB 3	SB 1
Volume Total	449	449	801	417
Volume Left	0	0	0	0
Volume Right	0	0	801	417
cSH	1700	1700	1700	549
Volume to Capacity	0.26	0.26	0.47	0.76
Queue Length 95th (ft)	0	0	0	168
Control Delay (s)	0.0	0.0	0.0	29.3
Lane LOS				D
Approach Delay (s)	0.0			29.3
Approach LOS				D

Intersection Summary			
Average Delay		5.8	
Intersection Capacity Utilization		54.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
70: Post Office Square & Court Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	10	670	58	475	0	0	0	0	300	0
Sign Control		Free			Free			Yield			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.46	0.46	0.46	0.94	0.94	0.94	0.92	0.92	0.92	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	22	713	62	505	0	0	0	0	337	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					565							
pX, platoon unblocked												
vC, conflicting volume	62			22			1656	1487	0	1498	1509	62
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	62			22			1656	1487	0	1498	1509	62
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.1	3.3
p0 queue free %	100			54			0	100	100	100	0	100
cM capacity (veh/h)	1554			1562			0	68	1091	65	64	1009

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	22	475	299	505	337
Volume Left	0	475	238	0	0
Volume Right	22	0	0	505	0
cSH	1700	1562	1562	1700	64
Volume to Capacity	0.01	0.46	0.46	0.30	5.25
Queue Length 95th (ft)	0	62	62	0	Err
Control Delay (s)	0.0	9.2	8.2	0.0	Err
Lane LOS		A	A		F
Approach Delay (s)	0.0	5.3			Err
Approach LOS					F

Intersection Summary			
Average Delay		2061.1	
Intersection Capacity Utilization		49.2%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
75: Frederick Martin Parkway & Washington Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	0	104	0	136	0	776	164	105	745	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.42	0.42	0.42	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	12	0	0	120	0	156	0	882	186	119	847	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								574			260	
pX, platoon unblocked	0.90	0.90	0.85	0.90	0.90	0.91	0.85			0.91		
vC, conflicting volume	1685	2156	849	2060	2066	534	852			1068		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1331	1856	736	1749	1755	290	739			877		
tC, single (s)	7.5	6.5	6.9	7.7	6.5	7.0	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	82	100	100	0	100	76	100			82		
cM capacity (veh/h)	67	55	312	39	64	640	746			680		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	12	120	156	441	627	119	852
Volume Left	12	120	0	0	0	119	0
Volume Right	0	0	156	0	186	0	6
cSH	67	39	640	746	1700	680	1700
Volume to Capacity	0.18	3.03	0.24	0.00	0.37	0.18	0.50
Queue Length 95th (ft)	15	Err	24	0	0	16	0
Control Delay (s)	69.8	Err	12.4	0.0	0.0	11.4	0.0
Lane LOS	F	F	B			B	
Approach Delay (s)	69.8	4339.9		0.0		1.4	
Approach LOS	F	F					

Intersection Summary				
Average Delay	515.3			
Intersection Capacity Utilization	81.6%	ICU Level of Service	D	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
78: Kilmer Street & Oak Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	109	10	21	387	193	107
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.80	0.80	0.79	0.79
Hourly flow rate (vph)	130	12	26	484	244	135
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	848	312	380			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	848	312	380			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	59	98	98			
cM capacity (veh/h)	319	719	1184			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	142	510	380
Volume Left	130	26	0
Volume Right	12	0	135
cSH	335	1184	1700
Volume to Capacity	0.42	0.02	0.22
Queue Length 95th (ft)	51	2	0
Control Delay (s)	23.4	0.7	0.0
Lane LOS	C	A	
Approach Delay (s)	23.4	0.7	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
87: Purchase Street & School Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	243	10	16	133	5	25	70	21	11	70	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.88	0.88	0.88	0.69	0.69	0.69	0.90	0.90	0.90
Hourly flow rate (vph)	41	286	12	18	151	6	36	101	30	12	78	67
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	157			298			670	567	292	646	570	154
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	157			298			670	567	292	646	570	154
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			87	75	96	96	81	93
cM capacity (veh/h)	1399			1275			286	413	740	292	411	897

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	339	175	168	157
Volume Left	41	18	36	12
Volume Right	12	6	30	67
cSH	1399	1275	406	513
Volume to Capacity	0.03	0.01	0.41	0.31
Queue Length 95th (ft)	2	1	50	32
Control Delay (s)	1.2	0.9	20.0	15.1
Lane LOS	A	A	C	C
Approach Delay (s)	1.2	0.9	20.0	15.1
Approach LOS			C	C

Intersection Summary			
Average Delay		7.5	
Intersection Capacity Utilization		40.5%	ICU Level of Service
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Purchase Street & Washington Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	112	5	21	137	36	5	65	42	109	45	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.68	0.70	0.70	0.70
Hourly flow rate (vph)	0	162	7	31	201	53	7	96	62	156	64	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	254			170			502	482	166	565	459	228
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	254			170			502	482	166	565	459	228
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			98	80	93	54	87	98
cM capacity (veh/h)	1322			1420			417	473	884	339	491	816

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	170	285	165	234
Volume Left	0	31	7	156
Volume Right	7	53	62	14
cSH	1322	1420	569	385
Volume to Capacity	0.00	0.02	0.29	0.61
Queue Length 95th (ft)	0	2	30	97
Control Delay (s)	0.0	1.0	13.9	27.8
Lane LOS		A	B	D
Approach Delay (s)	0.0	1.0	13.9	27.8
Approach LOS			B	D

Intersection Summary			
Average Delay		10.6	
Intersection Capacity Utilization		39.6%	ICU Level of Service
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
89: Winter Street & School Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	220	10	75	370	20	25	35	65	20	41	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.63	0.63	0.63	0.84	0.84	0.84	0.56	0.56	0.56
Hourly flow rate (vph)	11	237	11	119	587	32	30	42	77	36	73	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	619			247			1159	1121	242	1203	1110	603
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	619			247			1159	1121	242	1203	1110	603
tC, single (s)	4.2			4.1			7.1	6.6	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.1	3.3	3.6	4.0	3.3
p0 queue free %	99			91			72	77	90	66	61	96
cM capacity (veh/h)	933			1324			107	182	790	105	190	503

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	258	738	149	127
Volume Left	11	119	30	36
Volume Right	11	32	77	18
cSH	933	1324	246	167
Volume to Capacity	0.01	0.09	0.60	0.76
Queue Length 95th (ft)	1	7	89	121
Control Delay (s)	0.5	2.2	39.6	74.4
Lane LOS	A	A	E	F
Approach Delay (s)	0.5	2.2	39.6	74.4
Approach LOS			E	F

Intersection Summary				
Average Delay			13.4	
Intersection Capacity Utilization			56.2%	ICU Level of Service B
Analysis Period (min)			15	

HCM Unsignalized Intersection Capacity Analysis
100: Downtown Taunton Station driveway & Oak Street

2030 Build Condition - AM Peak Hour

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	27	82	524	54	159	330
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	89	570	59	173	359
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						807
pX, platoon unblocked	0.83					
vC, conflicting volume	1303	599			628	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1262	599			628	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	77	82			82	
cM capacity (veh/h)	127	502			954	

Direction, Lane #	NW 1	NE 1	SW 1
Volume Total	118	628	532
Volume Left	29	0	173
Volume Right	89	59	0
cSH	290	1700	954
Volume to Capacity	0.41	0.37	0.18
Queue Length 95th (ft)	48	0	16
Control Delay (s)	25.7	0.0	4.6
Lane LOS	D		A
Approach Delay (s)	25.7	0.0	4.6
Approach LOS	D		

Intersection Summary				
Average Delay			4.3	
Intersection Capacity Utilization			73.6%	ICU Level of Service D
Analysis Period (min)			15	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	85	5	30	40	55	5	265	320	530	210	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	16	12	12	16	12	12	16	12	12	12
Storage Length (ft)	0		0	0		0	0		0	200		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		819			376			787			471	
Travel Time (s)		18.6			8.5			17.9			10.7	
Peak Hour Factor	0.76	0.76	0.76	0.84	0.84	0.84	0.89	0.89	0.89	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	10%	0%	2%	0%	8%	0%	1%	1%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	149	0	0	664	0	662	306	0
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0	36.0	72.0	0.0
Total Split (%)	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	27.3%	0.0%	27.3%	54.5%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	66.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.39			0.33			0.69		0.65	0.25	
Control Delay		29.2			18.9			18.2		23.6	4.7	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		29.2			18.9			18.2		23.6	4.7	
Queue Length 50th (ft)		31			15			77		111	37	
Queue Length 95th (ft)		58			42			150		169	62	
Internal Link Dist (ft)		739			296			707			391	
Turn Bay Length (ft)										200		
Base Capacity (vph)		1510			1390			1618		1720	1754	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.11			0.11			0.41		0.38	0.17	

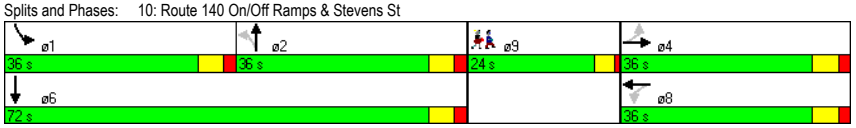
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	18%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
10: Route 140 On/Off Ramps & Stevens St

2030 Build Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 132	
Actuated Cycle Length: 62.6	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 10: Route 140 On/Off Ramps & Stevens St



HCM Signalized Intersection Capacity Analysis
10: Route 140 On/Off Ramps & Stevens St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	85	5	30	40	55	5	265	320	530	210	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	16	12	12	16	12	12	16	12	12	12
Total Lost time (s)		6.0			6.0			6.0		6.0	6.0	
Lane Util. Factor		0.95			0.95			0.95		0.97	1.00	
Frt		0.99			0.93			0.92		1.00	0.98	
Flt Protected		0.98			0.99			1.00		0.95	1.00	
Satd. Flow (prot)		3651			3227			3200		3467	1835	
Flt Permitted		0.82			0.84			0.95		0.95	1.00	
Satd. Flow (perm)		3042			2733			3044		3467	1835	
Peak-hour factor, PHF	0.76	0.76	0.76	0.84	0.84	0.84	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	53	112	7	36	48	65	6	298	360	662	262	44
RTOR Reduction (vph)	0	3	0	0	56	0	0	154	0	0	3	0
Lane Group Flow (vph)	0	169	0	0	93	0	0	510	0	662	303	0
Heavy Vehicles (%)	0%	0%	0%	10%	0%	2%	0%	8%	0%	1%	1%	3%
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		8.9			8.9			17.0		18.3	41.3	
Effective Green, g (s)		8.9			8.9			17.0		18.3	41.3	
Actuated g/C Ratio		0.14			0.14			0.27		0.29	0.66	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		435			391			832		1020	1218	
v/s Ratio Prot										c0.19	0.17	
v/s Ratio Perm		c0.06			0.03			c0.17				
v/c Ratio		0.39			0.24			0.61		0.65	0.25	
Uniform Delay, d1		24.2			23.6			19.7		19.1	4.2	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.2			0.1			0.9		1.1	0.0	
Delay (s)		24.4			23.8			20.7		20.2	4.2	
Level of Service		C			C			C		C	A	
Approach Delay (s)		24.4			23.8			20.7			15.2	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	62.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	155	45	0	0	0	25	65	0	165	153	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	14	12	12	12	12	12	16	12	12	16
Storage Length (ft)	0		0	0		0	200		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		396			269			674			311	
Travel Time (s)		9.0			6.1			15.3			7.1	
Peak Hour Factor	0.94	0.94	0.94	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Heavy Vehicles (%)	1%	4%	0%	0%	0%	11%	0%	0%	0%	3%	1%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	548	0	0	0	0	0	119	0	0	353	506
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Detector Phase	2	2					1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0					8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	13.0	13.0					13.0	13.0		13.0	13.0	13.0
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0	51.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%	62.2%	62.2%	62.2%
Maximum Green (s)	26.0	26.0					46.0	46.0		46.0	46.0	46.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag					Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes					Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0					2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None					Min	Min		Min	Min	Min
v/c Ratio		0.48						0.11			0.35	0.51
Control Delay		11.0						6.9			8.3	3.1
Queue Delay		0.0						0.0			0.0	0.0
Total Delay		11.0						6.9			8.3	3.1
Queue Length 50th (ft)		35						5			18	0
Queue Length 95th (ft)		82						14			46	37
Internal Link Dist (ft)		316			189			594			231	
Turn Bay Length (ft)												
Base Capacity (vph)		3115						2975			2717	1794
Starvation Cap Reductn		0						0			0	0
Spillback Cap Reductn		0						0			0	0
Storage Cap Reductn		0						0			0	0
Reduced v/c Ratio		0.18						0.04			0.13	0.28

Intersection Summary	
Area Type:	Other

Cycle Length: 82
Actuated Cycle Length: 32.1
Natural Cycle: 40
Control Type: Actuated-Uncoordinated

Splits and Phases: 18: Galleria Mall Entrance & County St

HCM Signalized Intersection Capacity Analysis
18: Galleria Mall Entrance & County St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	155	45	0	0	0	25	65	0	165	153	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	14	12	12	12	12	12	16	12	12	16
Total Lost time (s)		5.0						5.0			5.0	5.0
Lane Util. Factor		0.95						0.95			0.95	1.00
Frt		0.99						1.00			1.00	0.85
Flt Protected		0.97						0.99			0.97	1.00
Satd. Flow (prot)		3735						3561			3449	1794
Flt Permitted		0.97						0.82			0.77	1.00
Satd. Flow (perm)		3735						2974			2719	1794
Peak-hour factor, PHF	0.94	0.94	0.94	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Adj. Flow (vph)	335	165	48	0	0	0	33	86	0	183	170	506
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	0	315
Lane Group Flow (vph)	0	539	0	0	0	0	0	119	0	0	353	191
Heavy Vehicles (%)	1%	4%	0%	0%	0%	11%	0%	0%	0%	3%	1%	2%
Turn Type	Perm						Perm			Perm		Perm
Protected Phases		2						1			1	
Permitted Phases	2						1			1		1
Actuated Green, G (s)		9.8						12.0			12.0	12.0
Effective Green, g (s)		9.8						12.0			12.0	12.0
Actuated g/C Ratio		0.31						0.38			0.38	0.38
Clearance Time (s)		5.0						5.0			5.0	5.0
Vehicle Extension (s)		2.0						2.0			2.0	2.0
Lane Grp Cap (vph)		1151						1122			1026	677
v/s Ratio Prot												
v/s Ratio Perm		0.14						0.04			c0.13	0.11
v/c Ratio		0.47						0.11			0.34	0.28
Uniform Delay, d1		8.9						6.4			7.1	6.9
Progression Factor		1.00						1.00			1.00	1.00
Incremental Delay, d2		0.1						0.0			0.1	0.1
Delay (s)		9.0						6.4			7.2	7.0
Level of Service		A						A			A	A
Approach Delay (s)		9.0			0.0			6.4			7.1	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	31.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 Build Condition - PM Peak Hour

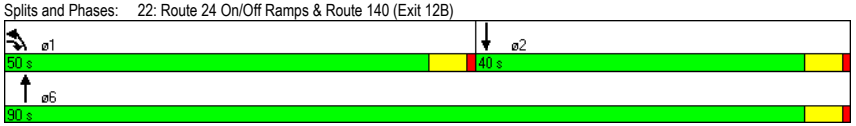
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	1440	285	976	1129	362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	12	12	12
Storage Length (ft)	0	0	250			200
Storage Lanes	0	2	1			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	729			870	625	
Travel Time (s)	16.6			19.8	14.2	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	0%	3%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1500	310	1061	1620	0
Turn Type		Over	Prot			
Protected Phases		1	1	6	2	
Permitted Phases						
Detector Phase		1	1	6	2	
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0	4.0	
Minimum Split (s)		9.0	9.0	9.0	21.0	
Total Split (s)	0.0	50.0	50.0	90.0	40.0	0.0
Total Split (%)	0.0%	55.6%	55.6%	100.0%	44.4%	0.0%
Maximum Green (s)		45.0	45.0	85.0	35.0	
Yellow Time (s)		4.0	4.0	4.0	4.0	
All-Red Time (s)		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Recall Mode		None	None	C-Min	C-Min	
Walk Time (s)					5.0	
Flash Dont Walk (s)					11.0	
Pedestrian Calls (#/hr)					0	
v/c Ratio		1.10	0.34	0.30	1.19	
Control Delay		79.5	14.4	0.2	116.4	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		79.5	14.4	0.2	116.4	
Queue Length 50th (ft)		~554	134	0	~584	
Queue Length 95th (ft)		#699	91	0	#724	
Internal Link Dist (ft)	649			790	545	
Turn Bay Length (ft)			250			
Base Capacity (vph)		1367	903	3505	1361	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		1.10	0.34	0.30	1.19	

Lanes, Volumes, Timings
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 Build Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green, Master Intersection	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 22: Route 24 On/Off Ramps & Route 140 (Exit 12B)



HCM Signalized Intersection Capacity Analysis
22: Route 24 On/Off Ramps & Route 140 (Exit 12B)

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	1440	285	976	1129	362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	15	12	12	12	12	12
Total Lost time (s)		5.0	5.0	5.0	5.0	
Lane Util. Factor		0.88	1.00	0.95	0.95	
Frt		0.85	1.00	1.00	0.96	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		2733	1805	3505	3410	
Flt Permitted		1.00	0.95	1.00	1.00	
Satd. Flow (perm)		2733	1805	3505	3410	
Peak-hour factor, PHF	0.96	0.96	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1500	310	1061	1227	393
RTOR Reduction (vph)	0	0	0	0	34	0
Lane Group Flow (vph)	0	1500	310	1061	1586	0
Heavy Vehicles (%)	2%	4%	0%	3%	2%	2%
Turn Type		Over	Prot			
Protected Phases		1	1	6	2	
Permitted Phases						
Actuated Green, G (s)		45.0	45.0	90.0	35.0	
Effective Green, g (s)		45.0	45.0	90.0	35.0	
Actuated g/C Ratio		0.50	0.50	1.00	0.39	
Clearance Time (s)		5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1367	903	3505	1326	
v/s Ratio Prot		c0.55	0.17	0.30	c0.46	
v/s Ratio Perm						
v/c Ratio		1.10	0.34	0.30	1.20	
Uniform Delay, d1		22.5	13.6	0.0	27.5	
Progression Factor		1.00	0.96	1.00	0.89	
Incremental Delay, d2		55.5	0.2	0.2	94.2	
Delay (s)		78.0	13.3	0.2	118.6	
Level of Service		E	B	A	F	
Approach Delay (s)	78.0			3.2	118.6	
Approach LOS	E			A	F	

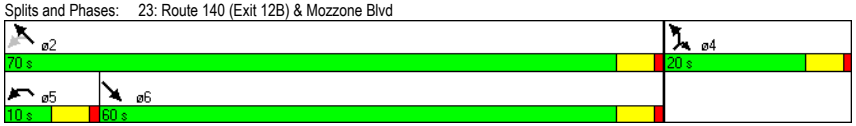
Intersection Summary			
HCM Average Control Delay	69.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	1271	191	225	1008	176	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	0		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)		25	25		25	25
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1713			740	1061	
Travel Time (s)	38.9			16.8	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1590	0	0	1341	191	239
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Detector Phase	6		5	2	4	4
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0
Total Split (s)	60.0	0.0	10.0	70.0	20.0	20.0
Total Split (%)	66.7%	0.0%	11.1%	77.8%	22.2%	22.2%
Maximum Green (s)	55.0		5.0	65.0	15.0	15.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	C-Min		None	C-Min	None	None
v/c Ratio	0.62			1.46dl	0.72	0.67
Control Delay	7.0			46.1	52.5	25.4
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	7.0			46.1	52.5	25.4
Queue Length 50th (ft)	198			~442	103	51
Queue Length 95th (ft)	255			#576	#180	130
Internal Link Dist (ft)	1633			660	981	
Turn Bay Length (ft)						
Base Capacity (vph)	2574			1309	295	380
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.62			1.02	0.65	0.63

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	

Offset: 40 (44%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 23: Route 140 (Exit 12B) & Mozzone Blvd



HCM Signalized Intersection Capacity Analysis
23: Route 140 (Exit 12B) & Mozzone Blvd

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	1271	191	225	1008	176	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.98			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3470			3507	1770	1583
Flt Permitted	1.00			0.50	0.95	1.00
Satd. Flow (perm)	3470			1770	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1382	208	245	1096	191	239
RTOR Reduction (vph)	9	0	0	0	0	118
Lane Group Flow (vph)	1581	0	0	1341	191	121
Turn Type			pm+pt			Prot
Protected Phases	6		5	2	4	4
Permitted Phases			2			
Actuated Green, G (s)	66.6			66.6	13.4	13.4
Effective Green, g (s)	66.6			66.6	13.4	13.4
Actuated g/C Ratio	0.74			0.74	0.15	0.15
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2568			1310	264	236
v/s Ratio Prot	0.46				c0.11	0.08
v/s Ratio Perm				c0.76		
v/c Ratio	0.62			1.46dl	0.72	0.51
Uniform Delay, d1	5.6			11.7	36.5	35.3
Progression Factor	1.00			1.04	1.00	1.00
Incremental Delay, d2	1.1			30.8	9.4	1.9
Delay (s)	6.7			43.0	46.0	37.2
Level of Service	A			D	D	D
Approach Delay (s)	6.7			43.0	41.1	
Approach LOS	A			D	D	

Intersection Summary			
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	249	991	880	170	2434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12
Storage Length (ft)	0	0		300	250	
Storage Lanes	0	1		1	1	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	30		30			30
Link Distance (ft)	736		624			870
Travel Time (s)	16.7		14.2			19.8
Peak Hour Factor	0.94	0.94	0.98	0.98	0.97	0.97
Heavy Vehicles (%)	0%	2%	3%	6%	6%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	265	1011	898	175	2509
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Detector Phase			2		1	6
Switch Phase						
Minimum Initial (s)			8.0		8.0	8.0
Minimum Split (s)			13.0		13.0	13.0
Total Split (s)	0.0	0.0	66.0	0.0	24.0	90.0
Total Split (%)	0.0%	0.0%	73.3%	0.0%	26.7%	100.0%
Maximum Green (s)			61.0		19.0	85.0
Yellow Time (s)			4.0		4.0	4.0
All-Red Time (s)			1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)			2.0		2.0	2.0
Recall Mode			C-Min		None	C-Min
v/c Ratio		0.15	0.39	0.59	0.68	0.72
Control Delay		0.2	5.3	1.7	36.0	0.1
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		0.2	5.3	1.7	36.0	0.1
Queue Length 50th (ft)		0	91	0	100	0
Queue Length 95th (ft)		0	155	0	m74	m0
Internal Link Dist (ft)	656		544			790
Turn Bay Length (ft)				300	250	
Base Capacity (vph)		1772	2588	1524	360	3505
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.15	0.39	0.59	0.49	0.72

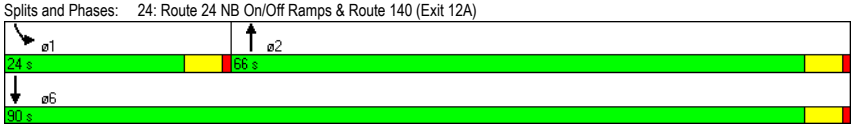
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

2030 Build Condition - PM Peak Hour

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 18 (20%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)



HCM Signalized Intersection Capacity Analysis
24: Route 24 NB On/Off Ramps & Route 140 (Exit 12A)

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	249	991	880	170	2434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	12	12
Total Lost time (s)		4.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00	0.95	1.00	1.00	0.95
Frt		0.86	1.00	0.85	1.00	1.00
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1772	3505	1524	1703	3505
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1772	3505	1524	1703	3505
Peak-hour factor, PHF	0.94	0.94	0.98	0.98	0.97	0.97
Adj. Flow (vph)	0	265	1011	898	175	2509
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	265	1011	898	175	2509
Heavy Vehicles (%)	0%	2%	3%	6%	6%	3%
Turn Type		Free		Free	Prot	
Protected Phases			2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)		90.0	66.5	90.0	13.5	90.0
Effective Green, g (s)		90.0	66.5	90.0	13.5	90.0
Actuated g/C Ratio		1.00	0.74	1.00	0.15	1.00
Clearance Time (s)			5.0		5.0	5.0
Vehicle Extension (s)			2.0		2.0	2.0
Lane Grp Cap (vph)		1772	2590	1524	255	3505
v/s Ratio Prot			0.29		0.10	c0.72
v/s Ratio Perm		0.15		0.59		
v/c Ratio		0.15	0.39	0.59	0.69	0.72
Uniform Delay, d1		0.0	4.3	0.0	36.2	0.0
Progression Factor		1.00	1.00	1.00	0.98	1.00
Incremental Delay, d2		0.2	0.4	1.7	0.6	0.1
Delay (s)		0.2	4.8	1.7	36.1	0.1
Level of Service		A	A	A	D	A
Approach Delay (s)	0.2		3.3			2.5
Approach LOS	A		A			A

Intersection Summary			
HCM Average Control Delay	2.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	305	5	302	5	0	0	0	885	272	209	930	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	12	12
Storage Length (ft)	0		100	0		0	180		130	320		350
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		846			205			2224			1713	
Travel Time (s)		19.2			4.7			50.5			38.9	
Peak Hour Factor	0.93	0.93	0.93	0.63	0.63	0.63	0.98	0.98	0.98	0.94	0.94	0.94
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	2%	2%	0%	1%	0%
Shared Lane Traffic (%)	49%											
Lane Group Flow (vph)	167	166	325	0	8	0	0	903	278	222	989	0
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Detector Phase	8	8	1	4	4		2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	4.0	4.0		6.0	6.0	6.0	6.0	20.0	
Minimum Split (s)	12.0	12.0	11.0	9.0	9.0		12.0	12.0	12.0	11.0	26.0	
Total Split (s)	36.0	36.0	45.0	17.0	17.0	0.0	56.0	56.0	56.0	45.0	101.0	0.0
Total Split (%)	19.9%	19.9%	24.9%	9.4%	9.4%	0.0%	30.9%	30.9%	30.9%	24.9%	55.8%	0.0%
Maximum Green (s)	30.0	30.0	40.0	12.0	12.0		50.0	50.0	50.0	40.0	95.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	1.0	1.0	1.0		2.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	5.0	5.0	4.0	6.0	6.0	6.0	5.0	6.0	4.0
Lead/Lag			Lead	Lag	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?				Yes	Yes		Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		4.0	4.0	4.0	2.0	4.0	
Recall Mode	None	None	None	None	None		Min	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.59	0.58	0.40		0.07			0.58	0.37	0.51	0.43	
Control Delay	51.4	51.0	4.6		60.0			26.4	16.8	14.0	11.8	
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0	0.0	0.0	
Total Delay	51.4	51.0	4.6		60.0			26.4	16.8	14.0	11.8	
Queue Length 50th (ft)	84	84	0		4			165	52	34	101	
Queue Length 95th (ft)	260	258	65		20			547	245	179	422	
Internal Link Dist (ft)		766			125			2144			1633	
Turn Bay Length (ft)			100						130	320		
Base Capacity (vph)	598	600	1235		291			2097	979	918	3237	
Starvation Cap Reductn	0	0	0		0			0	0	0	0	
Spillback Cap Reductn	0	0	0		0			0	0	0	0	
Storage Cap Reductn	0	0	0		0			0	0	0	0	
Reduced v/c Ratio	0.28	0.28	0.26		0.03			0.43	0.28	0.24	0.31	

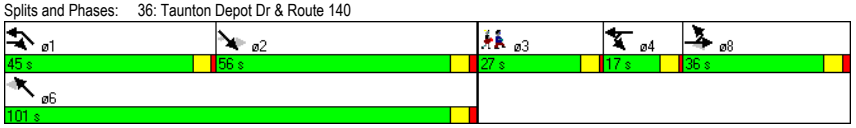
Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	15%
Maximum Green (s)	22.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	15.0
Pedestrian Calls (#/hr)	6
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
36: Taunton Depot Dr & Route 140

2030 Build Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 181	
Actuated Cycle Length: 94.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 36: Taunton Depot Dr & Route 140



HCM Signalized Intersection Capacity Analysis
36: Taunton Depot Dr & Route 140

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	305	5	302	5	0	0	0	885	272	209	930	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	12	12
Total Lost time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00			0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85		1.00			1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00		0.95			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1689	1599		2046			3539	1583	1805	3574	
Flt Permitted	0.95	0.95	1.00		0.95			1.00	1.00	0.18	1.00	
Satd. Flow (perm)	1681	1689	1599		2046			3539	1583	338	3574	
Peak-hour factor, PHF	0.93	0.93	0.93	0.63	0.63	0.63	0.98	0.98	0.98	0.94	0.94	0.94
Adj. Flow (vph)	328	5	325	8	0	0	0	903	278	222	989	0
RTOR Reduction (vph)	0	0	230	0	0	0	0	0	59	0	0	0
Lane Group Flow (vph)	167	166	95	0	8	0	0	903	219	222	989	0
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	2%	2%	0%	1%	0%
Turn Type	Split		pm+ov	Split			Perm		Perm	pm+pt		
Protected Phases	8	8	1	4	4			2		1	6	
Permitted Phases			8				2		2	6		
Actuated Green, G (s)	16.0	16.0	29.7		0.7			42.1	42.1	60.8	60.8	
Effective Green, g (s)	16.0	16.0	29.7		0.7			42.1	42.1	60.8	60.8	
Actuated g/C Ratio	0.16	0.16	0.29		0.01			0.41	0.41	0.60	0.60	
Clearance Time (s)	6.0	6.0	5.0		5.0			6.0	6.0	5.0	6.0	
Vehicle Extension (s)	2.0	2.0	2.0		2.0			4.0	4.0	2.0	4.0	
Lane Grp Cap (vph)	263	265	465		14			1459	653	398	2128	
v/s Ratio Prot	c0.10	0.10	0.03		c0.00			c0.26		c0.07	0.28	
v/s Ratio Perm			0.03						0.14	0.26		
v/c Ratio	0.63	0.63	0.20		0.57			0.62	0.34	0.56	0.46	
Uniform Delay, d1	40.3	40.3	27.3		50.6			23.7	20.5	12.8	11.5	
Progression Factor	1.00	1.00	1.00		1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.7	3.3	0.1		30.5			0.9	0.4	1.0	0.2	
Delay (s)	44.0	43.6	27.4		81.0			24.6	20.9	13.8	11.8	
Level of Service	D	D	C		F			C	C	B	B	
Approach Delay (s)		35.7			81.0			23.7			12.1	
Approach LOS		D			F			C			B	

Intersection Summary			
HCM Average Control Delay	21.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	102.1	Sum of lost time (s)	29.6
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	476	0	0	0	525	343	15	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	13	12
Storage Length (ft)	0		0	0		0	0		175	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		220			991			547			1888	
Travel Time (s)		5.0			22.5			12.4			42.9	
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.96	0.96	0.96	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	2%	1%	0%	100%	0%	3%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	580	0	0	547	357	0	775	0
Turn Type				Split			Perm		Prot	Perm		
Protected Phases				4	4			6	6		2	
Permitted Phases							6			2		
Detector Phase				4	4		6	6	6	2	2	
Switch Phase												
Minimum Initial (s)				6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Minimum Split (s)				11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	40.0	40.0	40.0	40.0	40.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	29.8%	29.8%	0.0%	47.6%	47.6%	47.6%	47.6%	47.6%	0.0%
Maximum Green (s)				20.0	20.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Recall Mode				None	None		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					1.06			0.60	0.36		0.80	
Control Delay					82.6			16.8	2.8		23.9	
Queue Delay					0.0			0.0	0.0		0.0	
Total Delay					82.6			16.8	2.8		23.9	
Queue Length 50th (ft)					~236			132	0		219	
Queue Length 95th (ft)					#521			360	48		#625	
Internal Link Dist (ft)		140			911			467			1808	
Turn Bay Length (ft)									175			
Base Capacity (vph)					548			925	1002		984	
Starvation Cap Reductn					0			0	0		0	
Spillback Cap Reductn					0			0	0		0	
Storage Cap Reductn					0			0	0		0	
Reduced v/c Ratio					1.06			0.59	0.36		0.79	

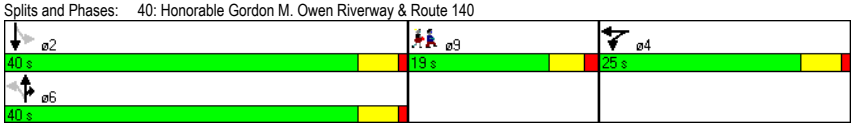
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	23%
Maximum Green (s)	14.0
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	7.0
Pedestrian Calls (#/hr)	3
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
40: Honorable Gordon M. Owen Riverway & Route 140

2030 Build Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 84	
Actuated Cycle Length: 68.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 40: Honorable Gordon M. Owen Riverway & Route 140



HCM Signalized Intersection Capacity Analysis
40: Honorable Gordon M. Owen Riverway & Route 140

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	476	0	0	0	525	343	15	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	13	12
Total Lost time (s)					5.0			5.0	5.0		5.0	
Lane Util. Factor					1.00			1.00	1.00		1.00	
Frt					1.00			1.00	0.85		1.00	
Flt Protected					0.95			1.00	1.00		1.00	
Satd. Flow (prot)					1847			1783	1599		1924	
Flt Permitted					0.95			1.00	1.00		0.99	
Satd. Flow (perm)					1847			1783	1599		1897	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.96	0.96	0.96	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	580	0	0	0	547	357	17	758	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	185	0	0	0
Lane Group Flow (vph)	0	0	0	0	580	0	0	547	172	0	775	0
Heavy Vehicles (%)	2%	2%	2%	1%	0%	100%	0%	3%	1%	0%	2%	0%
Turn Type				Split			Perm		Prot	Perm		
Protected Phases				4	4			6	6		2	
Permitted Phases							6			2		
Actuated Green, G (s)					20.2			34.8	34.8		34.8	
Effective Green, g (s)					20.2			34.8	34.8		34.8	
Actuated g/C Ratio					0.28			0.48	0.48		0.48	
Clearance Time (s)					5.0			5.0	5.0		5.0	
Vehicle Extension (s)					4.0			4.0	4.0		4.0	
Lane Grp Cap (vph)					516			858	770		913	
v/s Ratio Prot					c0.31			0.31	0.11			
v/s Ratio Perm											c0.41	
v/c Ratio					1.12			0.64	0.22		0.85	
Uniform Delay, d1					26.0			14.0	10.9		16.4	
Progression Factor					1.00			1.00	1.00		1.00	
Incremental Delay, d2					78.3			1.8	0.2		7.7	
Delay (s)					104.4			15.8	11.1		24.2	
Level of Service					F			B	B		C	
Approach Delay (s)		0.0			104.4			13.9			24.2	
Approach LOS		A			F			B			C	

Intersection Summary			
HCM Average Control Delay	40.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	72.3	Sum of lost time (s)	17.3
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	829	356	405	769	220	78	330	220	150	235	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12
Storage Length (ft)	100		70	100		70	0		50	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1663			1440			2994			1249	
Travel Time (s)		37.8			32.7			68.0			28.4	
Peak Hour Factor	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1274	0	422	1030	0	0	683	0	0	471	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Detector Phase	5	2		1	6		3	3		3	3	
Switch Phase												
Minimum Initial (s)	9.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	25.0	40.0	0.0	25.0	40.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	22.1%	35.4%	0.0%	22.1%	35.4%	0.0%	26.5%	26.5%	0.0%	26.5%	26.5%	0.0%
Maximum Green (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.07	1.03		1.25	0.51			1.09			2.39dl	
Control Delay	45.1	65.4		171.0	15.0			93.6			69.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	45.1	65.4		171.0	15.0			93.6			69.1	
Queue Length 50th (ft)	6	~385		~314	150			~218			145	
Queue Length 95th (ft)	27	#710		#615	398			#420			#281	
Internal Link Dist (ft)		1583			1360			2914			1169	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	344	1233		337	2002			629			492	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	1.03		1.25	0.51			1.09			0.96	

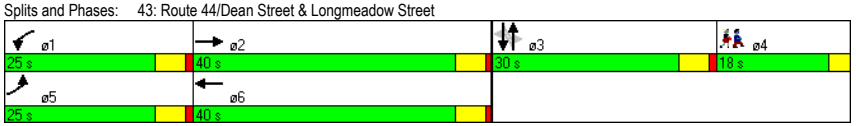
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	8.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	16%
Maximum Green (s)	15.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	7.0
Pedestrian Calls (#/hr)	7
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 113	
Actuated Cycle Length: 98.6	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	829	356	405	769	220	78	330	220	150	235	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.95		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1685	3347		1652	3388			3237			3379	
Flt Permitted	0.95	1.00		0.95	1.00			0.68			0.56	
Satd. Flow (perm)	1685	3347		1652	3388			2230			1924	
Peak-hour factor, PHF	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	11	891	383	422	801	229	85	359	239	179	280	12
RTOR Reduction (vph)	0	38	0	0	15	0	0	62	0	0	2	0
Lane Group Flow (vph)	11	1236	0	422	1015	0	0	621	0	0	469	0
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)	1.6	39.3		20.1	57.8			25.1			25.1	
Effective Green, g (s)	1.6	39.3		20.1	57.8			25.1			25.1	
Actuated g/C Ratio	0.02	0.37		0.19	0.55			0.24			0.24	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	26	1252		316	1863			533			459	
v/s Ratio Prot	0.01	c0.37		c0.26	0.30							
v/s Ratio Perm								c0.28			0.24	
v/c Ratio	0.42	0.99		1.34	0.54			1.17			2.39dl	
Uniform Delay, d1	51.3	32.6		42.5	15.2			40.0			40.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	14.4	22.3		171.0	0.6			93.5			47.9	
Delay (s)	65.7	54.9		213.5	15.8			133.5			87.9	
Level of Service	E	D		F	B			F			F	
Approach Delay (s)		55.0			73.2			133.5			87.9	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM Average Control Delay	79.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	105.1	Sum of lost time (s)	20.6
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	105	173	106	170	240	290	803	122	120	882	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12
Storage Length (ft)	0		50	0		50	50		0	50		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1373			971			2224			3692	
Travel Time (s)		31.2			22.1			43.3			71.9	
Peak Hour Factor	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	205	254	0	291	253	0	1278	0	0	1054	0
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Detector Phase	4	4	4	4	4	4	3	2 3		1	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	4.0			4.0		
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0	13.0	9.0			9.0		
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	17.0	57.0	0.0	15.0	55.0	0.0
Total Split (%)	20.5%	20.5%	20.5%	20.5%	20.5%	20.5%	13.9%	46.7%	0.0%	12.3%	45.1%	0.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	12.0			10.0		
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0		
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead			Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0		
Recall Mode	Max	Max	Max	Max	Max	Max	None			None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.05	0.60		1.27	0.63		1.08			1.06	
Control Delay		118.3	23.4		186.0	29.8		77.4			68.0	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		118.3	23.4		186.0	29.8		77.4			68.0	
Queue Length 50th (ft)		~139	66		~228	90		~340			~255	
Queue Length 95th (ft)		#181	85		#389	174		#423			#423	
Internal Link Dist (ft)		1293			891			2144			3612	
Turn Bay Length (ft)			50			50						
Base Capacity (vph)		195	420		229	403		1179			996	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		1.05	0.60		1.27	0.63		1.08			1.06	

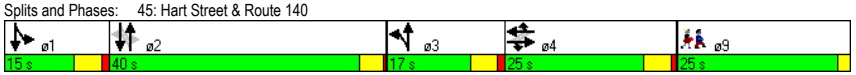
Lane Group	ø2	ø9
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	1.0
Minimum Split (s)	20.0	25.0
Total Split (s)	40.0	25.0
Total Split (%)	33%	20%
Maximum Green (s)	36.0	23.0
Yellow Time (s)	3.5	2.0
All-Red Time (s)	0.5	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		16.0
Pedestrian Calls (#/hr)		0
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 97	
Natural Cycle: 150	
Control Type: Semi Act-Uncoord	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	105	173	106	170	240	290	803	122	120	882	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		4.0			5.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.98			1.00	
Flt Protected		0.99	1.00		0.98	1.00		0.99			0.99	
Satd. Flow (prot)		1801	1531		1839	1599		3363			3484	
Flt Permitted		0.52	1.00		0.59	1.00		0.57			0.50	
Satd. Flow (perm)		943	1531		1112	1599		1947			1764	
Peak-hour factor, PHF	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	51	154	254	112	179	253	305	845	128	125	919	10
RTOR Reduction (vph)	0	0	104	0	0	73	0	6	0	0	1	0
Lane Group Flow (vph)	0	205	150	0	291	180	0	1272	0	0	1053	0
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%
Turn Type	Perm		Prot	Perm		Prot	pm+pt			pm+pt		
Protected Phases		4	4		4	4	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		20.0	20.0		20.0	20.0		48.0			46.0	
Effective Green, g (s)		20.0	20.0		20.0	20.0		48.0			46.0	
Actuated g/C Ratio		0.21	0.21		0.21	0.21		0.49			0.47	
Clearance Time (s)		5.0	5.0		5.0	5.0						
Vehicle Extension (s)		3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)		194	316		229	330		1139			1014	
v/s Ratio Prot			0.10			0.11		c0.14			c0.11	
v/s Ratio Perm		0.22			c0.26			c0.41			0.39	
v/c Ratio		1.06	0.47		1.27	0.55		1.12			1.04	
Uniform Delay, d1		38.5	33.9		38.5	34.4		24.5			25.5	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		80.4	5.0		151.5	6.3		64.8			38.9	
Delay (s)		118.9	38.9		190.0	40.8		89.3			64.4	
Level of Service		F	D		F	D		F			E	
Approach Delay (s)		74.6			120.6			89.3			64.4	
Approach LOS		E			F			F			E	

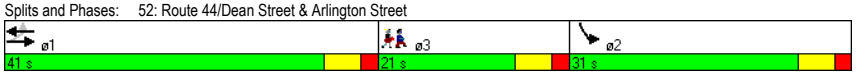
Intersection Summary			
HCM Average Control Delay	84.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	97.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	100.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	25	795	750	93	406	79	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.89	0.89	0.98	0.98	0.97	0.97	
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	28	893	860	0	500	0	
Turn Type	Perm						
Protected Phases		1	1		2		3
Permitted Phases	1						
Detector Phase	1	1	1		2		
Switch Phase							
Minimum Initial (s)	9.0	9.0	9.0		4.0		5.0
Minimum Split (s)	15.0	15.0	15.0		10.0		21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	0.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	0.0%	23%
Maximum Green (s)	35.0	35.0	35.0		25.0		15.0
Yellow Time (s)	4.0	4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	4.0	6.0	4.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		1.0
Recall Mode	None	None	None		None		None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							4
v/c Ratio	0.30	1.04	0.89		0.81		
Control Delay	27.3	65.7	33.7		36.8		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay	27.3	65.7	33.7		36.8		
Queue Length 50th (ft)	7	373	314		194		
Queue Length 95th (ft)	42	#890	#811		#500		
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	93	856	963		621		
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.30	1.04	0.89		0.81		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 76.2
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



HCM Signalized Intersection Capacity Analysis
52: Route 44/Dean Street & Arlington Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	25	795	750	93	406	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	6.0	6.0	6.0		6.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.98	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1685	1845	2066		1872	
Flt Permitted	0.11	1.00	1.00		0.96	
Satd. Flow (perm)	200	1845	2066		1872	
Peak-hour factor, PHF	0.89	0.89	0.98	0.98	0.97	0.97
Adj. Flow (vph)	28	893	765	95	419	81
RTOR Reduction (vph)	0	0	5	0	0	0
Lane Group Flow (vph)	28	893	855	0	500	0
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%
Turn Type	Perm					
Protected Phases		1	1		2	
Permitted Phases	1					
Actuated Green, G (s)	35.4	35.4	35.4		25.3	
Effective Green, g (s)	35.4	35.4	35.4		25.3	
Actuated g/C Ratio	0.44	0.44	0.44		0.31	
Clearance Time (s)	6.0	6.0	6.0		6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	87	804	901		583	
v/s Ratio Prot		c0.48	0.41		c0.27	
v/s Ratio Perm	0.14					
v/c Ratio	0.32	1.11	0.95		0.86	
Uniform Delay, d1	15.0	22.9	22.0		26.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	2.1	66.6	18.6		11.9	
Delay (s)	17.2	89.5	40.7		38.2	
Level of Service	B	F	D		D	
Approach Delay (s)		87.3	40.7		38.2	
Approach LOS		F	D		D	

Intersection Summary			
HCM Average Control Delay	59.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	81.2	Sum of lost time (s)	20.5
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	1022	0	0	1038	15	15	10	5	65	15	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	12	12	12	16
Storage Length (ft)	50		0	0		50	0		0	0		50
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		825			1426			127			959	
Travel Time (s)		18.8			32.4			2.9			21.8	
Peak Hour Factor	0.97	0.97	0.97	0.84	0.84	0.84	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	0%	0%	2%	6%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1200	0	0	1254	0	0	40	0	0	86	308
Turn Type	pm+pt						Perm			Perm		pm+ov
Protected Phases	5	2			6			8			4	5
Permitted Phases	2						8			4		4
Detector Phase	5	2			6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	6.0	12.0			12.0		6.0	6.0		6.0	6.0	6.0
Minimum Split (s)	11.0	17.0			17.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	17.0	62.0	0.0	0.0	45.0	0.0	25.0	25.0	0.0	25.0	25.0	17.0
Total Split (%)	19.5%	71.3%	0.0%	0.0%	51.7%	0.0%	28.7%	28.7%	0.0%	28.7%	28.7%	19.5%
Maximum Green (s)	12.0	57.0			40.0		20.0	20.0		20.0	20.0	12.0
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead				Lag							Lead
Lead-Lag Optimize?	Yes				Yes							Yes
Vehicle Extension (s)	1.5	1.5			1.5		2.0	2.0		2.0	2.0	1.5
Recall Mode	None	Min			Min		None	None		None	None	None
v/c Ratio		0.70			0.71			0.18			0.40	0.53
Control Delay		6.9			14.6			26.7			34.8	20.9
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		6.9			14.6			26.7			34.8	20.9
Queue Length 50th (ft)		86			176			12			33	93
Queue Length 95th (ft)		151			273			34			81	176
Internal Link Dist (ft)		745			1346			47			879	
Turn Bay Length (ft)												50
Base Capacity (vph)		1971			2427			552			518	727
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.61			0.52			0.07			0.17	0.42

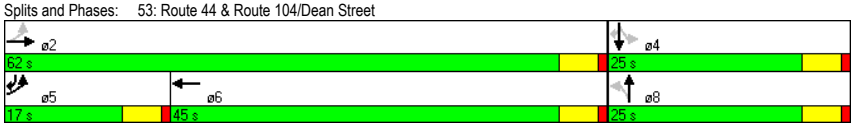
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
53: Route 44 & Route 104/Dean Street

2030 Build Condition - PM Peak Hour

Cycle Length: 87
Actuated Cycle Length: 61.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 53: Route 44 & Route 104/Dean Street



HCM Signalized Intersection Capacity Analysis
53: Route 44 & Route 104/Dean Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	1022	0	0	1038	15	15	10	5	65	15	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	16	12	12	12	12	12	16
Total Lost time (s)		5.0			5.0			5.0			5.0	5.0
Lane Util. Factor		0.95			0.95			1.00			1.00	1.00
Frt		1.00			1.00			0.98			1.00	0.85
Flt Protected		0.99			1.00			0.98			0.96	1.00
Satd. Flow (prot)		3518			3530			1810			1826	1794
Flt Permitted		0.58			1.00			0.80			0.74	1.00
Satd. Flow (perm)		2056			3530			1480			1403	1794
Peak-hour factor, PHF	0.97	0.97	0.97	0.84	0.84	0.84	0.75	0.75	0.75	0.93	0.93	0.93
Adj. Flow (vph)	146	1054	0	0	1236	18	20	13	7	70	16	308
RTOR Reduction (vph)	0	0	0	0	1	0	0	6	0	0	0	22
Lane Group Flow (vph)	0	1200	0	0	1253	0	0	34	0	0	86	286
Heavy Vehicles (%)	2%	2%	0%	0%	2%	6%	0%	0%	0%	0%	0%	2%
Turn Type	pm+pt						Perm			Perm		pm+ov
Protected Phases	5	2			6			8			4	5
Permitted Phases	2						8			4		4
Actuated Green, G (s)		45.1			31.5			7.0			7.0	15.6
Effective Green, g (s)		45.1			31.5			7.0			7.0	15.6
Actuated g/C Ratio		0.73			0.51			0.11			0.11	0.25
Clearance Time (s)		5.0			5.0			5.0			5.0	5.0
Vehicle Extension (s)		1.5			1.5			2.0			2.0	1.5
Lane Grp Cap (vph)		1696			1791			167			158	595
v/s Ratio Prot		c0.10			0.36							c0.07
v/s Ratio Perm		c0.42						0.02			0.06	0.09
v/c Ratio		0.71			0.70			0.20			0.54	0.48
Uniform Delay, d1		4.8			11.7			25.0			26.0	19.8
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		1.1			1.0			0.2			2.0	0.2
Delay (s)		5.9			12.7			25.2			28.1	20.0
Level of Service		A			B			C			C	C
Approach Delay (s)		5.9			12.7			25.2			21.8	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	62.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	219	110	15	251	10	60	370	10	10	350	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	12	12	12	16	12
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		376			382			1581			384	
Travel Time (s)		8.5			8.7			35.9			8.7	
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.85	0.85	0.85	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	1%	0%	1%	0%	0%	2%	0%	0%	1%	3%
Parking (#/hr)											0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	462	0	0	363	0	0	518	0	0	419	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Detector Phase	3	3		3	3		1	1		1	1	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%	29.7%	29.7%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.69			0.45			0.81			0.57	
Control Delay		24.3			18.1			31.6			20.5	
Queue Delay		0.0			0.0			0.0			0.2	
Total Delay		24.3			18.1			31.6			20.7	
Queue Length 50th (ft)		122			89			153			108	
Queue Length 95th (ft)		#307			192			#435			289	
Internal Link Dist (ft)		296			302			1501			304	
Turn Bay Length (ft)												
Base Capacity (vph)		672			810			641			740	
Starvation Cap Reductn		0			0			0			40	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.69			0.45			0.81			0.60	
Intersection Summary												

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	21.0
Total Split (s)	41.0
Total Split (%)	41%
Maximum Green (s)	35.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	12
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
57: Spring Street & Summer Street

2030 Build Condition - PM Peak Hour

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 64.2
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 57: Spring Street & Summer Street

HCM Signalized Intersection Capacity Analysis
57: Spring Street & Summer Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	219	110	15	251	10	60	370	10	10	350	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	12	12	12	16	12
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			1.00			1.00			0.99	
Flt Protected		0.99			1.00			0.99			1.00	
Satd. Flow (prot)		1783			2118			1850			1894	
Flt Permitted		0.93			0.97			0.87			0.98	
Satd. Flow (perm)		1672			2049			1620			1866	
Peak-hour factor, PHF	0.80	0.80	0.80	0.76	0.76	0.76	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	50	274	138	20	330	13	71	435	12	11	376	32
RTOR Reduction (vph)	0	13	0	0	0	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	449	0	0	363	0	0	517	0	0	416	0
Heavy Vehicles (%)	2%	2%	1%	0%	1%	0%	0%	2%	0%	0%	1%	3%
Parking (#/hr)											0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			1			1	
Permitted Phases	3			3			1			1		
Actuated Green, G (s)		25.4			25.4			25.4			25.4	
Effective Green, g (s)		25.4			25.4			25.4			25.4	
Actuated g/C Ratio		0.37			0.37			0.37			0.37	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		614			752			595			685	
v/s Ratio Prot												
v/s Ratio Perm		c0.27			0.18			c0.32			0.22	
v/c Ratio		0.73			0.48			0.87			0.61	
Uniform Delay, d1		19.0			16.8			20.4			17.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		7.5			2.2			15.9			4.0	
Delay (s)		26.5			19.1			36.2			21.8	
Level of Service		C			B			D			C	
Approach Delay (s)		26.5			19.1			36.2			21.8	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM Average Control Delay	26.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	18.4
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

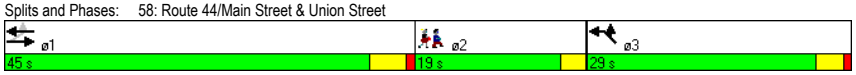
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2	ø2
Lane Configurations												
Volume (vph)	15	482	395	0	512	20	0	0	395	25	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	16	16	12	16	12	12	12	12	16	15	
Right Turn on Red			Yes			Yes		Yes			Yes	
Link Speed (mph)		30			30		30		30			
Link Distance (ft)		913			784		606		384			
Travel Time (s)		20.8			17.8		13.8		8.7			
Peak Hour Factor	0.93	0.93	0.93	0.86	0.86	0.86	0.92	0.92	0.91	0.91	0.91	
Heavy Vehicles (%)	7%	3%	1%	0%	4%	0%	0%	0%	2%	4%	0%	
Parking (#/hr)			0			0						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	959	0	0	618	0	0	0	434	43	0	
Turn Type	Perm									Prot		
Protected Phases		1			1				3	3		2
Permitted Phases	1											
Detector Phase	1	1			1				3	3		
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0				5.0	5.0		1.0
Minimum Split (s)	20.0	20.0			20.0				9.0	9.0		19.0
Total Split (s)	45.0	45.0	0.0	0.0	45.0	0.0	0.0	0.0	29.0	29.0	0.0	19.0
Total Split (%)	48.4%	48.4%	0.0%	0.0%	48.4%	0.0%	0.0%	0.0%	31.2%	31.2%	0.0%	20%
Maximum Green (s)	40.0	40.0			40.0				25.0	25.0		16.0
Yellow Time (s)	4.0	4.0			4.0				3.0	3.0		3.0
All-Red Time (s)	1.0	1.0			1.0				1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead			Lead							Lag
Lead-Lag Optimize?	Yes	Yes			Yes							Yes
Vehicle Extension (s)	3.0	3.0			3.0				3.0	3.0		3.0
Recall Mode	Max	Max			Max				Max	Max		None
Walk Time (s)												7.0
Flash Dont Walk (s)												9.0
Pedestrian Calls (#/hr)												19
v/c Ratio		0.96			0.60				0.79	0.08		
Control Delay		42.8			19.7				40.3	17.3		
Queue Delay		0.0			0.0				0.3	0.0		
Total Delay		42.8			19.7				40.6	17.3		
Queue Length 50th (ft)		341			171				172	8		
Queue Length 95th (ft)		#869			383				#426	38		
Internal Link Dist (ft)		833			704		526		304			
Turn Bay Length (ft)												
Base Capacity (vph)		998			1026				549	565		
Starvation Cap Reductn		0			0				9	0		
Spillback Cap Reductn		0			0				0	0		
Storage Cap Reductn		0			0				0	0		
Reduced v/c Ratio		0.96			0.60				0.80	0.08		

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 81.6
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: Route 44/Main Street & Union Street



HCM Signalized Intersection Capacity Analysis
58: Route 44/Main Street & Union Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR	NWR2
Lane Configurations											
Volume (vph)	15	482	395	0	512	20	0	0	395	25	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	16	12	16	12	12	12	12	16	15
Total Lost time (s)		5.0			5.0				4.0	4.0	
Lane Util. Factor		1.00			1.00				1.00	1.00	
Frt		0.94			0.99				1.00	0.85	
Flt Protected		1.00			1.00				0.95	1.00	
Satd. Flow (prot)		1980			2063				1770	1785	
Flt Permitted		0.99			1.00				0.95	1.00	
Satd. Flow (perm)		1956			2063				1770	1785	
Peak-hour factor, PHF	0.93	0.93	0.93	0.86	0.86	0.86	0.92	0.92	0.91	0.91	0.91
Adj. Flow (vph)	16	518	425	0	595	23	0	0	434	27	16
RTOR Reduction (vph)	0	28	0	0	2	0	0	0	0	11	0
Lane Group Flow (vph)	0	931	0	0	616	0	0	0	434	32	0
Heavy Vehicles (%)	7%	3%	1%	0%	4%	0%	0%	0%	2%	4%	0%
Parking (#/hr)			0			0					
Turn Type	Perm									Prot	
Protected Phases		1			1				3	3	
Permitted Phases	1										
Actuated Green, G (s)		40.5			40.5				25.3	25.3	
Effective Green, g (s)		40.5			40.5				25.3	25.3	
Actuated g/C Ratio		0.49			0.49				0.30	0.30	
Clearance Time (s)		5.0			5.0				4.0	4.0	
Vehicle Extension (s)		3.0			3.0				3.0	3.0	
Lane Grp Cap (vph)		950			1002				537	541	
v/s Ratio Prot					0.30				c0.25	0.02	
v/s Ratio Perm		c0.48									
v/c Ratio		0.98			0.62				0.81	0.06	
Uniform Delay, d1		21.1			15.7				26.8	20.6	
Progression Factor		1.00			1.00				1.00	1.00	
Incremental Delay, d2		24.8			2.8				12.4	0.2	
Delay (s)		45.9			18.6				39.2	20.8	
Level of Service		D			B				D	C	
Approach Delay (s)		45.9			18.6		0.0		37.5		
Approach LOS		D			B		A		D		

Intersection Summary			
HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	83.4	Sum of lost time (s)	17.6
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
61: Taunton Green & Broadway

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	961	347	0	0	1155	0	202	131	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			913			579			302	
Travel Time (s)		6.9			20.8			13.2			6.9	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%
Parking (#/hr)			0			0			0			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	181	1033	373	0	0	1255	0	230	149	0	0	0
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Detector Phase	1	1	1					3	3			
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0			
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0			
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0
Total Split (%)	40.7%	40.7%	40.7%	0.0%	0.0%	0.0%	0.0%	34.9%	34.9%	0.0%	0.0%	0.0%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0			
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0			
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead	Lead	Lead									
Lead-Lag Optimize?	Yes	Yes	Yes									
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Recall Mode	Max	Max	Max					Max	Max			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.26	0.84	0.46			0.47		0.45	0.30			
Control Delay	7.4	33.2	4.1			0.6		28.5	6.0			
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0			
Total Delay	7.4	33.2	4.1			0.6		28.5	6.0			
Queue Length 50th (ft)	17	267	0			0		101	0			
Queue Length 95th (ft)	59	#354	51			0		164	40			
Internal Link Dist (ft)		224			833			499			222	
Turn Bay Length (ft)												
Base Capacity (vph)	701	1223	806			2647		506	492			
Starvation Cap Reductn	0	0	0			0		0	0			
Spillback Cap Reductn	0	0	0			0		0	0			
Storage Cap Reductn	0	0	0			0		0	0			
Reduced v/c Ratio	0.26	0.84	0.46			0.47		0.45	0.30			

Intersection Summary

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	24%
Maximum Green (s)	17.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Ped
Walk Time (s)	10.0
Flash Dont Walk (s)	7.0
Pedestrian Calls (#/hr)	22
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 86
Actuated Cycle Length: 86
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 61: Taunton Green & Broadway

HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	961	347	0	0	1155	0	202	131	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1770	3505	1615			2647		1739	1330			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1770	3505	1615			2647		1739	1330			
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	181	1033	373	0	0	1255	0	230	149	0	0	0
RTOR Reduction (vph)	83	0	243	0	0	0	0	0	106	0	0	0
Lane Group Flow (vph)	98	1033	130	0	0	1255	0	230	43	0	0	0
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			86.0		25.0	25.0			
Actuated g/C Ratio	0.35	0.35	0.35			1.00		0.29	0.29			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	617	1223	563			2647		506	387			
v/s Ratio Prot		c0.29						0.13				
v/s Ratio Perm	0.06		0.08			c0.47			0.03			
v/c Ratio	0.16	0.84	0.23			0.47		0.45	0.11			
Uniform Delay, d1	19.3	25.8	19.8			0.0		24.9	22.4			
Progression Factor	0.92	0.98	0.87			1.00		1.00	1.00			
Incremental Delay, d2	0.5	7.2	1.0			0.6		2.9	0.6			
Delay (s)	18.3	32.5	18.3			0.6		27.9	22.9			
Level of Service	B	C	B			A		C	C			
Approach Delay (s)		27.5			0.6			25.9			0.0	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM Average Control Delay	16.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

2030 Build Condition - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations							
Volume (vph)	457	21	578	289	52	694	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.94	0.94	0.92	0.92	0.95	0.95	
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	486	22	628	314	55	731	
Turn Type		Perm		Perm	Perm		
Protected Phases	3		1			1	2
Permitted Phases		3		1	1		
Minimum Split (s)	10.0	10.0	15.0	15.0	15.0	15.0	17.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0	55.0	17.0
Total Split (%)	25.8%	25.8%	56.7%	56.7%	56.7%	56.7%	18%
Maximum Green (s)	20.0	20.0	50.0	50.0	50.0	50.0	15.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag			Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							21
v/c Ratio	1.30	0.06	0.69	0.35	0.24	0.75	
Control Delay	188.2	25.6	22.8	2.7	16.5	24.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	188.2	25.6	22.8	2.7	16.5	24.8	
Queue Length 50th (ft)	~387	8	279	0	18	340	
Queue Length 95th (ft)	#581	29	410	40	45	495	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	373	360	905	887	230	970	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	1.30	0.06	0.69	0.35	0.24	0.75	

Intersection Summary	
Area Type:	Other
Cycle Length: 97	
Actuated Cycle Length: 97	

Lanes, Volumes, Timings
71: Court Street & Washington Street

2030 Build Condition - PM Peak Hour

Offset: 0 (0%), Referenced to phase 2:Ped and 6:, Start of Green
Natural Cycle: 90
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 71: Court Street & Washington Street

HCM Signalized Intersection Capacity Analysis
71: Court Street & Washington Street

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	457	21	578	289	52	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1811	1723	1756	1425	1671	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.25	1.00
Satd. Flow (perm)	1811	1723	1756	1425	447	1881
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.95	0.95
Adj. Flow (vph)	486	22	628	314	55	731
RTOR Reduction (vph)	0	5	0	152	0	0
Lane Group Flow (vph)	486	17	628	162	55	731
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%
Turn Type		Perm		Perm	Perm	
Protected Phases	3		1			1
Permitted Phases		3		1	1	
Actuated Green, G (s)	20.0	20.0	50.0	50.0	50.0	50.0
Effective Green, g (s)	20.0	20.0	50.0	50.0	50.0	50.0
Actuated g/C Ratio	0.21	0.21	0.52	0.52	0.52	0.52
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	373	355	905	735	230	970
v/s Ratio Prot	c0.27		0.36			c0.39
v/s Ratio Perm		0.01		0.11	0.12	
v/c Ratio	1.30	0.05	0.69	0.22	0.24	0.75
Uniform Delay, d1	38.5	30.9	17.7	12.8	13.0	18.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	154.6	0.3	4.4	0.7	2.4	5.4
Delay (s)	193.1	31.1	22.1	13.5	15.4	24.0
Level of Service	F	C	C	B	B	C
Approach Delay (s)	186.1		19.2			23.4
Approach LOS	F		B			C

Intersection Summary			
HCM Average Control Delay	58.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	97.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	503	173	118	27	131	37	160	384	61	37	395	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		698			192			454			574	
Travel Time (s)		15.9			4.4			10.3			13.0	
Peak Hour Factor	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Shared Lane Traffic (%)	20%											
Lane Group Flow (vph)	415	404	0	0	241	0	0	644	0	0	1074	0
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Detector Phase	1	1		2	2		3	8		4	4	
Switch Phase												
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0	
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0	
Total Split (s)	41.0	41.0	0.0	17.0	17.0	0.0	20.0	61.0	0.0	41.0	41.0	0.0
Total Split (%)	29.1%	29.1%	0.0%	12.1%	12.1%	0.0%	14.2%	43.3%	0.0%	29.1%	29.1%	0.0%
Maximum Green (s)	35.0	35.0		12.0	12.0		15.0	55.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.86	0.88			1.24			2.15dl			0.92	
Control Delay	62.5	64.7			186.2			61.0			42.9	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	62.5	64.7			186.2			61.0			42.9	
Queue Length 50th (ft)	378	361			~291			293			415	
Queue Length 95th (ft)	#603	#593			#417			#425			#507	
Internal Link Dist (ft)		618			112			374			494	
Turn Bay Length (ft)												
Base Capacity (vph)	552	520			195			842			1167	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.75	0.78			1.24			0.76			0.92	

Intersection Summary	
Area Type:	Other

Lane Group	ø5
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	16%
Maximum Green (s)	17.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	22
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

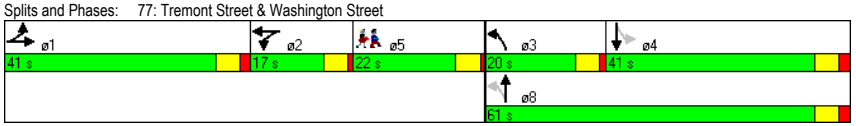
Intersection Summary

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

2030 Build Condition - PM Peak Hour

Cycle Length: 141
Actuated Cycle Length: 120.2
Natural Cycle: 135
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 77: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
77: Tremont Street & Washington Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	503	173	118	27	131	37	160	384	61	37	395	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	
Lane Util. Factor	0.95	0.95			1.00			0.95			0.95	
Frt	1.00	0.95			0.97			0.98			0.92	
Flt Protected	0.95	0.99			0.99			0.99			1.00	
Satd. Flow (prot)	1811	1672			1804			3355			3113	
Flt Permitted	0.95	0.99			0.99			0.51			0.87	
Satd. Flow (perm)	1811	1672			1804			1746			2704	
Peak-hour factor, PHF	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	519	178	122	33	162	46	170	409	65	42	449	583
RTOR Reduction (vph)	0	11	0	0	6	0	0	6	0	0	125	0
Lane Group Flow (vph)	415	393	0	0	235	0	0	638	0	0	949	0
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Turn Type	Split			Split			pm+pt			Perm		
Protected Phases	1	1		2	2		3	8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	32.1	32.1			12.6			46.3			46.3	
Effective Green, g (s)	32.1	32.1			12.6			46.3			46.3	
Actuated g/C Ratio	0.26	0.26			0.10			0.38			0.38	
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	477	441			187			664			1028	
v/s Ratio Prot	0.23	c0.23			c0.13							
v/s Ratio Perm								c0.37			0.35	
v/c Ratio	0.87	0.89			1.26			2.15dl			0.92	
Uniform Delay, d1	42.9	43.2			54.6			36.9			36.0	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	15.3	19.2			150.9			25.3			13.0	
Delay (s)	58.2	62.4			205.5			62.1			49.1	
Level of Service	E	E			F			E			D	
Approach Delay (s)		60.3			205.5			62.1			49.1	
Approach LOS		E			F			E			D	

Intersection Summary			
HCM Average Control Delay	69.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	121.8	Sum of lost time (s)	30.8
Intersection Capacity Utilization	97.6%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	285	147	5	35	146	5	5	505	61	20	505	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1068			1376			92			2042	
Travel Time (s)		24.3			31.3			2.1			46.4	
Confl. Peds. (#/hr)										5		
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.98	0.98	0.98	0.95	0.95	0.95
Heavy Vehicles (%)	3%	2%	0%	3%	3%	50%	29%	4%	15%	9%	4%	3%
Parking (#/hr)									2			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	475	0	0	222	0	0	582	0	0	553	416
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Detector Phase	4	4		3	3 4		1	1		1	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0		4.0			18.0	18.0		18.0	18.0	18.0
Minimum Split (s)	14.0	14.0		9.0			25.0	25.0		25.0	25.0	25.0
Total Split (s)	41.0	41.0	0.0	20.0	61.0	0.0	42.0	42.0	0.0	42.0	42.0	42.0
Total Split (%)	32.8%	32.8%	0.0%	16.0%	48.8%	0.0%	33.6%	33.6%	0.0%	33.6%	33.6%	33.6%
Maximum Green (s)	35.0	35.0		15.0			35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		3.0			4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	7.0	7.0	4.0	7.0	7.0	7.0
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.0			3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None			Max	Max		Max	Max	Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.03			0.30			0.59			0.96	0.81
Control Delay		86.5			19.3			35.1			67.7	49.7
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		86.5			19.3			35.1			67.7	49.7
Queue Length 50th (ft)		288			72			151			326	229
Queue Length 95th (ft)		#676			156			285			#739	#532
Internal Link Dist (ft)		988			1296			12			1962	
Turn Bay Length (ft)												50
Base Capacity (vph)		463			791			980			574	513
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0

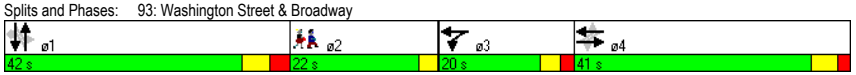
Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	17
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		1.03			0.28			0.59			0.96	0.81

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 108.5
Natural Cycle: 110
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 93: Washington Street & Broadway



Lane Group	ø2
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	285	147	5	35	146	5	5	505	61	20	505	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			5.0			7.0			7.0	7.0
Lane Util. Factor		1.00			1.00			0.95			1.00	1.00
Frpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		1.00			1.00			0.98			1.00	0.85
Flt Protected		0.97			0.99			1.00			1.00	1.00
Satd. Flow (prot)		2029			1799			3369			1820	1568
Flt Permitted		0.68			0.90			0.88			0.96	1.00
Satd. Flow (perm)		1415			1626			2974			1754	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.98	0.98	0.98	0.95	0.95	0.95
Adj. Flow (vph)	310	160	5	42	174	6	5	515	62	21	532	416
RTOR Reduction (vph)	0	0	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	475	0	0	222	0	0	575	0	0	553	416
Confl. Peds. (#/hr)										5		
Heavy Vehicles (%)	3%	2%	0%	3%	3%	50%	29%	4%	15%	9%	4%	3%
Parking (#/hr)									2			
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	3 4			1			1	
Permitted Phases	4			3 4			1			1		1
Actuated Green, G (s)		35.5			47.1			35.5			35.5	35.5
Effective Green, g (s)		35.5			47.1			35.5			35.5	35.5
Actuated g/C Ratio		0.32			0.43			0.32			0.32	0.32
Clearance Time (s)		6.0						7.0			7.0	7.0
Vehicle Extension (s)		4.0						3.0			3.0	3.0
Lane Grp Cap (vph)		456			713			958			565	505
v/s Ratio Prot					c0.03							
v/s Ratio Perm		c0.34			0.10			0.19			c0.32	0.27
v/c Ratio		1.04			0.31			0.60			0.98	0.82
Uniform Delay, d1		37.4			20.8			31.4			37.0	34.5
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		53.4			0.1			2.8			33.0	14.1
Delay (s)		90.8			20.9			34.2			70.0	48.6
Level of Service		F			C			C			E	D
Approach Delay (s)		90.8			20.9			34.2			60.8	
Approach LOS		F			C			C			E	

Intersection Summary			
HCM Average Control Delay	56.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	110.2	Sum of lost time (s)	27.6
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
65: Taunton Station driveway & Arlington Street

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	29	7	105	13	10	456
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	8	114	14	11	496
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			728			
pX, platoon unblocked						
vC, conflicting volume	639	121			128	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	639	121			128	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	99			99	
cM capacity (veh/h)	437	930			1458	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	32	8	128	507
Volume Left	32	0	0	11
Volume Right	0	8	14	0
cSH	437	930	1700	1458
Volume to Capacity	0.07	0.01	0.08	0.01
Queue Length 95th (ft)	6	1	0	1
Control Delay (s)	13.9	8.9	0.0	0.2
Lane LOS	B	A		A
Approach Delay (s)	12.9		0.0	0.2
Approach LOS	B			

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
66: Cohannet Street & Taunton Green

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	288	31	0	0	0	0	0	420	822	451	112
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.99	0.99	0.99	0.94	0.94	0.94
Hourly flow rate (vph)	0	310	33	0	0	0	0	0	424	874	480	119
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			Raised	
Median storage veh)											1	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2500	2713	539	2417	2348	0	599			424		
vC1, stage 1 conf vol	2288	2288		0	0							
vC2, stage 2 conf vol	212	424		2417	2348							
vCu, unblocked vol	2500	2713	539	2417	2348	0	599			424		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	0	94	0	100	100	100			23		
cM capacity (veh/h)	7	5	540	0	14	1085	988			1135		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	SB 3
Volume Total	310	33	424	437	437	599
Volume Left	0	0	0	437	437	0
Volume Right	0	33	424	0	0	119
cSH	5	540	1700	1135	1135	1700
Volume to Capacity	65.39	0.06	0.25	0.77	0.77	0.35
Queue Length 95th (ft)	Err	5	0	202	202	0
Control Delay (s)	Err	12.1	0.0	17.9	17.9	0.0
Lane LOS	F	B		C	C	
Approach Delay (s)	9028.5		0.0	10.6		
Approach LOS	F					

Intersection Summary			
Average Delay	1389.1		
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
67: Post Office Square & Broadway

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	0	959	555	0	547
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.95	0.95	0.89	0.89
Hourly flow rate (vph)	0	0	1009	584	0	615
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			302			
pX, platoon unblocked						
vC, conflicting volume	1009				1009	505
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1009				1009	505
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	682				240	513

Direction, Lane #	WB 1	WB 2	WB 3	SB 1
Volume Total	505	505	584	615
Volume Left	0	0	0	0
Volume Right	0	0	584	615
cSH	1700	1700	1700	513
Volume to Capacity	0.30	0.30	0.34	1.20
Queue Length 95th (ft)	0	0	0	571
Control Delay (s)	0.0	0.0	0.0	132.9
Lane LOS				F
Approach Delay (s)	0.0			132.9
Approach LOS				F

Intersection Summary			
Average Delay		37.0	
Intersection Capacity Utilization		67.0%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
70: Post Office Square & Court Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	26	955	126	388	0	0	0	0	388	21
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.93	0.93	0.93	0.92	0.92	0.92	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	30	1027	135	417	0	0	0	0	431	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					565							
pX, platoon unblocked												
vC, conflicting volume	135			30			2428	2189	0	2204	2219	135
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	135			30			2428	2189	0	2204	2219	135
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			35			0	100	100	100	0	97
cM capacity (veh/h)	1461			1583			0	16	1091	15	15	919

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	SB 1
Volume Total	30	685	478	417	454
Volume Left	0	685	342	0	0
Volume Right	30	0	0	417	23
cSH	1700	1583	1583	1700	16
Volume to Capacity	0.02	0.65	0.65	0.25	28.24
Queue Length 95th (ft)	0	129	129	0	Err
Control Delay (s)	0.0	11.4	10.4	0.0	Err
Lane LOS		B	B		F
Approach Delay (s)	0.0	8.1			9999.0
Approach LOS					F

Intersection Summary			
Average Delay		2207.5	
Intersection Capacity Utilization		64.8%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
75: Frederick Martin Parkway & Washington Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	5	98	0	173	5	705	323	241	878	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.50	0.91	0.91	0.91	0.93	0.93	0.93	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	10	108	0	190	5	758	347	256	934	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								574			260	
pX, platoon unblocked	0.71	0.71	0.70	0.71	0.71	0.99	0.70			0.99		
vC, conflicting volume	2027	2563	934	2399	2389	553	934			1105		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2191	2947	696	2716	2702	528	696			1087		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	96	0	100	62	99			60		
cM capacity (veh/h)	8	6	274	5	9	495	640			637		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	10	108	190	384	726	256	934
Volume Left	0	108	0	5	0	256	0
Volume Right	10	0	190	0	347	0	0
cSH	274	5	495	640	1700	637	1700
Volume to Capacity	0.04	23.02	0.38	0.01	0.43	0.40	0.55
Queue Length 95th (ft)	3	Err	45	1	0	48	0
Control Delay (s)	18.7	Err	16.7	0.3	0.0	14.4	0.0
Lane LOS	C	F	C	A		B	
Approach Delay (s)	18.7	3626.6		0.1		3.1	
Approach LOS	C	F					

Intersection Summary				
Average Delay		415.5		
Intersection Capacity Utilization		98.3%	ICU Level of Service	F
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
78: Kilmer Street & Oak Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	90	21	26	225	387	89
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.79	0.79	0.72	0.72	0.91	0.91
Hourly flow rate (vph)	114	27	36	312	425	98
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	859	474	523			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	859	474	523			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	64	95	97			
cM capacity (veh/h)	314	588	1043			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	141	349	523
Volume Left	114	36	0
Volume Right	27	0	98
cSH	345	1043	1700
Volume to Capacity	0.41	0.03	0.31
Queue Length 95th (ft)	48	3	0
Control Delay (s)	22.4	1.2	0.0
Lane LOS	C	A	
Approach Delay (s)	22.4	1.2	0.0
Approach LOS	C		

Intersection Summary				
Average Delay		3.5		
Intersection Capacity Utilization		46.5%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
87: Purchase Street & School Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	333	20	5	97	5	30	90	41	21	135	65
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.72	0.72	0.72	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	69	354	21	7	135	7	37	110	50	26	165	79
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	142			376			817	659	365	760	666	138
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	142			376			817	659	365	760	666	138
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			78	70	93	88	54	91
cM capacity (veh/h)	1441			1194			166	363	685	222	360	910

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	445	149	196	270
Volume Left	69	7	37	26
Volume Right	21	7	50	79
cSH	1441	1194	330	408
Volume to Capacity	0.05	0.01	0.60	0.66
Queue Length 95th (ft)	4	0	91	115
Control Delay (s)	1.6	0.4	30.8	29.4
Lane LOS	A	A	D	D
Approach Delay (s)	1.6	0.4	30.8	29.4
Approach LOS			D	D

Intersection Summary			
Average Delay		13.9	
Intersection Capacity Utilization		50.8%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
88: Purchase Street & Washington Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	76	50	241	110	5	40	90	37	5	90	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.81	0.81	0.81	0.88	0.88	0.88	0.77	0.77	0.77
Hourly flow rate (vph)	11	81	53	298	136	6	45	102	42	6	117	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	142			134			928	866	107	956	889	139
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	142			134			928	866	107	956	889	139
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			79			64	56	96	95	48	99
cM capacity (veh/h)	1453			1444			125	230	944	127	224	915

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	145	440	190	130
Volume Left	11	298	45	6
Volume Right	53	6	42	6
cSH	1453	1444	223	224
Volume to Capacity	0.01	0.21	0.85	0.58
Queue Length 95th (ft)	1	19	166	81
Control Delay (s)	0.6	6.1	73.4	41.1
Lane LOS	A	A	F	E
Approach Delay (s)	0.6	6.1	73.4	41.1
Approach LOS			F	E

Intersection Summary			
Average Delay		24.4	
Intersection Capacity Utilization		52.9%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
89: Winter Street & School Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	250	15	180	400	25	25	45	85	25	66	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.72	0.72	0.72	0.85	0.85	0.85	0.78	0.78	0.78	0.88	0.88	0.88
Hourly flow rate (vph)	7	347	21	212	471	29	32	58	109	28	75	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	500			368			1335	1295	358	1418	1291	485
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	500			368			1335	1295	358	1418	1291	485
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			82			47	57	84	48	44	97
cM capacity (veh/h)	1075			1196			61	134	682	55	134	586

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	375	712	199	120
Volume Left	7	212	32	28
Volume Right	21	29	109	17
cSH	1075	1196	178	109
Volume to Capacity	0.01	0.18	1.12	1.11
Queue Length 95th (ft)	0	16	250	187
Control Delay (s)	0.2	4.1	155.4	193.0
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	4.1	155.4	193.0
Approach LOS			F	F

Intersection Summary			
Average Delay		40.6	
Intersection Capacity Utilization		67.7%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
100: Downtown Taunton Station driveway & Oak Street

2030 Build Condition - PM Peak Hour

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	35	127	478	22	60	481
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	138	520	24	65	523
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						801
pX, platoon unblocked	0.77					
vC, conflicting volume	1185	532			543	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1090	532			543	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	78	75			94	
cM capacity (veh/h)	171	548			1025	

Direction, Lane #	NW 1	NE 1	SW 1
Volume Total	176	543	588
Volume Left	38	0	65
Volume Right	138	24	0
cSH	372	1700	1025
Volume to Capacity	0.47	0.32	0.06
Queue Length 95th (ft)	61	0	5
Control Delay (s)	23.1	0.0	1.7
Lane LOS	C		A
Approach Delay (s)	23.1	0.0	1.7
Approach LOS	C		

Intersection Summary			
Average Delay		3.9	
Intersection Capacity Utilization		74.9%	ICU Level of Service D
Analysis Period (min)		15	

Norton

HCM Unsignalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	355	180	52	310	50	198	128	132	70	65	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.81	0.81	0.81	0.79	0.79	0.79	0.67	0.67	0.67
Hourly flow rate (vph)	16	390	198	64	383	62	251	162	167	104	97	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	444			588			1127	1095	489	1312	1163	414
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	444			588			1127	1095	489	1312	1163	414
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.6	4.1	3.4
p0 queue free %	98			94			0	17	71	0	44	98
cM capacity (veh/h)	1060			997			94	194	573	26	174	624

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	604	509	580	216
Volume Left	16	64	251	104
Volume Right	198	62	167	15
cSH	1060	997	153	47
Volume to Capacity	0.02	0.06	3.79	4.60
Queue Length 95th (ft)	1	5	Err	Err
Control Delay (s)	0.4	1.8	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	1.8	Err	Err
Approach LOS			F	F

Intersection Summary			
Average Delay		4170.3	
Intersection Capacity Utilization		83.1%	ICU Level of Service E
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
2: S Worcester St & S. Worcerster Street

2030 Build Condition - AM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	130	225	0	0	360	75	0	0	5	10	0	109
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.56	0.56	0.56	0.69	0.69	0.69
Hourly flow rate (vph)	144	250	0	0	400	83	0	0	9	14	0	158
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	483			250			1139	1022	250	989	981	442
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	483			250			1139	1022	250	989	981	442
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.3
p0 queue free %	87			100			100	100	99	92	100	74
cM capacity (veh/h)	1074			1327			120	206	794	184	218	616

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	394	483	9	172
Volume Left	144	0	0	14
Volume Right	0	83	9	158
cSH	1074	1327	794	514
Volume to Capacity	0.13	0.00	0.01	0.34
Queue Length 95th (ft)	12	0	1	37
Control Delay (s)	4.1	0.0	9.6	15.5
Lane LOS	A		A	C
Approach Delay (s)	4.1	0.0	9.6	15.5
Approach LOS			A	C

Intersection Summary			
Average Delay		4.1	
Intersection Capacity Utilization		66.5%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
9: John B. Scott Blvd & Harvey Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	185	5	5	220	0	15	0	10	5	0	5
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.75	0.75	0.75	0.69	0.69	0.69
Hourly flow rate (vph)	0	201	5	5	232	0	20	0	13	7	0	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	207	237	33	14
Volume Left (vph)	0	5	20	7
Volume Right (vph)	5	0	13	7
Hadj (s)	0.11	0.06	0.32	0.23
Departure Headway (s)	4.4	4.3	5.2	5.2
Degree Utilization, x	0.25	0.28	0.05	0.02
Capacity (veh/h)	803	811	629	628
Control Delay (s)	8.9	9.0	8.5	8.3
Approach Delay (s)	8.9	9.0	8.5	8.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay		8.9		
HCM Level of Service		A		
Intersection Capacity Utilization		25.6%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
14: Barrows St & S. Worcester St

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	65	85	254	76	35	140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.72	0.72	0.72	0.72	0.70	0.70
Hourly flow rate (vph)	90	118	353	106	50	200
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	706	406			458	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	706	406			458	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	76	82			96	
cM capacity (veh/h)	376	641			1113	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	208	458	250
Volume Left	90	0	50
Volume Right	118	106	0
cSH	491	1700	1113
Volume to Capacity	0.42	0.27	0.04
Queue Length 95th (ft)	52	0	4
Control Delay (s)	17.6	0.0	2.0
Lane LOS	C		A
Approach Delay (s)	17.6	0.0	2.0
Approach LOS	C		

Intersection Summary				
Average Delay		4.6		
Intersection Capacity Utilization		46.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
15: Barrowsville Station driveway & S. Worcester St

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	74	17	83	172	86	119
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	80	18	90	187	93	129
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	526	158	223			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	526	158	223			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	83	98	93			
cM capacity (veh/h)	478	887	1346			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	99	277	223
Volume Left	80	90	0
Volume Right	18	0	129
cSH	523	1346	1700
Volume to Capacity	0.19	0.07	0.13
Queue Length 95th (ft)	17	5	0
Control Delay (s)	13.5	3.0	0.0
Lane LOS	B	A	
Approach Delay (s)	13.5	3.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
16: John B. Scott Blvd & Dean Stret

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	170	20	5	165	36	60	212	5	17	50	0
Peak Hour Factor	0.86	0.86	0.86	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	198	23	7	220	48	67	236	6	19	56	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	227	275	308	74
Volume Left (vph)	6	7	67	19
Volume Right (vph)	23	48	6	0
Hadj (s)	-0.03	0.13	0.13	0.27
Departure Headway (s)	5.5	5.6	5.6	6.2
Degree Utilization, x	0.35	0.42	0.48	0.13
Capacity (veh/h)	605	607	600	505
Control Delay (s)	11.4	12.6	13.6	10.1
Approach Delay (s)	11.4	12.6	13.6	10.1
Approach LOS	B	B	B	B

Intersection Summary			
Delay	12.4		
HCM Level of Service	B		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	295	255	154	425	75	179	74	119	65	159	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.93	0.93	0.93	0.88	0.88	0.88
Hourly flow rate (vph)	15	304	263	173	478	84	192	80	128	74	181	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	562			567			1445	1374	436	1500	1464	520
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	562			567			1445	1374	436	1500	1464	520
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	98			83			0	33	79	0	0	96
cM capacity (veh/h)	1020			1010			0	119	623	33	106	549

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	582	735	400	277
Volume Left	15	173	192	74
Volume Right	263	84	128	23
cSH	1020	1010	0	69
Volume to Capacity	0.02	0.17	Err	4.02
Queue Length 95th (ft)	1	15	Err	Err
Control Delay (s)	0.4	4.0	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	4.0	Err	Err
Approach LOS			F	F

Intersection Summary			
Average Delay			Err
Intersection Capacity Utilization		114.5%	ICU Level of Service H
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
2: S Worcester St & S. Worcerster Street

2030 Build Condition - PM Peak Hour

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	96	475	5	5	250	35	0	0	5	40	0	152
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.44	0.44	0.44	0.80	0.80	0.80
Hourly flow rate (vph)	105	522	5	6	284	40	0	0	11	50	0	190
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	324			527			1241	1071	525	1062	1054	304
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	324			527			1241	1071	525	1062	1054	304
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			99			100	100	98	73	100	74
cM capacity (veh/h)	1247			1050			106	203	557	183	207	738

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	633	330	11	240
Volume Left	105	6	0	50
Volume Right	5	40	11	190
cSH	1247	1050	557	452
Volume to Capacity	0.08	0.01	0.02	0.53
Queue Length 95th (ft)	7	0	2	76
Control Delay (s)	2.2	0.2	11.6	21.6
Lane LOS	A	A	B	C
Approach Delay (s)	2.2	0.2	11.6	21.6
Approach LOS			B	C

Intersection Summary			
Average Delay			5.6
Intersection Capacity Utilization		74.4%	ICU Level of Service D
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
9: John B. Scott Blvd & Harvey Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	310	15	10	190	0	5	5	5	0	0	5
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75	0.42	0.42	0.42
Hourly flow rate (vph)	6	356	17	11	216	0	7	7	7	0	0	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	379	227	20	12
Volume Left (vph)	6	11	7	0
Volume Right (vph)	17	0	7	12
Hadj (s)	0.00	0.04	-0.02	-0.60
Departure Headway (s)	4.2	4.4	5.2	4.6
Degree Utilization, x	0.44	0.28	0.03	0.02
Capacity (veh/h)	841	794	613	674
Control Delay (s)	10.5	9.1	8.4	7.7
Approach Delay (s)	10.5	9.1	8.4	7.7
Approach LOS	B	A	A	A

Intersection Summary				
Delay		9.9		
HCM Level of Service		A		
Intersection Capacity Utilization	30.7%		ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
14: Barrows St & S. Worcester St

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	121	55	172	78	45	161
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.86	0.86	0.79	0.79
Hourly flow rate (vph)	142	65	200	91	57	204
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	563	245			291	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	563	245			291	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	70	92			96	
cM capacity (veh/h)	467	789			1283	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	207	291	261
Volume Left	142	0	57
Volume Right	65	91	0
cSH	536	1700	1283
Volume to Capacity	0.39	0.17	0.04
Queue Length 95th (ft)	45	0	3
Control Delay (s)	15.9	0.0	2.0
Lane LOS	C		A
Approach Delay (s)	15.9	0.0	2.0
Approach LOS	C		

Intersection Summary				
Average Delay		5.0		
Intersection Capacity Utilization	44.8%		ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
16: John B. Scott Blvd & Dean Stret

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	200	95	15	165	19	35	75	10	23	155	5
Peak Hour Factor	0.86	0.86	0.86	0.88	0.88	0.88	0.86	0.86	0.86	0.96	0.96	0.96
Hourly flow rate (vph)	6	233	110	17	188	22	41	87	12	24	161	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	349	226	140	191
Volume Left (vph)	6	17	41	24
Volume Right (vph)	110	22	12	5
Hadj (s)	-0.16	-0.02	0.04	0.02
Departure Headway (s)	5.1	5.4	5.8	5.7
Degree Utilization, x	0.49	0.34	0.23	0.30
Capacity (veh/h)	667	616	539	565
Control Delay (s)	12.9	11.2	10.5	11.2
Approach Delay (s)	12.9	11.2	10.5	11.2
Approach LOS	B	B	B	B

Intersection Summary				
Delay		11.7		
HCM Level of Service		B		
Intersection Capacity Utilization		37.6%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
24: Barrowsville Station driveway & S. Worcester St

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	90	38	14	146	250	33
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	98	41	15	159	272	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	479	290	308			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	479	290	308			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	82	94	99			
cM capacity (veh/h)	539	749	1253			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	139	174	308
Volume Left	98	15	0
Volume Right	41	0	36
cSH	588	1253	1700
Volume to Capacity	0.24	0.01	0.18
Queue Length 95th (ft)	23	1	0
Control Delay (s)	13.0	0.8	0.0
Lane LOS	B	A	
Approach Delay (s)	13.0	0.8	0.0
Approach LOS	B		

Intersection Summary				
Average Delay		3.1		
Intersection Capacity Utilization		33.3%	ICU Level of Service	A
Analysis Period (min)		15		

Raynham

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	237	25	40	15	45	177	45	1328	5	50	521	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Storage Length (ft)	250		70	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			737			2001			1020	
Travel Time (s)		5.7			16.8			45.5			23.2	
Peak Hour Factor	0.84	0.84	0.84	0.92	0.92	0.92	0.95	0.95	0.95	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	282	78	0	0	257	0	0	1450	0	0	707	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	11.0	43.0	0.0	32.0	32.0	0.0
Total Split (%)	42.7%	42.7%	0.0%	42.7%	42.7%	0.0%	14.7%	57.3%	0.0%	42.7%	42.7%	0.0%
Maximum Green (s)	26.0	26.0		26.0	26.0		5.0	37.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	C-Min		C-Min	C-Min	
v/c Ratio	0.93	0.14			0.48			0.88			0.61	
Control Delay	62.4	9.2			21.7			25.1			15.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	62.4	9.2			21.7			25.1			15.4	
Queue Length 50th (ft)	119	9			82			314			117	
Queue Length 95th (ft)	#220	32			144			#491			173	
Internal Link Dist (ft)		171			657			1921			940	
Turn Bay Length (ft)	250											
Base Capacity (vph)	348	623			610			1643			1167	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.81	0.13			0.42			0.88			0.61	

Intersection Summary	
Area Type:	Other

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Carver Street & Route 138

HCM Signalized Intersection Capacity Analysis
12: Carver Street & Route 138

2030 Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	237	25	40	15	45	177	45	1328	5	50	521	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	11	12
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.91			0.90			1.00			0.99	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1787	1708			1742			3381			3208	
Flt Permitted	0.53	1.00			0.98			0.90			0.67	
Satd. Flow (perm)	1002	1708			1716			3062			2161	
Peak-hour factor, PHF	0.84	0.84	0.84	0.92	0.92	0.92	0.95	0.95	0.95	0.88	0.88	0.88
Adj. Flow (vph)	282	30	48	16	49	192	47	1398	5	57	592	58
RTOR Reduction (vph)	0	33	0	0	16	0	0	0	0	0	6	0
Lane Group Flow (vph)	282	45	0	0	241	0	0	1450	0	0	701	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	3%	3%	3%	7%	7%	7%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.7	22.7			22.7			40.3			40.3	
Effective Green, g (s)	22.7	22.7			22.7			40.3			40.3	
Actuated g/C Ratio	0.30	0.30			0.30			0.54			0.54	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	303	517			519			1645			1161	
v/s Ratio Prot		0.03										
v/s Ratio Perm	c0.28				0.14			c0.47			0.32	
v/c Ratio	0.93	0.09			0.46			0.88			0.60	
Uniform Delay, d1	25.4	18.7			21.2			15.2			11.9	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	33.6	0.0			0.2			5.7			2.3	
Delay (s)	59.0	18.7			21.5			21.0			14.2	
Level of Service	E	B			C			C			B	
Approach Delay (s)		50.2			21.5			21.0			14.2	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
14: I-495 SB Off-Ramp & Route 138

2030 Build Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	273	0	175	0	0	0	0	1526	230	70	442	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	16	14	16	16	16	12	12	16	10	12	12
Storage Length (ft)	0		500	0		0	0		0	200		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1388			1423			507			722	
Travel Time (s)		31.5			32.3			11.5			16.4	
Peak Hour Factor	0.77	0.77	0.77	0.92	0.92	0.92	0.25	0.96	0.96	0.79	0.79	0.25
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	0%	3%	3%	8%	8%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	355	0	227	0	0	0	0	1830	0	89	559	0
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Detector Phase	4							2		1	6	
Switch Phase												
Minimum Initial (s)	10.0							10.0		5.0	10.0	
Minimum Split (s)	22.0							22.0		12.0	23.0	
Total Split (s)	25.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	13.0	70.0	0.0
Total Split (%)	26.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	13.7%	73.7%	0.0%
Maximum Green (s)	19.0							51.0		6.0	63.0	
Yellow Time (s)	4.0							4.0		5.0	5.0	
All-Red Time (s)	2.0							2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0	7.0	7.0	4.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Recall Mode	None							C-Max		None	C-Max	
v/c Ratio	0.99		0.14					0.99		0.90	0.25	
Control Delay	83.8		0.2					42.0		117.1	1.2	
Queue Delay	0.0		0.0					0.0		0.0	0.0	
Total Delay	83.8		0.2					42.0		117.1	1.2	
Queue Length 50th (ft)	215		0					544		53	3	
Queue Length 95th (ft)	#304		0					#742		m#113	4	
Internal Link Dist (ft)		1308			1343			427			642	
Turn Bay Length (ft)			500							200		
Base Capacity (vph)	360		1610					1844		99	2217	
Starvation Cap Reductn	0		0					0		0	0	
Spillback Cap Reductn	0		0					0		0	0	
Storage Cap Reductn	0		0					0		0	0	
Reduced v/c Ratio	0.99		0.14					0.99		0.90	0.25	

Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
14: I-495 SB Off-Ramp & Route 138

2030 Build Condition- AM Peak Hour

Cycle Length: 95
Actuated Cycle Length: 95
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: I-495 SB Off-Ramp & Route 138

HCM Signalized Intersection Capacity Analysis
14: I-495 SB Off-Ramp & Route 138

2030 Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	273	0	175	0	0	0	0	1526	230	70	442	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	16	14	16	16	16	12	12	16	10	12	12
Total Lost time (s)	6.0		4.0					6.0		7.0	7.0	
Lane Util. Factor	1.00		1.00					0.95		1.00	0.95	
Frt	1.00		0.85					0.98		1.00	1.00	
Flt Protected	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1799		1610					3436		1560	3343	
Flt Permitted	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1799		1610					3436		1560	3343	
Peak-hour factor, PHF	0.77	0.77	0.77	0.92	0.92	0.92	0.25	0.96	0.96	0.79	0.79	0.25
Adj. Flow (vph)	355	0	227	0	0	0	0	1590	240	89	559	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	355	0	227	0	0	0	0	1830	0	89	559	0
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	0%	3%	3%	8%	8%	0%
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Actuated Green, G (s)	19.0		95.0					51.0		6.0	63.0	
Effective Green, g (s)	19.0		95.0					51.0		6.0	63.0	
Actuated g/C Ratio	0.20		1.00					0.54		0.06	0.66	
Clearance Time (s)	6.0							6.0		7.0	7.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	360		1610					1845		99	2217	
v/s Ratio Prot	c0.20							c0.53		c0.06	0.17	
v/s Ratio Perm			0.14									
v/c Ratio	0.99		0.14					0.99		0.90	0.25	
Uniform Delay, d1	37.9		0.0					21.8		44.2	6.5	
Progression Factor	1.00		1.00					1.00		1.30	0.16	
Incremental Delay, d2	43.3		0.2					19.1		52.3	0.2	
Delay (s)	81.2		0.2					40.9		109.7	1.2	
Level of Service	F		A					D		F	A	
Approach Delay (s)		49.6			0.0			40.9			16.1	
Approach LOS		D			A			D			B	

Intersection Summary			
HCM Average Control Delay	37.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	110	0	212	335	1449	0	0	387	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	10	12	12	12	12	16
Storage Length (ft)	0		0	0		300	225		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1384			1299			722			1195	
Travel Time (s)		31.5			29.5			16.4			27.2	
Peak Hour Factor	0.25	0.25	0.25	0.91	0.91	0.91	0.91	0.91	0.25	0.25	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	4%	4%	4%	3%	3%	0%	0%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	121	0	233	368	1592	0	0	823	0
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Detector Phase				3			5	2			6	
Switch Phase												
Minimum Initial (s)				5.0			5.0	10.0			10.0	
Minimum Split (s)				22.0			12.0	23.0			22.0	
Total Split (s)	0.0	0.0	0.0	24.0	0.0	0.0	41.0	71.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	25.3%	0.0%	0.0%	43.2%	74.7%	0.0%	0.0%	31.6%	0.0%
Maximum Green (s)				18.0			34.0	64.0			24.0	
Yellow Time (s)				4.0			5.0	5.0			4.0	
All-Red Time (s)				2.0			2.0	2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	6.0	4.0	4.0	7.0	7.0	4.0	4.0	6.0	4.0
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Recall Mode				None			None	C-Min			C-Min	
v/c Ratio				0.53		0.13	0.81	0.61			0.65	
Control Delay				47.1		0.2	27.9	5.5			35.9	
Queue Delay				0.0		0.0	0.0	0.1			0.0	
Total Delay				47.1		0.2	27.9	5.6			35.9	
Queue Length 50th (ft)				70		0	175	183			247	
Queue Length 95th (ft)				120		0	m136	m150			m#296	
Internal Link Dist (ft)		1304			1219			642			1115	
Turn Bay Length (ft)						300	225					
Base Capacity (vph)				373		1760	586	2616			1257	
Starvation Cap Reductn				0		0	0	202			0	
Spillback Cap Reductn				0		0	0	0			0	
Storage Cap Reductn				0		0	0	0			0	
Reduced v/c Ratio				0.32		0.13	0.63	0.66			0.65	

Intersection Summary	
Area Type:	Other

Cycle Length: 95
Actuated Cycle Length: 95
Offset: 93 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: I-495 NB On-Ramp & Route 138

HCM Signalized Intersection Capacity Analysis
15: I-495 NB On-Ramp & Route 138

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	110	0	212	335	1449	0	0	387	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	12	12	12	12	16
Total Lost time (s)				6.0		4.0	7.0	7.0			6.0	
Lane Util. Factor				1.00		1.00	1.00	0.95			0.95	
Frt				1.00		0.85	1.00	1.00			0.94	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1967		1760	1636	3505			3107	
Flt Permitted				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1967		1760	1636	3505			3107	
Peak-hour factor, PHF	0.25	0.25	0.25	0.91	0.91	0.91	0.91	0.91	0.25	0.25	0.80	0.80
Adj. Flow (vph)	0	0	0	121	0	233	368	1592	0	0	484	339
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	121	0	233	368	1592	0	0	823	0
Heavy Vehicles (%)	0%	0%	0%	4%	4%	4%	3%	3%	0%	0%	9%	9%
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Actuated Green, G (s)				11.1		95.0	26.5	70.9			38.4	
Effective Green, g (s)				11.1		95.0	26.5	70.9			38.4	
Actuated g/C Ratio				0.12		1.00	0.28	0.75			0.40	
Clearance Time (s)				6.0			7.0	7.0			6.0	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)				230		1760	456	2616			1256	
v/s Ratio Prot				c0.06			c0.22	c0.45			0.26	
v/s Ratio Perm						0.13						
v/c Ratio				0.53		0.13	0.81	0.61			0.66	
Uniform Delay, d1				39.5		0.0	31.9	5.6			22.9	
Progression Factor				1.00		1.00	0.77	0.84			1.34	
Incremental Delay, d2				2.2		0.2	2.8	0.3			2.2	
Delay (s)				41.6		0.2	27.2	5.0			32.8	
Level of Service				D		A	C	A			C	
Approach Delay (s)		0.0			14.3			9.2			32.8	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
23: Center Street & Route 138

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	171	0	1203	40	90	481	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	14	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		60	0		200	200		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		129			915			1524			2001	
Travel Time (s)		2.9			20.8			34.6			45.5	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.93	0.93	0.86	0.86	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	2%	3%	2%	4%	4%	8%	8%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	22	190	0	1337	0	0	664	0
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0		9.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	20.0	31.0	31.0	0.0	9.0	40.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	33.3%	51.7%	51.7%	0.0%	15.0%	66.7%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	26.0	26.0		4.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
v/c Ratio					0.08	0.60		0.62			0.50	
Control Delay					18.3	29.0		8.8			8.2	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					18.3	29.0		8.8			8.2	
Queue Length 50th (ft)					6	59		127			56	
Queue Length 95th (ft)					21	113		212			99	
Internal Link Dist (ft)		49			835			1444			1921	
Turn Bay Length (ft)						60						
Base Capacity (vph)					361	406		2162			1323	
Starvation Cap Reductn					0	0		0			0	
Spillback Cap Reductn					0	0		0			0	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.06	0.47		0.62			0.50	

Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
23: Center Street & Route 138

2030 Build Condition- AM Peak Hour

Cycle Length: 60
Actuated Cycle Length: 58
Natural Cycle: 60
Control Type: Semi Act-Uncoord

Splits and Phases: 23: Center Street & Route 138

HCM Signalized Intersection Capacity Analysis
23: Center Street & Route 138

2030 Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	171	0	1203	40	90	481	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	14	12	12	12	12	12	12	12	12
Total Lost time (s)					5.0	5.0		5.0			5.0	
Lane Util. Factor					1.00	1.00		0.95			0.95	
Frt					1.00	0.85		1.00			1.00	
Flt Protected					0.95	1.00		1.00			0.99	
Satd. Flow (prot)					1752	1568		3454			3316	
Flt Permitted					0.76	1.00		1.00			0.63	
Satd. Flow (perm)					1397	1568		3454			2111	
Peak-hour factor, PHF	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.93	0.93	0.86	0.86	0.92
Adj. Flow (vph)	0	0	0	22	0	190	0	1294	43	105	559	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	22	190	0	1337	0	0	664	0
Heavy Vehicles (%)	2%	2%	2%	3%	2%	3%	2%	4%	4%	8%	8%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)					11.7	11.7		36.3			36.3	
Effective Green, g (s)					11.7	11.7		36.3			36.3	
Actuated g/C Ratio					0.20	0.20		0.63			0.63	
Clearance Time (s)					5.0	5.0		5.0			5.0	
Vehicle Extension (s)					3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)					282	316		2162			1321	
v/s Ratio Prot								c0.39				
v/s Ratio Perm					0.02	c0.12					0.31	
v/c Ratio					0.08	0.60		0.62			0.50	
Uniform Delay, d1					18.8	21.0		6.6			5.9	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					0.1	3.2		1.3			0.3	
Delay (s)					18.9	24.2		8.0			6.2	
Level of Service					B	C		A			A	
Approach Delay (s)		0.0			23.7			8.0			6.2	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	20	25	225	5	87	5	1276	205	44	358	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	0	326	133	0	0	1580	0	0	521	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		35.0	35.0		35.0	35.0	
Total Split (s)	14.0	14.0	0.0	12.0	26.0	0.0	69.0	69.0	0.0	69.0	69.0	0.0
Total Split (%)	14.7%	14.7%	0.0%	12.6%	27.4%	0.0%	72.6%	72.6%	0.0%	72.6%	72.6%	0.0%
Maximum Green (s)	9.0	9.0		7.0	21.0		64.0	64.0		64.0	64.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
v/c Ratio		0.76		0.95	0.35			0.75			0.38	
Control Delay		77.4		76.8	34.0			8.8			8.5	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		77.4		76.8	34.0			8.8			8.5	
Queue Length 50th (ft)		62		~209	69			213			63	
Queue Length 95th (ft)		#136		#255	92			178			79	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		135		344	380			2205			1429	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.76		0.95	0.35			0.72			0.36	

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 28 (29%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 36: Elm Street & Route 138

HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2030 Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	20	25	225	5	87	5	1276	205	44	358	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Frt		0.96		1.00	0.86			0.98			0.99	
Flt Protected		0.98		0.95	1.00			1.00			0.99	
Satd. Flow (prot)		1798		1686	1523			3432			3151	
Flt Permitted		0.73		0.67	1.00			0.95			0.67	
Satd. Flow (perm)		1338		1189	1523			3274			2122	
Peak-hour factor, PHF	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Adj. Flow (vph)	49	24	30	326	7	126	5	1357	218	54	437	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	103	0	326	133	0	0	1580	0	0	521	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.6		23.7	23.7			61.3			61.3	
Effective Green, g (s)		9.6		23.7	23.7			61.3			61.3	
Actuated g/C Ratio		0.10		0.25	0.25			0.65			0.65	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		135		344	380			2113			1369	
v/s Ratio Prot				c0.09	0.09							
v/s Ratio Perm		0.08		c0.15				c0.48			0.25	
v/c Ratio		0.76		0.95	0.35			0.75			0.38	
Uniform Delay, d1		41.6		35.6	29.3			11.6			7.9	
Progression Factor		1.00		1.00	1.00			0.59			1.00	
Incremental Delay, d2		22.2		34.7	0.6			2.1			0.8	
Delay (s)		63.8		70.3	29.9			8.9			8.7	
Level of Service		E		E	C			A			A	
Approach Delay (s)		63.8			58.6			8.9			8.7	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
44: Route 106 & Route 138

2030 Build Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	365	40	202	355	165	64	772	384	85	182	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1742			2236			4525			923	
Travel Time (s)		39.6			50.8			102.8			21.0	
Confl. Peds. (#/hr)			3									
Peak Hour Factor	0.88	0.88	0.88	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	9%	9%	9%	3%	3%	3%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	562	0	0	811	0	0	1326	0	0	405	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phase	2	2		2	2		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.59			0.88			0.96			0.51	
Control Delay		17.9			29.8			35.6			13.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.9			29.8			35.6			13.0	
Queue Length 50th (ft)		90			148			260			44	
Queue Length 95th (ft)		134			#257			#416			84	
Internal Link Dist (ft)		1662			2156			4445			843	
Turn Bay Length (ft)												
Base Capacity (vph)		982			945			1381			793	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.57			0.86			0.96			0.51	

Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 69.3	
Natural Cycle: 55	

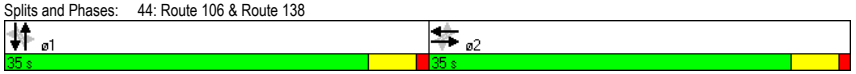
Lanes, Volumes, Timings
44: Route 106 & Route 138

2030 Build Condition- AM Peak Hour

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 44: Route 106 & Route 138



HCM Signalized Intersection Capacity Analysis
44: Route 106 & Route 138

2030 Build Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	365	40	202	355	165	64	772	384	85	182	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.97			0.95			0.96	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		3425			3154			3331			3104	
Flt Permitted		0.65			0.65			0.90			0.54	
Satd. Flow (perm)		2245			2092			3013			1687	
Peak-hour factor, PHF	0.88	0.88	0.88	0.89	0.89	0.89	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	102	415	45	227	399	185	70	839	417	91	196	118
RTOR Reduction (vph)	0	9	0	0	40	0	0	76	0	0	64	0
Lane Group Flow (vph)	0	553	0	0	771	0	0	1250	0	0	341	0
Confl. Peds. (#/hr)			3									
Heavy Vehicles (%)	3%	3%	3%	9%	9%	9%	3%	3%	3%	10%	10%	10%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Actuated Green, G (s)		29.3			29.3			30.0			30.0	
Effective Green, g (s)		29.3			29.3			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.43			0.43	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		949			884			1304			730	
v/s Ratio Prot												
v/s Ratio Perm		0.25			c0.37			c0.41			0.20	
v/c Ratio		0.58			0.87			0.96			0.47	
Uniform Delay, d1		15.3			18.3			19.0			14.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.1			9.7			16.0			0.6	
Delay (s)		16.4			28.0			35.0			14.6	
Level of Service		B			C			D			B	
Approach Delay (s)		16.4			28.0			35.0			14.6	
Approach LOS		B			C			D			B	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	69.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
11: Robinson St & Route 138

2030 Build Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	20	1431	0	5	355
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.56	0.56	0.91	0.91	0.79	0.79
Hourly flow rate (vph)	0	36	1573	0	6	449
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2035	1573			1573	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2035	1573			1573	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	74			99	
cM capacity (veh/h)	62	137			425	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	36	1573	456
Volume Left	0	0	6
Volume Right	36	0	0
cSH	137	1700	425
Volume to Capacity	0.26	0.93	0.01
Queue Length 95th (ft)	24	0	1
Control Delay (s)	40.2	0.0	0.5
Lane LOS	E		A
Approach Delay (s)	40.2	0.0	0.5
Approach LOS	E		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
17: Dog Track driveway & Route 138

2030 Build Condition- AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	35	40	211	1240	360	49
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.68	0.68	0.91	0.91	0.79	0.79
Hourly flow rate (vph)	51	59	232	1363	456	62
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2313	487	518			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2313	487	518			
tC, single (s)	7.1	6.7	4.2			
tC, 2 stage (s)						
tF (s)	4.2	3.8	2.3			
p0 queue free %	0	88	77			
cM capacity (veh/h)	19	495	1004			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	110	1595	518
Volume Left	51	232	0
Volume Right	59	0	62
cSH	40	1004	1700
Volume to Capacity	2.78	0.23	0.30
Queue Length 95th (ft)	306	22	0
Control Delay (s)	1022.0	9.7	0.0
Lane LOS	F	A	
Approach Delay (s)	1022.0	9.7	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	57.6		
Intersection Capacity Utilization	113.2%	ICU Level of Service	H
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
24: Britton Street & Route 138

2030 Build Condition- AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	30	25	1218	20	5	491
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.57	0.57	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	53	44	1384	23	5	511
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1917	1395			1407	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1917	1395			1407	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	29	75			99	
cM capacity (veh/h)	74	175			470	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	96	1407	517
Volume Left	53	0	5
Volume Right	44	23	0
cSH	101	1700	470
Volume to Capacity	0.96	0.83	0.01
Queue Length 95th (ft)	144	0	1
Control Delay (s)	156.4	0.0	0.3
Lane LOS	F		A
Approach Delay (s)	156.4	0.0	0.3
Approach LOS	F		

Intersection Summary			
Average Delay		7.6	
Intersection Capacity Utilization		75.3%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
27: Britton Street & Route 138

2030 Build Condition- AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	34	5	5	1197	500	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	0.89	0.89
Hourly flow rate (vph)	34	5	5	1197	562	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1772	565	569			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1772	565	569			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	63	99	99			
cM capacity (veh/h)	91	524	994			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	39	1202	569
Volume Left	34	5	0
Volume Right	5	0	7
cSH	102	994	1700
Volume to Capacity	0.38	0.01	0.33
Queue Length 95th (ft)	39	0	0
Control Delay (s)	61.0	0.2	0.0
Lane LOS	F	A	
Approach Delay (s)	61.0	0.2	0.0
Approach LOS	F		

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization		77.0%	ICU Level of Service D
Analysis Period (min)		15	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	7	1424	5	1	402
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.63	0.63	0.94	0.94	0.85	0.85
Hourly flow rate (vph)	8	11	1515	5	1	473
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1993	1518			1520	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1993	1518			1520	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	88	92			100	
cM capacity (veh/h)	67	148			411	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	19	1520	474
Volume Left	8	0	1
Volume Right	11	5	0
cSH	99	1700	411
Volume to Capacity	0.19	0.89	0.00
Queue Length 95th (ft)	17	0	0
Control Delay (s)	50.1	0.0	0.1
Lane LOS	F		A
Approach Delay (s)	50.1	0.0	0.1
Approach LOS	F		

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	85	100	60	70	40	70	787	45	111	1431	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Storage Length (ft)	250		70	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		251			737			2001			1020	
Travel Time (s)		5.7			16.8			45.5			23.2	
Confl. Peds. (#/hr)						5	2					
Peak Hour Factor	0.92	0.92	0.92	0.79	0.79	0.79	0.88	0.88	0.88	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	201	0	0	216	0	0	1025	0	0	1803	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	11.0	90.0	0.0	79.0	79.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%	9.2%	75.0%	0.0%	65.8%	65.8%	0.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		5.0	84.0		73.0	73.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
v/c Ratio	0.83	0.51			0.85			0.90dl			1.09	
Control Delay	74.8	35.4			69.9			17.3			70.5	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	74.8	35.4			69.9			17.3			70.5	
Queue Length 50th (ft)	114	95			137			239			~760	
Queue Length 95th (ft)	#261	188			#240			315			#949	
Internal Link Dist (ft)		171			657			1921			940	
Turn Bay Length (ft)	250											
Base Capacity (vph)	214	412			264			1466			1654	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.80	0.49			0.82			0.70			1.09	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 110.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 12: Carver Street & Route 138

HCM Signalized Intersection Capacity Analysis
12: Carver Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	85	100	60	70	40	70	787	45	111	1431	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	13	12	12	11	12	12	11	12
Total Lost time (s)	6.0	6.0			6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.92			0.97			0.99			0.98	
Flt Protected	0.95	1.00			0.98			1.00			1.00	
Satd. Flow (prot)	1787	1728			1823			3317			3345	
Flt Permitted	0.52	1.00			0.63			0.57			0.72	
Satd. Flow (perm)	980	1728			1167			1914			2412	
Peak-hour factor, PHF	0.92	0.92	0.92	0.79	0.79	0.79	0.88	0.88	0.88	0.98	0.98	0.98
Adj. Flow (vph)	171	92	109	76	89	51	80	894	51	113	1460	230
RTOR Reduction (vph)	0	35	0	0	9	0	0	3	0	0	8	0
Lane Group Flow (vph)	171	166	0	0	207	0	0	1022	0	0	1795	0
Confl. Peds. (#/hr)						5	2					
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.0	23.0			23.0			75.2			75.2	
Effective Green, g (s)	23.0	23.0			23.0			75.2			75.2	
Actuated g/C Ratio	0.21	0.21			0.21			0.68			0.68	
Clearance Time (s)	6.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	205	361			244			1306			1646	
v/s Ratio Prot		0.10										
v/s Ratio Perm	0.17				c0.18			0.53			c0.74	
v/c Ratio	0.83	0.46			0.85			0.90dl			1.09	
Uniform Delay, d1	41.8	38.2			41.9			11.9			17.5	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	23.3	0.3			22.0			2.9			51.2	
Delay (s)	65.1	38.5			63.9			14.8			68.7	
Level of Service	E	D			E			B			E	
Approach Delay (s)		50.7			63.9			14.8			68.7	
Approach LOS		D			E			B			E	

Intersection Summary			
HCM Average Control Delay	50.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	110.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.9%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
14: I-495 SB Off-Ramp & Route 138

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	223	0	515	0	0	0	0	864	140	139	1272	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	12	12	16	10	12	12
Storage Length (ft)	0		500	0		0	0		0	300		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1388			1423			507			722	
Travel Time (s)		31.5			32.3			11.5			16.4	
Peak Hour Factor	0.81	0.81	0.81	0.25	0.25	0.25	0.25	0.95	0.95	0.98	0.98	0.25
Heavy Vehicles (%)	4%	4%	4%	0%	0%	0%	0%	3%	3%	2%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	275	0	636	0	0	0	0	1056	0	142	1298	0
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Detector Phase	4							2		1	6	
Switch Phase												
Minimum Initial (s)	10.0							10.0		5.0	10.0	
Minimum Split (s)	22.0							22.0		12.0	23.0	
Total Split (s)	23.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	18.0	57.0	0.0
Total Split (%)	28.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.8%	0.0%	22.5%	71.3%	0.0%
Maximum Green (s)	17.0							33.0		11.0	50.0	
Yellow Time (s)	4.0							4.0		5.0	5.0	
All-Red Time (s)	2.0							2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0	7.0	7.0	4.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Recall Mode	None							C-Min		None	C-Min	
v/c Ratio	0.75		0.36					0.69		0.66	0.56	
Control Delay	43.6		0.6					21.5		42.9	12.3	
Queue Delay	0.0		0.0					0.0		0.0	0.0	
Total Delay	43.6		0.6					21.5		42.9	12.3	
Queue Length 50th (ft)	128		0					230		79	162	
Queue Length 95th (ft)	181		0					303		m91	m208	
Internal Link Dist (ft)		1308			1343			427			642	
Turn Bay Length (ft)			500							300		
Base Capacity (vph)	418		1760					1531		232	2301	
Starvation Cap Reductn	0		0					0		0	0	
Spillback Cap Reductn	0		0					0		0	0	
Storage Cap Reductn	0		0					0		0	0	
Reduced v/c Ratio	0.66		0.36					0.69		0.61	0.56	

Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
14: I-495 SB Off-Ramp & Route 138

2030 Build Condition - PM Peak Hour

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: I-495 SB Off-Ramp & Route 138

HCM Signalized Intersection Capacity Analysis
14: I-495 SB Off-Ramp & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	223	0	515	0	0	0	0	864	140	139	1272	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	12	12	16	10	12	12
Total Lost time (s)	6.0		4.0					6.0		7.0	7.0	
Lane Util. Factor	1.00		1.00					0.95		1.00	0.95	
Frt	1.00		0.85					0.98		1.00	1.00	
Flt Protected	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1967		1760					3432		1652	3539	
Flt Permitted	0.95		1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1967		1760					3432		1652	3539	
Peak-hour factor, PHF	0.81	0.81	0.81	0.25	0.25	0.25	0.25	0.95	0.95	0.98	0.98	0.25
Adj. Flow (vph)	275	0	636	0	0	0	0	909	147	142	1298	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	275	0	636	0	0	0	0	1056	0	142	1298	0
Heavy Vehicles (%)	4%	4%	4%	0%	0%	0%	0%	3%	3%	2%	2%	0%
Turn Type	Prot		Free							Prot		
Protected Phases	4							2		1	6	
Permitted Phases			Free									
Actuated Green, G (s)	15.0		80.0					35.6		10.4	52.0	
Effective Green, g (s)	15.0		80.0					35.6		10.4	52.0	
Actuated g/C Ratio	0.19		1.00					0.45		0.13	0.65	
Clearance Time (s)	6.0							6.0		7.0	7.0	
Vehicle Extension (s)	3.0							3.0		3.0	3.0	
Lane Grp Cap (vph)	369		1760					1527		215	2300	
v/s Ratio Prot	c0.14							c0.31		0.09	c0.37	
v/s Ratio Perm			0.36									
v/c Ratio	0.75		0.36					0.69		0.66	0.56	
Uniform Delay, d1	30.7		0.0					17.8		33.1	7.7	
Progression Factor	1.00		1.00					1.00		1.05	1.43	
Incremental Delay, d2	8.0		0.6					2.6		3.5	0.5	
Delay (s)	38.6		0.6					20.4		38.4	11.5	
Level of Service	D		A					C		D	B	
Approach Delay (s)		12.1			0.0			20.4			14.2	
Approach LOS		B			A			C			B	

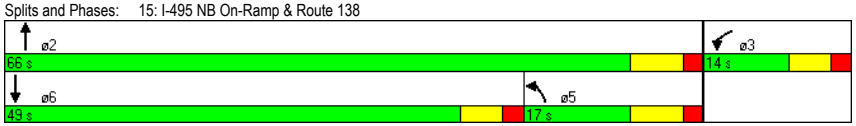
Intersection Summary			
HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	140	0	84	145	917	0	0	1271	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	10	12	12	12	12	16
Storage Length (ft)	0		0	0		300	225		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1384			1299			722			1195	
Travel Time (s)		31.5			29.5			16.4			27.2	
Peak Hour Factor	0.25	0.25	0.25	0.78	0.78	0.78	0.92	0.92	0.25	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	4%	4%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	179	0	108	158	997	0	0	1614	0
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Detector Phase				3			5	2			6	
Switch Phase												
Minimum Initial (s)				5.0			5.0	10.0			10.0	
Minimum Split (s)				11.0			12.0	23.0			22.0	
Total Split (s)	0.0	0.0	0.0	14.0	0.0	0.0	17.0	66.0	0.0	0.0	49.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	17.5%	0.0%	0.0%	21.3%	82.5%	0.0%	0.0%	61.3%	0.0%
Maximum Green (s)				8.0			10.0	59.0			43.0	
Yellow Time (s)				4.0			5.0	5.0			4.0	
All-Red Time (s)				2.0			2.0	2.0			2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	6.0	4.0	4.0	7.0	7.0	4.0	4.0	6.0	4.0
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Recall Mode				None			None	C-Min			C-Min	
v/c Ratio				0.86		0.06	0.80	0.39			0.88	
Control Delay				72.6		0.1	52.7	3.2			22.9	
Queue Delay				0.0		0.0	0.0	0.0			0.0	
Total Delay				72.6		0.1	52.7	3.2			22.9	
Queue Length 50th (ft)				90		0	86	67			426	
Queue Length 95th (ft)				#164		0	m#145	82			m514	
Internal Link Dist (ft)		1304			1219			642			1115	
Turn Bay Length (ft)						300	225					
Base Capacity (vph)				209		1777	203	2560			1851	
Starvation Cap Reductn				0		0	0	0			0	
Spillback Cap Reductn				0		0	0	0			0	
Storage Cap Reductn				0		0	0	0			0	
Reduced v/c Ratio				0.86		0.06	0.78	0.39			0.87	

Intersection Summary	
Area Type:	Other

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 76 (95%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: I-495 NB On-Ramp & Route 138



HCM Signalized Intersection Capacity Analysis
15: I-495 NB On-Ramp & Route 138

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	140	0	84	145	917	0	0	1271	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	10	12	12	12	12	16
Total Lost time (s)				6.0		4.0	7.0	7.0			6.0	
Lane Util. Factor				1.00		1.00	1.00	0.95			0.95	
Frt				1.00		0.85	1.00	1.00			0.97	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1986		1777	1620	3471			3444	
Flt Permitted				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1986		1777	1620	3471			3444	
Peak-hour factor, PHF	0.25	0.25	0.25	0.78	0.78	0.78	0.92	0.92	0.25	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	179	0	108	158	997	0	0	1324	290
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	179	0	108	158	997	0	0	1614	0
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	4%	4%	0%	2%	2%	2%
Turn Type				Prot		Free	Prot					
Protected Phases				3			5	2			6	
Permitted Phases						Free						
Actuated Green, G (s)				8.4		80.0	9.8	58.6			42.8	
Effective Green, g (s)				8.4		80.0	9.8	58.6			42.8	
Actuated g/C Ratio				0.11		1.00	0.12	0.73			0.53	
Clearance Time (s)				6.0			7.0	7.0			6.0	
Vehicle Extension (s)				3.0			3.0	3.0			3.0	
Lane Grp Cap (vph)				209		1777	198	2543			1843	
v/s Ratio Prot				c0.09			c0.10	0.29			c0.47	
v/s Ratio Perm						0.06						
v/c Ratio				0.86		0.06	0.80	0.39			0.88	
Uniform Delay, d1				35.2		0.0	34.1	4.0			16.3	
Progression Factor				1.00		1.00	0.86	0.72			1.13	
Incremental Delay, d2				27.4		0.1	14.8	0.3			3.9	
Delay (s)				62.6		0.1	44.2	3.2			22.2	
Level of Service				E		A	D	A			C	
Approach Delay (s)		0.0			39.1			8.8			22.2	
Approach LOS		A			D			A			C	

Intersection Summary			
HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
23: Center Street & Route 138

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	0	113	0	803	40	321	1311	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	14	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		60	0		200	200		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		155			915			1524			2001	
Travel Time (s)		3.5			20.8			34.6			45.5	
Peak Hour Factor	0.38	0.38	0.38	0.82	0.82	0.82	0.90	0.90	0.90	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	37	138	0	936	0	0	1666	0
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0		9.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	20.0	81.0	81.0	0.0	9.0	90.0	0.0
Total Split (%)	18.2%	18.2%	0.0%	18.2%	18.2%	18.2%	73.6%	73.6%	0.0%	8.2%	81.8%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	76.0	76.0		4.0	85.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	Max	Max		None	Max	
v/c Ratio					0.22	0.74		0.34			1.00	
Control Delay					46.1	69.4		4.0			34.2	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					46.1	69.4		4.0			34.2	
Queue Length 50th (ft)					24	94		88			~554	
Queue Length 95th (ft)					51	146		112			#791	
Internal Link Dist (ft)		75			835			1444			1921	
Turn Bay Length (ft)						60						
Base Capacity (vph)					186	209		2729			1673	
Starvation Cap Reductn					0	0		0			0	
Spillback Cap Reductn					0	0		0			0	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.20	0.66		0.34			1.00	

Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
23: Center Street & Route 138

2030 Build Condition - PM Peak Hour

Cycle Length: 110
Actuated Cycle Length: 108.4
Natural Cycle: 110
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Center Street & Route 138

HCM Signalized Intersection Capacity Analysis
23: Center Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	0	113	0	803	40	321	1311	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	14	12	12	12	12	12	12	12	12
Total Lost time (s)					5.0	5.0		5.0			5.0	
Lane Util. Factor					1.00	1.00		0.95			0.95	
Frt					1.00	0.85		0.99			1.00	
Flt Protected					0.95	1.00		1.00			0.99	
Satd. Flow (prot)					1687	1509		3480			3505	
Flt Permitted					0.76	1.00		1.00			0.60	
Satd. Flow (perm)					1345	1509		3480			2133	
Peak-hour factor, PHF	0.38	0.38	0.38	0.82	0.82	0.82	0.90	0.90	0.90	0.98	0.98	0.98
Adj. Flow (vph)	0	0	0	37	0	138	0	892	44	328	1338	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	37	138	0	936	0	0	1666	0
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	3%	3%	3%	2%	2%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)					13.4	13.4		85.0			85.0	
Effective Green, g (s)					13.4	13.4		85.0			85.0	
Actuated g/C Ratio					0.12	0.12		0.78			0.78	
Clearance Time (s)					5.0	5.0		5.0			5.0	
Vehicle Extension (s)					3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)					166	187		2729			1673	
v/s Ratio Prot								0.27				
v/s Ratio Perm					0.03	c0.09					c0.78	
v/c Ratio					0.22	0.74		0.34			1.00	
Uniform Delay, d1					42.8	45.8		3.5			11.5	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					0.7	14.1		0.3			20.9	
Delay (s)					43.5	59.9		3.8			32.4	
Level of Service					D	E		A			C	
Approach Delay (s)		0.0			56.4			3.8			32.4	
Approach LOS		A			E			A			C	

Intersection Summary			
HCM Average Control Delay	24.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	108.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	40	350	15	28	30	620	325	74	1149	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Peak Hour Factor	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	398	49	0	0	1071	0	0	1303	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		35.0	35.0		35.0	35.0	
Total Split (s)	12.0	12.0	0.0	12.0	24.0	0.0	56.0	56.0	0.0	56.0	56.0	0.0
Total Split (%)	15.0%	15.0%	0.0%	15.0%	30.0%	0.0%	70.0%	70.0%	0.0%	70.0%	70.0%	0.0%
Maximum Green (s)	7.0	7.0		7.0	19.0		51.0	51.0		51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
v/c Ratio		0.56		0.95	0.11			0.61			0.77	
Control Delay		51.3		66.2	24.6			6.3			14.8	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		51.3		66.2	24.6			6.3			14.8	
Queue Length 50th (ft)		38		~207	19			77			212	
Queue Length 95th (ft)		68		#381	45			92			287	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		146		421	441			1822			1765	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.54		0.95	0.11			0.59			0.74	

Intersection Summary	
Area Type:	Other

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 36 (45%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 36: Elm Street & Route 138

HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	40	350	15	28	30	620	325	74	1149	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.91		1.00	0.90			0.95			1.00	
Flt Protected		0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1703		1770	1680			3261			3522	
Flt Permitted		0.93		0.76	1.00			0.87			0.78	
Satd. Flow (perm)		1599		1415	1680			2857			2771	
Peak-hour factor, PHF	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	13	13	53	398	17	32	33	681	357	78	1209	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	79	0	398	49	0	0	1071	0	0	1303	0
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		5.9		22.0	22.0			48.0			48.0	
Effective Green, g (s)		5.9		22.0	22.0			48.0			48.0	
Actuated g/C Ratio		0.07		0.28	0.28			0.60			0.60	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		118		438	462			1714			1663	
v/s Ratio Prot				c0.13	0.03							
v/s Ratio Perm		0.05		c0.12				0.37			c0.47	
v/c Ratio		0.67		0.91	0.11			0.62			0.78	
Uniform Delay, d1		36.1		27.5	21.7			10.2			12.1	
Progression Factor		1.00		1.00	1.00			0.50			1.00	
Incremental Delay, d2		13.5		22.3	0.1			1.6			3.8	
Delay (s)		49.6		49.8	21.8			6.7			15.8	
Level of Service		D		D	C			A			B	
Approach Delay (s)		49.6			46.7			6.7			15.8	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM Average Control Delay	18.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
44: Route 106 & Route 138

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	260	52	429	405	120	89	345	237	145	652	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1742			2236			4525			923	
Travel Time (s)		39.6			50.8			102.8			21.0	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.79	0.79	0.79	0.94	0.94	0.94	0.89	0.89	1.00	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	5%	5%	5%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	496	0	0	1015	0	0	725	0	0	976	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Detector Phase	2	2		2	2		1	1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.56			1.27dl			0.76			1.00	
Control Delay		17.1			83.4			19.5			51.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.1			83.4			19.5			51.3	
Queue Length 50th (ft)		75			~264			106			~208	
Queue Length 95th (ft)		99			#382			172			#348	
Internal Link Dist (ft)		1662			2156			4445			843	
Turn Bay Length (ft)												
Base Capacity (vph)		885			922			958			974	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.56			1.10			0.76			1.00	

Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Natural Cycle: 75	

Lanes, Volumes, Timings
44: Route 106 & Route 138

2030 Build Condition - PM Peak Hour

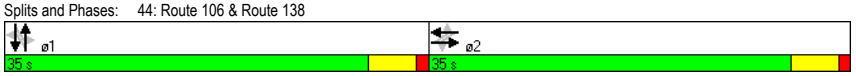
Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 44: Route 106 & Route 138



HCM Signalized Intersection Capacity Analysis
44: Route 106 & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	260	52	429	405	120	89	345	237	145	652	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.95			0.98	
Flt Protected		0.99			0.98			0.99			0.99	
Satd. Flow (prot)		3434			3299			3247			3403	
Flt Permitted		0.58			0.63			0.62			0.65	
Satd. Flow (perm)		2024			2116			2040			2232	
Peak-hour factor, PHF	0.79	0.79	0.79	0.94	0.94	0.94	0.89	0.89	1.00	0.94	0.94	0.94
Adj. Flow (vph)	101	329	66	456	431	128	100	388	237	154	694	128
RTOR Reduction (vph)	0	17	0	0	16	0	0	84	0	0	17	0
Lane Group Flow (vph)	0	479	0	0	999	0	0	641	0	0	959	0
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	5%	5%	5%	3%	3%	3%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			1			1	
Permitted Phases	2			2			1			1		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.43			0.43			0.43			0.43	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		867			907			874			957	
v/s Ratio Prot												
v/s Ratio Perm		0.24			c0.47			0.31			c0.43	
v/c Ratio		0.55			1.27dl			0.73			1.00	
Uniform Delay, d1		15.0			20.0			16.7			20.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.9			61.6			3.4			29.6	
Delay (s)		15.9			81.6			20.1			49.6	
Level of Service		B			F			C			D	
Approach Delay (s)		15.9			81.6			20.1			49.6	
Approach LOS		B			F			C			D	

Intersection Summary			
HCM Average Control Delay	47.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	101.1%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
10: Robinson Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	544	0	10	1283
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.63	0.63	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	0	24	604	0	11	1410
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2036	604			604	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2036	604			604	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	100	95			99	
cM capacity (veh/h)	63	487			983	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	604	1421
Volume Left	0	0	11
Volume Right	24	0	0
cSH	487	1700	983
Volume to Capacity	0.05	0.36	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	12.8	0.0	0.6
Lane LOS	B		A
Approach Delay (s)	12.8	0.0	0.6
Approach LOS	B		

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
11: Station driveway & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	57	208	54	605	1085	22
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.68	0.68	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	84	306	60	672	1192	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1997	1204	1216			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1997	1204	1216			
tC, single (s)	6.7	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.3			
p0 queue free %	0	0	89			
cM capacity (veh/h)	49	226	559			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	390	732	1216
Volume Left	84	60	0
Volume Right	306	0	24
cSH	127	559	1700
Volume to Capacity	3.08	0.11	0.72
Queue Length 95th (ft)	Err	9	0
Control Delay (s)	Err	3.0	0.0
Lane LOS	F	A	
Approach Delay (s)	Err	3.0	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	1667.3		
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
24: Britton Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	35	20	833	30	25	1331
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.85	0.85	0.97	0.97
Hourly flow rate (vph)	47	27	980	35	26	1372
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2421	998			1015	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2421	998			1015	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	91			96	
cM capacity (veh/h)	34	296			683	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	73	1015	1398
Volume Left	47	0	26
Volume Right	27	35	0
cSH	51	1700	683
Volume to Capacity	1.45	0.60	0.04
Queue Length 95th (ft)	172	0	3
Control Delay (s)	416.6	0.0	2.2
Lane LOS	F		A
Approach Delay (s)	416.6	0.0	2.2
Approach LOS	F		

Intersection Summary			
Average Delay	13.5		
Intersection Capacity Utilization	100.1%	ICU Level of Service	G
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
27: Britton Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	15	5	5	818	1282	48
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	18	6	6	930	1335	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2301	1360	1385			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2301	1360	1385			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	57	97	99			
cM capacity (veh/h)	43	183	491			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	935	1385
Volume Left	18	6	0
Volume Right	6	0	50
cSH	53	491	1700
Volume to Capacity	0.46	0.01	0.81
Queue Length 95th (ft)	43	1	0
Control Delay (s)	122.3	0.4	0.0
Lane LOS	F	A	
Approach Delay (s)	122.3	0.4	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
50: Wilbur Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	5	638	10	20	1263
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.39	0.39	0.97	0.97	0.96	0.96
Hourly flow rate (vph)	13	13	658	10	21	1316
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2020	663			668	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2020	663			668	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	80	97			98	
cM capacity (veh/h)	63	465			922	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	668	1336
Volume Left	13	0	21
Volume Right	13	10	0
cSH	111	1700	922
Volume to Capacity	0.23	0.39	0.02
Queue Length 95th (ft)	21	0	2
Control Delay (s)	46.7	0.0	1.0
Lane LOS	E		A
Approach Delay (s)	46.7	0.0	1.0
Approach LOS	E		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		

Easton

Lanes, Volumes, Timings
1: Main Street & Rte 138

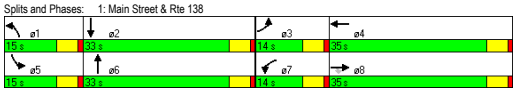
2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	415	374	225	45	144	135	123	801	50	73	342	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	11	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4962			2928	
Travel Time (s)		26.1			62.7			84.6			49.9	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	466	420	253	51	317	0	134	925	0	83	471	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	21.0	21.0	12.0	23.0		12.0	23.0		12.0	21.0	
Total Split (s)	14.0	35.0	35.0	14.0	35.0	0.0	15.0	33.0	0.0	15.0	33.0	0.0
Total Split (%)	14.4%	36.1%	36.1%	14.4%	36.1%	0.0%	15.5%	34.0%	0.0%	15.5%	34.0%	0.0%
Maximum Green (s)	9.0	30.0	30.0	9.0	30.0		10.0	28.0		10.0	28.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					7.0			7.0				
Flash Dont Walk (s)					8.0			8.0				
Pedestrian Calls (#/hr)					0			0				
v/c Ratio	2.52	0.74	0.38	0.33	0.40		0.68	0.80		0.46	0.47	
Control Delay	719.1	37.0	5.3	46.1	14.9		58.2	34.0		48.2	25.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	719.1	37.0	5.3	46.1	14.9		58.2	34.0		48.2	25.2	
Queue Length 50th (ft)	~453	220	0	28	37		73	255		45	105	
Queue Length 95th (ft)	#687	340	52	66	69		#175	#427		95	162	
Internal Link Dist (ft)		1645			3138			4882			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	185	689	746	180	1253		219	1172		217	1187	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	2.52	0.61	0.34	0.28	0.25		0.61	0.79		0.38	0.40	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 82.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Rte 138



HCM Signalized Intersection Capacity Analysis
1: Main Street & Rte 138

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	415	374	225	45	144	135	123	801	50	73	342	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	11	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1626	1818	1553	1586	3054		1736	3300		1719	3305	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1626	1818	1553	1586	3054		1736	3300		1719	3305	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	466	420	253	51	164	153	134	871	54	83	389	82
RTOR Reduction (vph)	0	0	177	0	116	0	0	5	0	0	18	0
Lane Group Flow (vph)	466	420	76	51	201	0	134	920	0	83	453	0
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	9.4	25.6	25.6	4.4	20.6		9.3	28.9		6.6	26.2	
Effective Green, g (s)	9.4	25.6	25.6	4.4	20.6		9.3	28.9		6.6	26.2	
Actuated g/C Ratio	0.11	0.30	0.30	0.05	0.24		0.11	0.34		0.08	0.31	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	179	544	465	82	736		189	1115		133	1013	
v/s Ratio Prot	c0.29	c0.23		0.03	0.07		c0.08	c0.28		0.05	0.14	
v/s Ratio Perm			0.05									
v/c Ratio	2.60	0.77	0.16	0.62	0.27		0.71	0.83		0.62	0.45	
Uniform Delay, d1	38.1	27.3	22.1	39.7	26.4		36.8	26.0		38.2	23.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	737.5	6.1	0.1	10.1	0.1		9.5	5.3		6.4	0.4	
Delay (s)	775.5	33.4	22.1	49.8	26.4		46.3	31.3		44.7	24.3	
Level of Service	F	C	C	D	C		D	C		D	C	
Approach Delay (s)		334.5			29.7			33.2			27.3	
Approach LOS		F			C			C			C	

Intersection Summary

HCM Average Control Delay	141.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	85.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
2: Belmont St (Rt. 123) & Route 138

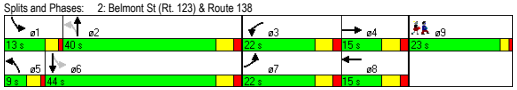
2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	22	55	35	250	50	204	85	743	435	202	315	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	13	12	11	12	12	12	11	12	11	12	13	
Storage Length (ft)	0		0	475		0	0		0	200		300	
Storage Lanes	1		0	2		0	1		0	1		1	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		45			45			45			45		
Link Distance (ft)		387			2550			980			851		
Travel Time (s)		5.9			38.6			14.8			12.9		
Peak Hour Factor	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92	
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	31	125	0	305	310	0	91	1267	0	220	358	0	
Turn Type	Prot			Prot			pm+pt			pm+pt			
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases							2			6			
Detector Phase	7	4		3	8		5	2		1	6		
Switch Phase													
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	22.0	10.0		22.0	10.0		8.0	10.0		8.0	10.0		23.0
Total Split (s)	22.0	15.0	0.0	22.0	15.0	0.0	9.0	40.0	0.0	13.0	44.0	0.0	23.0
Total Split (%)	19.5%	13.3%	0.0%	19.5%	13.3%	0.0%	8.0%	35.4%	0.0%	11.5%	38.9%	0.0%	20%
Maximum Green (s)	16.0	9.0		16.0	9.0		5.0	34.0		9.0	38.0		20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0		3.0	4.0		2.0
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max		None
Walk Time (s)													6.0
Flash Dont Walk (s)													14.0
Pedestrian Calls (#/hr)													4
v/c Ratio	0.29	0.69		0.72	0.78		0.18	0.98		0.65	0.21		
Control Delay	56.2	61.7		57.1	39.4		14.2	53.7		38.8	21.7		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Total Delay	56.2	61.7		57.1	39.4		14.2	53.7		38.8	21.7		
Queue Length 50th (ft)	22	74		109	126		23	422		105	68		
Queue Length 95th (ft)	42	#112		141	#257		72	#706		#309	162		
Internal Link Dist (ft)		307			2470			900			771		
Turn Bay Length (ft)				475						200			
Base Capacity (vph)	219	182		465	400		516	1288		341	1735		
Starvation Cap Reductn	0	0		0	0		0	0		0	0		
Spillback Cap Reductn	0	0		0	0		0	0		0	0		
Storage Cap Reductn	0	0		0	0		0	0		0	0		
Reduced v/c Ratio	0.14	0.69		0.66	0.78		0.18	0.98		0.65	0.21		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 113
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Belmont St (Rt. 123) & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St (Rt. 123) & Route 138

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	55	35	250	50	204	85	743	435	202	315	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	13	12	11	12	12	12	11	12	11	12	13
Total Lost time (s)	6.0	6.0		6.0	6.0		4.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.88		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1544	1772		3286	1474		1805	3200		1662	3454	
Flt Permitted	0.95	1.00		0.95	1.00		0.54	1.00		0.09	1.00	
Satd. Flow (perm)	1544	1772		3286	1474		1022	3200		165	3454	
Peak-hour factor, PHF	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	31	76	49	305	61	249	91	799	468	220	342	16
RTOR Reduction (vph)	0	20	0	0	114	0	0	71	0	0	2	0
Lane Group Flow (vph)	31	105	0	305	196	0	91	1196	0	220	356	0
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)	5.4	12.7		14.6	21.9		44.0	38.4		60.7	51.1	
Effective Green, g (s)	5.4	12.7		14.6	21.9		44.0	38.4		60.7	51.1	
Actuated g/C Ratio	0.05	0.11		0.13	0.19		0.39	0.34		0.54	0.45	
Clearance Time (s)	6.0	6.0		6.0	6.0		4.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	199		425	286		437	1087		331	1562	
v/s Ratio Prot	0.02	0.06		c0.09	c0.13		0.01	c0.37		c0.11	0.10	
v/s Ratio Perm							0.07			0.25		
v/c Ratio	0.42	0.53		0.72	0.69		0.21	1.10		0.66	0.23	
Uniform Delay, d1	52.3	47.3		47.2	42.4		22.2	37.3		27.1	18.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.48	1.21	
Incremental Delay, d2	3.8	2.7		5.7	6.7		0.2	59.1		4.6	0.3	
Delay (s)	56.1	50.0		52.9	49.0		22.4	96.4		44.6	23.2	
Level of Service	E	D		D	D		C	F		D	C	
Approach Delay (s)		51.2			51.0			91.5			31.3	
Approach LOS		D			D			F			C	

Intersection Summary

HCM Average Control Delay	67.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
6: Roche Brothers Way & Route 138

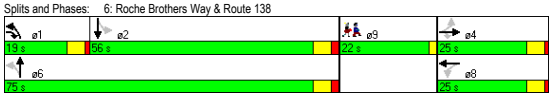
2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	ø9
Lane Configurations													
Volume (vph)	103	0	99	5	0	5	389	999	0	0	353	158	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	16	12	10	11	11	12	11	11	
Storage Length (ft)	0		100	0		0	350		0	0		0	
Storage Lanes	0		1	0		0	0		0	0		0	
Taper Length (ft)	25		25	25		25	25		25	25		25	
Right Turn on Red			Yes			Yes			Yes			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		635			332			1623			2417		
Travel Time (s)		14.4			7.5			36.9			54.9		
Peak Hour Factor	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84	
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	126	121	0	16	0	0	1633	0	0	608	0	
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm			
Protected Phases		4	1		8		1	6			2		9
Permitted Phases	4		4	8			6			2			
Detector Phase	4	4	1	8	8		1	6		2	2		
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	10.0		10.0	10.0		7.0
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	21.0		21.0	21.0		22.0
Total Split (s)	25.0	25.0	19.0	25.0	25.0	0.0	19.0	75.0	0.0	56.0	56.0	0.0	22.0
Total Split (%)	20.5%	20.5%	15.6%	20.5%	20.5%	0.0%	15.6%	61.5%	0.0%	45.9%	45.9%	0.0%	18%
Maximum Green (s)	20.0	20.0	14.0	20.0	20.0		14.0	69.0		50.0	50.0		20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0	
Lead/Lag			Lead				Lead			Lag	Lag		
Lead-Lag Optimize?			Yes				Yes			Yes	Yes		
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		2.0
Recall Mode	None	None	None	None	None		None	Min		Min	Min		None
Walk Time (s)													7.0
Flash Dont Walk (s)													13.0
Pedestrian Calls (#/hr)													11
v/c Ratio		0.70	0.26		0.07			1.03			0.31		
Control Delay		62.2	7.6		28.4			47.0			10.4		
Queue Delay		0.0	0.0		0.0			0.0			0.0		
Total Delay		62.2	7.6		28.4			47.0			10.4		
Queue Length 50th (ft)		71	0		4			207			67		
Queue Length 95th (ft)		143	36		17			#925			167		
Internal Link Dist (ft)		555			252			1543			2337		
Turn Bay Length (ft)			100										
Base Capacity (vph)		280	580		348			1583			1957		
Starvation Cap Reductn		0	0		0			0			0		
Spillback Cap Reductn		0	0		0			0			0		
Storage Cap Reductn		0	0		0			0			0		
Reduced v/c Ratio		0.45	0.21		0.05			1.03			0.31		

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 98.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Roche Brothers Way & Route 138



HCM Signalized Intersection Capacity Analysis
6: Roche Brothers Way & Route 138

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	0	99	5	0	5	389	999	0	0	353	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	10	11	11	12	11	11
Total Lost time (s)		5.0	5.0		5.0			6.0			6.0	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frt		1.00	0.85		0.93			1.00			0.95	
Flt Protected		0.95	1.00		0.98			0.99			1.00	
Satd. Flow (prot)		1736	1524		1911			3341			3181	
Flt Permitted		0.75	1.00		0.85			0.62			1.00	
Satd. Flow (perm)		1365	1524		1668			2113			3181	
Peak-hour factor, PHF	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	126	0	121	8	0	8	458	1175	0	0	420	188
RTOR Reduction (vph)	0	0	98	0	7	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	126	23	0	9	0	0	1633	0	0	579	0
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		13.0	19.1		13.0			70.9			59.8	
Effective Green, g (s)		13.0	19.1		13.0			70.9			59.8	
Actuated g/C Ratio		0.13	0.19		0.13			0.71			0.60	
Clearance Time (s)		5.0	5.0		5.0			6.0			6.0	
Vehicle Extension (s)		2.0	2.0		2.0			2.0			2.0	
Lane Grp Cap (vph)		177	367		217			1571			1900	
v/s Ratio Prot			0.00					c0.06			0.18	
v/s Ratio Perm		c0.09	0.01		0.01			c0.67				
v/c Ratio		0.71	0.06		0.04			1.04			0.30	
Uniform Delay, d1		41.8	33.2		38.1			14.6			9.9	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		10.7	0.0		0.0			33.7			0.0	
Delay (s)		52.4	33.2		38.1			48.3			10.0	
Level of Service		D	C		D			D			A	
Approach Delay (s)		43.0			38.1			48.3			10.0	
Approach LOS		D			D			D			A	

Intersection Summary

HCM Average Control Delay	38.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.1	Sum of lost time (s)	16.2
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
47: Roosevelt Circle & Route 138

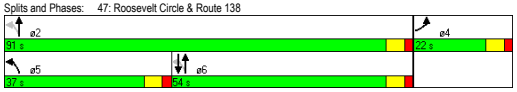
2030 Build Condition - AM Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø2
Lane Configurations							
Volume (vph)	40	15	5	964	557	55	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	50			0	
Storage Lanes	1	0	1			0	
Taper Length (ft)	25	25	25			25	
Right Turn on Red		Yes				Yes	
Link Speed (mph)	30			40	45		
Link Distance (ft)	901			851	4962		
Travel Time (s)	20.5			14.5	75.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	59	0	5	1048	665	0	
Turn Type			pm+pt				
Protected Phases	4		5	2 6	6		2
Permitted Phases			2 6				
Detector Phase	4		5	2 6	6		
Switch Phase							
Minimum Initial (s)	4.0		4.0		4.0		4.0
Minimum Split (s)	22.0		22.0		22.0		22.0
Total Split (s)	22.0	0.0	37.0	145.0	54.0	0.0	91.0
Total Split (%)	19.5%	0.0%	32.7%	128.3%	47.8%	0.0%	81%
Maximum Green (s)	16.0		31.0		48.0		85.0
Yellow Time (s)	4.0		4.0		4.0		4.0
All-Red Time (s)	2.0		2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0	
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		None		C-Max		C-Max
Walk Time (s)	5.0		5.0		5.0		5.0
Flash Dont Walk (s)	11.0		11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0		0
v/c Ratio	0.41		0.01	0.66	0.44		
Control Delay	47.7		0.4	4.7	5.3		
Queue Delay	0.0		0.0	1.3	0.0		
Total Delay	47.7		0.4	6.0	5.3		
Queue Length 50th (ft)	32		0	56	103		
Queue Length 95th (ft)	72		m0	m224	298		
Internal Link Dist (ft)	821			771	4882		
Turn Bay Length (ft)			50				
Base Capacity (vph)	257		846	1583	1526		
Starvation Cap Reductn	0		0	309	0		
Spillback Cap Reductn	0		0	0	0		
Storage Cap Reductn	0		0	0	0		
Reduced v/c Ratio	0.23		0.01	0.82	0.44		

Intersection Summary

Area Type: Other
Cycle Length: 113
Actuated Cycle Length: 113
Offset: 41 (36%), Referenced to phase 2:NBTL and 6:NBSB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 47: Roosevelt Circle & Route 138



HCM Signalized Intersection Capacity Analysis
47: Roosevelt Circle & Route 138

2030 Build Condition - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	40	15	5	964	557	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.96		1.00	1.00	0.99	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1731		1770	1863	1840	
Flt Permitted	0.96		0.34	1.00	1.00	
Satd. Flow (perm)	1731		639	1863	1840	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	16	5	1048	605	60
RTOR Reduction (vph)	13	0	0	0	1	0
Lane Group Flow (vph)	46	0	5	1048	664	0
Turn Type			pm+pt			
Protected Phases	4		5	2 6	6	
Permitted Phases			2 6			
Actuated Green, G (s)	7.4		93.6	93.6	86.5	
Effective Green, g (s)	7.4		93.6	93.6	86.5	
Actuated g/C Ratio	0.07		0.83	0.83	0.77	
Clearance Time (s)	6.0		6.0		6.0	
Vehicle Extension (s)	3.0		3.0		3.0	
Lane Grp Cap (vph)	113		540	1543	1408	
v/s Ratio Prot	c0.03		0.00	c0.56	0.36	
v/s Ratio Perm			0.01			
v/c Ratio	0.41		0.01	0.68	0.47	
Uniform Delay, d1	50.7		2.7	3.8	4.9	
Progression Factor	1.00		0.18	0.84	1.00	
Incremental Delay, d2	2.4		0.0	1.0	1.1	
Delay (s)	53.1		0.5	4.2	6.0	
Level of Service	D		A	A	A	
Approach Delay (s)	53.1			4.2	6.0	
Approach LOS	D			A	A	

Intersection Summary

HCM Average Control Delay	6.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
3: Elm St & Route 138

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	167	31	35	10	15	31	30	1370	15	0	438	54
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.68	0.68	0.68	0.91	0.91	0.91	0.89	0.89	0.89
Hourly flow rate (vph)	199	37	42	15	22	46	33	1505	16	0	492	61
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2159	2110	522	2162	2132	1514	553			1522		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2159	2110	522	2162	2132	1514	553			1522		
tC, single (s)	7.1	6.5	6.2	7.1	6.6	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	0	25	92	0	50	69	97			100		
cM capacity (veh/h)	14	49	552	12	44	146	1007			444		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	277	82	1555	553
Volume Left	199	15	33	0
Volume Right	42	46	16	61
cSH	19	40	1007	444
Volume to Capacity	14.88	2.04	0.03	0.00
Queue Length 95th (ft)	Err	219	3	0
Control Delay (s)	Err	697.5	2.8	0.0
Lane LOS	F	F	A	
Approach Delay (s)	Err	697.5	2.8	0.0
Approach LOS	F	F		

Intersection Summary				
Average Delay		1149.1		
Intersection Capacity Utilization		123.5%	ICU Level of Service	H
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Lincoln Street & Main Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	484	15	154	114	62	5	61	525	90	48	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.87	0.87	0.87	0.80	0.80	0.80	0.87	0.87	0.87
Hourly flow rate (vph)	5	532	16	177	131	71	6	76	656	103	55	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	131			548			1105	1036	540	1110	1080	167
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	131			548			1105	1036	540	1110	1080	167
tC, single (s)	4.1			4.1			7.3	6.5	6.2	7.1	6.7	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.7	4.0	3.3	3.5	4.1	3.3
p0 queue free %	100			82			95	60	0	0	67	99
cM capacity (veh/h)	1467			1011			114	190	542	0	169	883

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	554	379	739	164
Volume Left	5	177	6	103
Volume Right	16	71	656	6
cSH	1467	1011	443	0
Volume to Capacity	0.00	0.18	1.67	Err
Queue Length 95th (ft)	0	16	1084	Err
Control Delay (s)	0.1	5.3	332.5	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.1	5.3	332.5	Err
Approach LOS			F	F

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization		102.0%	ICU Level of Service	G
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
11: Lincoln Street & Barrows Street

2030 Build Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	187	499	0	0	124	0	0	0	5	0	0	84
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.88	0.88	0.88	0.88	0.88	0.92	0.92	0.59
Hourly flow rate (vph)	195	520	0	0	141	0	0	0	6	0	0	142
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	141			520			1193	1050	520	1056	1050	141
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	141			520			1193	1050	520	1056	1050	141
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			100			100	100	99	100	100	84
cM capacity (veh/h)	1442			1046			124	196	556	182	196	910

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	715	141	6	142
Volume Left	195	0	0	0
Volume Right	0	0	6	142
cSH	1442	1700	556	910
Volume to Capacity	0.14	0.08	0.01	0.16
Queue Length 95th (ft)	12	0	1	14
Control Delay (s)	3.3	0.0	11.5	9.7
Lane LOS	A		B	A
Approach Delay (s)	3.3	0.0	11.5	9.7
Approach LOS			B	A

Intersection Summary				
Average Delay		3.8		
Intersection Capacity Utilization		58.3%	ICU Level of Service	B
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
12: Union Street & Route 138

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	65	121	1271	257	80	412
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.89	0.89	0.81	0.81
Hourly flow rate (vph)	74	138	1428	289	99	509
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2279	1572			1717	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2279	1572			1717	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	0			73	
cM capacity (veh/h)	33	134			366	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	211	1717	607
Volume Left	74	0	99
Volume Right	138	289	0
cSH	64	1700	366
Volume to Capacity	3.30	1.01	0.27
Queue Length 95th (ft)	Err	0	27
Control Delay (s)	Err	0.0	8.9
Lane LOS	F		A
Approach Delay (s)	Err	0.0	8.9
Approach LOS	F		

Intersection Summary				
Average Delay		835.6		
Intersection Capacity Utilization		107.7%	ICU Level of Service	G
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
17: Elm Street & Main Street

2030 Build Condition - AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	53	15	160	134	50	158
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.86	0.86	0.73	0.73
Hourly flow rate (vph)	60	17	186	156	68	216
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	617	264			342	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	617	264			342	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	86	98			94	
cM capacity (veh/h)	419	763			1217	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	77	342	285
Volume Left	60	0	68
Volume Right	17	156	0
cSH	465	1700	1217
Volume to Capacity	0.17	0.20	0.06
Queue Length 95th (ft)	15	0	4
Control Delay (s)	14.3	0.0	2.4
Lane LOS	B		A
Approach Delay (s)	14.3	0.0	2.4
Approach LOS	B		

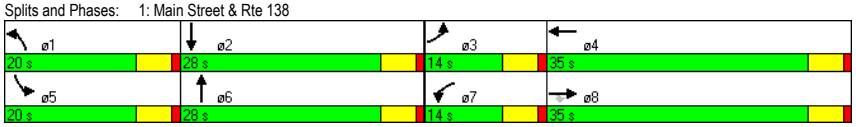
Intersection Summary			
Average Delay		2.5	
Intersection Capacity Utilization		41.5%	ICU Level of Service A
Analysis Period (min)		15	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	198	279	105	366	88	295	493	85	150	684	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	12	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4974			2928	
Travel Time (s)		26.1			62.7			84.8			49.9	
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	241	340	124	535	0	328	642	0	169	1105	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	21.0		12.0	21.0		12.0	20.0	
Total Split (s)	14.0	35.0	35.0	14.0	35.0	0.0	20.0	28.0	0.0	20.0	28.0	0.0
Total Split (%)	14.4%	36.1%	36.1%	14.4%	36.1%	0.0%	20.6%	28.9%	0.0%	20.6%	28.9%	0.0%
Maximum Green (s)	9.0	30.0	30.0	9.0	30.0		15.0	23.0		15.0	23.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					5.0			5.0				
Flash Dont Walk (s)					11.0			11.0				
Pedestrian Calls (#/hr)					0			0				
v/c Ratio	1.17	0.64	0.57	0.70	0.76		1.04	0.60		0.69	1.18	
Control Delay	157.7	38.7	7.4	60.1	37.2		98.1	28.1		49.9	121.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	157.7	38.7	7.4	60.1	37.2		98.1	28.1		49.9	121.5	
Queue Length 50th (ft)	~142	118	0	64	133		~189	146		85	~360	
Queue Length 95th (ft)	#267	171	43	#142	173		#381	234		155	#530	
Internal Link Dist (ft)		1645			3138			4894			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	190	649	784	185	1215		316	1068		310	935	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	1.17	0.37	0.43	0.67	0.44		1.04	0.60		0.55	1.18	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 84.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Rte 138



HCM Signalized Intersection Capacity Analysis
1: Main Street & Rte 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	198	279	105	366	88	295	493	85	150	684	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	12	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1818	1583	1728	3348		1770	3386		1736	3243	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1818	1583	1728	3348		1770	3386		1736	3243	
Peak-hour factor, PHF	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Adj. Flow (vph)	223	241	340	124	431	104	328	548	94	169	769	336
RTOR Reduction (vph)	0	0	269	0	25	0	0	13	0	0	48	0
Lane Group Flow (vph)	223	241	71	124	510	0	328	629	0	169	1057	0
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	9.0	17.5	17.5	8.6	17.1		15.0	26.2		11.8	23.0	
Effective Green, g (s)	9.0	17.5	17.5	8.6	17.1		15.0	26.2		11.8	23.0	
Actuated g/C Ratio	0.11	0.21	0.21	0.10	0.20		0.18	0.31		0.14	0.27	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	189	378	329	177	681		316	1055		244	887	
v/s Ratio Prot	c0.13	0.13		0.07	c0.15		c0.19	c0.19		0.10	c0.33	
v/s Ratio Perm			0.04									
v/c Ratio	1.18	0.64	0.22	0.70	0.75		1.04	0.60		0.69	1.19	
Uniform Delay, d1	37.5	30.4	27.6	36.5	31.5		34.5	24.5		34.4	30.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	122.3	2.6	0.1	9.8	4.0		60.8	1.1		6.7	97.4	
Delay (s)	159.8	33.0	27.7	46.3	35.5		95.4	25.5		41.1	128.0	
Level of Service	F	C	C	D	D		F	C		D	F	
Approach Delay (s)		66.0			37.5			49.2			116.5	
Approach LOS		E			D			D			F	

Intersection Summary			
HCM Average Control Delay	73.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	84.1	Sum of lost time (s)	25.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
2: Belmont St (Rt. 123) & Route 138

2030 Build Condition - PM Peak Hour

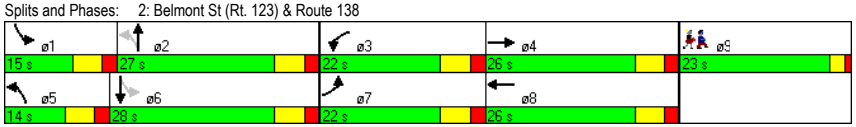
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	125	275	500	150	174	230	407	300	243	687	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	12	11	13	12	11	12	12	11	12	13
Storage Length (ft)	0		0	475		0	0		0	200		300
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			2550			908			849	
Travel Time (s)		5.9			38.6			13.8			12.9	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	449	0	568	368	0	247	761	0	267	824	0
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases							2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	10.0		22.0	22.0		10.0	10.0		10.0	10.0	
Total Split (s)	22.0	26.0	0.0	22.0	26.0	0.0	14.0	27.0	0.0	15.0	28.0	0.0
Total Split (%)	19.5%	23.0%	0.0%	19.5%	23.0%	0.0%	12.4%	23.9%	0.0%	13.3%	24.8%	0.0%
Maximum Green (s)	16.0	20.0		16.0	20.0		8.0	21.0		9.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.49	1.18		1.20	0.77		0.61	0.92		0.63	0.98	
Control Delay	58.3	137.1		150.3	48.8		32.4	52.3		29.5	55.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.3	137.1		150.3	48.8		32.4	52.3		29.5	55.0	
Queue Length 50th (ft)	56	~338		~258	228		96	228		76	282	
Queue Length 95th (ft)	102	#532		#356	#418		#347	#392		m#292	m#488	
Internal Link Dist (ft)		307			2470			828			769	
Turn Bay Length (ft)				475						200		
Base Capacity (vph)	247	382		474	476		402	827		423	844	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.32	1.18		1.20	0.77		0.61	0.92		0.63	0.98	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	20%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 113	
Actuated Cycle Length: 113	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Belmont St (Rt. 123) & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St (Rt. 123) & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	125	275	500	150	174	230	407	300	243	687	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	13	12	11	13	12	11	12	12	11	12	13
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.90		1.00	0.92		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1745	1761		3351	1786		1745	3290		1662	3469	
Flt Permitted	0.95	1.00		0.95	1.00		0.19	1.00		0.17	1.00	
Satd. Flow (perm)	1745	1761		3351	1786		352	3290		295	3469	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91
Adj. Flow (vph)	80	140	309	568	170	198	247	438	323	267	755	69
RTOR Reduction (vph)	0	69	0	0	34	0	0	118	0	0	6	0
Lane Group Flow (vph)	80	380	0	568	334	0	247	643	0	267	818	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%
Turn Type	Prot			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)	9.2	21.2		16.0	28.0		42.0	20.9		47.6	23.7	
Effective Green, g (s)	9.2	21.2		16.0	28.0		42.0	20.9		47.6	23.7	
Actuated g/C Ratio	0.08	0.19		0.14	0.25		0.37	0.18		0.42	0.21	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	142	330		474	443		391	609		413	728	
v/s Ratio Prot	0.05	c0.22		c0.17	0.19		0.12	0.20		c0.14	c0.24	
v/s Ratio Perm							0.12			0.14		
v/c Ratio	0.56	1.15		1.20	0.75		0.63	1.06		0.65	1.12	
Uniform Delay, d1	50.0	45.9		48.5	39.3		27.4	46.0		24.6	44.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.03	0.84	
Incremental Delay, d2	5.0	97.2		108.2	7.1		3.3	52.0		2.0	66.8	
Delay (s)	55.0	143.1		156.7	46.5		30.8	98.0		27.4	104.3	
Level of Service	E	F		F	D		C	F		C	F	
Approach Delay (s)		129.8			113.3			81.6			85.5	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	98.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
6: Roche Brothers Way & Route 138

2030 Build Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	0	492	0	0	0	235	492	5	5	839	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	12	11	11	11	12	12	12
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			332			1623			2417	
Travel Time (s)		14.4			7.5			36.9			54.9	
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30
Peak Hour Factor	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	547	0	0	0	0	893	0	0	1114	0
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Detector Phase	4	4	1	8	8		1	6		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		10.0	10.0	
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	22.0		22.0	22.0	
Total Split (s)	25.0	25.0	19.0	25.0	25.0	0.0	19.0	75.0	0.0	56.0	56.0	0.0
Total Split (%)	20.5%	20.5%	15.6%	20.5%	20.5%	0.0%	15.6%	61.5%	0.0%	45.9%	45.9%	0.0%
Maximum Green (s)	20.0	20.0	14.0	20.0	20.0		14.0	69.0		50.0	50.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag			Lead				Lead			Lag	Lag	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.64	0.78					0.99dl			0.78	
Control Delay		46.0	19.2					14.1			25.6	
Queue Delay		0.0	0.0					0.0			0.0	
Total Delay		46.0	19.2					14.1			25.6	
Queue Length 50th (ft)		79	68					109			228	
Queue Length 95th (ft)		#265	#343					228			493	
Internal Link Dist (ft)		555			252			1543			2337	
Turn Bay Length (ft)			100									
Base Capacity (vph)		349	773					1644			2081	
Starvation Cap Reductn		0	0					0			0	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	

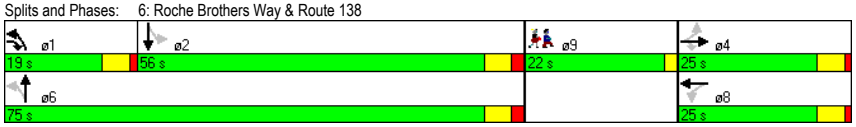
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	11
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.52	0.71					0.54			0.54	

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 83.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 6: Roche Brothers Way & Route 138



Lane Group	ø9
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	0	492	0	0	0	235	492	5	5	839	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0					6.0			6.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.94					1.00			0.99	
Flpb, ped/bikes		0.96	1.00					1.00			1.00	
Frt		1.00	0.85					1.00			0.98	
Flt Protected		0.95	1.00					0.98			1.00	
Satd. Flow (prot)		1739	1450					3329			3430	
Flt Permitted		0.76	1.00					0.52			0.95	
Satd. Flow (perm)		1386	1450					1771			3259	
Peak-hour factor, PHF	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90
Adj. Flow (vph)	183	0	547	0	0	0	287	600	6	6	932	176
RTOR Reduction (vph)	0	0	232	0	0	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	183	315	0	0	0	0	893	0	0	1102	0
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		17.5	27.2					51.5			36.8	
Effective Green, g (s)		17.5	27.2					51.5			36.8	
Actuated g/C Ratio		0.21	0.32					0.61			0.43	
Clearance Time (s)		5.0	5.0					6.0			6.0	
Vehicle Extension (s)		3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)		286	551					1255			1416	
v/s Ratio Prot			c0.07					c0.08				
v/s Ratio Perm		0.13	0.15					0.35			c0.34	
v/c Ratio		0.64	0.57					0.99dl			0.78	
Uniform Delay, d1		30.7	23.9					11.5			20.5	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		4.7	1.4					1.9			2.8	
Delay (s)		35.4	25.3					13.4			23.2	
Level of Service		D	C					B			C	
Approach Delay (s)		27.9			0.0			13.4			23.2	
Approach LOS		C			A			B			C	

Intersection Summary

HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	84.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø2
Lane Configurations							
Volume (vph)	160	50	0	623	893	155	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	50			0	
Storage Lanes	1	0	1			0	
Taper Length (ft)	25	25	25			25	
Right Turn on Red		Yes				Yes	
Link Speed (mph)	30			40	45		
Link Distance (ft)	1333			849	4974		
Travel Time (s)	30.3			14.5	75.4		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	228	0	0	677	1139	0	
Turn Type			pm+pt				
Protected Phases	4		5	2 6	6		2
Permitted Phases			2 6				
Detector Phase	4		5	2 6	6		
Switch Phase							
Minimum Initial (s)	4.0		4.0		4.0		4.0
Minimum Split (s)	22.0		22.0		22.0		22.0
Total Split (s)	35.0	0.0	22.0	134.0	56.0	0.0	78.0
Total Split (%)	31.0%	0.0%	19.5%	118.6%	49.6%	0.0%	69%
Maximum Green (s)	29.0		16.0		50.0		72.0
Yellow Time (s)	4.0		4.0		4.0		4.0
All-Red Time (s)	2.0		2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0	
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		None		C-Min		C-Min
v/c Ratio	0.74			0.50	0.86		
Control Delay	55.7			10.6	21.5		
Queue Delay	0.0			0.0	0.0		
Total Delay	55.7			10.6	21.5		
Queue Length 50th (ft)	150			158	529		
Queue Length 95th (ft)	220			m374	#1063		
Internal Link Dist (ft)	1253			769	4894		
Turn Bay Length (ft)							
Base Capacity (vph)	455			1346	1321		
Starvation Cap Reductn	0			0	0		
Spillback Cap Reductn	0			0	0		
Storage Cap Reductn	0			0	0		
Reduced v/c Ratio	0.50			0.50	0.86		

Intersection Summary	
Area Type:	Other
Cycle Length: 113	
Actuated Cycle Length: 113	

Offset: 93 (82%), Referenced to phase 2:NBTL and 6:NBSB, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 47: Roosevelt Circle & Route 138

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	160	50	0	623	893	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			1.00	1.00	
Frt	0.97			1.00	0.98	
Flt Protected	0.96			1.00	1.00	
Satd. Flow (prot)	1737			1863	1826	
Flt Permitted	0.96			1.00	1.00	
Satd. Flow (perm)	1737			1863	1826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	54	0	677	971	168
RTOR Reduction (vph)	11	0	0	0	3	0
Lane Group Flow (vph)	217	0	0	677	1136	0
Turn Type			pm+pt			
Protected Phases	4		5	2 6	6	
Permitted Phases			2 6			
Actuated Green, G (s)	19.4			81.6	81.6	
Effective Green, g (s)	19.4			81.6	81.6	
Actuated g/C Ratio	0.17			0.72	0.72	
Clearance Time (s)	6.0				6.0	
Vehicle Extension (s)	3.0				3.0	
Lane Grp Cap (vph)	298			1345	1319	
v/s Ratio Prot	c0.13			0.36	c0.62	
v/s Ratio Perm						
v/c Ratio	0.73			0.50	0.86	
Uniform Delay, d1	44.3			6.9	11.5	
Progression Factor	1.00			1.26	1.00	
Incremental Delay, d2	8.6			0.7	7.6	
Delay (s)	52.9			9.4	19.1	
Level of Service	D			A	B	
Approach Delay (s)	52.9			9.4	19.1	
Approach LOS	D			A	B	

Intersection Summary			
HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
3: Elm St & Route 138

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	83	15	35	25	50	36	65	708	30	22	1113	235
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	98	18	41	29	58	42	74	805	34	26	1309	276
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2540	2486	1448	2519	2607	822	1586			839		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2540	2486	1448	2519	2607	822	1586			839		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	26	74	0	0	89	82			97		
cM capacity (veh/h)	0	24	159	5	20	373	414			805		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	156	129	912	1612
Volume Left	98	29	74	26
Volume Right	41	42	34	276
cSH	0	14	414	805
Volume to Capacity	Err	9.06	0.18	0.03
Queue Length 95th (ft)	Err	Err	16	2
Control Delay (s)	Err	Err	6.3	4.7
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	6.3	4.7
Approach LOS	F	F		

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization		99.0%	ICU Level of Service	F
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
10: Lincoln Street & Main Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	261	25	459	449	106	15	50	229	85	73	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.89	0.89	0.89	0.93	0.93	0.93
Hourly flow rate (vph)	6	307	29	534	522	123	17	56	257	91	78	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	522			336			2035	1923	322	2013	1999	584
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	522			336			2035	1923	322	2013	1999	584
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.6	4.0	3.3
p0 queue free %	99			57			0	0	64	0	0	98
cM capacity (veh/h)	1055			1228			0	37	717	0	33	515

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	342	1179	330	181
Volume Left	6	534	17	91
Volume Right	29	123	257	11
cSH	1055	1228	0	0
Volume to Capacity	0.01	0.43	Err	Err
Queue Length 95th (ft)	0	56	Err	Err
Control Delay (s)	0.2	8.5	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.2	8.5	Err	Err
Approach LOS			F	F

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization		111.1%	ICU Level of Service	H
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
11: Lincoln Street & Barrows Street

2030 Build Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	78	276	0	0	474	5	10	5	15	0	0	399
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.92	0.92	0.89	0.89	0.92	0.92	0.92	0.89	0.92	0.89
Hourly flow rate (vph)	93	329	0	0	533	6	11	5	16	0	0	448
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	538			329			1498	1052	329	1069	1050	535
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	538			329			1498	1052	329	1069	1050	535
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			100			37	97	98	100	100	18
cM capacity (veh/h)	1040			1231			17	206	713	179	207	549

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	421	538	33	448
Volume Left	93	0	11	0
Volume Right	0	6	16	448
cSH	1040	1700	48	549
Volume to Capacity	0.09	0.32	0.68	0.82
Queue Length 95th (ft)	7	0	67	203
Control Delay (s)	2.7	0.0	176.3	34.4
Lane LOS	A		F	D
Approach Delay (s)	2.7	0.0	176.3	34.4
Approach LOS			F	D

Intersection Summary				
Average Delay		15.5		
Intersection Capacity Utilization		78.8%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
12: Union Street & Route 138

2030 Build Condition - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	186	131	627	171	158	1203
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.84	0.84	0.92	0.92
Hourly flow rate (vph)	232	164	746	204	172	1308
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2499	848			950	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2499	848			950	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	55			76	
cM capacity (veh/h)	25	363			727	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	396	950	1479
Volume Left	232	0	172
Volume Right	164	204	0
cSH	40	1700	727
Volume to Capacity	9.90	0.56	0.24
Queue Length 95th (ft)	Err	0	23
Control Delay (s)	Err	0.0	11.5
Lane LOS	F		B
Approach Delay (s)	Err	0.0	11.5
Approach LOS	F		

Intersection Summary				
Average Delay		1408.2		
Intersection Capacity Utilization		143.8%	ICU Level of Service	H
Analysis Period (min)		15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	173	101	168	61	35	183
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.92	0.92	0.95	0.95
Hourly flow rate (vph)	206	120	183	66	37	193
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	482	216			249	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	482	216			249	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	61	85			97	
cM capacity (veh/h)	528	827			1329	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	326	249	229
Volume Left	206	0	37
Volume Right	120	66	0
cSH	609	1700	1329
Volume to Capacity	0.54	0.15	0.03
Queue Length 95th (ft)	79	0	2
Control Delay (s)	17.5	0.0	1.5
Lane LOS	C		A
Approach Delay (s)	17.5	0.0	1.5
Approach LOS	C		

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

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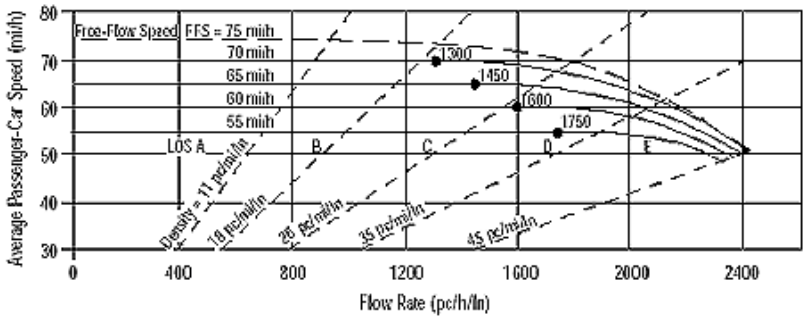

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*7816*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*58.3*	mi/h	FFS	*58.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2114*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*54.9*	mi/h	S	mi/h
D = v_p / S	*38.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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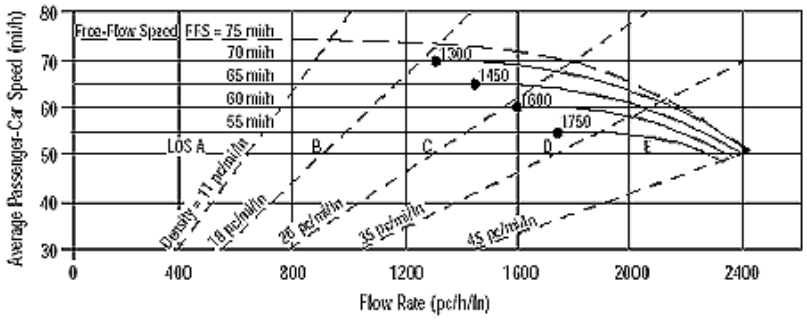

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*5361*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*58.3*	mi/h	FFS	*58.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1445*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*58.3*	mi/h	S	mi/h
D = v_p / S	*24.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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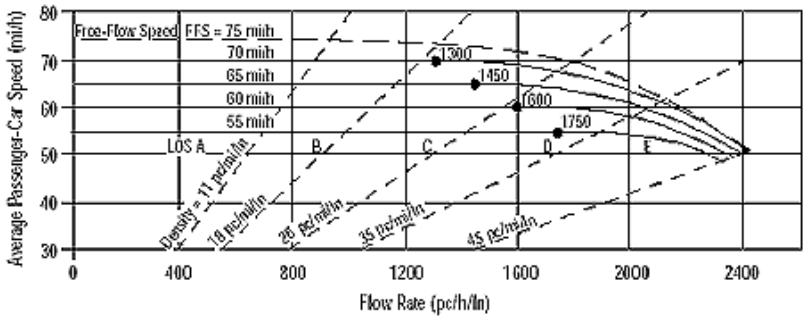

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5156*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*59.0*	mi/h	FFS	*59.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1404*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*59.0*	mi/h	S	mi/h
D = v_p / S	*23.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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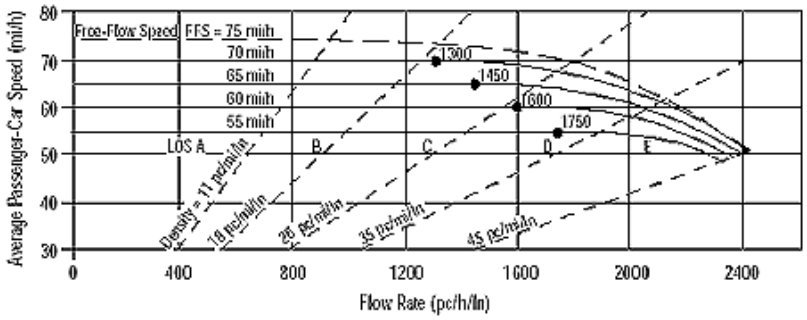

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of F.B.P.*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7207*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*59.0*	mi/h	FFS	*59.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1922*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*58.0*	mi/h	S	mi/h
D = v_p / S	*33.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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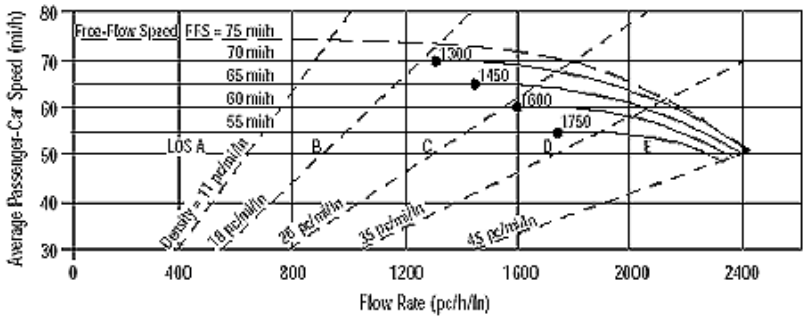
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5701*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*66.0*	mi/h	FFS	*66.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1559*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*65.9*	mi/h	S	mi/h
D = v_p / S	*23.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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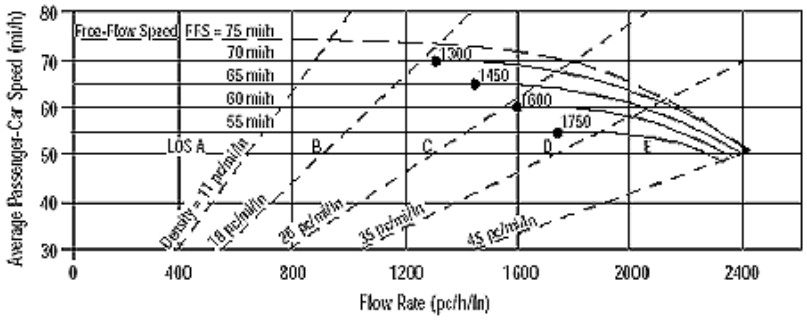
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/18/2008*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4791*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*66.0*	mi/h	FFS	*66.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1285*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*66.0*	mi/h	S	mi/h
D = v_p / S	*19.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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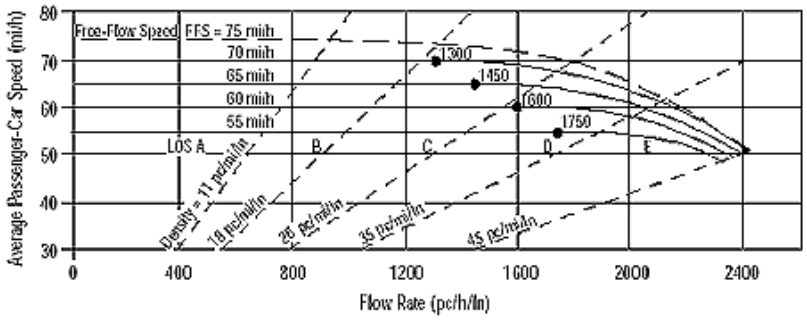
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7096*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*64.0*	mi/h	FFS	*64.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1875*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*62.4*	mi/h	S	mi/h
D = v_p / S	*30.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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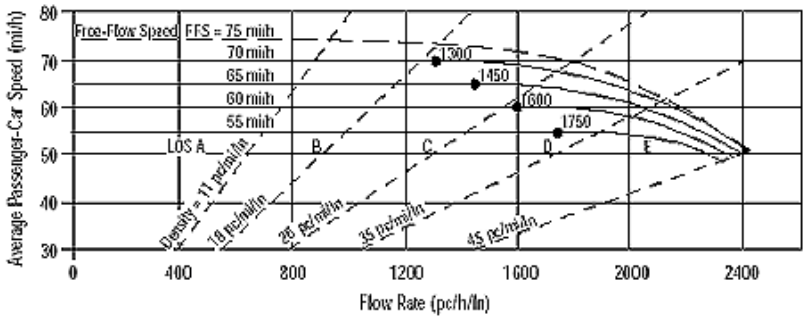
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route I-93 South of Route 3*
Date Performed	*11/21/08*	Jurisdiction	*Braintree*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Build*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7342*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*4*		f_N		mi/h
FFS (measured)	*64.0*	mi/h	FFS	*64.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1940*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*61.6*	mi/h	S	mi/h
D = v_p / S	*31.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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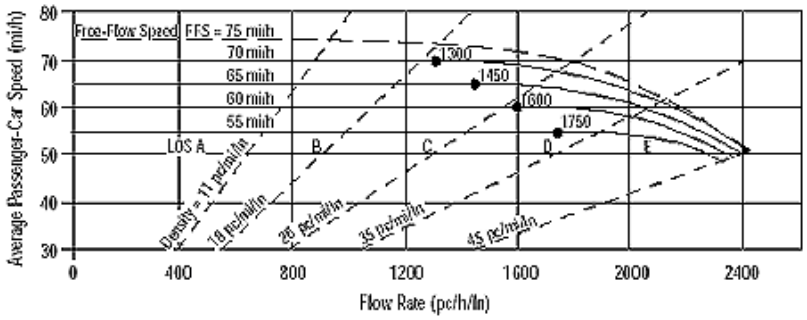

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 at Freetown Line*
Date Performed	*11/19/08*	Jurisdiction	*Fall River*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4846*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2773*	pc/h/ln	Design LOS		
S		mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S		pc/mi/ln	S		mi/h
LOS	*F*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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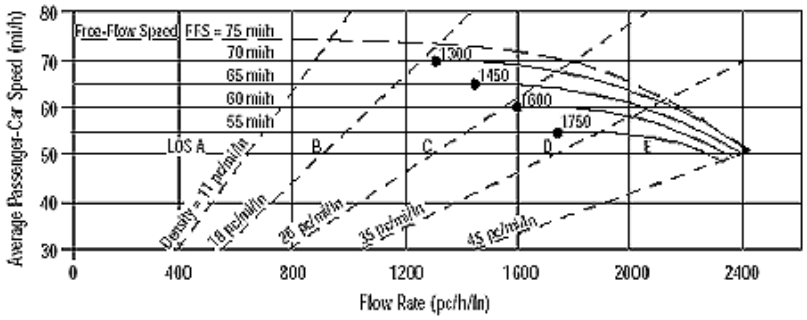

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 at Freetown Line*
Date Performed	*11/19/08*	Jurisdiction	*Fall River*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2573*	veh/h	Peak-Hour Factor, PHF	*0.86*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1518*	pc/h/ln	Design LOS	
S	*70.5*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*21.5*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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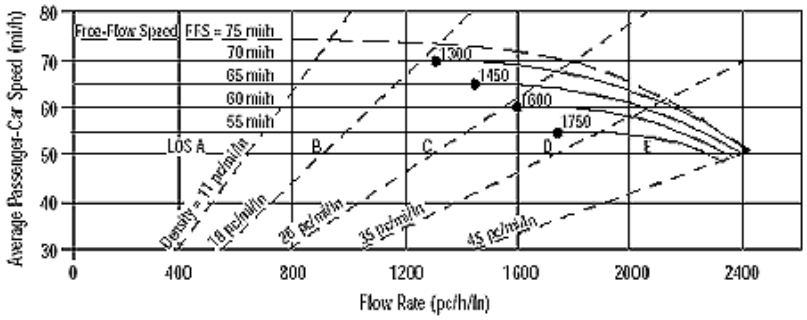
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 at Freetown Line*
Date Performed	*11/19/08*	Jurisdiction	*Fall River*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*2728*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1534*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*62.5*	mi/h	S	mi/h
D = v_p / S	*24.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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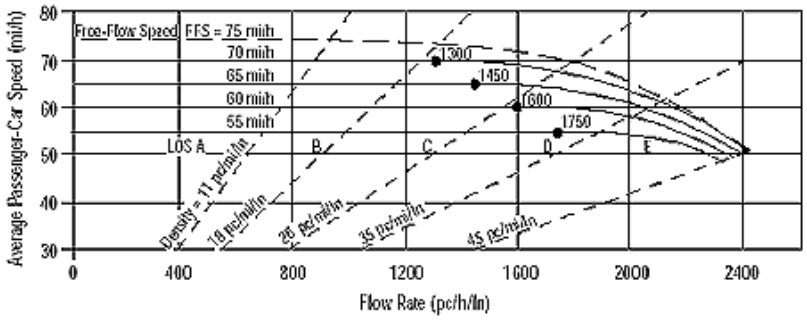
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 at Freetown Line*
Date Performed	*11/19/08*	Jurisdiction	*Fall River*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5496*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*3043*	pc/h/ln	Design LOS		
S		mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
D = v_p / S		pc/mi/ln	S		mi/h
LOS	*F*		D = v_p / S		pc/mi/ln
			Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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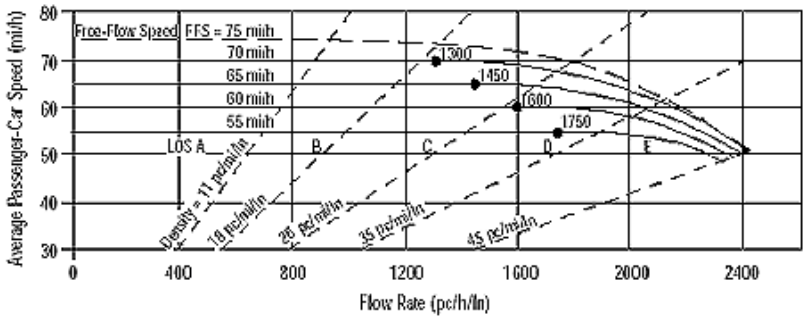

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route I-93*
Date Performed	*11/18/08*	Jurisdiction	*Randolph*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4756*	veh/h	Peak-Hour Factor, PHF	*0.89*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*63.9*	mi/h	FFS	*63.9*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1924*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*61.8*	mi/h	S	mi/h
D = v_p / S	*31.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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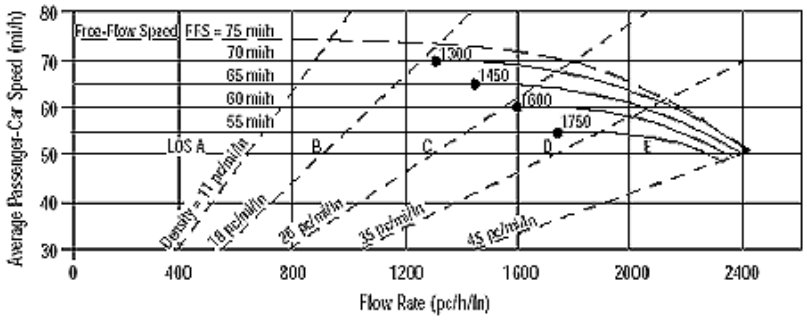

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route I-93*
Date Performed	*11/18/08*	Jurisdiction	*Randolph*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2786*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*63.9*	mi/h	FFS	*63.9*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1503*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*63.9*	mi/h	S	mi/h
D = v_p / S	*23.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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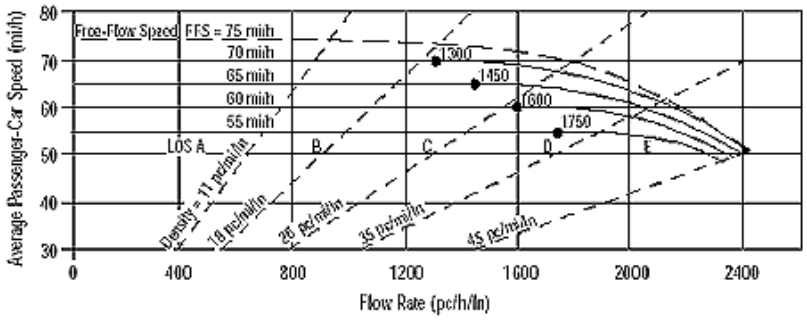

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route I-93*
Date Performed	*11/18/08*	Jurisdiction	*Randolph*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3456*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*65.8*	mi/h	FFS	*65.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1923*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*63.2*	mi/h	S	mi/h
D = v_p / S	*30.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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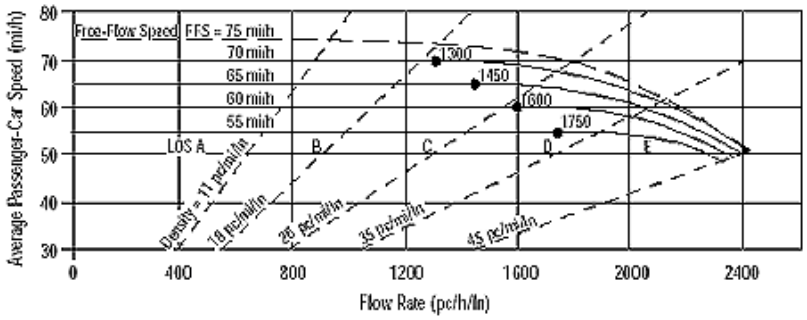

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 South of Route I-93*
Date Performed	*11/18/08*	Jurisdiction	*Randolph*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5937*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*65.8*	mi/h	FFS	*65.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2080*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*60.5*	mi/h	S	mi/h
D = v_p / S	*34.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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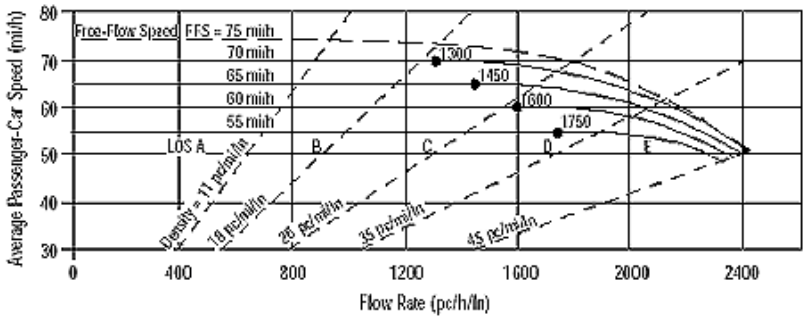

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24, South of Pond St.*
Date Performed	*11/21/08*	Jurisdiction	*Avon*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5041*	veh/h	Peak-Hour Factor, PHF	*0.99*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*66.4*	mi/h	FFS	*66.4*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1782*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*65.2*	mi/h	S	mi/h
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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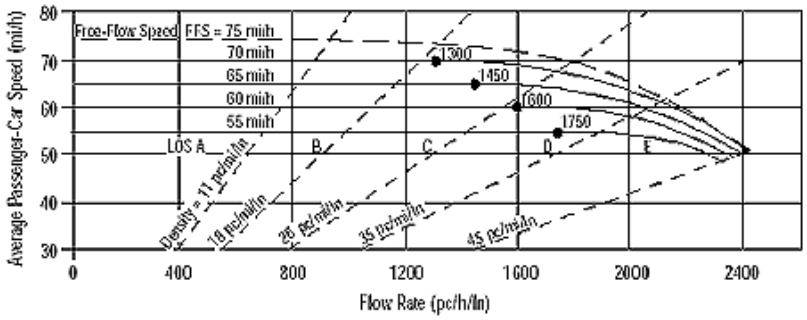
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24, South of Pond St.*
Date Performed	*11/21/08*	Jurisdiction	*Avon*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3356*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.0*	mi/h	FFS	*70.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1790*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*68.0*	mi/h	S	mi/h
D = v_p / S	*26.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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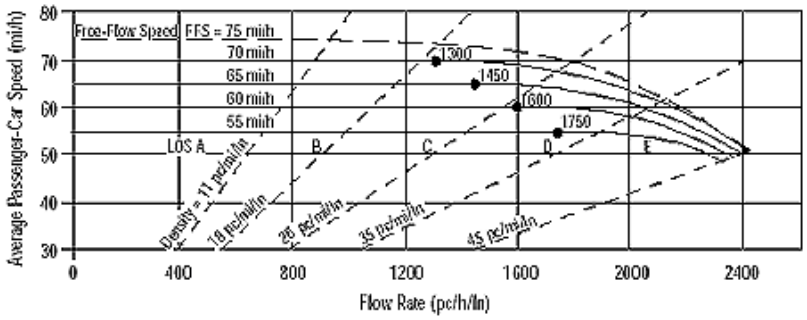
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24, South of Pond St.*
Date Performed	*11/21/08*	Jurisdiction	*Avon*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3116*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1678*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*66.5*	mi/h	S	mi/h
D = v_p / S	*25.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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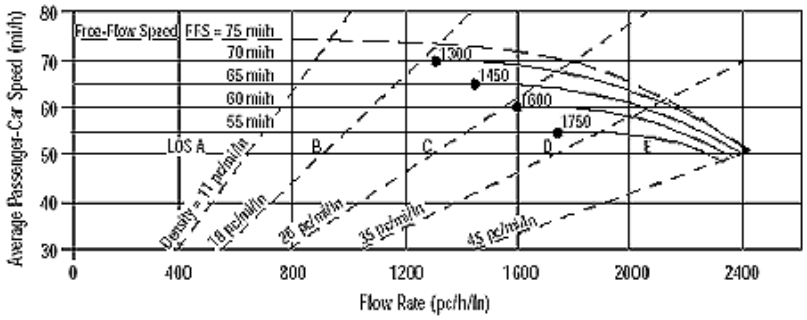
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24, South of Pond St.*
Date Performed	*11/21/08*	Jurisdiction	*Avon*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5822*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2051*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*61.9*	mi/h	S	mi/h
D = v_p / S	*33.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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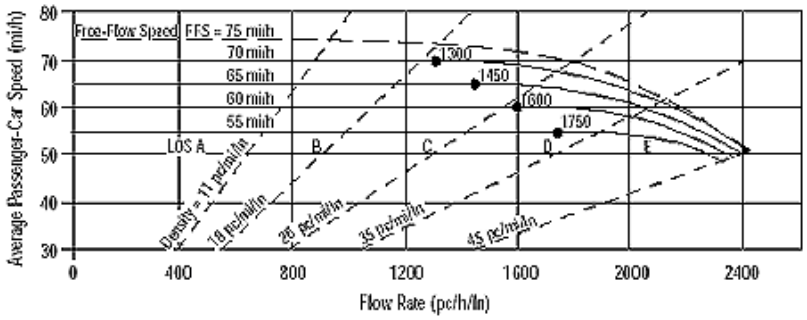

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5106*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1842*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*65.2*	mi/h	S	mi/h
D = v_p / S	*28.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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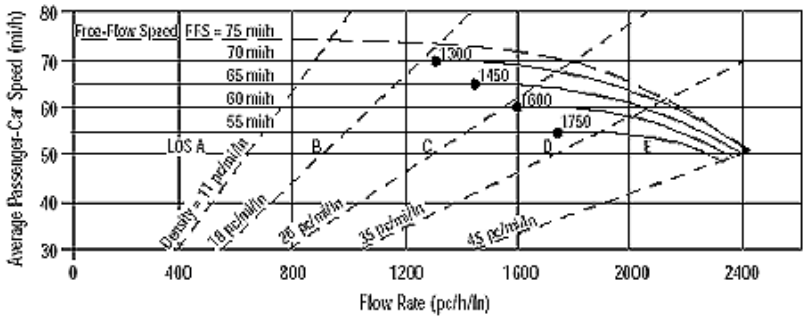
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3346*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*67.1*	mi/h	FFS	*67.1*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1805*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*65.5*	mi/h	S		mi/h
D = v_p / S	*27.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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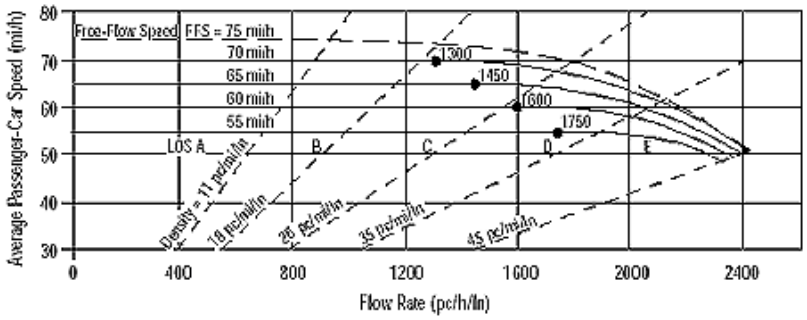

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2446*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*69.3*	mi/h	FFS	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1339*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.3*	mi/h	S	mi/h
D = v_p / S	*19.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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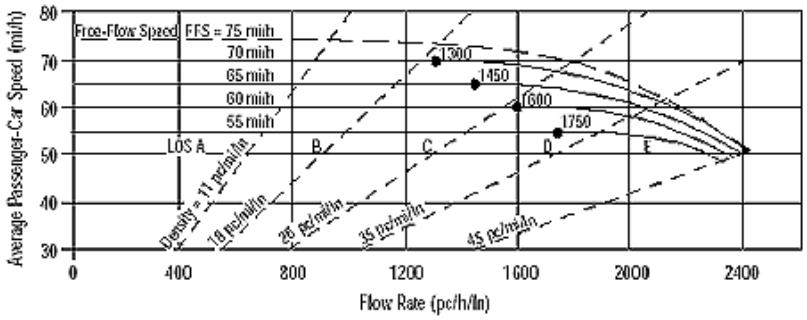

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 123*
Date Performed	*11/21/08*	Jurisdiction	*Brockton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5207*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.3*	mi/h	FFS	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1807*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*67.2*	mi/h	S	mi/h
D = v_p / S	*26.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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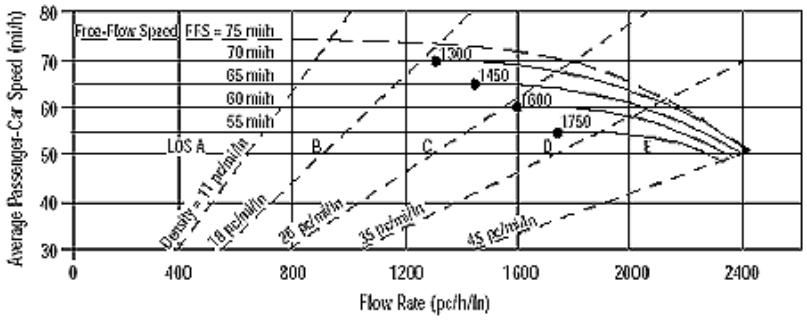
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4387*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1583*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.4*	mi/h	S		mi/h
D = v_p / S	*22.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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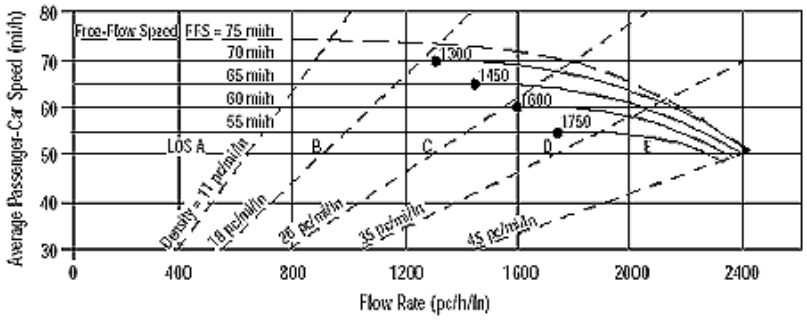

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed		Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bas*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3692*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1389*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.9*	mi/h	S	mi/h
D = v_p / S	*19.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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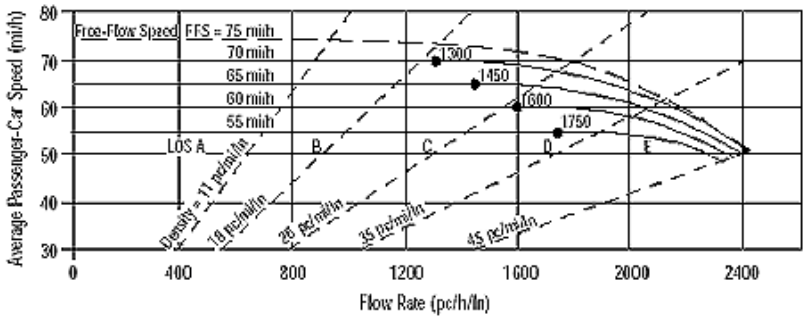

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed		Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3485*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.7*	mi/h	FFS	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1271*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*69.7*	mi/h	S	mi/h
D = v_p / S	*18.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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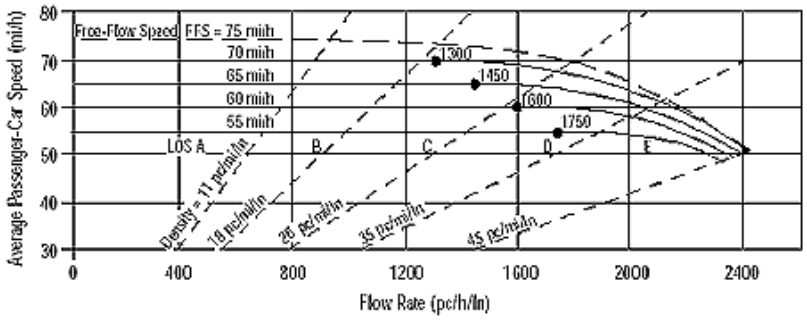

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 140*
Date Performed		Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4639*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.7*	mi/h	FFS	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1657*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*68.9*	mi/h	S	mi/h
D = v_p / S	*24.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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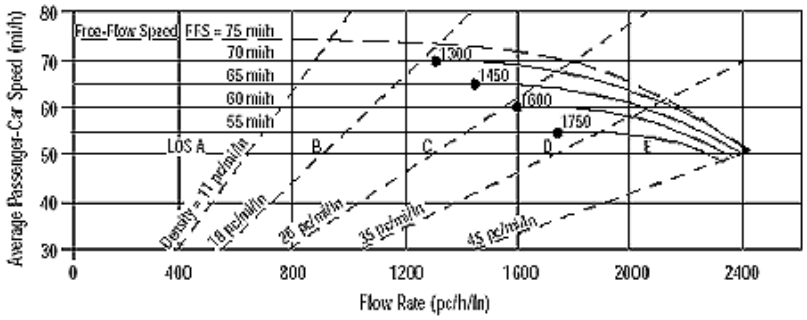

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 44*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4183*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1517*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*70.7*	mi/h	S	mi/h
D = v_p / S	*21.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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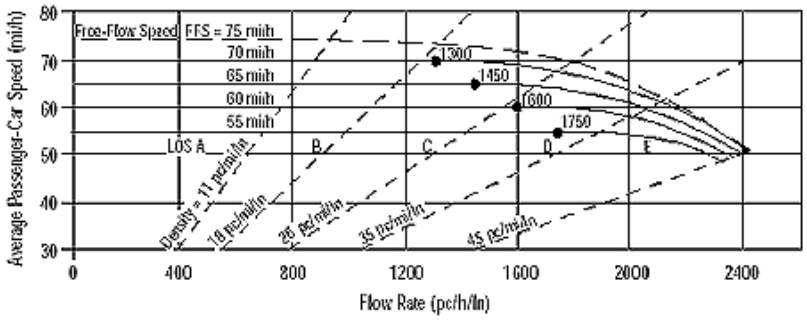

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 44*
Date Performed		Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*3620*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*71.0*	mi/h	FFS	*71.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1362*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*71.0*	mi/h	S	mi/h
D = v_p / S	*19.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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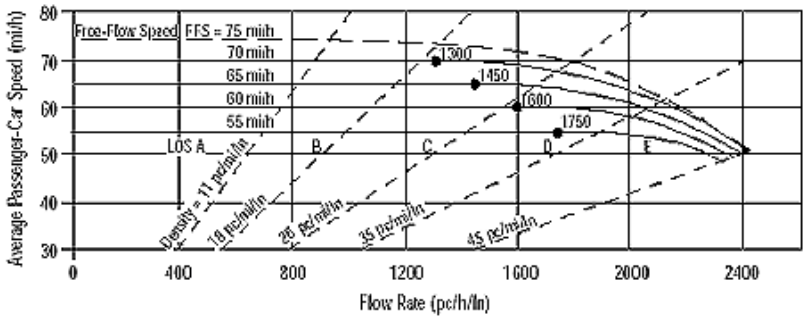

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBC*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 44*
Date Performed		Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*3267*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.7*	mi/h	FFS	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1197*	pc/h/ln	Design LOS	
S	*69.7*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*17.2*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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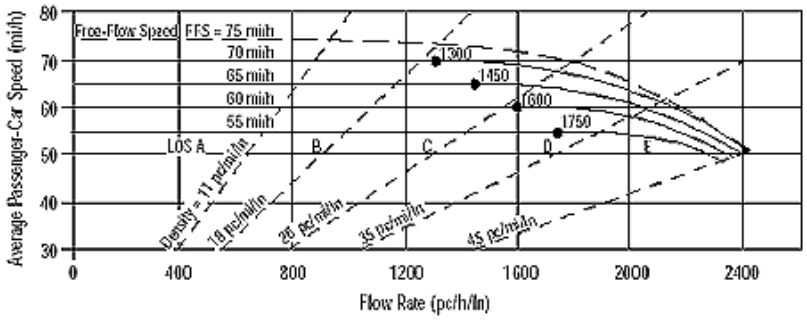

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route 44*
Date Performed		Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4199*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*69.7*	mi/h	FFS	*69.7*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1514*	pc/h/ln	Design LOS		
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*69.5*	mi/h	S		mi/h
D = v_p / S	*21.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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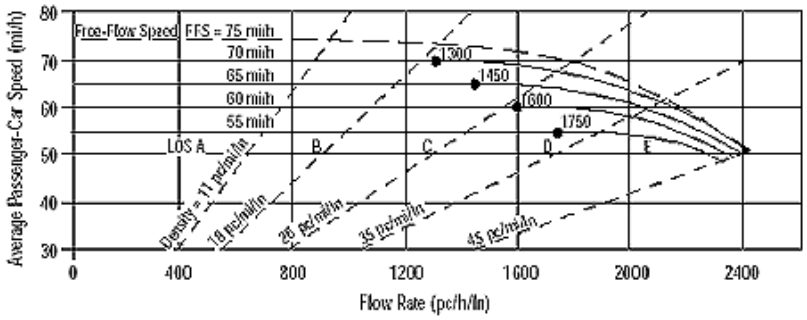

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of Route I-495*
Date Performed	*11/21/08*	Jurisdiction	*Raynham*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4988*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*66.8*	mi/h	FFS	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1784*	pc/h/ln	Design LOS	
S	*65.5*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*27.2*	pc/mi/ln	S	mi/h
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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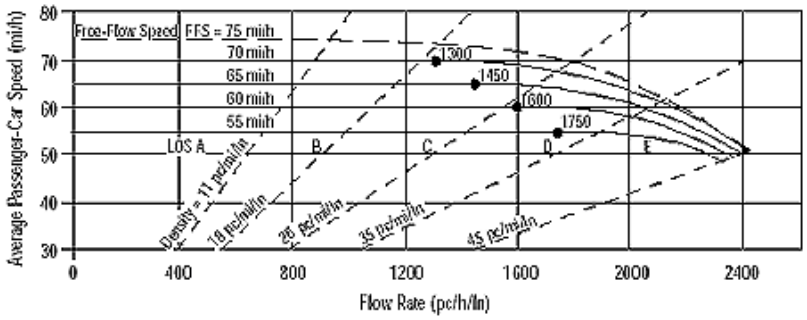
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of I-495*
Date Performed	*11/21/08*	Jurisdiction	*Raynham*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3635*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*66.8*	mi/h	FFS	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1314*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*66.8*	mi/h	S	mi/h
D = v_p / S	*19.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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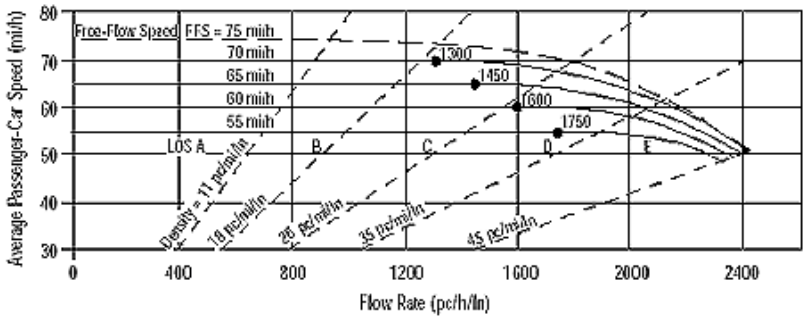
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of I-495*
Date Performed	*11/21/08*	Jurisdiction	*Raynham*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2847*	veh/h	Peak-Hour Factor, PHF	*0.97*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*63.0*	mi/h	FFS	*63.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1027*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*63.0*	mi/h	S	mi/h
D = v_p / S	*16.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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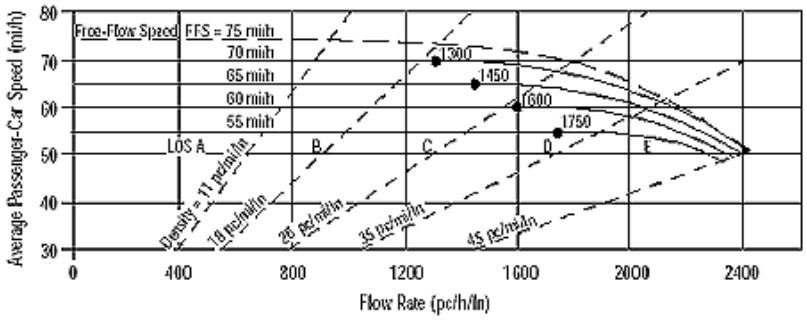

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBB*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 24 North of I-495*
Date Performed	*11/21/08*	Jurisdiction	*Raynham*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4484*	veh/h	Peak-Hour Factor, PHF	*0.98*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*63.0*	mi/h	FFS	*63.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1571*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*63.0*	mi/h	S	mi/h
D = v_p / S	*24.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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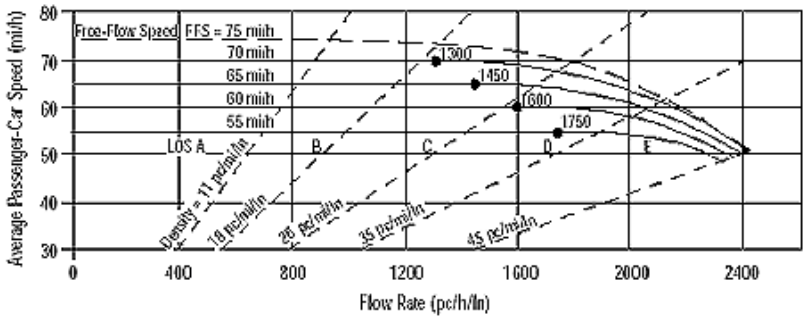

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2449*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*3*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*952*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*70.8*	mi/h	S		mi/h
D = v_p / S	*13.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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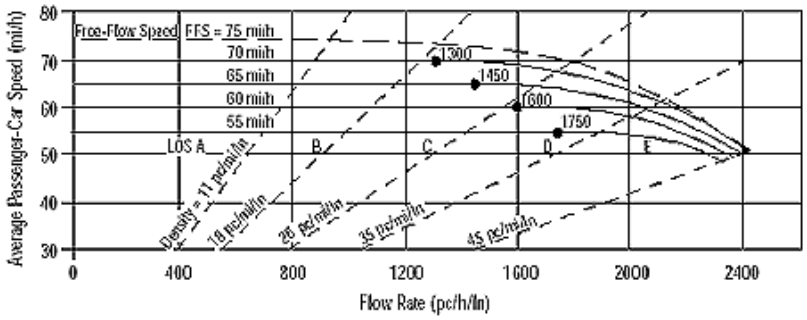

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3645*	veh/h	Peak-Hour Factor, PHF	*0.86*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2225*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*59.6*	mi/h	S		mi/h
D = v_p / S	*37.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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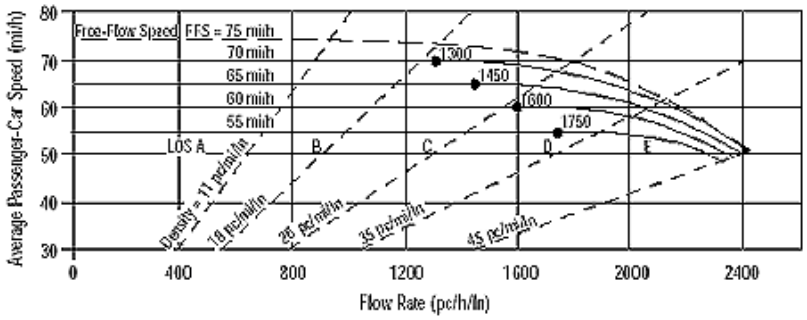

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*11/21/08*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3442*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1964*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*60.2*	mi/h	S	mi/h
D = v_p / S	*32.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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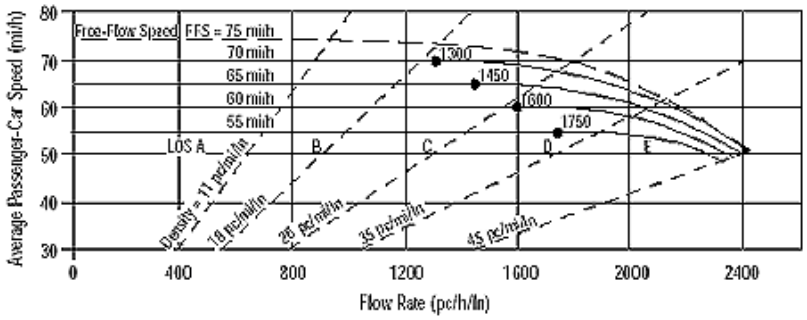

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 North of Route 79*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3140*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1773*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h
S	*62.0*	mi/h	S		mi/h
D = v_p / S	*28.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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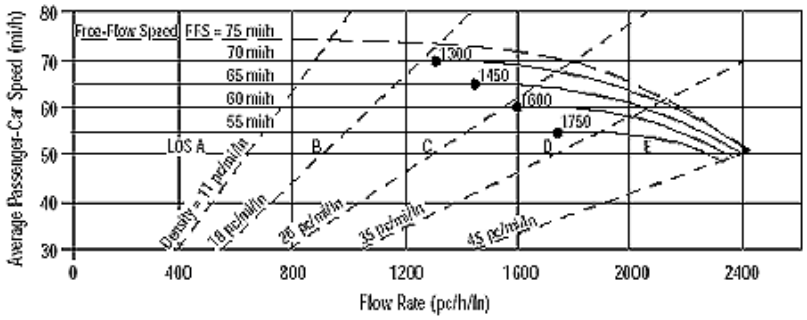

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 South of Route 140*
Date Performed	*4-30-09*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3509*	veh/h	Peak-Hour Factor, PHF	*0.90*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2047*	pc/h/ln	Design LOS	
S	*64.2*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*31.9*	pc/mi/ln	S	mi/h
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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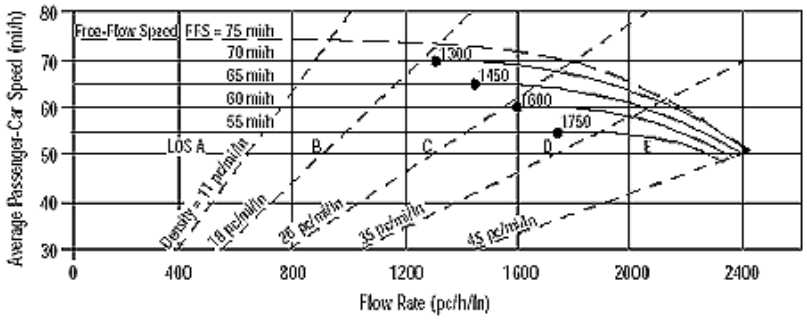

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Northbound*
Agency or Company		From/To	*Route 24 South of Route 140*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3535*	veh/h	Peak-Hour Factor, PHF	*0.86*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*70.8*	mi/h	FFS	*70.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2158*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*61.5*	mi/h	S	mi/h
D = v_p / S	*35.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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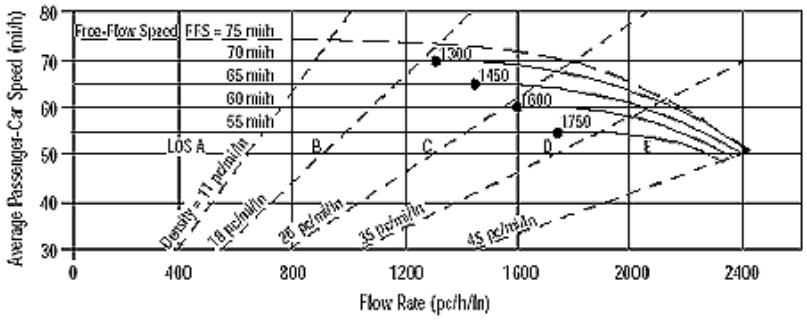

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 South of Route 140*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3267*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1864*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*61.3*	mi/h	S	mi/h
D = v_p / S	*30.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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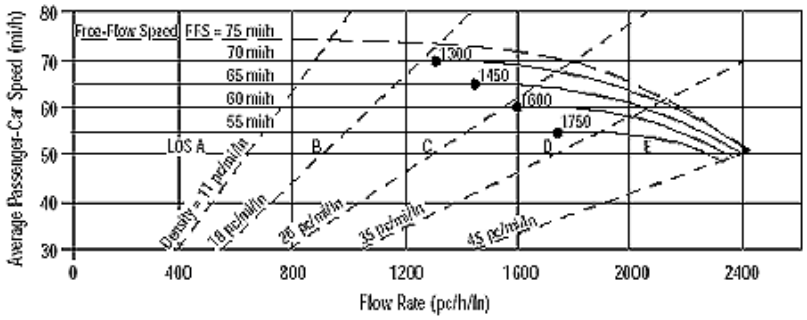

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*RMA*	Highway/Direction of Travel	*Southbound*
Agency or Company		From/To	*Route 24 South of Route 140*
Date Performed	*04-30-09*	Jurisdiction	
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 Rapid Bus*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3660*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.5*	mi/h	FFS	*62.5*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2066*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*58.6*	mi/h	S	mi/h
D = v_p / S	*35.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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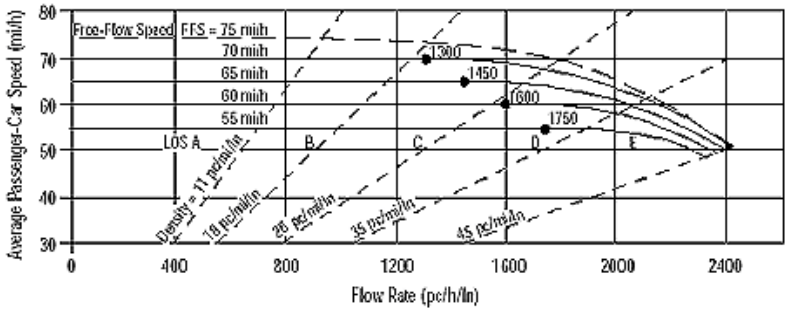
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBC*	Highway/Direction of Travel	*Northbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 North of Hathaway Rd*
Date Performed	*11/18/2008*	Jurisdiction	*New Bedford*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*1715*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*69.3*	mi/h	FFS	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*953*	pc/h/ln	Design LOS	
S	*69.3*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*13.8*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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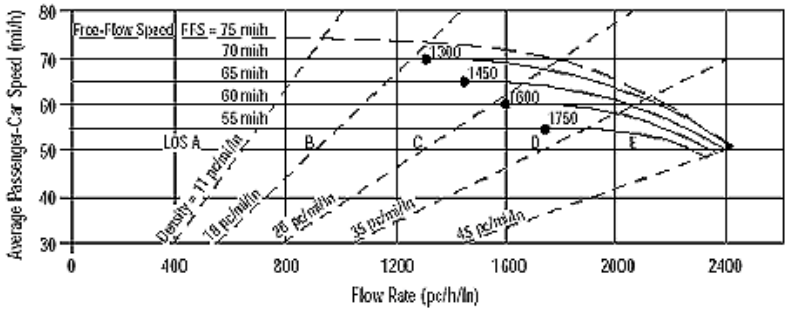

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information

Analyst	*JBC*
Agency or Company	*Coler & Colantonio, Inc.*
Date Performed	*11/18/2008*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*Northbound*
From/To	*Route 140 North of Hathaway Rd*
Jurisdiction	*New Bedford*
Analysis Year	

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2340*	veh/h	Peak-Hour Factor, PHF	*0.94*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width	*12.0*	ft
Rt-Shoulder Lat. Clearance	*6.0*	ft
Interchange Density	*0.50*	I/mi
Number of Lanes, N	*2*	
FFS (measured)	*69.3*	mi/h
Base free-flow Speed, BFFS		mi/h

Calc Speed Adj and FFS

f_{LW}		mi/h
f_{LC}		mi/h
f_{ID}		mi/h
f_N		mi/h
FFS	*69.3*	mi/h

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1294*	pc/h/ln
S	*69.3*	mi/h
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	mi/h
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
f_p - Page 23-12	f_N - Exhibit 23-6
LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7

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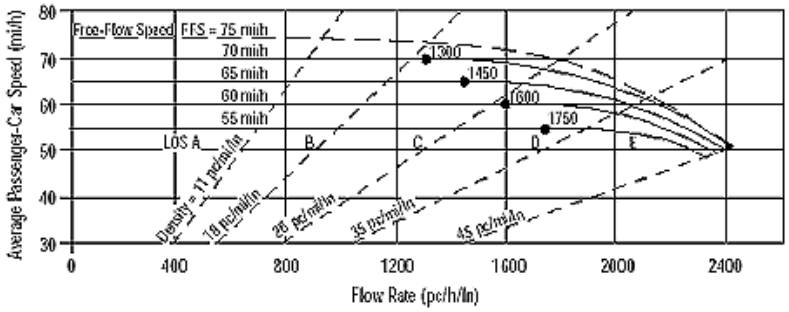

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBC*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 North of Hathaway Rd*
Date Performed	*11/18/2008*	Jurisdiction	*New Bedford*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*2434*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.2*	mi/h	FFS	*62.2*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1348*	pc/h/ln	Design LOS	
S	*62.2*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*21.7*	pc/mi/ln	S	mi/h
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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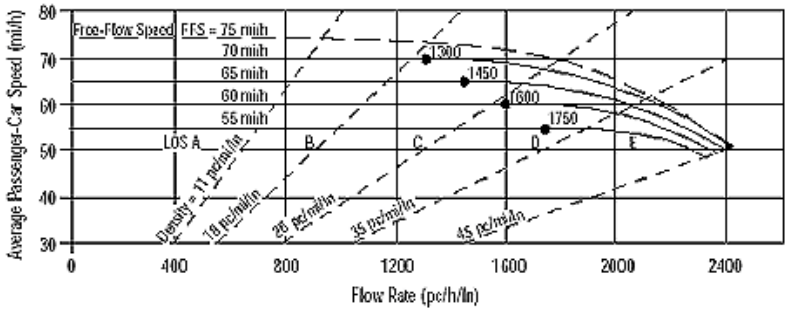

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBC*	Highway/Direction of Travel	*Southbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 North of Hathaway Rd*
Date Performed	*11/18/2008*	Jurisdiction	*New Bedford*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*2011*	veh/h	Peak-Hour Factor, PHF	*0.95*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*62.2*	mi/h	FFS	*62.2*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1080*	pc/h/ln	Design LOS	
S	*62.2*	mi/h	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
D = v_p / S	*17.4*	pc/mi/ln	S	mi/h
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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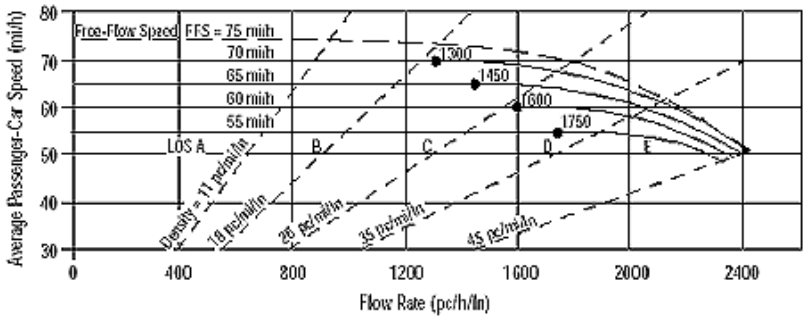

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

Analyst	*JBC*	Highway/Direction of Travel	*Eastbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/19/08*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1289*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs / Calc Speed Adj and FFS

Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*65.0*	mi/h	FFS	*65.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*728*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*65.0*	mi/h	S	mi/h
D = v_p / S	*11.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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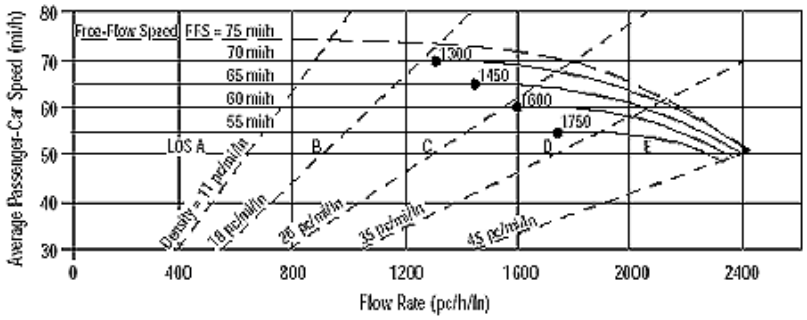

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Eastbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/19/08*	Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1616*	veh/h	Peak-Hour Factor, PHF	*0.96*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*65.0*	mi/h	FFS	*65.0*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*859*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*65.0*	mi/h	S	mi/h
D = v_p / S	*13.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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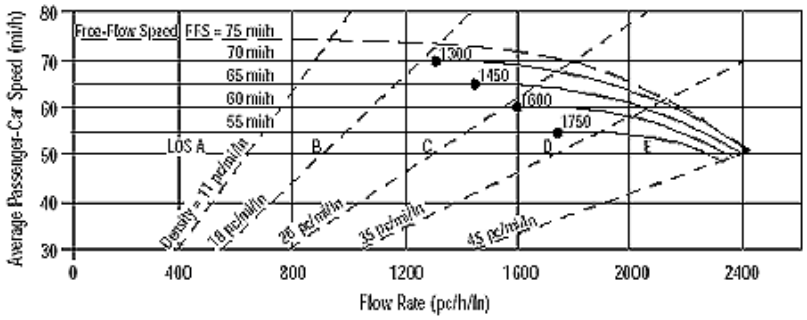

Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information		***Site Information***	
Analyst	*JBC*	Highway/Direction of Travel	*Westbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs				
Volume, V	*1400*	veh/h	Peak-Hour Factor, PHF	*0.93*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments			
f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*66.8*	mi/h	FFS	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*775*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*66.8*	mi/h	S	mi/h
D = v_p / S	*11.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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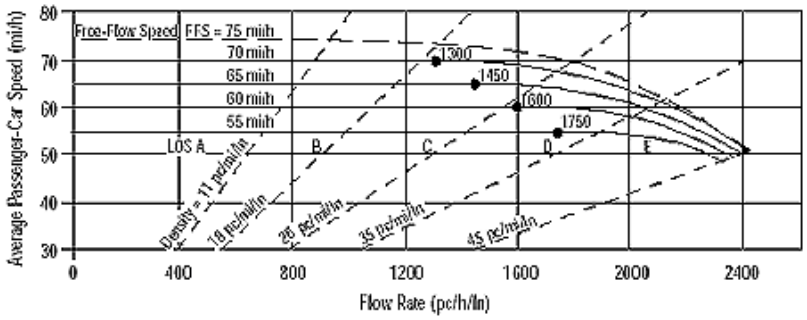
BASIC FREEWAY SEGMENTS WORKSHEET



Application	Input	Output
Operational (LOS)	FFS, N, v_p	LOS, S, D
Design (N)	FFS, LOS, v_p	N, S, D
Design (v_p)	FFS, LOS, N	v_p, S, D
Planning (LOS)	FFS, N, AADT	LOS, S, D
Planning (N)	FFS, LOS, AADT	N, S, D
Planning (v_p)	FFS, LOS, N	v_p, S, D

General Information / Site Information

General Information		Site Information	
Analyst	*JBC*	Highway/Direction of Travel	*Westbound*
Agency or Company	*Coler & Colantonio, Inc.*	From/To	*Route 140 South of Route 24*
Date Performed	*11/18/2008*	Jurisdiction	*Taunton*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2030 RBA*

Project Description South Coast Rail

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1540*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
Driver type adjustment	*1.00*		Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width	*12.0*	ft	f_{LW}		mi/h
Rt-Shoulder Lat. Clearance	*6.0*	ft	f_{LC}		mi/h
Interchange Density	*0.50*	I/mi	f_{ID}		mi/h
Number of Lanes, N	*2*		f_N		mi/h
FFS (measured)	*66.8*	mi/h	FFS	*66.8*	mi/h
Base free-flow Speed, BFFS		mi/h			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*862*	pc/h/ln	Design LOS	
			v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h
S	*66.8*	mi/h	S	mi/h
D = v_p / S	*12.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary / Factor Location

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits23-8, 23-10	f_{LW} - Exhibit 23-4
V - Hourly volume	D - Density	E_T - Exhibits 23-8, 23-10, 23-11	f_{LC} - Exhibit 23-5
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 23-12	f_N - Exhibit 23-6
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 23-2, 23-3	f_{ID} - Exhibit 23-7
DDHV - Directional design hour volume			

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Capacity Analysis Results
Build with Mitigation Condition

Fall River

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	412	0	0	352	203	100	492	308	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12
Storage Length (ft)	0		0	0		165	0		125	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		272			959			475			333	
Travel Time (s)		6.2			21.8			10.8			7.6	
Peak Hour Factor	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	541	0	0	400	231	0	644	335	0	0	0
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Detector Phase	5	2			6	6	3	3	3			
Switch Phase												
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0			
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0			
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0
Total Split (%)	13.8%	34.5%	0.0%	0.0%	20.7%	20.7%	40.2%	40.2%	40.2%	0.0%	0.0%	0.0%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.52			0.35	0.43		0.65	0.73			
Control Delay		26.4			23.7	27.0		29.8	36.7			
Queue Delay		1.4			0.0	0.0		0.0	0.0			
Total Delay		27.9			23.7	27.0		29.8	36.7			
Queue Length 50th (ft)		126			87	99		157	160			
Queue Length 95th (ft)		167			131	172		202	241			
Internal Link Dist (ft)		192			879			395			253	
Turn Bay Length (ft)						165			125			
Base Capacity (vph)		1036			1154	534		1163	546			
Starvation Cap Reductn		298			0	0		0	0			
Spillback Cap Reductn		0			0	0		0	0			
Storage Cap Reductn		0			0	0		0	0			
Reduced v/c Ratio		0.73			0.35	0.43		0.55	0.61			

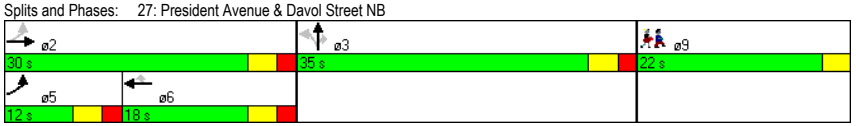
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	25%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	7
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

2030 Build With Mitigation Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 87	
Actuated Cycle Length: 87	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2030 Build With Mitigation Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	412	0	0	352	203	100	492	308	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3383			3388	1568		3371	1583			
Flt Permitted		0.90			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3042			3388	1568		3371	1583			
Peak-hour factor, PHF	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	502	0	0	400	231	109	535	335	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	541	0	0	400	231	0	644	335	0	0	0
Heavy Vehicles (%)	13%	2%	0%	0%	3%	3%	1%	3%	2%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		29.6			29.6	29.6		25.4	25.4			
Effective Green, g (s)		29.6			29.6	29.6		25.4	25.4			
Actuated g/C Ratio		0.34			0.34	0.34		0.29	0.29			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		1035			1153	533		984	462			
v/s Ratio Prot					0.12							
v/s Ratio Perm		c0.18				0.15		0.19	c0.21			
v/c Ratio		0.52			0.35	0.43		0.65	0.73			
Uniform Delay, d1		23.0			21.5	22.2		27.0	27.7			
Progression Factor		1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.5			0.8	2.6		1.6	5.6			
Delay (s)		23.5			22.3	24.8		28.5	33.2			
Level of Service		C			C	C		C	C			
Approach Delay (s)		23.5			23.2			30.1			0.0	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM Average Control Delay	26.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	87.0	Sum of lost time (s)	32.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	143	507	71	54	355	70	102	193	75	107	166	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	16	12	12	16	12	12	16	12
Storage Length (ft)	100		0	125		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		959			1952			265			1409	
Travel Time (s)		21.8			44.4			6.0			32.0	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Shared Lane Traffic (%)												
Lane Group Flow (vph)	164	665	0	62	488	0	117	308	0	143	338	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		8.0	9.0		9.0	9.0		9.0	9.0	
Total Split (s)	30.0	30.0	0.0	9.0	39.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	31.6%	31.6%	0.0%	9.5%	41.1%	0.0%	36.8%	36.8%	0.0%	36.8%	36.8%	0.0%
Maximum Green (s)	25.0	25.0		5.0	34.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.49	0.79		0.26	0.50		0.70	0.56		0.73	0.60	
Control Delay	31.8	34.5		18.3	19.1		48.3	25.5		47.6	25.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	31.8	34.5		18.3	19.1		48.3	25.5		47.6	25.8	
Queue Length 50th (ft)	44	210		9	94		38	89		47	97	
Queue Length 95th (ft)	#186	#675		50	331		#128	210		112	185	
Internal Link Dist (ft)		879			1872			185			1329	
Turn Bay Length (ft)	100			125			150			150		
Base Capacity (vph)	336	838		243	1141		295	948		346	967	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	

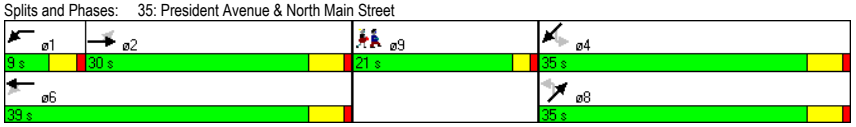
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	22%
Maximum Green (s)	18.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	20
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.49	0.79		0.26	0.43		0.40	0.32		0.41	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 68.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 35: President Avenue & North Main Street



Lane Group	ø9
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	143	507	71	54	355	70	102	193	75	107	166	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	16	12	12	16	12	12	16	12
Total Lost time (s)	5.0	5.0		4.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	2070		1805	2066		1656	1931		1703	1962	
Flt Permitted	0.45	1.00		0.13	1.00		0.35	1.00		0.40	1.00	
Satd. Flow (perm)	831	2070		240	2066		607	1931		711	1962	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.75	0.75	0.75
Adj. Flow (vph)	164	583	82	62	408	80	117	222	86	143	221	117
RTOR Reduction (vph)	0	0	0	0	6	0	0	15	0	0	21	0
Lane Group Flow (vph)	164	665	0	62	482	0	117	293	0	143	317	0
Heavy Vehicles (%)	2%	2%	3%	0%	2%	0%	9%	6%	9%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	27.7	27.7		34.3	34.3		19.0	19.0		19.0	19.0	
Effective Green, g (s)	27.7	27.7		34.3	34.3		19.0	19.0		19.0	19.0	
Actuated g/C Ratio	0.39	0.39		0.48	0.48		0.27	0.27		0.27	0.27	
Clearance Time (s)	5.0	5.0		4.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	322	802		172	991		161	513		189	521	
v/s Ratio Prot		c0.32		0.01	c0.23			0.15			0.16	
v/s Ratio Perm	0.20			0.16			0.19			c0.20		
v/c Ratio	0.51	0.83		0.36	0.49		0.73	0.57		0.76	0.61	
Uniform Delay, d1	16.7	19.8		14.5	12.6		23.9	22.7		24.1	23.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	7.1		1.3	0.4		15.0	1.5		15.8	2.0	
Delay (s)	18.0	26.9		15.8	13.0		38.9	24.3		39.9	25.0	
Level of Service	B	C		B	B		D	C		D	C	
Approach Delay (s)		25.1			13.3			28.3			29.4	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	71.5	Sum of lost time (s)	23.2
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	509	0	0	291	364	146	666	371	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	12	12
Storage Length (ft)	0		0	0		165	0		125	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		272			959			475			333	
Travel Time (s)		6.2			21.8			10.8			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	593	0	0	327	409	0	934	426	0	0	0
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Detector Phase	5	2			6	6	3	3	3			
Switch Phase												
Minimum Initial (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0			
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0			
Total Split (s)	12.0	30.0	0.0	0.0	18.0	18.0	35.0	35.0	35.0	0.0	0.0	0.0
Total Split (%)	13.8%	34.5%	0.0%	0.0%	20.7%	20.7%	40.2%	40.2%	40.2%	0.0%	0.0%	0.0%
Maximum Green (s)	7.0	25.0			13.0	13.0	30.0	30.0	30.0			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.64			0.32	0.86		0.81	0.79			
Control Delay		30.6			25.1	49.3		33.0	38.0			
Queue Delay		4.1			0.0	0.0		0.0	0.0			
Total Delay		34.7			25.1	49.3		33.0	38.0			
Queue Length 50th (ft)		150			73	214		239	205			
Queue Length 95th (ft)		207			108	#374		299	#306			
Internal Link Dist (ft)		192			879			395			253	
Turn Bay Length (ft)						165			125			
Base Capacity (vph)		928			1027	475		1183	557			
Starvation Cap Reductn		251			0	0		0	0			
Spillback Cap Reductn		0			0	0		0	0			
Storage Cap Reductn		0			0	0		0	0			
Reduced v/c Ratio		0.88			0.32	0.86		0.79	0.76			

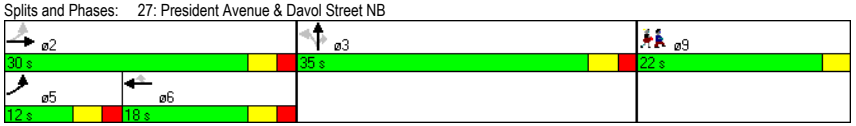
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	25%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	10
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
27: President Avenue & Davol Street NB

2030 Build With Mitigation Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 87	
Actuated Cycle Length: 87	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 27: President Avenue & Davol Street NB



HCM Signalized Intersection Capacity Analysis
27: President Avenue & Davol Street NB

2030 Build With Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	509	0	0	291	364	146	666	371	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0	5.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3439			3455	1599		3430	1615			
Flt Permitted		0.91			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3123			3455	1599		3430	1615			
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	40	553	0	0	327	409	168	766	426	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	593	0	0	327	409	0	934	426	0	0	0
Heavy Vehicles (%)	3%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt					Perm	Perm		Perm			
Protected Phases	5	2			6			3				
Permitted Phases	2					6	3		3			
Actuated Green, G (s)		25.9			25.9	25.9		29.1	29.1			
Effective Green, g (s)		25.9			25.9	25.9		29.1	29.1			
Actuated g/C Ratio		0.30			0.30	0.30		0.33	0.33			
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0			
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)		930			1029	476		1147	540			
v/s Ratio Prot					0.09							
v/s Ratio Perm		0.19				c0.26		0.27	0.26			
v/c Ratio		0.64			0.32	0.86		0.81	0.79			
Uniform Delay, d1		26.5			23.7	28.8		26.5	26.2			
Progression Factor		1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2		1.4			0.8	18.0		4.5	7.5			
Delay (s)		27.9			24.5	46.8		31.0	33.7			
Level of Service		C			C	D		C	C			
Approach Delay (s)		27.9			36.9			31.9			0.0	
Approach LOS		C			D			C			A	

Intersection Summary			
HCM Average Control Delay	32.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	87.0	Sum of lost time (s)	32.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

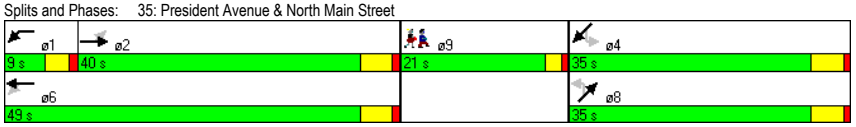
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	134	622	119	59	435	59	118	257	75	155	193	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	11	11	12	11	12	12	11	12	12
Storage Length (ft)	100		0	125		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		959			1952			265			1409	
Travel Time (s)		21.8			44.4			6.0			32.0	
Peak Hour Factor	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	823	0	69	581	0	128	361	0	161	297	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Total Split (s)	40.0	40.0	0.0	9.0	49.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	38.1%	38.1%	0.0%	8.6%	46.7%	0.0%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%
Maximum Green (s)	35.0	35.0		5.0	44.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	4.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.60	0.97		0.39	0.66		0.44	0.56		0.69	0.46	
Control Delay	35.5	51.8		19.6	22.1		30.6	27.7		44.3	24.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	35.5	51.8		19.6	22.1		30.6	27.7		44.3	24.8	
Queue Length 50th (ft)	59	408		17	200		51	144		71	108	
Queue Length 95th (ft)	#194	#903		52	425		138	311		#224	245	
Internal Link Dist (ft)		879			1872			185			1329	
Turn Bay Length (ft)	100			125			150			150		
Base Capacity (vph)	250	850		177	923		288	649		235	640	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	20%
Maximum Green (s)	18.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	13
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.60	0.97		0.39	0.63		0.44	0.56		0.69	0.46	

Intersection Summary	
Area Type:	Other
Cycle Length: 105	
Actuated Cycle Length: 86.4	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 35: President Avenue & North Main Street



Lane Group	ø9
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	134	622	119	59	435	59	118	257	75	155	193	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	11	11	12	11	12	12	11	12	12
Total Lost time (s)	5.0	5.0		4.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	2074		1662	1784		1728	1821		1728	1778	
Flt Permitted	0.33	1.00		0.10	1.00		0.45	1.00		0.37	1.00	
Satd. Flow (perm)	608	2074		178	1784		820	1821		670	1778	
Peak-hour factor, PHF	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	149	691	132	69	512	69	128	279	82	161	201	96
RTOR Reduction (vph)	0	0	0	0	4	0	0	9	0	0	15	0
Lane Group Flow (vph)	149	823	0	69	577	0	128	352	0	161	282	0
Heavy Vehicles (%)	3%	1%	3%	5%	1%	2%	1%	1%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	2	0	0	0
Parking (#/hr)			5									
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	35.4	35.4		43.3	43.3		30.4	30.4		30.4	30.4	
Effective Green, g (s)	35.4	35.4		43.3	43.3		30.4	30.4		30.4	30.4	
Actuated g/C Ratio	0.39	0.39		0.48	0.48		0.34	0.34		0.34	0.34	
Clearance Time (s)	5.0	5.0		4.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	240	819		150	861		278	617		227	603	
v/s Ratio Prot		c0.40		0.02	c0.32			0.19			0.16	
v/s Ratio Perm	0.25			0.20			0.16			c0.24		
v/c Ratio	0.62	1.00		0.46	0.67		0.46	0.57		0.71	0.47	
Uniform Delay, d1	21.8	27.2		19.8	17.7		23.2	24.3		25.8	23.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.6	32.6		0.8	1.5		0.4	0.8		8.0	0.2	
Delay (s)	25.3	59.8		20.6	19.3		23.7	25.1		33.8	23.5	
Level of Service	C	E		C	B		C	C		C	C	
Approach Delay (s)		54.5			19.4			24.7			27.1	
Approach LOS		D			B			C			C	

Intersection Summary			
HCM Average Control Delay	35.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	89.7	Sum of lost time (s)	21.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

New Bedford

HCM Signalized Intersection Capacity Analysis
2: Jones Street & Mt Pleasant St

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	5	0	189	10	563	0	75	294	193	195	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	16	12	12	16	12
Total Lost time (s)		6.0			6.0	6.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		1.00			1.00	0.85		0.89		1.00	1.00	
Flt Protected		1.00			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1794			1681	1538		1776		1719	1912	
Flt Permitted		1.00			0.73	1.00		1.00		0.22	1.00	
Satd. Flow (perm)		1794			1290	1538		1776		402	1912	
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.94	0.94	0.94	0.83	0.83	0.83
Adj. Flow (vph)	0	6	0	230	12	687	0	80	313	233	235	6
RTOR Reduction (vph)	0	0	0	0	0	165	0	275	0	0	3	0
Lane Group Flow (vph)	0	6	0	0	242	522	0	118	0	233	238	0
Heavy Vehicles (%)	0%	20%	0%	7%	25%	5%	0%	9%	8%	5%	11%	60%
Turn Type	Perm			Perm		pt+ov	Perm			pm+pt		
Protected Phases		8			4	4 1		2		1	6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		55.0			55.0	76.0		12.0		33.0	33.0	
Effective Green, g (s)		55.0			55.0	76.0		12.0		33.0	33.0	
Actuated g/C Ratio		0.55			0.55	0.76		0.12		0.33	0.33	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		987			710	1169		213		330	631	
v/s Ratio Prot		0.00				c0.34		0.07		c0.11	0.12	
v/s Ratio Perm					0.19					c0.13		
v/c Ratio		0.01			0.34	0.45		0.55		0.71	0.38	
Uniform Delay, d1		10.2			12.5	4.4		41.5		27.1	25.6	
Progression Factor		1.00			0.62	3.41		1.00		1.00	1.00	
Incremental Delay, d2		0.0			1.3	0.1		1.8		5.5	0.1	
Delay (s)		10.2			8.9	15.0		43.2		32.6	25.8	
Level of Service		B			A	B		D		C	C	
Approach Delay (s)		10.2			13.4			43.2			29.1	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
14: Tarkiln Hill Road & Church Street

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	315	0	30	504	60	241	200	40	45	170	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1604	1801		1616	1772		1728	1761			1723	1615
Flt Permitted	0.25	1.00		0.45	1.00		0.53	1.00			0.88	1.00
Satd. Flow (perm)	429	1801		773	1772		965	1761			1533	1615
Peak-hour factor, PHF	0.81	0.81	0.81	0.87	0.87	0.87	0.84	0.84	0.84	0.90	0.90	0.90
Adj. Flow (vph)	75	389	0	34	579	69	287	238	48	50	189	102
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	75	389	0	34	648	0	287	286	0	0	239	102
Heavy Vehicles (%)	5%	2%	0%	8%	2%	2%	1%	2%	0%	11%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	53.6	53.6		53.6	53.6		36.4	36.4			36.4	36.4
Effective Green, g (s)	53.6	53.6		53.6	53.6		36.4	36.4			36.4	36.4
Actuated g/C Ratio	0.54	0.54		0.54	0.54		0.36	0.36			0.36	0.36
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	230	965		414	950		351	641			558	588
v/s Ratio Prot		0.22			c0.37			0.16				
v/s Ratio Perm	0.17			0.04			c0.30				0.16	0.06
v/c Ratio	0.33	0.40		0.08	0.68		0.82	0.45			0.43	0.17
Uniform Delay, d1	13.0	13.7		11.3	17.0		28.8	24.1			24.0	21.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.7	1.3		0.4	4.0		15.3	1.0			1.1	0.3
Delay (s)	16.8	15.0		11.6	20.9		44.1	25.2			25.1	21.9
Level of Service	B	B		B	C		D	C			C	C
Approach Delay (s)		15.3			20.5			34.7			24.1	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	390	54	119	320	50	37	67	52	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	15	16	16	15	16	16	15	16	16	16	16
Total Lost time (s)		6.0			6.0			6.0				
Lane Util. Factor		1.00			1.00			1.00				
Frt		0.99			0.99			0.96				
Flt Protected		0.99			0.99			0.99				
Satd. Flow (prot)		1945			1968			1858				
Flt Permitted		0.90			0.77			0.99				
Satd. Flow (perm)		1759			1524			1858				
Peak-hour factor, PHF	0.89	0.89	0.89	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	56	438	61	142	381	60	43	78	60	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	555	0	0	583	0	0	181	0	0	0	0
Heavy Vehicles (%)	4%	5%	9%	2%	3%	10%	8%	3%	9%	0%	0%	0%
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Actuated Green, G (s)		22.2			22.2			10.1				
Effective Green, g (s)		22.2			22.2			10.1				
Actuated g/C Ratio		0.50			0.50			0.23				
Clearance Time (s)		6.0			6.0			6.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		881			764			424				
v/s Ratio Prot												
v/s Ratio Perm		0.32			c0.38			0.10				
v/c Ratio		0.63			0.76			0.43				
Uniform Delay, d1		8.1			8.9			14.6				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		1.4			4.5			0.7				
Delay (s)		9.5			13.5			15.3				
Level of Service		A			B			B				
Approach Delay (s)		9.5			13.5			15.3			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	44.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	455	159	157	579	95	52	5	78	55	10	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.98			0.91			0.92	
Flt Protected		0.99			0.99			0.98			0.98	
Satd. Flow (prot)		3291			3413			3027			3220	
Flt Permitted		0.70			0.63			0.78			0.80	
Satd. Flow (perm)		2305			2172			2406			2622	
Peak-hour factor, PHF	0.81	0.81	0.81	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72
Adj. Flow (vph)	111	562	196	174	643	106	58	6	87	76	14	112
RTOR Reduction (vph)	0	11	0	0	4	0	0	79	0	0	102	0
Lane Group Flow (vph)	0	858	0	0	919	0	0	72	0	0	100	0
Heavy Vehicles (%)	6%	6%	3%	1%	4%	0%	12%	29%	2%	0%	13%	0%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		79.1			79.1			8.9			8.9	
Effective Green, g (s)		79.1			79.1			8.9			8.9	
Actuated g/C Ratio		0.79			0.79			0.09			0.09	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1823			1718			214			233	
v/s Ratio Prot												
v/s Ratio Perm		0.37			c0.42			0.03			c0.04	
v/c Ratio		0.47			0.53			0.34			0.43	
Uniform Delay, d1		3.5			3.8			42.8			43.1	
Progression Factor		0.23			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.2			0.3			0.5	
Delay (s)		0.9			3.9			43.1			43.6	
Level of Service		A			A			D			D	
Approach Delay (s)		0.9			3.9			43.1			43.6	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	155	36	35	109	98	10	202	60	97	177	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	15	16	16	12	16	16	16	16	16	16	16
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.95			0.97			0.99	
Flt Protected		1.00			0.99			1.00			0.98	
Satd. Flow (prot)		1974			1672			1988			1922	
Flt Permitted		0.97			0.93			0.98			0.81	
Satd. Flow (perm)		1915			1562			1961			1585	
Peak-hour factor, PHF	0.80	0.80	0.80	0.83	0.83	0.83	0.89	0.89	0.89	0.88	0.88	0.88
Adj. Flow (vph)	19	194	45	42	131	118	11	227	67	110	201	17
RTOR Reduction (vph)	0	11	0	0	36	0	0	10	0	0	2	0
Lane Group Flow (vph)	0	247	0	0	255	0	0	295	0	0	326	0
Heavy Vehicles (%)	0%	4%	0%	11%	5%	7%	36%	4%	3%	6%	11%	13%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.6			12.6			20.9			20.9	
Effective Green, g (s)		12.6			12.6			20.9			20.9	
Actuated g/C Ratio		0.26			0.26			0.43			0.43	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		502			409			852			689	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.16			0.15			c0.21	
v/c Ratio		0.49			0.62			0.35			0.47	
Uniform Delay, d1		15.0			15.7			9.1			9.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			2.9			0.2			0.5	
Delay (s)		15.8			18.6			9.3			10.2	
Level of Service		B			B			A			B	
Approach Delay (s)		15.8			18.6			9.3			10.2	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	48.1	Sum of lost time (s)	14.6
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
91: Route 140 NB On/Off Ramps & Kings Highway

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	361	100	90	342	664	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.99	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1949			3389	3414	
Flt Permitted	0.96			0.62	1.00	
Satd. Flow (perm)	1949			2128	3414	
Peak-hour factor, PHF	0.83	0.83	0.85	0.85	0.85	0.85
Adj. Flow (vph)	435	120	106	402	781	56
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	555	0	0	508	837	0
Heavy Vehicles (%)	3%	4%	7%	5%	5%	0%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	34.0			54.0	54.0	
Effective Green, g (s)	34.0			54.0	54.0	
Actuated g/C Ratio	0.34			0.54	0.54	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	663			1149	1844	
v/s Ratio Prot	c0.28				c0.25	
v/s Ratio Perm				0.24		
v/c Ratio	0.84			0.44	0.45	
Uniform Delay, d1	30.4			13.9	14.0	
Progression Factor	1.00			0.52	0.96	
Incremental Delay, d2	9.0			0.3	0.7	
Delay (s)	39.5			7.5	14.2	
Level of Service	D			A	B	
Approach Delay (s)	39.5			7.5	14.2	
Approach LOS	D			A	B	

Intersection Summary			
HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	388	105	91	673	90	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.97			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3323			3447	1687	1538
Flt Permitted	1.00			0.80	0.95	1.00
Satd. Flow (perm)	3323			2780	1687	1538
Peak-hour factor, PHF	0.93	0.93	0.92	0.92	0.85	0.85
Adj. Flow (vph)	417	113	99	732	106	53
RTOR Reduction (vph)	12	0	0	0	0	47
Lane Group Flow (vph)	518	0	0	831	106	6
Heavy Vehicles (%)	6%	2%	5%	4%	7%	5%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	77.1			77.1	10.9	10.9
Effective Green, g (s)	77.1			77.1	10.9	10.9
Actuated g/C Ratio	0.77			0.77	0.11	0.11
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	2562			2143	184	168
v/s Ratio Prot	0.16				c0.06	0.00
v/s Ratio Perm				c0.30		
v/c Ratio	0.20			0.39	0.58	0.03
Uniform Delay, d1	3.1			3.7	42.4	39.8
Progression Factor	0.52			0.32	1.00	1.00
Incremental Delay, d2	0.2			0.0	2.7	0.0
Delay (s)	1.8			1.3	45.1	39.9
Level of Service	A			A	D	D
Approach Delay (s)	1.8			1.3	43.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	5.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
140: Mill Street & Pleasant St

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	225	185	5	410	180	187	20	55	219	30	57	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	16	11	12	10	16	10	12	14	16	14
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0			5.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00		1.00	0.95			0.95
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.98			0.98
Flt Protected	0.95	1.00		0.95	0.98	1.00		0.95	1.00			0.99
Satd. Flow (prot)	1776	2124		1609	1718	1449		1581	3384			3714
Flt Permitted	0.95	1.00		0.95	0.98	1.00		0.95	1.00			0.99
Satd. Flow (perm)	1776	2124		1609	1718	1449		1581	3384			3714
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.84	0.84
Adj. Flow (vph)	256	210	6	500	220	228	23	62	249	34	68	342
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	9	0	0	0
Lane Group Flow (vph)	256	215	0	355	365	228	0	85	274	0	0	466
Heavy Vehicles (%)	5%	1%	0%	3%	3%	4%	0%	9%	5%	3%	4%	0%
Turn Type	Split			Split		pt+ov	Split	Split			Split	
Protected Phases	4	4		8	8	8 6	2	2	2		6	6
Permitted Phases												
Actuated Green, G (s)	20.4	20.4		30.4	30.4	47.6		15.7	15.7			17.2
Effective Green, g (s)	20.4	20.4		30.4	30.4	47.6		15.7	15.7			17.2
Actuated g/C Ratio	0.18	0.18		0.27	0.27	0.43		0.14	0.14			0.16
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0			5.0
Vehicle Extension (s)	5.0	5.0		5.0	5.0			5.0	5.0			5.0
Lane Grp Cap (vph)	327	391		441	471	622		224	479			576
v/s Ratio Prot	c0.14	0.10		c0.22	0.21	0.16		0.05	c0.08			c0.13
v/s Ratio Perm												
v/c Ratio	0.78	0.55		0.80	0.77	0.37		0.38	0.57			0.81
Uniform Delay, d1	43.1	41.1		37.5	37.1	21.4		43.2	44.5			45.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2	13.3	2.8		11.6	9.1	0.8		2.2	2.6			9.3
Delay (s)	56.4	43.9		49.1	46.2	22.2		45.4	47.1			54.6
Level of Service	E	D		D	D	C		D	D			D
Approach Delay (s)		50.7			41.5				46.7			54.6
Approach LOS		D			D				D			D

Intersection Summary			
HCM Average Control Delay	47.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.9	Sum of lost time (s)	27.2
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
140: Mill Street & Pleasant St

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	SBR
Lane Configurations	
Volume (vph)	47
Ideal Flow (vphpl)	1900
Lane Width	16
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.84
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Signalized Intersection Capacity Analysis
174: Union Street & Route 18

2030 Build Condition w/ Mitigation - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	54	40	39	16	10	40	890	51	91	855	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.94			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1616	1642			1921		1631	3261	1501	1574	3323	1516
Flt Permitted	0.72	1.00			0.79		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1221	1642			1563		1631	3261	1501	1574	3323	1516
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	281	61	45	48	20	12	45	1011	58	99	929	261
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	128
Lane Group Flow (vph)	281	106	0	0	80	0	45	1011	58	99	929	133
Heavy Vehicles (%)	8%	6%	3%	6%	6%	10%	7%	7%	4%	7%	5%	3%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)	28.0	28.0			28.0		12.0	33.2	9.3	12.0	33.2	33.2
Effective Green, g (s)	28.0	28.0			28.0		12.0	33.2	9.3	12.0	33.2	33.2
Actuated g/C Ratio	0.24	0.24			0.24		0.10	0.28	0.08	0.10	0.28	0.28
Clearance Time (s)	5.0	5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)	5.0	5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	290	390			371		166	918	118	160	935	427
v/s Ratio Prot		0.06					0.03	c0.31	c0.04	c0.06	0.28	
v/s Ratio Perm	c0.23				0.05							0.09
v/c Ratio	0.97	0.27			0.22		0.27	1.10	0.49	0.62	0.99	0.31
Uniform Delay, d1	44.6	36.7			36.2		49.0	42.4	52.1	50.8	42.3	33.4
Progression Factor	1.00	1.00			1.80		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	44.5	0.8			0.6		1.2	61.4	4.3	7.9	27.7	0.6
Delay (s)	89.0	37.5			65.6		50.2	103.8	56.4	58.7	70.0	34.0
Level of Service	F	D			E		D	F	E	E	E	C
Approach Delay (s)		74.9			65.6			99.2			61.9	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM Average Control Delay	78.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	118.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	20	95	5	10	5	0	168	20	15	183	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.93			0.97			0.99			1.00	0.85
Flt Protected		0.98			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1812			1708			1774			1674	1553
Flt Permitted		0.85			0.92			1.00			0.97	1.00
Satd. Flow (perm)		1573			1585			1774			1622	1553
Peak-hour factor, PHF	0.78	0.78	0.78	0.57	0.57	0.57	0.89	0.89	0.89	0.81	0.81	0.81
Adj. Flow (vph)	104	26	122	9	18	9	0	189	22	19	226	69
RTOR Reduction (vph)	0	0	0	0	7	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	252	0	0	29	0	0	208	0	0	245	69
Heavy Vehicles (%)	12%	14%	5%	0%	17%	33%	0%	22%	0%	14%	13%	4%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		40.0			28.0			33.2			33.2	9.3
Effective Green, g (s)		40.0			28.0			33.2			33.2	9.3
Actuated g/C Ratio		0.34			0.24			0.28			0.28	0.08
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		558			376			499			456	122
v/s Ratio Prot		c0.05						0.12				c0.04
v/s Ratio Perm		c0.11			0.02						c0.15	
v/c Ratio		0.45			0.08			0.42			0.54	0.57
Uniform Delay, d1		30.4			35.0			34.5			35.9	52.4
Progression Factor		0.64			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.8			0.2			0.8			1.6	7.1
Delay (s)		20.2			35.1			35.3			37.5	59.5
Level of Service		C			D			D			D	E
Approach Delay (s)		20.2			35.1			35.3			42.3	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	33.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	118.0	Sum of lost time (s)	36.5
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	5	328	5	502	5	160	407	424	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	16	12	11	11	12
Storage Length (ft)	0		0	0		0	0		0	300		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1031			525			388			877	
Travel Time (s)		23.4			11.9			8.8			19.9	
Peak Hour Factor	0.54	0.54	0.54	0.97	0.97	0.97	0.94	0.94	0.94	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	2%	0%	3%	0%	2%	2%	1%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	343	518	0	608	0	530	412	0
Turn Type	Perm			Perm		pt+ov	Perm			pm+pt		
Protected Phases		8			4	4 1		2		1	6	
Permitted Phases	8			4			2			6		
Detector Phase	8	8		4	4	4 1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		27.0	27.0		19.0	22.0	
Total Split (s)	23.0	23.0	0.0	23.0	23.0	59.0	51.0	51.0	0.0	36.0	87.0	0.0
Total Split (%)	20.9%	20.9%	0.0%	20.9%	20.9%	53.6%	46.4%	46.4%	0.0%	32.7%	79.1%	0.0%
Maximum Green (s)	17.0	17.0		17.0	17.0		45.0	45.0		30.0	81.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		C-Max	C-Max		Min	Min		None	Min	
Walk Time (s)							5.0	5.0				
Flash Dont Walk (s)							16.0	16.0				
Pedestrian Calls (#/hr)							0	0				
v/c Ratio		0.04			0.98	0.46		0.88		0.95	0.37	
Control Delay		26.2			80.0	4.7		41.1		54.0	10.1	
Queue Delay		0.0			0.0	0.1		0.0		0.0	0.0	
Total Delay		26.2			80.0	4.8		41.1		54.0	10.1	
Queue Length 50th (ft)		5			~260	52		321		273	122	
Queue Length 95th (ft)		13			#542	167		412		314	106	
Internal Link Dist (ft)		951			445			308			797	
Turn Bay Length (ft)										300		
Base Capacity (vph)		442			349	1136		859		574	1288	
Starvation Cap Reductn		0			0	114		0		0	0	
Spillback Cap Reductn		0			0	0		0		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.04			0.98	0.51		0.71		0.92	0.32	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 90 (82%), Referenced to phase 4:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 2: Jones Street & Mt Pleasant St

HCM Signalized Intersection Capacity Analysis
2: Jones Street & Mt Pleasant St

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	5	328	5	502	5	160	407	424	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	16	12	11	11	12
Total Lost time (s)		6.0			6.0	6.0		6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.93			1.00	0.85		0.90		1.00	1.00	
Flt Protected		0.98			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1959			1776	1568		1908		1728	1749	
Flt Permitted		0.83			0.72	1.00		1.00		0.16	1.00	
Satd. Flow (perm)		1664			1335	1568		1901		290	1749	
Peak-hour factor, PHF	0.54	0.54	0.54	0.97	0.97	0.97	0.94	0.94	0.94	0.80	0.80	0.80
Adj. Flow (vph)	9	0	9	338	5	518	5	170	433	530	412	0
RTOR Reduction (vph)	0	7	0	0	0	220	0	94	0	0	0	0
Lane Group Flow (vph)	0	11	0	0	343	298	0	514	0	530	412	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	3%	0%	2%	2%	1%	5%	0%
Turn Type	Perm			Perm		pt+ov	Perm			pm+pt		
Protected Phases		8			4	4 1		2		1	6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)		28.8			28.8	63.3		34.7		69.2	69.2	
Effective Green, g (s)		28.8			28.8	63.3		34.7		69.2	69.2	
Actuated g/C Ratio		0.26			0.26	0.58		0.32		0.63	0.63	
Clearance Time (s)		6.0			6.0			6.0		6.0	6.0	
Vehicle Extension (s)		2.0			2.0			2.0		2.0	2.0	
Lane Grp Cap (vph)		436			350	902		600		555	1100	
v/s Ratio Prot						0.19				c0.25	0.24	
v/s Ratio Perm		0.01			c0.26			0.27		c0.35		
v/c Ratio		0.03			0.98	0.33		0.86		0.95	0.37	
Uniform Delay, d1		30.2			40.3	12.2		35.3		28.0	9.9	
Progression Factor		1.00			0.83	2.37		1.00		1.00	1.00	
Incremental Delay, d2		0.0			40.3	0.1		11.2		26.9	0.1	
Delay (s)		30.2			73.9	29.1		46.5		54.9	10.0	
Level of Service		C			E	C		D		D	A	
Approach Delay (s)		30.2			46.9			46.5			35.2	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	42.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
14: Kings Highway & Church Street

2030 Build Condition w/ Mitigation - PM Peak Hour

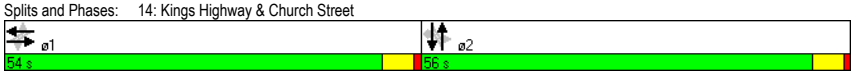
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	554	5	35	461	70	233	210	80	70	275	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	12	11	11	12	11	11	11	11	11	12
Storage Length (ft)	50		0	0		0	0		0	0		145
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			1116			176			552	
Travel Time (s)		6.9			25.4			4.0			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	607	0	38	584	0	271	337	0	0	388	136
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Detector Phase	1	1		1	1		2	2		2	2	2
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	35.0	35.0		35.0	35.0		23.0	23.0		23.0	23.0	23.0
Total Split (s)	54.0	54.0	0.0	54.0	54.0	0.0	56.0	56.0	0.0	56.0	56.0	56.0
Total Split (%)	49.1%	49.1%	0.0%	49.1%	49.1%	0.0%	50.9%	50.9%	0.0%	50.9%	50.9%	50.9%
Maximum Green (s)	49.0	49.0		49.0	49.0		51.0	51.0		51.0	51.0	51.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lead	Lead		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	5.0
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
v/c Ratio	0.59	0.69		0.19	0.68		0.89	0.46			0.64	0.20
Control Delay	36.9	28.7		21.8	28.5		59.8	24.0			29.8	19.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	36.9	28.7		21.8	28.5		59.8	24.0			29.8	19.4
Queue Length 50th (ft)	67	348		16	333		161	154			197	55
Queue Length 95th (ft)	#163	494		42	475		#296	217			293	93
Internal Link Dist (ft)		225			1036			96			472	
Turn Bay Length (ft)	50											145
Base Capacity (vph)	214	878		198	855		331	797			656	741
Starvation Cap Reductn	0	0		0	0		0	0			0	0
Spillback Cap Reductn	0	0		0	0		0	0			0	0
Storage Cap Reductn	0	0		0	0		0	0			0	0
Reduced v/c Ratio	0.59	0.69		0.19	0.68		0.82	0.42			0.59	0.18

Lanes, Volumes, Timings
14: Kings Highway & Church Street

2030 Build Condition w/ Mitigation - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 14: Kings Highway & Church Street



HCM Signalized Intersection Capacity Analysis
14: Kings Highway & Church Street

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	554	5	35	461	70	233	210	80	70	275	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	12	11	11	12	11	11	11	11	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.98		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1636	1816		1631	1770		1728	1717			1786	1599
Flt Permitted	0.26	1.00		0.24	1.00		0.39	1.00			0.78	1.00
Satd. Flow (perm)	443	1816		410	1770		713	1717			1415	1599
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89
Adj. Flow (vph)	126	602	5	38	507	77	271	244	93	79	309	136
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	126	607	0	38	584	0	271	337	0	0	388	136
Heavy Vehicles (%)	3%	1%	0%	7%	2%	0%	1%	2%	4%	1%	2%	1%
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		2
Actuated Green, G (s)	53.1	53.1		53.1	53.1		46.9	46.9			46.9	46.9
Effective Green, g (s)	53.1	53.1		53.1	53.1		46.9	46.9			46.9	46.9
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.43	0.43			0.43	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0			5.0	5.0
Lane Grp Cap (vph)	214	877		198	854		304	732			603	682
v/s Ratio Prot		c0.33			0.33			0.20				
v/s Ratio Perm	0.28			0.09			c0.38				0.27	0.09
v/c Ratio	0.59	0.69		0.19	0.68		0.89	0.46			0.64	0.20
Uniform Delay, d1	20.6	22.1		16.2	22.0		29.2	22.5			24.9	19.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	11.3	4.5		2.1	4.4		27.6	1.0			3.2	0.3
Delay (s)	31.9	26.6		18.4	26.4		56.8	23.5			28.2	20.1
Level of Service	C	C		B	C		E	C			C	C
Approach Delay (s)		27.5			25.9			38.3			26.1	
Approach LOS		C			C			D			C	

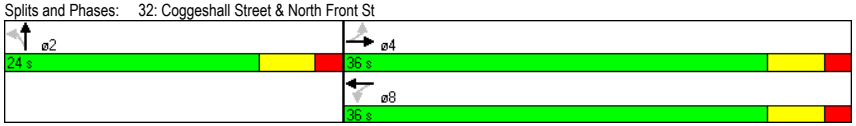
Intersection Summary			
HCM Average Control Delay	29.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	405	45	58	330	45	70	139	65	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	15	16	16	15	16	16	15	16	16	16	16
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		546			443			880			185	
Travel Time (s)		12.4			10.1			20.0			4.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.79	0.79	0.79	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	3%	4%	1%	0%	0%	2%	8%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	591	0	0	465	0	0	347	0	0	0	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0				
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	30.0	30.0		30.0	30.0		18.0	18.0				
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0				
Recall Mode	None	None		None	None		Min	Min				
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
v/c Ratio		0.77			0.57			0.63				
Control Delay		19.0			13.1			22.2				
Queue Delay		0.0			0.0			0.0				
Total Delay		19.0			13.1			22.2				
Queue Length 50th (ft)		125			86			83				
Queue Length 95th (ft)		259			177			151				
Internal Link Dist (ft)		466			363			800			105	
Turn Bay Length (ft)												
Base Capacity (vph)		1127			1188			772				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.52			0.39			0.45				

Intersection Summary	
Area Type:	Other

Cycle Length: 60
Actuated Cycle Length: 47.9
Natural Cycle: 55
Control Type: Semi Act-Uncoord

Splits and Phases: 32: Coggeshall Street & North Front St



HCM Signalized Intersection Capacity Analysis
32: Coggeshall Street & North Front St

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	405	45	58	330	45	70	139	65	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	15	16	16	15	16	16	15	16	16	16	16
Total Lost time (s)		6.0			6.0			6.0				
Lane Util. Factor		1.00			1.00			1.00				
Frt		0.99			0.99			0.97				
Flt Protected		0.99			0.99			0.99				
Satd. Flow (prot)		1992			2021			1941				
Flt Permitted		0.85			0.88			0.99				
Satd. Flow (perm)		1700			1790			1941				
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.79	0.79	0.79	0.92	0.92	0.92
Adj. Flow (vph)	108	435	48	62	355	48	89	176	82	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	591	0	0	465	0	0	347	0	0	0	0
Heavy Vehicles (%)	2%	3%	3%	4%	1%	0%	0%	2%	8%	0%	0%	0%
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Actuated Green, G (s)		21.7			21.7			13.5				
Effective Green, g (s)		21.7			21.7			13.5				
Actuated g/C Ratio		0.46			0.46			0.29				
Clearance Time (s)		6.0			6.0			6.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		782			823			555				
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.26			0.18				
v/c Ratio		0.76			0.57			0.63				
Uniform Delay, d1		10.6			9.3			14.7				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		4.2			0.9			2.2				
Delay (s)		14.7			10.2			16.9				
Level of Service		B			B			B				
Approach Delay (s)		14.7			10.2			16.9			0.0	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

2030 Build Condition w/ Mitigation - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	700	134	175	420	210	166	45	289	210	25	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			191			360			359	
Travel Time (s)		11.7			4.3			8.2			8.2	
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1112	0	0	847	0	0	588	0	0	472	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.0	13.0		11.0	13.0		13.0	13.0		19.0	19.0	
Total Split (s)	12.0	52.0	0.0	10.0	50.0	0.0	48.0	48.0	0.0	48.0	48.0	0.0
Total Split (%)	10.9%	47.3%	0.0%	9.1%	45.5%	0.0%	43.6%	43.6%	0.0%	43.6%	43.6%	0.0%
Maximum Green (s)	6.0	46.0		4.0	44.0		42.0	42.0		42.0	42.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)										5.0	5.0	
Flash Dont Walk (s)										8.0	8.0	
Pedestrian Calls (#/hr)										0	0	
v/c Ratio		0.81			0.70			0.90			0.76	
Control Delay		18.9			17.9			42.9			27.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.9			17.9			42.9			27.9	
Queue Length 50th (ft)		243			180			147			92	
Queue Length 95th (ft)		m#516			333			176			133	
Internal Link Dist (ft)		435			111			280			279	
Turn Bay Length (ft)												
Base Capacity (vph)		1380			1208			889			838	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.81			0.70			0.66			0.56	

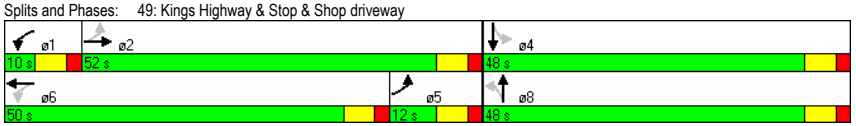
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
49: Kings Highway & Stop & Shop driveway

2030 Build Condition w/ Mitigation - PM Peak Hour

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 49: Kings Highway & Stop & Shop driveway



HCM Signalized Intersection Capacity Analysis
49: Kings Highway & Stop & Shop driveway

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	700	134	175	420	210	166	45	289	210	25	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.98			0.96			0.91			0.93	
Flt Protected		0.99			0.99			0.98			0.98	
Satd. Flow (prot)		3476			3406			3222			3258	
Flt Permitted		0.61			0.54			0.61			0.56	
Satd. Flow (perm)		2150			1862			2012			1856	
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	215	753	144	184	442	221	195	53	340	236	28	208
RTOR Reduction (vph)	0	7	0	0	20	0	0	146	0	0	155	0
Lane Group Flow (vph)	0	1105	0	0	827	0	0	442	0	0	317	0
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	2%	0%	0%	1%	0%	1%
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		70.2			70.2			27.8			27.8	
Effective Green, g (s)		70.2			70.2			27.8			27.8	
Actuated g/C Ratio		0.64			0.64			0.25			0.25	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1372			1188			508			469	
v/s Ratio Prot												
v/s Ratio Perm		c0.51			0.44			c0.22			0.17	
v/c Ratio		0.81			0.70			0.87			0.67	
Uniform Delay, d1		14.8			13.0			39.4			37.0	
Progression Factor		0.94			1.00			1.00			1.00	
Incremental Delay, d2		1.6			1.5			14.2			3.0	
Delay (s)		15.5			14.4			53.5			40.0	
Level of Service		B			B			D			D	
Approach Delay (s)		15.5			14.4			53.5			40.0	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM Average Control Delay	26.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	136	10	20	158	118	20	333	75	111	234	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	15	16	16	12	16	16	16	16	16	16	16
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1098			686			1488			550	
Travel Time (s)		25.0			15.6			33.8			12.5	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.83	0.83	0.83	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	8%	0%	0%	3%	0%	4%	4%	5%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	337	0	0	515	0	0	378	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	9.0		9.0	9.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	25.0	25.0	0.0	25.0	25.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		20.0	20.0		20.0	20.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.30			0.64			0.58			0.57	
Control Delay		14.6			18.9			17.1			18.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.6			18.9			17.1			18.9	
Queue Length 50th (ft)		30			58			76			57	
Queue Length 95th (ft)		90			164			#323			#303	
Internal Link Dist (ft)		1018			606			1408			470	
Turn Bay Length (ft)												
Base Capacity (vph)		1115			985			889			662	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.34			0.58			0.57	

Intersection Summary	
Area Type:	Other

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	15.0
Total Split (s)	20.0
Total Split (%)	27%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	6.0
Pedestrian Calls (#/hr)	2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lanes, Volumes, Timings
58: Coggeshall St & Purchase Street

2030 Build Condition w/ Mitigation - PM Peak Hour

Cycle Length: 75
Actuated Cycle Length: 46.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: Coggeshall St & Purchase Street

HCM Signalized Intersection Capacity Analysis
58: Coggeshall St & Purchase Street

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	136	10	20	158	118	20	333	75	111	234	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	15	16	16	12	16	16	16	16	16	16	16
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.95			0.98			1.00	
Flt Protected		1.00			1.00			1.00			0.98	
Satd. Flow (prot)		2022			1771			2021			2027	
Flt Permitted		0.98			0.97			0.97			0.72	
Satd. Flow (perm)		1991			1723			1971			1478	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.83	0.83	0.83	0.94	0.94	0.94
Adj. Flow (vph)	6	155	11	23	180	134	24	401	90	118	249	11
RTOR Reduction (vph)	0	4	0	0	35	0	0	8	0	0	1	0
Lane Group Flow (vph)	0	168	0	0	302	0	0	507	0	0	377	0
Heavy Vehicles (%)	0%	2%	8%	0%	0%	3%	0%	4%	4%	5%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.3			13.3			20.9			20.9	
Effective Green, g (s)		13.3			13.3			20.9			20.9	
Actuated g/C Ratio		0.27			0.27			0.43			0.43	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		543			470			844			633	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.18			c0.26			0.26	
v/c Ratio		0.31			0.64			0.60			0.60	
Uniform Delay, d1		14.1			15.7			10.7			10.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			3.0			1.2			1.5	
Delay (s)		14.4			18.7			11.9			12.2	
Level of Service		B			B			B			B	
Approach Delay (s)		14.4			18.7			11.9			12.2	
Approach LOS		B			B			B			B	

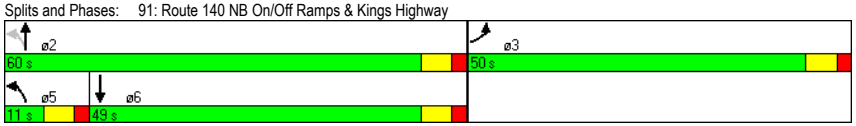
Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	48.8	Sum of lost time (s)	14.6
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	493	160	150	541	666	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	12	12	16
Storage Length (ft)	0	100	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	25	25	25			25
Right Turn on Red		No				No
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			574	515	
Travel Time (s)	6.1			13.0	11.7	
Peak Hour Factor	0.92	0.92	0.83	0.83	0.79	0.79
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	710	0	0	833	984	0
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Detector Phase	3		5	2	6	
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	
Minimum Split (s)	13.0		11.0	13.0	13.0	
Total Split (s)	50.0	0.0	11.0	60.0	49.0	0.0
Total Split (%)	45.5%	0.0%	10.0%	54.5%	44.5%	0.0%
Maximum Green (s)	44.0		5.0	54.0	43.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	None		None	C-Min	C-Min	
v/c Ratio	0.94			0.92dl	0.56	
Control Delay	54.7			23.4	19.7	
Queue Delay	0.0			0.0	0.4	
Total Delay	54.7			23.4	20.1	
Queue Length 50th (ft)	462			200	243	
Queue Length 95th (ft)	#692			291	246	
Internal Link Dist (ft)	188			494	435	
Turn Bay Length (ft)						
Base Capacity (vph)	791			989	1760	
Starvation Cap Reductn	0			0	329	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.90			0.84	0.69	

Intersection Summary	
Area Type:	Other

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 52 (47%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 91: Route 140 NB On/Off Ramps & Kings Highway



HCM Signalized Intersection Capacity Analysis
91: Route 140 NB On/Off Ramps & Kings Highway

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	493	160	150	541	666	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	11	12	12	16
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.97			1.00	0.98	
Flt Protected	0.96			0.99	1.00	
Satd. Flow (prot)	1977			3521	3449	
Flt Permitted	0.96			0.54	1.00	
Satd. Flow (perm)	1977			1939	3449	
Peak-hour factor, PHF	0.92	0.92	0.83	0.83	0.79	0.79
Adj. Flow (vph)	536	174	181	652	843	141
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	710	0	0	833	984	0
Heavy Vehicles (%)	2%	0%	3%	1%	2%	5%
Turn Type			pm+pt			
Protected Phases	3		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	41.9			56.1	56.1	
Effective Green, g (s)	41.9			56.1	56.1	
Actuated g/C Ratio	0.38			0.51	0.51	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	2.0			2.0	2.0	
Lane Grp Cap (vph)	753			989	1759	
v/s Ratio Prot	c0.36				0.29	
v/s Ratio Perm				c0.43		
v/c Ratio	0.94			0.92dl	0.56	
Uniform Delay, d1	32.9			23.1	18.5	
Progression Factor	1.00			0.58	0.97	
Incremental Delay, d2	19.9			6.2	1.1	
Delay (s)	52.8			19.7	19.0	
Level of Service	D			B	B	
Approach Delay (s)	52.8			19.7	19.0	
Approach LOS	D			B	B	

Intersection Summary			
HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

2030 Build Condition w/ Mitigation - PM Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	596	235	145	681	155	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	525			574	347	
Travel Time (s)	11.9			13.0	7.9	
Peak Hour Factor	0.91	0.91	0.96	0.96	0.89	0.89
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	913	0	0	860	174	107
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Detector Phase	2		1	6	7	7
Switch Phase						
Minimum Initial (s)	7.0		5.0	7.0	7.0	7.0
Minimum Split (s)	24.0		11.0	13.0	13.0	13.0
Total Split (s)	70.0	0.0	11.0	81.0	29.0	29.0
Total Split (%)	63.6%	0.0%	10.0%	73.6%	26.4%	26.4%
Maximum Green (s)	64.0		5.0	75.0	23.0	23.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Min		None	C-Min	None	None
Walk Time (s)	7.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
v/c Ratio	0.35			0.51	0.71	0.34
Control Delay	0.8			6.1	60.8	10.7
Queue Delay	0.2			0.0	0.0	0.0
Total Delay	1.0			6.1	60.8	10.7
Queue Length 50th (ft)	16			89	119	0
Queue Length 95th (ft)	m0			m67	180	45
Internal Link Dist (ft)	445			494	267	
Turn Bay Length (ft)						
Base Capacity (vph)	2594			1671	374	419
Starvation Cap Reductn	798			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.51			0.51	0.47	0.26

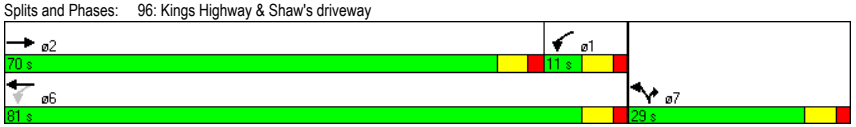
Intersection Summary	
Area Type:	Other

Lanes, Volumes, Timings
96: Kings Highway & Shaw's driveway

2030 Build Condition w/ Mitigation - PM Peak Hour

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 53 (48%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 96: Kings Highway & Shaw's driveway



HCM Signalized Intersection Capacity Analysis
96: Kings Highway & Shaw's driveway

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	596	235	145	681	155	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	6.0			6.0	6.0	6.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3408			3543	1787	1599
Flt Permitted	1.00			0.62	0.95	1.00
Satd. Flow (perm)	3408			2215	1787	1599
Peak-hour factor, PHF	0.91	0.91	0.96	0.96	0.89	0.89
Adj. Flow (vph)	655	258	151	709	174	107
RTOR Reduction (vph)	22	0	0	0	0	92
Lane Group Flow (vph)	891	0	0	860	174	15
Heavy Vehicles (%)	2%	0%	1%	1%	1%	1%
Turn Type			pm+pt			Prot
Protected Phases	2		1	6	7	7
Permitted Phases			6			
Actuated Green, G (s)	83.0			83.0	15.0	15.0
Effective Green, g (s)	83.0			83.0	15.0	15.0
Actuated g/C Ratio	0.75			0.75	0.14	0.14
Clearance Time (s)	6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.0			2.0	2.0	2.0
Lane Grp Cap (vph)	2571			1671	244	218
v/s Ratio Prot	0.26				c0.10	0.01
v/s Ratio Perm				c0.39		
v/c Ratio	0.35			0.51	0.71	0.07
Uniform Delay, d1	4.5			5.4	45.4	41.4
Progression Factor	0.15			0.85	1.00	1.00
Incremental Delay, d2	0.2			0.1	7.9	0.0
Delay (s)	0.9			4.7	53.4	41.4
Level of Service	A			A	D	D
Approach Delay (s)	0.9			4.7	48.8	
Approach LOS	A			A	D	

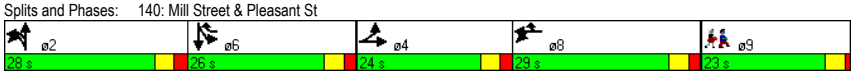
Intersection Summary			
HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	203	360	205	248	25	135	455	105	117	345	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	16	11	12	10	16	10	12	14	16	14	16
Storage Length (ft)	0		0		0		100		0	0		0
Storage Lanes	1		1		1		1		0	0		0
Taper Length (ft)	25		25		25		25		25	25		25
Right Turn on Red					No				Yes			
Link Speed (mph)		30		30				30			30	
Link Distance (ft)		168		308				709			499	
Travel Time (s)		3.8		7.0				16.1			11.3	
Peak Hour Factor	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%
Shared Lane Traffic (%)			23%									
Lane Group Flow (vph)	271	211	298	309	267	0	184	644	0	0	628	0
Turn Type	Split		Split		pt+ov	Split	Split			Split		
Protected Phases	4	4	8	8	8 6	2	2	2		6	6	
Permitted Phases												
Detector Phase	4	4	8	8	8 6	2	2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	12.0	
Total Split (s)	24.0	24.0	29.0	29.0	55.0	28.0	28.0	28.0	0.0	26.0	26.0	0.0
Total Split (%)	18.5%	18.5%	22.3%	22.3%	42.3%	21.5%	21.5%	21.5%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	19.0	19.0	24.0	24.0		23.0	23.0	23.0		21.0	21.0	
Yellow Time (s)	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None		None	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.89	0.60	0.90	0.85	0.47		0.57	0.93			0.92	
Control Delay	78.9	54.9	75.6	67.3	18.3		52.1	65.5			67.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	78.9	54.9	75.6	67.3	18.3		52.1	65.5			67.8	
Queue Length 50th (ft)	181	133	206	211	61		112	219			221	
Queue Length 95th (ft)	#417	257	#469	#467	170		219	#402			#368	
Internal Link Dist (ft)		88		228				629			419	
Turn Bay Length (ft)							100					
Base Capacity (vph)	305	352	332	364	571		323	695			680	
Starvation Cap Reductn	0	0	0	0	0		0	0			0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	
Reduced v/c Ratio	0.89	0.60	0.90	0.85	0.47		0.57	0.93			0.92	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	18%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	18
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 116.2	
Natural Cycle: 130	
Control Type: Semi Act-Uncoord	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 140: Mill Street & Pleasant St



Movement	EBL	EBT	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	203	360	205	248	25	135	455	105	117	345	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	16	11	12	10	16	10	12	14	16	14	16
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00		1.00	0.95			0.95	
Frt	1.00	1.00	1.00	1.00	0.85		1.00	0.97			0.98	
Flt Protected	0.95	1.00	0.95	0.99	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1847	2132	1594	1747	1463		1617	3406			3731	
Flt Permitted	0.95	1.00	0.95	0.99	1.00		0.95	1.00			0.99	
Satd. Flow (perm)	1847	2132	1594	1747	1463		1617	3406			3731	
Peak-hour factor, PHF	0.96	0.96	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.83	0.83	0.83
Adj. Flow (vph)	271	211	387	220	267	29	155	523	121	141	416	71
RTOR Reduction (vph)	0	0	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	271	211	298	309	267	0	184	629	0	0	628	0
Heavy Vehicles (%)	1%	1%	4%	1%	3%	0%	5%	3%	3%	0%	0%	3%
Turn Type	Split		Split		pt+ov	Split	Split			Split		
Protected Phases	4	4	8	8	8 6	2	2	2		6	6	
Permitted Phases												
Actuated Green, G (s)	19.2	19.2	24.2	24.2	45.4		23.2	23.2			21.2	
Effective Green, g (s)	19.2	19.2	24.2	24.2	45.4		23.2	23.2			21.2	
Actuated g/C Ratio	0.16	0.16	0.20	0.20	0.38		0.20	0.20			0.18	
Clearance Time (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Vehicle Extension (s)	5.0	5.0	5.0	5.0			5.0	5.0			5.0	
Lane Grp Cap (vph)	299	345	325	356	560		316	666			667	
v/s Ratio Prot	c0.15	0.10	c0.19	0.18	0.18		0.11	c0.18			c0.17	
v/s Ratio Perm												
v/c Ratio	0.91	0.61	0.92	0.87	0.48		0.58	0.94			0.94	
Uniform Delay, d1	48.8	46.2	46.2	45.7	27.6		43.3	47.1			48.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	30.4	4.6	30.6	20.9	1.3		4.2	22.6			22.2	
Delay (s)	79.3	50.8	76.8	66.6	29.0		47.5	69.6			70.3	
Level of Service	E	D	E	E	C		D	E			E	
Approach Delay (s)		66.8		58.6				64.7			70.3	
Approach LOS		E		E				E			E	

Intersection Summary			
HCM Average Control Delay	64.4	HCM Level of Service	E
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	118.6	Sum of lost time (s)	30.8
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	31	60	85	38	15	90	980	24	36	1150	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	10	11	11
Storage Length (ft)	0		0	0		0	150		225	150		225
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		432			82			365			2491	
Travel Time (s)		9.8			1.9			8.3			56.6	
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	163	0	99	1077	26	36	1162	146
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Detector Phase	4	4		4	4		1	2	5	1	2	2
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	7.0	4.0	4.0	7.0	7.0
Minimum Split (s)	12.0	12.0		12.0	12.0		10.0	13.0	9.0	10.0	13.0	13.0
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	12.0	49.0	16.0	12.0	49.0	49.0
Total Split (%)	28.0%	28.0%	0.0%	28.0%	28.0%	0.0%	8.0%	32.7%	10.7%	8.0%	32.7%	32.7%
Maximum Green (s)	37.0	37.0		37.0	37.0		6.0	43.0	11.0	6.0	43.0	43.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	6.0	6.0	5.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		5.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.16			0.35		1.24	0.97	0.20	0.54	1.04	0.26
Control Delay		139.3			86.0		228.6	64.1	65.2	93.1	82.1	18.4
Queue Delay		0.0			0.0		0.0	167.9	0.8	0.9	0.0	0.0
Total Delay		139.3			86.0		228.6	232.0	66.0	94.0	82.1	18.4
Queue Length 50th (ft)		~394			130		~89	406	19	27	454	34
Queue Length 95th (ft)		#814			m159		#257	#775	58	#96	#866	110
Internal Link Dist (ft)		352			2			285			2411	
Turn Bay Length (ft)							150		225	150		225
Base Capacity (vph)		399			460		80	1112	132	67	1112	566
Starvation Cap Reductn		0			0		0	336	0	0	0	0
Spillback Cap Reductn		0			0		0	0	29	2	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		1.16			0.35		1.24	1.39	0.25	0.55	1.04	0.26

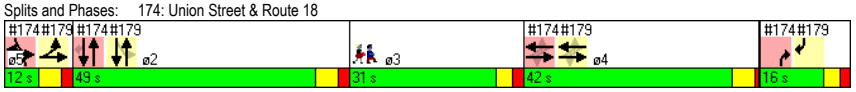
Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	21%
Maximum Green (s)	26.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	17.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	19
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
174: Union Street & Route 18

2030 Build Condition w/ Mitigation - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 131.4	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 174: Union Street & Route 18



HCM Signalized Intersection Capacity Analysis
174: Union Street & Route 18

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	31	60	85	38	15	90	980	24	36	1150	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	16	16	11	11	11	10	11	11
Total Lost time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.98			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.96			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		2012			2033		1728	3355	1561	1440	3355	1546
Flt Permitted		0.67			0.77		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1399			1613		1728	3355	1561	1440	3355	1546
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.91	0.91	0.91	0.99	0.99	0.99
Adj. Flow (vph)	366	33	65	100	45	18	99	1077	26	36	1162	146
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	54
Lane Group Flow (vph)	0	464	0	0	163	0	99	1077	26	36	1162	92
Heavy Vehicles (%)	1%	3%	0%	2%	0%	0%	1%	4%	0%	17%	4%	1%
Turn Type	Perm			Perm			Prot		custom	Prot		Perm
Protected Phases		4			4		1	2	5	1	2	
Permitted Phases	4			4								2
Actuated Green, G (s)		37.5			37.5		6.1	43.6	11.1	6.1	43.6	43.6
Effective Green, g (s)		37.5			37.5		6.1	43.6	11.1	6.1	43.6	43.6
Actuated g/C Ratio		0.28			0.28		0.05	0.32	0.08	0.05	0.32	0.32
Clearance Time (s)		5.0			5.0		6.0	6.0	5.0	6.0	6.0	6.0
Vehicle Extension (s)		5.0			5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		390			450		78	1088	129	65	1088	502
v/s Ratio Prot							c0.06	0.32	c0.02	0.03	c0.35	
v/s Ratio Perm		c0.33			0.10							0.06
v/c Ratio		1.19			0.36		1.27	0.99	0.20	0.55	1.07	0.18
Uniform Delay, d1		48.5			38.9		64.2	45.2	57.5	62.8	45.4	32.6
Progression Factor		1.00			2.09		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		108.2			0.3		190.4	24.6	1.1	12.0	47.4	0.2
Delay (s)		156.7			81.3		254.5	69.8	58.6	74.8	92.8	32.9
Level of Service		F			F		F	E	E	E	F	C
Approach Delay (s)		156.7			81.3			84.7			85.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	95.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	134.4	Sum of lost time (s)	36.1
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	5	35	0	15	5	0	206	5	5	252	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	15	16	16	16	16	16	12	12
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		82			609			920			687	
Travel Time (s)		1.9			13.8			20.9			15.6	
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	101	0	0	27	0	0	306	0	0	310	149
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Detector Phase	1	1 4		4	4			2		2	2	5
Switch Phase												
Minimum Initial (s)	4.0			7.0	7.0			7.0		7.0	7.0	4.0
Minimum Split (s)	10.0			12.0	12.0			13.0		13.0	13.0	9.0
Total Split (s)	12.0	54.0	0.0	42.0	42.0	0.0	0.0	49.0	0.0	49.0	49.0	16.0
Total Split (%)	8.0%	36.0%	0.0%	28.0%	28.0%	0.0%	0.0%	32.7%	0.0%	32.7%	32.7%	10.7%
Maximum Green (s)	6.0			37.0	37.0			43.0		43.0	43.0	11.0
Yellow Time (s)	4.0			4.0	4.0			4.0		4.0	4.0	3.0
All-Red Time (s)	2.0			1.0	1.0			2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	4.0	6.0	4.0	6.0	6.0	5.0
Lead/Lag	Lead			Lag	Lag			Lag		Lag	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes			Yes		Yes	Yes	
Vehicle Extension (s)	4.0			5.0	5.0			4.0		4.0	4.0	4.0
Recall Mode	None			None	None			None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.19			0.05			0.46			0.52	1.10
Control Delay		14.0			32.2			39.8			42.1	160.8
Queue Delay		0.0			0.0			0.0			0.0	604.3
Total Delay		14.0			32.2			39.8			42.1	765.1
Queue Length 50th (ft)		24			11			175			183	~118
Queue Length 95th (ft)		m42			34			254			333	#297
Internal Link Dist (ft)		2			529			840			607	
Turn Bay Length (ft)												50
Base Capacity (vph)		526			545			670			591	136
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			9			0			0	112
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.19			0.05			0.46			0.52	6.21

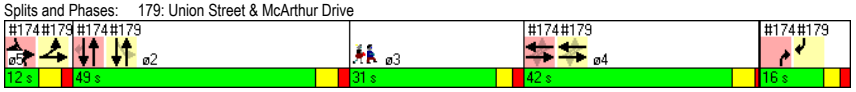
Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	21%
Maximum Green (s)	26.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	17.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	19
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
179: Union Street & McArthur Drive

2030 Build Condition w/ Mitigation - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 131.4	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 179: Union Street & McArthur Drive



HCM Signalized Intersection Capacity Analysis
179: Union Street & McArthur Drive

2030 Build Condition w/ Mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	5	35	0	15	5	0	206	5	5	252	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	16	15	16	16	16	16	16	12	12
Total Lost time (s)		6.0			5.0			6.0			6.0	5.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frt		0.95			0.96			1.00			1.00	0.85
Flt Protected		0.97			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1845			1894			2019			1793	1599
Flt Permitted		0.84			1.00			1.00			0.99	1.00
Satd. Flow (perm)		1589			1894			2019			1782	1599
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83
Adj. Flow (vph)	56	6	39	0	20	7	0	299	7	6	304	149
RTOR Reduction (vph)	0	0	0	0	5	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	101	0	0	22	0	0	305	0	0	310	149
Heavy Vehicles (%)	0%	25%	16%	0%	0%	25%	0%	6%	20%	0%	6%	1%
Turn Type	pm+pt			Perm						Perm		custom
Protected Phases	1	1 4			4			2			2	5
Permitted Phases	1 4			4						2		
Actuated Green, G (s)		43.6			37.5			43.6			43.6	11.1
Effective Green, g (s)		43.6			37.5			43.6			43.6	11.1
Actuated g/C Ratio		0.32			0.28			0.32			0.32	0.08
Clearance Time (s)					5.0			6.0			6.0	5.0
Vehicle Extension (s)					5.0			4.0			4.0	4.0
Lane Grp Cap (vph)		527			528			655			578	132
v/s Ratio Prot		c0.01			0.01			0.15				c0.09
v/s Ratio Perm		c0.05									c0.17	
v/c Ratio		0.19			0.04			0.47			0.54	1.13
Uniform Delay, d1		32.7			35.3			36.1			37.1	61.7
Progression Factor		0.57			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.2			0.1			0.7			1.2	117.1
Delay (s)		18.9			35.4			36.9			38.4	178.8
Level of Service		B			D			D			D	F
Approach Delay (s)		18.9			35.4			36.9			83.9	
Approach LOS		B			D			D			F	

Intersection Summary			
HCM Average Control Delay	59.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	134.4	Sum of lost time (s)	37.1
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Taunton

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	450	157	108	39	126	52	112	431	63	31	341	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		698			192			448			574	
Travel Time (s)		15.9			4.4			10.2			13.0	
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%
Shared Lane Traffic (%)	20%											
Lane Group Flow (vph)	371	366	0	0	233	0	0	681	0	0	405	398
Turn Type	Split			Split			pm+pt			Perm		pm+ov
Protected Phases	1	1		2	2		3	8			4	1
Permitted Phases							8			4		4
Detector Phase	1	1		2	2		3	8		4	4	1
Switch Phase												
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0	18.0
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0	24.0
Total Split (s)	35.0	35.0	0.0	22.0	22.0	0.0	11.0	56.0	0.0	45.0	45.0	35.0
Total Split (%)	25.5%	25.5%	0.0%	16.1%	16.1%	0.0%	8.0%	40.9%	0.0%	32.8%	32.8%	25.5%
Maximum Green (s)	29.0	29.0		17.0	17.0		6.0	50.0		39.0	39.0	29.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		Min	Min	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.87	0.91			0.91			0.86			0.75	0.35
Control Delay	68.0	73.0			89.1			48.5			45.0	1.9
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.4
Total Delay	68.0	73.0			89.1			48.5			45.0	2.3
Queue Length 50th (ft)	350	~357			~216			290			314	0
Queue Length 95th (ft)	#571	#571			#390			#382			448	38
Internal Link Dist (ft)		618			112			368			494	
Turn Bay Length (ft)												
Base Capacity (vph)	428	403			256			908			563	1122
Starvation Cap Reductn	0	0			0			0			0	301
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.87	0.91			0.91			0.75			0.72	0.48

Intersection Summary	
Area Type:	Other

Lane Group	ø5
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	18%
Maximum Green (s)	19.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	21
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

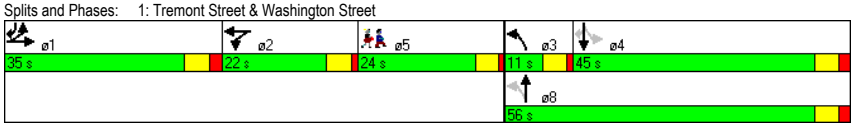
Intersection Summary

Lanes, Volumes, Timings
1: Tremont Street & Washington Street

9/17/2009

Cycle Length: 137
Actuated Cycle Length: 122.1
Natural Cycle: 125
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
1: Tremont Street & Washington Street

9/17/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	450	157	108	39	126	52	112	431	63	31	341	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	6.0
Lane Util. Factor	0.95	0.95			1.00			0.95			1.00	1.00
Frt	1.00	0.95			0.97			0.98			1.00	0.85
Flt Protected	0.95	0.99			0.99			0.99			1.00	1.00
Satd. Flow (prot)	1759	1608			1745			3355			1730	1495
Flt Permitted	0.95	0.99			0.99			0.64			0.85	1.00
Satd. Flow (perm)	1759	1608			1745			2150			1481	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	464	162	111	42	135	56	126	484	71	34	371	398
RTOR Reduction (vph)	0	11	0	0	8	0	0	6	0	0	0	159
Lane Group Flow (vph)	371	355	0	0	225	0	0	675	0	0	405	239
Heavy Vehicles (%)	4%	4%	10%	8%	1%	10%	8%	4%	6%	3%	6%	8%
Turn Type	Split			Split			pm+pt			Perm		pm+ov
Protected Phases	1	1		2	2		3	8			4	1
Permitted Phases							8			4		4
Actuated Green, G (s)	29.7	29.7			17.4			44.7			44.7	74.4
Effective Green, g (s)	29.7	29.7			17.4			44.7			44.7	74.4
Actuated g/C Ratio	0.24	0.24			0.14			0.36			0.36	0.60
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	421	385			245			775			534	969
v/s Ratio Prot	0.21	c0.22			c0.13							0.06
v/s Ratio Perm								c0.31			0.27	0.10
v/c Ratio	0.88	0.92			0.92			0.87			0.76	0.25
Uniform Delay, d1	45.4	46.0			52.6			37.0			34.9	11.6
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	18.5	26.7			35.5			10.2			5.4	0.0
Delay (s)	63.9	72.7			88.1			47.1			40.3	11.7
Level of Service	E	E			F			D			D	B
Approach Delay (s)		68.3			88.1			47.1			26.1	
Approach LOS		E			F			D			C	

Intersection Summary			
HCM Average Control Delay	50.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	124.0	Sum of lost time (s)	32.2
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	819	296	185	655	95	127	350	270	125	220	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12
Storage Length (ft)	100		70	100		70	0		50	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1663			1440			2994			1249	
Travel Time (s)		37.8			32.7			68.0			28.4	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1186	0	197	798	0	0	869	0	0	530	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Detector Phase	5	2		1	6		3	3		3	3	
Switch Phase												
Minimum Initial (s)	9.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	14.0	37.0	0.0	17.0	40.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	11.7%	30.8%	0.0%	14.2%	33.3%	0.0%	31.7%	31.7%	0.0%	31.7%	31.7%	0.0%
Maximum Green (s)	9.0	32.0		12.0	35.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.08	1.04		0.99	0.48			1.12			2.09dl	
Control Delay	46.6	68.7		106.2	21.0			100.1			49.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	46.6	68.7		106.2	21.0			100.1			49.5	
Queue Length 50th (ft)	6	347		116	138			~280			146	
Queue Length 95th (ft)	28	#740		#340	373			#532			#219	
Internal Link Dist (ft)		1583			1360			2914			1169	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	133	1144		199	1660			774			599	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.08	1.04		0.99	0.48			1.12			0.88	

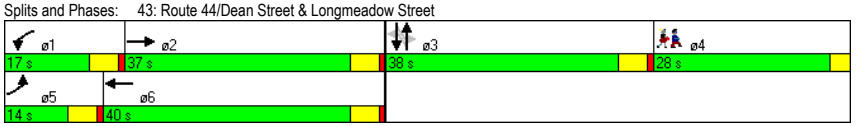
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	23%
Maximum Green (s)	25.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	12
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

9/17/2009

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 97.6	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

9/17/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	819	296	185	655	95	127	350	270	125	220	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.96		1.00	0.98			0.95			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1428	3365		1604	3414			3109			3193	
Flt Permitted	0.95	1.00		0.95	1.00			0.67			0.54	
Satd. Flow (perm)	1428	3365		1604	3414			2089			1744	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.86	0.86	0.86	0.68	0.68	0.68
Adj. Flow (vph)	11	871	315	197	697	101	148	407	314	184	324	22
RTOR Reduction (vph)	0	27	0	0	7	0	0	62	0	0	3	0
Lane Group Flow (vph)	11	1159	0	197	791	0	0	807	0	0	527	0
Heavy Vehicles (%)	18%	3%	3%	5%	4%	2%	8%	6%	3%	3%	8%	20%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)	1.5	36.7		12.1	47.3			33.4			33.4	
Effective Green, g (s)	1.5	36.7		12.1	47.3			33.4			33.4	
Actuated g/C Ratio	0.01	0.35		0.12	0.45			0.32			0.32	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	21	1184		186	1548			669			558	
v/s Ratio Prot	0.01	c0.34		c0.12	0.23							
v/s Ratio Perm								c0.39			0.30	
v/c Ratio	0.52	0.98		1.06	0.51			1.21			2.09dl	
Uniform Delay, d1	51.0	33.4		46.1	20.3			35.5			34.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	27.4	21.1		82.5	0.6			106.6			25.2	
Delay (s)	78.5	54.6		128.6	20.8			142.1			59.7	
Level of Service	E	D		F	C			F			E	
Approach Delay (s)		54.8			42.2			142.1			59.7	
Approach LOS		D			D			F			E	

Intersection Summary			
HCM Average Control Delay	73.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	104.3	Sum of lost time (s)	22.1
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		
dl Defacto Left Lane. Recode with 1 though lane as a left lane.			
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	165	307	134	110	245	141	636	62	160	558	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12
Storage Length (ft)	0		50	0		50	50		0	50		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1373			971			2224			3692	
Travel Time (s)		31.2			22.1			43.3			71.9	
Peak Hour Factor	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	384	0	257	258	0	882	0	0	997	0
Turn Type	Perm		pt+ov	Perm		pt+ov	pm+pt			pm+pt		
Protected Phases		4	4 3		4	4 1	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Detector Phase	4	4	4 3	4	4	4 1	3	2 3		1	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		6.0			6.0		
Minimum Split (s)	13.0	13.0		13.0	13.0		11.0			11.0		
Total Split (s)	32.0	32.0	43.0	32.0	32.0	45.0	11.0	52.0	0.0	13.0	54.0	0.0
Total Split (%)	26.2%	26.2%	35.2%	26.2%	26.2%	36.9%	9.0%	42.6%	0.0%	10.7%	44.3%	0.0%
Maximum Green (s)	27.0	27.0		27.0	27.0		6.0			8.0		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0			4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0			1.0		
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead			Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0			3.0		
Recall Mode	None	None		None	None		None			None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.56	0.55		0.97	0.38		0.98			1.10	
Control Delay		39.8	15.4		87.9	11.4		54.9			88.9	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		39.8	15.4		87.9	11.4		54.9			88.9	
Queue Length 50th (ft)		124	75		154	52		192			~246	
Queue Length 95th (ft)		228	171		#411	103		#500			#432	
Internal Link Dist (ft)		1293			891			2144			3612	
Turn Bay Length (ft)			50			50						
Base Capacity (vph)		426	699		265	684		896			903	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.56	0.55		0.97	0.38		0.98			1.10	

Lane Group	ø2	ø9
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	1.0
Minimum Split (s)	13.0	25.0
Total Split (s)	41.0	25.0
Total Split (%)	34%	20%
Maximum Green (s)	36.0	23.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	1.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		16.0
Pedestrian Calls (#/hr)		4
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Lanes, Volumes, Timings
45: Hart Street & Route 140

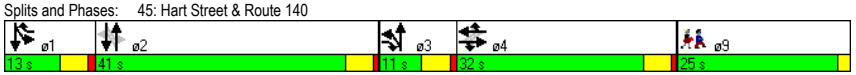
9/17/2009

Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 102	
Natural Cycle: 150	
Control Type: Semi Act-Uncoord	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



HCM Signalized Intersection Capacity Analysis
45: Hart Street & Route 140

9/17/2009

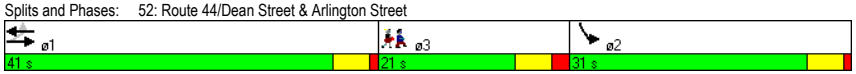
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	165	307	134	110	245	141	636	62	160	558	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.99			1.00	
Flt Protected		0.99	1.00		0.97	1.00		0.99			0.99	
Satd. Flow (prot)		1734	1516		1807	1568		3272			3331	
Flt Permitted		0.91	1.00		0.53	1.00		0.59			0.53	
Satd. Flow (perm)		1596	1516		992	1568		1960			1796	
Peak-hour factor, PHF	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95	0.73	0.73	0.73
Adj. Flow (vph)	31	206	384	141	116	258	148	669	65	219	764	14
RTOR Reduction (vph)	0	0	131	0	0	82	0	4	0	0	1	0
Lane Group Flow (vph)	0	237	253	0	257	176	0	878	0	0	996	0
Heavy Vehicles (%)	0%	6%	3%	1%	4%	3%	4%	5%	2%	10%	6%	13%
Turn Type	Perm		pt+ov	Perm		pt+ov	pm+pt			pm+pt		
Protected Phases		4	4 3		4	4 1	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		27.2	38.3		27.2	35.3		42.4			44.4	
Effective Green, g (s)		27.2	38.3		27.2	35.3		42.4			44.4	
Actuated g/C Ratio		0.26	0.37		0.26	0.34		0.41			0.43	
Clearance Time (s)		5.0			5.0							
Vehicle Extension (s)		3.0			3.0							
Lane Grp Cap (vph)		419	561		261	535		880			891	
v/s Ratio Prot			0.17			0.11		c0.06			c0.09	
v/s Ratio Perm		0.15			c0.26			0.35			c0.39	
v/c Ratio		0.57	0.45		0.98	0.33		1.00			1.12	
Uniform Delay, d1		33.0	24.6		37.9	25.3		30.5			29.6	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		1.8	0.6		51.0	0.4		29.5			68.2	
Delay (s)		34.8	25.2		89.0	25.7		60.0			97.7	
Level of Service		C	C		F	C		E			F	
Approach Delay (s)		28.9			57.3			60.0			97.7	
Approach LOS		C			E			E			F	

Intersection Summary			
HCM Average Control Delay	65.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	103.5	Sum of lost time (s)	25.8
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	48	800	655	142	296	57	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	0	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.87	0.87	0.86	0.86	0.81	0.81	
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	55	920	927	0	435	0	
Turn Type	Perm						
Protected Phases		1	1		2		3
Permitted Phases	1						
Detector Phase	1	1	1		2		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0		5.0		5.0
Minimum Split (s)	15.0	15.0	15.0		10.0		21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	0.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	0.0%	23%
Maximum Green (s)	36.0	36.0	36.0		26.0		15.0
Yellow Time (s)	4.0	4.0	4.0		4.0		4.0
All-Red Time (s)	1.0	1.0	1.0		1.0		2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0	4.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		1.0
Recall Mode	None	None	None		None		None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.54	0.96	0.86		0.75		
Control Delay	38.2	39.7	25.8		29.3		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay	38.2	39.7	25.8		29.3		
Queue Length 50th (ft)	15	352	317		159		
Queue Length 95th (ft)	#71	#620	#563		219		
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	101	960	1072		692		
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.54	0.96	0.86		0.63		

Intersection Summary	
Area Type:	Other
Cycle Length: 93	
Actuated Cycle Length: 68.1	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



HCM Signalized Intersection Capacity Analysis
52: Route 44/Dean Street & Arlington Street

9/17/2009

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	48	800	655	142	296	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.98	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1636	1810	2008		1807	
Flt Permitted	0.11	1.00	1.00		0.96	
Satd. Flow (perm)	191	1810	2008		1807	
Peak-hour factor, PHF	0.87	0.87	0.86	0.86	0.81	0.81
Adj. Flow (vph)	55	920	762	165	365	70
RTOR Reduction (vph)	0	0	7	0	0	0
Lane Group Flow (vph)	55	920	920	0	435	0
Heavy Vehicles (%)	3%	5%	5%	3%	4%	12%
Turn Type	Perm					
Protected Phases		1	1		2	
Permitted Phases	1					
Actuated Green, G (s)	36.1	36.1	36.1		21.9	
Effective Green, g (s)	36.1	36.1	36.1		21.9	
Actuated g/C Ratio	0.53	0.53	0.53		0.32	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	101	961	1066		582	
v/s Ratio Prot		c0.51	0.46		c0.24	
v/s Ratio Perm	0.29					
v/c Ratio	0.54	0.96	0.86		0.75	
Uniform Delay, d1	10.5	15.2	13.8		20.6	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	5.9	19.3	7.4		5.2	
Delay (s)	16.4	34.5	21.2		25.8	
Level of Service	B	C	C		C	
Approach Delay (s)		33.5	21.2		25.8	
Approach LOS		C	C		C	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	68.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
61: Taunton Green & Broadway

9/17/2009

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	794	193	0	0	1051	0	306	89	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			913			579			302	
Travel Time (s)		6.9			20.8			13.2			6.9	
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%
Parking (#/hr)			0			0			0			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	197	873	212	0	0	1142	0	340	99	0	0	0
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Detector Phase	1	1	1					3	3			
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0			
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0			
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0
Total Split (%)	39.3%	39.3%	39.3%	0.0%	0.0%	0.0%	0.0%	33.7%	33.7%	0.0%	0.0%	0.0%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0			
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0			
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead	Lead	Lead									
Lead-Lag Optimize?	Yes	Yes	Yes									
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Recall Mode	Max	Max	Max					Max	Max			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.30	0.76	0.33			0.45		0.72	0.23			
Control Delay	8.1	30.5	4.2			0.6		39.2	6.9			
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0			
Total Delay	8.1	30.5	4.2			0.6		39.2	6.9			
Queue Length 50th (ft)	20	227	0			0		172	0			
Queue Length 95th (ft)	m66	298	m40			0		#279	36			
Internal Link Dist (ft)		224			833			499			222	
Turn Bay Length (ft)												
Base Capacity (vph)	664	1148	641			2547		470	424			
Starvation Cap Reductn	0	0	0			0		0	0			
Spillback Cap Reductn	0	0	0			0		0	0			
Storage Cap Reductn	0	0	0			0		0	0			
Reduced v/c Ratio	0.30	0.76	0.33			0.45		0.72	0.23			

Intersection Summary

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	27%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Ped
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 89
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 61: Taunton Green & Broadway

HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway

9/17/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	794	193	0	0	1051	0	306	89	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1703	3406	1484			2547		1673	1256			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1703	3406	1484			2547		1673	1256			
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	197	873	212	0	0	1142	0	340	99	0	0	0
RTOR Reduction (vph)	89	0	141	0	0	0	0	0	71	0	0	0
Lane Group Flow (vph)	108	873	71	0	0	1142	0	340	28	0	0	0
Heavy Vehicles (%)	6%	6%	11%	0%	0%	6%	2%	6%	8%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			89.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			89.0		25.0	25.0			
Actuated g/C Ratio	0.34	0.34	0.34			1.00		0.28	0.28			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	574	1148	500			2547		470	353			
v/s Ratio Prot		c0.26						c0.20				
v/s Ratio Perm	0.06		0.05			c0.45			0.02			
v/c Ratio	0.19	0.76	0.14			0.45		0.72	0.08			
Uniform Delay, d1	20.9	26.3	20.5			0.0		28.9	23.5			
Progression Factor	0.89	0.96	0.85			1.00		1.00	1.00			
Incremental Delay, d2	0.7	4.8	0.6			0.6		9.3	0.4			
Delay (s)	19.4	30.1	18.0			0.6		38.2	24.0			
Level of Service	B	C	B			A		D	C			
Approach Delay (s)		26.5			0.6			35.0			0.0	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	89.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

9/17/2009

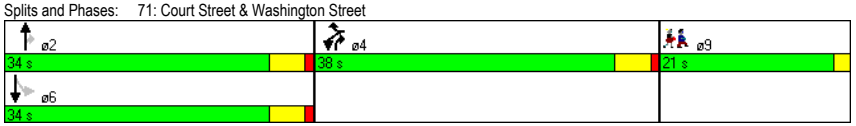
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø9
Lane Configurations							
Volume (vph)	438	21	638	295	37	421	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.88	0.88	0.87	0.87	0.85	0.85	
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	498	24	733	339	44	495	
Turn Type		Prot		pm+ov	Perm		
Protected Phases	4	4	2	4		6	9
Permitted Phases				2	6		
Detector Phase	4	4	2	4	6	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0	10.0	5.0	10.0	10.0	3.0
Minimum Split (s)	10.0	10.0	15.0	10.0	15.0	15.0	21.0
Total Split (s)	38.0	38.0	34.0	38.0	34.0	34.0	21.0
Total Split (%)	40.9%	40.9%	36.6%	40.9%	36.6%	36.6%	23%
Maximum Green (s)	33.0	33.0	29.0	33.0	29.0	29.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	4.0	3.0	4.0	4.0	0.7
Recall Mode	None	None	C-Min	None	C-Min	C-Min	None
Walk Time (s)							7.0
Flash Dont Walk (s)							12.0
Pedestrian Calls (#/hr)							19
v/c Ratio	0.89	0.04	0.90	0.26	0.40	0.57	
Control Delay	48.5	14.8	42.6	1.0	39.3	25.3	
Queue Delay	0.0	0.0	175.4	0.1	0.0	0.0	
Total Delay	48.5	14.8	218.0	1.1	39.3	25.3	
Queue Length 50th (ft)	263	6	328	0	14	174	
Queue Length 95th (ft)	#415	22	#755	18	#73	#405	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	607	617	816	1275	110	874	
Starvation Cap Reductn	0	0	290	160	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.82	0.04	1.39	0.30	0.40	0.57	

Lanes, Volumes, Timings
71: Court Street & Washington Street

9/17/2009

Intersection Summary	
Area Type:	Other
Cycle Length: 93	
Actuated Cycle Length: 93	
Offset: 8 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 71: Court Street & Washington Street



HCM Signalized Intersection Capacity Analysis
71: Court Street & Washington Street

9/17/2009

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	438	21	638	295	37	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1723	1722	1398	1805	1845
Flt Permitted	0.95	1.00	1.00	1.00	0.12	1.00
Satd. Flow (perm)	1711	1723	1722	1398	231	1845
Peak-hour factor, PHF	0.88	0.88	0.87	0.87	0.85	0.85
Adj. Flow (vph)	498	24	733	339	44	495
RTOR Reduction (vph)	0	6	0	71	0	0
Lane Group Flow (vph)	498	18	733	268	44	495
Heavy Vehicles (%)	9%	0%	3%	4%	0%	3%
Turn Type		Prot		pm+ov	Perm	
Protected Phases	4	4	2	4		6
Permitted Phases				2	6	
Actuated Green, G (s)	30.5	30.5	42.9	73.4	42.9	42.9
Effective Green, g (s)	30.5	30.5	42.9	73.4	42.9	42.9
Actuated g/C Ratio	0.33	0.33	0.46	0.79	0.46	0.46
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	4.0	3.0	4.0	4.0
Lane Grp Cap (vph)	561	565	794	1179	107	851
v/s Ratio Prot	c0.29	0.01	c0.43	0.07		0.27
v/s Ratio Perm				0.12	0.19	
v/c Ratio	0.89	0.03	0.92	0.23	0.41	0.58
Uniform Delay, d1	29.6	21.2	23.5	2.5	16.7	18.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.6	0.0	17.9	0.1	11.3	2.9
Delay (s)	45.3	21.2	41.4	2.6	27.9	21.3
Level of Service	D	C	D	A	C	C
Approach Delay (s)	44.2		29.2			21.9
Approach LOS	D		C			C

Intersection Summary			
HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	93.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	0	104	0	136	0	776	164	105	745	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	16	16	12	9	12	12	12	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		216			709			574			260	
Travel Time (s)		4.9			16.1			13.0			5.9	
Peak Hour Factor	0.42	0.42	0.42	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	9%	0%	3%	0%	3%	15%	5%	6%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	120	156	0	1068	0	0	972	0
Turn Type	Perm			Perm		pm+ov	Perm			pm+pt		
Protected Phases		4			8	1		2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	15.0	15.0		15.0	15.0	9.0	15.0	15.0		9.0	9.0	
Total Split (s)	15.0	15.0	0.0	15.0	15.0	9.0	42.0	42.0	0.0	9.0	51.0	0.0
Total Split (%)	16.5%	16.5%	0.0%	16.5%	16.5%	9.9%	46.2%	46.2%	0.0%	9.9%	56.0%	0.0%
Maximum Green (s)	10.0	10.0		10.0	10.0	4.0	37.0	37.0		4.0	46.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?						Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.08			0.67	0.30		0.59			0.61	
Control Delay		36.8			57.9	5.2		14.7			10.7	
Queue Delay		0.0			0.0	0.0		0.0			5.3	
Total Delay		36.8			57.9	5.2		14.7			16.0	
Queue Length 50th (ft)		6			65	0		164			88	
Queue Length 95th (ft)		11			#147	28		357			#250	
Internal Link Dist (ft)		136			629			494			180	
Turn Bay Length (ft)												
Base Capacity (vph)		156			186	516		1825			1589	
Starvation Cap Reductn		0			0	0		0			544	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.08			0.65	0.30		0.59			0.93	

Intersection Summary	
Area Type:	Other

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	27%
Maximum Green (s)	23.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	16.0
Pedestrian Calls (#/hr)	12
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

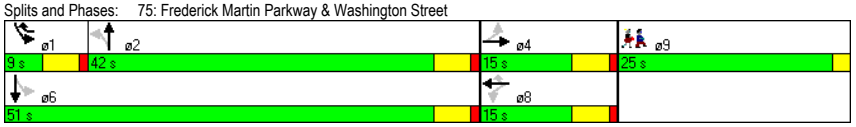
Intersection Summary

Lanes, Volumes, Timings
75: Frederick Martin Parkway & Washington Street

9/17/2009

Cycle Length: 91
Actuated Cycle Length: 91
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 75: Frederick Martin Parkway & Washington Street



HCM Signalized Intersection Capacity Analysis
75: Frederick Martin Parkway & Washington Street

9/17/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	0	104	0	136	0	776	164	105	745	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	16	16	12	9	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor		1.00			1.00	1.00		0.95			0.95	
Frt		1.00			1.00	0.85		0.97			1.00	
Flt Protected		0.95			0.95	1.00		1.00			0.99	
Satd. Flow (prot)		1865			1877	1777		3011			3387	
Flt Permitted		0.64			0.75	1.00		1.00			0.62	
Satd. Flow (perm)		1248			1481	1777		3011			2123	
Peak-hour factor, PHF	0.42	0.42	0.42	0.87	0.87	0.87	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	12	0	0	120	0	156	0	882	186	119	847	6
RTOR Reduction (vph)	0	0	0	0	0	128	0	14	0	0	0	0
Lane Group Flow (vph)	0	12	0	0	120	28	0	1054	0	0	972	0
Heavy Vehicles (%)	0%	0%	0%	9%	0%	3%	0%	3%	15%	5%	6%	0%
Turn Type	Perm			Perm		pm+ov	Perm			pm+pt		
Protected Phases		4			8	1		2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		11.0			11.0	16.2		53.2			63.4	
Effective Green, g (s)		11.0			11.0	16.2		53.2			63.4	
Actuated g/C Ratio		0.12			0.12	0.18		0.58			0.70	
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		151			179	316		1760			1551	
v/s Ratio Prot						0.01		0.35			c0.04	
v/s Ratio Perm		0.01			c0.08	0.01					c0.40	
v/c Ratio		0.08			0.67	0.09		0.60			0.63	
Uniform Delay, d1		35.5			38.3	31.2		12.1			7.4	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.2			9.5	0.1		1.5			0.8	
Delay (s)		35.7			47.7	31.4		13.6			8.2	
Level of Service		D			D	C		B			A	
Approach Delay (s)		35.7			38.5			13.6			8.2	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	91.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
88: Purchase Street & Washington Street

9/17/2009

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	112	5	21	137	36	5	65	42	109	45	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		367			1375			1388			879	
Travel Time (s)		8.3			31.3			31.5			20.0	
Peak Hour Factor	0.69	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.68	0.70	0.70	0.70
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	2%	2%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	169	0	0	285	0	0	165	0	0	234	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition w/ mitigation - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	829	356	405	769	220	78	330	220	150	235	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	16	10	12	13	12	11	16	12	11	12
Storage Length (ft)	100		70	100		70	0		50	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1663			1440			2994			1249	
Travel Time (s)		37.8			32.7			68.0			28.4	
Peak Hour Factor	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1274	0	422	1030	0	0	683	0	0	471	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			4			8	
Permitted Phases							4			8		
Detector Phase	5	2		1	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	8.0	12.0		9.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	17.0		14.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	14.0	39.0	0.0	26.0	51.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	11.4%	31.7%	0.0%	21.1%	41.5%	0.0%	24.4%	24.4%	0.0%	24.4%	24.4%	0.0%
Maximum Green (s)	9.0	34.0		21.0	46.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	4.0	5.0		4.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.08	1.08		1.21	0.52			1.12			2.42dl	
Control Delay	48.4	82.3		154.7	16.5			105.1			73.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	48.4	82.3		154.7	16.5			105.1			73.1	
Queue Length 50th (ft)	6	~426		~303	150			~224			145	
Queue Length 95th (ft)	28	#816		#668	457			#473			#316	
Internal Link Dist (ft)		1583			1360			2914			1169	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	153	1179		348	1981			612			485	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.07	1.08		1.21	0.52			1.12			0.97	

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition w/ mitigation - PM Peak Hour

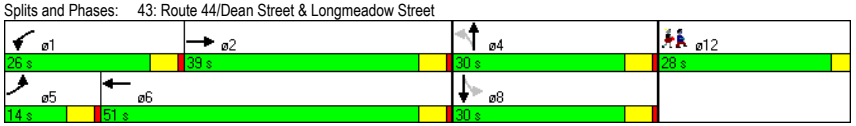
Lane Group	ø12
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	12
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	23%
Maximum Green (s)	25.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	7
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition w/ mitigation - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 100.6	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 43: Route 44/Dean Street & Longmeadow Street



HCM Signalized Intersection Capacity Analysis
43: Route 44/Dean Street & Longmeadow Street

2030 Build Condition w/ mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	829	356	405	769	220	78	330	220	150	235	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	13	12	11	16	12	11	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.95		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1685	3347		1652	3388			3237			3379	
Flt Permitted	0.95	1.00		0.95	1.00			0.68			0.56	
Satd. Flow (perm)	1685	3347		1652	3388			2217			1924	
Peak-hour factor, PHF	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	11	891	383	422	801	229	85	359	239	179	280	12
RTOR Reduction (vph)	0	35	0	0	15	0	0	56	0	0	2	0
Lane Group Flow (vph)	11	1239	0	422	1015	0	0	627	0	0	469	0
Heavy Vehicles (%)	0%	3%	3%	2%	3%	3%	1%	2%	1%	1%	1%	0%
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	5	2		1	6			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)	1.5	38.7		21.2	58.4			25.3			25.3	
Effective Green, g (s)	1.5	38.7		21.2	58.4			25.3			25.3	
Actuated g/C Ratio	0.01	0.36		0.20	0.54			0.24			0.24	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	4.0	5.0		4.0	5.0			4.0			4.0	
Lane Grp Cap (vph)	24	1207		326	1844			523			454	
v/s Ratio Prot	0.01	c0.37		c0.26	0.30							
v/s Ratio Perm								c0.28			0.24	
v/c Ratio	0.46	1.03		1.29	0.55			1.20			2.42dl	
Uniform Delay, d1	52.5	34.3		43.0	15.9			41.0			41.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	17.7	33.0		153.5	0.6			107.0			51.3	
Delay (s)	70.2	67.3		196.5	16.5			148.0			92.3	
Level of Service	E	E		F	B			F			F	
Approach Delay (s)		67.3			68.8			148.0			92.3	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM Average Control Delay	85.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	107.3	Sum of lost time (s)	22.1
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		
dl Defacto Left Lane. Recode with 1 though lane as a left lane.			
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	105	173	106	170	240	290	803	122	120	882	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	12	11	11	11	12	12	12
Storage Length (ft)	0		50	0		50	50		0	50		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1373			971			2224			3692	
Travel Time (s)		31.2			22.1			43.3			71.9	
Peak Hour Factor	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	205	254	0	291	253	0	1278	0	0	1054	0
Turn Type	Perm		pt+ov	Perm		pt+ov	pm+pt			pm+pt		
Protected Phases		4	4 3		4	4 1	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Detector Phase	4	4	4 3	4	4	4 1	3	2 3		1	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		4.0			4.0		
Minimum Split (s)	13.0	13.0		13.0	13.0		9.0			9.0		
Total Split (s)	36.0	36.0	45.0	36.0	36.0	46.0	9.0	79.0	0.0	10.0	80.0	0.0
Total Split (%)	24.0%	24.0%	30.0%	24.0%	24.0%	30.7%	6.0%	52.7%	0.0%	6.7%	53.3%	0.0%
Maximum Green (s)	31.0	31.0		31.0	31.0		4.0			5.0		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0			4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0			1.0		
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lag	Lag		Lead			Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0			3.0		
Recall Mode	None	None		None	None		None			None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.75	0.44		1.03	0.44		1.13			0.96	
Control Delay		61.6	19.7		108.3	24.5		96.6			42.9	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		61.6	19.7		108.3	24.5		96.6			42.9	
Queue Length 50th (ft)		154	81		~252	106		~406			242	
Queue Length 95th (ft)		173	92		#432	185		#617			#371	
Internal Link Dist (ft)		1293			891			2144			3612	
Turn Bay Length (ft)			50			50						
Base Capacity (vph)		274	573		282	580		1129			1101	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.75	0.44		1.03	0.44		1.13			0.96	

Lane Group	ø2	ø9
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	1.0
Minimum Split (s)	20.0	25.0
Total Split (s)	70.0	25.0
Total Split (%)	47%	17%
Maximum Green (s)	66.0	23.0
Yellow Time (s)	3.5	2.0
All-Red Time (s)	0.5	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		16.0
Pedestrian Calls (#/hr)		0
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Lanes, Volumes, Timings
45: Hart Street & Route 140

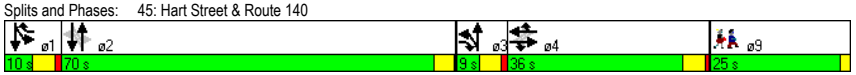
2030 Build Condition w/ mitigation - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 125	
Natural Cycle: 150	
Control Type: Semi Act-Uncoord	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 45: Hart Street & Route 140



HCM Signalized Intersection Capacity Analysis
45: Hart Street & Route 140

2030 Build Condition w/ mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	105	173	106	170	240	290	803	122	120	882	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0		5.0	5.0		4.0			5.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95			0.95	
Frt		1.00	0.85		1.00	0.85		0.98			1.00	
Flt Protected		0.99	1.00		0.98	1.00		0.99			0.99	
Satd. Flow (prot)		1801	1531		1839	1599		3363			3484	
Flt Permitted		0.60	1.00		0.61	1.00		0.55			0.53	
Satd. Flow (perm)		1103	1531		1137	1599		1875			1848	
Peak-hour factor, PHF	0.68	0.68	0.68	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	51	154	254	112	179	253	305	845	128	125	919	10
RTOR Reduction (vph)	0	0	83	0	0	55	0	5	0	0	0	0
Lane Group Flow (vph)	0	205	171	0	291	198	0	1273	0	0	1054	0
Heavy Vehicles (%)	0%	1%	2%	2%	1%	1%	1%	1%	1%	2%	3%	0%
Turn Type	Perm		pt+ov	Perm		pt+ov	pm+pt			pm+pt		
Protected Phases		4	4 3		4	4 1	3	2 3		1	1 2	
Permitted Phases	4			4			2 3			1 2		
Actuated Green, G (s)		31.0	40.0		31.0	41.0		70.0			71.0	
Effective Green, g (s)		31.0	40.0		31.0	41.0		70.0			71.0	
Actuated g/C Ratio		0.25	0.32		0.25	0.33		0.56			0.57	
Clearance Time (s)		5.0			5.0							
Vehicle Extension (s)		3.0			3.0							
Lane Grp Cap (vph)		274	490		282	524		1098			1115	
v/s Ratio Prot			0.11			0.12		c0.04			c0.04	
v/s Ratio Perm		0.19			c0.26			c0.61			0.50	
v/c Ratio		0.75	0.35		1.03	0.38		1.16			0.94	
Uniform Delay, d1		43.4	32.5		47.0	32.2		27.5			25.2	
Progression Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Incremental Delay, d2		10.6	0.4		62.1	0.5		82.2			15.4	
Delay (s)		54.0	33.0		109.1	32.7		109.7			40.6	
Level of Service		D	C		F	C		F			D	
Approach Delay (s)		42.4			73.6			109.7			40.6	
Approach LOS		D			E			F			D	

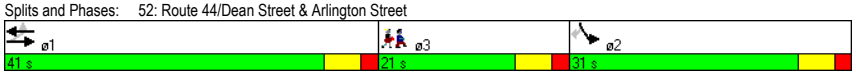
Intersection Summary			
HCM Average Control Delay	72.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	100.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3
Lane Configurations							
Volume (vph)	25	795	750	93	406	79	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	10	12	16	12	14	12	
Storage Length (ft)	150			0	0	0	
Storage Lanes	1			0	1	1	
Taper Length (ft)	25			25	25	25	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1036	1663		418		
Travel Time (s)		23.5	37.8		9.5		
Peak Hour Factor	0.89	0.89	0.98	0.98	0.97	0.97	
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	28	893	860	0	419	81	
Turn Type	Perm					Perm	
Protected Phases		1	1		2		3
Permitted Phases	1					2	
Detector Phase	1	1	1		2	2	
Switch Phase							
Minimum Initial (s)	9.0	9.0	9.0		4.0	4.0	5.0
Minimum Split (s)	15.0	15.0	15.0		10.0	10.0	21.0
Total Split (s)	41.0	41.0	41.0	0.0	31.0	31.0	21.0
Total Split (%)	44.1%	44.1%	44.1%	0.0%	33.3%	33.3%	23%
Maximum Green (s)	35.0	35.0	35.0		25.0	25.0	15.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	4.0	6.0	6.0	
Lead/Lag	Lead	Lead	Lead				Lag
Lead-Lag Optimize?	Yes	Yes	Yes				Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	1.0
Recall Mode	None	None	None		None	None	None
Walk Time (s)							5.0
Flash Dont Walk (s)							10.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.26	0.93	0.79		0.74	0.18	
Control Delay	18.4	34.2	21.2		29.7	18.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.4	34.2	21.2		29.7	18.0	
Queue Length 50th (ft)	6	319	268		153	24	
Queue Length 95th (ft)	28	#620	#545		244	53	
Internal Link Dist (ft)		956	1583		338		
Turn Bay Length (ft)	150						
Base Capacity (vph)	108	965	1084		712	574	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.26	0.93	0.79		0.59	0.14	

Intersection Summary

Area Type: Other
Cycle Length: 93
Actuated Cycle Length: 67.2
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 52: Route 44/Dean Street & Arlington Street



HCM Signalized Intersection Capacity Analysis
52: Route 44/Dean Street & Arlington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	25	795	750	93	406	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	12	14	12
Total Lost time (s)	6.0	6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1685	1845	2066		1906	1538
Flt Permitted	0.12	1.00	1.00		0.95	1.00
Satd. Flow (perm)	205	1845	2066		1906	1538
Peak-hour factor, PHF	0.89	0.89	0.98	0.98	0.97	0.97
Adj. Flow (vph)	28	893	765	95	419	81
RTOR Reduction (vph)	0	0	4	0	0	0
Lane Group Flow (vph)	28	893	856	0	419	81
Heavy Vehicles (%)	0%	3%	3%	0%	1%	5%
Turn Type	Perm					Perm
Protected Phases		1	1		2	
Permitted Phases	1					2
Actuated Green, G (s)	35.1	35.1	35.1		20.0	20.0
Effective Green, g (s)	35.1	35.1	35.1		20.0	20.0
Actuated g/C Ratio	0.52	0.52	0.52		0.30	0.30
Clearance Time (s)	6.0	6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	107	965	1081		568	458
v/s Ratio Prot		c0.48	0.41		c0.22	
v/s Ratio Perm	0.14					0.05
v/c Ratio	0.26	0.93	0.79		0.74	0.18
Uniform Delay, d1	8.8	14.8	13.0		21.2	17.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.3	14.2	4.0		5.0	0.2
Delay (s)	10.1	29.0	17.1		26.2	17.6
Level of Service	B	C	B		C	B
Approach Delay (s)		28.4	17.1		24.8	
Approach LOS		C	B		C	

Intersection Summary			
HCM Average Control Delay	23.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	67.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
61: Taunton Green & Broadway

2030 Build Condition w/ mitigation - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	961	347	0	0	1155	0	202	131	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	12	12	12	12	10	10	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		304			913			579			302	
Travel Time (s)		6.9			20.8			13.2			6.9	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%
Parking (#/hr)			0			0			0			
Shared Lane Traffic (%)												
Lane Group Flow (vph)	181	1033	373	0	0	1255	0	230	149	0	0	0
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Detector Phase	1	1	1					3	3			
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0					25.0	25.0			
Minimum Split (s)	35.0	35.0	35.0					30.0	30.0			
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0
Total Split (%)	39.3%	39.3%	39.3%	0.0%	0.0%	0.0%	0.0%	33.7%	33.7%	0.0%	0.0%	0.0%
Maximum Green (s)	30.0	30.0	30.0					25.0	25.0			
Yellow Time (s)	4.0	4.0	4.0					4.0	4.0			
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0			
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
Lead/Lag	Lead	Lead	Lead									
Lead-Lag Optimize?	Yes	Yes	Yes									
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Recall Mode	Max	Max	Max					Max	Max			
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.26	0.87	0.47			0.47		0.47	0.31			
Control Delay	7.5	37.0	4.2			0.6		30.4	6.4			
Queue Delay	0.0	0.0	0.0			0.0		0.0	0.0			
Total Delay	7.5	37.0	4.2			0.6		30.4	6.4			
Queue Length 50th (ft)	16	283	0			0		107	0			
Queue Length 95th (ft)	60	#397	53			0		172	41			
Internal Link Dist (ft)		224			833			499			222	
Turn Bay Length (ft)												
Base Capacity (vph)	684	1181	792			2647		488	481			
Starvation Cap Reductn	0	0	0			0		0	0			
Spillback Cap Reductn	0	0	0			0		0	0			
Storage Cap Reductn	0	0	0			0		0	0			
Reduced v/c Ratio	0.26	0.87	0.47			0.47		0.47	0.31			

Intersection Summary

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	27%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Ped
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 89
Actuated Cycle Length: 89
Natural Cycle: 90
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 61: Taunton Green & Broadway

HCM Signalized Intersection Capacity Analysis
61: Taunton Green & Broadway

2030 Build Condition w/ mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	961	347	0	0	1155	0	202	131	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	12	12	12	12	10	10	12	12	12
Total Lost time (s)	5.0	5.0	5.0			4.0		5.0	5.0			
Lane Util. Factor	1.00	0.95	1.00			0.88		1.00	1.00			
Frt	1.00	1.00	0.85			0.85		1.00	0.85			
Flt Protected	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (prot)	1770	3505	1615			2647		1739	1330			
Flt Permitted	0.95	1.00	1.00			1.00		1.00	1.00			
Satd. Flow (perm)	1770	3505	1615			2647		1739	1330			
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	181	1033	373	0	0	1255	0	230	149	0	0	0
RTOR Reduction (vph)	88	0	247	0	0	0	0	0	107	0	0	0
Lane Group Flow (vph)	93	1033	126	0	0	1255	0	230	42	0	0	0
Heavy Vehicles (%)	2%	3%	2%	0%	0%	2%	0%	2%	2%	0%	0%	0%
Parking (#/hr)			0			0			0			
Turn Type	Perm		Perm			Free			Perm			
Protected Phases		1						3				
Permitted Phases	1		1			Free			3			
Actuated Green, G (s)	30.0	30.0	30.0			89.0		25.0	25.0			
Effective Green, g (s)	30.0	30.0	30.0			89.0		25.0	25.0			
Actuated g/C Ratio	0.34	0.34	0.34			1.00		0.28	0.28			
Clearance Time (s)	5.0	5.0	5.0					5.0	5.0			
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0			
Lane Grp Cap (vph)	597	1181	544			2647		488	374			
v/s Ratio Prot		c0.29						0.13				
v/s Ratio Perm	0.05		0.08			c0.47			0.03			
v/c Ratio	0.16	0.87	0.23			0.47		0.47	0.11			
Uniform Delay, d1	20.6	27.7	21.2			0.0		26.5	23.8			
Progression Factor	0.92	0.98	0.86			1.00		1.00	1.00			
Incremental Delay, d2	0.6	9.1	1.0			0.6		3.2	0.6			
Delay (s)	19.5	36.2	19.3			0.6		29.8	24.4			
Level of Service	B	D	B			A		C	C			
Approach Delay (s)		30.3			0.6			27.6			0.0	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	89.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
71: Court Street & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

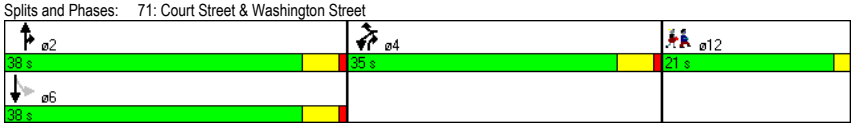
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø12
Lane Configurations							
Volume (vph)	457	21	578	289	52	694	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	13	14	10	9	12	12	
Storage Length (ft)	0	50		0	0		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25	25		25	25		
Right Turn on Red		Yes		Yes			
Link Speed (mph)	30		30			30	
Link Distance (ft)	1051		260			584	
Travel Time (s)	23.9		5.9			13.3	
Peak Hour Factor	0.94	0.94	0.92	0.92	0.95	0.95	
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	486	22	628	314	55	731	
Turn Type		Prot		pt+ov	Perm		
Protected Phases	4	4	2	2 4		6	12
Permitted Phases					6		
Detector Phase	4	4	2	2 4	6	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0	10.0		10.0	10.0	3.0
Minimum Split (s)	10.0	10.0	15.0		15.0	15.0	21.0
Total Split (s)	35.0	35.0	38.0	73.0	38.0	38.0	21.0
Total Split (%)	37.2%	37.2%	40.4%	77.7%	40.4%	40.4%	22%
Maximum Green (s)	30.0	30.0	33.0		33.0	33.0	19.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	2.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	4.0		4.0	4.0	0.7
Recall Mode	None	None	C-Min		C-Min	C-Min	None
Walk Time (s)							7.0
Flash Dont Walk (s)							12.0
Pedestrian Calls (#/hr)							21
v/c Ratio	0.90	0.04	0.71	0.24	0.26	0.77	
Control Delay	52.8	16.9	28.0	0.9	23.8	30.1	
Queue Delay	0.0	0.0	105.9	0.1	0.0	0.0	
Total Delay	52.8	16.9	134.0	1.0	23.8	30.1	
Queue Length 50th (ft)	267	6	231	0	15	283	
Queue Length 95th (ft)	#438	23	#609	20	62	#719	
Internal Link Dist (ft)	971		180			504	
Turn Bay Length (ft)		50					
Base Capacity (vph)	578	555	889	1296	212	952	
Starvation Cap Reductn	0	0	377	173	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.84	0.04	1.23	0.28	0.26	0.77	

Lanes, Volumes, Timings
71: Court Street & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 94	
Actuated Cycle Length: 94	
Offset: 4 (4%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 71: Court Street & Washington Street



HCM Signalized Intersection Capacity Analysis
71: Court Street & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	457	21	578	289	52	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	14	10	9	12	12
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1811	1723	1756	1425	1671	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.24	1.00
Satd. Flow (perm)	1811	1723	1756	1425	419	1881
Peak-hour factor, PHF	0.94	0.94	0.92	0.92	0.95	0.95
Adj. Flow (vph)	486	22	628	314	55	731
RTOR Reduction (vph)	0	6	0	49	0	0
Lane Group Flow (vph)	486	16	628	265	55	731
Heavy Vehicles (%)	3%	0%	1%	2%	8%	1%
Turn Type		Prot		pt+ov	Perm	
Protected Phases	4	4	2	2 4		6
Permitted Phases					6	
Actuated Green, G (s)	28.0	28.0	46.4	79.4	46.4	46.4
Effective Green, g (s)	28.0	28.0	46.4	79.4	46.4	46.4
Actuated g/C Ratio	0.30	0.30	0.49	0.84	0.49	0.49
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	4.0		4.0	4.0
Lane Grp Cap (vph)	539	513	867	1204	207	928
v/s Ratio Prot	c0.27	0.01	0.36	0.19		c0.39
v/s Ratio Perm					0.13	
v/c Ratio	0.90	0.03	0.72	0.22	0.27	0.79
Uniform Delay, d1	31.7	23.4	18.8	1.4	13.9	19.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	18.2	0.0	5.2	0.1	3.1	6.7
Delay (s)	49.9	23.4	24.0	1.5	17.0	26.4
Level of Service	D	C	C	A	B	C
Approach Delay (s)	48.8		16.5			25.8
Approach LOS	D		B			C

Intersection Summary			
HCM Average Control Delay	27.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	5	98	0	173	5	705	323	241	878	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	16	16	12	9	12	12	12	12
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		216			530			574			260	
Travel Time (s)		4.9			12.0			13.0			5.9	
Peak Hour Factor	0.50	0.50	0.50	0.91	0.91	0.91	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	2%	3%	1%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	108	190	0	1110	0	0	1190	0
Turn Type	Perm			Perm		pt+ov	Perm			pm+pt		
Protected Phases		4			8	8 1		2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8 1	2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0		15.0	15.0		15.0	15.0		10.0	10.0	
Total Split (s)	15.0	15.0	0.0	15.0	15.0	25.0	41.0	41.0	0.0	10.0	51.0	0.0
Total Split (%)	16.5%	16.5%	0.0%	16.5%	16.5%	27.5%	45.1%	45.1%	0.0%	11.0%	56.0%	0.0%
Maximum Green (s)	10.0	10.0		10.0	10.0		36.0	36.0		5.0	46.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.05			0.63	0.48		0.63			0.81	
Control Delay		37.2			56.2	31.7		16.3			15.7	
Queue Delay		0.0			0.0	0.0		0.0			26.5	
Total Delay		37.2			56.2	31.7		16.3			42.2	
Queue Length 50th (ft)		5			60	94		165			92	
Queue Length 95th (ft)		12			#128	110		#471			#501	
Internal Link Dist (ft)		136			450			494			180	
Turn Bay Length (ft)												
Base Capacity (vph)		187			176	380		1750			1465	
Starvation Cap Reductn		0			0	0		0			326	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.05			0.61	0.50		0.63			1.04	

Intersection Summary	
Area Type:	Other

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	27%
Maximum Green (s)	23.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	16.0
Pedestrian Calls (#/hr)	9
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

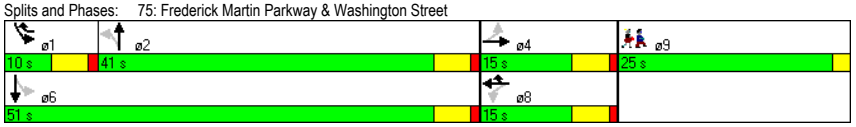
Intersection Summary

Lanes, Volumes, Timings
75: Frederick Martin Parkway & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Cycle Length: 91
Actuated Cycle Length: 91
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 75: Frederick Martin Parkway & Washington Street



HCM Signalized Intersection Capacity Analysis
75: Frederick Martin Parkway & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	5	98	0	173	5	705	323	241	878	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	16	16	12	9	12	12	12	12
Total Lost time (s)		5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor		1.00			1.00	1.00		0.95			0.95	
Frt		0.86			1.00	0.85		0.95			1.00	
Flt Protected		1.00			0.95	1.00		1.00			0.99	
Satd. Flow (prot)		1698			2025	1830		3026			3509	
Flt Permitted		1.00			0.75	1.00		0.95			0.53	
Satd. Flow (perm)		1698			1601	1830		2876			1867	
Peak-hour factor, PHF	0.50	0.50	0.50	0.91	0.91	0.91	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	0	0	10	108	0	190	5	758	347	256	934	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	10	0	0	108	190	0	1110	0	0	1190	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	2%	3%	1%	2%	0%
Turn Type	Perm			Perm		pt+ov	Perm			pm+pt		
Protected Phases		4			8	8 1		2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.7			9.7	15.6		53.8			64.7	
Effective Green, g (s)		9.7			9.7	15.6		53.8			64.7	
Actuated g/C Ratio		0.11			0.11	0.17		0.59			0.71	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		181			171	314		1700			1434	
v/s Ratio Prot		0.01				0.10					c0.05	
v/s Ratio Perm					c0.07			0.39			c0.54	
v/c Ratio		0.06			0.63	0.61		0.65			0.83	
Uniform Delay, d1		36.5			38.9	34.9		12.4			9.3	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.1			7.4	3.3		2.0			4.1	
Delay (s)		36.7			46.3	38.1		14.4			13.4	
Level of Service		D			D	D		B			B	
Approach Delay (s)		36.7			41.1			14.4			13.4	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	91.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	503	173	118	27	131	37	160	384	61	37	395	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		698			192			454			574	
Travel Time (s)		15.9			4.4			10.3			13.0	
Peak Hour Factor	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Shared Lane Traffic (%)	20%											
Lane Group Flow (vph)	415	404	0	0	241	0	0	644	0	0	491	583
Turn Type	Split			Split			pm+pt			Perm		pm+ov
Protected Phases	1	1		2	2		3	8			4	1
Permitted Phases							8			4		4
Detector Phase	1	1		2	2		3	8		4	4	1
Switch Phase												
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0	18.0
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0	24.0
Total Split (s)	38.0	38.0	0.0	22.0	22.0	0.0	11.0	63.0	0.0	52.0	52.0	38.0
Total Split (%)	25.9%	25.9%	0.0%	15.0%	15.0%	0.0%	7.5%	42.9%	0.0%	35.4%	35.4%	25.9%
Maximum Green (s)	32.0	32.0		17.0	17.0		6.0	57.0		46.0	46.0	32.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Max		Max	Max	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.98	1.00			1.04			0.78			0.75	0.46
Control Delay	91.0	96.4			126.9			44.1			44.8	2.0
Queue Delay	0.0	0.0			0.0			0.0			3.6	0.6
Total Delay	91.0	96.4			126.9			44.1			48.4	2.5
Queue Length 50th (ft)	~455	~442			~260			291			418	0
Queue Length 95th (ft)	#682	#668			#373			#385			554	35
Internal Link Dist (ft)		618			112			374			494	
Turn Bay Length (ft)												
Base Capacity (vph)	425	403			231			821			652	1279
Starvation Cap Reductn	0	0			0			0			91	334
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.98	1.00			1.04			0.78			0.88	0.62

Intersection Summary	
Area Type:	Other

Lane Group	ø5
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	22
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

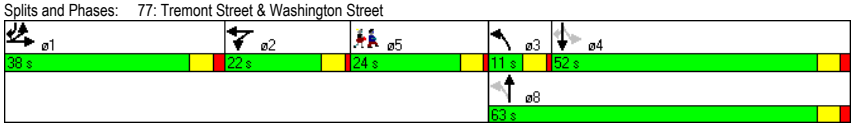
Intersection Summary

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Cycle Length: 147
Actuated Cycle Length: 137.4
Natural Cycle: 145
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 77: Tremont Street & Washington Street



HCM Signalized Intersection Capacity Analysis
77: Tremont Street & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	503	173	118	27	131	37	160	384	61	37	395	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	6.0
Lane Util. Factor	0.95	0.95			1.00			0.95			1.00	1.00
Frt	1.00	0.95			0.97			0.98			1.00	0.85
Flt Protected	0.95	0.99			0.99			0.99			1.00	1.00
Satd. Flow (prot)	1811	1672			1804			3355			1764	1583
Flt Permitted	0.95	0.99			0.99			0.57			0.88	1.00
Satd. Flow (perm)	1811	1672			1804			1952			1559	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	519	178	122	33	162	46	170	409	65	42	449	583
RTOR Reduction (vph)	0	11	0	0	6	0	0	5	0	0	0	208
Lane Group Flow (vph)	415	393	0	0	235	0	0	639	0	0	491	375
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Turn Type	Split			Split			pm+pt			Perm		pm+ov
Protected Phases	1	1		2	2		3	8			4	1
Permitted Phases							8			4		4
Actuated Green, G (s)	32.2	32.2			17.1			57.4			57.4	89.6
Effective Green, g (s)	32.2	32.2			17.1			57.4			57.4	89.6
Actuated g/C Ratio	0.23	0.23			0.12			0.41			0.41	0.64
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	418	386			221			804			642	1086
v/s Ratio Prot	0.23	c0.24			c0.13							0.08
v/s Ratio Perm								c0.33			0.32	0.16
v/c Ratio	0.99	1.02			1.06			0.79			0.76	0.35
Uniform Delay, d1	53.5	53.6			61.2			35.8			35.2	11.4
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	41.9	50.6			78.1			5.1			8.4	0.1
Delay (s)	95.4	104.2			139.2			40.9			43.6	11.5
Level of Service	F	F			F			D			D	B
Approach Delay (s)		99.7			139.2			40.9			26.2	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	61.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	139.4	Sum of lost time (s)	32.7
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
77: Tremont Street & Washington Street

2030 Build Condition w/ mitigation - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	503	173	118	27	131	37	160	384	61	37	395	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	16	12	12	12	13	12	12	12	11	12
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		698			192			454			574	
Travel Time (s)		15.9			4.4			10.3			13.0	
Peak Hour Factor	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Shared Lane Traffic (%)	20%											
Lane Group Flow (vph)	415	404	0	0	241	0	0	644	0	0	491	583
Turn Type	Split			Split			pm+pt			Perm		pm+ov
Protected Phases	1	1		2	2		3	8			4	1
Permitted Phases							8			4		4
Detector Phase	1	1		2	2		3	8		4	4	1
Switch Phase												
Minimum Initial (s)	18.0	18.0		7.0	7.0		6.0	18.0		18.0	18.0	18.0
Minimum Split (s)	24.0	24.0		12.0	12.0		11.0	24.0		24.0	24.0	24.0
Total Split (s)	38.0	38.0	0.0	22.0	22.0	0.0	11.0	63.0	0.0	52.0	52.0	38.0
Total Split (%)	25.9%	25.9%	0.0%	15.0%	15.0%	0.0%	7.5%	42.9%	0.0%	35.4%	35.4%	25.9%
Maximum Green (s)	32.0	32.0		17.0	17.0		6.0	57.0		46.0	46.0	32.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead		Lag	Lag		Lead			Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Max		Max	Max	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.98	1.00			1.04			0.78			0.75	0.46
Control Delay	91.0	96.4			126.9			44.1			44.8	2.0
Queue Delay	0.0	0.0			0.0			0.0			3.6	0.6
Total Delay	91.0	96.4			126.9			44.1			48.4	2.5
Queue Length 50th (ft)	~455	~442			~260			291			418	0
Queue Length 95th (ft)	#682	#668			#373			#385			554	35
Internal Link Dist (ft)		618			112			374			494	
Turn Bay Length (ft)												
Base Capacity (vph)	425	403			231			821			652	1279
Starvation Cap Reductn	0	0			0			0			91	334
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.98	1.00			1.04			0.78			0.88	0.62

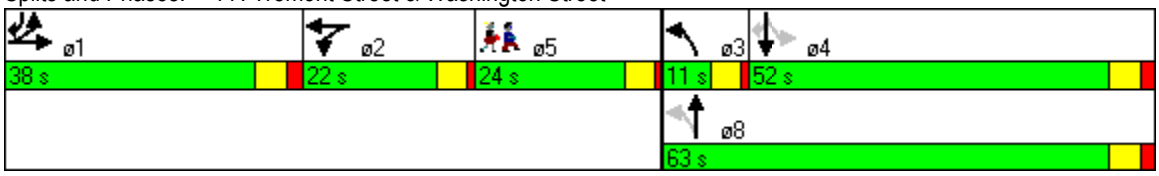
Intersection Summary	
Area Type:	Other

Lane Group	ø5
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	22
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Cycle Length: 147
Actuated Cycle Length: 137.4
Natural Cycle: 145
Control Type: Semi Act-Uncoord
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 77: Tremont Street & Washington Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	503	173	118	27	131	37	160	384	61	37	395	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	12	16	12	12	12	13	12	12	12	11	12
Total Lost time (s)	6.0	6.0			5.0			6.0			6.0	6.0
Lane Util. Factor	0.95	0.95			1.00			0.95			1.00	1.00
Frt	1.00	0.95			0.97			0.98			1.00	0.85
Flt Protected	0.95	0.99			0.99			0.99			1.00	1.00
Satd. Flow (prot)	1811	1672			1804			3355			1764	1583
Flt Permitted	0.95	0.99			0.99			0.57			0.88	1.00
Satd. Flow (perm)	1811	1672			1804			1952			1559	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.81	0.81	0.81	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	519	178	122	33	162	46	170	409	65	42	449	583
RTOR Reduction (vph)	0	11	0	0	6	0	0	5	0	0	0	208
Lane Group Flow (vph)	415	393	0	0	235	0	0	639	0	0	491	375
Heavy Vehicles (%)	1%	2%	2%	0%	2%	3%	3%	6%	0%	0%	4%	2%
Turn Type	Split			Split			pm+pt			Perm		pm+ov
Protected Phases	1	1		2	2		3	8			4	1
Permitted Phases							8			4		4
Actuated Green, G (s)	32.2	32.2			17.1			57.4			57.4	89.6
Effective Green, g (s)	32.2	32.2			17.1			57.4			57.4	89.6
Actuated g/C Ratio	0.23	0.23			0.12			0.41			0.41	0.64
Clearance Time (s)	6.0	6.0			5.0			6.0			6.0	6.0
Vehicle Extension (s)	2.0	2.0			2.0			2.0			2.0	2.0
Lane Grp Cap (vph)	418	386			221			804			642	1086
v/s Ratio Prot	0.23	c0.24			c0.13							0.08
v/s Ratio Perm								c0.33			0.32	0.16
v/c Ratio	0.99	1.02			1.06			0.79			0.76	0.35
Uniform Delay, d1	53.5	53.6			61.2			35.8			35.2	11.4
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	41.9	50.6			78.1			5.1			8.4	0.1
Delay (s)	95.4	104.2			139.2			40.9			43.6	11.5
Level of Service	F	F			F			D			D	B
Approach Delay (s)		99.7			139.2			40.9			26.2	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	61.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	139.4	Sum of lost time (s)	32.7
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Norton

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	355	180	52	310	50	198	128	132	70	65	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Storage Length (ft)	0		0	0		0	200		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		221			255			2304			335	
Travel Time (s)		5.0			5.8			44.9			6.5	
Peak Hour Factor	0.91	0.91	0.91	0.81	0.81	0.81	0.79	0.79	0.79	0.67	0.67	0.67
Heavy Vehicles (%)	13%	4%	7%	0%	3%	2%	1%	5%	5%	13%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	604	0	0	447	62	0	580	0	0	216	0
Turn Type	Perm			Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	8.0	24.0		24.0	24.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	60.0	8.0	32.0	0.0	24.0	24.0	0.0
Total Split (%)	65.2%	65.2%	0.0%	65.2%	65.2%	65.2%	8.7%	34.8%	0.0%	26.1%	26.1%	0.0%
Maximum Green (s)	54.0	54.0		54.0	54.0	54.0	4.0	26.0		18.0	18.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	0.5	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0		7.0	7.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0	7.0		5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0		0	0	0		0		0	0	
v/c Ratio		0.82			0.66	0.09		0.96			0.47	
Control Delay		26.7			19.9	10.6		53.7			22.6	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		26.7			19.9	10.6		53.7			22.6	
Queue Length 50th (ft)		208			139	14		224			64	
Queue Length 95th (ft)		324			188	29		#458			112	
Internal Link Dist (ft)		141			175			2224			255	
Turn Bay Length (ft)												
Base Capacity (vph)		1369			1259	1276		604			464	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.44			0.36	0.05		0.96			0.47	

Intersection Summary

Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 68.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 123 & N. Worcester Street

HCM Signalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2030 Build with Mitigation Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	355	180	52	310	50	198	128	132	70	65	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost time (s)		6.0			6.0	6.0		6.0			6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	
Frt		0.96			1.00	0.85		0.96			0.99	
Flt Protected		1.00			0.99	1.00		0.98			0.98	
Satd. Flow (prot)		1724			1839	1583		1962			1878	
Flt Permitted		0.98			0.84	1.00		0.78			0.62	
Satd. Flow (perm)		1698			1562	1583		1557			1193	
Peak-hour factor, PHF	0.91	0.91	0.91	0.81	0.81	0.81	0.79	0.79	0.79	0.67	0.67	0.67
Adj. Flow (vph)	16	390	198	64	383	62	251	162	167	104	97	15
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	604	0	0	447	62	0	580	0	0	216	0
Heavy Vehicles (%)	13%	4%	7%	0%	3%	2%	1%	5%	5%	13%	9%	9%
Turn Type	Perm			Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		29.5			29.5	29.5		26.4			26.4	
Effective Green, g (s)		29.5			29.5	29.5		26.4			26.4	
Actuated g/C Ratio		0.43			0.43	0.43		0.39			0.39	
Clearance Time (s)		6.0			6.0	6.0		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		738			679	688		605			464	
v/s Ratio Prot												
v/s Ratio Perm		c0.36			0.29	0.04		c0.37			0.18	
v/c Ratio		0.82			0.66	0.09		0.96			0.47	
Uniform Delay, d1		16.8			15.2	11.3		20.2			15.5	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		7.0			2.3	0.1		26.3			0.7	
Delay (s)		23.9			17.5	11.4		46.5			16.2	
Level of Service		C			B	B		D			B	
Approach Delay (s)		23.9			16.8			46.5			16.2	
Approach LOS		C			B			D			B	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	67.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
1: Route 123 & N. Worcester Street

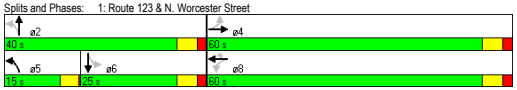
2030 Build with Mitigation Condition - PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	295	255	154	425	75	179	74	119	65	159	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	11	11	11	12	16	12
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		221			255			2304			335	
Travel Time (s)		5.0			5.8			44.9			6.5	
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.93	0.93	0.93	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	1%	2%	1%	0%	0%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	582	0	0	651	84	0	400	0	0	278	0
Turn Type	Perm			Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	8.0	24.0		24.0	24.0	
Total Split (s)	60.0	60.0	0.0	60.0	60.0	60.0	15.0	40.0	0.0	25.0	25.0	0.0
Total Split (%)	60.0%	60.0%	0.0%	60.0%	60.0%	60.0%	15.0%	40.0%	0.0%	25.0%	25.0%	0.0%
Maximum Green (s)	54.0	54.0		54.0	54.0	54.0	11.0	34.0		19.0	19.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	0.5	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	6.0	4.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None	None	None	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0		7.0	7.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0	7.0		5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0		0	0	0		0		0	0	
v/c Ratio		0.62			0.98	0.10		1.02			0.48	
Control Delay		19.7			55.7	11.6		85.1			29.5	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		19.7			55.7	11.6		85.1			29.5	
Queue Length 50th (ft)		244			386	25		~263			139	
Queue Length 95th (ft)		358			#631	48		#455			211	
Internal Link Dist (ft)		141			175			2224			255	
Turn Bay Length (ft)												
Base Capacity (vph)		934			662	872		392			575	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.62			0.98	0.10		1.02			0.48	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 123 & N. Worcester Street



HCM Signalized Intersection Capacity Analysis
1: Route 123 & N. Worcester Street

2030 Build with Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	295	255	154	425	75	179	74	119	65	159	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	11	11	11	12	16	12
Total Lost time (s)		6.0			6.0	6.0		6.0			6.0	
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	
Frt		0.94			1.00	0.85		0.96			0.99	
Flt Protected		1.00			0.99	1.00		0.98			0.99	
Satd. Flow (prot)		1763			1843	1615		1696			2091	
Flt Permitted		0.98			0.66	1.00		0.66			0.80	
Satd. Flow (perm)		1729			1225	1615		1153			1690	
Peak-hour factor, PHF	0.97	0.97	0.97	0.89	0.89	0.89	0.93	0.93	0.93	0.88	0.88	0.88
Adj. Flow (vph)	15	304	263	173	478	84	192	80	128	74	181	23
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	582	0	0	651	84	0	400	0	0	278	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	1%	2%	1%	0%	0%	6%
Turn Type	Perm			Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		54.0			54.0	54.0		34.0			34.0	
Effective Green, g (s)		54.0			54.0	54.0		34.0			34.0	
Actuated g/C Ratio		0.54			0.54	0.54		0.34			0.34	
Clearance Time (s)		6.0			6.0	6.0		6.0			6.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		934			662	872		392			575	
v/s Ratio Prot												
v/s Ratio Perm		0.34			c0.53	0.05		c0.35			0.16	
v/c Ratio		0.62			0.98	0.10		1.02			0.48	
Uniform Delay, d1		15.9			22.6	11.2		33.0			26.1	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		1.3			30.6	0.0		50.7			0.6	
Delay (s)		17.2			53.2	11.2		83.7			26.7	
Level of Service		B			D	B		F			C	
Approach Delay (s)		17.2			48.4			83.7			26.7	
Approach LOS		B			D			F			C	

Intersection Summary

HCM Average Control Delay	43.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

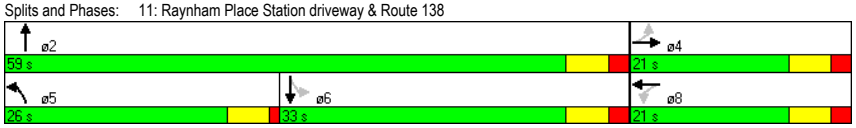
Raynham

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	0	48	0	0	20	211	1220	0	5	355	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	200		0
Storage Lanes	1		0	0		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		897			574			510			2071	
Travel Time (s)		20.4			13.0			11.6			47.1	
Peak Hour Factor	0.68	0.68	0.68	0.56	0.56	0.56	0.91	0.91	0.91	0.79	0.79	0.79
Heavy Vehicles (%)	75%	0%	50%	0%	0%	0%	11%	3%	0%	0%	12%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	71	0	0	36	0	232	1341	0	0	517	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	21.0	21.0	0.0	21.0	21.0	0.0	26.0	59.0	0.0	33.0	33.0	0.0
Total Split (%)	26.3%	26.3%	0.0%	26.3%	26.3%	0.0%	32.5%	73.8%	0.0%	41.3%	41.3%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		21.0	53.0		27.0	27.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	7.0	7.0										
Pedestrian Calls (#/hr)	5	5										
v/c Ratio	0.39	0.11			0.11		0.60	0.55			0.50	
Control Delay	33.4	0.3			2.6		27.8	7.2			19.2	
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	
Total Delay	33.4	0.3			2.6		27.8	7.2			19.2	
Queue Length 50th (ft)	15	0			0		67	120			73	
Queue Length 95th (ft)	39	0			0		163	220			126	
Internal Link Dist (ft)		817			494			430			1991	
Turn Bay Length (ft)							175					
Base Capacity (vph)	220	716			507		629	3143			1496	
Starvation Cap Reductn	0	0			0		0	0			0	
Spillback Cap Reductn	0	0			0		0	0			0	
Storage Cap Reductn	0	0			0		0	0			0	
Reduced v/c Ratio	0.23	0.10			0.07		0.37	0.43			0.35	

Intersection Summary

Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 56.9	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	

Splits and Phases: 11: Raynham Place Station driveway & Route 138



HCM Signalized Intersection Capacity Analysis
11: Raynham Place Station driveway & Route 138

2030 Build with Mitigation Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	0	48	0	0	20	211	1220	0	5	355	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		5.0	6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95			0.95	
Frt	1.00	0.85			0.86		1.00	1.00			0.98	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1031	1077			1644		1626	3505			3209	
Flt Permitted	0.73	1.00			1.00		0.95	1.00			0.93	
Satd. Flow (perm)	797	1077			1644		1626	3505			2990	
Peak-hour factor, PHF	0.68	0.68	0.68	0.56	0.56	0.56	0.91	0.91	0.91	0.79	0.79	0.79
Adj. Flow (vph)	51	0	71	0	0	36	232	1341	0	6	449	62
RTOR Reduction (vph)	0	61	0	0	31	0	0	0	0	0	13	0
Lane Group Flow (vph)	51	10	0	0	5	0	232	1341	0	0	504	0
Heavy Vehicles (%)	75%	0%	50%	0%	0%	0%	11%	3%	0%	0%	12%	0%
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)	7.9	7.9			7.9		13.6	38.1			19.5	
Effective Green, g (s)	7.9	7.9			7.9		13.6	38.1			19.5	
Actuated g/C Ratio	0.14	0.14			0.14		0.23	0.66			0.34	
Clearance Time (s)	6.0	6.0			6.0		5.0	6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	109	147			224		381	2302			1005	
v/s Ratio Prot		0.01			0.00		0.14	c0.38				
v/s Ratio Perm	c0.06										0.17	
v/c Ratio	0.47	0.07			0.02		0.61	0.58			0.50	
Uniform Delay, d1	23.1	21.8			21.7		19.8	5.5			15.4	
Progression Factor	1.00	1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2	3.2	0.2			0.0		2.8	0.4			0.4	
Delay (s)	26.3	22.0			21.7		22.6	5.9			15.8	
Level of Service	C	C			C		C	A			B	
Approach Delay (s)		23.8			21.7			8.4			15.8	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Elm Street & Route 138

2030 Build with Mitigation Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	20	25	225	5	87	5	1276	205	44	358	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	0	326	133	0	0	1580	0	0	521	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	23.0	23.0		12.0	23.0		35.0	35.0		35.0	35.0	
Total Split (s)	23.0	23.0	0.0	13.0	35.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	24.0%	24.0%	0.0%	13.5%	36.5%	0.0%	62.5%	62.5%	0.0%	62.5%	62.5%	0.0%
Maximum Green (s)	18.0	18.0		8.0	30.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	10.0	10.0			10.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
v/c Ratio		0.60		0.85	0.32			0.78			0.40	
Control Delay		53.4		53.9	28.4			17.9			11.3	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		53.4		53.9	28.4			17.9			11.3	
Queue Length 50th (ft)		60		173	62			360			82	
Queue Length 95th (ft)		98		181	80			501			112	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		258		385	492			2038			1291	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	

Lanes, Volumes, Timings
36: Elm Street & Route 138

2030 Build with Mitigation Condition- AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.40		0.85	0.27			0.78			0.40	

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 96
Offset: 28 (29%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 36: Elm Street & Route 138

HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2030 Build with Mitigation Condition- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	20	25	225	5	87	5	1276	205	44	358	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Flpb, ped/bikes		1.00		1.00	1.00			1.00			1.00	
Frt		0.96		1.00	0.86			0.98			0.99	
Flt Protected		0.98		0.95	1.00			1.00			0.99	
Satd. Flow (prot)		1799		1686	1523			3432			3151	
Flt Permitted		0.75		0.67	1.00			0.95			0.66	
Satd. Flow (perm)		1375		1192	1523			3274			2074	
Peak-hour factor, PHF	0.83	0.83	0.83	0.69	0.69	0.69	0.94	0.94	0.94	0.82	0.82	0.82
Adj. Flow (vph)	49	24	30	326	7	126	5	1357	218	54	437	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	103	0	326	133	0	0	1580	0	0	521	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	2%	2%	7%	7%	7%	3%	3%	3%	13%	13%	13%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.6		27.2	27.2			58.8			58.8	
Effective Green, g (s)		10.6		27.2	27.2			58.8			58.8	
Actuated g/C Ratio		0.11		0.28	0.28			0.61			0.61	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		152		397	432			2005			1270	
v/s Ratio Prot				c0.10	0.09							
v/s Ratio Perm		0.07		c0.13				c0.48			0.25	
v/c Ratio		0.68		0.82	0.31			0.79			0.41	
Uniform Delay, d1		41.1		33.2	27.0			13.9			9.6	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		11.4		12.8	0.4			3.2			1.0	
Delay (s)		52.4		46.0	27.4			17.2			10.6	
Level of Service		D		D	C			B			B	
Approach Delay (s)		52.4			40.6			17.2			10.6	
Approach LOS		D			D			B			B	

Intersection Summary

HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

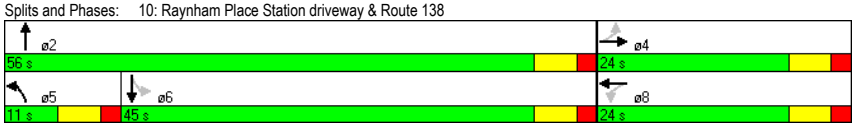
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	0	208	0	0	15	54	590	0	10	1075	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	175		0	200		0
Storage Lanes	1		0	0		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		758			664			485			2063	
Travel Time (s)		17.2			15.1			11.0			46.9	
Peak Hour Factor	0.92	0.92	0.92	0.63	0.63	0.63	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	33%	0%	0%	0%	0%	8%	6%	5%	0%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	226	0	0	24	0	60	656	0	0	1216	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		10.0	10.0		10.0	20.0		20.0	20.0	
Total Split (s)	24.0	24.0	0.0	24.0	24.0	0.0	11.0	56.0	0.0	45.0	45.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%	13.8%	70.0%	0.0%	56.3%	56.3%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		5.0	50.0		39.0	39.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	7.0	7.0										
Pedestrian Calls (#/hr)	0	0										
v/c Ratio	0.37	0.58			0.05		0.42	0.30			0.66	
Control Delay	33.0	16.1			0.2		42.9	5.5			13.7	
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	
Total Delay	33.0	16.1			0.2		42.9	5.5			13.7	
Queue Length 50th (ft)	23	23			0		23	45			183	
Queue Length 95th (ft)	60	88			0		#79	92			310	
Internal Link Dist (ft)		678			584			405			1983	
Turn Bay Length (ft)							175					
Base Capacity (vph)	321	601			655		143	2814			2196	
Starvation Cap Reductn	0	0			0		0	0			0	
Spillback Cap Reductn	0	0			0		0	0			0	
Storage Cap Reductn	0	0			0		0	0			0	
Reduced v/c Ratio	0.19	0.38			0.04		0.42	0.23			0.55	

Intersection Summary

Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 62.2	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Raynham Place Station driveway & Route 138



HCM Signalized Intersection Capacity Analysis
10: Raynham Place Station driveway & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	0	208	0	0	15	54	590	0	10	1075	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0		6.0	6.0			6.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95			0.95	
Frt	1.00	0.85			0.86		1.00	1.00			1.00	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1357	1615			1522		1703	3438			3529	
Flt Permitted	0.74	1.00			1.00		0.95	1.00			0.95	
Satd. Flow (perm)	1059	1615			1522		1703	3438			3347	
Peak-hour factor, PHF	0.92	0.92	0.92	0.63	0.63	0.63	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	62	0	226	0	0	24	60	656	0	11	1181	24
RTOR Reduction (vph)	0	137	0	0	20	0	0	0	0	0	1	0
Lane Group Flow (vph)	62	89	0	0	4	0	60	656	0	0	1215	0
Heavy Vehicles (%)	33%	0%	0%	0%	0%	8%	6%	5%	0%	0%	2%	0%
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)	9.7	9.7			9.7		2.6	42.8			34.2	
Effective Green, g (s)	9.7	9.7			9.7		2.6	42.8			34.2	
Actuated g/C Ratio	0.15	0.15			0.15		0.04	0.66			0.53	
Clearance Time (s)	6.0	6.0			6.0		6.0	6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	159	243			229		69	2281			1775	
v/s Ratio Prot		0.06			0.00		c0.04	0.19				
v/s Ratio Perm	c0.06										c0.36	
v/c Ratio	0.39	0.37			0.02		0.87	0.29			0.68	
Uniform Delay, d1	24.7	24.6			23.3		30.8	4.5			11.2	
Progression Factor	1.00	1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2	1.6	0.9			0.0		64.4	0.1			1.1	
Delay (s)	26.3	25.6			23.4		95.1	4.6			12.3	
Level of Service	C	C			C		F	A			B	
Approach Delay (s)		25.7			23.4			12.2			12.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	64.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lanes, Volumes, Timings
36: Elm Street & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

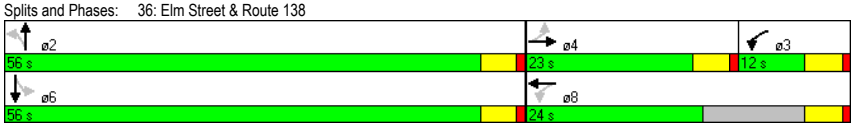
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	40	350	15	28	30	620	325	74	1149	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	160		0	0		0	0		205
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		820			1216			1195			808	
Travel Time (s)		18.6			27.6			27.2			18.4	
Peak Hour Factor	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	398	49	0	0	1071	0	0	1303	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	23.0	23.0		12.0	23.0		35.0	35.0		35.0	35.0	
Total Split (s)	23.0	23.0	0.0	12.0	24.0	0.0	56.0	56.0	0.0	56.0	56.0	0.0
Total Split (%)	25.3%	25.3%	0.0%	13.2%	26.4%	0.0%	61.5%	61.5%	0.0%	61.5%	61.5%	0.0%
Maximum Green (s)	18.0	18.0		7.0	19.0		51.0	51.0		51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	10.0	10.0			10.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
v/c Ratio		0.46		0.87	0.10			0.63			0.81	
Control Delay		46.1		51.2	22.2			14.8			20.8	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		46.1		51.2	22.2			14.8			20.8	
Queue Length 50th (ft)		43		200	20			207			305	
Queue Length 95th (ft)		69		#319	43			285			#431	
Internal Link Dist (ft)		740			1136			1115			728	
Turn Bay Length (ft)				160								
Base Capacity (vph)		318		459	554			1700			1606	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.25		0.87	0.09			0.63			0.81	

Lanes, Volumes, Timings
36: Elm Street & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 91	
Actuated Cycle Length: 91	
Offset: 36 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 36: Elm Street & Route 138



HCM Signalized Intersection Capacity Analysis
36: Elm Street & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	40	350	15	28	30	620	325	74	1149	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.91		1.00	0.90			0.95			1.00	
Flt Protected		0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1703		1770	1680			3261			3522	
Flt Permitted		0.94		0.72	1.00			0.87			0.76	
Satd. Flow (perm)		1606		1349	1680			2842			2684	
Peak-hour factor, PHF	0.75	0.75	0.75	0.88	0.88	0.88	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	13	13	53	398	17	32	33	681	357	78	1209	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	79	0	398	49	0	0	1071	0	0	1303	0
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.5		27.5	27.5			53.5			53.5	
Effective Green, g (s)		8.5		27.5	27.5			53.5			53.5	
Actuated g/C Ratio		0.09		0.30	0.30			0.59			0.59	
Clearance Time (s)		5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)		3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)		150		472	508			1671			1578	
v/s Ratio Prot				c0.13	0.03							
v/s Ratio Perm		0.05		c0.12				0.38			c0.49	
v/c Ratio		0.53		0.84	0.10			0.64			0.83	
Uniform Delay, d1		39.3		29.6	22.8			12.4			15.0	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		3.3		12.9	0.1			1.9			5.1	
Delay (s)		42.6		42.5	22.9			14.3			20.1	
Level of Service		D		D	C			B			C	
Approach Delay (s)		42.6			40.3			14.3			20.1	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM Average Control Delay	21.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	91.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

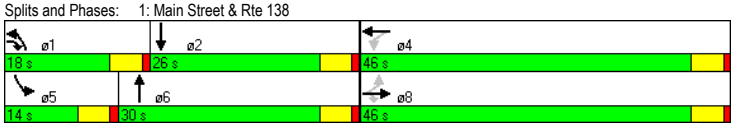
Easton

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	415	374	225	45	144	135	123	801	50	73	342	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	11	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4948			2928	
Travel Time (s)		26.1			62.7			84.3			49.9	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	466	420	253	51	317	0	134	925	0	83	471	0
Turn Type	Perm		pm+ov	Perm			Prot			Prot		
Protected Phases		8	1		4		1	6		5	2	
Permitted Phases	8		8	4								
Detector Phase	8	8	1	4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	21.0	21.0	12.0	23.0	23.0		12.0	23.0		12.0	21.0	
Total Split (s)	46.0	46.0	18.0	46.0	46.0	0.0	18.0	30.0	0.0	14.0	26.0	0.0
Total Split (%)	51.1%	51.1%	20.0%	51.1%	51.1%	0.0%	20.0%	33.3%	0.0%	15.6%	28.9%	0.0%
Maximum Green (s)	41.0	41.0	13.0	41.0	41.0		13.0	25.0		9.0	21.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)				7.0	7.0			7.0				
Flash Dont Walk (s)				8.0	8.0			8.0				
Pedestrian Calls (#/hr)				0	0			0				
v/c Ratio	1.03	0.49	0.24	0.16	0.21		0.64	0.95		0.52	0.59	
Control Delay	77.0	19.0	3.9	16.2	7.6		50.7	51.7		50.5	31.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	77.0	19.0	3.9	16.2	7.6		50.7	51.7		50.5	31.7	
Queue Length 50th (ft)	~294	162	27	16	26		73	~273		46	115	
Queue Length 95th (ft)	#474	243	52	39	50		130	#414		90	165	
Internal Link Dist (ft)		1645			3138			4868			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	452	858	1093	314	1522		260	971		178	844	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	1.03	0.49	0.23	0.16	0.21		0.52	0.95		0.47	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 87.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Rte 138



HCM Signalized Intersection Capacity Analysis
1: Main Street & Rte 138

2030 Build with Mitigation Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	415	374	225	45	144	135	123	801	50	73	342	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	11	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1626	1818	1553	1586	3054		1736	3300		1719	3305	
Flt Permitted	0.56	1.00	1.00	0.40	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	958	1818	1553	667	3054		1736	3300		1719	3305	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	466	420	253	51	164	153	134	871	54	83	389	82
RTOR Reduction (vph)	0	0	50	0	82	0	0	5	0	0	20	0
Lane Group Flow (vph)	466	420	203	51	235	0	134	920	0	83	451	0
Heavy Vehicles (%)	11%	1%	4%	10%	6%	6%	4%	5%	2%	5%	3%	2%
Turn Type	Perm		pm+ov	Perm			Prot			Prot		
Protected Phases		8	1		4		1	6		5	2	
Permitted Phases	8		8	4								
Actuated Green, G (s)	41.1	41.1	51.7	41.1	41.1		10.6	25.5		6.6	21.5	
Effective Green, g (s)	41.1	41.1	51.7	41.1	41.1		10.6	25.5		6.6	21.5	
Actuated g/C Ratio	0.47	0.47	0.59	0.47	0.47		0.12	0.29		0.07	0.24	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	446	847	998	311	1423		209	954		129	806	
v/s Ratio Prot		0.23	0.02		0.08		c0.08	c0.28		0.05	0.14	
v/s Ratio Perm	c0.49		0.11	0.08								
v/c Ratio	1.04	0.50	0.20	0.16	0.17		0.64	0.96		0.64	0.56	
Uniform Delay, d1	23.6	16.4	8.6	13.6	13.6		37.0	30.9		39.7	29.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	54.8	0.2	0.0	0.1	0.0		5.0	20.9		8.0	1.0	
Delay (s)	78.4	16.5	8.6	13.7	13.6		41.9	51.8		47.6	30.3	
Level of Service	E	B	A	B	B		D	D		D	C	
Approach Delay (s)		40.1			13.7			50.6			32.9	
Approach LOS		D			B			D			C	

Intersection Summary			
HCM Average Control Delay	39.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	88.2	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
2: Belmont St (Rt. 123) & Route 138

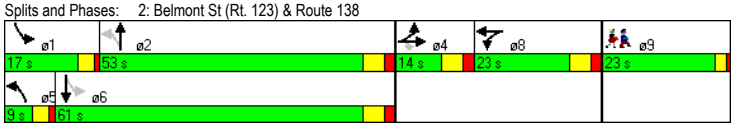
2030 Build with Mitigation Condition - AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	55	35	250	50	204	85	743	435	202	315	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	12	11	12	12	12	11	12	11	12	13
Storage Length (ft)	0		0	475		0	0		0	200		300
Storage Lanes	0		1	2		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			2550			980			853	
Travel Time (s)		5.9			38.6			14.8			12.9	
Peak Hour Factor	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	49	305	310	0	91	1267	0	220	358	0
Turn Type	Split		Perm	Split			pm+pt			pm+pt		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	10.0		8.0	10.0	
Total Split (s)	14.0	14.0	14.0	23.0	23.0	0.0	9.0	53.0	0.0	17.0	61.0	0.0
Total Split (%)	10.8%	10.8%	10.8%	17.7%	17.7%	0.0%	6.9%	40.8%	0.0%	13.1%	46.9%	0.0%
Maximum Green (s)	8.0	8.0	8.0	17.0	17.0		5.0	47.0		13.0	55.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.97	0.34	0.71	1.01		0.16	0.83		0.73	0.19	
Control Delay		139.2	22.0	64.1	87.2		12.4	34.5		46.4	14.4	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		139.2	22.0	64.1	87.2		12.4	34.5		46.4	14.4	
Queue Length 50th (ft)		92	0	128	~167		23	433		83	60	
Queue Length 95th (ft)		#153	25	161	#296		69	#715		#319	107	
Internal Link Dist (ft)		307			2470			900			773	
Turn Bay Length (ft)				475						200		
Base Capacity (vph)		110	145	430	306		580	1528		303	1903	
Starvation Cap Reductn		0	0	0	0		0	0		0	0	
Spillback Cap Reductn		0	0	0	0		0	0		0	0	
Storage Cap Reductn		0	0	0	0		0	0		0	0	
Reduced v/c Ratio		0.97	0.34	0.71	1.01		0.16	0.83		0.73	0.19	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	18%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 2: Belmont St (Rt. 123) & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St (Rt. 123) & Route 138

2030 Build with Mitigation Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	55	35	250	50	204	85	743	435	202	315	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	13	12	11	12	12	12	11	12	11	12	13
Total Lost time (s)		6.0	6.0	6.0	6.0		4.0	6.0		4.0	6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.88		1.00	0.94		1.00	0.99	
Flt Protected		0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780	1615	3286	1474		1805	3200		1662	3454	
Flt Permitted		0.99	1.00	0.95	1.00		0.54	1.00		0.07	1.00	
Satd. Flow (perm)		1780	1615	3286	1474		1022	3200		129	3454	
Peak-hour factor, PHF	0.72	0.72	0.72	0.82	0.82	0.82	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	31	76	49	305	61	249	91	799	468	220	342	16
RTOR Reduction (vph)	0	0	46	0	113	0	0	57	0	0	2	0
Lane Group Flow (vph)	0	107	3	305	197	0	91	1210	0	220	356	0
Heavy Vehicles (%)	13%	7%	0%	3%	15%	13%	0%	3%	3%	5%	4%	0%
Turn Type	Split		Perm	Split			pm+pt			pm+pt		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4				2			6		
Actuated Green, G (s)		8.0	8.0	17.0	17.0		64.2	57.4		80.0	69.2	
Effective Green, g (s)		8.0	8.0	17.0	17.0		64.2	57.4		80.0	69.2	
Actuated g/C Ratio		0.06	0.06	0.13	0.13		0.49	0.44		0.62	0.53	
Clearance Time (s)		6.0	6.0	6.0	6.0		4.0	6.0		4.0	6.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		110	99	430	193		546	1413		299	1839	
v/s Ratio Prot		c0.06		0.09	c0.13		0.01	c0.38		c0.11	0.10	
v/s Ratio Perm			0.00				0.07			0.35		
v/c Ratio		0.97	0.03	0.71	1.02		0.17	0.86		0.74	0.19	
Uniform Delay, d1		60.9	57.4	54.1	56.5		17.5	32.6		34.3	15.9	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.20	0.89	
Incremental Delay, d2		76.7	0.1	5.3	70.3		0.1	6.9		8.5	0.2	
Delay (s)		137.6	57.5	59.4	126.8		17.7	39.5		49.6	14.4	
Level of Service		F	E	E	F		B	D		D	B	
Approach Delay (s)		112.4			93.4			38.0			27.8	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM Average Control Delay	52.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
3: Elm St & Route 138

2030 Build with Mitigation Condition - AM Peak Hour

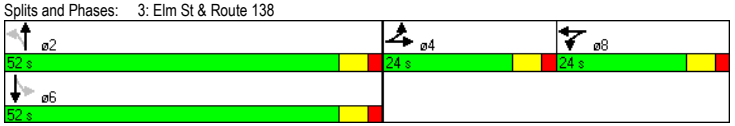
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	31	35	10	15	31	30	1370	15	0	438	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	11	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		300	0		300
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2352			2953			2928			3218	
Travel Time (s)		53.5			67.1			66.5			73.1	
Peak Hour Factor	0.84	0.84	0.84	0.68	0.68	0.68	0.91	0.91	0.91	0.89	0.89	0.89
Heavy Vehicles (%)	0%	3%	3%	0%	15%	4%	4%	3%	0%	0%	3%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	0	0	83	0	0	1554	0	0	553	0
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	24.0	0.0	24.0	24.0	0.0	52.0	52.0	0.0	52.0	52.0	0.0
Total Split (%)	24.0%	24.0%	0.0%	24.0%	24.0%	0.0%	52.0%	52.0%	0.0%	52.0%	52.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		46.0	46.0		46.0	46.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.77			0.46			0.90			0.30	
Control Delay		51.3			46.6			29.7			13.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		51.3			46.6			29.7			13.3	
Queue Length 50th (ft)		153			46			435			93	
Queue Length 95th (ft)		#247			68			#664			139	
Internal Link Dist (ft)		2272			2873			2848			3138	
Turn Bay Length (ft)												
Base Capacity (vph)		406			329			1729			1829	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.68			0.25			0.90			0.30	

Lanes, Volumes, Timings
3: Elm St & Route 138

2030 Build with Mitigation Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 88.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 3: Elm St & Route 138



HCM Signalized Intersection Capacity Analysis
3: Elm St & Route 138

2030 Build with Mitigation Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	31	35	10	15	31	30	1370	15	0	438	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.98			0.93			1.00			0.98	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1960			1586			3496			3432	
Flt Permitted		0.97			0.99			0.93			1.00	
Satd. Flow (perm)		1960			1586			3259			3432	
Peak-hour factor, PHF	0.84	0.84	0.84	0.68	0.68	0.68	0.91	0.91	0.91	0.89	0.89	0.89
Adj. Flow (vph)	199	37	42	15	22	46	33	1505	16	0	492	61
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	278	0	0	83	0	0	1554	0	0	544	0
Heavy Vehicles (%)	0%	3%	3%	0%	15%	4%	4%	3%	0%	0%	3%	7%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		16.1			8.5			46.7			46.7	
Effective Green, g (s)		16.1			8.5			46.7			46.7	
Actuated g/C Ratio		0.18			0.10			0.52			0.52	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		353			151			1704			1795	
v/s Ratio Prot		c0.14			c0.05						0.16	
v/s Ratio Perm								c0.48				
v/c Ratio		0.79			0.55			0.91			0.30	
Uniform Delay, d1		35.0			38.6			19.4			12.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		11.0			4.1			8.9			0.1	
Delay (s)		46.0			42.6			28.3			12.2	
Level of Service		D			D			C			B	
Approach Delay (s)		46.0			42.6			28.3			12.2	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	89.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	0	99	5	0	5	389	999	0	0	353	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	10	11	11	12	11	11
Storage Length (ft)	0		100	0		0	350		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			332			1623			2417	
Travel Time (s)		14.4			7.5			36.9			54.9	
Peak Hour Factor	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	121	0	16	0	0	1633	0	0	608	0
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Detector Phase	4	4	1	8	8		1	6		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	10.0		10.0	10.0	
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	21.0		21.0	21.0	
Total Split (s)	26.0	26.0	19.0	26.0	26.0	0.0	19.0	74.0	0.0	55.0	55.0	0.0
Total Split (%)	21.3%	21.3%	15.6%	21.3%	21.3%	0.0%	15.6%	60.7%	0.0%	45.1%	45.1%	0.0%
Maximum Green (s)	21.0	21.0	14.0	21.0	21.0		14.0	68.0		49.0	49.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag			Lead				Lead			Lag	Lag	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None		None	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.69	0.26		0.07			1.04			0.31	
Control Delay		60.4	7.4		27.9			48.9			10.6	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		60.4	7.4		27.9			48.9			10.6	
Queue Length 50th (ft)		70	0		4			~206			67	
Queue Length 95th (ft)		141	36		17			#933			170	
Internal Link Dist (ft)		555			252			1543			2337	
Turn Bay Length (ft)			100									
Base Capacity (vph)		297	586		369			1574			1942	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.42	0.21		0.04			1.04			0.31	

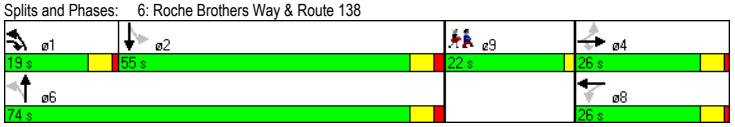
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	11
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Lanes, Volumes, Timings
6: Roche Brothers Way & Route 138

2030 Build with Mitigation Condition - AM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 97.7	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 6: Roche Brothers Way & Route 138



HCM Signalized Intersection Capacity Analysis
6: Roche Brothers Way & Route 138

2030 Build with Mitigation Condition - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	0	99	5	0	5	389	999	0	0	353	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	10	11	11	12	11	11
Total Lost time (s)		5.0	5.0		5.0			6.0			6.0	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frt		1.00	0.85		0.93			1.00			0.95	
Flt Protected		0.95	1.00		0.98			0.99			1.00	
Satd. Flow (prot)		1736	1524		1911			3341			3181	
Flt Permitted		0.75	1.00		0.85			0.62			1.00	
Satd. Flow (perm)		1365	1524		1669			2112			3181	
Peak-hour factor, PHF	0.82	0.82	0.82	0.63	0.63	0.63	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	126	0	121	8	0	8	458	1175	0	0	420	188
RTOR Reduction (vph)	0	0	98	0	7	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	126	23	0	9	0	0	1633	0	0	579	0
Heavy Vehicles (%)	4%	0%	6%	2%	0%	3%	3%	3%	0%	0%	4%	6%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		13.1	19.2		13.1			69.9			58.8	
Effective Green, g (s)		13.1	19.2		13.1			69.9			58.8	
Actuated g/C Ratio		0.13	0.19		0.13			0.70			0.59	
Clearance Time (s)		5.0	5.0		5.0			6.0			6.0	
Vehicle Extension (s)		2.0	2.0		2.0			2.0			2.0	
Lane Grp Cap (vph)		180	372		220			1564			1886	
v/s Ratio Prot			0.00					c0.06			0.18	
v/s Ratio Perm		c0.09	0.01		0.01			c0.67				
v/c Ratio		0.70	0.06		0.04			1.04			0.31	
Uniform Delay, d1		41.2	32.7		37.6			14.6			10.1	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		9.2	0.0		0.0			35.2			0.0	
Delay (s)		50.4	32.7		37.6			49.9			10.1	
Level of Service		D	C		D			D			B	
Approach Delay (s)		41.7			37.6			49.9			10.1	
Approach LOS		D			D			D			B	

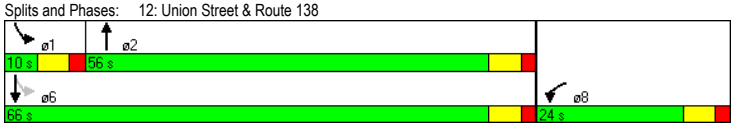
Intersection Summary			
HCM Average Control Delay	39.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	99.2	Sum of lost time (s)	16.2
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	65	121	1271	257	80	412
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Right Turn on Red		Yes		No		
Link Speed (mph)	30		30			30
Link Distance (ft)	1092		3218			1623
Travel Time (s)	24.8		73.1			36.9
Peak Hour Factor	0.88	0.88	0.89	0.89	0.81	0.81
Heavy Vehicles (%)	0%	5%	3%	2%	3%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	212	0	1717	0	0	608
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	24.0		20.0		10.0	20.0
Total Split (s)	24.0	0.0	56.0	0.0	10.0	66.0
Total Split (%)	26.7%	0.0%	62.2%	0.0%	11.1%	73.3%
Maximum Green (s)	18.0		50.0		4.0	60.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	4.0	6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Min		None	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	8.0					
Pedestrian Calls (#/hr)	0					
v/c Ratio	0.64		0.74			0.88dl
Control Delay	25.8		10.6			7.3
Queue Delay	0.0		0.0			0.0
Total Delay	25.8		10.6			7.3
Queue Length 50th (ft)	51		213			54
Queue Length 95th (ft)	110		375			94
Internal Link Dist (ft)	1012		3138			1543
Turn Bay Length (ft)						
Base Capacity (vph)	487		2416			1646
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.44		0.71			0.37

Intersection Summary	
Area Type:	Other
Cycle Length: 90	

Actuated Cycle Length: 71.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 12: Union Street & Route 138



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	65	121	1271	257	80	412
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0			6.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.91		0.97			1.00
Flt Protected	0.98		1.00			0.99
Satd. Flow (prot)	1650		3422			3421
Flt Permitted	0.98		1.00			0.57
Satd. Flow (perm)	1650		3422			1951
Peak-hour factor, PHF	0.88	0.88	0.89	0.89	0.81	0.81
Adj. Flow (vph)	74	138	1428	289	99	509
RTOR Reduction (vph)	79	0	0	0	0	0
Lane Group Flow (vph)	133	0	1717	0	0	608
Heavy Vehicles (%)	0%	5%	3%	2%	3%	5%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	10.8		48.7			48.7
Effective Green, g (s)	10.8		48.7			48.7
Actuated g/C Ratio	0.15		0.68			0.68
Clearance Time (s)	6.0		6.0			6.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	249		2331			1329
v/s Ratio Prot	c0.08		c0.50			
v/s Ratio Perm						0.31
v/c Ratio	0.53		0.74			0.88dl
Uniform Delay, d1	28.0		7.3			5.3
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	2.2		1.2			0.3
Delay (s)	30.2		8.5			5.5
Level of Service	C		A			A
Approach Delay (s)	30.2		8.5			5.5
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	71.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	198	274	105	366	88	295	493	85	150	684	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	11	11	11	12	12	11	12	11	11
Storage Length (ft)	150		230	90		140	140		140	115		150
Storage Lanes	1		1	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			35			40			40	
Link Distance (ft)		1725			3218			4950			2928	
Travel Time (s)		26.1			62.7			84.4			49.9	
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	223	241	334	124	535	0	328	642	0	169	1105	0
Turn Type	Perm		pm+ov	Perm			Prot			Prot		
Protected Phases		8	1		4		1	6		5	2	
Permitted Phases	8		8	4								
Detector Phase	8	8	1	4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0	12.0	21.0	21.0		12.0	21.0		12.0	20.0	
Total Split (s)	34.0	34.0	21.0	34.0	34.0	0.0	21.0	35.0	0.0	21.0	35.0	0.0
Total Split (%)	37.8%	37.8%	23.3%	37.8%	37.8%	0.0%	23.3%	38.9%	0.0%	23.3%	38.9%	0.0%
Maximum Green (s)	29.0	29.0	16.0	29.0	29.0		16.0	30.0		16.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)				5.0	5.0			5.0				
Flash Dont Walk (s)				11.0	11.0			11.0				
Pedestrian Calls (#/hr)				0	0			0				
v/c Ratio	1.05	0.41	0.37	0.41	0.49		1.04	0.50		0.70	0.97	
Control Delay	109.4	26.5	10.8	28.9	24.6		100.2	23.4		51.7	49.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	109.4	26.5	10.8	28.9	24.6		100.2	23.4		51.7	49.7	
Queue Length 50th (ft)	~140	106	83	55	118		~204	142		92	303	
Queue Length 95th (ft)	#244	154	121	100	155		#367	205		152	#439	
Internal Link Dist (ft)		1645			3138			4870			2848	
Turn Bay Length (ft)	150		230	90			140			115		
Base Capacity (vph)	212	586	901	302	1102		315	1272		309	1135	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	1.05	0.41	0.37	0.41	0.49		1.04	0.50		0.55	0.97	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Main Street & Rte 138

HCM Signalized Intersection Capacity Analysis
1: Main Street & Rte 138

2030 Build with Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	198	274	105	366	88	295	493	85	150	684	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	11	12	12	11	12	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1818	1583	1728	3348		1770	3386		1736	3243	
Flt Permitted	0.35	1.00	1.00	0.52	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	660	1818	1583	938	3348		1770	3386		1736	3243	
Peak-hour factor, PHF	0.82	0.82	0.82	0.85	0.85	0.85	0.90	0.90	0.90	0.89	0.89	0.89
Adj. Flow (vph)	223	241	334	124	431	104	328	548	94	169	769	336
RTOR Reduction (vph)	0	0	25	0	23	0	0	14	0	0	55	0
Lane Group Flow (vph)	223	241	310	124	512	0	328	628	0	169	1050	0
Heavy Vehicles (%)	2%	1%	2%	1%	1%	2%	2%	5%	0%	4%	3%	2%
Turn Type	Perm		pm+ov	Perm			Prot			Prot		
Protected Phases		8	1		4		1	6		5	2	
Permitted Phases	8		8	4								
Actuated Green, G (s)	29.0	29.0	45.0	29.0	29.0		16.0	33.4		12.6	30.0	
Effective Green, g (s)	29.0	29.0	45.0	29.0	29.0		16.0	33.4		12.6	30.0	
Actuated g/C Ratio	0.32	0.32	0.50	0.32	0.32		0.18	0.37		0.14	0.33	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	4.0		2.0	4.0	
Lane Grp Cap (vph)	213	586	879	302	1079		315	1257		243	1081	
v/s Ratio Prot		0.13	0.06		0.15		c0.19	c0.19		0.10	c0.32	
v/s Ratio Perm	c0.34		0.13	0.13								
v/c Ratio	1.05	0.41	0.35	0.41	0.47		1.04	0.50		0.70	0.97	
Uniform Delay, d1	30.5	23.8	13.7	23.8	24.4		37.0	21.8		36.9	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	74.5	0.2	0.1	0.3	0.1		61.9	0.4		6.8	20.8	
Delay (s)	105.0	24.0	13.7	24.2	24.5		98.9	22.3		43.7	50.4	
Level of Service	F	C	B	C	C		F	C		D	D	
Approach Delay (s)		42.4			24.5			48.2			49.5	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM Average Control Delay	43.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
2: Belmont St (Rt. 123) & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

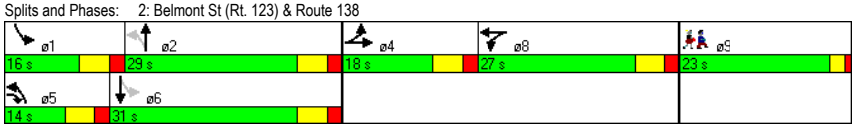
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	125	275	500	150	174	230	407	300	243	687	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	13	12	11	13	12	11	12	12	11	12	13
Storage Length (ft)	0		0	475		0	0		0	200		300
Storage Lanes	0		1	2		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			2550			908			849	
Travel Time (s)		5.9			38.6			13.8			12.9	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	220	309	568	368	0	247	761	0	267	824	0
Turn Type	Split		Over	Split			pm+pt			pm+pt		
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases							2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	18.0	18.0	14.0	27.0	27.0	0.0	14.0	29.0	0.0	16.0	31.0	0.0
Total Split (%)	15.9%	15.9%	12.4%	23.9%	23.9%	0.0%	12.4%	25.7%	0.0%	14.2%	27.4%	0.0%
Maximum Green (s)	12.0	12.0	8.0	21.0	21.0		8.0	23.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.07	0.56	0.91	1.00		0.63	0.83		0.64	0.87	
Control Delay		131.9	9.9	65.5	87.2		33.2	41.4		31.1	39.2	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		131.9	9.9	65.5	87.2		33.2	41.4		31.1	39.2	
Queue Length 50th (ft)		~178	0	210	240		98	216		85	256	
Queue Length 95th (ft)		#328	#107	#298	#421		#356	#367		m#276	m#437	
Internal Link Dist (ft)		307			2470			828			769	
Turn Bay Length (ft)				475						200		
Base Capacity (vph)		205	549	623	369		393	916		417	944	
Starvation Cap Reductn		0	0	0	0		0	0		0	0	
Spillback Cap Reductn		0	0	0	0		0	0		0	0	
Storage Cap Reductn		0	0	0	0		0	0		0	0	
Reduced v/c Ratio		1.07	0.56	0.91	1.00		0.63	0.83		0.64	0.87	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	23.0
Total Split (s)	23.0
Total Split (%)	20%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary	
Area Type:	Other
Cycle Length: 113	
Actuated Cycle Length: 113	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Belmont St (Rt. 123) & Route 138



HCM Signalized Intersection Capacity Analysis
2: Belmont St (Rt. 123) & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	125	275	500	150	174	230	407	300	243	687	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	13	12	11	13	12	11	12	12	11	12	13
Total Lost time (s)		6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00	1.00	0.97	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.92		1.00	0.94		1.00	0.99	
Flt Protected		0.98	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1928	1615	3351	1786		1745	3290		1662	3469	
Flt Permitted		0.98	1.00	0.95	1.00		0.16	1.00		0.14	1.00	
Satd. Flow (perm)		1928	1615	3351	1786		292	3290		248	3469	
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.93	0.93	0.93	0.91	0.91	0.91
Adj. Flow (vph)	80	140	309	568	170	198	247	438	323	267	755	69
RTOR Reduction (vph)	0	0	252	0	37	0	0	116	0	0	6	0
Lane Group Flow (vph)	0	220	57	568	331	0	247	645	0	267	818	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	4%	1%	5%	3%	0%
Turn Type	Split		Over	Split			pm+pt			pm+pt		
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		12.0	20.8	21.0	21.0		46.0	25.2		52.0	28.2	
Effective Green, g (s)		12.0	20.8	21.0	21.0		46.0	25.2		52.0	28.2	
Actuated g/C Ratio		0.11	0.18	0.19	0.19		0.41	0.22		0.46	0.25	
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		205	297	623	332		386	734		412	866	
v/s Ratio Prot		c0.11	0.04	0.17	c0.19		0.12	0.20		c0.14	c0.24	
v/s Ratio Perm							0.14			0.16		
v/c Ratio		1.07	0.19	0.91	1.00		0.64	0.88		0.65	0.94	
Uniform Delay, d1		50.5	39.0	45.1	46.0		25.0	42.4		23.7	41.6	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.15	0.82	
Incremental Delay, d2		83.6	0.3	17.7	47.9		3.5	14.1		1.9	12.7	
Delay (s)		134.1	39.3	62.8	93.9		28.5	56.6		29.1	46.7	
Level of Service		F	D	E	F		C	E		C	D	
Approach Delay (s)		78.7			75.0			49.7			42.4	
Approach LOS		E			E			D			D	

Intersection Summary				
HCM Average Control Delay	58.4	HCM Level of Service	E	
HCM Volume to Capacity ratio	0.93			
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	31.0	
Intersection Capacity Utilization	83.4%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lanes, Volumes, Timings
3: Elm St & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

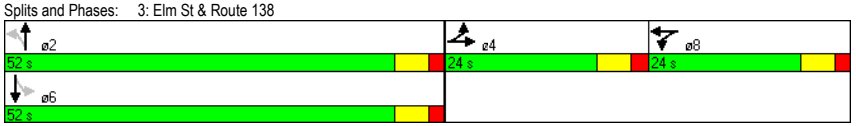
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	15	35	25	50	36	65	708	30	22	1113	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	11	12	12	12	12	12	11	12
Storage Length (ft)	0		0	0		0	0		300	0		300
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2352			2953			2928			3218	
Travel Time (s)		53.5			67.1			66.5			73.1	
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.88	0.88	0.88	0.85	0.85	0.85
Heavy Vehicles (%)	2%	0%	4%	0%	0%	3%	2%	3%	4%	0%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	157	0	0	129	0	0	913	0	0	1611	0
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	24.0	0.0	24.0	24.0	0.0	52.0	52.0	0.0	52.0	52.0	0.0
Total Split (%)	24.0%	24.0%	0.0%	24.0%	24.0%	0.0%	52.0%	52.0%	0.0%	52.0%	52.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		46.0	46.0		46.0	46.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
v/c Ratio		0.59			0.56			0.88			0.98	
Control Delay		45.6			46.4			32.6			41.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		45.6			46.4			32.6			41.8	
Queue Length 50th (ft)		83			68			225			437	
Queue Length 95th (ft)		144			124			#428			#685	
Internal Link Dist (ft)		2272			2873			2848			3138	
Turn Bay Length (ft)												
Base Capacity (vph)		386			347			1035			1636	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.37			0.88			0.98	

Lanes, Volumes, Timings
3: Elm St & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 89.7	
Natural Cycle: 110	
Control Type: Semi Act-Uncoord	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 3: Elm St & Route 138



HCM Signalized Intersection Capacity Analysis
3: Elm St & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	15	35	25	50	36	65	708	30	22	1113	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	15	12	12	11	12	12	12	12	12	11	12
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.96			0.96			0.99			0.97	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1911			1720			3473			3337	
Flt Permitted		0.97			0.99			0.57			0.93	
Satd. Flow (perm)		1911			1720			1972			3093	
Peak-hour factor, PHF	0.85	0.85	0.85	0.86	0.86	0.86	0.88	0.88	0.88	0.85	0.85	0.85
Adj. Flow (vph)	98	18	41	29	58	42	74	805	34	26	1309	276
RTOR Reduction (vph)	0	0	0	0	0	0	0	2	0	0	15	0
Lane Group Flow (vph)	0	157	0	0	129	0	0	911	0	0	1596	0
Heavy Vehicles (%)	2%	0%	4%	0%	0%	3%	2%	3%	4%	0%	2%	1%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		12.6			12.0			47.0			47.0	
Effective Green, g (s)		12.6			12.0			47.0			47.0	
Actuated g/C Ratio		0.14			0.13			0.52			0.52	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		269			230			1034			1622	
v/s Ratio Prot		c0.08			c0.08							
v/s Ratio Perm								0.46			c0.52	
v/c Ratio		0.58			0.56			0.88			0.98	
Uniform Delay, d1		36.0			36.3			18.8			20.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.2			3.1			8.9			18.5	
Delay (s)		39.3			39.4			27.7			39.4	
Level of Service		D			D			C			D	
Approach Delay (s)		39.3			39.4			27.7			39.4	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	35.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	89.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	0	492	0	0	0	235	492	5	5	839	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	12	11	11	11	12	12	12
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			332			1623			2417	
Travel Time (s)		14.4			7.5			36.9			54.9	
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30
Peak Hour Factor	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	547	0	0	0	0	893	0	0	1114	0
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Detector Phase	4	4	1	8	8		1	6		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		10.0	10.0	
Minimum Split (s)	21.0	21.0	11.0	21.0	21.0		11.0	22.0		22.0	22.0	
Total Split (s)	27.0	27.0	19.0	27.0	27.0	0.0	19.0	73.0	0.0	54.0	54.0	0.0
Total Split (%)	22.1%	22.1%	15.6%	22.1%	22.1%	0.0%	15.6%	59.8%	0.0%	44.3%	44.3%	0.0%
Maximum Green (s)	22.0	22.0	14.0	22.0	22.0		14.0	67.0		48.0	48.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	6.0	4.0	6.0	6.0	4.0
Lead/Lag			Lead				Lead			Lag	Lag	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.63	0.78					1.06dl			0.77	
Control Delay		44.3	18.4					15.4			24.9	
Queue Delay		0.0	0.0					0.0			0.0	
Total Delay		44.3	18.4					15.4			24.9	
Queue Length 50th (ft)		79	67					104			216	
Queue Length 95th (ft)		#246	284					238			508	
Internal Link Dist (ft)		555			252			1543			2337	
Turn Bay Length (ft)			100									
Base Capacity (vph)		393	799					1605			2038	
Starvation Cap Reductn		0	0					0			0	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	

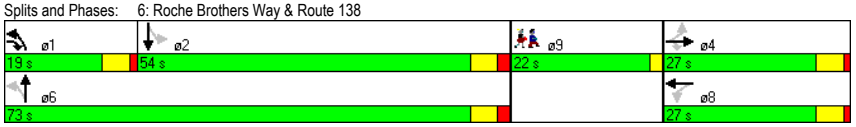
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	11
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.47	0.68					0.56			0.55	

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 82.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 6: Roche Brothers Way & Route 138



Lane Group	ø9
Reduced v/c Ratio	

Intersection Summary

HCM Signalized Intersection Capacity Analysis
6: Roche Brothers Way & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	0	492	0	0	0	235	492	5	5	839	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	12	11	11	11	12	12	12
Total Lost time (s)		5.0	5.0					6.0			6.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.96					1.00			0.99	
Flpb, ped/bikes		0.96	1.00					1.00			1.00	
Frt		1.00	0.85					1.00			0.98	
Flt Protected		0.95	1.00					0.98			1.00	
Satd. Flow (prot)		1740	1484					3329			3431	
Flt Permitted		0.76	1.00					0.52			0.95	
Satd. Flow (perm)		1387	1484					1768			3260	
Peak-hour factor, PHF	0.90	0.90	0.90	0.25	0.25	0.25	0.82	0.82	0.82	0.90	0.90	0.90
Adj. Flow (vph)	183	0	547	0	0	0	287	600	6	6	932	176
RTOR Reduction (vph)	0	0	239	0	0	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	183	308	0	0	0	0	893	0	0	1102	0
Confl. Peds. (#/hr)	25		50	15		25	10		25	40		30
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	4%	0%	0%	2%	1%
Turn Type	Perm		pm+ov	Perm			pm+pt			Perm		
Protected Phases		4	1		8		1	6			2	
Permitted Phases	4		4	8			6			2		
Actuated Green, G (s)		17.5	25.9					50.3			36.9	
Effective Green, g (s)		17.5	25.9					50.3			36.9	
Actuated g/C Ratio		0.21	0.31					0.60			0.44	
Clearance Time (s)		5.0	5.0					6.0			6.0	
Vehicle Extension (s)		3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)		291	549					1222			1441	
v/s Ratio Prot			c0.06					c0.07				
v/s Ratio Perm		0.13	0.15					c0.37			0.34	
v/c Ratio		0.63	0.56					1.06dl			0.76	
Uniform Delay, d1		30.0	24.0					11.8			19.6	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		4.2	1.3					2.3			2.5	
Delay (s)		34.3	25.4					14.1			22.1	
Level of Service		C	C					B			C	
Approach Delay (s)		27.6			0.0			14.1			22.1	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	83.5	Sum of lost time (s)	15.7
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lanes, Volumes, Timings
12: Union Street & Route 138

2030 Build with Mitigation Condition - PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	186	131	627	171	158	1203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	12	10	11
Storage Length (ft)	0	0		0	120	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25	25		25	25	
Right Turn on Red		No		No		
Link Speed (mph)	30		30			30
Link Distance (ft)	1092		3218			1623
Travel Time (s)	24.8		73.1			36.9
Peak Hour Factor	0.80	0.80	0.84	0.84	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	3%	1%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	396	0	950	0	0	1480
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	24.0		20.0		10.0	20.0
Total Split (s)	33.0	0.0	51.0	0.0	26.0	77.0
Total Split (%)	30.0%	0.0%	46.4%	0.0%	23.6%	70.0%
Maximum Green (s)	28.0		46.0		21.0	72.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0	4.0	5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	Min		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	8.0					
Pedestrian Calls (#/hr)	0					
v/c Ratio	0.95		0.49			1.05
Control Delay	73.3		15.6			58.9
Queue Delay	0.0		0.0			0.0
Total Delay	73.3		15.6			58.9
Queue Length 50th (ft)	274		203			~360
Queue Length 95th (ft)	#372		231			#557
Internal Link Dist (ft)	1012		3138			1543
Turn Bay Length (ft)						
Base Capacity (vph)	430		1953			1403
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.92		0.49			1.05

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 109.3	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: Union Street & Route 138

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	186	131	627	171	158	1203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	10	11
Total Lost time (s)	5.0		5.0			5.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.94		0.97			1.00
Flt Protected	0.97		1.00			0.99
Satd. Flow (prot)	1678		3471			3376
Flt Permitted	0.97		1.00			0.60
Satd. Flow (perm)	1678		3471			2027
Peak-hour factor, PHF	0.80	0.80	0.84	0.84	0.92	0.92
Adj. Flow (vph)	232	164	746	204	172	1308
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	396	0	950	0	0	1480
Heavy Vehicles (%)	0%	1%	0%	3%	1%	3%
Turn Type					pm+pt	
Protected Phases	8		2		1	6
Permitted Phases					6	
Actuated Green, G (s)	27.3		61.5			72.0
Effective Green, g (s)	27.3		61.5			72.0
Actuated g/C Ratio	0.25		0.56			0.66
Clearance Time (s)	5.0		5.0			5.0
Vehicle Extension (s)	3.0		3.0			3.0
Lane Grp Cap (vph)	419		1953			1403
v/s Ratio Prot	c0.24		0.27			c0.05
v/s Ratio Perm						c0.64
v/c Ratio	0.95		0.49			1.05
Uniform Delay, d1	40.3		14.4			18.6
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	30.1		0.2			39.9
Delay (s)	70.4		14.6			58.6
Level of Service	E		B			E
Approach Delay (s)	70.4		14.6			58.6
Approach LOS	E		B			E

Intersection Summary			
HCM Average Control Delay	45.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	109.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Appendix 4.1-J

Grade Crossing Analysis

VHB *Vanasse Hangen Brustlin, Inc.*

Project	SCR	10111
Calculated by	A. Soupharath	April 14, 2009
Checked by	MPR	
Location	Various	

Based on XX% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure

				Growth Factor	Design 2030 Volume	Seconds /Hour	Veh /Sec	Train Speed (MPH)	Train Speed (FPS)	Train Length	seconds to cross	Gate Closed (seconds)	clearing Vehicles	Vehicles Queued	Average Delay	Queue Length (ft)
Stoughton																
Brock Street	**NB**	Daily	1875	1.09	2,045											
MP 4.30		AM	212	1.09	231	3600	0.06	35	51	765	15	150	4	5.6	80.6	150
		PM	218	1.09	238	3600	0.07	35	51	765	15	150	4	5.9	80.9	150
													-	-		
	SB	Daily	1418	1.09	1,547								-	-		
		AM	92	1.09	101	3600	0.03	35	51	765	15	150	4	0.2	75.2	25
		PM	160	1.09	174	3600	0.05	35	51	765	15	150	4	3.3	78.3	100
													-	-		
Plain Street	**EB**	Daily	3457	1.10	3,804								-	-		
MP 4.60		AM	337	1.10	371	3600	0.10	45	66	765	12	60	-	6.2	36.2	175
		PM	314	1.10	345	3600	0.10	45	66	765	12	60	-	5.8	35.8	150
													-	-		
	WB	Daily	3815	1.10	4,199								-	-		
		AM	228	1.10	251	3600	0.07	45	66	765	12	60	-	4.2	34.2	125
		PM	463	1.10	509	3600	0.14	45	66	765	12	60	-	8.5	38.5	225
													-	-		
Morton Street		Daily	1522	1.06	1,616								-	-		
MP 5.20		AM	120	1.06	127	3600	0.04	60	88	765	9	60	-	2.1	32.1	75
		PM	170	1.06	181	3600	0.05	60	88	765	9	60	-	3.0	33.0	100
													-	-		
Easton													-	-		
													-	-		
Elm Street	**nb**	Daily	2092	1.07	2,248								-	-		
MP 7.60		AM	174	1.07	174	3600	0.05	45	66	765	12	60	-	2.9	32.9	75
		PM	154	1.07	122	3600	0.03	45	66	765	12	60	-	2.0	32.0	75
													-	-		
	sb	Daily	2484	1.07	2,669								-	-		
		AM	168	1.07	98	3600	0.03	45	66	765	12	60	-	1.6	31.6	50
		PM	239	1.07	293	3600	0.08	45	66	765	12	60	-	4.9	34.9	125
													-	-		

VHB *Vanasse Hangen Brustlin, Inc.*

Project	SCR	10111
Calculated by	A. Soupharath	April 14, 2009
Checked by	MPR	
Location	Various	

Based on XX% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure

				Growth Factor	Design 2030 Volume	Seconds /Hour	Veh /Sec	Train Speed (MPH)	Train Speed (FPS)	Train Length	seconds to cross	Gate Closed (seconds)	clearing Vehicles	Vehicles Queued	Average Delay	Queue Length (ft)
Oliver Street		Daily	978	1.06	1,039								-	-		
MP 7.80		AM	76	1.06	81	3600	0.02	45	66	765	12	150	4	(0.6)	74.4	(25)
		PM	96	1.06	102	3600	0.03	45	66	765	12	150	4	0.2	75.2	25
													-	-		
Easton DPW	**No volumes available, crossing closed/gated…address qualitative**												-	-		
MP 8.65		AM	0	1.04	-	3600	0.00	45	66	765	12	60	-	-	30.0	-
		PM	0	1.04	-	3600	0.00	45	66	765	12	60	-	-	30.0	-
													-	-		
Gary Lane	**No volumes available, crossing closed/gated…address qualitative**												-	-		
MP 9.15		AM	0	1.04	-	3600	0.00	45	66	765	12	60	-	-	30.0	-
		PM	0	1.04	-	3600	0.00	45	66	765	12	60	-	-	30.0	-
													-	-		
Short Street	**NB**	Daily	2152	1.09	2,347								-	-		
MP 9.55		AM	136	1.09	148	3600	0.04	45	66	765	12	60	-	2.5	32.5	75
		PM	218	1.09	238	3600	0.07	45	66	765	12	60	-	4.0	34.0	100
													-	-		
	SB	Daily	2179	1.09	2,377								-	-		
		AM	201	1.09	219	3600	0.06	45	66	765	12	60	-	3.7	33.7	100
		PM	165	1.09	180	3600	0.05	45	66	765	12	60	-	3.0	33.0	75
													-	-		
Depot Street/123	**EB**	Daily	9603	1.07	10,319								-	-		
MP 10.00		AM	1011	1.07	1,086	3600	0.30	45	66	765	12	60	-	18.1	48.1	475
		PM	617	1.07	663	3600	0.18	45	66	765	12	60	-	11.1	41.1	300
													-	-		
	WB	Daily	8723	1.07	9,373								-	-		
		AM	446	1.07	479	3600	0.13	45	66	765	12	60	-	8.0	38.0	200
		PM	824	1.07	886	3600	0.25	45	66	765	12	60	-	14.8	44.8	375
													-	-		
Purchase Street	**NB**	Daily	1103	1.08	1,193								-	-		
MP 10.20		AM	92	1.08	100	3600	0.03	45	66	765	12	60	-	1.7	31.7	50
		PM	101	1.08	109	3600	0.03	45	66	765	12	60	-	1.8	31.8	50
													-	-		
	SB	Daily	1158	1.08	1,251								-	-		
		AM	98	1.08	106	3600	0.03	45	66	765	12	60	-	1.8	31.8	50
		PM	128	1.08	138	3600	0.04	45	66	765	12	60	-	2.3	32.3	75

VHB *Vanasse Hangen Brustlin, Inc.*

Project	SCR	10111	
Calculated by	A. Soupharath	April 14, 2009	Based on XX% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure
Checked by	MPR		
Location	Various		

				Growth Factor	Design 2030 Volume	Seconds /Hour	Veh /Sec	Train Speed (MPH)	Train Speed (FPS)	Train Length	seconds to cross	Gate Closed (seconds)	clearing Vehicles	Vehicles Queued	Average Delay	Queue Length (ft)
													-	-		
Prospect Street	**NB**	Daily	951	1.08	1,031								-	-		
MP 10.90		AM	82	1.08	88	3600	0.02	45	66	765	12	60	-	1.5	31.5	50
		PM	74	1.08	81	3600	0.02	45	66	765	12	60	-	1.3	31.3	50
													-	-		
	SB	Daily	1049	1.08	1,137								-	-		
		AM	65	1.08	71	3600	0.02	45	66	765	12	60	-	1.2	31.2	50
		PM	112	1.08	121	3600	0.03	45	66	765	12	60	-	2.0	32.0	75
													-	-		
Foundry Street (R	**EB**	Daily	5984	1.08	6,468								-	-		
MP 11.80		AM	489	1.08	522	3600	0.14	45	66	765	12	60	-	8.7	38.7	225
		PM	543	1.08	415	3600	0.12	45	66	765	12	60	-	6.9	36.9	175
													-	-		
	WB	Daily	5859	1.08	6,333								-	-		
		AM	359	1.08	571	3600	0.16	45	66	765	12	60	-	9.5	39.5	250
		PM	580	1.08	633	3600	0.18	45	66	765	12	60	-	10.5	40.5	275
													-	-		
Raynham													-	-		
													-	-		
Elm Street	**EB**	Daily			1,343								-	-		
MP 15.40		AM	0	1.04	98	3600	0.03	45	66	765	12	60	-	1.6	31.6	50
		PM	0	1.04	65	3600	0.02	45	66	765	12	60	-	1.1	31.1	50
													-	-		
	WB	Daily			553								-	-		
		AM	0	1.04	40	3600	0.01	45	66	765	12	60	-	0.7	30.7	25
		PM	0	1.04	65	3600	0.02	45	66	765	12	60	-	1.1	31.1	50
													-	-		
Carver Street	**EB**	Daily			4,583								-	-		
MP 15.80		AM	0	1.04	333	3600	0.09	45	66	765	12	60	-	5.6	35.6	150
		PM	0	1.04	366	3600	0.10	45	66	765	12	60	-	6.1	36.1	175
													-	-		
	WB	Daily			2,213								-	-		
		AM	0	1.04	161	3600	0.04	45	66	765	12	60	-	2.7	32.7	75
		PM	0	1.04	387	3600	0.11	45	66	765	12	60	-	6.5	36.5	175

VHB *Vanasse Hangen Brustlin, Inc.*

Project	SCR	10111
Calculated by	A. Soupharath	April 14, 2009
Checked by	MPR	
Location	Various	

Based on XX% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure

				Growth Factor	Design 2030 Volume	Seconds /Hour	Veh /Sec	Train Speed (MPH)	Train Speed (FPS)	Train Length	seconds to cross	Gate Closed (seconds)	clearing Vehicles	Vehicles Queued	Average Delay	Queue Length (ft)
													-	-		
Route 138	**NB**	Daily			19,440								-	-		
MP xxxx		AM	0	1.04	1,414	3600	0.39	50	73	765	10	70	-	27.5	62.5	700
		PM	0	1.04	930	3600	0.26	50	73	765	10	70	-	18.1	53.1	475
													-	-		
	SB	Daily			7,981								-	-		
		AM	0	1.04	580	3600	0.16	50	73	765	10	70	-	11.3	46.3	300
		PM	0	1.04	1,425	3600	0.40	50	73	765	10	70	-	27.7	62.7	700
													-	-		
Britton Street	**EB**	Daily			395								-	-		
MP 16.50		AM	0	1.04	29	3600	0.01	50	73	765	10	60	-	0.5	30.5	25
		PM	0	1.04	59	3600	0.02	50	73	765	10	60	-	1.0	31.0	25
													-	-		
	WB	Daily			869								-	-		
		AM	0	1.04	63	3600	0.02	50	73	765	10	60	-	1.1	31.1	50
		PM	0	1.04	65	3600	0.02	50	73	765	10	60	-	1.1	31.1	50
													-	-		
King Phillip Street		**Daily**	3793	1.07	4,068								-	-		
MP 17.10		AM	276	1.07	296	3600	0.08	70	103	765	7	60	-	4.9	34.9	125
		PM	328	1.07	352	3600	0.10	70	103	765	7	60	-	5.9	35.9	150
													-	-		
East Brittannia		**Daily**	4368	1.07	4,684								-	-		
MP		AM	310	1.07	333	3600	0.09	60	88	765	9	60	-	5.5	35.5	150
		PM	387	1.07	415	3600	0.12	60	88	765	9	60	-	6.9	36.9	175
													-	-		
Taunton													-	-		
													-	-		
Hart Street	**EB**	Daily	5885	1.06	6,267								-	-		
MP 12.5		AM	555	1.06	462	3600	0.13	25	37	765	21	60	-	7.7	37.7	200
		PM	474	1.06	326	3600	0.09	25	37	765	21	60	-	5.4	35.4	150
													-	-		
	WB	Daily	6236	1.06	6,641								-	-		
		AM	440	1.06	275	3600	0.08	25	37	765	21	60	-	4.6	34.6	125
		PM	579	1.06	432	3600	0.12	25	37	765	21	60	-	7.2	37.2	200

VHB *Vanasse Hangen Brustlin, Inc.*

Project	SCR	10111
Calculated by	A. Soupharath	April 14, 2009
Checked by	MPR	
Location	Various	

Based on XX% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure

				Growth Factor	Design 2030 Volume	Seconds /Hour	Veh /Sec	Train Speed (MPH)	Train Speed (FPS)	Train Length	seconds to cross	Gate Closed (seconds)	clearing Vehicles	Vehicles Queued	Average Delay	Queue Length (ft)
													-	-		
Winter Street / Longmeadow	**NB**	Daily	6648	1.05	6,992								-	-		
MP 18.90		AM	456	1.05	511	3600	0.14	25	37	765	21	60	-	8.5	38.5	225
		PM	568	1.05	637	3600	0.18	25	37	765	21	60	-	10.6	40.6	275
													-	-		
	SB	Daily	6016	1.05	6,327								-	-		
		AM	467	1.05	396	3600	0.11	25	37	765	21	60	-	6.6	36.6	175
		PM	537	1.05	411	3600	0.11	25	37	765	21	60	-	6.8	36.8	175
													-	-		
Dean Street	**EB**	Daily	14951	1.06	15,855								-	-		
MP 19.40		AM	1236	1.06	912	3600	0.25	25	37	765	21	150	4	34.0	109.0	875
		PM	1100	1.06	858	3600	0.24	25	37	765	21	150	4	31.7	106.7	800
													-	-		
	WB	Daily	16626	1.06	17,632								-	-		
		AM	1033	1.06	846	3600	0.24	25	37	765	21	150	4	31.3	106.3	800
		PM	1405	1.06	879	3600	0.24	25	37	765	21	150	4	32.6	107.6	825
													-	-		
Whittenton Street	**EB**	Daily			1,946								-	-		
MP xxxx		AM	0	1.03	121	3600	0.03	25	37	765	21	60	-	2.0	32.0	75
		PM	0	1.03	179	3600	0.05	25	37	765	21	60	-	3.0	33.0	75
													-	-		
	WB	Daily			1,327								-	-		
		AM	0	1.03	82	3600	0.02	25	37	765	21	60	-	1.4	31.4	50
		PM	0	1.03	226	3600	0.06	25	37	765	21	60	-	3.8	33.8	100
													-	-		
Ingell Street	**NB**	Daily	3385	1.06	3,604								-	-		
MP xxxx		AM	407	1.06	433	3600	0.12	25	37	765	21	60	-	7.2	37.2	200
		PM	432	1.06	460	3600	0.13	25	37	765	21	60	-	7.7	37.7	200
													-	-		
	SB	Daily	3714	1.06	3,956								-	-		
		AM	407	1.06	433	3600	0.12	25	37	765	21	60	-	7.2	37.2	200
		PM	432	1.06	460	3600	0.13	25	37	765	21	60	-	7.7	37.7	200

VHB *Vanasse Hangen Brustlin, Inc.*

Project	SCR	10111
Calculated by	A. Soupharath	April 14, 2009
Checked by	MPR	
Location	Various	

Based on XX% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure

			Growth Factor	Design 2030 Volume	Seconds /Hour	Veh /Sec	Train Speed (MPH)	Train Speed (FPS)	Train Length	seconds to cross	Gate Closed (seconds)	clearing Vehicles	Vehicles Queued	Average Delay	Queue Length (ft)
Warren Street	**No volumes available, crossing closed/gated…address qualitative**											-	-		
MP xxxx	AM	0	1.03	-	3600	0.00	25	37	765	21	60	-	-	30.0	-
	PM	0	1.03	-	3600	0.00	25	37	765	21	60	-	-	30.0	-
												-	-		
Berkley												-	-		
												-	-		
Mill Street	**No volumes available, crossing closed/gated…address qualitative**											-	-		
MP 0.20	AM	0	1.13	-	3600	0.00	25	37	765	21	60	-	-	30.0	-
	PM	0	1.13	-	3600	0.00	25	37	765	21	60	-	-	30.0	-
												-	-		
Adams Lane	**No volumes available, crossing closed/gated…address qualitative**											-	-		
MP 0.60	AM	0	1.13	-	3600	0.00	25	37	765	21	60	-	-	30.0	-
	PM	0	1.13	-	3600	0.00	25	37	765	21	60	-	-	30.0	-
												-	-		
Freetown												-	-		
												-	-		
Forge Road-North EB	Daily	426	1.25	532								-	-		
MP 2.4	AM	16	1.25	20	3600	0.01	25	37	765	21	60	-	0.3	30.3	25
	PM	57	1.25	72	3600	0.02	25	37	765	21	60	-	1.2	31.2	50
												-	-		
WB	Daily	500	1.25	625								-	-		
	AM	64	1.25	80	3600	0.02	25	37	765	21	60	-	1.3	31.3	50
	PM	63	1.25	78	3600	0.02	25	37	765	21	60	-	1.3	31.3	50
												-	-		
Richmond Road-S NB	Daily	1894	1.25	2,365								-	-		
MP 2.4	AM	170	1.25	213	3600	0.06	25	37	765	21	60	-	3.5	33.5	100
	PM	161	1.25	202	3600	0.06	25	37	765	21	60	-	3.4	33.4	100
												-	-		
SB	Daily	1910	1.25	2,385								-	-		
	AM	170	1.25	213	3600	0.06	25	37	765	21	60	-	3.5	33.5	100
	PM	146	1.25	182	3600	0.05	25	37	765	21	60	-	3.0	33.0	100
												-	-		
Forge Road-South NB	Daily	1250	1.25	1,561								-	-		
MP 2.7	AM	69	1.25	86	3600	0.02	25	37	765	21	60	-	1.4	31.4	50
	PM	141	1.25	176	3600	0.05	25	37	765	21	60	-	2.9	32.9	75
				3,335								-	-		
SB	Daily	1420	1.25	1,774								-	-		
	AM	165	1.25	206	3600	0.06	25	37	765	21	60	-	3.4	33.4	100
	PM	94	1.25	117	3600	0.03	25	37	765	21	60	-	2.0	32.0	50

Vanasse Hangen Brustlin, Inc.

Project	SCR	10111
Calculated by	A. Soupharath	April 14, 2009
Checked by	MPR	
Location	Various	

Based on XX% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure

				Growth Factor	Design 2030 Volume	Seconds /Hour	Veh /Sec	Train Speed (MPH)	Train Speed (FPS)	Train Length	seconds to cross	Gate Closed (seconds)	clearing Vehicles	Vehicles Queued	Average Delay	Queue Length (ft)
													-	-		
New Bedford													-	-		
													-	-		
Tarkiln Hill Road	**EB**	Daily	17094	1.05	18,010								-	-		
MP 28.5		AM	1272	1.05	611	3600	0.17	25	37	765	21	60	-	10.2	40.2	275
		PM	1359	1.05	1,283	3600	0.36	25	37	765	21	60	-	21.4	51.4	550
					4,850								-	-		
	WB	Daily	15150	1.05	15,961								-	-		
		AM	972	1.05	817	3600	0.23	25	37	765	21	60	-	13.6	43.6	350
		PM	1179	1.05	848	3600	0.24	25	37	765	21	60	-	14.1	44.1	375
													-	-		
Nash Road	**EB**	Daily	7094	1.06	7,488								-	-		
MP 29.5		AM	433	1.06	400	3600	0.11	25	37	765	21	60	-	6.7	36.7	175
		PM	625	1.06	663	3600	0.18	25	37	765	21	60	-	11.1	41.1	300
													-	-		
	WB	Daily	7006	1.06	7,394								-	-		
		AM	506	1.06	511	3600	0.14	25	37	765	21	60	-	8.5	38.5	225
		PM	620	1.06	745	3600	0.21	25	37	765	21	60	-	12.4	42.4	325
													-	-		

Grade Crossing Delay Calculations

Project: South Coast Rail
Project#:
Calculated by:
Date: May 1, 2009
Checked by:
Location: Attleboro Alignment

Based on 1% growth rate, 765' train (1 engine, 8 coaches) & 30 second advanced gate closure

		EB or NB Volume	WB or SB Volume	Largest Volume	PHF		Base Year	Future Year	Years	growth rate	Growth Factor	2030 Volume	Veh /Sec	Gate Closed (seconds)	Vehicles Queued	Average Delay	Queue Length (ft)
Richardson Ave.																	
	AM	96	307	307	0.92	334	2006	2030	24	1.0041	1.103	368	0.10	60	6.1	36.1	175
	PM	262	120	262	0.92	285	2006	2030	24	1.0041	1.103	314	0.09	60	5.2	35.2	150
Pleasant St.																	
	AM	556	504	556	0.92	604	2005	2030	25	1.0041	1.108	669	0.19	60	11.2	41.2	300
	PM	595	582	595	0.92	647	2005	2030	25	1.0041	1.108	716	0.20	60	11.9	41.9	300
Union St.																	
MP 26.31	AM	63	63	63	0.92	68	2001	2030	29	1.0041	1.126	77	0.02	60	1.3	31.3	50
	PM	82	103	103	0.92	112	2001	2030	29	1.0041	1.126	126	0.04	60	2.1	32.1	75
John Scott Blvd.																	
MP 26.87	AM	396	199	396	0.92	430	2001	2030	29	1.0041	1.126	485	0.13	60	8.1	38.1	225
	PM	205	389	389	0.92	423	2001	2030	29	1.0041	1.126	476	0.13	60	7.9	37.9	200
S. Worcester Street																	
MP 27.75	AM	86	213	213	0.92	232	2001	2030	29	1.0041	1.126	261	0.07	60	4.3	34.3	125
	PM	209	127	209	0.92	227	2001	2030	29	1.0041	1.126	256	0.07	60	4.3	34.3	125
Woodward St.																	
MP 29.34	AM	50	53	53	0.92	58	2001	2030	29	1.0041	1.126	65	0.02	60	1.1	31.1	50
	PM	47	48	48	0.92	52	2001	2030	29	1.0041	1.126	59	0.02	60	1.0	31.0	25
Harvey St.																	
MP 30.62	AM	242	662	662	0.91	727	2004	2030	26	1.0021	1.056	768	0.21	60	12.8	42.8	325
	PM	663	278	663	0.95	698	2004	2030	26	1.0021	1.056	737	0.20	60	12.3	42.3	325
Crane St.																	
MP 31.28	AM	184	87	184	0.91	202	2000	2030	30	1.0021	1.065	215	0.06	60	3.6	33.6	100
	PM	97	185	185	0.95	195	2000	2030	30	1.0021	1.065	207	0.06	60	3.5	33.5	100
Fremont St.																	
MP 32.19	AM	112	68	112	0.91	123	2000	2030	30	1.0021	1.065	131	0.04	60	2.2	32.2	75
	PM	72	96	96	0.95	101	2000	2030	30	1.0021	1.065	108	0.03	60	1.8	31.8	50
West Brittannia St.																	
MP 33.00	AM	149	246	246	0.91	270	2000	2030	30	1.0021	1.065	288	0.08	60	4.8	34.8	125
	PM	276	211	276	0.95	291	2000	2030	30	1.0021	1.065	309	0.09	60	5.2	35.2	150
Danforth St.																	
MP 33.64	AM	182	123	182	0.91	200	2000	2030	30	1.0021	1.065	213	0.06	60	3.5	33.5	100
	PM	156	243	243	0.95	256	2000	2030	30	1.0021	1.065	272	0.08	60	4.5	34.5	125
Tremont St.																	
MP 34.06	AM	569	520	569	0.91	625	2000	2030	30	1.0021	1.065	666	0.18	60	11.1	41.1	300
	PM	712	710	712	0.95	749	2000	2030	30	1.0021	1.065	798	0.22	60	13.3	43.3	350
Oak St.[1]																	
MP 34.23	AM	652	343	652	0.91	716	2000	2030	30	1.0021	1.065	763	0.21	150	31.8	106.8	800
	PM	489	546	489	0.95	515	2000	2030	30	1.0021	1.065	548	0.15	150	22.8	97.8	575
Porter St.																	
MP 34.47	AM	127	89	127	0.91	140	2000	2030	30	1.0021	1.065	149	0.04	60	2.5	32.5	75
	PM	176	123	176	0.95	185	2000	2030	30	1.0021	1.065	197	0.05	60	3.3	33.3	100
Cohannet St.																	
MP 34.54	AM	118		118	0.91	130	2000	2030	30	1.0021	1.065	138	0.04	60	2.3	32.3	75
	PM	200		200	0.95	211	2000	2030	30	1.0021	1.065	224	0.06	60	3.7	33.7	100
Winthrop St.																	
MP 34.60	AM	539	684	684	0.91	752	2000	2030	30	1.0021	1.065	800	0.22	60	13.3	43.3	350
	PM	724	648	724	0.95	762	2000	2030	30	1.0021	1.065	812	0.23	60	13.5	43.5	350
Harrison Ave.																	
MP 34.74	AM	139	72	139	0.91	153	2000	2030	30	1.0021	1.065	163	0.05	60	2.7	32.7	75
	PM	111	79	111	0.95	117	2000	2030	30	1.0021	1.065	124	0.03	60	2.1	32.1	75
Somerset Ave.																	
MP 34.92	AM	371	207	371	0.91	408	2000	2030	30	1.0021	1.065	434	0.12	60	7.2	37.2	200
	PM	327	431	431	0.95	454	2000	2030	30	1.0021	1.065	483	0.13	60	8.1	38.1	225
Weir St.																	
MP 35.00	AM	525	465	525	0.91	577	2001	2030	29	1.0021	1.063	613	0.17	70	11.9	46.9	300
	PM	426	613	613	0.95	645	2001	2030	29	1.0021	1.063	686	0.19	70	13.3	48.3	350

1 The existing pre-signals at Oak Street do not allow for vehicles to cross the tracks while the train dwells in the station. Therefore, no 4 vehicle queue reduction credit has been taken.

Appendix 4.1-K

Relocated Stoughton Station Analyses

Traffic Appendix

- Traffic Counts
- Parking Lot Counts
- Intersection Inventory
- Crash Data
- Crash Rate Analysis
- Capacity Analysis
- Signal Warrant Analysis

Traffic Counts

PRECISION DATA INDUSTRIES, LLC
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Traffic Counts with Precision

Client:	Engineer:	Site Code:	Date:	PDI Job Number:	City, State:
VHB	E. Chan	10111.34	Wed 4/11 thru Thurs 4/12/12	122868	Stoughton, MA

PRECISION
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Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

122868 A Class
Site Code: 10111.34

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/10/1														
2	0	24	3	0	0	0	0	0	0	0	0	0	0	27
01:00	0	12	5	0	0	0	0	0	0	0	0	0	0	17
02:00	0	7	2	0	1	1	0	0	0	0	0	0	0	11
03:00	0	8	3	0	0	0	0	0	0	0	0	0	0	11
04:00	0	21	6	0	3	0	0	0	0	0	0	0	0	30
05:00	0	121	37	1	3	3	0	0	1	0	0	0	0	166
06:00	1	406	61	0	9	1	0	9	1	0	0	0	0	488
07:00	3	490	71	4	12	2	0	1	1	0	0	0	0	584
08:00	1	415	76	2	11	6	2	3	2	0	0	0	0	518
09:00	1	350	64	1	14	5	1	1	1	0	0	0	0	438
10:00	4	278	64	1	9	2	1	5	1	0	0	0	0	365
11:00	4	292	54	3	4	7	2	2	3	1	0	0	0	372
12 PM	4	303	61	3	13	2	0	2	7	0	0	0	0	395
13:00	4	322	47	1	11	3	0	0	0	0	0	0	0	388
14:00	6	303	60	2	7	2	1	1	1	0	0	0	0	383
15:00	2	324	51	1	16	2	0	2	0	0	0	0	0	398
16:00	5	312	49	3	3	1	0	0	0	0	0	0	0	373
17:00	3	323	40	0	5	1	0	0	1	0	0	0	0	373
18:00	1	300	34	1	3	3	0	3	0	0	0	0	0	345
19:00	4	264	32	1	4	2	0	0	0	0	0	0	0	307
20:00	1	186	21	0	2	2	0	0	0	0	0	0	0	212
21:00	1	126	14	0	0	0	0	1	1	0	0	0	0	143
22:00	0	81	3	0	0	0	0	0	0	0	0	0	0	84
23:00	0	38	6	0	1	0	0	0	0	0	0	0	0	45
Total	45	5306	864	24	131	45	7	30	20	1	0	0	0	6473
Percent	0.7%	82.0%	13.3%	0.4%	2.0%	0.7%	0.1%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	08:00	07:00	09:00	11:00	08:00	06:00	11:00	11:00				07:00
Vol.	4	490	76	4	14	7	2	9	3	1				584
PM Peak	14:00	15:00	12:00	12:00	15:00	13:00	14:00	18:00	12:00					15:00
Vol.	6	324	61	3	16	3	1	3	7					398

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122868 A Class
Site Code: 10111.34

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/11/1														
2	0	25	5	0	0	1	0	0	0	0	0	0	0	31
01:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
02:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
03:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
04:00	0	27	5	1	1	1	0	0	1	0	0	0	0	36
05:00	0	115	34	0	2	2	0	0	2	0	0	0	0	155
06:00	0	412	70	0	17	2	0	8	3	0	0	0	0	512
07:00	1	477	55	3	11	1	1	1	3	0	0	0	0	553
08:00	0	440	63	2	13	6	0	4	1	0	0	0	0	529
09:00	2	321	60	1	12	8	2	1	3	0	0	0	0	410
10:00	5	305	61	3	14	2	1	2	2	0	0	0	0	395
11:00	0	262	73	2	9	5	0	5	2	0	0	0	0	358
12 PM	2	325	54	4	8	1	0	0	2	0	0	0	0	396
13:00	4	299	62	2	7	6	0	1	6	0	0	0	0	387
14:00	1	322	54	1	6	5	0	1	4	0	0	0	0	394
15:00	5	305	48	1	6	2	0	1	0	0	0	0	0	368
16:00	2	333	52	1	7	0	0	0	0	0	0	0	0	395
17:00	4	343	37	1	5	3	0	3	1	0	0	0	0	397
18:00	2	304	32	0	3	0	0	0	0	0	0	0	0	341
19:00	4	264	22	0	5	2	0	0	0	0	0	0	0	297
20:00	0	201	28	0	2	0	0	0	0	0	0	0	0	231
21:00	0	146	9	0	0	0	0	1	1	0	0	0	0	157
22:00	2	99	7	0	1	0	0	0	0	0	0	0	0	109
23:00	0	51	4	0	0	0	0	0	0	0	0	0	0	55
Total	34	5406	838	22	129	47	4	28	31	0	0	0	0	6539
Percent	0.5%	82.7%	12.8%	0.3%	2.0%	0.7%	0.1%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	11:00	07:00	06:00	09:00	09:00	06:00	06:00					07:00
Vol.	5	477	73	3	17	8	2	8	3					553
PM Peak	15:00	17:00	13:00	12:00	12:00	13:00		17:00	13:00					17:00
Vol.	5	343	62	4	8	6		3	6					397

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122868 A Class
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NB

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04/12/1														
2	0	15	10	0	0	0	0	0	0	0	0	0	0	25
01:00	0	11	5	0	0	0	0	0	0	0	0	0	0	16
02:00	0	8	1	0	0	1	0	0	1	0	0	0	0	11
03:00	0	10	1	0	0	0	0	0	1	0	0	0	0	12
04:00	0	27	6	0	2	2	0	0	0	0	0	0	0	37
05:00	0	100	32	2	7	0	0	0	0	0	0	0	0	141
06:00	1	398	63	2	7	4	0	7	4	0	0	0	0	486
07:00	0	489	63	2	8	1	0	2	1	0	0	0	0	566
08:00	2	435	64	0	9	5	0	1	3	0	0	0	0	519
09:00	0	302	59	0	7	6	1	2	3	1	0	0	0	381
10:00	1	278	43	2	14	4	0	1	2	0	0	0	0	345
11:00	2	310	58	3	11	6	0	3	2	0	0	0	0	395
12 PM	2	302	50	1	13	2	0	2	4	0	0	0	0	376
13:00	1	302	68	3	8	3	0	3	3	0	0	0	0	391
14:00	5	329	53	1	11	6	0	0	0	0	0	0	0	405
15:00	1	332	50	1	11	7	0	1	1	0	0	0	0	404
16:00	5	301	44	0	9	6	0	3	0	0	0	1	0	369
17:00	1	334	47	1	3	2	0	0	0	0	0	0	0	388
18:00	7	339	50	1	5	1	0	0	1	0	0	0	0	404
19:00	0	258	38	0	3	1	0	0	0	0	0	0	0	300
20:00	2	216	16	0	2	0	0	0	0	0	0	0	0	236
21:00	0	136	14	0	0	0	0	1	1	0	0	0	0	152
22:00	0	83	12	0	0	1	0	0	0	0	0	0	0	96
23:00	0	59	4	0	0	0	0	0	0	0	0	0	0	63
Total	30	5374	851	19	130	58	1	26	27	1	0	1	0	6518
Percent	0.5%	82.4%	13.1%	0.3%	2.0%	0.9%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	11:00	10:00	09:00	09:00	06:00	06:00	09:00				07:00
Vol.	2	489	64	3	14	6	1	7	4	1				566
PM Peak	18:00	18:00	13:00	13:00	12:00	15:00		13:00	12:00			16:00		14:00
Vol.	7	339	68	3	13	7		3	4			1		405
Total		16086	2553	65	390	150	12	84	78	2	0	1	0	19530

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122868 A Class
Site Code: 10111.34

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/10/1														
2	1	40	6	0	0	0	0	0	0	0	0	0	0	47
01:00	0	23	2	0	1	0	0	0	0	0	0	0	0	26
02:00	0	10	1	0	0	1	0	0	0	0	0	0	0	12
03:00	1	3	2	0	0	1	0	0	0	0	0	0	0	7
04:00	0	11	2	0	1	0	0	0	0	0	0	0	0	14
05:00	0	36	11	1	2	0	0	0	0	0	0	0	0	50
06:00	1	114	26	1	3	0	0	3	0	0	0	0	0	148
07:00	0	258	54	6	8	4	1	1	0	0	0	0	0	332
08:00	3	287	50	2	7	4	0	1	0	0	0	0	0	354
09:00	0	235	40	2	17	2	0	4	1	0	0	0	0	301
10:00	1	276	48	1	15	2	0	1	1	0	0	0	0	345
11:00	1	327	63	1	13	6	0	0	0	1	0	0	0	412
12 PM	1	297	45	1	18	3	0	2	0	2	0	0	0	369
13:00	3	338	55	1	17	3	0	2	0	0	0	0	0	419
14:00	2	394	63	2	16	3	0	0	1	0	0	0	0	481
15:00	2	407	57	5	16	2	0	3	1	0	0	0	0	493
16:00	0	501	97	0	12	1	0	5	0	0	0	0	0	616
17:00	7	626	85	0	10	1	0	2	0	0	0	0	0	731
18:00	1	501	46	3	6	1	1	1	0	0	0	0	0	560
19:00	1	357	38	0	8	0	0	1	0	0	0	0	0	405
20:00	0	247	29	1	2	1	0	0	0	0	0	0	0	280
21:00	0	202	18	0	3	0	0	0	0	0	0	0	0	223
22:00	0	93	9	0	4	0	0	1	0	0	0	0	0	107
23:00	0	66	4	0	1	0	0	0	0	0	0	0	0	71
Total	25	5649	851	27	180	35	2	27	4	3	0	0	0	6803
Percent	0.4%	83.0%	12.5%	0.4%	2.6%	0.5%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	11:00	07:00	09:00	11:00	07:00	09:00	09:00	11:00				11:00
Vol.	3	327	63	6	17	6	1	4	1	1				412
PM Peak	17:00	17:00	16:00	15:00	12:00	12:00	18:00	16:00	14:00	12:00				17:00
Vol.	7	626	97	5	18	3	1	5	1	2				731

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04/11/1														
2	1	34	2	0	1	0	0	0	0	0	0	0	0	38
01:00	0	22	3	0	1	0	0	0	0	0	0	0	0	26
02:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
04:00	0	16	7	0	1	1	1	0	1	0	0	0	0	27
05:00	0	35	15	0	3	1	0	0	0	0	0	0	0	54
06:00	0	122	23	1	4	2	0	0	3	0	0	0	0	155
07:00	1	254	50	0	12	5	0	2	1	0	0	0	0	325
08:00	3	256	56	6	10	4	0	3	2	0	0	0	0	340
09:00	2	263	48	2	16	5	0	0	1	0	0	0	0	337
10:00	2	298	49	1	16	3	0	3	2	0	0	0	0	374
11:00	1	351	69	4	14	2	0	3	3	0	0	0	0	447
12 PM	3	358	64	4	13	2	0	2	2	0	0	0	0	448
13:00	4	316	60	1	9	3	0	0	5	0	0	0	0	398
14:00	3	362	61	2	10	2	0	1	1	0	0	0	0	442
15:00	4	408	86	6	10	4	0	4	2	0	0	0	0	524
16:00	2	522	99	1	17	3	0	4	0	0	0	0	0	648
17:00	3	617	60	1	8	5	0	3	1	0	0	0	0	698
18:00	3	536	62	1	7	0	0	0	0	0	0	0	0	609
19:00	4	357	38	1	5	1	0	0	0	1	0	0	0	407
20:00	0	266	42	0	3	1	0	0	0	0	0	0	0	312
21:00	0	212	18	0	1	0	0	0	0	0	0	0	0	231
22:00	0	114	10	0	0	0	0	0	0	0	0	0	0	124
23:00	1	66	8	0	1	0	0	0	0	0	0	0	0	76
Total	37	5801	932	31	162	44	1	25	24	1	0	0	0	7058
Percent	0.5%	82.2%	13.2%	0.4%	2.3%	0.6%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	11:00	08:00	09:00	07:00	04:00	08:00	06:00					11:00
Vol.	3	351	69	6	16	5	1	3	3					447
PM Peak	13:00	17:00	16:00	15:00	16:00	17:00		15:00	13:00	19:00				17:00
Vol.	4	617	99	6	17	5		4	5	1				698

PRECISION DATA INDUSTRIES, LLC
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Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

122868 A Class
Site Code: 10111.34

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/12/1														
2	1	37	5	0	1	0	0	0	0	0	0	0	0	44
01:00	0	19	6	0	0	0	0	0	0	0	0	0	0	25
02:00	0	9	2	0	0	0	0	0	1	0	0	0	0	12
03:00	0	8	4	0	0	0	0	0	0	0	0	0	0	12
04:00	0	13	2	0	1	1	0	0	0	0	0	0	0	17
05:00	0	44	11	2	2	1	0	0	1	0	0	0	0	61
06:00	0	125	20	2	3	1	0	1	1	0	0	0	0	153
07:00	1	240	51	3	7	4	0	0	3	0	0	0	0	309
08:00	1	263	54	4	11	4	0	2	4	0	0	0	0	343
09:00	0	237	51	2	14	3	0	2	1	0	0	0	0	310
10:00	2	277	52	2	14	6	0	1	3	0	0	0	0	357
11:00	2	307	59	3	12	5	0	1	1	0	0	0	0	390
12 PM	3	302	60	1	11	5	0	4	4	0	0	0	0	390
13:00	1	319	67	2	13	5	0	0	4	0	0	0	0	411
14:00	6	364	64	3	18	8	0	4	1	0	1	0	0	469
15:00	1	433	86	7	11	2	0	2	0	0	0	0	0	542
16:00	1	493	72	1	14	1	0	5	2	0	0	0	0	589
17:00	1	665	96	1	13	1	0	2	0	0	0	0	0	779
18:00	0	529	66	1	6	0	0	2	0	0	0	0	0	604
19:00	2	377	58	0	4	1	0	0	0	0	0	0	0	442
20:00	2	270	29	0	4	0	0	0	0	0	0	0	0	305
21:00	1	200	25	0	1	0	0	0	0	0	0	0	0	227
22:00	0	119	18	0	2	0	0	0	0	0	0	0	0	139
23:00	0	85	10	0	2	0	0	0	1	0	0	0	0	98
Total	25	5735	968	34	164	48	0	26	27	0	1	0	0	7028
Percent	0.4%	81.6%	13.8%	0.5%	2.3%	0.7%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	08:00	09:00	10:00		08:00	08:00					11:00
Vol.	2	307	59	4	14	6		2	4					390
PM Peak	14:00	17:00	17:00	15:00	14:00	14:00		16:00	12:00		14:00			17:00
Vol.	6	665	96	7	18	8		5	4		1			779
Total		17185	2751	92	506	127	3	78	55	4	1	0	0	20889

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Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

122868 A Speed
Site Code: 10111.34

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/10/1																
2	0	0	0	0	8	14	3	1	1	0	0	0	0	27	39	37
01:00	0	0	0	0	3	6	7	0	1	0	0	0	0	17	42	39
02:00	0	0	1	0	3	3	2	1	1	0	0	0	0	11	37	37
03:00	0	0	0	0	0	7	3	1	0	0	0	0	0	11	41	39
04:00	0	0	0	1	1	10	14	4	0	0	0	0	0	30	44	40
05:00	1	0	1	2	15	73	63	8	**3**	0	0	0	0	166	43	39
06:00	0	3	8	39	126	225	**78**	**9**	0	0	0	0	0	488	40	35
07:00	2	7	19	**102**	204	**227**	23	0	0	0	0	0	0	**584**	37	33
08:00	**19**	**18**	**29**	85	**209**	132	26	0	0	0	0	0	0	518	36	30
09:00	0	2	14	55	162	156	46	3	0	0	0	0	0	438	38	34
10:00	0	4	12	47	110	146	42	4	0	0	0	0	0	365	39	34
11:00	1	3	3	47	138	148	31	1	0	0	0	0	0	372	38	34
12 PM	**1**	**4**	8	43	140	**161**	**34**	3	0	0	0	0	**1**	395	38	34
13:00	1	1	9	53	147	148	24	5	0	0	0	0	0	388	38	34
14:00	0	1	6	37	170	143	25	1	0	0	0	0	0	383	38	34
15:00	0	2	**17**	56	157	147	19	0	0	0	0	0	0	**398**	37	33
16:00	1	4	6	65	**173**	102	19	3	0	0	0	0	0	373	37	33
17:00	0	4	15	**70**	157	109	18	0	0	0	0	0	0	373	37	32
18:00	1	0	6	39	111	154	33	1	0	0	0	0	0	345	38	34
19:00	0	0	7	22	107	134	33	4	0	0	0	0	0	307	39	35
20:00	1	1	3	14	59	98	34	2	0	0	0	0	0	212	39	35
21:00	0	0	4	7	48	55	20	**8**	**1**	0	0	0	0	143	40	36
22:00	0	0	1	5	23	26	25	4	0	0	0	0	0	84	42	37
23:00	0	0	0	3	5	19	14	4	0	0	0	0	0	45	43	38
%	0.4%	0.8%	2.6%	12.2%	35.2%	37.7%	9.8%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	07:00	08:00	07:00	06:00	06:00	05:00					07:00		
Vol.	19	18	29	102	209	227	78	9	3					584		
PM Peak	12:00	12:00	15:00	17:00	16:00	12:00	12:00	21:00	21:00				12:00	15:00		
Vol.	1	4	17	70	173	161	34	8	1				1	398		
Total	28	54	169	792	2276	2443	636	67	7	0	0	0	1	6473	940	
Pecent				15th Percentile :		27 MPH										
				50th Percentile :		33 MPH										
				85th Percentile :		38 MPH										
				95th Percentile :		42 MPH										

Stats		
	10 MPH Pace Speed :	30-39 MPH
	Number in Pace :	4293
	Percent in Pace :	66.3%
	Number of Vehicles > 35 MPH :	2639
	Percent of Vehicles > 35 MPH :	40.8%
	Mean Speed(Average) :	34 MPH

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Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

122868 A Speed
Site Code: 10111.34

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/11/1																
2	0	0	0	2	7	15	7	0	0	0	0	0	0	31	40	36
01:00	0	0	0	0	2	7	2	1	0	0	0	0	0	12	39	38
02:00	0	0	0	0	2	5	2	1	0	**1**	0	0	0	11	39	40
03:00	0	0	0	1	1	3	5	0	0	0	0	0	0	10	42	38
04:00	0	0	1	3	5	10	14	3	0	0	0	0	0	36	42	38
05:00	**2**	0	0	3	21	68	**52**	**8**	**1**	0	0	0	0	155	42	38
06:00	0	0	6	46	179	**234**	42	5	0	0	0	0	0	512	38	35
07:00	1	0	**24**	**117**	236	156	19	0	0	0	0	0	0	**553**	36	32
08:00	1	**4**	17	69	**260**	154	23	1	0	0	0	0	0	529	37	33
09:00	1	0	9	75	142	153	30	0	0	0	0	0	0	410	38	33
10:00	0	0	7	34	155	168	27	4	0	0	0	0	0	395	38	34
11:00	0	1	9	48	154	129	17	0	0	0	0	0	0	358	37	33
12 PM	**1**	0	8	23	147	**178**	37	1	**1**	0	0	0	0	396	38	35
13:00	0	0	9	47	149	131	**50**	1	0	0	0	0	0	387	39	34
14:00	1	1	9	57	155	141	29	1	0	0	0	0	0	394	38	33
15:00	1	1	7	66	131	128	31	3	0	0	0	0	0	368	38	33
16:00	0	2	7	83	170	111	20	2	0	0	0	0	0	395	37	33
17:00	0	**4**	**14**	**84**	**174**	103	17	1	0	0	0	0	0	**397**	36	32
18:00	0	1	10	40	131	123	31	4	1	0	0	0	0	341	38	34
19:00	0	0	9	31	102	121	33	1	0	0	0	0	0	297	38	34
20:00	0	3	2	19	68	105	32	2	0	0	0	0	0	231	39	35
21:00	0	0	0	10	45	74	22	**6**	0	0	0	0	0	157	40	36
22:00	1	0	4	12	34	34	21	3	0	0	0	0	0	109	40	35
23:00	0	0	0	2	17	24	9	2	1	0	0	0	0	55	40	37
%	0.1%	0.3%	2.3%	13.3%	38.0%	36.3%	8.7%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	08:00	07:00	07:00	08:00	06:00	05:00	05:00	05:00	02:00				07:00		
Vol.	2	4	24	117	260	234	52	8	1	1				553		
PM Peak	12:00	17:00	17:00	17:00	17:00	12:00	13:00	21:00	12:00					17:00		
Vol.	1	4	14	84	174	178	50	6	1					397		
Total	9	17	152	872	2487	2375	572	50	4	1	0	0	0	6539	929	

Pecent

15th Percentile : 28 MPH
50th Percentile : 33 MPH
85th Percentile : 38 MPH
95th Percentile : 41 MPH

Stats

10 MPH Pace Speed : 30-39 MPH
Number in Pace : 4442
Percent in Pace : 67.9%
Number of Vehicles > 35 MPH : 2526
Percent of Vehicles > 35 MPH : 38.6%
Mean Speed(Average) : 34 MPH

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Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

122868 A Speed
Site Code: 10111.34

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/12/1																
2	0	0	0	3	7	11	1	3	0	0	0	0	0	25	39	36
01:00	0	1	0	1	5	8	1	0	0	0	0	0	0	16	38	33
02:00	0	0	1	1	2	4	2	1	0	0	0	0	0	11	38	36
03:00	0	0	0	1	3	2	6	0	0	0	0	0	0	12	42	37
04:00	0	0	0	1	4	15	14	3	0	0	0	0	0	37	42	39
05:00	**1**	0	1	1	12	57	52	**14**	**3**	0	0	0	0	141	43	39
06:00	0	1	13	65	148	**189**	**67**	3	0	0	0	0	0	486	39	34
07:00	1	**4**	**18**	**106**	**249**	158	30	0	0	0	0	0	0	**566**	37	32
08:00	0	0	15	97	245	138	22	2	0	0	0	0	0	519	37	33
09:00	0	0	10	43	132	162	34	0	0	0	0	0	0	381	38	34
10:00	0	1	13	46	121	120	38	5	1	0	0	0	0	345	39	34
11:00	0	2	8	57	163	138	26	1	0	0	0	0	0	395	37	33
12 PM	0	0	1	**71**	163	123	17	1	0	0	0	0	0	376	37	33
13:00	1	0	10	58	167	**131**	22	2	0	0	0	0	0	391	37	33
14:00	0	0	14	61	**191**	126	12	1	0	0	0	0	0	**405**	37	33
15:00	0	0	**21**	70	170	121	21	1	0	0	0	0	0	404	37	33
16:00	2	**9**	9	59	158	110	21	1	0	0	0	0	0	369	37	32
17:00	0	0	9	68	187	96	25	3	0	0	0	0	0	388	37	33
18:00	**3**	1	6	68	185	128	13	0	0	0	0	0	0	404	37	33
19:00	0	0	5	33	120	110	**30**	2	0	0	0	0	0	300	38	34
20:00	0	3	8	20	83	108	10	**4**	0	0	0	0	0	236	38	34
21:00	0	0	3	10	45	77	17	0	0	0	0	0	0	152	39	35
22:00	0	0	4	9	26	38	15	4	0	0	0	0	0	96	40	35
23:00	0	0	0	2	17	28	12	4	0	0	0	0	0	63	41	37
%	0.1%	0.3%	2.6%	14.6%	39.9%	33.7%	7.8%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	07:00	07:00	07:00	07:00	06:00	06:00	05:00	05:00					07:00		
Vol.	1	4	18	106	249	189	67	14	3					566		
PM Peak	18:00	16:00	15:00	12:00	14:00	13:00	19:00	20:00						14:00		
Vol.	3	9	21	71	191	131	30	4						405		
Total	8	22	169	951	2603	2198	508	55	4	0	0	0	0	6518	924	
Pecent				15th Percentile :		27 MPH										
				50th Percentile :		33 MPH										
				85th Percentile :		38 MPH										
				95th Percentile :		41 MPH										

Stats		
	10 MPH Pace Speed :	29-38 MPH
	Number in Pace :	4407
	Percent in Pace :	67.6%
	Number of Vehicles > 35 MPH :	2336
	Percent of Vehicles > 35 MPH :	35.8%
	Mean Speed(Average) :	33 MPH

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122868 A Speed
Site Code: 10111.34

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/10/1																
2	0	0	0	5	9	14	16	3	0	0	0	0	0	47	42	37
01:00	0	0	0	2	5	12	4	2	**1**	0	0	0	0	26	41	37
02:00	0	0	0	0	1	3	8	0	0	0	0	0	0	12	43	40
03:00	0	2	0	0	2	3	0	0	0	0	0	0	0	7	36	28
04:00	0	0	0	0	2	5	5	2	0	0	0	0	0	14	43	40
05:00	0	0	0	4	10	21	12	3	0	0	0	0	0	50	41	37
06:00	0	0	3	26	37	54	23	5	0	0	0	0	0	148	40	35
07:00	**3**	4	**23**	74	119	81	23	4	0	0	0	**1**	0	332	37	32
08:00	0	**7**	22	65	120	116	21	3	0	0	0	0	0	354	37	32
09:00	0	0	12	57	110	96	22	4	0	0	0	0	0	301	38	33
10:00	0	1	7	48	136	127	23	3	0	0	0	0	0	345	38	34
11:00	2	7	16	**75**	**154**	**128**	**24**	**6**	0	0	0	0	0	**412**	37	32
12 PM	0	3	16	76	140	112	18	4	0	0	0	0	0	369	37	32
13:00	0	**19**	17	68	162	121	27	4	1	0	0	0	0	419	37	32
14:00	3	2	16	92	190	146	26	4	**2**	0	0	0	0	481	37	33
15:00	0	11	21	81	198	149	27	6	0	0	0	0	0	493	37	32
16:00	0	1	18	97	280	**191**	24	5	0	0	0	0	0	616	37	33
17:00	**10**	17	**49**	**191**	**281**	160	21	2	0	0	0	0	0	**731**	36	30
18:00	1	2	17	80	241	177	39	3	0	0	0	0	0	560	37	33
19:00	0	0	5	48	159	150	39	4	0	0	0	0	0	405	38	34
20:00	1	4	13	37	86	97	**41**	1	0	0	0	0	0	280	39	34
21:00	0	0	4	24	81	78	29	**7**	0	0	0	0	0	223	39	35
22:00	0	0	2	9	21	44	22	7	2	0	0	0	0	107	42	37
23:00	0	0	0	4	12	22	27	6	0	0	0	0	0	71	43	38
%	0.3%	1.2%	3.8%	17.1%	37.6%	31.0%	7.7%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	07:00	11:00	11:00	11:00	11:00	11:00	01:00			07:00		11:00		
Vol.	3	7	23	75	154	128	24	6	1			1		412		
PM Peak	17:00	13:00	17:00	17:00	17:00	16:00	20:00	21:00	14:00					17:00		
Vol.	10	19	49	191	281	191	41	7	2					731		
Total	20	80	261	1163	2556	2107	521	88	6	0	0	1	0	6803	932	
Pecent																

15th Percentile : 26 MPH
50th Percentile : 32 MPH
85th Percentile : 38 MPH
95th Percentile : 41 MPH

Stats

10 MPH Pace Speed :	29-38 MPH
Number in Pace :	4321
Percent in Pace :	63.5%
Number of Vehicles > 35 MPH :	2301
Percent of Vehicles > 35 MPH :	33.8%
Mean Speed(Average) :	33 MPH

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122868 A Speed
Site Code: 10111.34

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/11/1																
2	0	0	1	4	7	14	10	2	0	0	0	0	0	38	41	36
01:00	0	0	0	1	5	8	9	3	0	0	0	0	0	26	43	39
02:00	0	0	1	0	3	1	4	1	0	0	0	0	0	10	42	37
03:00	0	0	0	0	1	3	1	3	0	0	0	0	0	8	46	41
04:00	0	0	1	1	7	11	6	1	0	0	0	0	0	27	41	36
05:00	0	0	1	3	6	27	14	3	0	0	0	0	0	54	41	37
06:00	0	0	5	24	48	53	21	2	**1**	**1**	0	0	0	155	39	34
07:00	**1**	2	**33**	63	98	91	33	**4**	0	0	0	0	0	325	38	32
08:00	0	1	24	57	143	101	10	4	0	0	0	0	0	340	37	32
09:00	1	**3**	13	43	120	113	**40**	4	0	0	0	0	0	337	39	34
10:00	0	2	15	37	144	**147**	28	1	0	0	0	0	0	374	38	34
11:00	0	2	20	**65**	**191**	147	19	3	0	0	0	0	0	**447**	37	33
12 PM	0	1	11	55	169	167	41	3	0	**1**	0	0	0	448	38	34
13:00	1	6	27	57	139	133	32	2	1	0	0	0	0	398	38	33
14:00	0	13	8	64	180	143	29	5	0	0	0	0	0	442	38	33
15:00	4	5	22	83	193	177	37	3	0	0	0	0	0	524	38	33
16:00	**6**	10	48	142	242	161	37	2	0	0	0	0	0	648	37	31
17:00	3	**14**	**58**	**147**	**283**	165	25	3	0	0	0	0	0	**698**	36	31
18:00	3	4	14	117	207	**199**	**62**	3	0	0	0	0	0	609	38	33
19:00	1	1	11	49	142	166	33	4	0	0	0	0	0	407	38	34
20:00	0	1	7	30	93	135	40	5	1	0	0	0	0	312	39	35
21:00	0	0	3	16	63	98	43	**7**	1	0	0	0	0	231	40	36
22:00	0	2	8	13	37	40	18	4	**2**	0	0	0	0	124	40	34
23:00	1	0	1	6	17	24	24	3	0	0	0	0	0	76	42	36
%	0.3%	0.9%	4.7%	15.3%	36.0%	32.9%	8.7%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	07:00	11:00	11:00	10:00	09:00	07:00	06:00	06:00				11:00		
Vol.	1	3	33	65	191	147	40	4	1	1				447		
PM Peak	16:00	17:00	17:00	17:00	17:00	18:00	18:00	21:00	22:00	12:00				17:00		
Vol.	6	14	58	147	283	199	62	7	2	1				698		
Total	21	67	332	1077	2538	2324	616	75	6	2	0	0	0	7058	944	

Pecent

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	38 MPH
95th Percentile :	41 MPH

Stats

10 MPH Pace Speed :	29-38 MPH
Number in Pace :	4455
Percent in Pace :	63.1%
Number of Vehicles > 35 MPH :	2549
Percent of Vehicles > 35 MPH :	36.1%
Mean Speed(Average) :	33 MPH

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

122868 A Speed
Site Code: 10111.34

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/12/1																
2	0	0	0	2	6	17	14	**5**	0	0	0	0	0	44	43	39
01:00	0	0	0	1	5	12	4	3	0	0	0	0	0	25	43	38
02:00	0	0	0	0	1	6	4	1	0	0	0	0	0	12	42	39
03:00	0	0	0	0	3	3	4	2	0	0	0	0	0	12	42	39
04:00	0	0	0	0	4	10	2	1	0	0	0	0	0	17	38	37
05:00	0	0	0	2	7	29	19	3	**1**	0	0	0	0	61	42	38
06:00	0	0	7	30	44	47	24	1	0	0	0	0	0	153	39	34
07:00	**3**	3	19	69	102	86	25	2	0	0	0	0	0	309	37	32
08:00	1	**7**	19	**80**	126	87	22	1	0	0	0	0	0	343	37	32
09:00	0	2	8	45	102	114	**36**	3	0	0	0	0	0	310	39	34
10:00	0	0	**20**	51	133	115	34	4	0	0	0	0	0	357	38	33
11:00	0	1	16	59	**146**	**129**	34	5	0	0	0	0	0	**390**	38	33
12 PM	1	3	17	65	135	136	29	3	1	0	0	0	0	390	38	33
13:00	0	7	31	61	151	128	32	1	0	0	0	0	0	411	37	32
14:00	3	6	17	105	188	119	28	3	0	0	0	0	0	469	37	32
15:00	0	6	25	93	227	151	37	3	0	0	0	0	0	542	37	33
16:00	1	**16**	19	82	219	**202**	48	2	0	0	0	0	0	589	38	33
17:00	1	6	**36**	**179**	**335**	176	44	2	0	0	0	0	0	**779**	36	32
18:00	**6**	6	25	113	242	168	36	5	**3**	0	0	0	0	604	37	32
19:00	1	0	24	80	153	149	33	2	0	0	0	0	0	442	38	33
20:00	1	2	10	44	105	100	37	4	2	0	0	0	0	305	39	34
21:00	0	0	3	21	55	92	**51**	4	1	0	0	0	0	227	41	36
22:00	0	0	3	20	30	46	36	3	1	0	0	0	0	139	41	36
23:00	0	0	3	8	15	44	17	**8**	2	**1**	0	0	0	98	42	37
%	0.3%	0.9%	4.3%	17.2%	36.1%	30.8%	9.2%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	10:00	08:00	11:00	11:00	09:00	00:00	05:00					11:00		
Vol.	3	7	20	80	146	129	36	5	1					390		
PM Peak	18:00	16:00	17:00	17:00	17:00	16:00	21:00	23:00	18:00	23:00				17:00		
Vol.	6	16	36	179	335	202	51	8	3	1				779		
Total	18	65	302	1210	2534	2166	650	71	11	1	0	0	0	7028	939	

Pecent

15th Percentile : 26 MPH
50th Percentile : 32 MPH
85th Percentile : 38 MPH
95th Percentile : 41 MPH

Stats

10 MPH Pace Speed : 29-38 MPH
Number in Pace : 4367
Percent in Pace : 62.1%
Number of Vehicles > 35 MPH : 2465
Percent of Vehicles > 35 MPH : 35.1%
Mean Speed(Average) : 33 MPH

Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

122868 A Volume
Site Code: 10111.34

Start	NB				SB				Combined				10-Apr-12
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	9		98		21		91		30		189		
12:15	7		113		9		92		16		205		
12:30	5		87		6		96		11		183		
12:45	6	27	97	395	11	47	90	369	17	74	187	764	
01:00	5		80		10		131		15		211		
01:15	7		92		5		103		12		195		
01:30	1		123		6		90		7		213		
01:45	4	17	93	388	5	26	95	419	9	43	188	807	
02:00	2		107		3		113		5		220		
02:15	1		77		5		125		6		202		
02:30	6		89		2		126		8		215		
02:45	2	11	110	383	2	12	117	481	4	23	227	864	
03:00	4		99		0		118		4		217		
03:15	2		93		4		129		6		222		
03:30	2		94		2		115		4		209		
03:45	3	11	112	398	1	7	131	493	4	18	243	891	
04:00	5		76		4		158		9		234		
04:15	10		90		2		164		12		254		
04:30	5		118		1		124		6		242		
04:45	10	30	89	373	7	14	170	616	17	44	259	989	
05:00	25		101		10		196		35		297		
05:15	29		99		6		162		35		261		
05:30	52		79		9		197		61		276		
05:45	60	166	94	373	25	50	176	731	85	216	270	1104	
06:00	81		90		10		144		91		234		
06:15	129		86		25		157		154		243		
06:30	137		85		42		148		179		233		
06:45	141	488	84	345	71	148	111	560	212	636	195	905	
07:00	131		94		65		116		196		210		
07:15	140		80		79		125		219		205		
07:30	166		74		91		85		257		159		
07:45	147	584	59	307	97	332	79	405	244	916	138	712	
08:00	140		57		98		89		238		146		
08:15	138		55		89		68		227		123		
08:30	113		59		93		66		206		125		
08:45	127	518	41	212	74	354	57	280	201	872	98	492	
09:00	124		40		81		73		205		113		
09:15	98		40		75		55		173		95		
09:30	125		39		78		46		203		85		
09:45	91	438	24	143	67	301	49	223	158	739	73	366	
10:00	96		28		67		36		163		64		
10:15	86		24		103		23		189		47		
10:30	98		17		94		30		192		47		
10:45	85	365	15	84	81	345	18	107	166	710	33	191	
11:00	84		10		100		13		184		23		
11:15	107		8		111		28		218		36		
11:30	86		15		95		20		181		35		
11:45	95	372	12	45	106	412	10	71	201	784	22	116	
Total	3027		3446		2048		4755		5075		8201		
Percent	59.6%		42.0%		40.4%		58.0%						
Day Total		6473				6803				13276			
Peak	07:15		01:15		11:00		05:00		07:30		05:00		
Vol.	593		415		412		731		966		1104		
P.H.F.	0.893		0.843		0.928		0.928		0.940		0.929		

Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

122868 A Volume
Site Code: 10111.34

Start Time	NB A.M.		NB P.M.		SB A.M.		SB P.M.		Combined A.M.		Combined P.M.		11-Apr-12 Wed
12:00	6		85		11		109		17		194		
12:15	9		102		12		120		21		222		
12:30	10		97		6		108		16		205		
12:45	6	31	112	396	9	38	111	448	15	69	223	844	
01:00	3		89		11		93		14		182		
01:15	3		102		7		103		10		205		
01:30	4		98		5		100		9		198		
01:45	2	12	98	387	3	26	102	398	5	38	200	785	
02:00	2		90		2		105		4		195		
02:15	2		98		2		101		4		199		
02:30	4		100		4		117		8		217		
02:45	3	11	106	394	2	10	119	442	5	21	225	836	
03:00	3		97		0		120		3		217		
03:15	1		72		2		138		3		210		
03:30	3		86		5		117		8		203		
03:45	3	10	113	368	1	8	149	524	4	18	262	892	
04:00	4		102		7		153		11		255		
04:15	5		91		6		158		11		249		
04:30	14		93		5		143		19		236		
04:45	13	36	109	395	9	27	194	648	22	63	303	1043	
05:00	23		100		7		152		30		252		
05:15	27		97		10		178		37		275		
05:30	50		98		11		185		61		283		
05:45	55	155	102	397	26	54	183	698	81	209	285	1095	
06:00	90		95		15		176		105		271		
06:15	135		87		36		138		171		225		
06:30	126		87		33		166		159		253		
06:45	161	512	72	341	71	155	129	609	232	667	201	950	
07:00	112		82		64		119		176		201		
07:15	137		83		79		108		216		191		
07:30	145		58		82		98		227		156		
07:45	159	553	74	297	100	325	82	407	259	878	156	704	
08:00	143		58		89		72		232		130		
08:15	142		58		71		82		213		140		
08:30	122		70		90		87		212		157		
08:45	122	529	45	231	90	340	71	312	212	869	116	543	
09:00	125		39		79		61		204		100		
09:15	101		44		83		58		184		102		
09:30	92		36		94		62		186		98		
09:45	92	410	38	157	81	337	50	231	173	747	88	388	
10:00	89		32		80		37		169		69		
10:15	102		32		98		32		200		64		
10:30	101		24		107		27		208		51		
10:45	103	395	21	109	89	374	28	124	192	769	49	233	
11:00	106		22		117		20		223		42		
11:15	90		9		114		20		204		29		
11:30	81		12		112		19		193		31		
11:45	81	358	12	55	104	447	17	76	185	805	29	131	
Total	3012		3527		2141		4917		5153		8444		
Percent	58.5%		41.8%		41.5%		58.2%						
Day Total		6539				7058				13597			
Peak	07:30		04:45		11:00		05:15		07:15		05:15		
Vol.	589		404		447		722		934		1114		
P.H.F.	0.926		0.894		0.955		0.976		0.902		0.977		

Washington Street (Route 138)
north of Kinsley Street
City, State: Stoughotn, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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122868 A Volume
Site Code: 10111.34

Start	NB				SB				Combined				12-Apr-12
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	7		88		14		90		21		178		
12:15	8		94		15		96		23		190		
12:30	5		88		9		111		14		199		
12:45	5	25	106	376	6	44	93	390	11	69	199	766	
01:00	6		97		6		96		12		193		
01:15	4		99		8		103		12		202		
01:30	5		100		5		105		10		205		
01:45	1	16	95	391	6	25	107	411	7	41	202	802	
02:00	3		99		5		105		8		204		
02:15	3		98		5		112		8		210		
02:30	2		97		1		127		3		224		
02:45	3	11	111	405	1	12	125	469	4	23	236	874	
03:00	0		93		3		132		3		225		
03:15	6		105		2		142		8		247		
03:30	2		108		4		125		6		233		
03:45	4	12	98	404	3	12	143	542	7	24	241	946	
04:00	4		99		6		136		10		235		
04:15	12		91		3		141		15		232		
04:30	7		74		5		148		12		222		
04:45	14	37	105	369	3	17	164	589	17	54	269	958	
05:00	14		101		13		197		27		298		
05:15	29		98		10		178		39		276		
05:30	42		94		16		226		58		320		
05:45	56	141	95	388	22	61	178	779	78	202	273	1167	
06:00	78		117		20		153		98		270		
06:15	139		115		35		157		174		272		
06:30	127		75		39		161		166		236		
06:45	142	486	97	404	59	153	133	604	201	639	230	1008	
07:00	120		96		63		110		183		206		
07:15	156		62		65		143		221		205		
07:30	156		81		81		95		237		176		
07:45	134	566	61	300	100	309	94	442	234	875	155	742	
08:00	129		58		76		95		205		153		
08:15	139		63		91		72		230		135		
08:30	124		55		96		85		220		140		
08:45	127	519	60	236	80	343	53	305	207	862	113	541	
09:00	97		50		87		67		184		117		
09:15	102		39		69		59		171		98		
09:30	105		36		76		56		181		92		
09:45	77	381	27	152	78	310	45	227	155	691	72	379	
10:00	87		26		88		40		175		66		
10:15	76		22		81		29		157		51		
10:30	99		24		106		37		205		61		
10:45	83	345	24	96	82	357	33	139	165	702	57	235	
11:00	82		24		100		34		182		58		
11:15	111		12		105		24		216		36		
11:30	97		16		87		20		184		36		
11:45	105	395	11	63	98	390	20	98	203	785	31	161	
Total	2934		3584		2033		4995		4967		8579		
Percent	59.1%		41.8%		40.9%		58.2%						
Day Total		6518				7028				13546			
Peak	07:15		05:30		10:30		05:00		07:30		05:00		
Vol.	575		421		393		779		906		1167		
P.H.F.	0.921		0.900		0.927		0.862		0.956		0.912		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Brock Street
west of Washington Street (Route 138)
City, State: Stoughton, MA
Client: VHB/ E. Chan

122868 B Class
Site Code: 10111.34

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/10/1														
2	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	7	9	0	1	0	0	0	0	0	0	0	0	17
06:00	0	33	6	3	1	0	0	0	0	0	0	0	0	43
07:00	0	87	37	0	5	0	0	0	0	0	0	0	0	129
08:00	0	110	22	1	5	0	0	0	0	0	0	0	0	138
09:00	1	62	15	0	5	0	0	0	0	0	0	0	0	83
10:00	1	51	13	0	6	0	0	0	0	0	0	0	0	71
11:00	0	44	17	0	6	0	0	0	0	0	0	0	0	67
12 PM	0	49	14	0	2	0	0	0	0	0	0	0	0	65
13:00	2	49	19	0	4	0	0	1	0	0	0	0	0	75
14:00	0	81	19	2	2	0	0	0	0	0	0	0	0	104
15:00	0	83	28	1	7	0	0	0	0	0	0	0	0	119
16:00	0	93	31	0	4	0	0	1	0	0	0	0	0	129
17:00	2	109	40	0	8	0	0	0	0	0	0	0	0	159
18:00	0	94	23	0	4	0	0	0	0	0	0	0	0	121
19:00	2	54	28	0	4	0	0	0	0	0	0	0	0	88
20:00	0	39	10	0	1	0	0	0	0	0	0	0	0	50
21:00	0	20	4	0	1	0	0	0	0	0	0	0	0	25
22:00	0	9	4	0	0	0	0	0	0	0	0	0	0	13
23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Total	8	1086	339	7	67	0	0	2	0	0	0	0	0	1509
Percent	0.5%	72.0%	22.5%	0.5%	4.4%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	07:00	06:00	10:00									08:00
Vol.	1	110	37	3	6									138
PM Peak	13:00	17:00	17:00	14:00	17:00			13:00						17:00
Vol.	2	109	40	2	8			1						159

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Brock Street
west of Washington Street (Route 138)
City, State: Stoughton, MA
Client: VHB/ E. Chan

122868 B Class
Site Code: 10111.34

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/11/1														
2	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2
05:00	0	6	9	0	0	0	0	0	0	0	0	0	0	15
06:00	0	34	4	3	3	0	0	0	0	0	0	0	0	44
07:00	0	73	26	0	7	0	0	0	0	0	0	0	0	106
08:00	0	96	26	1	6	0	0	1	0	0	0	0	0	130
09:00	0	48	13	0	4	0	0	0	0	0	0	0	0	65
10:00	1	45	13	0	2	0	0	0	0	0	0	0	0	61
11:00	0	47	17	0	6	0	0	0	0	0	0	0	0	70
12 PM	0	52	12	1	4	0	0	1	0	0	0	0	0	70
13:00	2	52	16	0	5	0	0	0	0	0	0	0	0	75
14:00	0	64	39	3	4	0	0	0	0	0	0	0	0	110
15:00	0	84	29	1	6	1	0	1	0	0	0	0	0	122
16:00	1	113	36	0	10	0	0	1	0	0	0	0	0	161
17:00	2	122	41	0	10	0	0	0	0	0	0	0	0	175
18:00	0	81	24	0	4	0	0	0	0	0	0	0	0	109
19:00	0	57	18	0	2	0	0	0	0	0	0	0	0	77
20:00	0	26	7	0	2	0	0	0	0	0	0	0	0	35
21:00	0	21	2	0	0	0	0	0	0	0	0	0	0	23
22:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
23:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Total	6	1042	336	9	75	2	0	4	0	0	0	0	0	1474
Percent	0.4%	70.7%	22.8%	0.6%	5.1%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	07:00	06:00	07:00	04:00		08:00						08:00
Vol.	1	96	26	3	7	1		1						130
PM Peak	13:00	17:00	17:00	14:00	16:00	15:00		12:00						17:00
Vol.	2	122	41	3	10	1		1						175

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City, State: Stoughton, MA
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122868 B Class
Site Code: 10111.34

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/12/1														
2	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	4	1	0	0	1	0	0	0	0	0	0	0	6
05:00	0	6	6	0	1	0	0	0	0	0	0	0	0	13
06:00	0	31	9	2	4	0	0	0	0	0	0	0	0	46
07:00	0	71	17	1	3	0	0	0	0	0	0	0	0	92
08:00	1	94	25	0	5	0	0	1	0	0	0	0	0	126
09:00	3	61	19	0	2	0	0	0	0	0	0	0	0	85
10:00	0	46	17	0	3	0	0	1	0	0	0	0	0	67
11:00	0	56	20	0	2	0	0	0	0	0	0	0	0	78
12 PM	0	46	16	0	3	0	0	0	0	0	0	0	0	65
13:00	1	49	10	0	2	0	0	0	0	0	0	0	0	62
14:00	0	76	34	3	4	0	0	0	0	0	0	0	0	117
15:00	1	82	29	1	9	1	0	0	0	0	0	0	0	123
16:00	1	88	26	0	7	0	0	2	0	0	0	0	0	124
17:00	0	103	28	0	5	0	0	0	0	0	0	0	0	136
18:00	0	93	19	0	5	0	0	0	0	0	0	0	0	117
19:00	0	53	17	0	3	0	0	0	0	0	0	0	0	73
20:00	0	38	9	0	2	0	0	0	0	0	0	0	0	49
21:00	0	12	5	0	1	0	0	0	0	0	0	0	0	18
22:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
23:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10
Total	7	1035	310	7	61	2	0	4	0	0	0	0	0	1426
Percent	0.5%	72.6%	21.7%	0.5%	4.3%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	06:00	08:00	04:00		08:00						08:00
Vol.	3	94	25	2	5	1		1						126
PM Peak	13:00	17:00	14:00	14:00	15:00	15:00		16:00						17:00
Vol.	1	103	34	3	9	1		2						136
Total		3163	985	23	203	4	0	10	0	0	0	0	0	4409

PRECISION
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Brock Street
west of Washington Street (Route 138)
City, State: Stoughton, MA
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122868 B Class
Site Code: 10111.34

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/10/1														
2	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
06:00	0	71	13	0	3	0	0	0	0	0	0	0	0	87
07:00	0	169	22	2	2	0	0	0	0	0	0	0	0	195
08:00	0	128	22	0	3	0	0	0	0	0	0	0	0	153
09:00	0	48	16	0	6	0	0	0	0	0	0	0	0	70
10:00	2	46	19	0	4	1	0	0	0	0	0	0	0	72
11:00	1	76	21	0	2	0	0	0	0	0	0	0	0	100
12 PM	0	61	11	0	2	0	1	0	0	0	0	0	0	75
13:00	1	62	17	0	2	1	0	0	1	0	0	0	0	84
14:00	2	89	24	0	5	0	0	0	0	0	0	0	0	120
15:00	2	90	20	3	5	0	0	1	0	0	0	0	0	121
16:00	0	123	37	0	3	0	0	0	0	0	0	0	0	163
17:00	1	142	37	0	8	1	0	0	0	0	0	0	0	189
18:00	0	97	18	0	0	0	0	0	0	0	0	0	0	115
19:00	1	59	12	0	1	0	0	0	0	0	0	0	0	73
20:00	0	37	8	1	0	0	0	0	0	0	0	0	0	46
21:00	0	42	4	0	0	0	0	0	0	0	0	0	0	46
22:00	0	14	5	0	0	0	0	0	0	0	0	0	0	19
23:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
Total	10	1374	307	6	46	3	1	1	1	0	0	0	0	1749
Percent	0.6%	78.6%	17.6%	0.3%	2.6%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	07:00	09:00	10:00								07:00
Vol.	2	169	22	2	6	1								195
PM Peak	14:00	17:00	16:00	15:00	17:00	13:00	12:00	15:00	13:00					17:00
Vol.	2	142	37	3	8	1	1	1	1					189

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122868 B Class
Site Code: 10111.34

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/11/1														
2	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
06:00	0	65	12	1	0	0	0	0	0	0	0	0	0	78
07:00	0	164	22	2	3	0	0	0	0	0	0	0	0	191
08:00	0	120	19	2	5	0	0	0	0	0	0	0	0	146
09:00	0	48	21	0	6	0	0	0	0	0	0	0	0	75
10:00	1	44	10	0	2	0	0	1	0	0	0	0	0	58
11:00	0	57	15	0	3	1	0	0	0	0	0	0	0	76
12 PM	0	54	10	0	0	0	0	0	0	0	0	0	0	64
13:00	0	68	13	0	3	0	0	0	0	0	0	0	0	84
14:00	0	81	19	0	4	0	0	0	0	0	0	0	0	104
15:00	0	80	23	3	3	0	0	0	0	0	0	0	0	109
16:00	3	127	46	0	5	2	0	1	0	0	0	0	0	184
17:00	0	147	39	0	3	1	0	0	0	0	0	0	0	190
18:00	1	89	12	0	2	0	0	0	0	0	0	0	0	104
19:00	0	48	12	0	2	0	0	0	0	0	0	0	0	62
20:00	0	42	7	0	0	0	0	0	0	0	0	0	0	49
21:00	0	27	2	0	0	0	0	0	0	0	0	0	0	29
22:00	0	18	2	0	0	0	0	0	0	0	0	0	0	20
23:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Total	5	1302	287	8	42	5	0	2	0	0	0	0	0	1651
Percent	0.3%	78.9%	17.4%	0.5%	2.5%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	07:00	09:00	03:00		10:00						07:00
Vol.	1	164	22	2	6	1		1						191
PM Peak	16:00	17:00	16:00	15:00	16:00	16:00		16:00						17:00
Vol.	3	147	46	3	5	2		1						190

Brock Street
west of Washington Street (Route 138)
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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/12/1														
2	0	5	1	0	0	0	0	0	0	0	0	0	0	6
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
06:00	0	70	14	0	2	0	0	0	0	0	0	0	0	86
07:00	0	178	25	1	2	0	0	0	0	0	0	0	0	206
08:00	0	131	25	1	6	1	0	1	0	0	0	0	0	165
09:00	0	46	15	0	2	1	0	1	0	0	0	0	0	65
10:00	0	48	9	0	3	0	0	0	0	0	0	0	0	60
11:00	0	63	24	1	2	1	0	0	0	0	0	0	0	91
12 PM	0	57	11	0	1	0	0	0	0	0	0	0	0	69
13:00	0	64	12	0	5	0	0	0	0	0	0	0	0	81
14:00	0	99	20	0	6	0	0	0	0	0	0	0	0	125
15:00	1	99	29	6	3	0	0	0	0	0	0	0	0	138
16:00	1	112	26	0	2	1	0	0	1	0	0	0	0	143
17:00	1	129	25	0	3	1	0	0	0	0	0	0	0	159
18:00	0	92	12	0	1	0	0	0	0	0	0	0	0	105
19:00	0	74	18	0	2	0	0	0	0	0	0	0	0	94
20:00	0	42	9	0	0	0	0	0	0	0	0	0	0	51
21:00	0	27	7	0	0	0	0	0	0	0	0	0	0	34
22:00	0	18	7	0	0	0	0	0	0	0	0	0	0	25
23:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
Total	3	1371	290	9	41	5	0	2	1	0	0	0	0	1722
Percent	0.2%	79.6%	16.8%	0.5%	2.4%	0.3%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	07:00	08:00	08:00		08:00						07:00
Vol.		178	25	1	6	1		1						206
PM Peak	15:00	17:00	15:00	15:00	14:00	16:00			16:00					17:00
Vol.	1	129	29	6	6	1			1					159
Total		4047	884	23	129	13	1	5	2	0	0	0	0	5122

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122868 B Speed
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EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/10/1																
2	0	0	0	1	2	0	0	0	0	0	0	0	0	3	*	30
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	*	32
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	*	27
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	*	37
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	*	27
05:00	1	0	2	7	7	0	0	0	0	0	0	0	0	17	33	27
06:00	1	2	13	16	6	**5**	0	0	0	0	0	0	0	43	32	26
07:00	1	**6**	**31**	54	34	3	0	0	0	0	0	0	0	129	31	26
08:00	2	0	26	**63**	**40**	5	**2**	0	0	0	0	0	0	**138**	32	28
09:00	**5**	1	20	36	17	2	2	0	0	0	0	0	0	83	30	25
10:00	5	4	17	25	17	3	0	0	0	0	0	0	0	71	31	24
11:00	3	1	10	38	13	1	1	0	0	0	0	0	0	67	30	26
12 PM	3	4	14	23	21	0	0	0	0	0	0	0	0	65	31	25
13:00	2	1	12	33	20	7	0	0	0	0	0	0	0	75	33	27
14:00	3	5	22	42	28	3	**1**	0	0	0	0	0	0	104	31	26
15:00	2	0	20	53	35	**9**	0	0	0	0	0	0	0	119	32	28
16:00	5	6	**32**	52	31	3	0	0	0	0	0	0	0	129	31	25
17:00	**10**	**13**	32	**69**	32	2	1	0	0	0	0	0	0	**159**	30	24
18:00	3	4	8	62	**40**	4	0	0	0	0	0	0	0	121	32	27
19:00	2	2	18	54	8	4	0	0	0	0	0	0	0	88	29	26
20:00	1	2	8	25	14	0	0	0	0	0	0	0	0	50	31	26
21:00	0	0	7	9	6	3	0	0	0	0	0	0	0	25	33	28
22:00	0	1	2	5	4	1	0	0	0	0	0	0	0	13	32	27
23:00	0	0	1	2	3	0	0	0	0	0	0	0	0	6	31	29
%	3.2%	3.4%	19.5%	44.5%	25.1%	3.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	07:00	07:00	08:00	08:00	06:00	08:00							08:00		
Vol.	5	6	31	63	40	5	2							138		
PM Peak	17:00	17:00	16:00	17:00	18:00	15:00	14:00							17:00		
Vol.	10	13	32	69	40	9	1							159		
Total	49	52	295	671	379	56	7	0	0	0	0	0	0	1509	595	

Pecent

15th Percentile :	20 MPH
50th Percentile :	26 MPH
85th Percentile :	31 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	23-32 MPH
Number in Pace :	977
Percent in Pace :	64.7%
Number of Vehicles > 30 MPH :	363
Percent of Vehicles > 30 MPH :	24.1%
Mean Speed(Average) :	26 MPH

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EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/11/1																
2	0	0	1	2	1	0	0	0	0	0	0	0	0	4	*	27
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	*	32
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	*	27
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	*	32
04:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	*	29
05:00	1	0	1	9	4	0	0	0	0	0	0	0	0	15	31	26
06:00	2	4	6	18	10	3	**1**	0	0	0	0	0	0	44	31	26
07:00	2	**5**	**22**	41	30	6	0	0	0	0	0	0	0	106	32	27
08:00	**11**	5	20	**54**	**36**	4	0	0	0	0	0	0	0	**130**	31	25
09:00	0	3	14	29	15	3	1	0	0	0	0	0	0	65	31	27
10:00	3	0	9	24	17	**7**	1	0	0	0	0	0	0	61	33	27
11:00	0	5	9	34	20	2	0	0	0	0	0	0	0	70	31	27
12 PM	1	0	10	29	27	3	0	0	0	0	0	0	0	70	32	28
13:00	2	4	13	36	17	3	0	0	0	0	0	0	0	75	31	26
14:00	2	1	23	42	37	5	0	0	0	0	0	0	0	110	32	27
15:00	4	4	21	50	34	**9**	0	0	0	0	0	0	0	122	32	27
16:00	4	3	21	71	**53**	7	**2**	0	0	0	0	0	0	161	32	27
17:00	**7**	**10**	**33**	**78**	40	7	0	0	0	0	0	0	0	**175**	31	25
18:00	1	1	25	44	37	1	0	0	0	0	0	0	0	109	31	27
19:00	1	6	15	32	22	1	0	0	0	0	0	0	0	77	31	26
20:00	2	2	8	17	4	2	0	0	0	0	0	0	0	35	30	24
21:00	0	1	2	9	11	0	0	0	0	0	0	0	0	23	32	28
22:00	1	0	1	7	1	0	0	0	0	0	0	0	0	10	28	24
23:00	0	0	0	4	1	2	0	0	0	0	0	0	0	7	28	31
%	3.0%	3.7%	17.2%	42.9%	28.5%	4.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	08:00	08:00	10:00	06:00							08:00		
Vol.	11	5	22	54	36	7	1							130		
PM Peak	17:00	17:00	17:00	17:00	16:00	15:00	16:00							17:00		
Vol.	7	10	33	78	53	9	2							175		
Total	44	54	254	632	420	65	5	0	0	0	0	0	0	1474	590	

Pecent

15th Percentile :	20 MPH
50th Percentile :	26 MPH
85th Percentile :	32 MPH
95th Percentile :	34 MPH

Stats

10 MPH Pace Speed :	24-33 MPH
Number in Pace :	952
Percent in Pace :	64.6%
Number of Vehicles > 30 MPH :	399
Percent of Vehicles > 30 MPH :	27.1%
Mean Speed(Average) :	26 MPH

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Brock Street
west of Washington Street (Route 138)
City, State: Stoughton, MA
Client: VHB/ E. Chan

122868 B Speed
Site Code: 10111.34

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/12/1																
2	0	0	0	1	1	0	0	0	0	0	0	0	0	2	*	29
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	*	29
02:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	*	29
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	1	1	1	2	1	0	0	0	0	0	0	0	6	*	27
05:00	1	0	2	4	5	1	0	0	0	0	0	0	0	13	32	26
06:00	1	4	5	19	15	2	0	0	0	0	0	0	0	46	31	26
07:00	1	3	16	33	**33**	**6**	0	0	0	0	0	0	0	92	32	28
08:00	1	**5**	**21**	**73**	23	3	0	0	0	0	0	0	0	**126**	30	26
09:00	3	4	14	38	24	2	0	0	0	0	0	0	0	85	31	26
10:00	**4**	3	17	27	16	0	0	0	0	0	0	0	0	67	30	24
11:00	0	3	14	34	23	4	0	0	0	0	0	0	0	78	32	27
12 PM	4	1	5	34	18	3	0	0	0	0	0	0	0	65	31	26
13:00	2	3	10	31	14	2	0	0	0	0	0	0	0	62	31	26
14:00	1	**6**	24	53	29	4	0	0	0	0	0	0	0	117	31	26
15:00	5	4	**28**	52	30	4	0	0	0	0	0	0	0	123	31	26
16:00	**7**	3	15	53	37	**9**	0	0	0	0	0	0	0	124	32	26
17:00	4	3	14	60	**45**	7	**3**	0	0	0	0	0	0	**136**	32	28
18:00	1	3	8	**65**	35	5	0	0	0	0	0	0	0	117	32	28
19:00	0	1	13	41	16	2	0	0	0	0	0	0	0	73	31	27
20:00	3	2	8	21	13	2	0	0	0	0	0	0	0	49	31	25
21:00	0	1	2	4	10	0	1	0	0	0	0	0	0	18	32	29
22:00	0	0	3	7	3	0	0	0	0	0	0	0	0	13	30	27
23:00	1	0	2	5	1	1	0	0	0	0	0	0	0	10	28	24
%	2.7%	3.5%	15.6%	46.1%	27.7%	4.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	08:00	08:00	07:00	07:00								08:00		
Vol.	4	5	21	73	33	6								126		
PM Peak	16:00	14:00	15:00	18:00	17:00	16:00	17:00							17:00		
Vol.	7	6	28	65	45	9	3							136		
Total	39	50	222	658	395	58	4	0	0	0	0	0	0	1426	590	

Pecent

15th Percentile : 20 MPH
50th Percentile : 26 MPH
85th Percentile : 31 MPH
95th Percentile : 34 MPH

Stats

10 MPH Pace Speed : 24-33 MPH
Number in Pace : 953
Percent in Pace : 66.8%
Number of Vehicles > 30 MPH : 375
Percent of Vehicles > 30 MPH : 26.3%
Mean Speed(Average) : 27 MPH

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Brock Street
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City, State: Stoughton, MA
Client: VHB/ E. Chan

122868 B Speed
Site Code: 10111.34

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/10/1																
2	0	0	1	2	1	0	0	0	0	0	0	0	0	4	*	27
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	*	37
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	*	32
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	*	32
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	*	22
05:00	0	0	0	3	3	0	0	0	0	0	0	0	0	6	31	30
06:00	2	0	12	44	27	2	0	0	0	0	0	0	0	87	31	27
07:00	2	3	19	**109**	**58**	**4**	0	0	0	0	0	0	0	**195**	31	28
08:00	0	2	21	87	39	3	**1**	0	0	0	0	0	0	153	31	28
09:00	2	**4**	22	32	8	2	0	0	0	0	0	0	0	70	29	24
10:00	**4**	2	21	32	13	0	0	0	0	0	0	0	0	72	29	24
11:00	4	2	**25**	57	11	0	1	0	0	0	0	0	0	100	29	25
12 PM	5	4	18	37	9	2	0	0	0	0	0	0	0	75	29	24
13:00	2	5	28	37	12	0	0	0	0	0	0	0	0	84	29	24
14:00	2	1	33	56	28	0	0	0	0	0	0	0	0	120	30	26
15:00	0	5	28	70	16	2	0	0	0	0	0	0	0	121	29	26
16:00	2	**12**	44	78	25	2	0	0	0	0	0	0	0	163	29	25
17:00	**8**	8	**50**	**95**	27	1	0	0	0	0	0	0	0	**189**	29	24
18:00	0	2	20	59	**32**	2	0	0	0	0	0	0	0	115	31	27
19:00	1	0	26	32	14	0	0	0	0	0	0	0	0	73	30	26
20:00	0	3	18	21	4	0	0	0	0	0	0	0	0	46	28	24
21:00	1	0	5	32	4	**4**	0	0	0	0	0	0	0	46	31	27
22:00	0	3	6	7	3	0	0	0	0	0	0	0	0	19	29	24
23:00	0	0	1	5	1	0	0	0	0	0	0	0	0	7	28	27
%	2.0%	3.2%	22.8%	51.2%	19.3%	1.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	11:00	07:00	07:00	07:00	08:00							07:00		
Vol.	4	4	25	109	58	4	1							195		
PM Peak	17:00	16:00	17:00	17:00	18:00	21:00								17:00		
Vol.	8	12	50	95	32	4								189		
Total	35	56	399	895	337	25	2	0	0	0	0	0	0	1749	563	

Pecent

15th Percentile :	20 MPH
50th Percentile :	25 MPH
85th Percentile :	30 MPH
95th Percentile :	33 MPH

Stats

10 MPH Pace Speed :	22-31 MPH
Number in Pace :	1232
Percent in Pace :	70.4%
Number of Vehicles > 30 MPH :	310
Percent of Vehicles > 30 MPH :	17.7%
Mean Speed(Average) :	26 MPH

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122868 B Speed
Site Code: 10111.34

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/11/1																
2	0	0	1	5	0	1	0	0	0	0	0	0	0	7	28	28
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	*	22
02:00	0	0	0	3	0	0	0	0	0	0	0	0	0	3	26	27
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2	*	24
04:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2	*	27
05:00	0	0	1	6	1	0	0	0	0	0	0	0	0	8	28	27
06:00	**3**	1	16	32	23	3	0	0	0	0	0	0	0	78	31	26
07:00	2	**4**	**32**	**97**	**53**	2	**1**	0	0	0	0	0	0	**191**	31	27
08:00	0	3	29	81	28	**5**	0	0	0	0	0	0	0	146	31	27
09:00	0	4	23	33	14	1	0	0	0	0	0	0	0	75	30	26
10:00	2	2	14	35	3	2	0	0	0	0	0	0	0	58	28	25
11:00	0	1	19	42	11	3	0	0	0	0	0	0	0	76	30	27
12 PM	0	3	12	32	16	1	0	0	0	0	0	0	0	64	31	27
13:00	2	2	13	49	15	3	0	0	0	0	0	0	0	84	30	26
14:00	1	4	28	47	20	**4**	0	0	0	0	0	0	0	104	30	26
15:00	0	3	24	56	26	0	0	0	0	0	0	0	0	109	30	27
16:00	**6**	**8**	40	93	**33**	4	0	0	0	0	0	0	0	184	30	25
17:00	2	4	**45**	**102**	33	4	0	0	0	0	0	0	0	**190**	30	26
18:00	1	0	22	59	21	1	0	0	0	0	0	0	0	104	30	27
19:00	4	2	19	32	5	0	0	0	0	0	0	0	0	62	28	23
20:00	2	0	13	24	9	1	0	0	0	0	0	0	0	49	30	26
21:00	0	0	8	12	9	0	0	0	0	0	0	0	0	29	31	27
22:00	2	1	4	8	4	0	0	**1**	0	0	0	0	0	20	30	24
23:00	0	0	1	2	2	0	0	0	0	0	0	0	0	5	*	28
%	1.6%	2.5%	22.2%	51.5%	19.8%	2.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	07:00	07:00	07:00	07:00	08:00	07:00							07:00		
Vol.	3	4	32	97	53	5	1							191		
PM Peak	16:00	16:00	17:00	17:00	16:00	14:00		22:00						17:00		
Vol.	6	8	45	102	33	4		1						190		
Total	27	42	367	851	327	35	1	1	0	0	0	0	0	1651	593	
Pecent																

15th Percentile :	20 MPH
50th Percentile :	26 MPH
85th Percentile :	30 MPH
95th Percentile :	33 MPH

Stats

10 MPH Pace Speed :	22-31 MPH
Number in Pace :	1174
Percent in Pace :	71.1%
Number of Vehicles > 30 MPH :	312
Percent of Vehicles > 30 MPH :	18.9%
Mean Speed(Average) :	26 MPH

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122868 B Speed
Site Code: 10111.34

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
04/12/1																
2	0	1	1	3	1	0	0	0	0	0	0	0	0	6	26	24
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	*	27
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2	*	27
05:00	0	0	0	3	1	0	0	0	0	0	0	0	0	4	27	28
06:00	1	2	16	44	19	4	0	0	0	0	0	0	0	86	31	27
07:00	0	**7**	**36**	**110**	**46**	**6**	**1**	0	0	0	0	0	0	**206**	31	27
08:00	1	1	30	91	39	2	1	0	0	0	0	0	0	165	30	27
09:00	**2**	2	22	25	12	2	0	0	0	0	0	0	0	65	30	25
10:00	0	2	18	31	8	1	0	0	0	0	0	0	0	60	29	26
11:00	2	1	29	46	12	1	0	0	0	0	0	0	0	91	29	25
12 PM	1	1	23	35	9	0	0	0	0	0	0	0	0	69	29	25
13:00	2	3	25	40	9	2	0	0	0	0	0	0	0	81	29	25
14:00	0	4	30	64	26	0	**1**	0	0	0	0	0	0	125	30	26
15:00	**6**	3	**46**	67	14	2	0	0	0	0	0	0	0	138	29	24
16:00	6	**6**	27	**74**	27	3	0	0	0	0	0	0	0	143	30	25
17:00	2	0	33	74	**48**	2	0	0	0	0	0	0	0	**159**	31	27
18:00	3	1	14	65	18	**4**	0	0	0	0	0	0	0	105	30	26
19:00	1	4	29	46	14	0	0	0	0	0	0	0	0	94	29	25
20:00	1	3	11	27	8	1	0	0	0	0	0	0	0	51	29	25
21:00	0	0	9	16	8	1	0	0	0	0	0	0	0	34	31	27
22:00	0	2	10	8	5	0	0	0	0	0	0	0	0	25	30	25
23:00	0	1	4	5	2	0	0	0	0	0	0	0	0	12	28	25
%	1.6%	2.6%	24.0%	50.8%	19.0%	1.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	07:00	07:00	07:00	07:00	07:00	07:00							07:00		
Vol.	2	7	36	110	46	6	1							206		
PM Peak	15:00	16:00	15:00	16:00	17:00	18:00	14:00							17:00		
Vol.	6	6	46	74	48	4	1							159		
Total	28	44	414	875	327	31	3	0	0	0	0	0	0	1722	588	
Pecent																

15th Percentile : 20 MPH
50th Percentile : 26 MPH
85th Percentile : 30 MPH
95th Percentile : 33 MPH

Stats

10 MPH Pace Speed : 22-31 MPH
Number in Pace : 1225
Percent in Pace : 71.1%
Number of Vehicles > 30 MPH : 310
Percent of Vehicles > 30 MPH : 18.0%
Mean Speed(Average) : 26 MPH

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122868 B Volume
Site Code: 10111.34

Start	EB				WB				Combined				10-Apr-12
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	0		16		0		20		0		36		
12:15	1		15		0		17		1		32		
12:30	1		14		0		26		1		40		
12:45	1	3	20	65	4	4	12	75	5	7	32	140	
01:00	0		22		0		20		0		42		
01:15	1		20		1		25		2		45		
01:30	0		18		0		17		0		35		
01:45	0	1	15	75	0	1	22	84	0	2	37	159	
02:00	0		17		0		24		0		41		
02:15	0		23		1		33		1		56		
02:30	1		21		0		36		1		57		
02:45	0	1	43	104	0	1	27	120	0	2	70	224	
03:00	1		32		0		22		1		54		
03:15	0		21		0		29		0		50		
03:30	0		31		1		40		1		71		
03:45	0	1	35	119	0	1	30	121	0	2	65	240	
04:00	0		32		0		29		0		61		
04:15	0		27		1		49		1		76		
04:30	0		45		0		39		0		84		
04:45	1	1	25	129	0	1	46	163	1	2	71	292	
05:00	1		37		1		43		2		80		
05:15	5		28		1		49		6		77		
05:30	7		49		2		54		9		103		
05:45	4	17	45	159	2	6	43	189	6	23	88	348	
06:00	14		35		4		41		18		76		
06:15	8		35		14		27		22		62		
06:30	8		25		29		26		37		51		
06:45	13	43	26	121	40	87	21	115	53	130	47	236	
07:00	21		17		38		18		59		35		
07:15	46		30		54		24		100		54		
07:30	34		30		62		17		96		47		
07:45	28	129	11	88	41	195	14	73	69	324	25	161	
08:00	33		12		51		12		84		24		
08:15	47		11		60		12		107		23		
08:30	30		17		26		12		56		29		
08:45	28	138	10	50	16	153	10	46	44	291	20	96	
09:00	14		10		18		23		32		33		
09:15	27		4		16		7		43		11		
09:30	21		7		19		9		40		16		
09:45	21	83	4	25	17	70	7	46	38	153	11	71	
10:00	18		4		16		6		34		10		
10:15	19		5		23		6		42		11		
10:30	13		2		18		4		31		6		
10:45	21	71	2	13	15	72	3	19	36	143	5	32	
11:00	22		1		25		2		47		3		
11:15	14		1		28		0		42		1		
11:30	15		2		21		1		36		3		
11:45	16	67	2	6	26	100	4	7	42	167	6	13	
Total	555		954		691		1058		1246		2012		
Percent	44.5%		47.4%		55.5%		52.6%						
Day Total		1509				1749				3258			
Peak	07:30		05:30		07:30		04:45		07:30		05:00		
Vol.	142		164		214		192		356		348		
P.H.F.	0.755		0.837		0.863		0.889		0.832		0.845		

Brock Street
west of Washington Street (Route 138)
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

122868 B Volume
Site Code: 10111.34

Start	EB				WB				Combined				11-Apr-12
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	2		19		3		23		5		42		
12:15	2		9		0		10		2		19		
12:30	0		19		3		16		3		35		
12:45	0	4	23	70	1	7	15	64	1	11	38	134	
01:00	0		22		1		19		1		41		
01:15	0		25		0		22		0		47		
01:30	0		19		0		20		0		39		
01:45	1	1	9	75	0	1	23	84	1	2	32	159	
02:00	0		17		2		25		2		42		
02:15	1		25		0		19		1		44		
02:30	0		32		1		30		1		62		
02:45	0	1	36	110	0	3	30	104	0	4	66	214	
03:00	0		31		0		21		0		52		
03:15	1		27		1		27		2		54		
03:30	0		40		0		21		0		61		
03:45	0	1	24	122	1	2	40	109	1	3	64	231	
04:00	1		51		0		34		1		85		
04:15	0		29		1		44		1		73		
04:30	0		44		0		49		0		93		
04:45	1	2	37	161	1	2	57	184	2	4	94	345	
05:00	2		52		0		56		2		108		
05:15	2		36		0		40		2		76		
05:30	4		54		4		51		8		105		
05:45	7	15	33	175	4	8	43	190	11	23	76	365	
06:00	9		42		2		36		11		78		
06:15	7		21		17		26		24		47		
06:30	8		24		17		30		25		54		
06:45	20	44	22	109	42	78	12	104	62	122	34	213	
07:00	16		18		33		16		49		34		
07:15	32		29		61		13		93		42		
07:30	27		21		55		16		82		37		
07:45	31	106	9	77	42	191	17	62	73	297	26	139	
08:00	35		7		41		18		76		25		
08:15	52		7		52		10		104		17		
08:30	29		12		27		13		56		25		
08:45	14	130	9	35	26	146	8	49	40	276	17	84	
09:00	20		7		26		11		46		18		
09:15	21		8		13		6		34		14		
09:30	13		5		18		5		31		10		
09:45	11	65	3	23	18	75	7	29	29	140	10	52	
10:00	11		2		13		5		24		7		
10:15	18		3		19		8		37		11		
10:30	18		4		13		4		31		8		
10:45	14	61	1	10	13	58	3	20	27	119	4	30	
11:00	16		1		19		0		35		1		
11:15	16		2		25		2		41		4		
11:30	15		1		14		1		29		2		
11:45	23	70	3	7	18	76	2	5	41	146	5	12	
Total	500		974		647		1004		1147		1978		
Percent	43.6%		49.2%		56.4%		50.8%						
Day Total		1474				1651				3125			
Peak	07:45		04:45		07:15		04:15		07:30		04:45		
Vol.	147		179		199		206		335		383		
P.H.F.	0.707		0.829		0.816		0.904		0.805		0.887		

Brock Street
west of Washington Street (Route 138)
City, State: Stoughton, MA
Client: VHB/ E. Chan

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122868 B Volume
Site Code: 10111.34

Start	EB				WB				Combined				12-Apr-12
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	1		13		2		19		3		32		
12:15	0		13		1		19		1		32		
12:30	1		18		2		15		3		33		
12:45	0	2	21	65	1	6	16	69	1	8	37	134	
01:00	0		16		1		24		1		40		
01:15	1		10		0		16		1		26		
01:30	0		16		0		21		0		37		
01:45	1	2	20	62	0	1	20	81	1	3	40	143	
02:00	0		15		0		19		0		34		
02:15	1		20		0		31		1		51		
02:30	0		30		0		38		0		68		
02:45	1	2	52	117	0	0	37	125	1	2	89	242	
03:00	0		31		0		37		0		68		
03:15	0		40		0		30		0		70		
03:30	0		23		0		40		0		63		
03:45	0	0	29	123	0	0	31	138	0	0	60	261	
04:00	1		24		0		33		1		57		
04:15	0		38		0		37		0		75		
04:30	2		30		2		34		4		64		
04:45	3	6	32	124	0	2	39	143	3	8	71	267	
05:00	2		32		0		43		2		75		
05:15	2		38		0		34		2		72		
05:30	5		35		3		44		8		79		
05:45	4	13	31	136	1	4	38	159	5	17	69	295	
06:00	10		40		6		30		16		70		
06:15	10		27		16		31		26		58		
06:30	7		30		24		22		31		52		
06:45	19	46	20	117	40	86	22	105	59	132	42	222	
07:00	14		17		47		35		61		52		
07:15	26		14		56		29		82		43		
07:30	33		27		61		16		94		43		
07:45	19	92	15	73	42	206	14	94	61	298	29	167	
08:00	38		9		44		14		82		23		
08:15	38		8		56		14		94		22		
08:30	28		18		39		10		67		28		
08:45	22	126	14	49	26	165	13	51	48	291	27	100	
09:00	17		6		19		10		36		16		
09:15	26		3		15		9		41		12		
09:30	24		6		14		8		38		14		
09:45	18	85	3	18	17	65	7	34	35	150	10	52	
10:00	17		7		19		10		36		17		
10:15	20		5		8		4		28		9		
10:30	12		1		20		7		32		8		
10:45	18	67	0	13	13	60	4	25	31	127	4	38	
11:00	17		3		25		6		42		9		
11:15	22		3		24		2		46		5		
11:30	21		2		22		2		43		4		
11:45	18	78	2	10	20	91	2	12	38	169	4	22	
Total	519		907		686		1036		1205		1943		
Percent	43.1%		46.7%		56.9%		53.3%						
Day Total		1426				1722				3148			
Peak	07:30		02:30		07:00		04:45		07:30		04:45		
Vol.	128		153		206		160		331		297		
P.H.F.	0.842		0.736		0.844		0.909		0.880		0.834		

N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 A
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	28	1	0	4	0	0	0	0	2	195	21	55	0	62	0	0	0	0	1	28	0	0	0	397
06:45 AM	0	0	33	1	0	2	0	0	0	0	0	171	35	68	0	59	0	0	0	0	0	22	0	0	0	391
Total	0	0	61	2	0	6	0	0	0	0	2	366	56	123	0	121	0	0	0	0	1	50	0	0	0	788
07:00 AM	0	0	39	2	0	3	0	0	0	0	2	180	48	50	0	96	0	0	0	0	0	35	0	0	0	455
07:15 AM	0	0	44	1	0	2	0	0	0	0	2	172	62	73	0	149	0	0	0	0	1	50	0	0	0	556
07:30 AM	0	0	63	4	0	3	0	0	0	0	3	185	29	72	0	125	0	0	0	0	0	55	0	0	0	539
07:45 AM	0	0	58	2	0	3	0	0	0	0	3	189	41	73	0	93	0	0	0	0	0	39	0	0	0	501
Total	0	0	204	9	0	11	0	0	0	0	10	726	180	268	0	463	0	0	0	0	1	179	0	0	0	2051
08:00 AM	0	0	65	3	0	7	0	0	0	0	0	156	34	71	0	98	0	0	0	0	1	35	0	0	0	470
08:15 AM	0	0	73	3	0	6	0	0	0	0	2	184	29	84	0	123	0	0	0	0	0	38	0	0	0	542
Grand Total	0	0	403	17	0	30	0	0	0	0	14	1432	299	546	0	805	0	0	0	0	3	302	0	0	0	3851
Apprch %	0	0	96	4	0	100	0	0	0	0	0.6	62.5	13.1	23.8	0	100	0	0	0	0	1	99	0	0	0	
Total %	0	0	10.5	0.4	0	0.8	0	0	0	0	0.4	37.2	7.8	14.2	0	20.9	0	0	0	0	0.1	7.8	0	0	0	
Cars	0	0	373	16	0	30	0	0	0	0	14	1398	283	511	0	784	0	0	0	0	3	297	0	0	0	3709
% Cars	0	0	92.6	94.1	0	100	0	0	0	0	100	97.6	94.6	93.6	0	97.4	0	0	0	0	100	98.3	0	0	0	96.3
Heavy Vehicles	0	0	30	1	0	0	0	0	0	0	0	34	16	35	0	21	0	0	0	0	0	5	0	0	0	142
% Heavy Vehicles	0	0	7.4	5.9	0	0	0	0	0	0	0	2.4	5.4	6.4	0	2.6	0	0	0	0	0	1.7	0	0	0	3.7

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 7:15:00 AM																															
7:15:00 AM	0	0	44	1	0	45	2	0	0	0	0	2	2	172	**62**	**73**	0	**309**	**149**	0	0	0	0	**149**	**1**	50	0	0	0	51	**556**
7:30:00 AM	0	0	63	**4**	0	67	3	0	0	0	0	3	**3**	185	29	72	0	289	125	0	0	0	0	125	0	**55**	0	0	0	**55**	539
7:45:00 AM	0	0	58	2	0	60	3	0	0	0	0	3	3	**189**	41	73	0	306	93	0	0	0	0	93	0	39	0	0	0	39	501
8:00:00 AM	0	0	**65**	3	0	**68**	**7**	0	0	0	0	**7**	0	156	34	71	0	261	98	0	0	0	0	98	1	35	0	0	0	36	470
Total Volume	0	0	230	10	0	240	15	0	0	0	0	15	8	702	166	289	0	1165	465	0	0	0	0	465	2	179	0	0	0	181	2066
% App. Total	0	0	95.8	4.2	0		100	0	0	0	0		0.7	60.3	14.2	24.8	0		100	0	0	0	0		1.1	98.9	0	0	0		
PHF	.000	.000	.885	.625	.000	.882	.536	.000	.000	.000	.000	.536	.667	.929	.669	.990	.000	.943	.780	.000	.000	.000	.000	.780	.500	.814	.000	.000	.000	.823	.929
Cars	0	0	217	10	0	227	15	0	0	0	0	15	8	685	158	268	0	1119	452	0	0	0	0	452	2	175	0	0	0	177	1990
% Cars	0	0	94.3	100	0	94.6	100	0	0	0	0	100	100	97.6	95.2	92.7	0	96.1	97.2	0	0	0	0	97.2	100	97.8	0	0	0	97.8	96.3
Heavy Vehicles	0	0	13	0	0	13	0	0	0	0	0	0	0	17	8	21	0	46	13	0	0	0	0	13	0	4	0	0	0	4	76
% Heavy Vehicles	0	0	5.7	0	0	5.4	0	0	0	0	0	0	0	2.4	4.8	7.3	0	3.9	2.8	0	0	0	0	2.8	0	2.2	0	0	0	2.2	3.7

N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
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File Name : 122868 A
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	26	1	0	4	0	0	0	0	2	193	21	53	0	61	0	0	0	0	1	28	0	0	0	390
06:45 AM	0	0	30	1	0	2	0	0	0	0	0	162	33	65	0	58	0	0	0	0	0	22	0	0	0	373
Total	0	0	56	2	0	6	0	0	0	0	2	355	54	118	0	119	0	0	0	0	1	50	0	0	0	763
07:00 AM	0	0	32	1	0	3	0	0	0	0	2	178	44	49	0	94	0	0	0	0	0	34	0	0	0	437
07:15 AM	0	0	39	1	0	2	0	0	0	0	2	169	59	66	0	143	0	0	0	0	1	49	0	0	0	531
07:30 AM	0	0	62	4	0	3	0	0	0	0	3	181	29	66	0	123	0	0	0	0	0	55	0	0	0	526
07:45 AM	0	0	57	2	0	3	0	0	0	0	3	181	38	69	0	91	0	0	0	0	0	37	0	0	0	481
Total	0	0	190	8	0	11	0	0	0	0	10	709	170	250	0	451	0	0	0	0	1	175	0	0	0	1975
08:00 AM	0	0	59	3	0	7	0	0	0	0	0	154	32	67	0	95	0	0	0	0	1	34	0	0	0	452
08:15 AM	0	0	68	3	0	6	0	0	0	0	2	180	27	76	0	119	0	0	0	0	0	38	0	0	0	519
Grand Total	0	0	373	16	0	30	0	0	0	0	14	1398	283	511	0	784	0	0	0	0	3	297	0	0	0	3709
Apprch %	0	0	95.9	4.1	0	100	0	0	0	0	0.6	63.4	12.8	23.2	0	100	0	0	0	0	1	99	0	0	0	
Total %	0	0	10.1	0.4	0	0.8	0	0	0	0	0.4	37.7	7.6	13.8	0	21.1	0	0	0	0	0.1	8	0	0	0	

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 7:15:00 AM																															
7:15:00 AM	0	0	39	1	0	40	2	0	0	0	0	2	2	169	**59**	66	0	**296**	**143**	0	0	0	0	**143**	**1**	49	0	0	0	50	**531**
7:30:00 AM	0	0	**62**	**4**	0	**66**	3	0	0	0	0	3	**3**	**181**	29	66	0	279	123	0	0	0	0	123	0	**55**	0	0	0	**55**	526
7:45:00 AM	0	0	57	2	0	59	3	0	0	0	0	3	3	181	38	**69**	0	291	91	0	0	0	0	91	0	37	0	0	0	37	481
8:00:00 AM	0	0	59	3	0	62	**7**	0	0	0	0	**7**	0	154	32	67	0	253	95	0	0	0	0	95	1	34	0	0	0	35	452
Total Volume	0	0	217	10	0	227	15	0	0	0	0	15	8	685	158	268	0	1119	452	0	0	0	0	452	2	175	0	0	0	177	1990
% App. Total	0	0	95.6	4.4	0		100	0	0	0	0		0.7	61.2	14.1	23.9	0		100	0	0	0	0		1.1	98.9	0	0	0		
PHF	.000	.000	.875	.625	.000	.860	.536	.000	.000	.000	.000	.536	.667	.946	.669	.971	.000	.945	.790	.000	.000	.000	.000	.790	.500	.795	.000	.000	.000	.805	.937

N/S: Washington Street (Route 138)
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File Name : 122868 A
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	2	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	0	0	0	0	0	7
06:45 AM	0	0	3	0	0	0	0	0	0	0	0	9	2	3	0	1	0	0	0	0	0	0	0	0	0	18
Total	0	0	5	0	0	0	0	0	0	0	0	11	2	5	0	2	0	0	0	0	0	0	0	0	0	25
07:00 AM	0	0	7	1	0	0	0	0	0	0	0	2	4	1	0	2	0	0	0	0	0	1	0	0	0	18
07:15 AM	0	0	5	0	0	0	0	0	0	0	0	3	3	7	0	6	0	0	0	0	0	1	0	0	0	25
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	4	0	6	0	2	0	0	0	0	0	0	0	0	0	13
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	8	3	4	0	2	0	0	0	0	0	2	0	0	0	20
Total	0	0	14	1	0	0	0	0	0	0	0	17	10	18	0	12	0	0	0	0	0	4	0	0	0	76
08:00 AM	0	0	6	0	0	0	0	0	0	0	0	2	2	4	0	3	0	0	0	0	0	1	0	0	0	18
08:15 AM	0	0	5	0	0	0	0	0	0	0	0	4	2	8	0	4	0	0	0	0	0	0	0	0	0	23
Grand Total	0	0	30	1	0	0	0	0	0	0	0	34	16	35	0	21	0	0	0	0	0	5	0	0	0	142
Apprch %	0	0	96.8	3.2	0	0	0	0	0	0	0	40	18.8	41.2	0	100	0	0	0	0	0	100	0	0	0	
Total %	0	0	21.1	0.7	0	0	0	0	0	0	0	23.9	11.3	24.6	0	14.8	0	0	0	0	0	3.5	0	0	0	

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 7:00:00 AM																															
7:00:00 AM	0	0	**7**	**1**	0	**8**	0	0	0	0	0	0	0	2	**4**	1	0	7	2	0	0	0	0	2	0	1	0	0	0	1	18
7:15:00 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	3	3	**7**	0	13	**6**	0	0	0	0	**6**	0	1	0	0	0	1	**25**
7:30:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	4	0	6	0	10	2	0	0	0	0	2	0	0	0	0	0	0	13
7:45:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	**8**	3	4	0	**15**								**2**	0	0	0	**2**	20
Total Volume	0	0	14	1	0	15	0	0	0	0	0	0	0	17	10	18	0	45	12	0	0	0	0	12	0	4	0	0	0	4	76
% App. Total	0	0	93.3	6.7	0		0	0	0	0	0		0	37.8	22.2	40	0		100	0	0	0	0		0	100	0	0	0		
PHF	.000	.000	.500	.250	.000	.469	.000	.000	.000	.000	.000	.000	.000	.531	.625	.643	.000	.750	.500	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.500	.760

N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 A
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	5
06:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	8
07:00 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	9
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	13
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5
Total	0	0	0	0	1	0	0	0	0	9	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	29
08:00 AM	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	4
Grand Total	0	0	0	0	2	0	0	0	0	17	0	1	0	1	0	0	0	0	0	25	0	0	0	0	0	46
Apprch %	0	0	0	0	100	0	0	0	0	100	0	50	0	50	0	0	0	0	0	100	0	0	0	0	0	
Total %	0	0	0	0	4.3	0	0	0	0	37	0	2.2	0	2.2	0	0	0	0	0	54.3	0	0	0	0	0	

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 6:30:00 AM																															
6:30:00 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	5
6:45:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	3
7:00:00 AM	0	0	0	0	**1**	**1**	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	9
7:15:00 AM	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	0	0	0	0	0	0	0	0	0	**10**	**10**	0	0	0	0	0	0	**13**
Total Volume	0	0	0	0	1	1	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	22	22	0	0	0	0	0	0	30
% App. Total	0	0	0	0	100		0	0	0	0	100		0	0	0	0	0		0	0	0	0	100		0	0	0	0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.583	.583	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.550	.550	.000	.000	.000	.000	.000	.000	.577

N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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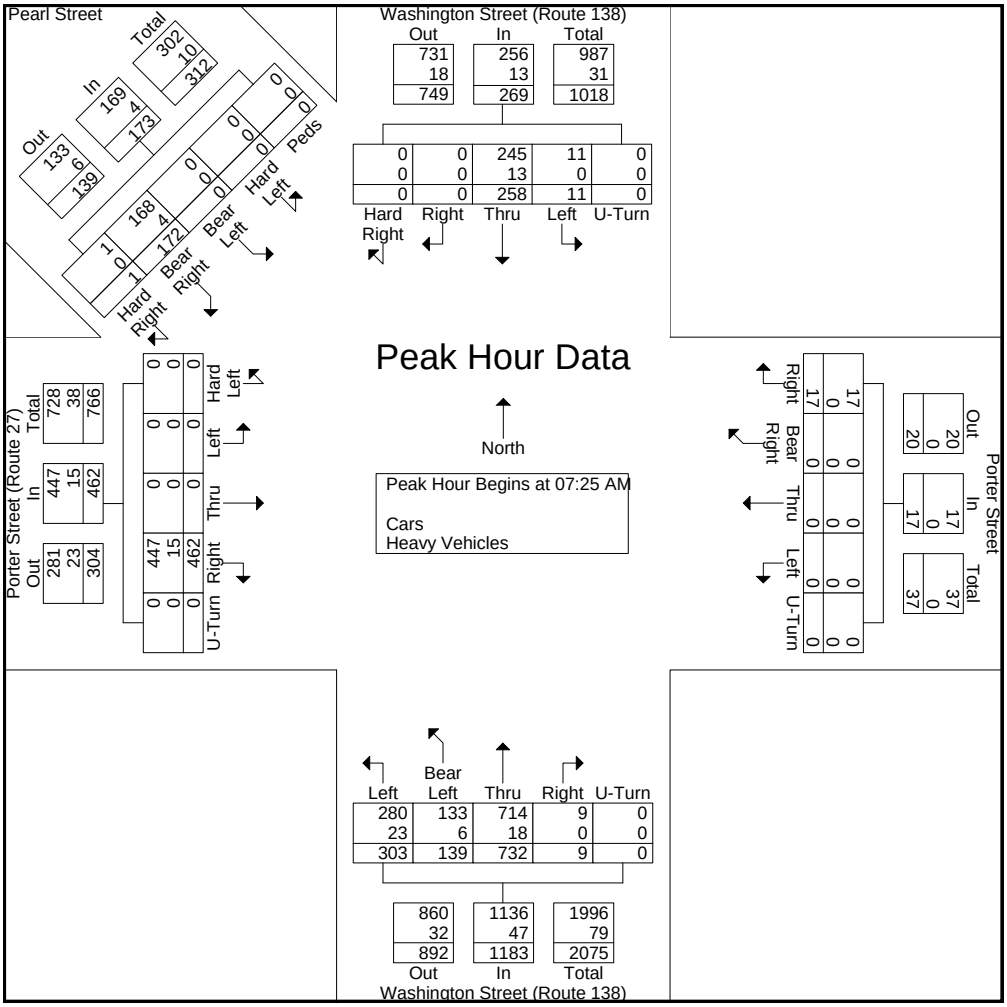
	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:25 AM																															
07:25 AM	0	0	21	0	0	21	0	0	0	0	0	0	1	**72**	**16**	**34**	0	**123**	**57**	0	0	0	0	**57**	0	14	0	0	0	14	**215**
07:30 AM	0	0	20	**2**	0	22	1	0	0	0	0	1	0	63	11	19	0	93	43	0	0	0	0	43	0	20	0	0	0	20	179
07:35 AM	0	0	24	1	0	25	1	0	0	0	0	1	**2**	51	10	32	0	95	41	0	0	0	0	41	0	11	0	0	0	11	173
07:40 AM	0	0	19	1	0	20	1	0	0	0	0	1	1	71	8	21	0	101	41	0	0	0	0	41	0	**24**	0	0	0	**24**	187
07:45 AM	0	0	**31**	1	0	**32**	1	0	0	0	0	1	2	70	12	32	0	116	32	0	0	0	0	32	0	9	0	0	0	9	190
07:50 AM	0	0	10	1	0	11	1	0	0	0	0	1	1	63	14	13	0	91	29	0	0	0	0	29	0	19	0	0	0	19	151
07:55 AM	0	0	17	0	0	17	1	0	0	0	0	1	0	56	15	28	0	99	32	0	0	0	0	32	0	11	0	0	0	11	160
08:00 AM	0	0	25	1	0	26	1	0	0	0	0	1	0	60	13	24	0	97	33	0	0	0	0	33	0	12	0	0	0	12	169
08:05 AM	0	0	17	1	0	18	**6**	0	0	0	0	**6**	0	50	13	26	0	89	38	0	0	0	0	38	0	11	0	0	0	11	162
08:10 AM	0	0	23	1	0	24	0	0	0	0	0	0	0	46	8	21	0	75	27	0	0	0	0	27	**1**	12	0	0	0	13	139
08:15 AM	0	0	23	0	0	23	3	0	0	0	0	3	2	59	12	34	0	107	41	0	0	0	0	41	0	11	0	0	0	11	185
08:20 AM	0	0	28	2	0	30	1	0	0	0	0	1	0	71	7	19	0	97	48	0	0	0	0	48	0	18	0	0	0	18	194
Total Volume	0	0	258	11	0	269	17	0	0	0	0	17	9	732	139	303	0	1183	462	0	0	0	0	462	1	172	0	0	0	173	2104
% App. Total	0	0	95.9	4.1	0		100	0	0	0	0		0.8	61.9	11.7	25.6	0		100	0	0	0	0		0.6	99.4	0	0	0		
PHF	.000	.000	.694	.458	.000	.701	.236	.000	.000	.000	.000	.236	.375	.847	.724	.743	.000	.801	.675	.000	.000	.000	.000	.675	.083	.597	.000	.000	.000	.601	.816
Cars	0	0	245	11	0	256	17	0	0	0	0	17	9	714	133	280	0	1136	447	0	0	0	0	447	1	168	0	0	0	169	2025
% Cars	0	0	95.0	100	0	95.2	100	0	0	0	0	100	100	97.5	95.7	92.4	0	96.0	96.8	0	0	0	0	96.8	100	97.7	0	0	0	97.7	96.2
Heavy Vehicles	0	0	13	0	0	13	0	0	0	0	0	0	0	18	6	23	0	47	15	0	0	0	0	15	0	4	0	0	0	4	79
% Heavy Vehicles	0	0	5.0	0	0	4.8	0	0	0	0	0	0	0	2.5	4.3	7.6	0	4.0	3.2	0	0	0	0	3.2	0	2.3	0	0	0	2.3	3.8



N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 AA
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	1	123	1	0	6	0	0	0	0	3	110	42	79	0	119	0	0	0	0	3	45	0	0	0	532
04:55 PM	0	0	123	5	0	7	0	0	0	0	5	112	35	82	0	126	0	0	0	0	1	46	0	0	0	542
05:10 PM	0	1	142	3	0	4	0	0	0	0	3	100	45	82	0	147	0	0	0	0	1	41	0	0	0	569
05:25 PM	1	0	126	1	0	3	0	0	0	0	5	120	42	91	0	125	0	0	0	0	1	45	0	0	0	560
05:40 PM	0	1	137	4	0	10	0	0	0	0	3	134	36	83	0	127	0	0	0	0	3	44	0	0	0	582
05:55 PM	0	2	114	3	0	7	0	0	0	0	4	97	35	75	0	112	0	0	0	0	1	49	0	0	0	499
06:10 PM	0	0	115	2	0	4	0	0	0	0	3	103	44	68	0	137	0	0	0	0	5	46	0	0	0	527
06:25 PM	0	0	134	3	0	4	0	0	0	0	3	91	33	46	0	83	0	0	0	0	2	55	0	0	0	454
Grand Total	1	5	1014	22	0	45	0	0	0	0	29	867	312	606	0	976	0	0	0	0	17	371	0	0	0	4265
Apprch %	0.1	0.5	97.3	2.1	0	100	0	0	0	0	1.6	47.8	17.2	33.4	0	100	0	0	0	0	4.4	95.6	0	0	0	
Total %	0	0.1	23.8	0.5	0	1.1	0	0	0	0	0.7	20.3	7.3	14.2	0	22.9	0	0	0	0	0.4	8.7	0	0	0	
Cars	1	5	1001	21	0	44	0	0	0	0	29	850	304	590	0	954	0	0	0	0	17	362	0	0	0	4178
% Cars	100	100	98.7	95.5	0	97.8	0	0	0	0	100	98	97.4	97.4	0	97.7	0	0	0	0	100	97.6	0	0	0	98
Heavy Vehicles	0	0	13	1	0	1	0	0	0	0	0	17	8	16	0	22	0	0	0	0	0	9	0	0	0	87
% Heavy Vehicles	0	0	1.3	4.5	0	2.2	0	0	0	0	0	2	2.6	2.6	0	2.3	0	0	0	0	0	2.4	0	0	0	2

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 4:55:00 PM																															
4:55:00 PM	0	0	123	**5**	0	128	7	0	0	0	0	7	**5**	112	35	82	0	234	126	0	0	0	0	126	1	**46**	0	0	0	**47**	542
5:10:00 PM	0	**1**	**142**	3	0	**146**	4	0	0	0	0	4	3	100	**45**	82	0	230	**147**	0	0	0	0	**147**	1	41	0	0	0	42	569
5:25:00 PM	**1**	0	126	1	0	128	3	0	0	0	0	3	5	120	42	**91**	0	**258**	125	0	0	0	0	125	1	45	0	0	0	46	560
5:40:00 PM	0	1	137	4	0	142	**10**	0	0	0	0	**10**	3	**134**	36	83	0	256	127	0	0	0	0	127	**3**	44	0	0	0	47	**582**
Total Volume	1	2	528	13	0	544	24	0	0	0	0	24	16	466	158	338	0	978	525	0	0	0	0	525	6	176	0	0	0	182	2253
% App. Total	0.2	0.4	97.1	2.4	0		100	0	0	0	0		1.6	47.6	16.2	34.6	0		100	0	0	0	0		3.3	96.7	0	0	0		
PHF	.250	.500	.930	.650	.000	.932	.600	.000	.000	.000	.000	.600	.800	.869	.878	.929	.000	.948	.893	.000	.000	.000	.000	.893	.500	.957	.000	.000	.000	.968	.968
Cars	1	2	521	12	0	536	24	0	0	0	0	24	16	456	156	331	0	959	518	0	0	0	0	518	6	171	0	0	0	177	2214
% Cars	100	100	98.7	92.3	0	98.5	100	0	0	0	0	100	100	97.9	98.7	97.9	0	98.1	98.7	0	0	0	0	98.7	100	97.2	0	0	0	97.3	98.3
Heavy Vehicles	0	0	7	1	0	8	0	0	0	0	0	0	0	10	2	7	0	19	7	0	0	0	0	7	0	5	0	0	0	5	39
% Heavy Vehicles	0	0	1.3	7.7	0	1.5	0	0	0	0	0	0	0	2.1	1.3	2.1	0	1.9	1.3	0	0	0	0	1.3	0	2.8	0	0	0	2.7	1.7

N/S: Washington Street (Route 138)
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File Name : 122868 AA
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	1	121	1	0	6	0	0	0	0	3	108	41	77	0	113	0	0	0	0	3	44	0	0	0	518
04:55 PM	0	0	121	4	0	7	0	0	0	0	5	110	35	80	0	125	0	0	0	0	1	46	0	0	0	534
05:10 PM	0	1	140	3	0	4	0	0	0	0	3	97	43	80	0	141	0	0	0	0	1	38	0	0	0	551
05:25 PM	1	0	125	1	0	3	0	0	0	0	5	117	42	89	0	125	0	0	0	0	1	44	0	0	0	553
05:40 PM	0	1	135	4	0	10	0	0	0	0	3	132	36	82	0	127	0	0	0	0	3	43	0	0	0	576
05:55 PM	0	2	110	3	0	6	0	0	0	0	4	95	32	72	0	109	0	0	0	0	1	47	0	0	0	481
06:10 PM	0	0	115	2	0	4	0	0	0	0	3	100	43	66	0	134	0	0	0	0	5	46	0	0	0	518
06:25 PM	0	0	134	3	0	4	0	0	0	0	3	91	32	44	0	80	0	0	0	0	2	54	0	0	0	447
Grand Total	1	5	1001	21	0	44	0	0	0	0	29	850	304	590	0	954	0	0	0	0	17	362	0	0	0	4178
Apprch %	0.1	0.5	97.4	2	0	100	0	0	0	0	1.6	47.9	17.1	33.3	0	100	0	0	0	0	4.5	95.5	0	0	0	
Total %	0	0.1	24	0.5	0	1.1	0	0	0	0	0.7	20.3	7.3	14.1	0	22.8	0	0	0	0	0.4	8.7	0	0	0	

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 4:55:00 PM																															
4:55:00 PM	0	0	121	**4**	0	125	7	0	0	0	0	7	**5**	110	35	80	0	230	125	0	0	0	0	125	1	**46**	0	0	0	**47**	534
5:10:00 PM	0	**1**	**140**	3	0	**144**	4	0	0	0	0	4	3	97	**43**	80	0	223	**141**	0	0	0	0	**141**	1	38	0	0	0	39	551
5:25:00 PM	**1**	0	125	1	0	127	3	0	0	0	0	3	5	117	42	**89**	0	**253**	125	0	0	0	0	125	1	44	0	0	0	45	553
5:40:00 PM	0	1	135	4	0	140	**10**	0	0	0	0	**10**	3	**132**	36	82	0	253	127	0	0	0	0	127	**3**	43	0	0	0	46	**576**
Total Volume	1	2	521	12	0	536	24	0	0	0	0	24	16	456	156	331	0	959	518	0	0	0	0	518	6	171	0	0	0	177	2214
% App. Total	0.2	0.4	97.2	2.2	0		100	0	0	0	0		1.7	47.5	16.3	34.5	0		100	0	0	0	0		3.4	96.6	0	0	0		
PHF	.250	.500	.930	.750	.000	.931	.600	.000	.000	.000	.000	.600	.800	.864	.907	.930	.000	.948	.918	.000	.000	.000	.000	.918	.500	.929	.000	.000	.000	.941	.961

N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 AA
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	0	2	0	0	0	0	0	0	0	0	2	1	2	0	6	0	0	0	0	0	1	0	0	0	14
04:55 PM	0	0	2	1	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	0	0	0	0	0	8
05:10 PM	0	0	2	0	0	0	0	0	0	0	0	3	2	2	0	6	0	0	0	0	0	3	0	0	0	18
05:25 PM	0	0	1	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	1	0	0	0	7
05:40 PM	0	0	2	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	1	0	0	0	6
05:55 PM	0	0	4	0	0	1	0	0	0	0	0	2	3	3	0	3	0	0	0	0	0	2	0	0	0	18
06:10 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	2	0	3	0	0	0	0	0	0	0	0	0	9
06:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	0	0	7
Grand Total	0	0	13	1	0	1	0	0	0	0	0	17	8	16	0	22	0	0	0	0	0	9	0	0	0	87
Apprch %	0	0	92.9	7.1	0	100	0	0	0	0	0	41.5	19.5	39	0	100	0	0	0	0	0	100	0	0	0	
Total %	0	0	14.9	1.1	0	1.1	0	0	0	0	0	19.5	9.2	18.4	0	25.3	0	0	0	0	0	10.3	0	0	0	

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 5:10:00 PM																															
5:10:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	**3**	2	2	0	7	**6**	0	0	0	0	**6**	0	**3**	0	0	0	**3**	**18**
5:25:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	2	0	5	0	0	0	0	0	0	0	1	0	0	0	1	7
5:40:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	1	0	3	0	0	0	0	0	0	0	1	0	0	0	1	6
5:55:00 PM	0	0	**4**	0	0	**4**	**1**	0	0	0	0	**1**	0	2	**3**	**3**	0	**8**													
Total Volume	0	0	9	0	0	9	1	0	0	0	0	1	0	10	5	8	0	23	9	0	0	0	0	9	0	7	0	0	0	7	49
% App. Total	0	0	100	0	0		100	0	0	0	0		0	43.5	21.7	34.8	0		100	0	0	0	0		0	100	0	0	0		
PHF	.000	.000	.563	.000	.000	.563	.250	.000	.000	.000	.000	.250	.000	.833	.417	.667	.000	.719	.375	.000	.000	.000	.000	.375	.000	.583	.000	.000	.000	.583	.681

N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North					Porter Street From East					Washington Street (Route 138) From South					Porter Street (Route 27) From West					Pearl Street From Northwest					
Start Time	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:55 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
05:10 PM	0	0	0	0	2	0	0	0	0	5	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	10
05:25 PM	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	13
05:40 PM	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	9
05:55 PM	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	8
06:10 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	11
06:25 PM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5
Grand Total	0	0	0	0	8	0	0	0	0	38	0	0	0	0	0	0	0	0	0	17	0	1	0	0	0	64
Apprch %	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	100	0	0	0	
Total %	0	0	0	0	12.5	0	0	0	0	59.4	0	0	0	0	0	0	0	0	0	26.6	0	1.6	0	0	0	

	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 5:25:00 PM																															
5:25:00 PM	0	0	0	0	**2**	**2**	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	**7**	**7**	0	0	0	0	0	0	**13**
5:40:00 PM	0	0	0	0	1	1	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	9
5:55:00 PM	0	0	0	0	1	1	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	8
6:10:00 PM	0	0	0	0	0	0	0	0	0	0	**9**	**9**	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	11
Total Volume	0	0	0	0	4	4	0	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	0	0	41
% App. Total	0	0	0	0	100		0	0	0	0	100		0	0	0	0	0		0	0	0	0	100		0	0	0	0	0		
PHF	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.639	.639	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.000	.788

N/S: Washington Street (Route 138)
E/W/NW: Porter Street/Pearl Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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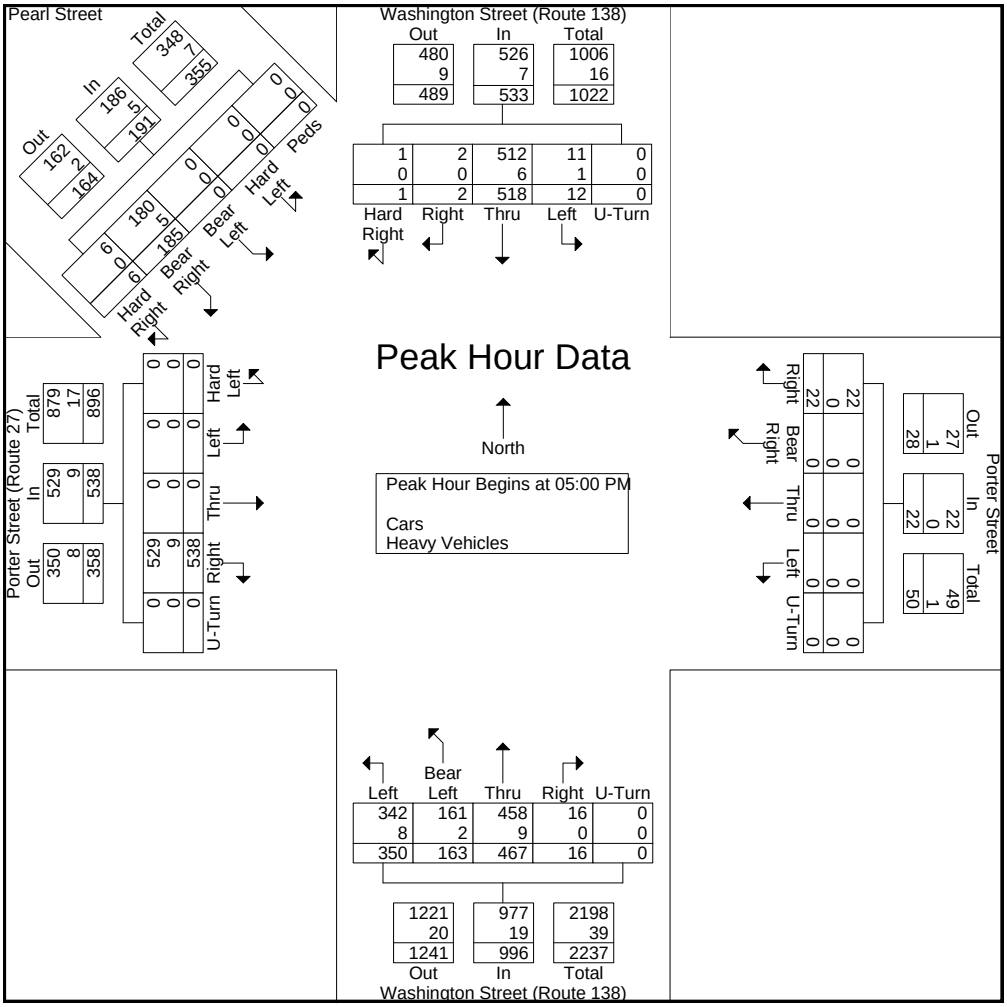
	Washington Street (Route 138) From North						Porter Street From East						Washington Street (Route 138) From South						Porter Street (Route 27) From West						Pearl Street From Northwest						
Start Time	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	0	0	49	1	0	50	2	0	0	0	0	2	2	38	14	30	0	84	46	0	0	0	0	46	0	15	0	0	0	15	197
05:05 PM	0	0	35	**2**	0	37	2	0	0	0	0	2	1	39	14	27	0	81	44	0	0	0	0	44	1	18	0	0	0	19	183
05:10 PM	0	0	48	1	0	49	3	0	0	0	0	3	2	37	**19**	31	0	**89**													202
05:15 PM	0	**1**	41	0	0	42	1	0	0	0	0	1	0	30	9	32	0	71	48	0	0	0	0	48	0	18	0	0	0	18	180
05:20 PM	0	0	**53**	2	0	**55**	0	0	0	0	0	0	1	33	17	19	0	70	50	0	0	0	0	50	1	11	0	0	0	12	187
05:25 PM	0	0	43	1	0	44	1	0	0	0	0	1	1	**47**	13	26	0	87	39	0	0	0	0	39	0	16	0	0	0	16	187
05:30 PM	**1**	0	44	0	0	45	0	0	0	0	0	0	0	35	12	**38**	0	85	35	0	0	0	0	35	0	13	0	0	0	13	178
05:35 PM	0	0	39	0	0	39	2	0	0	0	0	2	**4**	38	17	27	0	86	51	0	0	0	0	51	1	16	0	0	0	17	195
05:40 PM	0	0	50	2	0	52	1	0	0	0	0	1	1	45	9	29	0	84	**54**	0	0	0	0	**54**	1	15	0	0	0	16	**207**
05:45 PM	0	0	41	1	0	42	**6**	0	0	0	0	**6**	1	45	11	32	0	89	29	0	0	0	0	29	**2**	17	0	0	0	19	185
05:50 PM	0	1	46	1	0	48	3	0	0	0	0	3	1	44	16	22	0	83	44	0	0	0	0	44	0	12	0	0	0	12	190
05:55 PM	0	0	29	1	0	30	1	0	0	0	0	1	2	36	12	37	0	87	49	0	0	0	0	49	0	**22**	0	0	0	**22**	189
Total Volume	1	2	518	12	0	533	22	0	0	0	0	22	16	467	163	350	0	996	538	0	0	0	0	538	6	185	0	0	0	191	2280
% App. Total	0.2	0.4	97.2	2.3	0		100	0	0	0	0		1.6	46.9	16.4	35.1	0		100	0	0	0	0		3.1	96.9	0	0	0		
PHF	.083	.167	.814	.500	.000	.808	.306	.000	.000	.000	.000	.306	.333	.828	.715	.768	.000	.933	.830	.000	.000	.000	.000	.830	.250	.701	.000	.000	.000	.723	.918
Cars	1	2	512	11	0	526	22	0	0	0	0	22	16	458	161	342	0	977	529	0	0	0	0	529	6	180	0	0	0	186	2240
% Cars	100	100	98.8	91.7	0	98.7	100	0	0	0	0	100	100	98.1	98.8	97.7	0	98.1	98.3	0	0	0	0	98.3	100	97.3	0	0	0	97.4	98.2
Heavy Vehicles	0	0	6	1	0	7	0	0	0	0	0	0	0	9	2	8	0	19	9	0	0	0	0	9	0	5	0	0	0	5	40
% Heavy Vehicles	0	0	1.2	8.3	0	1.3	0	0	0	0	0	0	0	1.9	1.2	2.3	0	1.9	1.7	0	0	0	0	1.7	0	2.7	0	0	0	2.6	1.8



N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
File: 122868B / E. Chan

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File Name : 122868 B
Site Code : 10111.34
Start Date :

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	10	105	2	0	2	0	0	0	1	262	28	0	19	0	10	0	439
06:45 AM	6	106	0	0	0	0	0	0	0	271	28	0	29	0	5	0	445
Total	16	211	2	0	2	0	0	0	1	533	56	0	48	0	15	0	884
07:00 AM	5	163	0	0	1	0	0	0	0	275	2	0	19	0	0	0	465
07:15 AM	11	232	2	0	2	0	0	0	1	298	1	0	23	0	0	0	570
07:30 AM	15	223	2	0	0	0	0	0	1	268	6	0	24	0	0	0	539
07:45 AM	10	182	1	0	3	0	0	0	1	296	5	0	34	0	0	0	532
Total	41	800	5	0	6	0	0	0	3	1137	14	0	100	0	0	0	2106
08:00 AM	23	172	1	0	2	0	0	0	1	258	2	0	30	0	0	0	489
08:15 AM	14	212	0	0	1	0	0	0	2	293	0	0	31	0	0	0	553
Grand Total	94	1395	8	0	11	0	0	0	7	2221	72	0	209	0	15	0	4032
Apprch %	6.3	93.2	0.5	0	100	0	0	0	0.3	96.6	3.1	0	93.3	0	6.7	0	
Total %	2.3	34.6	0.2	0	0.3	0	0	0	0.2	55.1	1.8	0	5.2	0	0.4	0	
Cars	89	1335	8	0	10	0	0	0	5	2142	72	0	195	0	15	0	3871
% Cars	94.7	95.7	100	0	90.9	0	0	0	71.4	96.4	100	0	93.3	0	100	0	96
Heavy Vehicles	5	60	0	0	1	0	0	0	2	79	0	0	14	0	0	0	161
% Heavy Vehicles	5.3	4.3	0	0	9.1	0	0	0	28.6	3.6	0	0	6.7	0	0	0	4

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:15:00 AM																					
7:15:00 AM	11	**232**	**2**	0	**245**	2	0	0	0	2	**1**	**298**	**1**	**0**	**300**	**23**	**0**	**0**	**0**	**23**	**570**
7:30:00 AM	15	223	2	0	240	0	0	0	0	0	1	268	**6**	0	275	24	0	0	0	24	539
7:45:00 AM	10	182	1	0	193	**3**	0	0	0	**3**	1	296	5	0	**302**	**34**	0	0	0	**34**	532
8:00:00 AM	**23**	172	1	0	196	2	0	0	0	2	1	258	2	0	261	30	0	0	0	30	489
Total Volume	59	809	6	0	874	7	0	0	0	7	4	1120	14	0	1138	111	0	0	0	111	2130
% App. Total																					
PHF	.641	.872	.750	.000	.892	.583	.000	.000	.000	.583	1.00	.940	.583	.000	.942	.816	.000	.000	.000	.816	.934
Cars	55	775	6	0	836	7	0	0	0	7	3	1078	14	0	1095	104	0	0	0	104	2042
% Cars	93.2	95.8	100	0	95.7	100	0	0	0	100	75.0	96.3	100	0	96.2	93.7	0	0	0	93.7	95.9
Heavy Vehicles																					
% Heavy Vehicles	6.8	4.2	0	0	4.3	0	0	0	0	0	25.0	3.8	0	0	3.8	6.3	0	0	0	6.3	4.1

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
File: 122868B / E. Chan
4/12/2012

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File Name : 122868 B
Site Code : 10111.34
Start Date :

Groups Printed- Cars

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	10	102	2	0	2	0	0	0	0	260	28	0	17	0	10	0	431
06:45 AM	6	102	0	0	0	0	0	0	0	259	28	0	27	0	5	0	427
Total	16	204	2	0	2	0	0	0	0	519	56	0	44	0	15	0	858
07:00 AM	5	154	0	0	1	0	0	0	0	265	2	0	18	0	0	0	445
07:15 AM	11	216	2	0	2	0	0	0	1	288	1	0	21	0	0	0	542
07:30 AM	14	220	2	0	0	0	0	0	1	259	6	0	22	0	0	0	524
07:45 AM	10	175	1	0	3	0	0	0	1	281	5	0	31	0	0	0	507
Total	40	765	5	0	6	0	0	0	3	1093	14	0	92	0	0	0	2018
08:00 AM	20	164	1	0	2	0	0	0	0	250	2	0	30	0	0	0	469
08:15 AM	13	202	0	0	0	0	0	0	2	280	0	0	29	0	0	0	526
Grand Total	89	1335	8	0	10	0	0	0	5	2142	72	0	195	0	15	0	3871
Apprch %	6.2	93.2	0.6	0	100	0	0	0	0.2	96.5	3.2	0	92.9	0	7.1	0	
Total %	2.3	34.5	0.2	0	0.3	0	0	0	0.1	55.3	1.9	0	5	0	0.4	0	

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:15:00 AM																					
7:15:00 AM	11	216	**2**	0	229	2	0	0	0	2	**1**	**288**	**1**	**0**	**290**	21	0	0	0	21	**542**
7:30:00 AM	14	**220**	**2**	**0**	**236**	0	0	0	0	0	1	259	**6**	0	266	22	0	0	0	22	524
7:45:00 AM	10	175	1	0	186	**3**	0	0	0	**3**	1	281	5	0	287	**31**	0	0	0	**31**	507
8:00:00 AM	**20**	164	1	0	185	2	0	0	0	2	0	250	2	0	252	30	0	0	0	30	469
Total Volume	55	775	6	0	836	7	0	0	0	7	3	1078	14	0	1095	104	0	0	0	104	2042
% App. Total																					
PHF	.688	.881	.750	.000	.886	.583	.000	.000	.000	.583	.750	.936	.583	.000	.944	.839	.000	.000	.000	.839	.942

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
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File Name : 122868 B
Site Code : 10111.34
Start Date :

Groups Printed- Heavy Vehicles

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	0	3	0	0	0	0	0	0	1	2	0	0	2	0	0	0	8
06:45 AM	0	4	0	0	0	0	0	0	0	12	0	0	2	0	0	0	18
Total	0	7	0	0	0	0	0	0	1	14	0	0	4	0	0	0	26
07:00 AM	0	9	0	0	0	0	0	0	0	10	0	0	1	0	0	0	20
07:15 AM	0	16	0	0	0	0	0	0	0	10	0	0	2	0	0	0	28
07:30 AM	1	3	0	0	0	0	0	0	0	9	0	0	2	0	0	0	15
07:45 AM	0	7	0	0	0	0	0	0	0	15	0	0	3	0	0	0	25
Total	1	35	0	0	0	0	0	0	0	44	0	0	8	0	0	0	88
08:00 AM	3	8	0	0	0	0	0	0	1	8	0	0	0	0	0	0	20
08:15 AM	1	10	0	0	1	0	0	0	0	13	0	0	2	0	0	0	27
Grand Total	5	60	0	0	1	0	0	0	2	79	0	0	14	0	0	0	161
Apprch %	7.7	92.3	0	0	100	0	0	0	2.5	97.5	0	0	100	0	0	0	
Total %	3.1	37.3	0	0	0.6	0	0	0	1.2	49.1	0	0	8.7	0	0	0	

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	0	9	0	0	9	0	0	0	0	0	0	10	0	0	10	1	0	0	0	1	20
7:15:00 AM	0	**16**			**16**	0	0	0	0	0	0	10	0	0	10	2	0	0	0	2	**28**
7:30:00 AM	**1**	3	0	0	4	0	0	0	0	0	0	9	0	0	9	2	0	0	0	2	15
7:45:00 AM	0	7	0	0	7	0	0	0	0	0	0	**15**			**15**	**3**	0	0	0	**3**	25
Total Volume	1	35	0	0	36	0	0	0	0	0	0	44	0	0	44	8	0	0	0	8	88
% App. Total	2.8	97.2	0	0		0	0	0	0		0	100	0	0		100	0	0	0		
PHF	.250	.547	.000	.000	.563	.000	.000	.000	.000	.000	.000	.733	.000	.000	.733	.667	.000	.000	.000	.667	.786

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File Name : 122868 B
Site Code : 10111.34
Start Date :

Groups Printed- Peds and Bicycles

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
06:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	6
06:45 AM	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	7	21
Total	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	11	27
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
07:15 AM	0	0	0	4	0	0	0	2	0	0	0	0	0	0	0	12	18
07:30 AM	0	0	0	20	0	0	0	1	0	0	0	0	0	0	0	1	22
07:45 AM	0	0	0	2	0	0	0	3	0	0	0	1	1	0	0	2	9
Total	0	0	0	26	0	0	0	6	0	0	0	1	1	0	0	23	57
08:00 AM	0	0	0	6	0	0	0	1	0	0	0	0	0	0	0	1	8
08:15 AM	0	0	0	13	0	0	0	2	0	2	0	0	0	0	0	4	21
Grand Total	0	0	0	61	0	0	0	9	0	2	0	1	1	0	0	39	113
Apprch %	0	0	0	100	0	0	0	100	0	66.7	0	33.3	2.5	0	0	97.5	
Total %	0	0	0	54	0	0	0	8	0	1.8	0	0.9	0.9	0	0	34.5	

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 6:45:00 AM																					
6:45:00 AM	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	21
7:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	8
7:15:00 AM	0	0	0	4	4	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	**12**	**12**	18
7:30:00 AM	0	0	0	**20**	**20**	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	**22**
Total Volume	0	0	0	38	38	0	0	0	3	3	0	0	0	0	0	0	0	0	28	28	69
% App. Total	0	0	0	100		0	0	0	100		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.475	.475	.000	.000	.000	.375	.375	.000	.000	.000	.000	.000	.000	.000	.000	.583	.583	.784

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File Name : 122868 B
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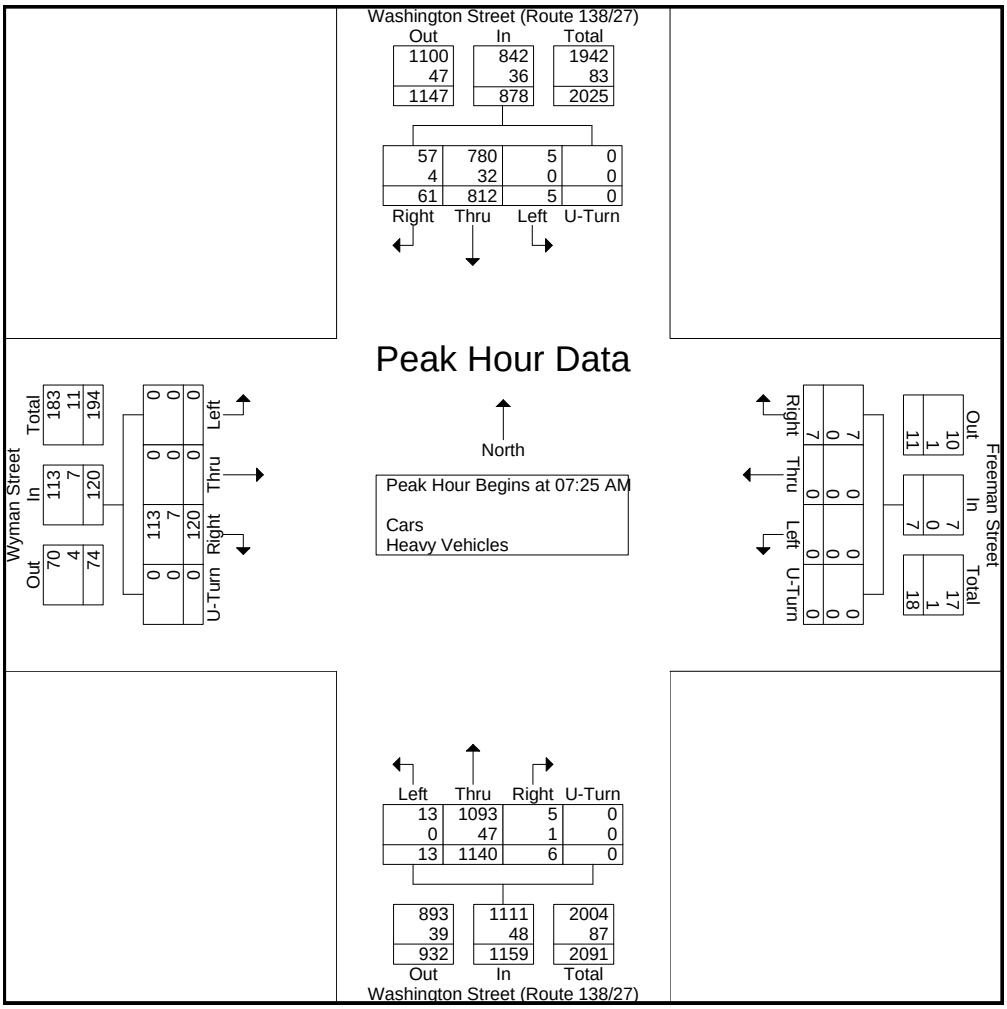
Start Date :

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:25 AM																					
07:25 AM	4	**89**	**1**	0	**94**	**2**	0	0	0	**2**	1	**116**	**0**	**0**	**117**	10	0	0	0	10	**223**
07:30 AM	**7**	**74**	**0**	**0**	**81**	**0**	**0**	**0**	**0**	**0**	**0**	**92**	**2**	**0**	**94**	**6**	**0**	**0**	**0**	**6**	**181**
07:35 AM	**4**	**72**	**1**	**0**	**77**	**0**	**0**	**0**	**0**	**0**	**1**	**83**	**0**	**0**	**84**	**7**	**0**	**0**	**0**	**7**	**168**
07:40 AM	**4**	**77**	**1**	**0**	**82**	**0**	**0**	**0**	**0**	**0**	**0**	**93**	**4**	0	97	11	0	0	0	11	190
07:45 AM	6	69	0	0	75	1	0	0	0	1	0	104	2	0	106	**16**	0	0	0	**16**	198
07:50 AM	2	55	1	0	58	1	0	0	0	1	0	99	1	0	100	11	0	0	0	11	170
07:55 AM	2	58	0	0	60	1	0	0	0	1	1	93	2	0	96	7	0	0	0	7	164
08:00 AM	**11**	59	0	0	70	1	0	0	0	1	0	96	1	0	97	13	0	0	0	13	181
08:05 AM	7	57	0	0	64	1	0	0	0	1	0	87	1	0	88	11	0	0	0	11	164
08:10 AM	5	56	1	0	62	0	0	0	0	0	1	75	0	0	76	6	0	0	0	6	144
08:15 AM	4	70	0	0	74	0	0	0	0	0	0	111	0	0	111	9	0	0	0	9	194
08:20 AM	5	76	0	0	81	0	0	0	0	0	**2**	91	0	0	93	13	0	0	0	13	187
Total Volume	61	812	5	0	878	7	0	0	0	7	6	1140	13	0	1159	120	0	0	0	120	2164
% App. Total																					
PHF	.462	.760	.417	.000	.778	.292	.000	.000	.000	.292	.250	.819	.271	.000	.825	.625	.000	.000	.000	.625	.809
Cars	57	780	5	0	842	7	0	0	0	7	5	1093	13	0	1111	113	0	0	0	113	2073
% Cars	93.4	96.1	100	0	95.9	100	0	0	0	100	83.3	95.9	100	0	95.9	94.2	0	0	0	94.2	95.8
Heavy Vehicles																					
% Heavy Vehicles	6.6	3.9	0	0	4.1	0	0	0	0	0	16.7	4.1	0	0	4.1	5.8	0	0	0	5.8	4.2



N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 BB
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	20	267	0	0	1	0	0	0	4	233	4	0	29	0	1	0	559
04:55 PM	15	283	2	0	3	0	0	0	4	237	2	0	32	0	0	0	578
05:10 PM	20	306	2	0	2	0	0	0	0	224	3	0	27	0	0	0	584
05:25 PM	19	281	0	0	4	0	0	0	5	247	0	0	40	0	0	0	596
05:40 PM	14	293	3	0	5	0	0	0	1	224	10	0	28	0	2	0	580
05:55 PM	16	245	3	0	4	0	0	0	2	183	21	0	32	0	2	0	508
06:10 PM	13	296	1	0	1	0	0	0	2	203	22	0	35	0	0	0	573
06:25 PM	21	251	0	0	1	0	1	0	0	158	17	0	22	0	0	0	471
Grand Total	138	2222	11	0	21	0	1	0	18	1709	79	0	245	0	5	0	4449
Apprch %	5.8	93.7	0.5	0	95.5	0	4.5	0	1	94.6	4.4	0	98	0	2	0	
Total %	3.1	49.9	0.2	0	0.5	0	0	0	0.4	38.4	1.8	0	5.5	0	0.1	0	
Cars	136	2184	9	0	18	0	1	0	18	1675	78	0	241	0	4	0	4364
% Cars	98.6	98.3	81.8	0	85.7	0	100	0	100	98	98.7	0	98.4	0	80	0	98.1
Heavy Vehicles	2	38	2	0	3	0	0	0	0	34	1	0	4	0	1	0	85
% Heavy Vehicles	1.4	1.7	18.2	0	14.3	0	0	0	0	2	1.3	0	1.6	0	20	0	1.9

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:55:00 PM																					
4:55:00 PM	15	283	2	0	300	3	0	0	0	3	4	237	2	0	243	32	0	0	0	32	578
5:10:00 PM	**20**	**306**			**328**	2	0	0	0	2	0	224	3	0	227	27	0	0	0	27	584
5:25:00 PM	19	281	0	0	300	4	0	0	0	4	**5**	**247**			**252**	**40**	0	0	0	**40**	**596**
5:40:00 PM	14	293	**3**	0	310	**5**	0	0	0	**5**	1	224	**10**	0	235	28	0	**2**	0	30	580
Total Volume	68	1163	7	0	1238	14	0	0	0	14	10	932	15	0	957	127	0	2	0	129	2338
% App. Total																					
PHF	.850	.950	.583	.000	.944	.700	.000	.000	.000	.700	.500	.943	.375	.000	.949	.794	.000	.250	.000	.806	.981
Cars	67	1145	6	0	1218	12	0	0	0	12	10	917	14	0	941	125	0	2	0	127	2298
% Cars	98.5	98.5	85.7	0	98.4	85.7	0	0	0	85.7	100	98.4	93.3	0	98.3	98.4	0	100	0	98.4	98.3
Heavy Vehicles																					
% Heavy Vehicles	1.5	1.5	14.3	0	1.6	14.3	0	0	0	14.3	0	1.6	6.7	0	1.7	1.6	0	0	0	1.6	1.7

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Page No : 1

Groups Printed- Cars

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	20	259	0	0	1	0	0	0	4	227	4	0	28	0	1	0	544
04:55 PM	15	279	2	0	3	0	0	0	4	233	2	0	32	0	0	0	570
05:10 PM	20	296	1	0	2	0	0	0	0	219	2	0	27	0	0	0	567
05:25 PM	18	280	0	0	2	0	0	0	5	244	0	0	39	0	0	0	588
05:40 PM	14	290	3	0	5	0	0	0	1	221	10	0	27	0	2	0	573
05:55 PM	15	241	2	0	3	0	0	0	2	178	21	0	31	0	1	0	494
06:10 PM	13	292	1	0	1	0	0	0	2	198	22	0	35	0	0	0	564
06:25 PM	21	247	0	0	1	0	1	0	0	155	17	0	22	0	0	0	464
Grand Total	136	2184	9	0	18	0	1	0	18	1675	78	0	241	0	4	0	4364
Apprch %	5.8	93.8	0.4	0	94.7	0	5.3	0	1	94.6	4.4	0	98.4	0	1.6	0	
Total %	3.1	50	0.2	0	0.4	0	0	0	0.4	38.4	1.8	0	5.5	0	0.1	0	

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:55:00 PM																					
4:55:00 PM	15	279	2	0	296	3	0	0	0	3	4	233	2	0	239	32	0	0	0	32	570
5:10:00 PM	**20**	**296**			**317**	2	0	0	0	2	0	219	2	0	221	27	0	0	0	27	567
5:25:00 PM	18	280	0	0	298	2	0	0	0	2	**5**	**244**			**249**	**39**	0	0	0	**39**	**588**
5:40:00 PM	14	290	**3**	0	307	**5**	0	0	0	**5**	1	221	**10**	0	232	27	0	**2**	0	29	573
Total Volume	67	1145	6	0	1218	12	0	0	0	12	10	917	14	0	941	125	0	2	0	127	2298
% App. Total																					
PHF	.838	.967	.500	.000	.961	.600	.000	.000	.000	.600	.500	.940	.350	.000	.945	.801	.000	.250	.000	.814	.977

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Groups Printed- Heavy Vehicles

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	0	8	0	0	0	0	0	0	0	6	0	0	1	0	0	0	15
04:55 PM	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	8
05:10 PM	0	10	1	0	0	0	0	0	0	5	1	0	0	0	0	0	17
05:25 PM	1	1	0	0	2	0	0	0	0	3	0	0	1	0	0	0	8
05:40 PM	0	3	0	0	0	0	0	0	0	3	0	0	1	0	0	0	7
05:55 PM	1	4	1	0	1	0	0	0	0	5	0	0	1	0	1	0	14
06:10 PM	0	4	0	0	0	0	0	0	0	5	0	0	0	0	0	0	9
06:25 PM	0	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0	7
Grand Total	2	38	2	0	3	0	0	0	0	34	1	0	4	0	1	0	85
Apprch %	4.8	90.5	4.8	0	100	0	0	0	0	97.1	2.9	0	80	0	20	0	
Total %	2.4	44.7	2.4	0	3.5	0	0	0	0	40	1.2	0	4.7	0	1.2	0	

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:40:00 PM																					
4:40:00 PM	0	8	0	0	8	0	0	0	0	0	0	**6**	**0**	**0**	**6**	**1**	0	0	0	**1**	15
4:55:00 PM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	8
5:10:00 PM	0	**10**	**1**	0	**11**	0	0	0	0	0	0	5	**1**	0	6	0	0	0	0	0	**17**
5:25:00 PM	**1**	1	0	0	2	**2**	0	0	0	**2**	0	3	0	0	3	1	0	0	0	1	8
Total Volume	1	23	1	0	25	2	0	0	0	2	0	18	1	0	19	2	0	0	0	2	48
% App. Total	4	92	4	0		100	0	0	0		0	94.7	5.3	0		100	0	0	0		
PHF	.250	.575	.250	.000	.568	.250	.000	.000	.000	.250	.000	.750	.250	.000	.792	.500	.000	.000	.000	.500	.706

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 BB
Site Code : 10111.34
Start Date : 4/12/2012
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138/27) From North				Freeman Street From East				Washington Street (Route 138/27) From South				Wyman Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:40 PM	0	0	0	8	0	0	0	2	0	0	0	0	0	0	0	3	13
04:55 PM	0	1	0	6	0	0	0	2	0	0	0	0	0	0	0	8	17
05:10 PM	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	8	15
05:25 PM	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	3	18
05:40 PM	0	0	0	1	0	0	0	6	0	0	0	2	0	0	0	3	12
05:55 PM	0	0	0	17	0	0	0	2	0	0	0	0	0	0	0	3	22
06:10 PM	0	0	0	10	0	0	0	3	0	0	0	1	0	0	0	4	18
06:25 PM	0	0	0	7	0	0	0	4	0	0	0	3	0	0	0	2	16
Grand Total	0	1	0	71	0	0	0	19	0	0	0	6	0	0	0	34	131
Apprch %	0	1.4	0	98.6	0	0	0	100	0	0	0	100	0	0	0	100	
Total %	0	0.8	0	54.2	0	0	0	14.5	0	0	0	4.6	0	0	0	26	

	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 5:25:00 PM																					
5:25:00 PM	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	18
5:40:00 PM	0	0	0	1	1	0	0	0	**6**	**6**	0	0	0	**2**	**2**	0	0	0	3	3	12
5:55:00 PM	0	0	0	**17**	**17**	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	**22**
6:10:00 PM	0	0	0	10	10	0	0	0	3	3	0	0	0	1	1	0	0	0	**4**	**4**	18
Total Volume	0	0	0	43	43	0	0	0	11	11	0	0	0	3	3	0	0	0	13	13	70
% App. Total	0	0	0	100		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.632	.632	.000	.000	.000	.458	.458	.000	.000	.000	.375	.375	.000	.000	.000	.813	.813	.795

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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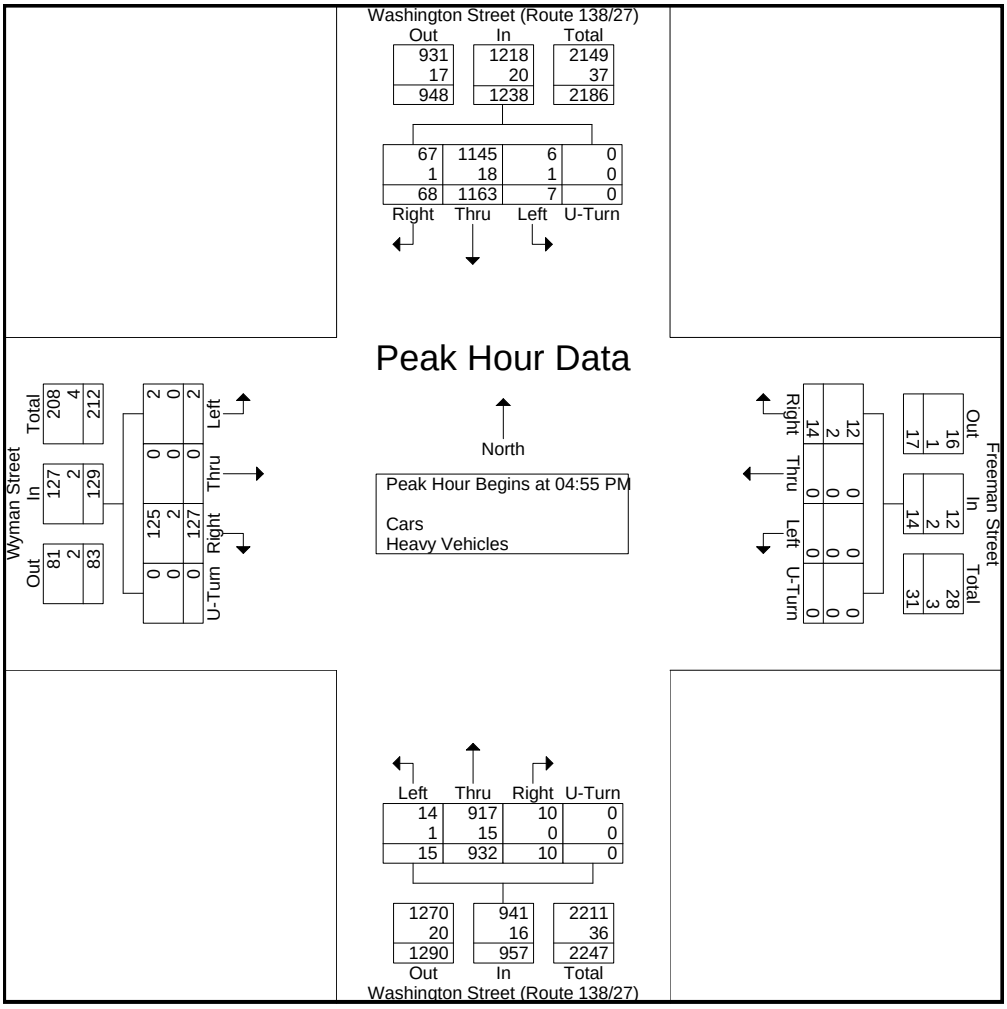
	Washington Street (Route 138/27) From North					Freeman Street From East					Washington Street (Route 138/27) From South					Wyman Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:55 PM																					
04:55 PM	7	87	0	0	94	2	0	0	0	2	2	69	2	0	73	14	0	0	0	14	183
05:00 PM	4	97	1	0	102	0	0	0	0	0	1	82	0	0	83	9	0	0	0	9	194
05:05 PM	4	99	1	0	104	1	0	0	0	1	1	**86**	**0**	**0**	**87**	9	0	0	0	9	201
05:10 PM	6	98	1	0	105	2	0	0	0	2	0	80	1	0	81	5	0	0	0	5	193
05:15 PM	**9**	99	1	0	109	0	0	0	0	0	0	74	0	0	74	11	0	0	0	11	194
05:20 PM	5	109	0	0	114	0	0	0	0	0	0	70	2	0	72	11	0	0	0	11	197
05:25 PM	6	93	0	0	99	2	0	0	0	2	0	85	0	0	85	8	0	0	0	8	194
05:30 PM	6	85	0	0	91	0	0	0	0	0	**3**	81	0	0	84	**18**	0	0	0	**18**	193
05:35 PM	7	103	0	0	110	2	0	0	0	2	2	81	0	0	83	14	0	0	0	14	209
05:40 PM	6	**113**			**119**	1	0	0	0	1	1	77	4	0	82	6	0	**2**	0	8	**210**
05:45 PM	**5**	**80**	**1**	**0**	**86**	**3**	0	0	0	**3**	0	77	**5**	0	82	14	0	0	0	14	185
05:50 PM	3	100	**2**	0	105	1	0	0	0	1	0	70	1	0	71	8	0	0	0	8	185
Total Volume	68	1163	7	0	1238	14	0	0	0	14	10	932	15	0	957	127	0	2	0	129	2338
% App. Total																					
PHF	.630	.858	.292	.000	.867	.389	.000	.000	.000	.389	.278	.903	.250	.000	.917	.588	.000	.083	.000	.597	.928
Cars	67	1145	6	0	1218	12	0	0	0	12	10	917	14	0	941	125	0	2	0	127	2298
% Cars	98.5	98.5	85.7	0	98.4	85.7	0	0	0	85.7	100	98.4	93.3	0	98.3	98.4	0	100	0	98.4	98.3
Heavy Vehicles																					
% Heavy Vehicles	1.5	1.5	14.3	0	1.6	14.3	0	0	0	14.3	0	1.6	6.7	0	1.7	1.6	0	0	0	1.6	1.7



N/S: Washington Street (Route 138/27)
E/SE:Pleasant St (Rt 139/Park St (Rt 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 C
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	U-Turn	Int. Total
06:30 AM	33	68	24	0	17	0	0	0	11	185	0	0	0	15	89	0	442
06:45 AM	37	78	22	0	18	0	0	0	5	201	0	0	0	17	80	0	458
Total	70	146	46	0	35	0	0	0	16	386	0	0	0	32	169	0	900
07:00 AM	48	92	40	0	20	0	0	0	10	182	0	0	0	28	81	0	501
07:15 AM	54	153	46	0	25	0	0	0	5	173	0	0	0	18	95	0	569
07:30 AM	75	144	47	0	25	0	0	0	4	182	0	0	0	29	91	0	597
07:45 AM	54	121	48	0	30	0	0	0	10	178	0	0	0	20	95	0	556
Total	231	510	181	0	100	0	0	0	29	715	0	0	0	95	362	0	2223
08:00 AM	51	110	36	0	18	0	0	0	10	176	0	0	0	19	67	0	487
08:15 AM	64	152	36	0	26	0	0	0	6	170	0	0	0	22	98	0	574
Grand Total	416	918	299	0	179	0	0	0	61	1447	0	0	0	168	696	0	4184
Apprch %	25.5	56.2	18.3	0	100	0	0	0	4	96	0	0	0	19.4	80.6	0	
Total %	9.9	21.9	7.1	0	4.3	0	0	0	1.5	34.6	0	0	0	4	16.6	0	
Cars	393	887	288	0	167	0	0	0	59	1400	0	0	0	158	678	0	4030
% Cars	94.5	96.6	96.3	0	93.3	0	0	0	96.7	96.8	0	0	0	94	97.4	0	96.3
Heavy Vehicles	23	31	11	0	12	0	0	0	2	47	0	0	0	10	18	0	154
% Heavy Vehicles	5.5	3.4	3.7	0	6.7	0	0	0	3.3	3.2	0	0	0	6	2.6	0	3.7

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	48	92	40	0	180	20	0	0	0	20	**10**	**182**	0	0	**192**	0	28	81	0	109	501
7:15:00 AM	54	**153**																**95**			
7:30:00 AM	**75**	144	47	0	**266**	**25**	**0**	**0**	**0**	**25**	**4**	**182**	**0**	**0**	**186**	**0**	**29**	91	0	**120**	**597**
7:45:00 AM	54	121	**48**	0	223	**30**	0	0	0	**30**	10	178	0	0	188	0	20	95	0	115	556
Total Volume	231	510	181	0	922	100	0	0	0	100	29	715	0	0	744	0	95	362	0	457	2223
% App. Total	25.1	55.3	19.6	0		100	0	0	0		3.9	96.1	0	0		0	20.8	79.2	0		
PHF	.770	.833	.943	.000	.867	.833	.000	.000	.000	.833	.725	.982	.000	.000	.969	.000	.819	.953	.000	.952	.931
Cars	220	489	176	0	885	92	0	0	0	92	28	690	0	0	718	0	91	357	0	448	2143
% Cars	95.2	95.9	97.2	0	96.0	92.0	0	0	0	92.0	96.6	96.5	0	0	96.5	0	95.8	98.6	0	98.0	96.4
Heavy Vehicles	11	21	5	0	37	8	0	0	0	8	1	25	0	0	26	0	4	5	0	9	80
% Heavy Vehicles	4.8	4.1	2.8	0	4.0	8.0	0	0	0	8.0	3.4	3.5	0	0	3.5	0	4.2	1.4	0	2.0	3.6

N/S: Washington Street (Route 138/27)
E/SE:Pleasant St (Rt 139/Park St (Rt 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Groups Printed- Cars

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	U-Turn	Int. Total
06:30 AM	32	65	22	0	17	0	0	0	11	182	0	0	0	15	87	0	431
06:45 AM	36	75	20	0	18	0	0	0	5	194	0	0	0	17	74	0	439
Total	68	140	42	0	35	0	0	0	16	376	0	0	0	32	161	0	870
07:00 AM	46	86	39	0	19	0	0	0	10	177	0	0	0	24	79	0	480
07:15 AM	50	144	45	0	25	0	0	0	4	166	0	0	0	18	93	0	545
07:30 AM	73	140	46	0	22	0	0	0	4	177	0	0	0	29	91	0	582
07:45 AM	51	119	46	0	26	0	0	0	10	170	0	0	0	20	94	0	536
Total	220	489	176	0	92	0	0	0	28	690	0	0	0	91	357	0	2143
08:00 AM	46	109	36	0	16	0	0	0	9	172	0	0	0	16	64	0	468
08:15 AM	59	149	34	0	24	0	0	0	6	162	0	0	0	19	96	0	549
Grand Total	393	887	288	0	167	0	0	0	59	1400	0	0	0	158	678	0	4030
Apprch %	25.1	56.6	18.4	0	100	0	0	0	4	96	0	0	0	18.9	81.1	0	
Total %	9.8	22	7.1	0	4.1	0	0	0	1.5	34.7	0	0	0	3.9	16.8	0	

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	46	86	39	0	171	19	0	0	0	19	**10**	**177**	0	0	**187**	0	24	79	0	103	480
7:15:00 AM	50	**144**																			
7:30:00 AM	**73**	140	**46**	0	**259**	**22**	**0**	**0**	**0**	**22**	**4**	**177**	**0**	**0**	**181**	**0**	**29**	91	0	**120**	**582**
7:45:00 AM	51	119	46	0	216	**26**	0	0	0	**26**	10	170	0	0	180	0	20	**94**			
Total Volume	220	489	176	0	885	92	0	0	0	92	28	690	0	0	718	0	91	357	0	448	2143
% App. Total	24.9	55.3	19.9	0		100	0	0	0		3.9	96.1	0	0		0	20.3	79.7	0		
PHF	.753	.849	.957	.000	.854	.885	.000	.000	.000	.885	.700	.975	.000	.000	.960	.000	.784	.949	.000	.933	.921

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Groups Printed- Heavy Vehicles

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	U-Turn	Int. Total
06:30 AM	1	3	2	0	0	0	0	0	0	3	0	0	0	0	2	0	11
06:45 AM	1	3	2	0	0	0	0	0	0	7	0	0	0	0	6	0	19
Total	2	6	4	0	0	0	0	0	0	10	0	0	0	0	8	0	30
07:00 AM	2	6	1	0	1	0	0	0	0	5	0	0	0	4	2	0	21
07:15 AM	4	9	1	0	0	0	0	0	1	7	0	0	0	0	2	0	24
07:30 AM	2	4	1	0	3	0	0	0	0	5	0	0	0	0	0	0	15
07:45 AM	3	2	2	0	4	0	0	0	0	8	0	0	0	0	1	0	20
Total	11	21	5	0	8	0	0	0	1	25	0	0	0	4	5	0	80
08:00 AM	5	1	0	0	2	0	0	0	1	4	0	0	0	3	3	0	19
08:15 AM	5	3	2	0	2	0	0	0	0	8	0	0	0	3	2	0	25
Grand Total	23	31	11	0	12	0	0	0	2	47	0	0	0	10	18	0	154
Apprch %	35.4	47.7	16.9	0	100	0	0	0	4.1	95.9	0	0	0	35.7	64.3	0	
Total %	14.9	20.1	7.1	0	7.8	0	0	0	1.3	30.5	0	0	0	6.5	11.7	0	

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	2	6	1	0	9	1	0	0	0	1	0	5	0	0	5	0	**4**	**2**	**0**	**6**	21
7:15:00 AM	**4**	**9**			**14**						**1**	7	0	0	**8**	0	0	2	0	2	**24**
7:30:00 AM	2	4	1	0	7	3	0	0	0	3	0	5	0	0	5	0	0	0	0	0	15
7:45:00 AM	3	2	**2**	0	7	**4**	0	0	0	**4**	0	**8**	0	0	8	0	0	1	0	1	20
Total Volume	11	21	5	0	37	8	0	0	0	8	1	25	0	0	26	0	4	5	0	9	80
% App. Total	29.7	56.8	13.5	0		100	0	0	0		3.8	96.2	0	0		0	44.4	55.6	0		
PHF	.688	.583	.625	.000	.661	.500	.000	.000	.000	.500	.250	.781	.000	.000	.813	.000	.250	.625	.000	.375	.833

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Groups Printed- Peds and Bicycles

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	Peds	Right	Left	Hard Left	Peds	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4	6
06:45 AM	0	0	0	0	0	0	0	2	0	0	0	4	0	0	0	6	12
Total	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	10	18
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	7	8
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9
07:30 AM	0	0	0	0	0	0	0	2	0	0	0	5	0	0	0	11	18
07:45 AM	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	4
Total	0	0	1	0	0	0	0	5	0	0	0	5	0	0	0	28	39
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	4
Grand Total	0	0	1	0	0	0	0	9	0	1	0	10	0	0	0	40	61
Apprch %	0	0	100	0	0	0	0	100	0	9.1	0	90.9	0	0	0	100	
Total %	0	0	1.6	0	0	0	0	14.8	0	1.6	0	16.4	0	0	0	65.6	

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	Peds	App. Total	Right	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 6:45:00 AM																					
6:45:00 AM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	4	4	0	0	0	6	6	12
7:00:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	7	7	8
7:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	9
7:30:00 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	**5**	**5**	0	0	0	**11**	**11**	**18**
Total Volume	0	0	0	0	0	0	0	0	5	5	0	0	0	9	9	0	0	0	33	33	47
% App. Total	0	0	0	0		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.625	.625	.000	.000	.000	.450	.450	.000	.000	.000	.750	.750	.653

N/S: Washington Street (Route 138/27)
E/SE:Pleasant St (Rt 139/Park St (Rt 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 C
Site Code : 10111.34
Start Date : 4/12/2012
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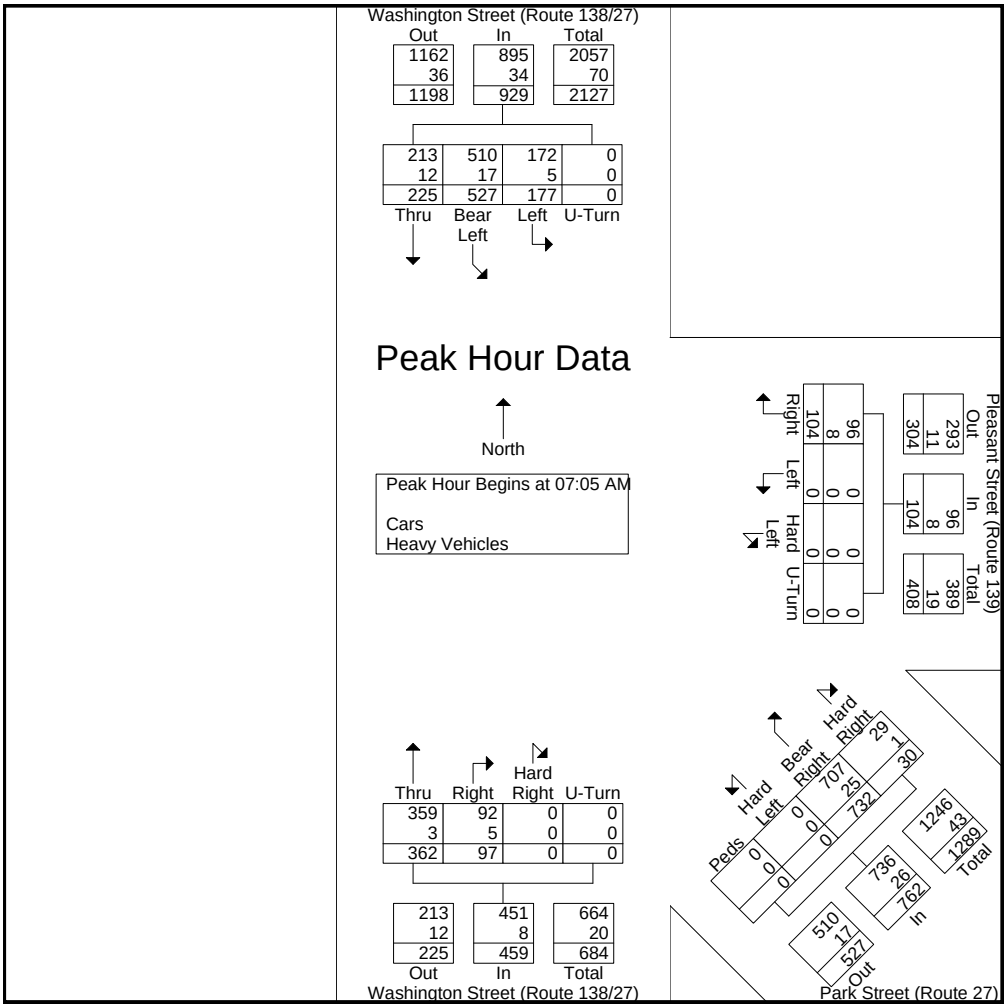
	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:05 AM																					
07:05 AM	16	32	13	0	61	7	0	0	0	7	2	**70**	0	0	72	0	7	32	0	39	179
07:10 AM	14	34	11	0	59	9	0	0	0	9	**6**	61	0	0	67	0	**17**	29	0	**46**	181
07:15 AM	18	46	12	0	76	8	0	0	0	8	2	54	0	0	56	0	5	**40**			
07:20 AM	**17**	**48**	**14**	**0**	**79**	**9**	**0**	**0**	**0**	**9**	**1**	**54**	**0**	**0**	**55**	**0**	**7**	**20**	**0**	**27**	**170**
07:25 AM	**19**	**59**	**20**	**0**	**98**	**8**	**0**	**0**	**0**	**8**	**2**	**65**	**0**	**0**	**67**	**0**	**6**	**35**	**0**	**41**	**214**
07:30 AM	22	53	12	0	87	6	0	0	0	6	0	57	0	0	57	0	10	33	0	43	193
07:35 AM	22	49	13	0	84	13	0	0	0	13	1	55	0	0	56	0	14	26	0	40	193
07:40 AM	**31**	42	**22**	0	95	6	0	0	0	6	3	70	0	0	**73**	0	5	32	0	37	211
07:45 AM	26	49	10	0	85	6	0	0	0	6	3	64	0	0	67	0	5	32	0	37	195
07:50 AM	12	33	21	0	66	7	0	0	0	7	3	63	0	0	66	0	7	30	0	37	176
07:55 AM	16	39	17	0	72	**17**	0	0	0	**17**	4	51	0	0	55	0	8	33	0	41	185
08:00 AM	12	43	12	0	67	8	0	0	0	8	3	68	0	0	71	0	6	20	0	26	172
Total Volume	225	527	177	0	929	104	0	0	0	104	30	732	0	0	762	0	97	362	0	459	2254
% App. Total	24.2	56.7	19.1	0		100	0	0	0		3.9	96.1	0	0		0	21.1	78.9	0		
PHF	.605	.744	.670	.000	.790	.510	.000	.000	.000	.510	.417	.871	.000	.000	.870	.000	.475	.754	.000	.832	.878
Cars	213	510	172	0	895	96	0	0	0	96	29	707	0	0	736	0	92	359	0	451	2178
% Cars	94.7	96.8	97.2	0	96.3	92.3	0	0	0	92.3	96.7	96.6	0	0	96.6	0	94.8	99.2	0	98.3	96.6
Heavy Vehicles	12	17	5	0	34	8	0	0	0	8	1	25	0	0	26	0	5	3	0	8	76
% Heavy Vehicles	5.3	3.2	2.8	0	3.7	7.7	0	0	0	7.7	3.3	3.4	0	0	3.4	0	5.2	0.8	0	1.7	3.4



N/S: Washington Street (Route 138/27)
E/SE:Pleasant St (Rt 139/Park St (Rt 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 CC
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	U-Turn	Int. Total
04:40 PM	112	121	32	0	41	0	0	0	6	141	0	0	0	15	59	0	527
04:55 PM	122	163	30	0	44	0	0	0	5	132	0	0	0	23	56	0	575
05:10 PM	137	155	40	0	36	0	0	0	12	126	0	0	0	25	54	0	585
05:25 PM	139	148	33	0	54	0	0	0	7	125	0	0	1	21	78	0	606
05:40 PM	126	156	34	0	44	0	0	0	9	157	0	0	0	22	61	0	609
05:55 PM	112	155	23	0	38	0	0	0	9	123	0	0	0	20	67	0	547
06:10 PM	102	182	40	0	31	0	0	0	5	125	0	0	0	17	75	0	577
06:25 PM	126	139	18	0	36	0	0	0	5	94	0	0	0	20	52	0	490
Grand Total	976	1219	250	0	324	0	0	0	58	1023	0	0	1	163	502	0	4516
Apprch %	39.9	49.9	10.2	0	100	0	0	0	5.4	94.6	0	0	0.2	24.5	75.4	0	
Total %	21.6	27	5.5	0	7.2	0	0	0	1.3	22.7	0	0	0	3.6	11.1	0	
Cars	961	1194	246	0	320	0	0	0	56	1003	0	0	1	159	489	0	4429
% Cars	98.5	97.9	98.4	0	98.8	0	0	0	96.6	98	0	0	100	97.5	97.4	0	98.1
Heavy Vehicles	15	25	4	0	4	0	0	0	2	20	0	0	0	4	13	0	87
% Heavy Vehicles	1.5	2.1	1.6	0	1.2	0	0	0	3.4	2	0	0	0	2.5	2.6	0	1.9

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:55:00 PM																					
4:55:00 PM	122	**163**	**30**	**0**	**315**	**44**	**0**	**0**	**0**	**44**	**5**	**132**	**0**	**0**	**137**	**0**	**23**	**56**	**0**	**79**	**575**
5:10:00 PM	137	155	**40**	0	**332**	**36**	**0**	**0**	**0**	**36**	**12**	126	0	0	138	0	**25**	54	0	79	585
5:25:00 PM	**139**	148	33	0	320	**54**	0	0	0	**54**	7	125	0	0	132	**1**		**78**		**100**	606
5:40:00 PM	126	156	34	0	316	44	0	0	0	44	9	**157**	0	0	**166**	0	22	61	0	83	**609**
Total Volume	524	622	137	0	1283	178	0	0	0	178	33	540	0	0	573	1	91	249	0	341	2375
% App. Total	40.8	48.5	10.7	0		100	0	0	0		5.8	94.2	0	0		0.3	26.7	73	0		
PHF	.942	.954	.856	.000	.966	.824	.000	.000	.000	.824	.688	.860	.000	.000	.863	.250	.910	.798	.000	.853	.975
Cars	515	610	135	0	1260	175	0	0	0	175	32	530	0	0	562	1	89	243	0	333	2330
% Cars	98.3	98.1	98.5	0	98.2	98.3	0	0	0	98.3	97.0	98.1	0	0	98.1	100	97.8	97.6	0	97.7	98.1
Heavy Vehicles	9	12	2	0	23	3	0	0	0	3	1	10	0	0	11	0	2	6	0	8	45
% Heavy Vehicles	1.7	1.9	1.5	0	1.8	1.7	0	0	0	1.7	3.0	1.9	0	0	1.9	0	2.2	2.4	0	2.3	1.9

N/S: Washington Street (Route 138/27)
E/SE:Pleasant St (Rt 139/Park St (Rt 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Groups Printed- Cars

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	U-Turn	Int. Total
04:40 PM	109	116	31	0	40	0	0	0	6	140	0	0	0	13	58	0	513
04:55 PM	120	160	29	0	44	0	0	0	5	128	0	0	0	23	55	0	564
05:10 PM	134	147	39	0	34	0	0	0	12	122	0	0	0	24	53	0	565
05:25 PM	139	147	33	0	54	0	0	0	6	123	0	0	1	20	75	0	598
05:40 PM	122	156	34	0	43	0	0	0	9	157	0	0	0	22	60	0	603
05:55 PM	111	153	22	0	38	0	0	0	8	122	0	0	0	20	63	0	537
06:10 PM	102	177	40	0	31	0	0	0	5	118	0	0	0	17	74	0	564
06:25 PM	124	138	18	0	36	0	0	0	5	93	0	0	0	20	51	0	485
Grand Total	961	1194	246	0	320	0	0	0	56	1003	0	0	1	159	489	0	4429
Apprch %	40	49.7	10.2	0	100	0	0	0	5.3	94.7	0	0	0.2	24.5	75.3	0	
Total %	21.7	27	5.6	0	7.2	0	0	0	1.3	22.6	0	0	0	3.6	11	0	

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:55:00 PM																					
4:55:00 PM	120	**160**	**29**	**0**	**309**	**44**	**0**	**0**	**0**	**44**	**5**	**128**	**0**	**0**	**133**	**0**	**23**	**55**	**0**	**78**	**564**
5:10:00 PM	134	147	**39**	0	**320**	**34**	**0**	**0**	**0**	**34**	**12**	122	0	0	134	0	**24**	53	0	77	565
5:25:00 PM	**139**	147	33	0	319	**54**	0	0	0	**54**	6	123	0	0	129	**1**		**75**		**96**	598
5:40:00 PM	122	156	34	0	312	43	0	0	0	43	9	**157**	0	0	**166**	0	22	60	0	82	**603**
Total Volume	515	610	135	0	1260	175	0	0	0	175	32	530	0	0	562	1	89	243	0	333	2330
% App. Total	40.9	48.4	10.7	0		100	0	0	0		5.7	94.3	0	0		0.3	26.7	73	0		
PHF	.926	.953	.865	.000	.984	.810	.000	.000	.000	.810	.667	.844	.000	.000	.846	.250	.927	.810	.000	.867	.966

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Groups Printed- Heavy Vehicles

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	U-Turn	Int. Total
04:40 PM	3	5	1	0	1	0	0	0	0	1	0	0	0	2	1	0	14
04:55 PM	2	3	1	0	0	0	0	0	0	4	0	0	0	0	1	0	11
05:10 PM	3	8	1	0	2	0	0	0	0	4	0	0	0	1	1	0	20
05:25 PM	0	1	0	0	0	0	0	0	1	2	0	0	0	1	3	0	8
05:40 PM	4	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	6
05:55 PM	1	2	1	0	0	0	0	0	1	1	0	0	0	0	4	0	10
06:10 PM	0	5	0	0	0	0	0	0	0	7	0	0	0	0	1	0	13
06:25 PM	2	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	5
Grand Total	15	25	4	0	4	0	0	0	2	20	0	0	0	4	13	0	87
Apprch %	34.1	56.8	9.1	0	100	0	0	0	9.1	90.9	0	0	0	23.5	76.5	0	
Total %	17.2	28.7	4.6	0	4.6	0	0	0	2.3	23	0	0	0	4.6	14.9	0	

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:40:00 PM																					
4:40:00 PM	**3**	5	**1**	0	9	1	0	0	0	1	0	1	0	0	1	0	**2**	1	0	3	14
4:55:00 PM	2	3	1	0	6	0	0	0	0	0	0	**4**	0	0	**4**	0	0	1	0	1	11
5:10:00 PM	3	**8**			**12**	**2**	0	0	0	**2**	0	4	0	0	4	0	1	1	0	2	**20**
5:25:00 PM	0	1	0	0	1	0	0	0	0	0	**1**	2	0	0	3	0	1	**3**		**4**	8
Total Volume	8	17	3	0	28	3	0	0	0	3	1	11	0	0	12	0	4	6	0	10	53
% App. Total	28.6	60.7	10.7	0		100	0	0	0		8.3	91.7	0	0		0	40	60	0		
PHF	.667	.531	.750	.000	.583	.375	.000	.000	.000	.375	.250	.688	.000	.000	.750	.000	.500	.500	.000	.625	.663

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Groups Printed- Peds and Bicycles

	Washington Street (Route 138/27) From North				Pleasant Street (Route 139) From East				Park Street (Route 27) From Southeast				Washington Street (Route 138/27) From South				
Start Time	Thru	Bear Left	Left	Peds	Right	Left	Hard Left	Peds	Hard Right	Bear Right	Hard Left	Peds	Hard Right	Right	Thru	Peds	Int. Total
04:40 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	4
04:55 PM	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	4	7
05:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:25 PM	0	0	0	0	0	0	0	2	0	0	0	7	0	0	0	8	17
05:40 PM	0	0	0	0	0	0	0	6	0	0	0	1	0	0	0	1	8
05:55 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	4	10
06:10 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
06:25 PM	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	4	7
Grand Total	0	0	1	0	0	0	0	14	0	0	0	15	0	0	0	27	57
Apprch %	0	0	100	0	0	0	0	100	0	0	0	100	0	0	0	100	
Total %	0	0	1.8	0	0	0	0	24.6	0	0	0	26.3	0	0	0	47.4	

	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	Peds	App. Total	Right	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 5:10:00 PM																					
5:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
5:25:00 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	**7**	**7**	0	0	0	**8**	**8**	**17**
5:40:00 PM	0	0	0	0	0	0	0	0	**6**	**6**	0	0	0	1	1	0	0	0	1	1	8
5:55:00 PM	0	0	0	0	0	0	0	0	3	3	0	0	0	3	3	0	0	0	4	4	10
Total Volume	0	0	0	0	0	0	0	0	11	11	0	0	0	11	11	0	0	0	15	15	37
% App. Total	0	0	0	0		0	0	0	100		0	0	0	100		0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.458	.458	.000	.000	.000	.393	.393	.000	.000	.000	.469	.469	.544

N/S: Washington Street (Route 138/27)
E/SE:Pleasant St (Rt 139/Park St (Rt 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Site Code : 10111.34
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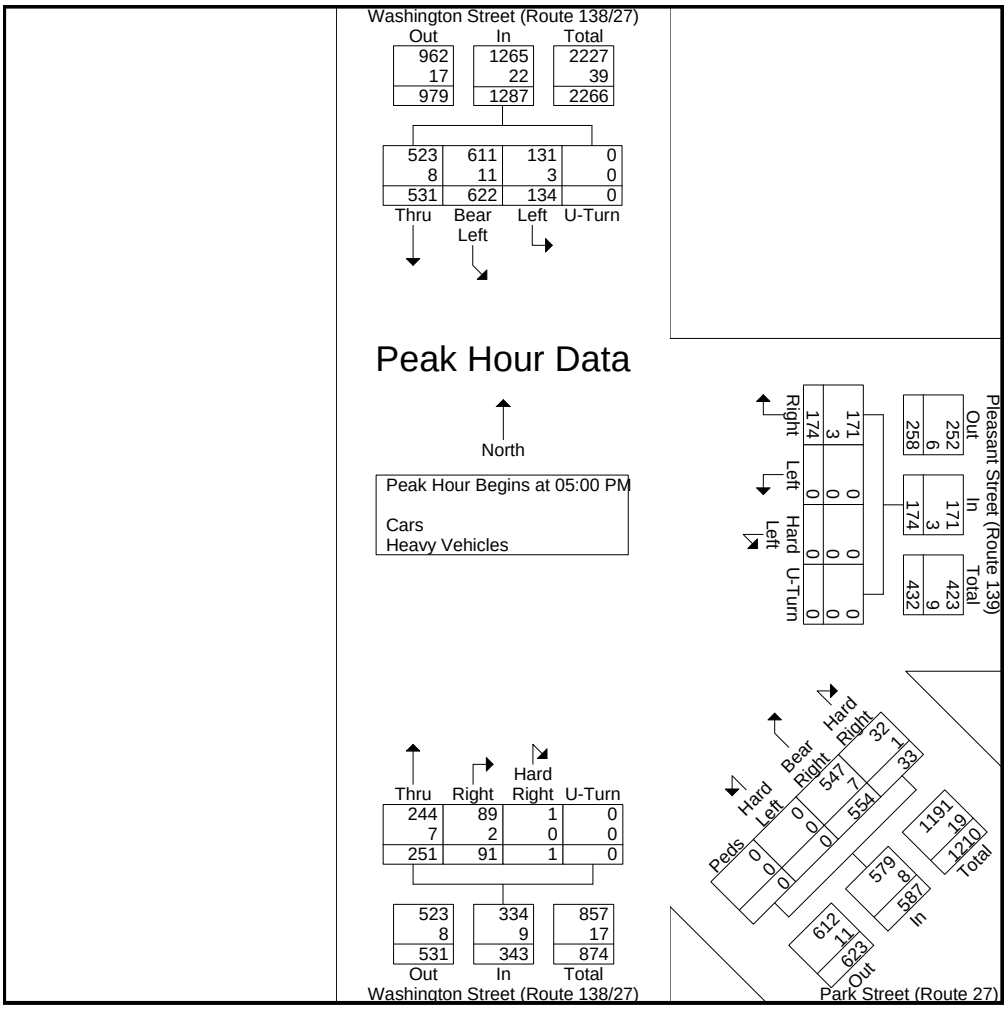
	Washington Street (Route 138/27) From North					Pleasant Street (Route 139) From East					Park Street (Route 27) From Southeast					Washington Street (Route 138/27) From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	45	54	9	0	108	11	0	0	0	11	1	52	0	0	53	0	9	21	0	30	202
05:05 PM	35	58	9	0	102	19	0	0	0	19	2	42	0	0	44	0	6	19	0	25	190
05:10 PM	44	49	13	0	106	11	0	0	0	11	5	42	0	0	47	0	**14**	25	0	39	203
05:15 PM	46	45	**15**	0	106	14	0	0	0	14	1	52	0	0	53	0	7	9	0	16	189
05:20 PM	47	**61**			**120**						**6**	32	0	0	38	0	4	20	0	24	193
05:25 PM	43	47	13	0	103	12	0	0	0	12	3	44	0	0	47	**1**		**32**		**44**	206
05:30 PM	41	50	6	0	97	20	0	0	0	20	1	45	0	0	46	0	5	24	0	29	192
05:35 PM	**55**	51	14	0	120	**22**	0	0	0	**22**	3	36	0	0	39	0	5	22	0	27	208
05:40 PM	55	53	12	0	120	14	0	0	0	14	4	**57**	0	0	**61**	0	5	15	0	20	**215**
05:45 PM	37	48	10	0	95	19	0	0	0	19	3	54	0	0	57	0	9	19	0	28	199
05:50 PM	34	55	12	0	101	11	0	0	0	11	2	46	0	0	48	0	8	27	0	35	195
05:55 PM	49	51	9	0	109	10	0	0	0	10	2	52	0	0	54	0	8	18	0	26	199
Total Volume	531	622	134	0	1287	174	0	0	0	174	33	554	0	0	587	1	91	251	0	343	2391
% App. Total	41.3	48.3	10.4	0		100	0	0	0		5.6	94.4	0	0		0.3	26.5	73.2	0		
PHF	.805	.850	.744	.000	.894	.659	.000	.000	.000	.659	.458	.810	.000	.000	.802	.083	.542	.654	.000	.650	.927
Cars	523	611	131	0	1265	171	0	0	0	171	32	547	0	0	579	1	89	244	0	334	2349
% Cars	98.5	98.2	97.8	0	98.3	98.3	0	0	0	98.3	97.0	98.7	0	0	98.6	100	97.8	97.2	0	97.4	98.2
Heavy Vehicles	8	11	3	0	22	3	0	0	0	3	1	7	0	0	8	0	2	7	0	9	42
% Heavy Vehicles	1.5	1.8	2.2	0	1.7	1.7	0	0	0	1.7	3.0	1.3	0	0	1.4	0	2.2	2.8	0	2.6	1.8



N/S: Washington Street (Route 138/27)
E/W: Kinsley Street/ Brock Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Site Code : 10111.34
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Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	7	39	0	0	1	4	0	0	2	129	15	0	1	1	7	0	206
06:45 AM	9	45	1	0	1	7	1	0	5	122	25	0	7	8	2	0	233
Total	16	84	1	0	2	11	1	0	7	251	40	0	8	9	9	0	439
07:00 AM	10	56	1	0	1	9	3	0	6	145	30	0	6	7	3	0	277
07:15 AM	11	64	0	0	2	11	3	0	7	132	30	0	13	9	3	0	285
07:30 AM	12	78	3	0	3	6	0	0	9	162	49	0	11	15	8	0	356
07:45 AM	15	76	2	0	0	7	1	0	14	113	22	0	6	7	9	0	272
Total	48	274	6	0	6	33	7	0	36	552	131	0	36	38	23	0	1190
08:00 AM	11	71	1	0	4	10	0	0	10	135	26	0	18	15	7	0	308
08:15 AM	17	77	1	0	1	12	1	0	7	122	34	0	9	18	12	0	311
Grand Total	92	506	9	0	13	66	9	0	60	1060	231	0	71	80	51	0	2248
Apprch %	15.2	83.4	1.5	0	14.8	75	10.2	0	4.4	78.5	17.1	0	35.1	39.6	25.2	0	
Total %	4.1	22.5	0.4	0	0.6	2.9	0.4	0	2.7	47.2	10.3	0	3.2	3.6	2.3	0	
Cars	89	474	9	0	13	65	9	0	59	1027	225	0	69	78	51	0	2168
% Cars	96.7	93.7	100	0	100	98.5	100	0	98.3	96.9	97.4	0	97.2	97.5	100	0	96.4
Heavy Vehicles	3	32	0	0	0	1	0	0	1	33	6	0	2	2	0	0	80
% Heavy Vehicles	3.3	6.3	0	0	0	1.5	0	0	1.7	3.1	2.6	0	2.8	2.5	0	0	3.6

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	12	**78**	**3**	0	93	3	6	0	0	9	9	**162**	**49**	0	**220**	11	15	8	0	34	**356**
7:45:00 AM	15	76	2	0	93	0	7	**1**	0	8	**14**	113	22	0	149	6	7	9	0	22	272
8:00:00 AM	11	71	1	0	83	**4**	10	0	0	**14**	10	135	26	0	171	**18**				**40**	308
8:15:00 AM	**17**	77	1	0	**95**		**12**										**18**	**12**			
Total Volume	55	302	7	0	364	8	35	2	0	45	40	532	131	0	703	44	55	36	0	135	1247
% App. Total	15.1	83	1.9	0		17.8	77.8	4.4	0		5.7	75.7	18.6	0		32.6	40.7	26.7	0		
PHF	.809	.968	.583	.000	.958	.500	.729	.500	.000	.804	.714	.821	.668	.000	.799	.611	.764	.750	.000	.844	.876
Cars	53	281	7	0	341	8	34	2	0	44	40	517	128	0	685	43	55	36	0	134	1204
% Cars	96.4	93.0	100	0	93.7	100	97.1	100	0	97.8	100	97.2	97.7	0	97.4	97.7	100	100	0	99.3	96.6
Heavy Vehicles	2	21	0	0	23	0	1	0	0	1	0	15	3	0	18	1	0	0	0	1	43
% Heavy Vehicles	3.6	7.0	0	0	6.3	0	2.9	0	0	2.2	0	2.8	2.3	0	2.6	2.3	0	0	0	0.7	3.4

N/S: Washington Street (Route 138/27)
E/W: Kinsley Street/ Brock Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Site Code : 10111.34
Start Date : 4/12/2012
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Groups Printed- Cars

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	7	38	0	0	1	4	0	0	2	128	15	0	1	1	7	0	204
06:45 AM	9	42	1	0	1	7	1	0	5	117	24	0	6	8	2	0	223
Total	16	80	1	0	2	11	1	0	7	245	39	0	7	9	9	0	427
07:00 AM	10	55	1	0	1	9	3	0	5	136	30	0	6	7	3	0	266
07:15 AM	10	58	0	0	2	11	3	0	7	129	28	0	13	7	3	0	271
07:30 AM	12	74	3	0	3	6	0	0	9	161	48	0	10	15	8	0	349
07:45 AM	15	72	2	0	0	6	1	0	14	113	22	0	6	7	9	0	267
Total	47	259	6	0	6	32	7	0	35	539	128	0	35	36	23	0	1153
08:00 AM	9	65	1	0	4	10	0	0	10	126	25	0	18	15	7	0	290
08:15 AM	17	70	1	0	1	12	1	0	7	117	33	0	9	18	12	0	298
Grand Total	89	474	9	0	13	65	9	0	59	1027	225	0	69	78	51	0	2168
Apprch %	15.6	82.9	1.6	0	14.9	74.7	10.3	0	4.5	78.3	17.2	0	34.8	39.4	25.8	0	
Total %	4.1	21.9	0.4	0	0.6	3	0.4	0	2.7	47.4	10.4	0	3.2	3.6	2.4	0	

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	12	**74**	**3**	0	**89**	**3**	**6**	**0**	**0**	**9**	**9**	**161**	**48**	0	**218**	10	15	8	0	33	**349**
7:45:00 AM	15	72	2	0	89	0	6	**1**	0	7	**14**	113	22	0	149	6	7	9	0	22	267
8:00:00 AM	9	65	1	0	75	**4**	10	0	0	**14**	10	126	25	0	161	**18**				**40**	290
8:15:00 AM	**17**	70	1	0	88	1	**12**										**18**	**12**			
Total Volume	53	281	7	0	341	8	34	2	0	44	40	517	128	0	685	43	55	36	0	134	1204
% App. Total	15.5	82.4	2.1	0		18.2	77.3	4.5	0		5.8	75.5	18.7	0		32.1	41	26.9	0		
PHF	.779	.949	.583	.000	.958	.500	.708	.500	.000	.786	.714	.803	.667	.000	.786	.597	.764	.750	.000	.838	.862

N/S: Washington Street (Route 138/27)
E/W: Kinsley Street/ Brock Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 D
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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
06:45 AM	0	3	0	0	0	0	0	0	0	5	1	0	1	0	0	0	10
Total	0	4	0	0	0	0	0	0	0	6	1	0	1	0	0	0	12
07:00 AM	0	1	0	0	0	0	0	0	1	9	0	0	0	0	0	0	11
07:15 AM	1	6	0	0	0	0	0	0	0	3	2	0	0	2	0	0	14
07:30 AM	0	4	0	0	0	0	0	0	0	1	1	0	1	0	0	0	7
07:45 AM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
Total	1	15	0	0	0	1	0	0	1	13	3	0	1	2	0	0	37
08:00 AM	2	6	0	0	0	0	0	0	0	9	1	0	0	0	0	0	18
08:15 AM	0	7	0	0	0	0	0	0	0	5	1	0	0	0	0	0	13
Grand Total	3	32	0	0	0	1	0	0	1	33	6	0	2	2	0	0	80
Apprch %	8.6	91.4	0	0	0	100	0	0	2.5	82.5	15	0	50	50	0	0	
Total %	3.8	40	0	0	0	1.2	0	0	1.2	41.2	7.5	0	2.5	2.5	0	0	

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:15:00 AM																					
7:15:00 AM	1	**6**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	0	5	0	**2**	0	0	**2**	14
7:30:00 AM	0	4	0	0	4	0	0	0	0	0	0	1	1	0	2	**1**					
7:45:00 AM	0	4	0	0	4	0	**1**	**0**	**0**	**1**	0	0	0	0	0	0	0	0	0	0	5
8:00:00 AM	**2**	6	0	0	**8**							**9**	1	0	**10**	0	0	0	0	0	**18**
Total Volume	3	20	0	0	23	0	1	0	0	1	0	13	4	0	17	1	2	0	0	3	44
% App. Total	13	87	0	0		0	100	0	0		0	76.5	23.5	0		33.3	66.7	0	0		
PHF	.375	.833	.000	.000	.719	.000	.250	.000	.000	.250	.000	.361	.500	.000	.425	.250	.250	.000	.000	.375	.611

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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	3
Total	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	1	9
08:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	3
Grand Total	0	0	0	4	0	1	0	5	0	0	0	0	0	0	0	4	14
Apprch %	0	0	0	100	0	16.7	0	83.3	0	0	0	0	0	0	0	100	
Total %	0	0	0	28.6	0	7.1	0	35.7	0	0	0	0	0	0	0	28.6	

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	0	0	0	**3**	**3**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
7:45:00 AM	0	0	0	1	1	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	3
8:00:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
8:15:00 AM	0	0	0	0	0	0	**1**												**2**	**2**	3
Total Volume	0	0	0	4	4	0	1	0	4	5	0	0	0	0	0	0	0	0	3	3	12
% App. Total	0	0	0	100		0	20	0	80		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.333	.333	.000	.250	.000	.500	.625	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.750

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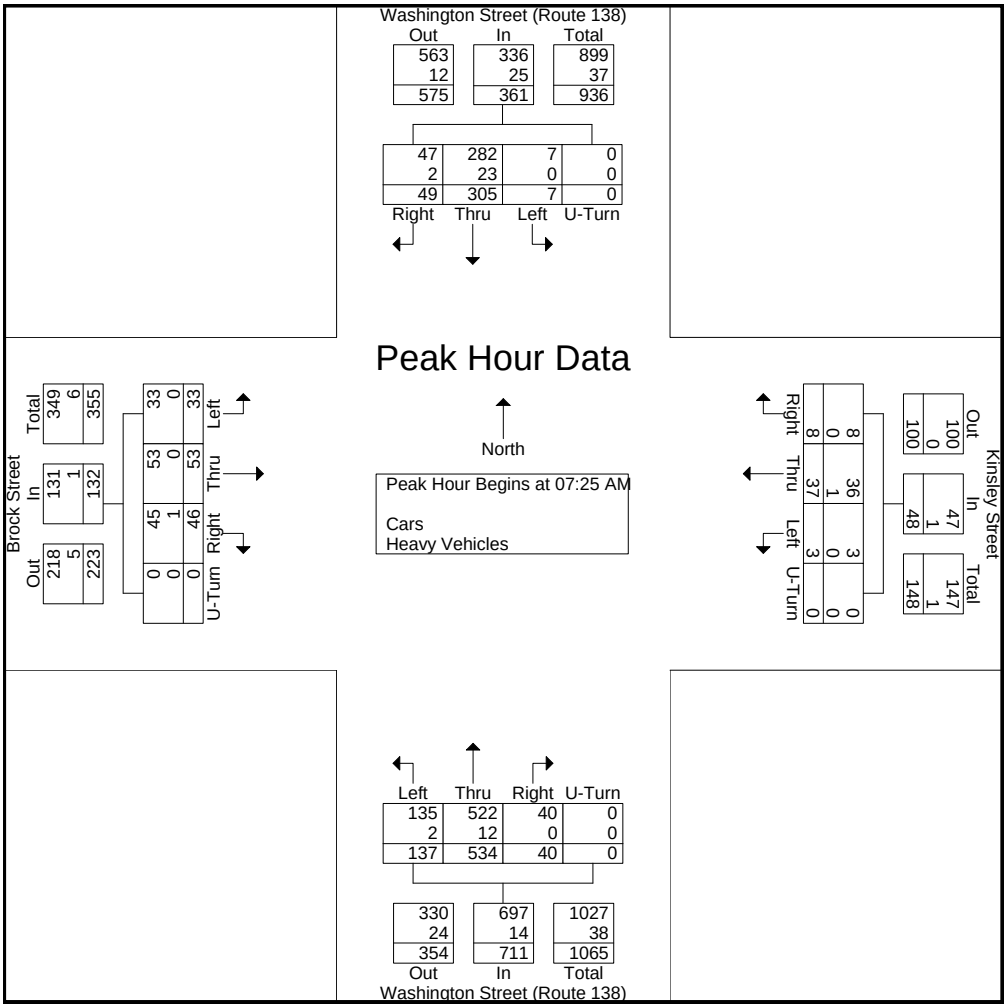
	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:25 AM																					
07:25 AM	2	27	0	0	29	1	6	**1**	0	**8**	1	47	15	0	63	4	4	1	0	9	109
07:30 AM	3	23	0	0	26	0	2	0	0	2	5	46	17	0	68	6	4	3	0	13	109
07:35 AM	6	21	1	0	28	1	2	0	0	3	0	57	11	0	68	4	5	3	0	12	111
07:40 AM	3	**34**	**2**	0	39	**2**	2	0	0	4	4	**59**	**21**	0	**84**	1	6	2	0	9	**136**
07:45 AM	4	34	2	0	**40**																
07:50 AM	**7**	18	0	0	25	0	1	0	0	1	4	38	8	0	50	1	4	**5**	**0**	**10**	**86**
07:55 AM	**4**	**24**	**0**	**0**	**28**	**0**	**2**	**0**	**0**	**2**	**5**	**38**	**8**	**0**	**51**	**3**	**1**	**2**	**0**	**6**	**87**
08:00 AM	**2**	**13**	**0**	**0**	**15**	**1**	**2**	**0**	**0**	**3**	**1**	**43**	**8**	**0**	**52**	**4**	**5**	**3**	**0**	**12**	**82**
08:05 AM	**3**	**26**	**0**	**0**	**29**	**2**	**1**	**0**	**0**	**3**	**2**	**40**	**9**	**0**	**51**	**10**	**5**	**3**	**0**	**18**	101
08:10 AM	6	32	1	0	39	1	**7**				**7**	52	9	0	68	4	5	1	0	10	125
08:15 AM	2	22	1	0	25	0	5	0	0	5	1	39	14	0	54	5	**7**	4	0	16	100
08:20 AM	7	31	0	0	38	0	3	1	0	4	5	38	11	0	54	2	5	4	0	11	107
Total Volume	49	305	7	0	361	8	37	3	0	48	40	534	137	0	711	46	53	33	0	132	1252
% App. Total	13.6	84.5	1.9	0		16.7	77.1	6.2	0		5.6	75.1	19.3	0		34.8	40.2	25	0		
PHF	.583	.748	.292	.000	.752	.333	.440	.250	.000	.500	.476	.754	.544	.000	.705	.383	.631	.550	.000	.611	.767
Cars	47	282	7	0	336	8	36	3	0	47	40	522	135	0	697	45	53	33	0	131	1211
% Cars	95.9	92.5	100	0	93.1	100	97.3	100	0	97.9	100	97.8	98.5	0	98.0	97.8	100	100	0	99.2	96.7
Heavy Vehicles	2	23	0	0	25	0	1	0	0	1	0	12	2	0	14	1	0	0	0	1	41
% Heavy Vehicles	4.1	7.5	0	0	6.9	0	2.7	0	0	2.1	0	2.2	1.5	0	2.0	2.2	0	0	0	0.8	3.3



N/S: Washington Street (Route 138)
E/W: Kinsley Street/ Brock Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 DD
Site Code : 10111.34
Start Date : 4/12/2012
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Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	12	162	3	0	1	11	3	0	6	95	19	0	13	8	7	0	340
04:55 PM	11	179	4	0	1	13	6	0	7	94	16	0	16	14	8	0	369
05:10 PM	6	168	2	0	2	16	0	0	2	100	11	0	15	21	5	0	348
05:25 PM	17	204	6	0	1	8	4	0	6	99	17	0	22	9	3	0	396
05:40 PM	13	166	0	0	2	9	7	0	4	85	22	0	15	13	4	0	340
05:55 PM	13	153	0	0	0	5	3	0	8	109	9	0	17	9	7	0	333
06:10 PM	4	136	1	0	1	9	7	0	2	114	9	0	21	8	7	0	319
06:25 PM	8	159	2	0	2	6	2	0	6	77	13	0	12	10	5	0	302
Grand Total	84	1327	18	0	10	77	32	0	41	773	116	0	131	92	46	0	2747
Apprch %	5.9	92.9	1.3	0	8.4	64.7	26.9	0	4.4	83.1	12.5	0	48.7	34.2	17.1	0	
Total %	3.1	48.3	0.7	0	0.4	2.8	1.2	0	1.5	28.1	4.2	0	4.8	3.3	1.7	0	
Cars	84	1309	17	0	10	77	32	0	41	756	114	0	128	91	42	0	2701
% Cars	100	98.6	94.4	0	100	100	100	0	100	97.8	98.3	0	97.7	98.9	91.3	0	98.3
Heavy Vehicles	0	18	1	0	0	0	0	0	0	17	2	0	3	1	4	0	46
% Heavy Vehicles	0	1.4	5.6	0	0	0	0	0	0	2.2	1.7	0	2.3	1.1	8.7	0	1.7

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:40:00 PM																					
4:40:00 PM	12	162	3	0	177	1	11	3	0	15	6	95	**19**	0	120	13	8	7	0	28	340
4:55:00 PM	11	179	4	0	194	1	13	**6**		**20**	**7**							**8**			
5:10:00 PM	6	168	2	0	176	**2**	**16**	**0**	**0**	**18**	**2**	**100**	**11**	**0**	**113**	**15**	**21**	5	0	**41**	348
5:25:00 PM	**17**	**204**	**6**		**227**	1	8	4	0	13	6	99	17	0	**122**	**22**					**396**
Total Volume	46	713	15	0	774	5	48	13	0	66	21	388	63	0	472	66	52	23	0	141	1453
% App. Total	5.9	92.1	1.9	0		7.6	72.7	19.7	0		4.4	82.2	13.3	0		46.8	36.9	16.3	0		
PHF	.676	.874	.625	.000	.852	.625	.750	.542	.000	.825	.750	.970	.829	.000	.967	.750	.619	.719	.000	.860	.917
Cars	46	702	14	0	762	5	48	13	0	66	21	378	61	0	460	66	52	21	0	139	1427
% Cars	100	98.5	93.3	0	98.4	100	100	100	0	100	100	97.4	96.8	0	97.5	100	100	91.3	0	98.6	98.2
Heavy Vehicles	0	11	1	0	12	0	0	0	0	0	0	10	2	0	12	0	0	2	0	2	26
% Heavy Vehicles	0	1.5	6.7	0	1.6	0	0	0	0	0	0	2.6	3.2	0	2.5	0	0	8.7	0	1.4	1.8

N/S: Washington Street (Route 138)
E/W: Kinsley Street/ Brock Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 DD
Site Code : 10111.34
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Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	12	161	3	0	1	11	3	0	6	92	19	0	13	8	6	0	335
04:55 PM	11	172	4	0	1	13	6	0	7	92	15	0	16	14	7	0	358
05:10 PM	6	165	2	0	2	16	0	0	2	97	11	0	15	21	5	0	342
05:25 PM	17	204	5	0	1	8	4	0	6	97	16	0	22	9	3	0	392
05:40 PM	13	162	0	0	2	9	7	0	4	84	22	0	15	13	2	0	333
05:55 PM	13	152	0	0	0	5	3	0	8	105	9	0	16	9	7	0	327
06:10 PM	4	136	1	0	1	9	7	0	2	112	9	0	20	7	7	0	315
06:25 PM	8	157	2	0	2	6	2	0	6	77	13	0	11	10	5	0	299
Grand Total	84	1309	17	0	10	77	32	0	41	756	114	0	128	91	42	0	2701
Apprch %	6	92.8	1.2	0	8.4	64.7	26.9	0	4.5	83	12.5	0	49	34.9	16.1	0	
Total %	3.1	48.5	0.6	0	0.4	2.9	1.2	0	1.5	28	4.2	0	4.7	3.4	1.6	0	

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:40:00 PM																					
4:40:00 PM	12	161	3	0	176	1	11	3	0	15	6	92	**19**	0	117	13	8	6	0	27	335
4:55:00 PM	11	172	4	0	187	1	13	**6**		**20**	**7**							**7**			
5:10:00 PM	6	165	2	0	173	**2**	**16**	**0**	**0**	**18**	**2**	**97**	**11**	**0**	**110**	**15**	**21**	5	0	**41**	342
5:25:00 PM	**17**	**204**	**5**		**226**	1	8	4	0	13	6	97	16	0	**119**	**22**					**392**
Total Volume	46	702	14	0	762	5	48	13	0	66	21	378	61	0	460	66	52	21	0	139	1427
% App. Total	6	92.1	1.8	0		7.6	72.7	19.7	0		4.6	82.2	13.3	0		47.5	37.4	15.1	0		
PHF	.676	.860	.700	.000	.843	.625	.750	.542	.000	.825	.750	.974	.803	.000	.966	.750	.619	.750	.000	.848	.910

N/S: Washington Street (Route 138)
E/W: Kinsley Street/ Brock Street
City, State: Stoughton, MA
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Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	1	0	5
04:55 PM	0	7	0	0	0	0	0	0	0	2	1	0	0	0	1	0	11
05:10 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	6
05:25 PM	0	0	1	0	0	0	0	0	0	2	1	0	0	0	0	0	4
05:40 PM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	2	0	7
05:55 PM	0	1	0	0	0	0	0	0	0	4	0	0	1	0	0	0	6
06:10 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	4
06:25 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
Grand Total	0	18	1	0	0	0	0	0	0	17	2	0	3	1	4	0	46
Apprch %	0	94.7	5.3	0	0	0	0	0	0	89.5	10.5	0	37.5	12.5	50	0	
Total %	0	39.1	2.2	0	0	0	0	0	0	37	4.3	0	6.5	2.2	8.7	0	

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:55:00 PM																					
4:55:00 PM	0	**7**	0	0	**7**	0	0	0	0	0	0	2	**1**	0	**3**	0	0	1	0	1	**11**
5:10:00 PM	0	3	0	0	3	0	0	0	0	0	0	**3**									
5:25:00 PM	0	0	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**4**
5:40:00 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	**2**	**0**	**2**	7
Total Volume	0	14	1	0	15	0	0	0	0	0	0	8	2	0	10	0	0	3	0	3	28
% App. Total	0	93.3	6.7	0		0	0	0	0		0	80	20	0		0	0	100	0		
PHF	.000	.500	.250	.000	.536	.000	.000	.000	.000	.000	.000	.667	.500	.000	.833	.000	.000	.375	.000	.375	.636

N/S: Washington Street (Route 138)
E/W: Kinsley Street/ Brock Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North				Kinsley Street From East				Washington Street (Route 138) From South				Brock Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:40 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:55 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
06:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
06:25 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
Grand Total	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	5	8
Apprch %	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	
Total %	0	0	0	25	0	0	0	12.5	0	0	0	0	0	0	0	62.5	

	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 5:40:00 PM																					
5:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55:00 PM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
6:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
6:25:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**3**
Total Volume	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	6
% App. Total	0	0	0	100		0	0	0	0		0	0	0	0		0	0	0	100		
PHF	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.500

N/S: Washington Street (Route 138)
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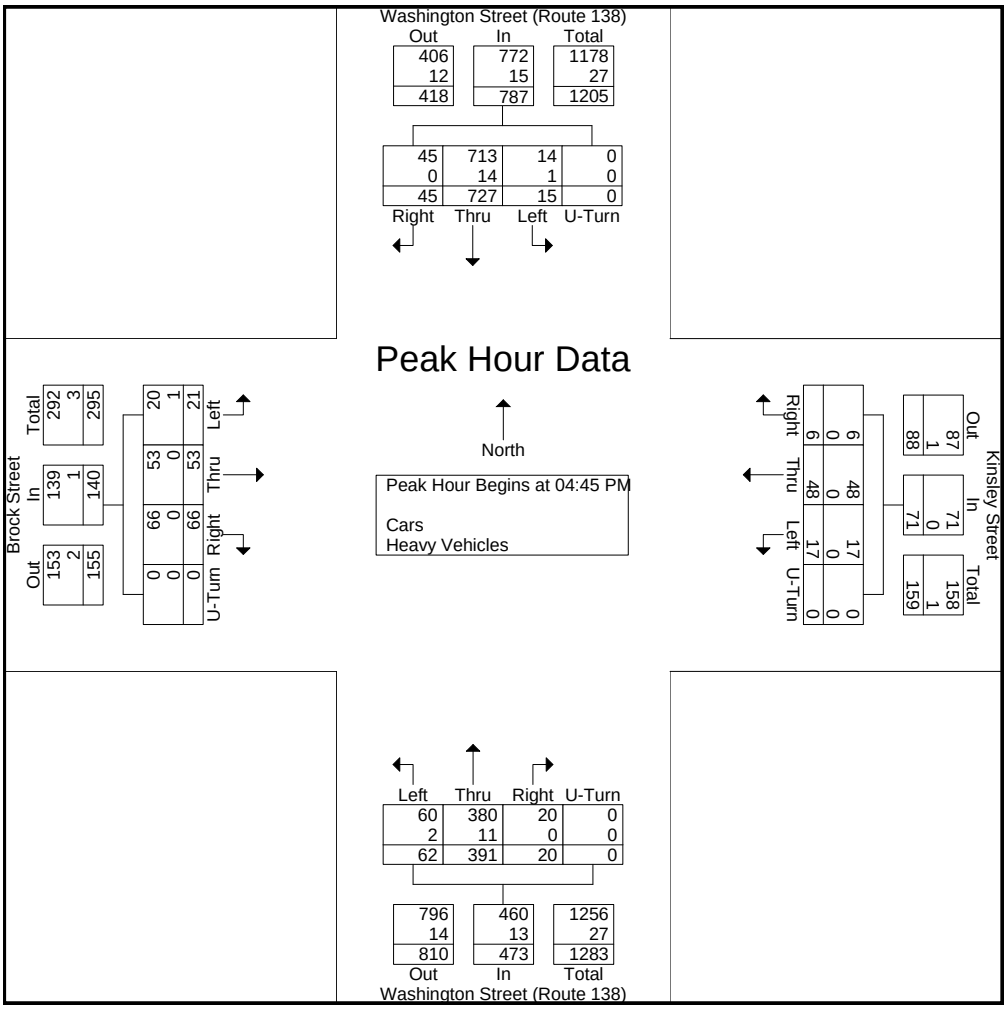
	Washington Street (Route 138) From North					Kinsley Street From East					Washington Street (Route 138) From South					Brock Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	5	48	0	0	53	1	5	1	0	7	2	38	9	0	49	5	1	4	0	10	119
04:50 PM	3	69	3	0	75	0	4	2	0	6	2	32	3	0	37	3	4	0	0	7	125
04:55 PM	2	58	3	0	63	0	3	1	0	4	2	32	7	0	41	7	5	4	0	16	124
05:00 PM	5	70	0	0	75	1	5	4	0	10	3	28	3	0	34	5	6	2	0	13	132
05:05 PM	4	51	1	0	56	0	5	1	0	6	2	34	6	0	42	4	3	2	0	9	113
05:10 PM	2	49	0	0	51	1	3	0	0	4	1	37	4	0	42	5	6	1	0	12	109
05:15 PM	3	58	0	0	61	1	6	0	0	7	1	29	2	0	32	5	9	2	0	16	116
05:20 PM	1	61	2	0	64	0	7														
05:25 PM	5	61	0	0	66	1	5	1	0	7	2	42	6	0	50	6	3	0	0	9	132
05:30 PM	3	70	3	0	76	0	1	0	0	1	3	34	2	0	39	3	4	1	0	8	124
05:35 PM	9	73	3	0	85	0	2	3	0	5	1	23	9	0	33	13				17	140
05:40 PM	3	59	0	0	62	1	2	4	0	7	1	28	6	0	35	5	4	1	0	10	114
Total Volume	45	727	15	0	787	6	48	17	0	71	20	391	62	0	473	66	53	21	0	140	1471
% App. Total	5.7	92.4	1.9	0		8.5	67.6	23.9	0		4.2	82.7	13.1	0		47.1	37.9	15	0		
PHF	.417	.830	.417	.000	.772	.500	.571	.354	.000	.592	.556	.776	.574	.000	.788	.423	.491	.438	.000	.686	.876
Cars	45	713	14	0	772	6	48	17	0	71	20	380	60	0	460	66	53	20	0	139	1442
% Cars	100	98.1	93.3	0	98.1	100	100	100	0	100	100	97.2	96.8	0	97.3	100	100	95.2	0	99.3	98.0
Heavy Vehicles	0	14	1	0	15	0	0	0	0	0	0	11	2	0	13	0	0	1	0	1	29
% Heavy Vehicles	0	1.9	6.7	0	1.9	0	0	0	0	0	0	2.8	3.2	0	2.7	0	0	4.8	0	0.7	2.0



N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Start Date : 4/12/2012
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Groups Printed- Cars - Heavy Vehicles

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	2	3	7	1	0	2	0	0	0	0	0	2	25	3	2	0	0	0	3	4	0	0	0	0	1	0	4	0	0	59
06:45 AM																																					
Total	0	0	1	0	0	0	0	7	4	13	1	0	2	0	0	0	0	0	4	53	16	6	1	0	0	3	12	0	1	0	3	3	0	5	0	0	135
07:00 AM	0	0	1	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	30	34	4	0	0	0	0	6	0	1	0	0	5	0	2	0	0	88
07:15 AM																																					
07:30 AM	0	0	7	0	0	0	1	2	3	8	3	0	0	0	0	0	1	0	14	34	35	4	2	0	0	0	11	1	0	0	1	9	0	0	0	0	136
07:45 AM	1	0	0	1	1	0	0	2	0	7	1	0	0	0	0	0	0	0	1	19	13	6	1	0	0	0	15	1	1	0	0	4	0	1	0	0	75
Total	1	0	9	1	1	0	1	5	6	30	4	0	0	0	0	0	1	0	16	129	123	16	3	0	0	1	39	2	3	0	1	26	0	7	0	0	425
08:00 AM	0	1	2	0	1	0	1	0	7	8	0	0	1	0	0	0	0	0	0	30	5	3	2	0	0	0	7	0	2	0	0	3	0	1	0	0	74
08:15 AM																																					
Grand Total	1	1	12	1	2	0	4	13	18	56	5	0	3	0	0	0	2	0	27	236	156	30	6	0	0	4	67	4	6	0	4	36	1	15	0	0	710
Apprch %	5.9	5.9	70.6	5.9	11.8	0	4.2	13.5	18.8	58.3	5.2	0	60	0	0	0	40	0	5.9	51.9	34.3	6.6	1.3	0	0	4.9	82.7	4.9	7.4	0	7.1	64.3	1.8	26.8	0	0	
Total %	0.1	0.1	1.7	0.1	0.3	0	0.6	1.8	2.5	7.9	0.7	0	0.4	0	0	0	0.3	0	3.8	33.2	22	4.2	0.8	0	0	0.6	9.4	0.6	0.8	0	0.6	5.1	0.1	2.1	0	0	
Cars	1	1	12	1	2	0	4	13	18	53	4	0	3	0	0	0	2	0	27	230	156	30	5	0	0	3	65	4	6	0	4	35	1	13	0	0	693
% Cars	100	100	100	100	100	0	100	100	100	94.6	80	0	100	0	0	0	100	0	100	97.5	100	100	83.3	0	0	75	97	100	100	0	100	97.2	100	86.7	0	0	97.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	6	0	0	1	0	0	1	2	0	0	0	0	1	0	2	0	0	17
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	5.4	20	0	0	0	0	0	0	0	0	2.5	0	0	16.7	0	0	25	3	0	0	0	0	2.8	0	13.3	0	0	2.4

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry street From West							Summer Street From Northwest							
Start Time	Har	Rig	Bear Right	Thru	Left	U-T	App. Total	Rig	Bear Right	Thru	Bear Left	Left	U-T	App. Total	Right	Thru	Bear Left	Left	Har	U-T	App. Total	Hard Right	Bear Right	Bear Left	Left	Har	Peds	App. Total	Har	Rig	Thru	Left	Hard Left	U-Turn	App. Total	Har	Rig	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 6:45:00 AM																																												
6:45:00 AM	0	0	1	0	0	0	1	0	**5**	**1**	**6**	**0**	**0**	12	0	0	0	0	0	0	0	2	28	13	**4**	1	0	48	0	0	8	0	**1**	**0**	**9**	**3**	2	0	1	0	0	6	76
7:00:00 AM	0	0	1	0	0	0	1	0	1	2	2	0	0	5	0	0	0	0	0	0	0	0	30	34	4	0	0	68	0	0	6	0	1	0	7	0	5	0	2	0	0	7	88
7:15:00 AM	0	0	1	0	0	0	1	0	0	1	13	0	0	14	0	0	0	0	0	0	0	1	**46**	**41**	2	0	0	**90**	0	**1**	7	0	1	0	9	0	8	0	**4**	**0**	**0**	**12**	126
7:30:00 AM	0	0	**7**	**0**	**0**	**0**	**7**	**1**	**2**	**3**	8	**3**	0	**17**	**0**	**0**	**0**	**0**	**1**	0	**1**	**14**	34	35	4	**2**	**0**	89	0	0	**11**	**1**	**0**	**0**	**12**	1	**9**	0	0	0	0	10	**136**
Total Volume	0	0	10	0	0	0	10	1	8	7	29	3	0	48	0	0	0	0	1	0	1	17	138	123	14	3	0	295	0	1	32	1	3	0	37	4	24	0	7	0	0	35	426
% App. Total	0	0	100	0	0	0		2.1	16.7	14.6	60.4	6.2	0		0	0	0	0	100	0		5.8	46.8	41.7	4.7	1	0		0	2.7	86.5	2.7	8.1	0		11.4	68.6	0	20	0	0		
PHF	.000	.000	.357	.000	.000	.000	.357	.250	.400	.583	.558	.250	.000	.706	.000	.000	.000	.000	.250	.000	.250	.304	.750	.750	.875	.375	.000	.819	.000	.250	.727	.250	.750	.000	.771	.333	.667	.000	.438	.000	.000	.729	.783
Cars	0	0	10	0	0	0	10	1	8	7	29	2	0	47	0	0	0	0	1	0	1	17	135	123	14	3	0	292	0	0	30	1	3	0	34	4	23	0	6	0	0	33	417
% Cars	0	0	100	0	0	0	100	100	100	100	100	66.7	0	97.9	0	0	0	0	100	0	100	100	97.8	100	100	100	0	99.0	0	0	93.8	100	100	0	91.9	100	95.8	0	85.7	0	0	94.3	97.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	2	0	0	0	3	0	1	0	1	0	0	2	9
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	33.3	0	2.1	0	0	0	0	0	0	0	0	2.2	0	0	0	0	1.0	0	100	6.3	0	0	0	8.1	0	4.2	0	14.3	0	0	5.7	2.1

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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File Name : 122868 E
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	2	3	7	1	0	2	0	0	0	0	0	2	24	3	2	0	0	0	3	4	0	0	0	0	1	0	4	0	0	58
06:45 AM																																					
Total	0	0	1	0	0	0	0	7	4	13	1	0	2	0	0	0	0	0	4	50	16	6	1	0	0	3	12	0	1	0	3	2	0	5	0	0	131
07:00 AM	0	0	1	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	29	34	4	0	0	0	0	6	0	1	0	0	5	0	2	0	0	87
07:15 AM																																					
07:30 AM	0	0	7	0	0	0	1	2	3	8	2	0	0	0	0	0	1	0	14	34	35	4	2	0	0	0	9	1	0	0	1	9	0	0	0	0	133
07:45 AM	1	0	0	1	1	0	0	2	0	7	1	0	0	0	0	0	0	0	1	18	13	6	1	0	0	0	15	1	1	0	0	4	0	0	0	0	73
Total	1	0	9	1	1	0	1	5	6	30	3	0	0	0	0	0	1	0	16	127	123	16	3	0	0	0	37	2	3	0	1	26	0	5	0	0	417
08:00 AM	0	1	2	0	1	0	1	0	7	6	0	0	1	0	0	0	0	0	0	30	5	3	1	0	0	0	7	0	2	0	0	3	0	1	0	0	71
08:15 AM																																					
Grand Total	1	1	12	1	2	0	4	13	18	53	4	0	3	0	0	0	2	0	27	230	156	30	5	0	0	3	65	4	6	0	4	35	1	13	0	0	693
Apprch %	5.9	5.9	70.6	5.9	11.8	0	4.3	14.1	19.6	57.6	4.3	0	60	0	0	0	40	0	6	51.3	34.8	6.7	1.1	0	0	3.8	83.3	5.1	7.7	0	7.5	66	1.9	24.5	0	0	
Total %	0.1	0.1	1.7	0.1	0.3	0	0.6	1.9	2.6	7.6	0.6	0	0.4	0	0	0	0.3	0	3.9	33.2	22.5	4.3	0.7	0	0	0.4	9.4	0.6	0.9	0	0.6	5.1	0.1	1.9	0	0	

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry street From West							Summer Street From Northwest							
Start Time	Har	Rig	Bear Right	Thru	Left	U-T	App. Total	Rig	Bear Right	Thru	Bear Left	Left	U-T	App. Total	Right	Thru	Bear Left	Left	Har	U-T	App. Total	Hard Right	Bear Right	Bear Left	Left	Har	Peds	App. Total	Har	Rig	Thru	Left	Hard Left	U-Turn	App. Total	Har	Rig	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 6:45:00 AM																																												
6:45:00 AM	0	0	1	0	0	0	1	0	**5**	**1**	**6**	**0**	**0**	12	0	0	0	0	0	0	0	2	26	13	**4**	1	0	46	0	0	8	0	**1**	**0**	**9**	**3**	1	0	1	0	0	5	73
7:00:00 AM	0	0	1	0	0	0	1	0	1	2	2	0	0	5	0	0	0	0	0	0	0	0	29	34	4	0	0	67	0	0	6	0	1	0	7	0	5	0	2	0	0	7	87
7:15:00 AM	0	0	1	0	0	0	1	0	0	1	**13**	0	0	14	0	0	0	0	0	0	0	1	**46**	**41**	2	0	0	**90**	0	0	7	0	1	0	8	0	8	0	**3**	**0**	**0**	**11**	124
7:30:00 AM	0	0	**7**	**0**	**0**	**0**	**7**	**1**	**2**	**3**	8	**2**	0	**16**	**0**	**0**	**0**	**0**	**1**	0	**1**	**14**	34	35	4	**2**	**0**	89	0	0	**9**	**1**	**0**	**0**	**10**	1	**9**	0	0	0	0	10	**133**
Total Volume	0	0	10	0	0	0	10	1	8	7	29	2	0	47	0	0	0	0	1	0	1	17	135	123	14	3	0	292	0	0	30	1	3	0	34	4	23	0	6	0	0	33	417
% App. Total	0	0	100	0	0	0		2.1	17	14.9	61.7	4.3	0		0	0	0	0	100	0		5.8	46.2	42.1	4.8	1	0		0	0	88.2	2.9	8.8	0		12.1	69.7	0	18.2	0	0		
PHF	.000	.000	.357	.000	.000	.000	.357	.250	.400	.583	.558	.250	.000	.734	.000	.000	.000	.000	.250	.000	.250	.304	.734	.750	.875	.375	.000	.811	.000	.000	.833	.250	.750	.000	.850	.333	.639	.000	.500	.000	.000	.750	.784

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

File Name : 122868 E
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	2	0	0	0	0	0	0	2	0	0	8
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	6	0	0	1	0	0	1	2	0	0	0	0	1	0	2	0	0	17
Apprch %	0	0	0	0	0	0	0	0	0	75	25	0	0	0	0	0	0	0	0	85.7	0	0	14.3	0	0	33.3	66.7	0	0	0	0	33.3	0	66.7	0	0	
Total %	0	0	0	0	0	0	0	0	0	17.6	5.9	0	0	0	0	0	0	0	0	35.3	0	0	5.9	0	0	5.9	11.8	0	0	0	0	5.9	0	11.8	0	0	

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry street From West							Summer Street From Northwest							
Start Time	Har	Rig	Bear Right	Thru	Left	U-T	App. Total	Rig	Bear Right	Thru	Bear Left	Left	U-T	App. Total	Right	Thru	Bear Left	Left	Har	U-T	App. Total	Hard Right	Bear Right	Bear Left	Left	Har	Peds	App. Total	Har	Rig	Thru	Left	Hard Left	U-Turn	App. Total	Har	Rig	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 7:15:00 AM																																												
7:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	1	0	0	0	**1**	**0**	**0**	**1**	2
7:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	0	**2**	0	0	0	0	0	0	0	**3**
7:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
8:00:00 AM	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
Total Volume	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	1	2	0	0	0	3	0	0	0	2	0	0	2	10
% App. Total	0	0	0	0	0	0		0	0	0	66.7	33.3	0		0	0	0	0	0	0		0	50	0	0	50	0		0	33.3	66.7	0	0	0		0	0	0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.375	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.500	.000	.250	.250	.000	.000	.000	.375	.000	.000	.000	.500	.000	.000	.500	.833

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 E
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	Peds	Right	Bear Right	Thru	Bear Left	Left	Peds	Right	Thru	Bear Left	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	Peds	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
06:45 AM	0	0	0	0	0	5	0	0	0	0	0	28	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	40
Total	0	0	0	0	0	6	0	0	0	0	0	33	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	47
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	13	0	0	0	0	0	21	0	0	0	0	0	10	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	52
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	8
Total	0	0	0	0	0	14	0	0	0	0	0	27	0	0	0	0	0	11	0	2	0	0	0	1	0	0	1	0	0	2	0	0	0	0	0	5	63
08:00 AM	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:15 AM	0	0	0	0	0	8	0	0	0	0	0	20	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	3	37
Grand Total	0	0	0	0	0	30	0	0	0	0	0	82	0	0	0	0	0	17	0	2	0	0	0	2	0	0	1	0	0	4	0	0	0	0	0	14	152
Apprch %	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	100	0	50	0	0	0	50	0	0	20	0	0	80	0	0	0	0	0	100	
Total %	0	0	0	0	0	19.7	0	0	0	0	0	53.9	0	0	0	0	0	11.2	0	1.3	0	0	0	1.3	0	0	0.7	0	0	2.6	0	0	0	0	0	9.2	

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry street From West							Summer Street From Northwest							
Start Time	Har	Rig	Bear Right	Thru	Left	Peds	App. Total	Rig	Bear Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Har	Peds	App. Total	Hard Right	Bear Right	Bear Left	Left	Har	Peds	App. Total	Har	Rig	Thru	Left	Hard Left	Peds	App. Total	Har	Rig	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 7:30:00 AM																																												
7:30:00 AM	0	0	0	0	0	13	**13**	0	0	0	0	0	21	**21**	**0**	**0**	**0**	**0**	**0**	10	**10**	**0**	**2**	0	0	0	0	**2**	0	0	0	0	0	1	1	0	0	0	0	0	**5**	**5**	**52**
7:45:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**0**	**0**	**1**	0	0	1	**2**	0	0	0	0	0	0	0	8
8:00:00 AM	0	0	0	0	0	2	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5
8:15:00 AM	0	0	0	0	0	8	8	0	0	0	0	0	20	20	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	0	0	**2**	2	0	0	0	0	0	3	3	37
Total Volume	0	0	0	0	0	24	24	0	0	0	0	0	47	47	0	0	0	0	0	13	13	0	2	0	0	0	2	4	0	0	1	0	0	4	5	0	0	0	0	0	9	9	102
% App. Total	0	0	0	0	0	100		0	0	0	0	0	100		0	0	0	0	0	100		0	50	0	0	0	50		0	0	20	0	0	80		0	0	0	0	0	100		
PHF	.000	.000	.000	.000	.000	.462	.462	.000	.000	.000	.000	.000	.560	.560	.000	.000	.000	.000	.000	.325	.325	.000	.250	.000	.000	.000	.500	.500	.000	.000	.250	.000	.000	.500	.625	.000	.000	.000	.000	.000	.450	.450	.490

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122868 E
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry street From West							Summer Street From Northwest							
Start Time	Har	Rig	Bear Right	Thru	Left	U-T	App. Total	Rig	Bear Right	Thru	Bear Left	Left	U-T	App. Total	Right	Thru	Bear Left	Left	Har	U-T	App. Total	Hard Right	Bear Right	Bear Left	Left	Har	Peds	App. Total	Har	Rig	Thru	Left	Hard Left	U-Turn	App. Total	Har	Rig	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 07:05 AM																																											
07:05 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	6	12	**3**	0	0	21	0	0	1	0	**1**	**0**	**2**	**0**	**2**	**0**	**1**	**0**	**0**	**3**	28
07:10 AM	0	0	1	0	0	0	1	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	15	13	1	0	0	29	0	0	1	0	0	0	1	0	2	0	1	0	0	3	36
07:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	8	12	1	0	0	21	0	**1**	2	0	1	0	4	0	2	0	0	0	0	2	31
07:20 AM	0	0	1	0	0	0	1	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	**20**	14	1	0	0	34	0	0	3	0	0	0	3	0	4	0	**2**			**6**	48
07:25 AM	0	0	0	0	0	0	0	0	0	0	**6**	0	0	6	0	0	0	0	0	0	0	1	18	15	1	0	0	35	0	0	2	0	0	0	2	0	2	0	2	0	0	4	47
07:30 AM	0	0	2	0	0	0	2	0	0	0	3	**1**	0	4	0	0	0	0	0	0	0	1	10	5	1	**2**		19	0	0	4	**1**											32
07:35 AM	0	0	**4**				**4**	**1**	**2**										**1**	0	**1**	**9**	8	13	1	0	0	31	0	0	4	0	0	0	4	0	**5**	0	0	0	0	5	51
07:40 AM	0	0	1	0	0	0	1	0	0	**3**	3	1	0	7	0	0	0	0	0	0	0	4	16	**17**	2	0	0	**39**	0	0	3	0	0	0	3	**1**	2	0	0	0	0	3	**53**
07:45 AM	0	0	0	**1**	0	0	1	0	0	0	3	0	0	3	0	0	0	0	0	0	0	1	6	8	3	1	0	19	0	0	3	1	1	0	5	0	3	0	1	0	0	4	32
07:50 AM	**1**	0	0	0	**1**	0	2	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	7	1	1	0	0	9	0	0	**6**	0	0	0	**6**	0	1	0	0	0	0	1	21
07:55 AM	0	0	0	0	0	0	0	0	2	0	2	0	0	4	0	0	0	0	0	0	0	0	6	4	2	0	0	12	0	0	6	0	0	0	6	0	0	0	0	0	0	0	22
08:00 AM	0	0	1	0	1	0	2	1	0	3	4	0	0	**8**									10	0	1	0	0	11	0	0	5	0	1	0	6	0	1	0	0	0	0	1	28
Total Volume	1	0	10	1	2	0	14	2	5	9	33	4	0	53	0	0	0	0	1	0	1	16	130	114	17	3	0	280	0	1	40	2	4	0	47	1	26	0	7	0	0	34	429
% App. Total	7.1	0	71.4	7.1	14.3	0		3.8	9.4	17	62.3	7.5	0		0	0	0	0	100	0		5.7	46.4	40.7	6.1	1.1	0		0	2.1	85.1	4.3	8.5	0		2.9	76.5	0	20.6	0	0		
PHF	.083	.000	.208	.083	.167	.000	.292	.167	.208	.250	.458	.333	.000	.552	.000	.000	.000	.000	.083	.000	.083	.148	.542	.559	.472	.125	.000	.598	.000	.083	.556	.167	.333	.000	.653	.083	.433	.000	.292	.000	.000	.472	.675
Cars	1	0	10	1	2	0	14	2	5	9	33	3	0	52	0	0	0	0	1	0	1	16	128	114	17	3	0	278	0	0	38	2	4	0	44	1	26	0	5	0	0	32	421
% Cars	100	0	100	100	100	0	100	100	100	100	100	75.0	0	98.1	0	0	0	0	100	0	100	100	98.5	100	100	100	0	99.3	0	0	95.0	100	100	0	93.6	100	100	0	71.4	0	0	94.1	98.1
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	2	0	0	0	3	0	0	0	2	0	0	2	8
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	25.0	0	1.9	0	0	0	0	0	0	0	0	1.5	0	0	0	0	0.7	0	100	5.0	0	0	0	6.4	0	0	0	28.6	0	0	5.9	1.9

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Site Code : 10111.34
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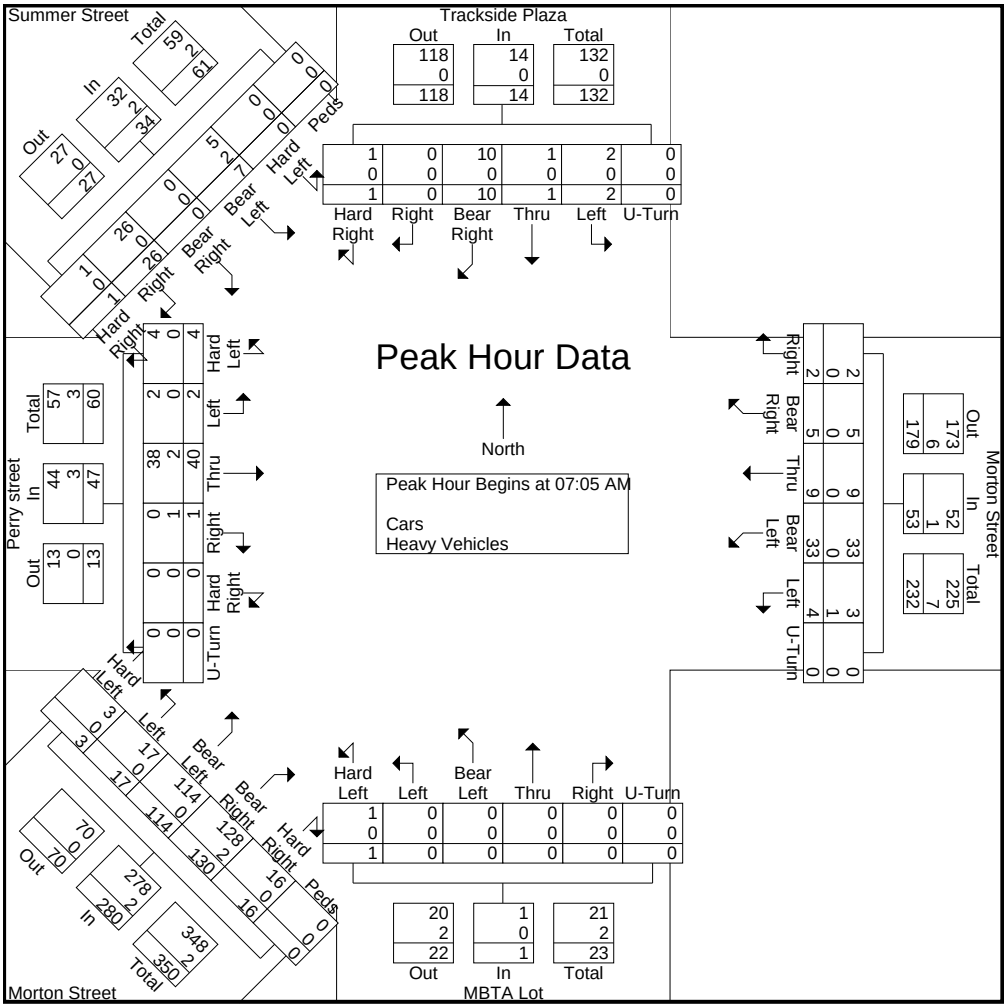
Page No : 2



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Groups Printed- Cars - Heavy Vehicles

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry Street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	0	8	0	1	0	0	3	10	24	0	0	0	0	0	0	1	0	0	16	1	5	0	0	0	0	5	0	0	0	4	11	0	3	0	0	92
04:55 PM	0	1	2	0	1	0	0	3	5	20	1	0	0	0	0	0	0	0	0	16	4	2	0	0	0	0	7	0	0	0	4	9	1	6	0	0	82
05:10 PM	0	0	6	0	2	0	1	5	3	26	2	0	0	0	0	1	0	0	0	23	4	2	0	0	1	0	4	0	0	0	2	8	0	10	0	0	100
05:25 PM	0	1	10	0	2	0	0	6	6	27	0	0	0	0	0	0	6	0	1	15	4	5	0	0	0	0	5	1	0	0	1	6	0	2	0	0	98
05:40 PM	0	0	5	0	1	0	2	3	7	20	0	0	0	0	0	0	0	0	0	11	4	4	0	0	2	0	8	0	0	0	3	9	0	3	0	0	82
05:55 PM	0	1	7	0	0	0	1	2	10	28	0	0	1	0	0	0	2	0	0	18	1	3	3	0	0	0	5	0	0	0	1	5	0	1	0	0	89
06:10 PM	0	0	10	0	0	0	0	1	8	30	1	0	0	0	0	0	2	0	0	13	2	1	0	0	0	0	4	0	0	0	0	8	0	5	0	0	85
06:25 PM	1	2	8	0	0	0	0	2	11	25	1	0	2	0	0	0	8	0	1	7	4	4	1	0	0	0	7	0	0	0	1	3	0	4	0	0	92
Grand Total	1	5	56	0	7	0	4	25	60	200	5	0	3	0	0	1	19	0	2	119	24	26	4	0	3	0	45	1	0	0	16	59	1	34	0	0	720
Apprch %	1.4	7.2	81.2	0	10.1	0	1.4	8.5	20.4	68	1.7	0	13	0	0	4.3	82.6	0	1.1	68	13.7	14.9	2.3	0	6.1	0	91.8	2	0	0	14.5	53.6	0.9	30.9	0	0	
Total %	0.1	0.7	7.8	0	1	0	0.6	3.5	8.3	27.8	0.7	0	0.4	0	0	0.1	2.6	0	0.3	16.5	3.3	3.6	0.6	0	0.4	0	6.2	0.1	0	0	2.2	8.2	0.1	4.7	0	0	
Cars	1	5	56	0	7	0	4	25	60	194	5	0	3	0	0	1	19	0	2	116	24	24	4	0	3	0	44	1	0	0	16	56	0	34	0	0	704
% Cars	100	100	100	0	100	0	100	100	100	97	100	0	100	0	0	100	100	0	100	97.5	100	92.3	100	0	100	0	97.8	100	0	0	100	94.9	0	100	0	0	97.8
Heavy Vehicles	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	1	0	0	0	0	3	1	0	0	0	16
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2.5	0	7.7	0	0	0	0	2.2	0	0	0	0	5.1	100	0	0	0	2.2

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry Street From West							Summer Street From Northwest							
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total

Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 4:40:00 PM

4:40:00 PM	0	0	8	0	1	0	9	0	3	10	24	0	0	37	0	0	0	0	1	0	1	0	16	1	5	0	0	22	0	0	5	0	0	0	5	4	11	0	3	0	0	18	92
4:55:00 PM	0	1	2	0	1	0	4	0	3	5	20	1	0	29	0	0	0	0	0	0	0	0	16	4	2	0	0	22	0	0	7	0	0	0	7	4	9	1	6	0	0	20	82
5:10:00 PM	0	0	6	0	2	0	8	1	5	3	26	2	0	37	0	0	0	1	0	0	1	0	23	4	2	0	0	29	1	0	4	0	0	0	5	2	8	0	10	0	0	20	100
5:25:00 PM	0	1	10	0	2	0	13	0	6	6	27	0	0	39	0	0	0	0	6	0	6	1	15	4	5	0	0	25	0	0	5	1	0	0	6	1	6	0	2	0	0	9	98
Total Volume	0	2	26	0	6	0	34	1	17	24	97	3	0	142	0	0	0	1	7	0	8	1	70	13	14	0	0	98	1	0	21	1	0	0	23	11	34	1	21	0	0	67	372
% App. Total	0	5.9	76.5	0	17.6	0		0.7	12	16.9	68.3	2.1	0		0	0	0	12.5	87.5	0		1	71.4	13.3	14.3	0	0		4.3	0	91.3	4.3	0	0		16.4	50.7	1.5	31.3	0	0		
PHF	.000	.500	.650	.000	.750	.000	.654	.250	.708	.600	.898	.375	.000	.910	.000	.000	.000	.250	.292	.000	.333	.250	.761	.813	.700	.000	.000	.845	.250	.000	.750	.250	.000	.000	.821	.688	.773	.250	.525	.000	.000	.838	.930
Cars	0	2	26	0	6	0	34	1	17	24	93	3	0	138	0	0	0	1	7	0	8	1	70	13	13	0	0	97	1	0	20	1	0	0	22	11	32	0	21	0	0	64	363
% Cars	0	100	100	0	100	0	100	100	100	100	95.9	100	0	97.2	0	0	0	100	100	0	100	100	100	100	92.9	0	0	99.0	100	0	95.2	100	0	0	95.7	100	94.1	0	100	0	0	95.5	97.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	2	1	0	0	0	3	9
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	4.1	0	0	2.8	0	0	0	0	0	0	0	0	0	0	7.1	0	0	1.0	0	0	4.8	0	0	0	4.3	0	5.9	100	0	0	0	4.5	2.4

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Groups Printed- Cars

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry Street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	0	8	0	1	0	0	3	10	23	0	0	0	0	0	0	1	0	0	16	1	5	0	0	0	0	5	0	0	0	4	9	0	3	0	0	89
04:55 PM	0	1	2	0	1	0	0	3	5	20	1	0	0	0	0	0	0	0	0	16	4	1	0	0	0	0	7	0	0	0	4	9	0	6	0	0	80
05:10 PM	0	0	6	0	2	0	1	5	3	25	2	0	0	0	0	1	0	0	0	23	4	2	0	0	1	0	3	0	0	0	2	8	0	10	0	0	98
05:25 PM	0	1	10	0	2	0	0	6	6	25	0	0	0	0	0	0	6	0	1	15	4	5	0	0	0	0	5	1	0	0	1	6	0	2	0	0	96
05:40 PM	0	0	5	0	1	0	2	3	7	20	0	0	0	0	0	0	0	0	0	10	4	3	0	0	2	0	8	0	0	0	3	9	0	3	0	0	80
05:55 PM	0	1	7	0	0	0	1	2	10	26	0	0	1	0	0	0	2	0	0	16	1	3	3	0	0	0	5	0	0	0	1	5	0	1	0	0	85
06:10 PM	0	0	10	0	0	0	0	1	8	30	1	0	0	0	0	0	2	0	0	13	2	1	0	0	0	0	4	0	0	0	0	7	0	5	0	0	84
06:25 PM	1	2	8	0	0	0	0	2	11	25	1	0	2	0	0	0	8	0	1	7	4	4	1	0	0	0	7	0	0	0	1	3	0	4	0	0	92
Grand Total	1	5	56	0	7	0	4	25	60	194	5	0	3	0	0	1	19	0	2	116	24	24	4	0	3	0	44	1	0	0	16	56	0	34	0	0	704
Apprch %	1.4	7.2	81.2	0	10.1	0	1.4	8.7	20.8	67.4	1.7	0	13	0	0	4.3	82.6	0	1.2	68.2	14.1	14.1	2.4	0	6.2	0	91.7	2.1	0	0	15.1	52.8	0	32.1	0	0	
Total %	0.1	0.7	8	0	1	0	0.6	3.6	8.5	27.6	0.7	0	0.4	0	0	0.1	2.7	0	0.3	16.5	3.4	3.4	0.6	0	0.4	0	6.2	0.1	0	0	2.3	8	0	4.8	0	0	

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry Street From West							Summer Street From Northwest							
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 4:40:00 PM																																												
4:40:00 PM	0	0	8	0	1	0	9	0	3	10	23	0	0	36	0	0	0	0	1	0	1	0	16	1	5	0	0	22	0	0	5	0	0	0	5	4	9	0	3	0	0	16	89
4:55:00 PM	0	1	2	0	1	0	4	0	3	5	20	1	0	29	0	0	0	0	0	0	0	0	16	4	1	0	0	21	0	0	7	0	0	0	7	4	9	0	6	0	0	19	80
5:10:00 PM	0	0	6	0	2	0	8	1	5	3	25	2	0	36	0	0	0	1	0	0	1	0	23	4	2	0	0	29	1	0	3	0	0	0	4	2	8	0	10	0	0	20	98
5:25:00 PM	0	1	10	0	2	0	13	0	6	6	25	0	0	37	0	0	0	0	6	0	6	1	15	4	5	0	0	25	0	0	5	1	0	0	6	1	6	0	2	0	0	9	96
Total Volume	0	2	26	0	6	0	34	1	17	24	93	3	0	138	0	0	0	1	7	0	8	1	70	13	13	0	0	97	1	0	20	1	0	0	22	11	32	0	21	0	0	64	363
% App. Total	0	5.9	76.5	0	17.6	0		0.7	12.3	17.4	67.4	2.2	0		0	0	0	12.5	87.5	0		1	72.2	13.4	13.4	0	0		4.5	0	90.9	4.5	0	0		17.2	50	0	32.8	0	0		
PHF	.000	.500	.650	.000	.750	.000	.654	.250	.708	.600	.930	.375	.000	.932	.000	.000	.000	.250	.292	.000	.333	.250	.761	.813	.650	.000	.000	.836	.250	.000	.714	.250	.000	.000	.786	.688	.889	.000	.525	.000	.000	.800	.926

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 EE
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry Street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3
04:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
05:10 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
05:25 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:55 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
06:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
06:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	1	0	0	0	0	3	1	0	0	0	16
Apprch %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	60	0	40	0	0	0	0	100	0	0	0	0	75	25	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	37.5	0	0	0	0	0	0	0	0	0	18.8	0	12.5	0	0	0	0	6.2	0	0	0	0	18.8	6.2	0	0	0	

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry Street From West							Summer Street From Northwest							
Start Time	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 5:10:00 PM																																												
5:10:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:25:00 PM	0	0	0	0	0	0	0	0	0	0	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:55:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	**2**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
Total Volume	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	3	0	1	0	0	4	0	0	1	0	0	0	1	0	0	0	0	0	0	0	10
% App. Total	0	0	0	0	0	0		0	0	0	100	0	0		0	0	0	0	0	0		0	75	0	25	0	0		0	0	100	0	0	0		0	0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.375	.000	.250	.000	.000	.500	.000	.000	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.625

N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 EE
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Trackside Plaza From North						Morton Street From East						MBTA Lot From South						Morton Street From Southwest						Perry Street From West						Summer Street From Northwest						
Start Time	Hard Right	Right	Bear Right	Thru	Left	Peds	Right	Bear Right	Thru	Bear Left	Left	Peds	Right	Thru	Bear Left	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	Peds	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Int. Total
04:40 PM	0	0	1	0	0	8	0	0	0	0	0	27	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	38
04:55 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	6
05:10 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	4
05:25 PM	0	0	0	0	0	5	0	0	0	0	0	24	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	39
05:40 PM	0	0	0	0	0	2	0	0	0	0	0	5	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12
05:55 PM	0	0	0	0	0	7	0	0	0	0	0	12	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	28
06:10 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	6
06:25 PM	0	0	0	0	0	3	0	0	0	0	0	28	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	41
Grand Total	0	0	1	0	0	27	0	0	0	0	0	99	0	0	0	0	0	29	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	1	0	10	174
Apprch %	0	0	3.6	0	0	96.4	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	9.1	0	90.9	
Total %	0	0	0.6	0	0	15.5	0	0	0	0	0	56.9	0	0	0	0	0	16.7	0	0	0	0	0	3.4	0	0	0	0	0	0.6	0	0	0	0.6	0	5.7	

	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry Street From West							Summer Street From Northwest							
Start Time	Hard Right	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																																												
Peak Hour for Entire Intersection Begins at 4:40:00 PM																																												
4:40:00 PM	0	0	**1**	0	0	**8**	**9**	0	0	0	0	0	27	**27**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	38
4:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	0	0	**1**	**1**	0	0	0	0	0	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**
5:10:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	4
5:25:00 PM	0	0	0	0	0	5	5	0	0	0	0	0	24	24	0	0	0	0	0	**6**	**6**	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**	**39**
Total Volume	0	0	1	0	0	14	15	0	0	0	0	0	54	54	0	0	0	0	0	9	9	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	1	0	4	5	87
% App. Total	0	0	6.7	0	0	93.3		0	0	0	0	0	100		0	0	0	0	0	100		0	0	0	0	0	100		0	0	0	0	0	100		0	0	0	20	0	80		
PHF	.000	.000	.250	.000	.000	.438	.417	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.375	.375	.000	.000	.000	.000	.000	.750	.750	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250	.000	.333	.417	.558

N/S: Washington Street (Route 138/27)
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	Trackside Plaza From North							Morton Street From East							MBTA Lot From South							Morton Street From Southwest							Perry Street From West							Summer Street From Northwest							
Start Time	Har	Rig	Bear Right	Thru	Left	U-T	App. Total	Rig	Bear Right	Thru	Bear Left	Left	U-T	App. Total	Right	Thru	Bear Left	Left	Har	U-T	App. Total	Hard Right	Bear Right	Bear Left	Left	Har	Peds	App. Total	Har	Rig	Thru	Left	Hard Left	U-Turn	App. Total	Har	Rig	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 04:50 PM																																											
04:50 PM	0	0	**5**	**0**	**0**	**0**	**5**	**0**	**1**	**2**	**9**	**0**	**0**	12	0	0	0	0	1	0	1	0	8	0	**3**	0	0	11	0	0	2	0	0	0	2	**2**	1	0	1	0	0	4	35
04:55 PM	0	**1**												10	0	0	0	0	0	0	0	0	5	1	0	0	0	6	0	0	2	0	0	0	2	2	4	0	2	0	0	8	30
05:00 PM	0	0	0	0	0	0	0	0	2	2	8	0	0	12	0	0	0	0	0	0	0	0	4	2	1	0	0	7	0	0	1	0	0	0	1	1	2	**1**					25
05:05 PM	0	0	0	0	0	0	0	0	0	1	5	**1**	0	7	0	0	0	0	0	0	0	0	7	1	1	0	0	9	0	0	**4**	0	0	0	4	1	3	0	3	0	0	7	27
05:10 PM	0	0	3	0	1	0	4	**1**						10	0	0	0	0	0	0	0	0	6	1	0	0	0	7	1	0	1	0	0	0	2	0	3	0	1	0	0	4	27
05:15 PM	0	0	0	0	1	0	1	0	**3**		13	0	0	17	0	0	0	**1**	0	0	1	0	7	1	1	0	0	9	0	0	1	0	0	0	1	1	1	0	3	0	0	5	34
05:20 PM	0	0	3	0	0	0	3	0	1	1	7	1	0	10	0	0	0	0	0	0	0	0	10	2	1	0	0	**13**	0	0	2	0	0	0	2	1	4	0	**6**			**11**	39
05:25 PM	0	0	1	0	0	0	1	0	2	0	5	0	0	7	0	0	0	0	0	0	0	**1**	6	0	0	0	0	7	0	0	1	0	0	0	1	0	2	0	0	0	0	2	18
05:30 PM	0	0	5	0	0	0	5	0	1	2	11	0	0	14	0	0	0	0	2	0	2	0	3	**3**	2	0	0	8	0	0	3	**1**											36
05:35 PM	0	1	4	0	**2**	0	**7**	0	3	**4**	11	0	0	**18**	**0**	**0**	**0**	**0**	**4**	0	**4**							10	0	0	1	0	0	0	1	1	2	0	1	0	0	4	**44**
05:40 PM	0	0	2	0	1	0	3	0	1	3	6	0	0	10	0	0	0	0	0	0	0	0	2	3	2	0	0	7	0	0	1	0	0	0	1	0	**5**	0	2	0	0	7	28
05:45 PM	0	0	1	0	0	0	1	1	1	2	12	0	0	16	0	0	0	0	0	0	0	0	6	0	2	0	0	8	**2**	0	3	0	0	0	**5**	1	3	0	1	0	0	5	35
Total Volume	0	2	26	0	6	0	34	2	17	21	100	3	0	143	0	0	0	1	7	0	8	1	70	15	16	0	0	102	3	0	22	1	0	0	26	10	32	1	22	0	0	65	378
% App. Total	0	5.9	76.5	0	17.6	0		1.4	11.9	14.7	69.9	2.1	0		0	0	0	12.5	87.5	0		1	68.6	14.7	15.7	0	0		11.5	0	84.6	3.8	0	0		15.4	49.2	1.5	33.8	0	0		
PHF	.000	.167	.433	.000	.250	.000	.405	.167	.472	.438	.641	.250	.000	.662	.000	.000	.000	.083	.146	.000	.167	.083	.583	.417	.444	.000	.000	.654	.125	.000	.458	.083	.000	.000	.433	.417	.533	.083	.306	.000	.000	.492	.716
Cars	0	2	26	0	6	0	34	2	17	21	97	3	0	140	0	0	0	1	7	0	8	1	69	15	14	0	0	99	3	0	21	1	0	0	25	10	32	0	22	0	0	64	370
% Cars	0	100	100	0	100	0	100	100	100	100	97.0	100	0	97.9	0	0	0	100	100	0	100	100	98.6	100	87.5	0	0	97.1	100	0	95.5	100	0	0	96.2	100	100	0	100	0	0	98.5	97.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	2	0	0	3	0	0	1	0	0	0	1	0	0	1	0	0	0	1	8
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	3.0	0	0	2.1	0	0	0	0	0	0	0	0	1.4	0	12.5	0	0	2.9	0	0	4.5	0	0	0	3.8	0	0	100	0	0	0	1.5	2.1

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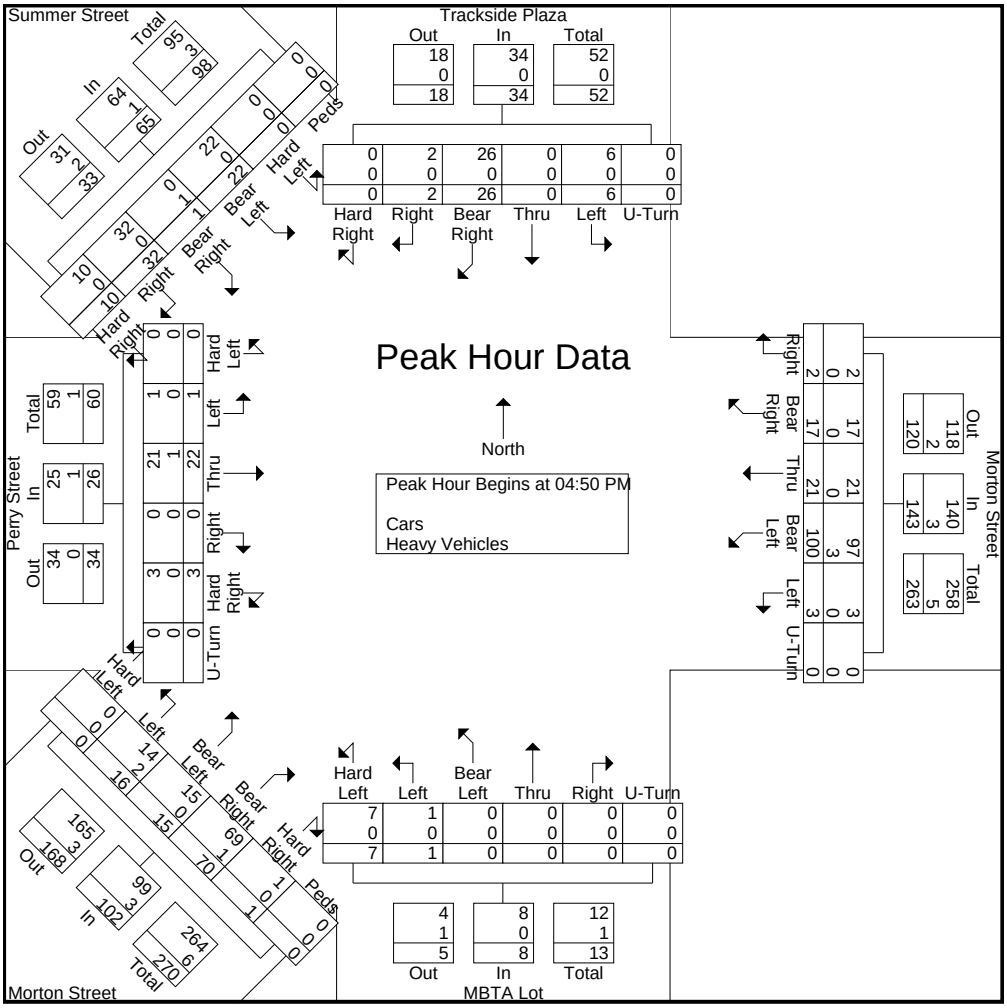
N/S: Washington Street (Route 138/27)
E/W: Freeman Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

File Name : 122868 EE
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 2



N/S/SW: Morton Street
E/W: Brock Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122868 F
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	1	0	6	0	0	7	18	0	1	0	0	26	0	0	0	0	0	0	6	0	2	0	7	0	0	74
06:45 AM	0	0	8	2	0	19	15	0	3	0	8	30	0	0	0	0	0	0	5	0	2	0	8	0	0	100
Total	1	0	14	2	0	26	33	0	4	0	8	56	0	0	0	0	0	0	11	0	4	0	15	0	0	174
07:00 AM	0	0	4	6	0	25	25	0	1	0	2	42	0	0	0	0	0	0	11	0	8	0	7	0	0	131
07:15 AM	0	0	17	1	0	27	16	0	7	0	9	61	1	1	0	0	0	0	22	0	11	0	15	0	0	188
07:30 AM	1	0	15	8	0	39	23	0	6	0	8	58	0	0	0	0	0	0	12	0	7	0	16	0	0	193
07:45 AM	1	0	8	2	0	9	24	2	5	0	9	23	0	0	0	0	1	0	11	0	5	0	9	0	0	109
Total	2	0	44	17	0	100	88	2	19	0	28	184	1	1	0	0	1	0	56	0	31	0	47	0	0	621
08:00 AM	0	0	12	2	0	9	23	0	12	0	16	29	0	0	0	0	0	0	25	0	7	0	19	0	0	154
08:15 AM	1	0	8	3	0	23	24	0	13	0	21	27	0	0	0	0	0	0	30	0	13	0	12	0	0	175
Grand Total	4	0	78	24	0	158	168	2	48	0	73	296	1	1	0	0	1	0	122	0	55	0	93	0	0	1124
Apprch %	3.8	0	73.6	22.6	0	42	44.7	0.5	12.8	0	19.7	79.8	0.3	0.3	0	0	0.8	0	99.2	0	37.2	0	62.8	0	0	
Total %	0.4	0	6.9	2.1	0	14.1	14.9	0.2	4.3	0	6.5	26.3	0.1	0.1	0	0	0.1	0	10.9	0	4.9	0	8.3	0	0	
Cars	4	0	75	23	0	158	163	2	45	0	69	292	1	1	0	0	1	0	118	0	50	0	93	0	0	1095
% Cars	100	0	96.2	95.8	0	100	97	100	93.8	0	94.5	98.6	100	100	0	0	100	0	96.7	0	90.9	0	100	0	0	97.4
Heavy Vehicles	0	0	3	1	0	0	5	0	3	0	4	4	0	0	0	0	0	0	4	0	5	0	0	0	0	29
% Heavy Vehicles	0	0	3.8	4.2	0	0	3	0	6.2	0	5.5	1.4	0	0	0	0	0	0	3.3	0	9.1	0	0	0	0	2.6

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 7:15:00 AM																															
7:15:00 AM	0	0	**17**	1	0	18	27	16	0	7	0	50	9	**61**	**1**	**1**	0	**72**	**0**	**0**	**0**	**22**	**0**	**22**	**11**	0	15	0	0	**26**	188
7:30:00 AM	**1**	0	15	**8**	0	**24**	**39**	23	0	6	0	**68**	8	58	0	0	0	66	0	0	0	12	0	12	7	0	16	0	0	23	**193**
7:45:00 AM	1	0	8	2	0	11	9	**24**	**2**	5	0	40	9	23	0	0	0	32	0	**1**	0	11	0	12	5	0	9	0	0	14	109
8:00:00 AM	0	0	12	2	0	14	9	23	0	**12**	0	44	**16**	29	0	0	0	45	0	0	0	**25**	0	**25**	7	0	**19**	0	0	26	154
Total Volume	2	0	52	13	0	67	84	86	2	30	0	202	42	171	1	1	0	215	0	1	0	70	0	71	30	0	59	0	0	89	644
% App. Total	3	0	77.6	19.4	0		41.6	42.6	1	14.9	0		19.5	79.5	0.5	0.5	0		0	1.4	0	98.6	0		33.7	0	66.3	0	0		
PHF	.500	.000	.765	.406	.000	.698	.538	.896	.250	.625	.000	.743	.656	.701	.250	.250	.000	.747	.000	.250	.000	.700	.000	.710	.682	.000	.776	.000	.000	.856	.834
Cars	2	0	50	13	0	65	84	83	2	27	0	196	41	171	1	1	0	214	0	1	0	70	0	71	29	0	59	0	0	88	634
% Cars	100	0	96.2	100	0	97.0	100	96.5	100	90.0	0	97.0	97.6	100	100	100	0	99.5	0	100	0	100	0	100	96.7	0	100	0	0	98.9	98.4
Heavy Vehicles	0	0	2	0	0	2	0	3	0	3	0	6	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	10
% Heavy Vehicles	0	0	3.8	0	0	3.0	0	3.5	0	10.0	0	3.0	2.4	0	0	0	0	0.5	0	0	0	0	0	0	3.3	0	0	0	0	1.1	1.6

N/S/SW: Morton Street
E/W: Brock Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 F
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	1	0	6	0	0	7	18	0	1	0	0	25	0	0	0	0	0	0	5	0	1	0	7	0	0	71
06:45 AM	0	0	8	1	0	19	15	0	3	0	6	28	0	0	0	0	0	0	4	0	2	0	8	0	0	94
Total	1	0	14	1	0	26	33	0	4	0	6	53	0	0	0	0	0	0	9	0	3	0	15	0	0	165
07:00 AM	0	0	4	6	0	25	24	0	1	0	1	41	0	0	0	0	0	0	10	0	6	0	7	0	0	125
07:15 AM	0	0	17	1	0	27	14	0	6	0	8	61	1	1	0	0	0	0	22	0	10	0	15	0	0	183
07:30 AM	1	0	15	8	0	39	22	0	6	0	8	58	0	0	0	0	0	0	12	0	7	0	16	0	0	192
07:45 AM	1	0	8	2	0	9	24	2	4	0	9	23	0	0	0	0	1	0	11	0	5	0	9	0	0	108
Total	2	0	44	17	0	100	84	2	17	0	26	183	1	1	0	0	1	0	55	0	28	0	47	0	0	608
08:00 AM	0	0	10	2	0	9	23	0	11	0	16	29	0	0	0	0	0	0	25	0	7	0	19	0	0	151
08:15 AM	1	0	7	3	0	23	23	0	13	0	21	27	0	0	0	0	0	0	29	0	12	0	12	0	0	171
Grand Total	4	0	75	23	0	158	163	2	45	0	69	292	1	1	0	0	1	0	118	0	50	0	93	0	0	1095
Apprch %	3.9	0	73.5	22.5	0	42.9	44.3	0.5	12.2	0	19	80.4	0.3	0.3	0	0	0.8	0	99.2	0	35	0	65	0	0	
Total %	0.4	0	6.8	2.1	0	14.4	14.9	0.2	4.1	0	6.3	26.7	0.1	0.1	0	0	0.1	0	10.8	0	4.6	0	8.5	0	0	

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 7:15:00 AM																															
7:15:00 AM	0	0	**17**	1	0	18	27	14	0	6	0	47	8	**61**	**1**	**1**	0	**71**	**0**	**0**	**0**	**22**	**0**	**22**	**10**	0	15	0	0	25	183
7:30:00 AM	**1**	0	15	**8**	0	**24**	**39**	22	0	6	0	**67**	8	58	0	0	0	66	0	0	0	12	0	12	7	0	16	0	0	23	**192**
7:45:00 AM	1	0	8	2	0	11	9	**24**	**2**	4	0	39	9	23	0	0	0	32	0	**1**	0	11	0	12	5	0	9	0	0	14	108
8:00:00 AM	0	0	10	2	0	12	9	23	0	**11**	0	43	**16**	29	0	0	0	45	0	0	0	**25**	0	**25**	7	0	**19**	0	0	**26**	151
Total Volume	2	0	50	13	0	65	84	83	2	27	0	196	41	171	1	1	0	214	0	1	0	70	0	71	29	0	59	0	0	88	634
% App. Total	3.1	0	76.9	20	0		42.9	42.3	1	13.8	0		19.2	79.9	0.5	0.5	0		0	1.4	0	98.6	0		33	0	67	0	0		
PHF	.500	.000	.735	.406	.000	.677	.538	.865	.250	.614	.000	.731	.641	.701	.250	.250	.000	.754	.000	.250	.000	.700	.000	.710	.725	.000	.776	.000	.000	.846	.826

N/S/SW: Morton Street
E/W: Brock Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 F
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	3
06:45 AM	0	0	0	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	0	0	0	0	0	0	6
Total	0	0	0	1	0	0	0	0	0	0	2	3	0	0	0	0	0	0	2	0	1	0	0	0	0	9
07:00 AM	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0	2	0	0	0	0	6
07:15 AM	0	0	0	0	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5
07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	4	0	2	0	2	1	0	0	0	0	0	0	1	0	3	0	0	0	0	13
08:00 AM	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	4
Grand Total	0	0	3	1	0	0	5	0	3	0	4	4	0	0	0	0	0	0	4	0	5	0	0	0	0	29
Apprch %	0	0	75	25	0	0	62.5	0	37.5	0	50	50	0	0	0	0	0	0	100	0	100	0	0	0	0	
Total %	0	0	10.3	3.4	0	0	17.2	0	10.3	0	13.8	13.8	0	0	0	0	0	0	13.8	0	17.2	0	0	0	0	

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 6:30:00 AM																															
6:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	**1**	0	**1**	1	0	0	0	0	1	3
6:45:00 AM	0	0	0	**1**	0	**1**	0	0	0	0	0	0	**2**	**2**	0	0	0	**4**													**6**
7:00:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	2	0	0	0	1	0	1	**2**	0	0	0	0	**2**	6
7:15:00 AM	0	0	0	0	0	0	0	**2**	0	**1**	0	**3**	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	5
Total Volume	0	0	0	1	0	1	0	3	0	1	0	4	4	4	0	0	0	8	0	0	0	3	0	3	4	0	0	0	0	4	20
% App. Total	0	0	0	100	0		0	75	0	25	0		50	50	0	0	0		0	0	0	100	0		100	0	0	0	0		
PHF	.000	.000	.000	.250	.000	.250	.000	.375	.000	.250	.000	.333	.500	.500	.000	.000	.000	.500	.000	.000	.000	.750	.000	.750	.500	.000	.000	.000	.000	.500	.833

N/S/SW: Morton Street
E/W: Brock Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 F
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:45 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Total	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Grand Total	0	0	0	0	1	0	1	0	0	7	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	14
Apprch %	0	0	0	0	100	0	12.5	0	0	87.5	0	50	0	0	50	0	0	0	0	0	0	0	0	0	100	
Total %	0	0	0	0	7.1	0	7.1	0	0	50	0	14.3	0	0	14.3	0	0	0	0	0	0	0	0	0	7.1	

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 6:45:00 AM																															
6:45:00 AM	0	0	0	0	**1**	**1**	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**3**
7:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**													
7:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	**2**	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	1	1	0	0	0	0	2	2	0	2	0	0	2	4	0	0	0	0	0	0	0	0	0	0	1	1	8
% App. Total	0	0	0	0	100		0	0	0	0	100		0	50	0	0	50		0	0	0	0	0		0	0	0	0	100		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.500	.500	.000	.250	.000	.000	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.667

N/S/SW: Morton Street
E/W: Brock Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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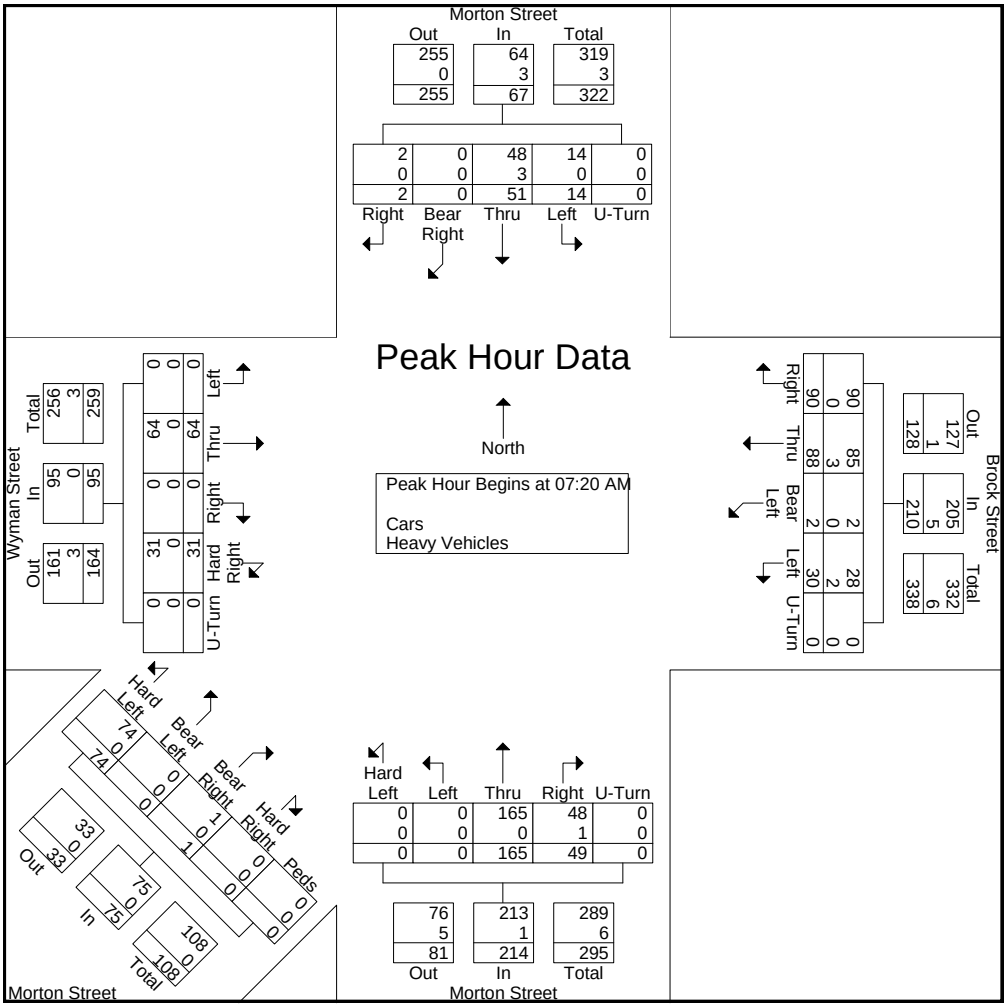
File Name : 122868 F
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:20 AM																															
07:20 AM	0	0	4	1	0	5	12	5	0	2	0	19	4	**23**	0	0	0	**27**	**0**	**0**	**0**	**10**	0	**10**	**5**	0	**9**	0	0	**14**	**75**
07:25 AM	0	0	7	0	0	7	11	8	0	2	0	21	4	23	0	0	0	27	0	0	0	6	0	6	3	0	3	0	0	6	67
07:30 AM	0	0	5	**4**	0	9	11	8	0	3	0	22	2	13	0	0	0	15	0	0	0	3	0	3	1	0	9	0	0	10	59
07:35 AM	0	0	**8**	2	0	**10**	10	10	0	1	0	21	5	22	0	0	0	27	0	0	0	5	0	5	4	0	6	0	0	10	73
07:40 AM	**1**	0	2	2	0	5	**18**	5	0	2	0	**25**	1	23	0	0	0	24	0	0	0	4	0	4	2	0	1	0	0	3	61
07:45 AM	1	0	4	2	0	7	5	8	0	2	0	15	2	9	0	0	0	11	0	0	0	4	0	4	3	0	5	0	0	8	45
07:50 AM	0	0	3	0	0	3	2	8	0	1	0	11	3	5	0	0	0	8	0	**1**	0	6	0	7	2	0	2	0	0	4	33
07:55 AM	0	0	1	0	0	1	2	8	**2**	2	0	14	4	9	0	0	0	13	0	0	0	1	0	1	0	0	2	0	0	2	31
08:00 AM	0	0	3	2	0	5	2	6	0	3	0	11	5	10	0	0	0	15	0	0	0	10	0	10	2	0	6	0	0	8	49
08:05 AM	0	0	6	0	0	6	3	6	0	1	0	10	7	8	0	0	0	15	0	0	0	7	0	7	2	0	7	0	0	9	47
08:10 AM	0	0	3	0	0	3	4	**11**	0	**8**	0	23	4	11	0	0	0	15	0	0	0	8	0	8	3	0	6	0	0	9	58
08:15 AM	0	0	5	1	0	6	10	5	0	3	0	18	**8**	9	0	0	0	17	0	0	0	10	0	10	4	0	8	0	0	12	63
Total Volume	2	0	51	14	0	67	90	88	2	30	0	210	49	165	0	0	0	214	0	1	0	74	0	75	31	0	64	0	0	95	661
% App. Total	3	0	76.1	20.9	0		42.9	41.9	1	14.3	0		22.9	77.1	0	0	0		0	1.3	0	98.7	0		32.6	0	67.4	0	0		
PHF	.167	.000	.531	.292	.000	.558	.417	.667	.083	.313	.000	.700	.510	.598	.000	.000	.000	.660	.000	.083	.000	.617	.000	.625	.517	.000	.593	.000	.000	.565	.734
Cars	2	0	48	14	0	64	90	85	2	28	0	205	48	165	0	0	0	213	0	1	0	74	0	75	31	0	64	0	0	95	652
% Cars	100	0	94.1	100	0	95.5	100	96.6	100	93.3	0	97.6	98.0	100	0	0	0	99.5	0	100	0	100	0	100	100	0	100	0	0	100	98.6
Heavy Vehicles	0	0	3	0	0	3	0	3	0	2	0	5	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	9
% Heavy Vehicles	0	0	5.9	0	0	4.5	0	3.4	0	6.7	0	2.4	2.0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	1.4



N/S/SW: Morton Street
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Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	1	0	36	9	0	9	25	0	3	0	5	14	0	0	0	0	0	0	10	0	13	0	15	0	0	140
04:55 PM	0	0	23	8	0	5	30	0	0	0	3	12	0	0	0	0	0	0	10	0	10	0	16	2	0	119
05:10 PM	0	0	30	7	0	7	22	0	4	0	8	20	0	0	0	0	0	0	12	0	11	0	24	1	0	146
05:25 PM	0	0	33	16	0	4	31	0	9	0	5	19	2	0	0	0	0	0	10	0	12	0	16	2	0	159
05:40 PM	0	0	28	10	0	5	32	0	11	0	5	11	0	0	0	0	0	0	13	0	10	0	14	0	0	139
05:55 PM	0	0	28	9	0	4	15	0	6	0	3	18	0	0	0	0	0	0	16	0	21	0	21	0	0	141
06:10 PM	0	0	38	14	0	2	14	0	8	0	5	10	0	1	0	0	0	0	6	0	13	0	16	1	0	128
06:25 PM	0	0	36	11	0	3	13	1	8	0	2	14	0	0	0	0	0	0	6	0	12	0	14	0	0	120
Grand Total	1	0	252	84	0	39	182	1	49	0	36	118	2	1	0	0	0	0	83	0	102	0	136	6	0	1092
Apprch %	0.3	0	74.8	24.9	0	14.4	67.2	0.4	18.1	0	22.9	75.2	1.3	0.6	0	0	0	0	100	0	41.8	0	55.7	2.5	0	
Total %	0.1	0	23.1	7.7	0	3.6	16.7	0.1	4.5	0	3.3	10.8	0.2	0.1	0	0	0	0	7.6	0	9.3	0	12.5	0.5	0	
Cars	1	0	250	82	0	38	182	1	48	0	34	118	2	1	0	0	0	0	83	0	102	0	135	6	0	1083
% Cars	100	0	99.2	97.6	0	97.4	100	100	98	0	94.4	100	100	100	0	0	0	0	100	0	100	0	99.3	100	0	99.2
Heavy Vehicles	0	0	2	2	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	9
% Heavy Vehicles	0	0	0.8	2.4	0	2.6	0	0	2	0	5.6	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.8

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 5:10:00 PM																															
5:10:00 PM	0	0	30	7	0	37	**7**	22	0	4	0	33	**8**	**20**	0	0	0	**28**	**0**	**0**	**0**	**12**	**0**	**12**	**11**	**0**	**24**	1	0	36	146
5:25:00 PM	0	0	**33**	**16**	0	**49**	4	31	0	9	0	44	5	19	**2**	0	0	26	0	0	0	10	0	10	12	0	16	**2**	0	30	**159**
5:40:00 PM	0	0	28	10	0	38	5	**32**	0	**11**	0	**48**	5	11	0	0	0	16	0	0	0	13	0	13	10	0	14	0	0	24	139
5:55:00 PM	0	0	28	9	0	37	4	15	0	6	0	25	3	18	0	0	0	21	0	0	0	**16**	0	**16**	**21**	0	21	0	0	**42**	141
Total Volume	0	0	119	42	0	161	20	100	0	30	0	150	21	68	2	0	0	91	0	0	0	51	0	51	54	0	75	3	0	132	585
% App. Total	0	0	73.9	26.1	0		13.3	66.7	0	20	0		23.1	74.7	2.2	0	0		0	0	0	100	0		40.9	0	56.8	2.3	0		
PHF	.000	.000	.902	.656	.000	.821	.714	.781	.000	.682	.000	.781	.656	.850	.250	.000	.000	.813	.000	.000	.000	.797	.000	.797	.643	.000	.781	.375	.000	.786	.920
Cars	0	0	118	42	0	160	19	100	0	29	0	148	20	68	2	0	0	90	0	0	0	51	0	51	54	0	74	3	0	131	580
% Cars	0	0	99.2	100	0	99.4	95.0	100	0	96.7	0	98.7	95.2	100	100	0	0	98.9	0	0	0	100	0	100	100	0	98.7	100	0	99.2	99.1
Heavy Vehicles	0	0	1	0	0	1	1	0	0	1	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	5
% Heavy Vehicles	0	0	0.8	0	0	0.6	5.0	0	0	3.3	0	1.3	4.8	0	0	0	0	1.1	0	0	0	0	0	0	0	0	1.3	0	0	0.8	0.9

N/S/SW: Morton Street
E/W: Brock Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 FF
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	1	0	35	8	0	9	25	0	3	0	5	14	0	0	0	0	0	0	10	0	13	0	15	0	0	138
04:55 PM	0	0	23	8	0	5	30	0	0	0	3	12	0	0	0	0	0	0	10	0	10	0	16	2	0	119
05:10 PM	0	0	30	7	0	7	22	0	4	0	8	20	0	0	0	0	0	0	12	0	11	0	24	1	0	146
05:25 PM	0	0	33	16	0	4	31	0	8	0	5	19	2	0	0	0	0	0	10	0	12	0	16	2	0	158
05:40 PM	0	0	28	10	0	4	32	0	11	0	4	11	0	0	0	0	0	0	13	0	10	0	14	0	0	137
05:55 PM	0	0	27	9	0	4	15	0	6	0	3	18	0	0	0	0	0	0	16	0	21	0	20	0	0	139
06:10 PM	0	0	38	13	0	2	14	0	8	0	4	10	0	1	0	0	0	0	6	0	13	0	16	1	0	126
06:25 PM	0	0	36	11	0	3	13	1	8	0	2	14	0	0	0	0	0	0	6	0	12	0	14	0	0	120
Grand Total	1	0	250	82	0	38	182	1	48	0	34	118	2	1	0	0	0	0	83	0	102	0	135	6	0	1083
Apprch %	0.3	0	75.1	24.6	0	14.1	67.7	0.4	17.8	0	21.9	76.1	1.3	0.6	0	0	0	0	100	0	42	0	55.6	2.5	0	
Total %	0.1	0	23.1	7.6	0	3.5	16.8	0.1	4.4	0	3.1	10.9	0.2	0.1	0	0	0	0	7.7	0	9.4	0	12.5	0.6	0	

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 5:10:00 PM																															
5:10:00 PM	0	0	30	7	0	37	**7**	22	0	4	0	33	**8**	**20**	0	0	0	**28**	**0**	**0**	**0**	**12**	**0**	**12**	**11**	**0**	**24**	1	0	36	146
5:25:00 PM	0	0	**33**	**16**	0	**49**	4	31	0	8	0	43	5	19	**2**	0	0	26	0	0	0	10	0	10	12	0	16	**2**	0	30	**158**
5:40:00 PM	0	0	28	10	0	38	4	**32**	0	**11**	0	**47**	4	11	0	0	0	15	0	0	0	13	0	13	10	0	14	0	0	24	137
5:55:00 PM	0	0	27	9	0	36	4	15	0	6	0	25	3	18	0	0	0	21	0	0	0	**16**	0	**16**	**21**	0	20	0	0	**41**	139
Total Volume	0	0	118	42	0	160	19	100	0	29	0	148	20	68	2	0	0	90	0	0	0	51	0	51	54	0	74	3	0	131	580
% App. Total	0	0	73.8	26.2	0		12.8	67.6	0	19.6	0		22.2	75.6	2.2	0	0		0	0	0	100	0		41.2	0	56.5	2.3	0		
PHF	.000	.000	.894	.656	.000	.816	.679	.781	.000	.659	.000	.787	.625	.850	.250	.000	.000	.804	.000	.000	.000	.797	.000	.797	.643	.000	.771	.375	.000	.799	.918

N/S/SW: Morton Street
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File Name : 122868 FF
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:25 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:40 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:55 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
06:10 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	2	2	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	9
Apprch %	0	0	50	50	0	50	0	0	50	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	22.2	22.2	0	11.1	0	0	11.1	0	22.2	0	0	0	0	0	0	0	0	0	0	0	11.1	0	0	

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 5:25:00 PM																															
5:25:00 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:40:00 PM	0	0	0	0	0	0	**1**	0	0	0	0	1	**1**	0	0	0	0	**1**													**2**
5:55:00 PM	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	2
6:10:00 PM	0	0	0	**1**	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	1	1	0	2	1	0	0	1	0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	7
% App. Total	0	0	50	50	0		50	0	0	50	0		100	0	0	0	0		0	0	0	0	0		0	0	100	0	0		
PHF	.000	.000	.250	.250	.000	.500	.250	.000	.000	.250	.000	.500	.500	.000	.000	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.875

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Groups Printed- Peds and Bicycles

	Morton Street From North					Brock Street From East					Morton Street From South					Morton Street From Southwest					Wyman Street From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
04:40 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:55 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:10 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	5
05:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:40 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:55 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
06:10 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
06:25 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	0	1	0	1	0	0	0	0	12	0	0	0	0	0	0	0	0	0	4	0	0	1	0	0	19
Apprch %	0	0	50	0	50	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	
Total %	0	0	5.3	0	5.3	0	0	0	0	63.2	0	0	0	0	0	0	0	0	0	21.1	0	0	5.3	0	0	

	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 5:40:00 PM																															
5:40:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:55:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	2
6:10:00 PM	0	0	0	0	0	0	0	0	0	0	**4**	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
6:25:00 PM	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	0	0	0	0	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	12
% App. Total	0	0	0	0	0		0	0	0	0	100		0	0	0	0	0		0	0	0	0	0		0	0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.688	.688	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.750

N/S/SW: Morton Street
E/W: Brock Street/ Wyman Street
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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Site Code : 10111.34
Start Date : 4/12/2012
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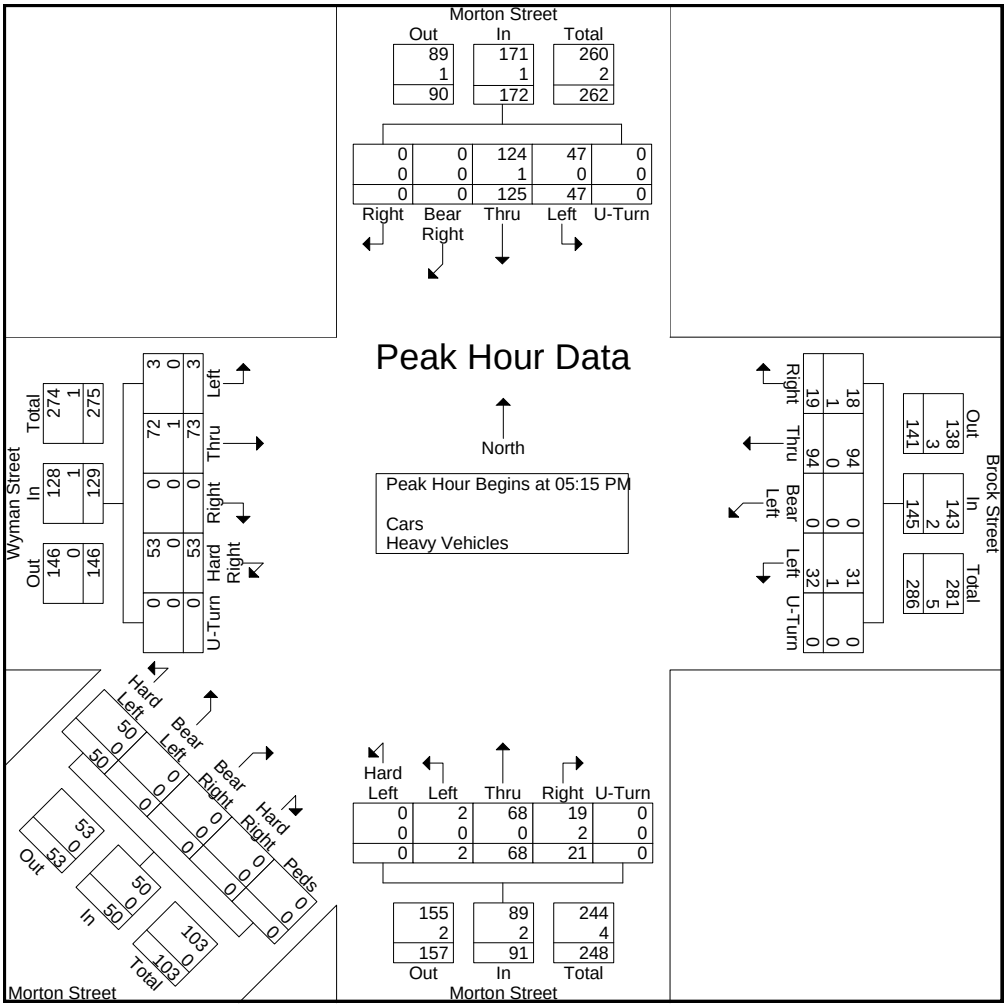
	Morton Street From North						Brock Street From East						Morton Street From South						Morton Street From Southwest						Wyman Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:15 PM																															
05:15 PM	0	0	11	3	0	14	1	5	0	4	0	10	3	7	0	0	0	10	0	0	0	5	0	5	4	0	6	0	0	10	49
05:20 PM	0	0	11	1	0	12	**4**	8	0	0	0	12	**4**	**9**	0	0	0	**13**										**1**	0	15	54
05:25 PM	0	0	8	2	0	10	0	12	0	4	0	16	2	8	0	0	0	10	0	0	0	4	0	4	2	0	7	1	0	10	50
05:30 PM	0	0	8	4	0	12	1	5	0	2	0	8	2	4	**2**	0	0	8	0	0	0	4	0	4	2	0	3	1	0	6	38
05:35 PM	0	0	**17**	**10**	0	**27**	3	14	0	3	0	20	1	7	0	0	0	8	0	0	0	2	0	2	8	0	6	0	0	14	**71**
05:40 PM	0	0	11	3	0	14	3	7	0	4	0	14	1	2	0	0	0	3	0	0	0	**6**	0	**6**	2	0	2	0	0	4	41
05:45 PM	0	0	12	4	0	16	2	7	0	2	0	11	2	4	0	0	0	6	0	0	0	4	0	4	4	0	6	0	0	10	47
05:50 PM	0	0	5	3	0	8	0	**18**	0	**5**	0	**23**	2	5	0	0	0	7	0	0	0	3	0	3	4	0	6	0	0	10	51
05:55 PM	0	0	4	0	0	4	0	5	0	0	0	5	2	9	0	0	0	11	0	0	0	6	0	6	6	0	5	0	0	11	37
06:00 PM	0	0	11	6	0	17	1	5	0	2	0	8	0	4	0	0	0	4	0	0	0	6	0	6	5	0	**11**	0	0	**16**	51
06:05 PM	0	0	13	3	0	16	3	5	0	4	0	12	1	5	0	0	0	6	0	0	0	4	0	4	**10**	0	5	0	0	15	53
06:10 PM	0	0	14	8	0	22	1	3	0	2	0	6	1	4	0	0	0	5	0	0	0	4	0	4	1	0	7	0	0	8	45
Total Volume	0	0	125	47	0	172	19	94	0	32	0	145	21	68	2	0	0	91	0	0	0	50	0	50	53	0	73	3	0	129	587
% App. Total	0	0	72.7	27.3	0		13.1	64.8	0	22.1	0		23.1	74.7	2.2	0	0		0	0	0	100	0		41.1	0	56.6	2.3	0		
PHF	.000	.000	.613	.392	.000	.531	.396	.435	.000	.533	.000	.525	.438	.630	.083	.000	.000	.583	.000	.000	.000	.694	.000	.694	.442	.000	.553	.250	.000	.672	.689
Cars	0	0	124	47	0	171	18	94	0	31	0	143	19	68	2	0	0	89	0	0	0	50	0	50	53	0	72	3	0	128	581
% Cars	0	0	99.2	100	0	99.4	94.7	100	0	96.9	0	98.6	90.5	100	100	0	0	97.8	0	0	0	100	0	100	100	0	98.6	100	0	99.2	99.0
Heavy Vehicles	0	0	1	0	0	1	1	0	0	1	0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	6
% Heavy Vehicles	0	0	0.8	0	0	0.6	5.3	0	0	3.1	0	1.4	9.5	0	0	0	0	2.2	0	0	0	0	0	0	0	0	1.4	0	0	0.8	1.0



N/S: Park Avenue/Summer Street
E/W: Park Street (Route 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 G
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	1	0	0	0	1	148	1	0	3	0	54	0	9	62	0	0	279
06:45 AM	0	0	0	0	1	158	6	0	4	0	49	0	20	74	0	0	312
Total	1	0	0	0	2	306	7	0	7	0	103	0	29	136	0	0	591
07:00 AM	2	0	0	0	2	123	1	0	1	0	49	0	28	82	1	0	289
07:15 AM	1	0	2	0	1	133	0	0	3	0	51	0	27	108	1	0	327
07:30 AM	3	0	1	0	5	157	0	0	0	2	50	0	19	133	3	0	373
07:45 AM	4	1	0	0	2	136	4	0	3	3	45	0	24	104	0	0	326
Total	10	1	3	0	10	549	5	0	7	5	195	0	98	427	5	0	1315
08:00 AM	3	2	0	0	0	129	6	0	4	1	59	0	25	96	1	0	326
08:15 AM	2	0	1	0	0	145	1	0	3	3	46	0	18	114	1	0	334
Grand Total	16	3	4	0	12	1129	19	0	21	9	403	0	170	773	7	0	2566
Apprch %	69.6	13	17.4	0	1	97.3	1.6	0	4.8	2.1	93.1	0	17.9	81.4	0.7	0	
Total %	0.6	0.1	0.2	0	0.5	44	0.7	0	0.8	0.4	15.7	0	6.6	30.1	0.3	0	
Cars	16	3	4	0	12	1082	16	0	21	9	383	0	162	730	7	0	2445
% Cars	100	100	100	0	100	95.8	84.2	0	100	100	95	0	95.3	94.4	100	0	95.3
Heavy Vehicles	0	0	0	0	0	47	3	0	0	0	20	0	8	43	0	0	121
% Heavy Vehicles	0	0	0	0	0	4.2	15.8	0	0	0	5	0	4.7	5.6	0	0	4.7

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	3	0	**1**	**0**	**4**	**5**	**157**	**0**	**0**	**162**	0	2	50	0	52	19	**133**	**3**	**0**	**155**	**373**
7:45:00 AM	**4**				**5**	2	136	4	0	142	3	**3**									
8:00:00 AM	3	**2**	0	0	5	0	129	**6**	**0**	**135**	**4**	**1**	**59**	0	**64**	**25**	**96**	**1**	**0**	**122**	**326**
8:15:00 AM	2	0	1	0	3	0	145	1	0	146	3	3	46	0	52	18	114	1	0	133	334
Total Volume	12	3	2	0	17	7	567	11	0	585	10	9	200	0	219	86	447	5	0	538	1359
% App. Total	70.6	17.6	11.8	0		1.2	96.9	1.9	0		4.6	4.1	91.3	0		16	83.1	0.9	0		
PHF	.750	.375	.500	.000	.850	.350	.903	.458	.000	.903	.625	.750	.847	.000	.855	.860	.840	.417	.000	.868	.911
Cars	12	3	2	0	17	7	544	9	0	560	10	9	188	0	207	83	433	5	0	521	1305
% Cars	100	100	100	0	100	100	95.9	81.8	0	95.7	100	100	94.0	0	94.5	96.5	96.9	100	0	96.8	96.0
Heavy Vehicles	0	0	0	0	0	0	23	2	0	25	0	0	12	0	12	3	14	0	0	17	54
% Heavy Vehicles	0	0	0	0	0	0	4.1	18.2	0	4.3	0	0	6.0	0	5.5	3.5	3.1	0	0	3.2	4.0

N/S: Park Avenue/Summer Street
E/W: Park Street (Route 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 G
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	1	0	0	0	1	145	1	0	3	0	54	0	9	58	0	0	272
06:45 AM	0	0	0	0	1	153	6	0	4	0	46	0	19	70	0	0	299
Total	1	0	0	0	2	298	7	0	7	0	100	0	28	128	0	0	571
07:00 AM	2	0	0	0	2	114	0	0	1	0	46	0	26	73	1	0	265
07:15 AM	1	0	2	0	1	126	0	0	3	0	49	0	25	96	1	0	304
07:30 AM	3	0	1	0	5	152	0	0	0	2	48	0	19	127	3	0	360
07:45 AM	4	1	0	0	2	130	3	0	3	3	42	0	24	102	0	0	314
Total	10	1	3	0	10	522	3	0	7	5	185	0	94	398	5	0	1243
08:00 AM	3	2	0	0	0	124	5	0	4	1	54	0	23	94	1	0	311
08:15 AM	2	0	1	0	0	138	1	0	3	3	44	0	17	110	1	0	320
Grand Total	16	3	4	0	12	1082	16	0	21	9	383	0	162	730	7	0	2445
Apprch %	69.6	13	17.4	0	1.1	97.5	1.4	0	5.1	2.2	92.7	0	18	81.2	0.8	0	
Total %	0.7	0.1	0.2	0	0.5	44.3	0.7	0	0.9	0.4	15.7	0	6.6	29.9	0.3	0	

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	3	0	**1**	**0**	**4**	**5**	**152**	**0**	**0**	**157**	0	2	48	0	50	19	**127**	**3**	**0**	**149**	**360**
7:45:00 AM	**4**				**5**	2	130	3	0	135	3	**3**				**24**					
8:00:00 AM	3	**2**	0	0	5	0	124	**5**	**0**	**129**	**4**	**1**	**54**	0	**59**	23	94	1	0	118	311
8:15:00 AM	2	0	1	0	3	0	138	1	0	139	3	3	44	0	50	17	110	1	0	128	320
Total Volume	12	3	2	0	17	7	544	9	0	560	10	9	188	0	207	83	433	5	0	521	1305
% App. Total	70.6	17.6	11.8	0		1.2	97.1	1.6	0		4.8	4.3	90.8	0		15.9	83.1	1	0		
PHF	.750	.375	.500	.000	.850	.350	.895	.450	.000	.892	.625	.750	.870	.000	.877	.865	.852	.417	.000	.874	.906

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Groups Printed- Heavy Vehicles

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
06:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0	7
06:45 AM	0	0	0	0	0	5	0	0	0	0	3	0	1	4	0	0	13
Total	0	0	0	0	0	8	0	0	0	0	3	0	1	8	0	0	20
07:00 AM	0	0	0	0	0	9	1	0	0	0	3	0	2	9	0	0	24
07:15 AM	0	0	0	0	0	7	0	0	0	0	2	0	2	12	0	0	23
07:30 AM	0	0	0	0	0	5	0	0	0	0	2	0	0	6	0	0	13
07:45 AM	0	0	0	0	0	6	1	0	0	0	3	0	0	2	0	0	12
Total	0	0	0	0	0	27	2	0	0	0	10	0	4	29	0	0	72
08:00 AM	0	0	0	0	0	5	1	0	0	0	5	0	2	2	0	0	15
08:15 AM	0	0	0	0	0	7	0	0	0	0	2	0	1	4	0	0	14
Grand Total	0	0	0	0	0	47	3	0	0	0	20	0	8	43	0	0	121
Apprch %	0	0	0	0	0	94	6	0	0	0	100	0	15.7	84.3	0	0	
Total %	0	0	0	0	0	38.8	2.5	0	0	0	16.5	0	6.6	35.5	0	0	

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 6:45:00 AM																					
6:45:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	**3**	0	**3**	1	4	0	0	5	13
7:00:00 AM	0	0	0	0	0	0	**9**	**1**		**10**	0	0	3	0	3	**2**					**24**
7:15:00 AM	0	0	0	0	0	0	7	0	0	7	0	0	2	0	2	2	**12**	0	0	**14**	23
7:30:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	0	6	0	0	6	13
Total Volume	0	0	0	0	0	0	26	1	0	27	0	0	10	0	10	5	31	0	0	36	73
% App. Total	0	0	0	0		0	96.3	3.7	0		0	0	100	0		13.9	86.1	0	0		
PHF	.000	.000	.000	.000	.000	.000	.722	.250	.000	.675	.000	.000	.833	.000	.833	.625	.646	.000	.000	.643	.760

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Groups Printed- Peds and Bicycles

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
06:30 AM	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	5
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	6
07:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	4
08:00 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	6	0	2	0	1	0	0	0	4	0	0	0	0	13
Apprch %	0	0	0	100	0	66.7	0	33.3	0	0	0	100	0	0	0	0	
Total %	0	0	0	46.2	0	15.4	0	7.7	0	0	0	30.8	0	0	0	0	

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 6:30:00 AM																					
6:30:00 AM	0	0	0	**3**	**3**	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	**5**
6:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
7:00:00 AM	0	0	0	1	1	0	**1**			**1**	0	0	0	0	0	0	0	0	0	0	2
7:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	4	4	0	1	0	0	1	0	0	0	3	3	0	0	0	0	0	8
% App. Total	0	0	0	100		0	100	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.333	.333	.000	.250	.000	.000	.250	.000	.000	.000	.375	.375	.000	.000	.000	.000	.000	.400

N/S: Park Avenue/Summer Street
E/W: Park Street (Route 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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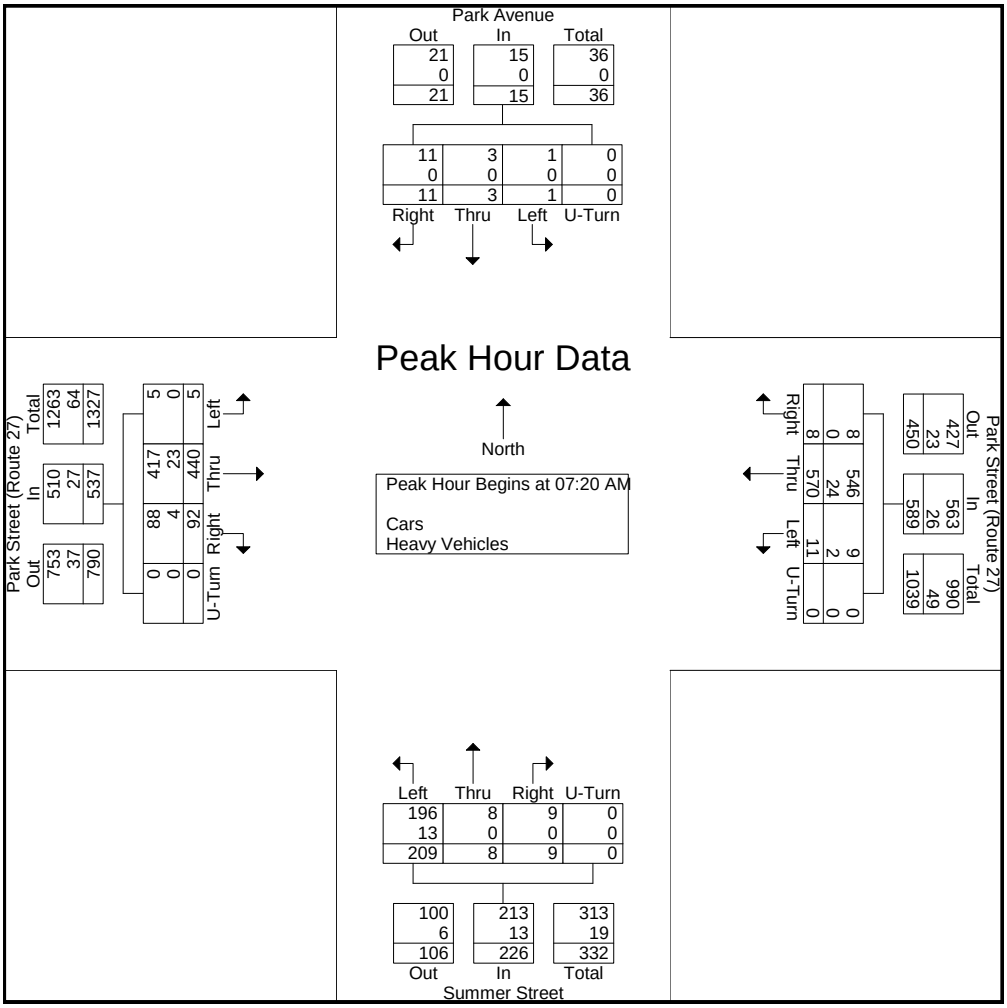
	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:20 AM																					
07:20 AM	0	0	0	0	0	1	53	0	0	54	1	0	19	0	20	9	40	1	0	50	124
07:25 AM	1	0	0	0	1	0	42	0	0	42	1	0	20	0	21	10	39	0	0	49	113
07:30 AM	1	0	0	0	1	2	35	0	0	37	0	1	21	0	22	9	**58**	**2**	**0**	**69**	**129**
07:35 AM	1	0	0	0	1	**3**	**62**			**65**	0	0	15	0	15	2	34	0	0	36	117
07:40 AM	1	0	**1**																		
07:45 AM	**2**	**0**	**0**	**0**	**2**	**0**	**44**	**0**	**0**	**44**	**0**	**0**	**11**	**0**	**11**	**12**	**31**	**0**	**0**	**43**	**100**
07:50 AM	**0**	**1**	0	0	1	0	47	3	0	50	1	1	15	0	17	8	41	0	0	49	117
07:55 AM	2	0	0	0	2	2	45	1	0	48	**2**	**2**									
08:00 AM	**2**	**1**	**0**	**0**	**3**	0	43	**4**	**0**	**47**	**2**	**1**	**20**	**0**	**23**	**14**	**37**	**1**	**0**	**52**	**125**
08:05 AM	**1**	**0**	**0**	**0**	**1**	**0**	**34**	**2**	**0**	**36**	**0**	**0**	**17**	**0**	**17**	**5**	**22**	**0**	**0**	**27**	**81**
08:10 AM	**0**	**1**	**0**	**0**	**1**	**0**	**52**	**0**	**0**	**52**	**2**	**0**	**22**	0	**24**	6	37	0	0	43	120
08:15 AM	0	0	0	0	0	0	53	1	0	54	0	2	16	0	18	5	28	0	0	33	105
Total Volume	11	3	1	0	15	8	570	11	0	589	9	8	209	0	226	92	440	5	0	537	1367
% App. Total	73.3	20	6.7	0		1.4	96.8	1.9	0		4	3.5	92.5	0		17.1	81.9	0.9	0		
PHF	.458	.250	.083	.000	.417	.222	.766	.229	.000	.755	.375	.333	.792	.000	.785	.548	.632	.208	.000	.649	.883
Cars	11	3	1	0	15	8	546	9	0	563	9	8	196	0	213	88	417	5	0	510	1301
% Cars	100	100	100	0	100	100	95.8	81.8	0	95.6	100	100	93.8	0	94.2	95.7	94.8	100	0	95.0	95.2
Heavy Vehicles	0	0	0	0	0	0	24	2	0	26	0	0	13	0	13	4	23	0	0	27	66
% Heavy Vehicles	0	0	0	0	0	0	4.2	18.2	0	4.4	0	0	6.2	0	5.8	4.3	5.2	0	0	5.0	4.8



N/S: Park Avenue/Summer Street
E/W: Park Street (Route 27)
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 GG
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	13	6	3	0	5	110	4	0	4	0	40	0	31	134	9	0	359
04:55 PM	3	4	1	0	2	120	5	0	6	1	23	0	50	135	7	0	357
05:10 PM	10	3	2	0	2	117	6	0	3	2	31	0	49	130	3	0	358
05:25 PM	4	2	1	0	6	106	5	0	3	3	27	0	32	135	5	0	329
05:40 PM	8	4	4	0	3	115	4	0	3	3	37	0	37	125	5	0	348
05:55 PM	15	3	2	0	2	91	3	0	0	2	28	0	39	132	2	0	319
06:10 PM	1	0	0	0	2	101	4	0	1	1	34	0	44	144	0	0	332
06:25 PM	1	1	0	0	1	92	3	0	2	0	29	0	29	116	0	0	274
Grand Total	55	23	13	0	23	852	34	0	22	12	249	0	311	1051	31	0	2676
Apprch %	60.4	25.3	14.3	0	2.5	93.7	3.7	0	7.8	4.2	88	0	22.3	75.4	2.2	0	
Total %	2.1	0.9	0.5	0	0.9	31.8	1.3	0	0.8	0.4	9.3	0	11.6	39.3	1.2	0	
Cars	53	23	13	0	23	840	34	0	22	12	243	0	306	1028	31	0	2628
% Cars	96.4	100	100	0	100	98.6	100	0	100	100	97.6	0	98.4	97.8	100	0	98.2
Heavy Vehicles	2	0	0	0	0	12	0	0	0	0	6	0	5	23	0	0	48
% Heavy Vehicles	3.6	0	0	0	0	1.4	0	0	0	0	2.4	0	1.6	2.2	0	0	1.8

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:40:00 PM																					
4:40:00 PM	**13**	**6**	**3**	**0**	**22**	5	110	4	0	119	4	0	**40**	0	**44**	31	134	**9**	**0**	**174**	**359**
4:55:00 PM	3	4	1	0	8	2	**120**			**127**	**6**					**50**	**135**	7	0	**192**	357
5:10:00 PM	10	3	2	0	15	2	117	**6**													
5:25:00 PM	4	2	1	0	7	**6**	106	5	0	117	3	**3**	**27**	**0**	**33**	**32**	**135**	**5**	**0**	**172**	**329**
Total Volume	30	15	7	0	52	15	453	20	0	488	16	6	121	0	143	162	534	24	0	720	1403
% App. Total	57.7	28.8	13.5	0		3.1	92.8	4.1	0		11.2	4.2	84.6	0		22.5	74.2	3.3	0		
PHF	.577	.625	.583	.000	.591	.625	.944	.833	.000	.961	.667	.500	.756	.000	.813	.810	.989	.667	.000	.938	.977
Cars	29	15	7	0	51	15	446	20	0	481	16	6	118	0	140	159	518	24	0	701	1373
% Cars	96.7	100	100	0	98.1	100	98.5	100	0	98.6	100	100	97.5	0	97.9	98.1	97.0	100	0	97.4	97.9
Heavy Vehicles	1	0	0	0	1	0	7	0	0	7	0	0	3	0	3	3	16	0	0	19	30
% Heavy Vehicles	3.3	0	0	0	1.9	0	1.5	0	0	1.4	0	0	2.5	0	2.1	1.9	3.0	0	0	2.6	2.1

N/S: Park Avenue/Summer Street
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Page No : 1

Groups Printed- Cars

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	13	6	3	0	5	108	4	0	4	0	38	0	30	130	9	0	350
04:55 PM	3	4	1	0	2	118	5	0	6	1	23	0	49	131	7	0	350
05:10 PM	9	3	2	0	2	115	6	0	3	2	30	0	48	123	3	0	346
05:25 PM	4	2	1	0	6	105	5	0	3	3	27	0	32	134	5	0	327
05:40 PM	8	4	4	0	3	115	4	0	3	3	37	0	37	125	5	0	348
05:55 PM	14	3	2	0	2	89	3	0	0	2	28	0	39	129	2	0	313
06:10 PM	1	0	0	0	2	100	4	0	1	1	32	0	42	140	0	0	323
06:25 PM	1	1	0	0	1	90	3	0	2	0	28	0	29	116	0	0	271
Grand Total	53	23	13	0	23	840	34	0	22	12	243	0	306	1028	31	0	2628
Apprch %	59.6	25.8	14.6	0	2.6	93.6	3.8	0	7.9	4.3	87.7	0	22.4	75.3	2.3	0	
Total %	2	0.9	0.5	0	0.9	32	1.3	0	0.8	0.5	9.2	0	11.6	39.1	1.2	0	

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:40:00 PM																					
4:40:00 PM	**13**	**6**	**3**	**0**	**22**	5	108	4	0	117	4	0	**38**	0	**42**	30	130	**9**	**0**	**169**	**350**
4:55:00 PM	3	4	1	0	8	2	**118**			**125**	**6**					**49**				**187**	350
5:10:00 PM	9	3	2	0	14	2	115	**6**													
5:25:00 PM	4	2	1	0	7	**6**	105	5	0	116	3	**3**	**27**	**0**	**33**	**32**	**134**	5	0	171	327
Total Volume	29	15	7	0	51	15	446	20	0	481	16	6	118	0	140	159	518	24	0	701	1373
% App. Total	56.9	29.4	13.7	0		3.1	92.7	4.2	0		11.4	4.3	84.3	0		22.7	73.9	3.4	0		
PHF	.558	.625	.583	.000	.580	.625	.945	.833	.000	.962	.667	.500	.776	.000	.833	.811	.966	.667	.000	.937	.981

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Groups Printed- Heavy Vehicles

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:40 PM	0	0	0	0	0	2	0	0	0	0	2	0	1	4	0	0	9
04:55 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	4	0	0	7
05:10 PM	1	0	0	0	0	2	0	0	0	0	1	0	1	7	0	0	12
05:25 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
05:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:55 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	6
06:10 PM	0	0	0	0	0	1	0	0	0	0	2	0	2	4	0	0	9
06:25 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3
Grand Total	2	0	0	0	0	12	0	0	0	0	6	0	5	23	0	0	48
Apprch %	100	0	0	0	0	100	0	0	0	0	100	0	17.9	82.1	0	0	
Total %	4.2	0	0	0	0	25	0	0	0	0	12.5	0	10.4	47.9	0	0	

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:40:00 PM																					
4:40:00 PM	0	0	0	0	0	0	**2**	**0**	**0**	**2**	0	0	**2**	0	**2**	**1**	**4**	**0**	**0**	**5**	**9**
4:55:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	4	0	0	5	7
5:10:00 PM	**1**				**1**	0	2	0	0	2	0	0	1	0	1	1	**7**	0	0	**8**	**12**
5:25:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	1	0	0	0	1	0	7	0	0	7	0	0	3	0	3	3	16	0	0	19	30
% App. Total	100	0	0	0		0	100	0	0		0	0	100	0		15.8	84.2	0	0		
PHF	.250	.000	.000	.000	.250	.000	.875	.000	.000	.875	.000	.000	.375	.000	.375	.750	.571	.000	.000	.594	.625

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Groups Printed- Peds and Bicycles

	Park Avenue From North				Park Street (Route 27) From East				Summer Street From South				Park Street (Route 27) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:55 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
05:10 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3
05:25 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
05:40 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
05:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:10 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
06:25 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Grand Total	0	0	0	2	0	0	0	0	0	0	0	9	0	0	0	0	11
Apprch %	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	18.2	0	0	0	0	0	0	0	81.8	0	0	0	0	

	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:55:00 PM																					
4:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	2
5:10:00 PM	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	**3**
5:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
5:40:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Total Volume	0	0	0	2	2	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	8
% App. Total	0	0	0	100		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.000	.000	.000	.750	.750	.000	.000	.000	.000	.000	.667

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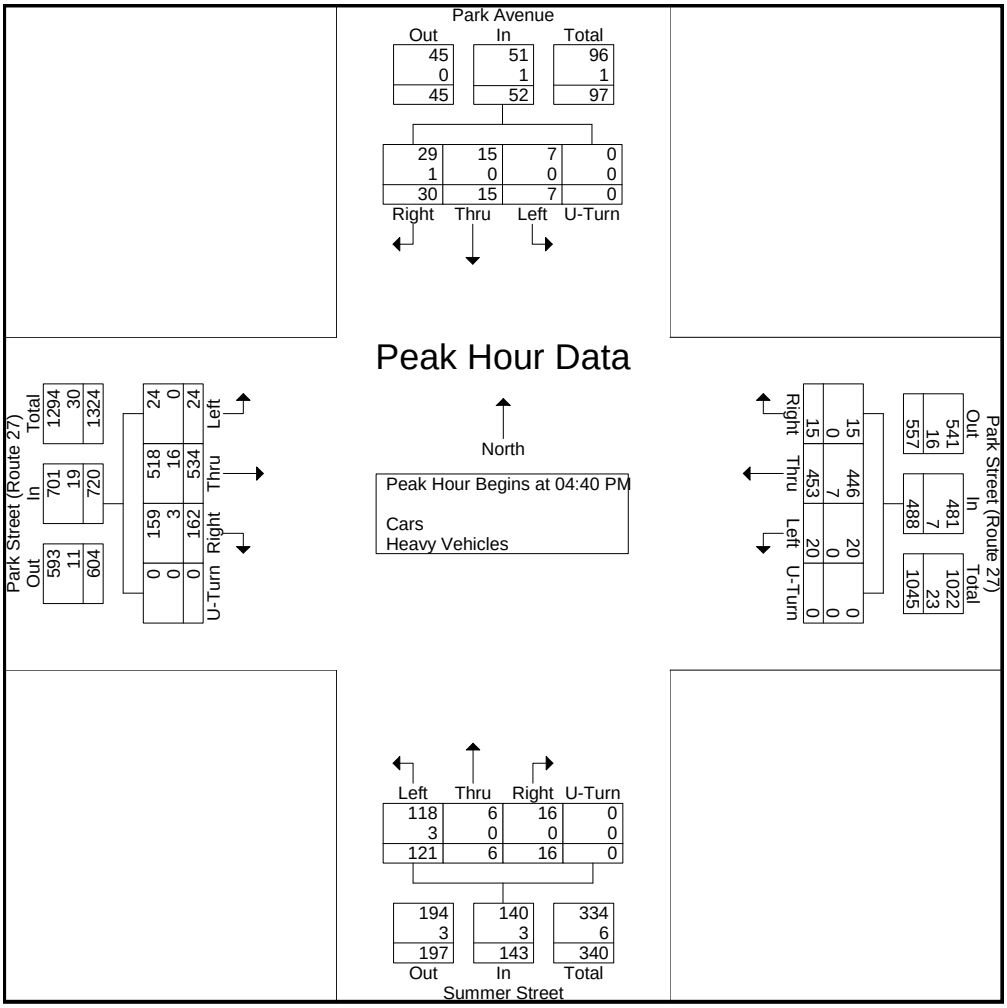
	Park Avenue From North					Park Street (Route 27) From East					Summer Street From South					Park Street (Route 27) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:40 PM																					
04:40 PM	**5**	**3**	**2**	**0**	**10**	**3**	43	2	0	48	1	0	5	0	6	13	**57**	**4**	**0**	**74**	**138**
04:45 PM	3	1	0	0	4	1	35	2	0	38	2	0	**18**	0	**20**	10	37	3	0	50	112
04:50 PM	5	2	1	0	8	1	32	0	0	33	1	0	17	0	18	8	40	2	0	50	109
04:55 PM	2	0	0	0	2	0	35	3	0	38	0	0	6	0	6	17	40	2	0	59	105
05:00 PM	0	2	1	0	3	1	46	2	0	49	2	0	8	0	10	**21**					
05:05 PM	**1**	**2**	**0**	**0**	**3**	**1**	**39**	**0**	**0**	**40**	**4**	**1**	**9**	**0**	**14**	**12**	**49**	**2**	**0**	**63**	**120**
05:10 PM	**2**	**0**	**2**	**0**	**4**	**0**	**40**	**0**	**0**	**40**	**0**	**1**	**11**	**0**	**12**	**15**	**47**	**0**	**0**	**62**	**118**
05:15 PM	**3**	**3**	**0**	**0**	**6**	**1**	**35**	**4**	**0**	**40**	**2**	**0**	**9**	**0**	**11**	**20**	**32**	**2**	**0**	**54**	**111**
05:20 PM	**5**	**0**	**0**	**0**	**5**	**1**	**42**	**2**	**0**	**45**	**1**	**1**	**11**	**0**	**13**	**14**	**51**	**1**	**0**	**66**	**129**
05:25 PM	**0**	**0**	**1**	**0**	**1**	**2**	**47**	**2**	**0**	**51**	1	1	10	0	12	9	36	2	0	47	111
05:30 PM	4	1	0	0	5	2	30	3	0	35	1	1	5	0	7	14	54	3	0	71	118
05:35 PM	0	1	0	0	1	2	29	0	0	31	1	1	12	0	14	9	45	0	0	54	100
Total Volume	30	15	7	0	52	15	453	20	0	488	16	6	121	0	143	162	534	24	0	720	1403
% App. Total	57.7	28.8	13.5	0		3.1	92.8	4.1	0		11.2	4.2	84.6	0		22.5	74.2	3.3	0		
PHF	.500	.417	.292	.000	.433	.417	.803	.417	.000	.797	.333	.500	.560	.000	.596	.643	.781	.500	.000	.811	.847
Cars	29	15	7	0	51	15	446	20	0	481	16	6	118	0	140	159	518	24	0	701	1373
% Cars	96.7	100	100	0	98.1	100	98.5	100	0	98.6	100	100	97.5	0	97.9	98.1	97.0	100	0	97.4	97.9
Heavy Vehicles	1	0	0	0	1	0	7	0	0	7	0	0	3	0	3	3	16	0	0	19	30
% Heavy Vehicles	3.3	0	0	0	1.9	0	1.5	0	0	1.4	0	0	2.5	0	2.1	1.9	3.0	0	0	2.6	2.1



Entering & Exiting Traffic to Trackside
Plaza from Porter & Summer Streets
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122868 H
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Porter Street From North			Not Used From East			Summer Street From South			
Start Time	Exit	Enter	Left	Right	Left	Peds	Right	Exit	Enter	Int. Total
06:30 AM	2	2	0	0	0	0	0	0	0	4
06:45 AM	12	1	0	0	0	0	0	2	1	16
Total	14	3	0	0	0	0	0	2	1	20
07:00 AM	33	2	0	0	0	0	0	1	2	38
07:15 AM	42	3	0	0	0	0	0	1	1	47
07:30 AM	15	8	0	0	0	0	0	1	1	25
07:45 AM	14	3	0	0	0	0	0	1	4	22
Total	104	16	0	0	0	0	0	4	8	132
08:00 AM	7	3	0	0	0	0	0	0	2	12
08:15 AM	7	3	0	0	0	0	0	4	1	15
Grand Total	132	25	0	0	0	0	0	10	12	179
Apprch %	84.1	15.9	0	0	0	0	0	45.5	54.5	
Total %	73.7	14	0	0	0	0	0	5.6	6.7	
Cars	131	25	0	0	0	0	0	10	12	178
% Cars	99.2	100	0	0	0	0	0	100	100	99.4
Heavy Vehicles	1	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0.8	0	0	0	0	0	0	0	0	0.6

	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:00:00 AM													
7:00:00 AM	33	2	0	35	0	0	0	0	0	**1**	**2**	**3**	**38**
7:15:00 AM	**42**	3	0	**45**	0	0	0	0	0	1	1	2	**47**
7:30:00 AM	15	**8**											
7:45:00 AM	**14**	**3**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**5**	22
Total Volume	104	16	0	120	0	0	0	0	0	4	8	12	132
% App. Total	86.7	13.3	0		0	0	0		0	33.3	66.7		
PHF	.619	.500	.000	.667	.000	.000	.000	.000	.000	1.00	.500	.600	.702
Cars	104	16	0	120	0	0	0	0	0	4	8	12	132
% Cars	100	100	0	100	0	0	0	0	0	100	100	100	100
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0

Entering & Exiting Traffic to Trackside
Plaza from Porter & Summer Streets
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Page No : 1

Groups Printed- Cars

	Porter Street From North			Not Used From East			Summer Street From South			
Start Time	Exit	Enter	Left	Right	Left	Peds	Right	Exit	Enter	Int. Total
06:30 AM	2	2	0	0	0	0	0	0	0	4
06:45 AM	12	1	0	0	0	0	0	2	1	16
Total	14	3	0	0	0	0	0	2	1	20
07:00 AM	33	2	0	0	0	0	0	1	2	38
07:15 AM	42	3	0	0	0	0	0	1	1	47
07:30 AM	15	8	0	0	0	0	0	1	1	25
07:45 AM	14	3	0	0	0	0	0	1	4	22
Total	104	16	0	0	0	0	0	4	8	132
08:00 AM	6	3	0	0	0	0	0	0	2	11
08:15 AM	7	3	0	0	0	0	0	4	1	15
Grand Total	131	25	0	0	0	0	0	10	12	178
Apprch %	84	16	0	0	0	0	0	45.5	54.5	
Total %	73.6	14	0	0	0	0	0	5.6	6.7	

	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:00:00 AM													
7:00:00 AM	33	2	0	35	0	0	0	0	0	**1**	**2**	**3**	**38**
7:15:00 AM	**42**	3	0	**45**	0	0	0	0	0	1	1	2	**47**
7:30:00 AM	15	**8**											
7:45:00 AM	**14**	**3**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**5**	22
Total Volume	104	16	0	120	0	0	0	0	0	4	8	12	132
% App. Total	86.7	13.3	0		0	0	0		0	33.3	66.7		
PHF	.619	.500	.000	.667	.000	.000	.000	.000	.000	1.00	.500	.600	.702

Entering & Exiting Traffic to Trackside
Plaza from Porter & Summer Streets
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File Name : 122868 H
Site Code : 10111.34
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Page No : 1

Groups Printed- Heavy Vehicles

	Porter Street From North			Not Used From East			Summer Street From South			
Start Time	Exit	Enter	Left	Right	Left	Peds	Right	Exit	Enter	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	0	0	0	0	0	0	1
Apprch %	100	0	0	0	0	0	0	0	0	
Total %	100	0	0	0	0	0	0	0	0	

	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:15:00 AM													
7:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	**1**
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% App. Total	100	0	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

Entering & Exiting Traffic to Trackside
Plaza from Porter & Summer Streets
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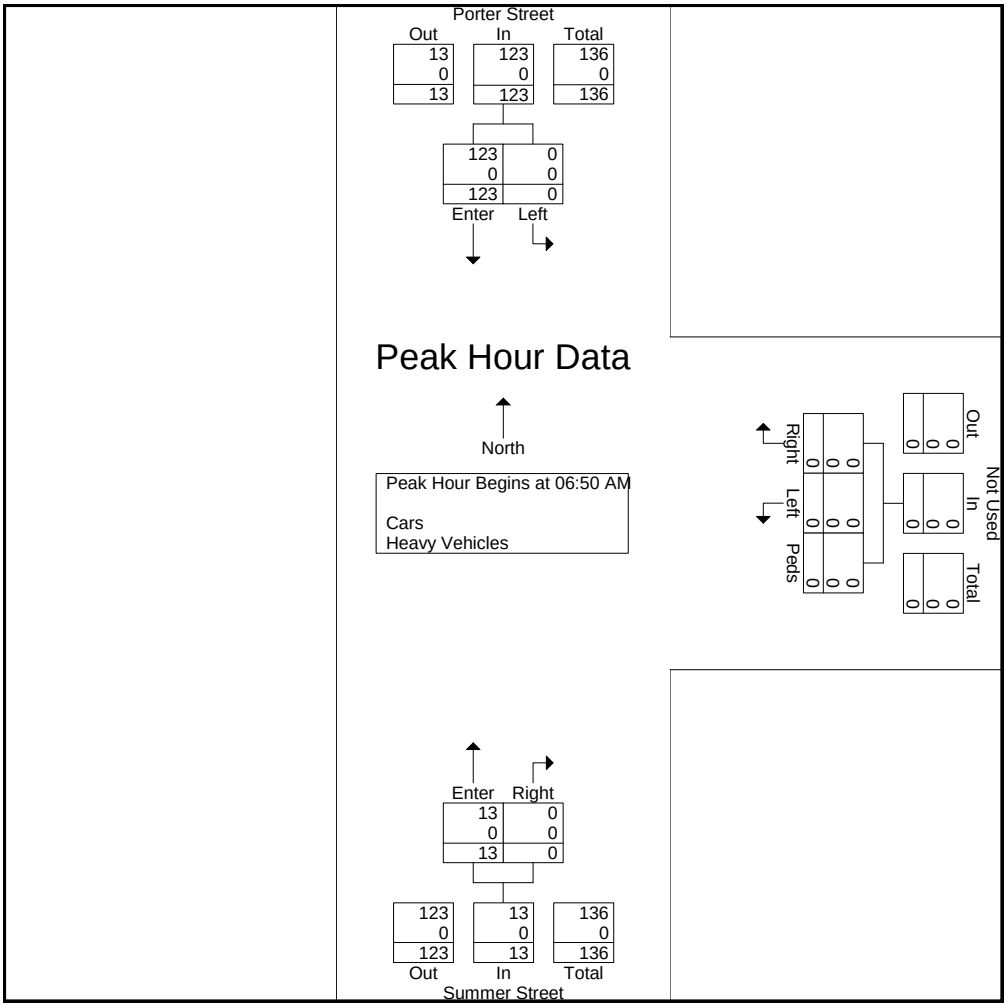
	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:50 AM													
06:50 AM	5	0	0	5	0	0	0	0	0	**2**	**0**	**2**	**7**
06:55 AM	**4**	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**6**
07:00 AM	**7**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**8**
07:05 AM	**15**	0	0	15	0	0	0	0	0	0	**2**	**2**	**17**
07:10 AM	11	2	0	13	0	0	0	0	0	0	0	0	13
07:15 AM	14	0	0	14	0	0	0	0	0	0	1	1	15
07:20 AM	14	1	0	15	0	0	0	0	0	0	0	0	15
07:25 AM	14	2	0	**16**	0	0	0	0	0	1	0	1	17
07:30 AM	3	**4**											
07:35 AM	**4**	**3**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
07:40 AM	**8**	**1**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**	**11**
07:45 AM	**8**	**2**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**3**	13
Total Volume	107	16	0	123	0	0	0	0	0	6	7	13	136
% App. Total	87	13	0		0	0	0		0	46.2	53.8		
PHF	.594	.333	.000	.641	.000	.000	.000	.000	.000	.250	.292	.361	.667
Cars	107	16	0	123	0	0	0	0	0	6	7	13	136
% Cars	100	100	0	100	0	0	0	0	0	100	100	100	100
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0



Entering & Exiting Traffic to Trackside
Plaza from Porter & Summer Streets
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Site Code : 10111.34
Start Date : 4/12/2012
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Groups Printed- Cars - Heavy Vehicles

	Porter Street From North			Not Used From East			Summer Street From South			
Start Time	Exit	Enter	Left	Right	Left	Peds	Right	Exit	Enter	Int. Total
04:40 PM	7	7	0	0	0	0	0	3	3	20
04:55 PM	6	6	0	0	0	0	0	4	2	18
05:10 PM	6	9	0	0	0	0	0	3	1	19
05:25 PM	8	12	0	0	0	0	0	4	2	26
05:40 PM	6	12	0	0	0	0	0	7	3	28
05:55 PM	4	7	0	0	0	0	0	4	5	20
06:10 PM	11	16	0	0	0	0	0	6	0	33
06:25 PM	8	3	0	0	0	0	0	3	3	17
Grand Total	56	72	0	0	0	0	0	34	19	181
Apprch %	43.8	56.2	0	0	0	0	0	64.2	35.8	
Total %	30.9	39.8	0	0	0	0	0	18.8	10.5	
Cars	56	72	0	0	0	0	0	34	19	181
% Cars	100	100	0	0	0	0	0	100	100	100
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0

	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 5:25:00 PM													
5:25:00 PM	8	12	0	20	0	0	0	0	0	4	2	6	26
5:40:00 PM	6	12	0	18	0	0	0	0	0	**7**	**3**	**10**	28
5:55:00 PM	4	7	0	11	0	0	0	0	0	4	**5**		
6:10:00 PM	**11**	**16**	**0**	**27**	0	0	0	0	0	6	0	6	**33**
Total Volume	29	47	0	76	0	0	0	0	0	21	10	31	107
% App. Total	38.2	61.8	0		0	0	0		0	67.7	32.3		
PHF	.659	.734	.000	.704	.000	.000	.000	.000	.000	.750	.500	.775	.811
Cars	29	47	0	76	0	0	0	0	0	21	10	31	107
% Cars	100	100	0	100	0	0	0	0	0	100	100	100	100
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0

Entering & Exiting Traffic to Trackside
Plaza from Porter & Summer Streets
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Page No : 1

Groups Printed- Cars

	Porter Street From North			Not Used From East			Summer Street From South			
Start Time	Exit	Enter	Left	Right	Left	Peds	Right	Exit	Enter	Int. Total
04:40 PM	7	7	0	0	0	0	0	3	3	20
04:55 PM	6	6	0	0	0	0	0	4	2	18
05:10 PM	6	9	0	0	0	0	0	3	1	19
05:25 PM	8	12	0	0	0	0	0	4	2	26
05:40 PM	6	12	0	0	0	0	0	7	3	28
05:55 PM	4	7	0	0	0	0	0	4	5	20
06:10 PM	11	16	0	0	0	0	0	6	0	33
06:25 PM	8	3	0	0	0	0	0	3	3	17
Grand Total	56	72	0	0	0	0	0	34	19	181
Apprch %	43.8	56.2	0	0	0	0	0	64.2	35.8	
Total %	30.9	39.8	0	0	0	0	0	18.8	10.5	

	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 5:25:00 PM													
5:25:00 PM	8	12	0	20	0	0	0	0	0	4	2	6	26
5:40:00 PM	6	12	0	18	0	0	0	0	0	**7**	**3**	**10**	28
5:55:00 PM	4	7	0	11	0	0	0	0	0	4	**5**		
6:10:00 PM	**11**	**16**	**0**	**27**	0	0	0	0	0	6	0	6	**33**
Total Volume	29	47	0	76	0	0	0	0	0	21	10	31	107
% App. Total	38.2	61.8	0		0	0	0		0	67.7	32.3		
PHF	.659	.734	.000	.704	.000	.000	.000	.000	.000	.750	.500	.775	.811

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Page No : 1

Groups Printed- Heavy Vehicles

	Porter Street From North			Not Used From East			Summer Street From South			
Start Time	Exit	Enter	Left	Right	Left	Peds	Right	Exit	Enter	Int. Total
04:40 PM	0	0	0	0	0	0	0	0	0	0
04:55 PM	0	0	0	0	0	0	0	0	0	0
05:10 PM	0	0	0	0	0	0	0	0	0	0
05:25 PM	0	0	0	0	0	0	0	0	0	0
05:40 PM	0	0	0	0	0	0	0	0	0	0
05:55 PM	0	0	0	0	0	0	0	0	0	0
06:10 PM	0	0	0	0	0	0	0	0	0	0
06:25 PM	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:40:00 PM													
4:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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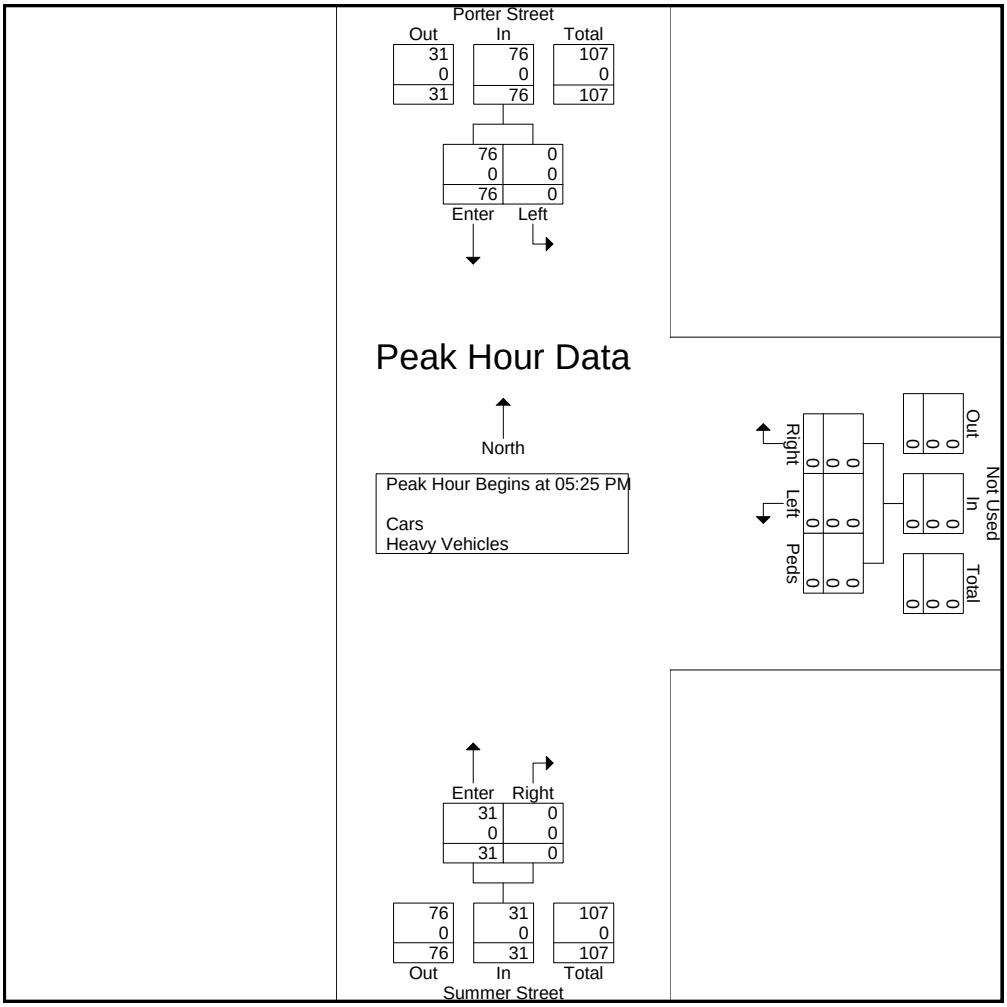
	Porter Street From North				Not Used From East				Summer Street From South				
Start Time	Exit	Enter	Left	App. Total	Right	Left	Peds	App. Total	Right	Exit	Enter	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:25 PM													
05:25 PM	0	2	0	2	0	0	0	0	0	2	1	3	5
05:30 PM	4	4	0	8	0	0	0	0	0	2	0	2	10
05:35 PM	4	6	0	**10**	0	0	0	0	0	0	1	1	11
05:40 PM	3	4	0	7	0	0	0	0	0	**3**			
05:45 PM	**1**	**6**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**9**
05:50 PM	**2**	**2**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**4**	**8**
05:55 PM	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
06:00 PM	**1**	**4**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**4**	**9**
06:05 PM	**2**	**2**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**5**	9
06:10 PM	2	**7**											
06:15 PM	**3**	**6**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**12**
06:20 PM	**6**	3	0	9	0	0	0	0	0	2	0	2	11
Total Volume	29	47	0	76	0	0	0	0	0	21	10	31	107
% App. Total	38.2	61.8	0		0	0	0		0	67.7	32.3		
PHF	.403	.560	.000	.633	.000	.000	.000	.000	.000	.583	.278	.517	.743
Cars	29	47	0	76	0	0	0	0	0	21	10	31	107
% Cars	100	100	0	100	0	0	0	0	0	100	100	100	100
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0



N/S: Washington Street (Route 138)
W: Railroad Avenue
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 I
Site Code : 10111.34
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Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
06:30 AM	2	30	0	117	1	0	1	0	0	151
06:45 AM	1	36	0	91	0	0	3	0	0	131
Total	3	66	0	208	1	0	4	0	0	282
07:00 AM	0	49	0	115	0	0	0	0	0	164
07:15 AM	0	56	0	108	0	0	1	0	0	165
07:30 AM	2	69	0	130	0	0	2	1	0	204
07:45 AM	0	54	0	110	0	0	2	0	0	166
Total	2	228	0	463	0	0	5	1	0	699
08:00 AM	0	54	0	90	0	0	1	0	0	145
08:15 AM	1	60	0	114	0	0	2	0	0	177
Grand Total	6	408	0	875	1	0	12	1	0	1303
Apprch %	1.4	98.6	0	99.9	0.1	0	92.3	7.7	0	
Total %	0.5	31.3	0	67.2	0.1	0	0.9	0.1	0	
Cars	6	384	0	841	1	0	12	1	0	1245
% Cars	100	94.1	0	96.1	100	0	100	100	0	95.5
Heavy Vehicles	0	24	0	34	0	0	0	0	0	58
% Heavy Vehicles	0	5.9	0	3.9	0	0	0	0	0	4.5

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:00:00 AM													
7:00:00 AM	0	49	0	49	115	0	0	115	0	0	0	0	164
7:15:00 AM	0	56	0	56	108	0	0	108	1	0	0	1	165
7:30:00 AM	**2**	**69**	**0**	**71**	**130**	0	0	**130**	**2**	**1**	**0**	**3**	**204**
7:45:00 AM	0	54	0	54	110	0	0	110	2	0	0	2	166
Total Volume	2	228	0	230	463	0	0	463	5	1	0	6	699
% App. Total	0.9	99.1	0		100	0	0		83.3	16.7	0		
PHF	.250	.826	.000	.810	.890	.000	.000	.890	.625	.250	.000	.500	.857
Cars	2	216	0	218	447	0	0	447	5	1	0	6	671
% Cars	100	94.7	0	94.8	96.5	0	0	96.5	100	100	0	100	96.0
Heavy Vehicles	0	12	0	12	16	0	0	16	0	0	0	0	28
% Heavy Vehicles	0	5.3	0	5.2	3.5	0	0	3.5	0	0	0	0	4.0

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Groups Printed- Cars

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
06:30 AM	2	29	0	116	1	0	1	0	0	149
06:45 AM	1	35	0	86	0	0	3	0	0	125
Total	3	64	0	202	1	0	4	0	0	274
07:00 AM	0	47	0	106	0	0	0	0	0	153
07:15 AM	0	51	0	105	0	0	1	0	0	157
07:30 AM	2	67	0	130	0	0	2	1	0	202
07:45 AM	0	51	0	106	0	0	2	0	0	159
Total	2	216	0	447	0	0	5	1	0	671
08:00 AM	0	49	0	84	0	0	1	0	0	134
08:15 AM	1	55	0	108	0	0	2	0	0	166
Grand Total	6	384	0	841	1	0	12	1	0	1245
Apprch %	1.5	98.5	0	99.9	0.1	0	92.3	7.7	0	
Total %	0.5	30.8	0	67.6	0.1	0	1	0.1	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:00:00 AM													
7:00:00 AM	0	47	0	47	106	0	0	106	0	0	0	0	153
7:15:00 AM	0	51	0	51	105	0	0	105	1	0	0	1	157
7:30:00 AM	**2**	**67**	**0**	**69**	**130**	0	0	**130**	**2**	**1**	**0**	**3**	**202**
7:45:00 AM	0	51	0	51	106	0	0	106	2	0	0	2	159
Total Volume	2	216	0	218	447	0	0	447	5	1	0	6	671
% App. Total	0.9	99.1	0		100	0	0		83.3	16.7	0		
PHF	.250	.806	.000	.790	.860	.000	.000	.860	.625	.250	.000	.500	.830

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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
06:30 AM	0	1	0	1	0	0	0	0	0	2
06:45 AM	0	1	0	5	0	0	0	0	0	6
Total	0	2	0	6	0	0	0	0	0	8
07:00 AM	0	2	0	9	0	0	0	0	0	11
07:15 AM	0	5	0	3	0	0	0	0	0	8
07:30 AM	0	2	0	0	0	0	0	0	0	2
07:45 AM	0	3	0	4	0	0	0	0	0	7
Total	0	12	0	16	0	0	0	0	0	28
08:00 AM	0	5	0	6	0	0	0	0	0	11
08:15 AM	0	5	0	6	0	0	0	0	0	11
Grand Total	0	24	0	34	0	0	0	0	0	58
Apprch %	0	100	0	100	0	0	0	0	0	
Total %	0	41.4	0	58.6	0	0	0	0	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:30:00 AM													
7:30:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
7:45:00 AM	0	3	0	3	4	0	0	4	0	0	0	0	7
8:00:00 AM	0	**5**	**0**	**5**	**6**	0	0	**6**	0	0	0	0	**11**
8:15:00 AM	0	5	0	5	6	0	0	6	0	0	0	0	11
Total Volume	0	15	0	15	16	0	0	16	0	0	0	0	31
% App. Total	0	100	0		100	0	0		0	0	0		
PHF	.000	.750	.000	.750	.667	.000	.000	.667	.000	.000	.000	.000	.705

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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
06:30 AM	0	0	5	0	0	0	0	0	3	8
06:45 AM	0	0	11	0	0	1	0	0	3	15
Total	0	0	16	0	0	1	0	0	6	23
07:00 AM	0	0	7	0	0	0	0	0	1	8
07:15 AM	0	0	9	0	0	0	0	0	4	13
07:30 AM	0	0	13	0	0	0	0	0	0	13
07:45 AM	0	0	5	0	0	0	0	0	1	6
Total	0	0	34	0	0	0	0	0	6	40
08:00 AM	0	0	1	0	0	0	0	0	0	1
08:15 AM	0	0	3	0	0	0	0	0	2	5
Grand Total	0	0	54	0	0	1	0	0	14	69
Apprch %	0	0	100	0	0	100	0	0	100	
Total %	0	0	78.3	0	0	1.4	0	0	20.3	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 6:45:00 AM													
6:45:00 AM	0	0	11	11	0	0	**1**	**1**	0	0	3	3	**15**
7:00:00 AM	0	0	7	7	0	0	0	0	0	0	1	1	8
7:15:00 AM	0	0	9	9	0	0	0	0	0	0	**4**	**4**	13
7:30:00 AM	0	0	**13**	**13**	0	0	0	0	0	0	0	0	13
Total Volume	0	0	40	40	0	0	1	1	0	0	8	8	49
% App. Total	0	0	100		0	0	100		0	0	100		
PHF	.000	.000	.769	.769	.000	.000	.250	.250	.000	.000	.500	.500	.817

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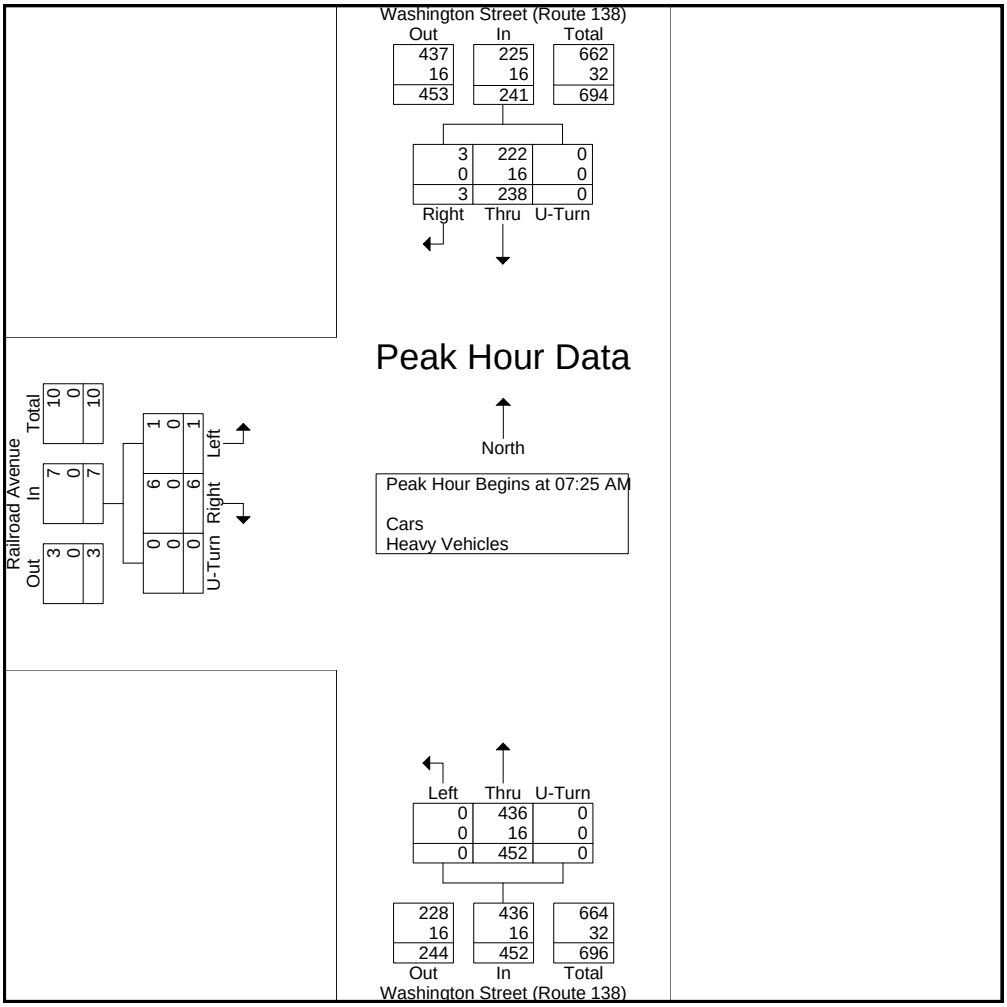
	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:25 AM													
07:25 AM	0	21	0	21	37	0	0	37	1	0	0	1	59
07:30 AM	**1**	18	0	19	**48**	0	0	**48**	1	0	0	1	68
07:35 AM	1	24	0	25	40	0	0	40	0	0	0	0	65
07:40 AM	0	**27**		**27**	42	0	0	42	1	**1**		**2**	**71**
07:45 AM	0	27	0	27	31	0	0	31	**2**	0	0	2	60
07:50 AM	0	13	0	13	45	0	0	45	0	0	0	0	58
07:55 AM	0	14	0	14	34	0	0	34	0	0	0	0	48
08:00 AM	0	12	0	12	32	0	0	32	0	0	0	0	44
08:05 AM	0	19	0	19	32	0	0	32	1	0	0	1	52
08:10 AM	0	23	0	23	26	0	0	26	0	0	0	0	49
08:15 AM	0	18	0	18	37	0	0	37	0	0	0	0	55
08:20 AM	1	22	0	23	48	0	0	48	0	0	0	0	71
Total Volume	3	238	0	241	452	0	0	452	6	1	0	7	700
% App. Total	1.2	98.8	0		100	0	0		85.7	14.3	0		
PHF	.250	.735	.000	.744	.785	.000	.000	.785	.250	.083	.000	.292	.822
Cars	3	222	0	225	436	0	0	436	6	1	0	7	668
% Cars	100	93.3	0	93.4	96.5	0	0	96.5	100	100	0	100	95.4
Heavy Vehicles	0	16	0	16	16	0	0	16	0	0	0	0	32
% Heavy Vehicles	0	6.7	0	6.6	3.5	0	0	3.5	0	0	0	0	4.6



N/S: Washington Street (Route 138)
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Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:40 PM	3	107	0	77	1	0	7	0	0	195
04:55 PM	3	121	0	86	1	0	1	0	0	212
05:10 PM	4	129	0	94	0	0	0	0	0	227
05:25 PM	1	141	0	92	1	0	8	0	0	243
05:40 PM	4	123	0	82	2	0	0	0	0	211
05:55 PM	2	107	0	86	0	0	5	0	0	200
06:10 PM	2	102	0	99	0	0	1	0	0	204
06:25 PM	4	120	0	65	5	0	2	2	0	198
Grand Total	23	950	0	681	10	0	24	2	0	1690
Apprch %	2.4	97.6	0	98.6	1.4	0	92.3	7.7	0	
Total %	1.4	56.2	0	40.3	0.6	0	1.4	0.1	0	
Cars	7	950	0	664	10	0	24	2	0	1657
% Cars	30.4	100	0	97.5	100	0	100	100	0	98
Heavy Vehicles	16	0	0	17	0	0	0	0	0	33
% Heavy Vehicles	69.6	0	0	2.5	0	0	0	0	0	2

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:55:00 PM													
4:55:00 PM	3	121	0	124	86	1	0	87	1	0	0	1	212
5:10:00 PM	**4**	129	0	133	**94**	0	0	**94**	0	0	0	0	227
5:25:00 PM	1	**141**		**142**	92	1	0	93	**8**	0	0	**8**	**243**
5:40:00 PM	4	123	0	127	82	**2**	0	84	0	0	0	0	211
Total Volume	12	514	0	526	354	4	0	358	9	0	0	9	893
% App. Total	2.3	97.7	0		98.9	1.1	0		100	0	0		
PHF	.750	.911	.000	.926	.941	.500	.000	.952	.281	.000	.000	.281	.919
Cars	2	514	0	516	345	4	0	349	9	0	0	9	874
% Cars	16.7	100	0	98.1	97.5	100	0	97.5	100	0	0	100	97.9
Heavy Vehicles	10	0	0	10	9	0	0	9	0	0	0	0	19
% Heavy Vehicles	83.3	0	0	1.9	2.5	0	0	2.5	0	0	0	0	2.1

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Groups Printed- Cars

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:40 PM	0	107	0	74	1	0	7	0	0	189
04:55 PM	0	121	0	83	1	0	1	0	0	206
05:10 PM	1	129	0	91	0	0	0	0	0	221
05:25 PM	0	141	0	91	1	0	8	0	0	241
05:40 PM	1	123	0	80	2	0	0	0	0	206
05:55 PM	1	107	0	83	0	0	5	0	0	196
06:10 PM	2	102	0	97	0	0	1	0	0	202
06:25 PM	2	120	0	65	5	0	2	2	0	196
Grand Total	7	950	0	664	10	0	24	2	0	1657
Apprch %	0.7	99.3	0	98.5	1.5	0	92.3	7.7	0	
Total %	0.4	57.3	0	40.1	0.6	0	1.4	0.1	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:55:00 PM													
4:55:00 PM	0	121	0	121	83	1	0	84	1	0	0	1	206
5:10:00 PM	**1**	129	0	130	**91**	0	0	91	0	0	0	0	221
5:25:00 PM	0	**141**		**141**	91	1	0	**92**	**8**	0	0	**8**	**241**
5:40:00 PM	1	123	0	124	80	**2**	0	82	0	0	0	0	206
Total Volume	2	514	0	516	345	4	0	349	9	0	0	9	874
% App. Total	0.4	99.6	0		98.9	1.1	0		100	0	0		
PHF	.500	.911	.000	.915	.948	.500	.000	.948	.281	.000	.000	.281	.907

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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:40 PM	3	0	0	3	0	0	0	0	0	6
04:55 PM	3	0	0	3	0	0	0	0	0	6
05:10 PM	3	0	0	3	0	0	0	0	0	6
05:25 PM	1	0	0	1	0	0	0	0	0	2
05:40 PM	3	0	0	2	0	0	0	0	0	5
05:55 PM	1	0	0	3	0	0	0	0	0	4
06:10 PM	0	0	0	2	0	0	0	0	0	2
06:25 PM	2	0	0	0	0	0	0	0	0	2
Grand Total	16	0	0	17	0	0	0	0	0	33
Apprch %	100	0	0	100	0	0	0	0	0	
Total %	48.5	0	0	51.5	0	0	0	0	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:40:00 PM													
4:40:00 PM	**3**	0	0	**3**	**3**	0	0	**3**	0	0	0	0	**6**
4:55:00 PM	3	0	0	3	3	0	0	3	0	0	0	0	6
5:10:00 PM	3	0	0	3	3	0	0	3	0	0	0	0	6
5:25:00 PM	1	0	0	1	1	0	0	1	0	0	0	0	2
Total Volume	10	0	0	10	10	0	0	10	0	0	0	0	20
% App. Total	100	0	0		100	0	0		0	0	0		
PHF	.833	.000	.000	.833	.833	.000	.000	.833	.000	.000	.000	.000	.833

N/S: Washington Street (Route 138)
W: Railroad Avenue
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
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File Name : 122868 II
Site Code : 10111.34
Start Date : 4/12/2012
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Railroad Avenue From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:40 PM	0	0	4	0	0	0	0	0	3	7
04:55 PM	0	0	4	0	0	0	0	0	3	7
05:10 PM	0	0	4	0	0	0	0	0	9	13
05:25 PM	0	0	12	0	0	1	0	0	2	15
05:40 PM	0	0	4	0	0	0	0	0	0	4
05:55 PM	0	0	9	0	0	0	0	0	4	13
06:10 PM	0	0	1	0	0	2	0	0	1	4
06:25 PM	0	0	5	0	0	1	0	0	3	9
Grand Total	0	0	43	0	0	4	0	0	25	72
Apprch %	0	0	100	0	0	100	0	0	100	
Total %	0	0	59.7	0	0	5.6	0	0	34.7	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 5:10:00 PM													
5:10:00 PM	0	0	4	4	0	0	0	0	0	0	**9**	**9**	13
5:25:00 PM	0	0	**12**	**12**	0	0	**1**	**1**	0	0	2	2	**15**
5:40:00 PM	0	0	4	4	0	0	0	0	0	0	0	0	4
5:55:00 PM	0	0	9	9	0	0	0	0	0	0	4	4	13
Total Volume	0	0	29	29	0	0	1	1	0	0	15	15	45
% App. Total	0	0	100		0	0	100		0	0	100		
PHF	.000	.000	.604	.604	.000	.000	.250	.250	.000	.000	.417	.417	.750

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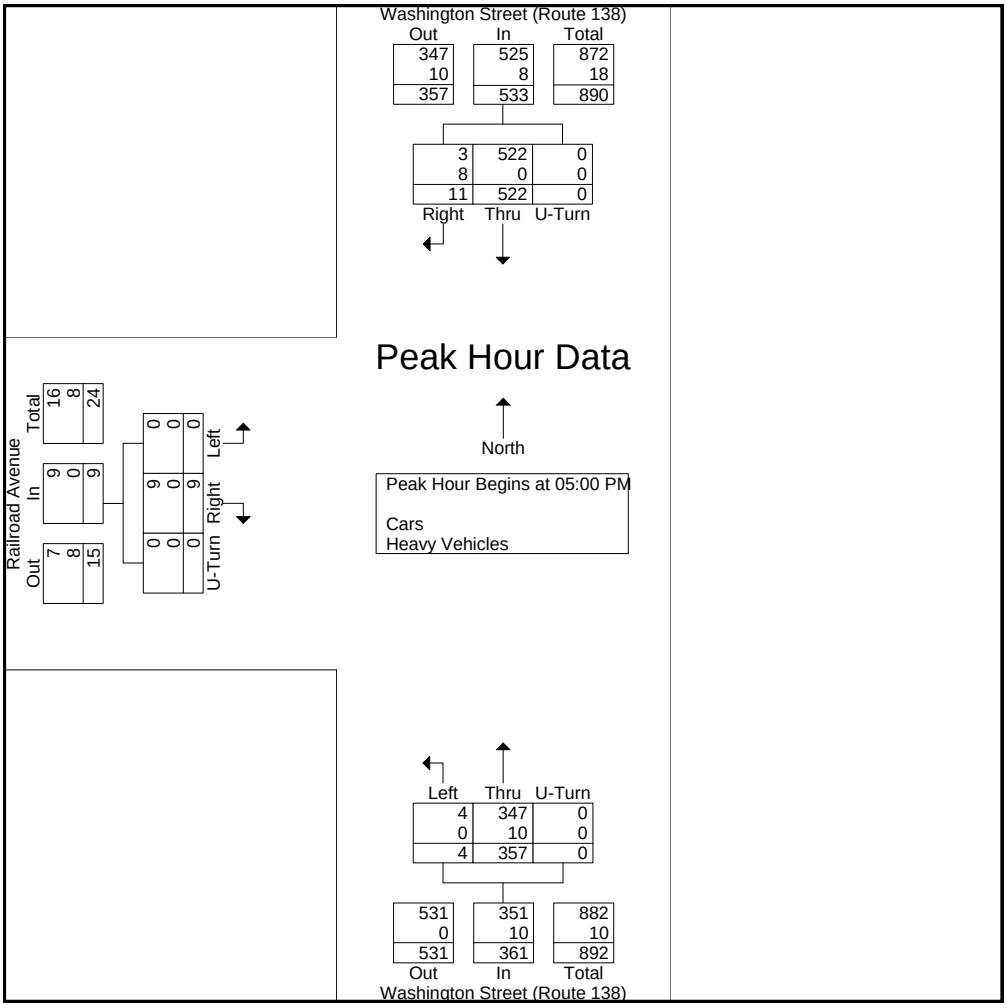
	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Railroad Avenue From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	42	0	42	36	**1**	0	37	0	0	0	0	79
05:05 PM	1	39	0	40	23	0	0	23	1	0	0	1	64
05:10 PM	1	41	0	42	**41**	0	0	**41**	0	0	0	0	83
05:15 PM	1	45	0	46	17	0	0	17	0	0	0	0	63
05:20 PM	2	43	0	45	36	0	0	36	0	0	0	0	81
05:25 PM	0	48	0	48	35	0	0	35	1	0	0	1	**84**
05:30 PM	0	38	0	38	33	1	0	34	**7**	0	0	**7**	79
05:35 PM	1	**55**		**56**	24	0	0	24	0	0	0	0	80
05:40 PM	**4**	50	0	54	21	1	0	22	0	0	0	0	76
05:45 PM	0	36	0	36	27	0	0	27	0	0	0	0	63
05:50 PM	0	37	0	37	34	1	0	35	0	0	0	0	72
05:55 PM	1	48	0	49	30	0	0	30	0	0	0	0	79
Total Volume	11	522	0	533	357	4	0	361	9	0	0	9	903
% App. Total	2.1	97.9	0		98.9	1.1	0		100	0	0		
PHF	.229	.791	.000	.793	.726	.333	.000	.734	.107	.000	.000	.107	.896
Cars	3	522	0	525	347	4	0	351	9	0	0	9	885
% Cars	27.3	100	0	98.5	97.2	100	0	97.2	100	0	0	100	98.0
Heavy Vehicles	8	0	0	8	10	0	0	10	0	0	0	0	18
% Heavy Vehicles	72.7	0	0	1.5	2.8	0	0	2.8	0	0	0	0	2.0



N/S: Washington Street (Route 138)
W: Lot Access
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 J
Site Code : 10111.34
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
06:30 AM	1	32	0	107	13	0	0	3	0	156
06:45 AM	0	38	0	92	22	0	5	0	0	157
Total	1	70	0	199	35	0	5	3	0	313
07:00 AM	1	48	0	118	1	0	0	0	0	168
07:15 AM	0	54	1	121	6	0	1	0	0	183
07:30 AM	0	73	0	119	16	0	6	1	0	215
07:45 AM	0	53	0	105	1	0	3	0	0	162
Total	1	228	1	463	24	0	10	1	0	728
08:00 AM	0	54	0	104	2	0	0	0	0	160
08:15 AM	0	63	0	109	4	0	2	1	0	179
Grand Total	2	415	1	875	65	0	17	5	0	1380
Apprch %	0.5	99.3	0.2	93.1	6.9	0	77.3	22.7	0	
Total %	0.1	30.1	0.1	63.4	4.7	0	1.2	0.4	0	
Cars	2	388	1	841	65	0	17	5	0	1319
% Cars	100	93.5	100	96.1	100	0	100	100	0	95.6
Heavy Vehicles	0	27	0	34	0	0	0	0	0	61
% Heavy Vehicles	0	6.5	0	3.9	0	0	0	0	0	4.4

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:00:00 AM													
7:00:00 AM	**1**	48	0	49	118	1	0	119	0	0	0	0	168
7:15:00 AM	0	54	**1**		**121**	6	0	127	1	0	0	1	183
7:30:00 AM	0	**73**		**73**	119	**16**	0	**135**	**6**	**1**		**7**	**215**
7:45:00 AM	0	53	0	53	105	1	0	106	3	0	0	3	162
Total Volume	1	228	1	230	463	24	0	487	10	1	0	11	728
% App. Total	0.4	99.1	0.4		95.1	4.9	0		90.9	9.1	0		
PHF	.250	.781	.250	.788	.957	.375	.000	.902	.417	.250	.000	.393	.847
Cars	1	213	1	215	449	24	0	473	10	1	0	11	699
% Cars	100	93.4	100	93.5	97.0	100	0	97.1	100	100	0	100	96.0
Heavy Vehicles	0	15	0	15	14	0	0	14	0	0	0	0	29
% Heavy Vehicles	0	6.6	0	6.5	3.0	0	0	2.9	0	0	0	0	4.0

N/S: Washington Street (Route 138)
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Groups Printed- Cars

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
06:30 AM	1	31	0	106	13	0	0	3	0	154
06:45 AM	0	37	0	85	22	0	5	0	0	149
Total	1	68	0	191	35	0	5	3	0	303
07:00 AM	1	45	0	110	1	0	0	0	0	157
07:15 AM	0	48	1	118	6	0	1	0	0	174
07:30 AM	0	70	0	118	16	0	6	1	0	211
07:45 AM	0	50	0	103	1	0	3	0	0	157
Total	1	213	1	449	24	0	10	1	0	699
08:00 AM	0	49	0	98	2	0	0	0	0	149
08:15 AM	0	58	0	103	4	0	2	1	0	168
Grand Total	2	388	1	841	65	0	17	5	0	1319
Apprch %	0.5	99.2	0.3	92.8	7.2	0	77.3	22.7	0	
Total %	0.2	29.4	0.1	63.8	4.9	0	1.3	0.4	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:00:00 AM													
7:00:00 AM	**1**	45	0	46	110	1	0	111	0	0	0	0	157
7:15:00 AM	0	48	**1**		**118**	6	0	124	1	0	0	1	174
7:30:00 AM	0	**70**		**70**	118	**16**	0	**134**	**6**	**1**		**7**	**211**
7:45:00 AM	0	50	0	50	103	1	0	104	3	0	0	3	157
Total Volume	1	213	1	215	449	24	0	473	10	1	0	11	699
% App. Total	0.5	99.1	0.5		94.9	5.1	0		90.9	9.1	0		
PHF	.250	.761	.250	.768	.951	.375	.000	.882	.417	.250	.000	.393	.828

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File Name : 122868 J
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Start Date : 4/12/2012
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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
06:30 AM	0	1	0	1	0	0	0	0	0	2
06:45 AM	0	1	0	7	0	0	0	0	0	8
Total	0	2	0	8	0	0	0	0	0	10
07:00 AM	0	3	0	8	0	0	0	0	0	11
07:15 AM	0	6	0	3	0	0	0	0	0	9
07:30 AM	0	3	0	1	0	0	0	0	0	4
07:45 AM	0	3	0	2	0	0	0	0	0	5
Total	0	15	0	14	0	0	0	0	0	29
08:00 AM	0	5	0	6	0	0	0	0	0	11
08:15 AM	0	5	0	6	0	0	0	0	0	11
Grand Total	0	27	0	34	0	0	0	0	0	61
Apprch %	0	100	0	100	0	0	0	0	0	
Total %	0	44.3	0	55.7	0	0	0	0	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 6:45:00 AM													
6:45:00 AM	0	1	0	1	7	0	0	7	0	0	0	0	8
7:00:00 AM	0	3	0	3	**8**	0	0	**8**	0	0	0	0	**11**
7:15:00 AM	0	**6**		**6**	3	0	0	3	0	0	0	0	9
7:30:00 AM	0	3	0	3	1	0	0	1	0	0	0	0	4
Total Volume	0	13	0	13	19	0	0	19	0	0	0	0	32
% App. Total	0	100	0		100	0	0		0	0	0		
PHF	.000	.542	.000	.542	.594	.000	.000	.594	.000	.000	.000	.000	.727

N/S: Washington Street (Route 138)
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Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	2	2
06:45 AM	0	0	1	0	0	1	0	0	2	4
Total	0	0	1	0	0	1	0	0	4	6
07:00 AM	0	0	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	3	3
07:30 AM	0	0	0	0	0	3	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	0	5	8
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	4	0	0	2	6
Grand Total	0	0	1	0	0	8	0	0	11	20
Apprch %	0	0	100	0	0	100	0	0	100	
Total %	0	0	5	0	0	40	0	0	55	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 6:45:00 AM													
6:45:00 AM	0	0	**1**	**1**	0	0	1	1	0	0	2	2	**4**
7:00:00 AM	0	0	0	0	0	0	0	0	0	0	2	2	2
7:15:00 AM	0	0	0	0	0	0	0	0	0	0	**3**	**3**	3
7:30:00 AM	0	0	0	0	0	0	**3**	**3**	0	0	0	0	3
Total Volume	0	0	1	1	0	0	4	4	0	0	7	7	12
% App. Total	0	0	100		0	0	100		0	0	100		
PHF	.000	.000	.250	.250	.000	.000	.333	.333	.000	.000	.583	.583	.750

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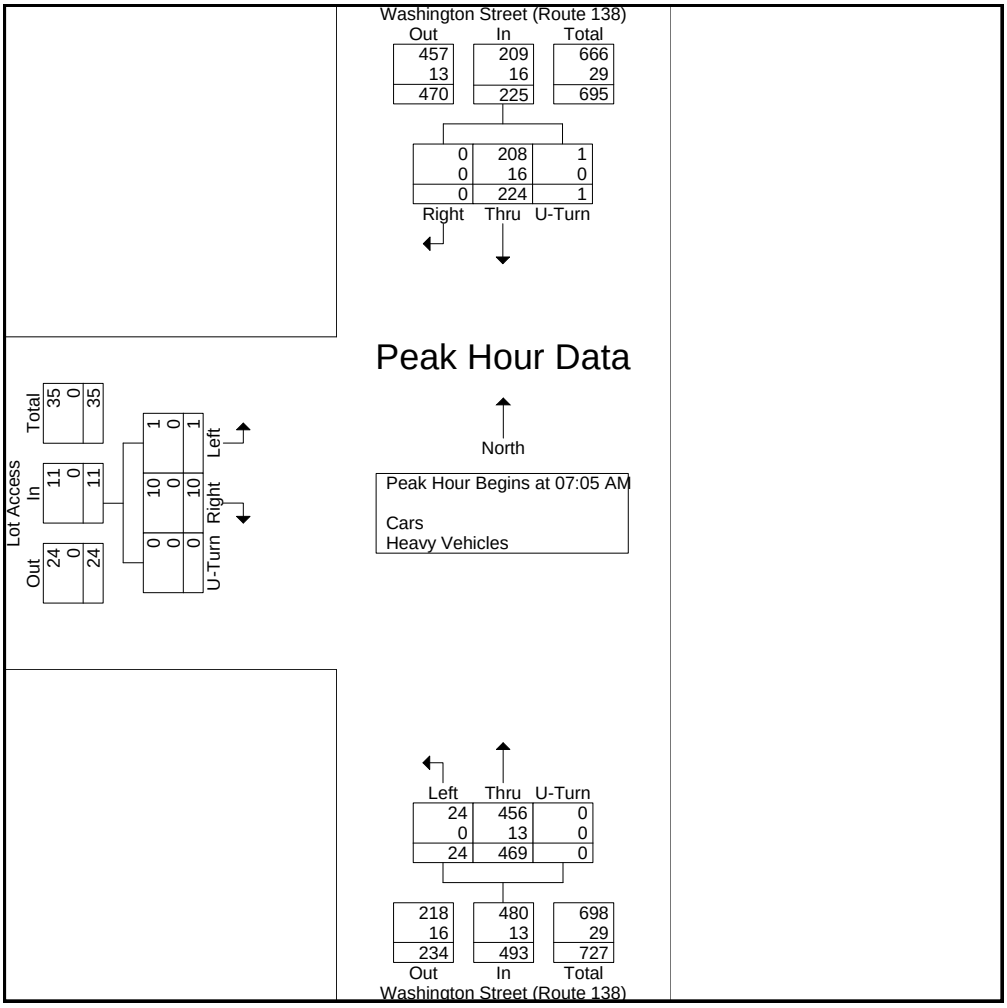
	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:05 AM													
07:05 AM	0	17	0	17	40	0	0	40	0	0	0	0	57
07:10 AM	0	14	0	14	**50**	0	0	50	0	0	0	0	64
07:15 AM	0	18	0	18	42	2	0	44	0	0	0	0	62
07:20 AM	0	16	**1**										
07:25 AM	**0**	**20**	**0**	**20**	**48**	**3**	**0**	**51**	0	0	0	0	71
07:30 AM	0	21	0	21	35	3	0	38	0	0	0	0	59
07:35 AM	0	21	0	21	43	5	0	48	0	0	0	0	69
07:40 AM	0	**31**		**31**	41	**8**	0	49	**6**	**1**		**7**	**87**
07:45 AM	0	26	0	26	34	1	0	35	3	0	0	3	64
07:50 AM	0	12	0	12	36	0	0	36	0	0	0	0	48
07:55 AM	0	15	0	15	35	0	0	35	0	0	0	0	50
08:00 AM	0	13	0	13	34	1	0	35	0	0	0	0	48
Total Volume	0	224	1	225	469	24	0	493	10	1	0	11	729
% App. Total	0	99.6	0.4		95.1	4.9	0		90.9	9.1	0		
PHF	.000	.602	.083	.605	.782	.250	.000	.806	.139	.083	.000	.131	.698
Cars	0	208	1	209	456	24	0	480	10	1	0	11	700
% Cars	0	92.9	100	92.9	97.2	100	0	97.4	100	100	0	100	96.0
Heavy Vehicles	0	16	0	16	13	0	0	13	0	0	0	0	29
% Heavy Vehicles	0	7.1	0	7.1	2.8	0	0	2.6	0	0	0	0	4.0



N/S: Washington Street (Route 138)
W: Lot Access
City, State: Stoughton, MA
Client: VHB/ E. Chan

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File Name : 122868 JJ
Site Code : 10111..4
Start Date : 4/12/2012
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Groups Printed- Cars - Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:40 PM	1	116	0	86	3	0	20	1	0	227
04:55 PM	0	112	0	83	1	0	1	0	0	197
05:10 PM	1	116	1	75	5	0	0	1	0	199
05:25 PM	0	129	0	83	10	0	22	7	0	251
05:40 PM	0	130	0	83	5	0	3	1	0	222
05:55 PM	0	120	0	94	3	1	12	0	0	230
06:10 PM	0	100	0	102	5	0	3	0	0	210
06:25 PM	2	116	1	64	6	0	17	1	0	207
Grand Total	4	939	2	670	38	1	78	11	0	1743
Apprch %	0.4	99.4	0.2	94.5	5.4	0.1	87.6	12.4	0	
Total %	0.2	53.9	0.1	38.4	2.2	0.1	4.5	0.6	0	
Cars	4	921	2	651	37	1	78	11	0	1705
% Cars	100	98.1	100	97.2	97.4	100	100	100	0	97.8
Heavy Vehicles	0	18	0	19	1	0	0	0	0	38
% Heavy Vehicles	0	1.9	0	2.8	2.6	0	0	0	0	2.2

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 5:25:00 PM													
5:25:00 PM	0	129	0	129	83	**10**	0	93	**22**	**7**	**0**	**29**	**251**
5:40:00 PM	0	**130**		**130**	83	5	0	88	3	1	0	4	222
5:55:00 PM	0	120	0	120	94	3	**1**	98	12	0	0	12	230
6:10:00 PM	0	100	0	100	**102**	5	0	**107**	3	0	0	3	210
Total Volume	0	479	0	479	362	23	1	386	40	8	0	48	913
% App. Total	0	100	0		93.8	6	0.3		83.3	16.7	0		
PHF	.000	.921	.000	.921	.887	.575	.250	.902	.455	.286	.000	.414	.909
Cars	0	472	0	472	352	23	1	376	40	8	0	48	896
% Cars	0	98.5	0	98.5	97.2	100	100	97.4	100	100	0	100	98.1
Heavy Vehicles	0	7	0	7	10	0	0	10	0	0	0	0	17
% Heavy Vehicles	0	1.5	0	1.5	2.8	0	0	2.6	0	0	0	0	1.9

N/S: Washington Street (Route 138)
W: Lot Access
City, State: Stoughton, MA
Client: VHB/ E. Chan

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122868 JJ
Site Code : 10111..4
Start Date : 4/12/2012
Page No : 1

Groups Printed- Cars

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:40 PM	1	114	0	82	2	0	20	1	0	220
04:55 PM	0	108	0	80	1	0	1	0	0	190
05:10 PM	1	113	1	73	5	0	0	1	0	194
05:25 PM	0	129	0	81	10	0	22	7	0	249
05:40 PM	0	126	0	81	5	0	3	1	0	216
05:55 PM	0	118	0	91	3	1	12	0	0	225
06:10 PM	0	99	0	99	5	0	3	0	0	206
06:25 PM	2	114	1	64	6	0	17	1	0	205
Grand Total	4	921	2	651	37	1	78	11	0	1705
Apprch %	0.4	99.4	0.2	94.5	5.4	0.1	87.6	12.4	0	
Total %	0.2	54	0.1	38.2	2.2	0.1	4.6	0.6	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 5:25:00 PM													
5:25:00 PM	0	**129**	**0**	**129**	81	**10**	0	91	**22**	**7**	**0**	**29**	**249**
5:40:00 PM	0	126	0	126	81	5	0	86	3	1	0	4	216
5:55:00 PM	0	118	0	118	91	3	**1**	95	12	0	0	12	225
6:10:00 PM	0	99	0	99	**99**	5	0	**104**	3	0	0	3	206
Total Volume	0	472	0	472	352	23	1	376	40	8	0	48	896
% App. Total	0	100	0		93.6	6.1	0.3		83.3	16.7	0		
PHF	.000	.915	.000	.915	.889	.575	.250	.904	.455	.286	.000	.414	.900

N/S: Washington Street (Route 138)
W: Lot Access
City, State: Stoughton, MA
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Groups Printed- Heavy Vehicles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:40 PM	0	2	0	4	1	0	0	0	0	7
04:55 PM	0	4	0	3	0	0	0	0	0	7
05:10 PM	0	3	0	2	0	0	0	0	0	5
05:25 PM	0	0	0	2	0	0	0	0	0	2
05:40 PM	0	4	0	2	0	0	0	0	0	6
05:55 PM	0	2	0	3	0	0	0	0	0	5
06:10 PM	0	1	0	3	0	0	0	0	0	4
06:25 PM	0	2	0	0	0	0	0	0	0	2
Grand Total	0	18	0	19	1	0	0	0	0	38
Apprch %	0	100	0	95	5	0	0	0	0	
Total %	0	47.4	0	50	2.6	0	0	0	0	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:40:00 PM													
4:40:00 PM	0	2	0	2	**4**	**1**	0	**5**	0	0	0	0	**7**
4:55:00 PM	0	**4**		**4**	3	0	0	3	0	0	0	0	7
5:10:00 PM	0	3	0	3	2	0	0	2	0	0	0	0	5
5:25:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
Total Volume	0	9	0	9	11	1	0	12	0	0	0	0	21
% App. Total	0	100	0		91.7	8.3	0		0	0	0		
PHF	.000	.563	.000	.563	.688	.250	.000	.600	.000	.000	.000	.000	.750

N/S: Washington Street (Route 138)
W: Lot Access
City, State: Stoughton, MA
Client: VHB/ E. Chan

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Start Date : 4/12/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Washington Street (Route 138) From North			Washington Street (Route 138) From South			Lot Access From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:40 PM	0	0	2	0	0	0	0	0	5	7
04:55 PM	0	0	0	0	0	0	0	0	0	0
05:10 PM	0	0	0	0	0	0	0	0	2	2
05:25 PM	0	0	1	0	0	0	0	0	0	1
05:40 PM	0	0	0	0	0	0	0	0	0	0
05:55 PM	0	0	0	0	0	0	0	0	1	1
06:10 PM	0	0	0	0	0	0	0	0	1	1
06:25 PM	0	0	1	0	0	0	0	0	2	3
Grand Total	0	0	4	0	0	0	0	0	11	15
Apprch %	0	0	100	0	0	0	0	0	100	
Total %	0	0	26.7	0	0	0	0	0	73.3	

	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 4:40:00 PM to 6:25:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:40:00 PM													
4:40:00 PM	0	0	**2**	**2**	0	0	0	0	0	0	**5**	**5**	**7**
4:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	2
5:25:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	3	3	0	0	0	0	0	0	7	7	10
% App. Total	0	0	100		0	0	0		0	0	100		
PHF	.000	.000	.375	.375	.000	.000	.000	.000	.000	.000	.350	.350	.357

N/S: Washington Street (Route 138)
W: Lot Access
City, State: Stoughton, MA
Client: VHB/ E. Chan

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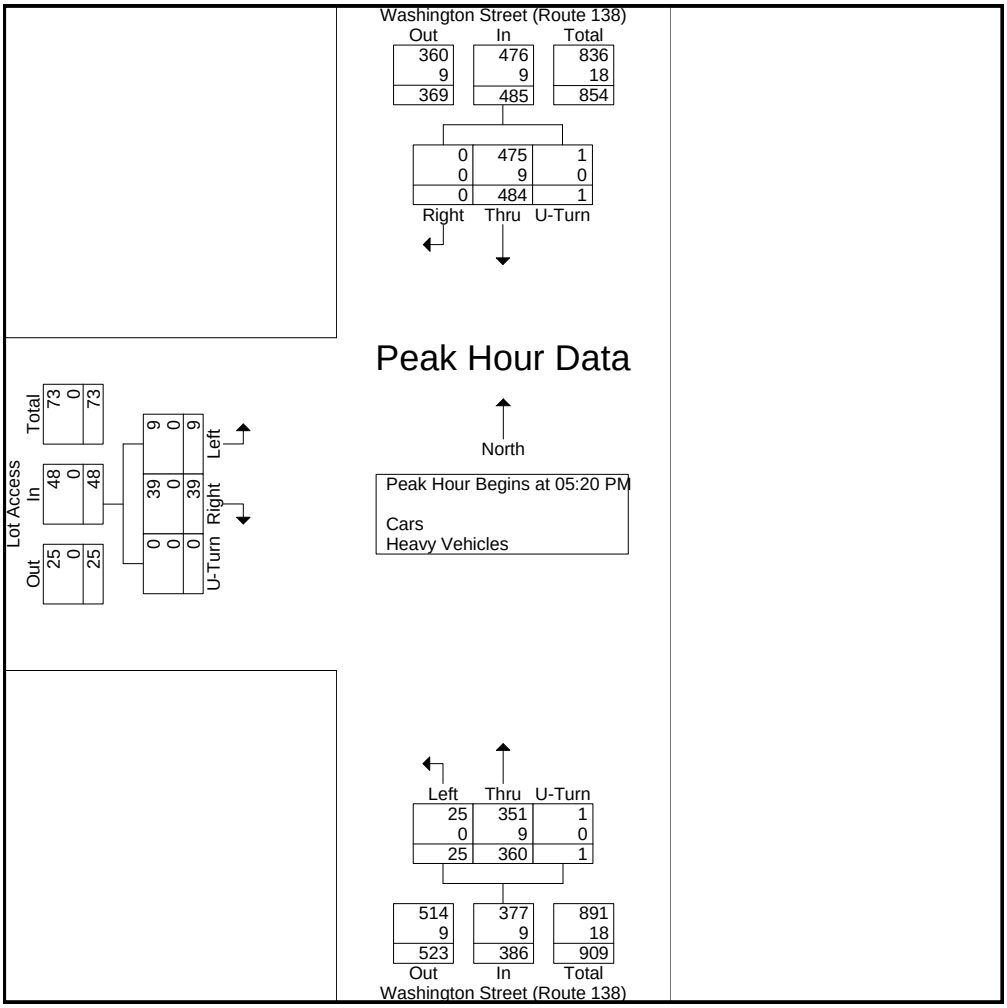
	Washington Street (Route 138) From North				Washington Street (Route 138) From South				Lot Access From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:40 PM to 06:35 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:20 PM													
05:20 PM	0	42	**1**	**43**	**26**	**3**	**0**	**29**	**0**	**1**	**0**	**1**	**73**
05:25 PM	**0**	**35**	**0**	**35**	**27**	**7**	0	34	0	0	0	0	69
05:30 PM	0	46	0	46	33	2	0	35	**18**	**7**		**25**	**106**
05:35 PM	0	48	0	48	23	1	0	24	4	0	0	4	76
05:40 PM	0	**53**		**53**	26	3	0	29	3	1	0	4	86
05:45 PM	0	40	0	40	26	0	0	26	0	0	0	0	66
05:50 PM	0	37	0	37	31	2	0	33	0	0	0	0	70
05:55 PM	0	46	0	46	36	1	**1**	38	0	0	0	0	84
06:00 PM	0	29	0	29	28	1	0	29	1	0	0	1	59
06:05 PM	0	45	0	45	30	1	0	31	11	0	0	11	87
06:10 PM	0	32	0	32	**39**	1	0	**40**	2	0	0	2	74
06:15 PM	0	31	0	31	35	3	0	38	0	0	0	0	69
Total Volume	0	484	1	485	360	25	1	386	39	9	0	48	919
% App. Total	0	99.8	0.2		93.3	6.5	0.3		81.2	18.8	0		
PHF	.000	.761	.083	.763	.769	.298	.083	.804	.181	.107	.000	.160	.722
Cars	0	475	1	476	351	25	1	377	39	9	0	48	901
% Cars	0	98.1	100	98.1	97.5	100	100	97.7	100	100	0	100	98.0
Heavy Vehicles	0	9	0	9	9	0	0	9	0	0	0	0	18
% Heavy Vehicles	0	1.9	0	1.9	2.5	0	0	2.3	0	0	0	0	2.0



Parking Lot Counts

MBTA Parking Lot counts
04.12.2012

	Total Spaces			
Parking Lot	**Monthly**	**Daily**	**Non-MBTA**	**Total**
A	**-**	**80**	**-**	**80**
B	**-**	**99**	**-**	**99**
C	**49**	**25**	**-**	**74**
D	**-**	**67**	**-**	**67**
E	**-**	**86**	**-**	**86**
Total	**49**	**357**	**0**	**406**

	6:30 AM				8:30 AM			
Parking Lot	**Monthly**	**Daily**	**Non-MBTA**	**Total**	**Monthly**	**Daily**	**Non-MBTA**	**Total**
A	-	0	0	**0**	-	31	6	**37**
B	-	0	-	**0**	-	Full	-	**0**
C	1	0		**1**	28	20		**48**
D	-	5		**5**		60		**60**
E	0	0	0	**0**		30		**30**
Total	**1**	**5**	**0**	**6**	**28**	**141**	**6**	**175**

	4:40 PM				6:40 PM			
Parking Lot	**Monthly**	**Daily**	**Non-MBTA**	**Total**	**Monthly**	**Daily**	**Non-MBTA**	**Total**
A		33		**33**		10		**10**
B		94		**94**		23		**23**
C	23	21		**44**	8	1		**9**
D		61		**61**		11		**11**
E		34		**34**		12		**12**
Total	**23**	**243**	**0**	**266**	**8**	**57**	**0**	**65**

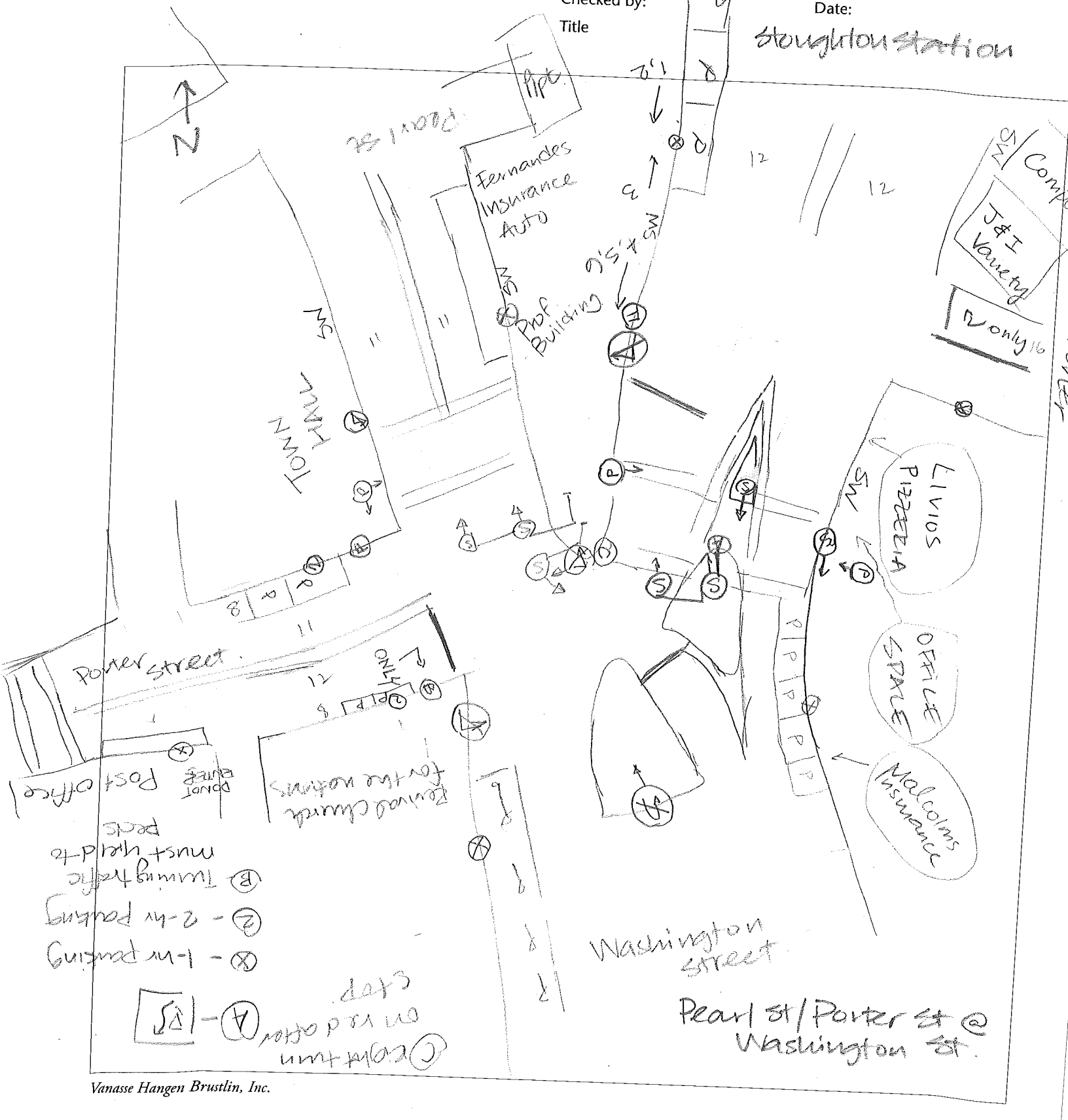
Intersection Inventory

VHB *Computations*

Project:
Location:
Calculated by:
Checked by:
Title

Project # 10111.34
Sheet 1 of 10
Date:
Date:

Stoughton Station



VHB *Computations*

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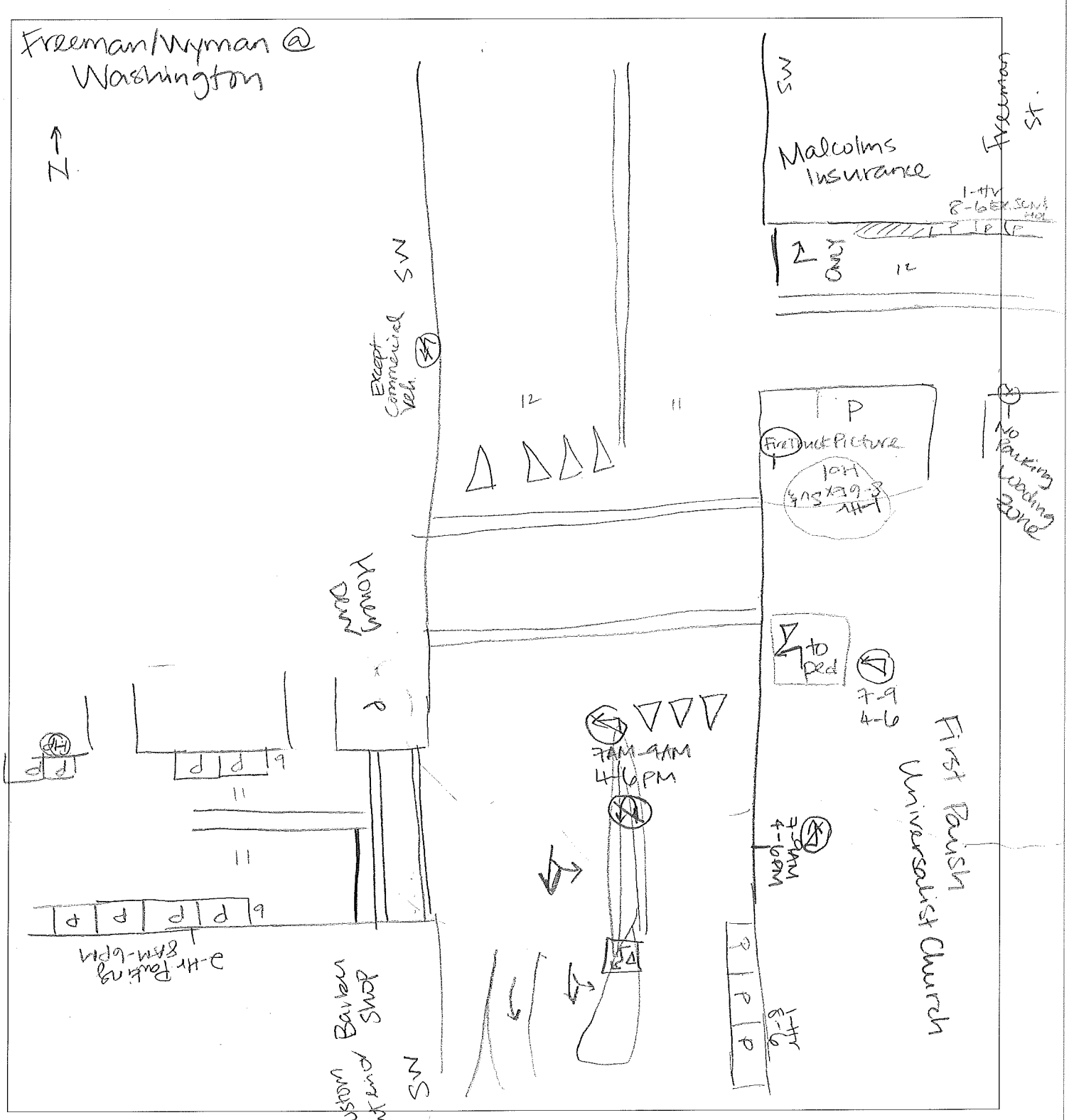
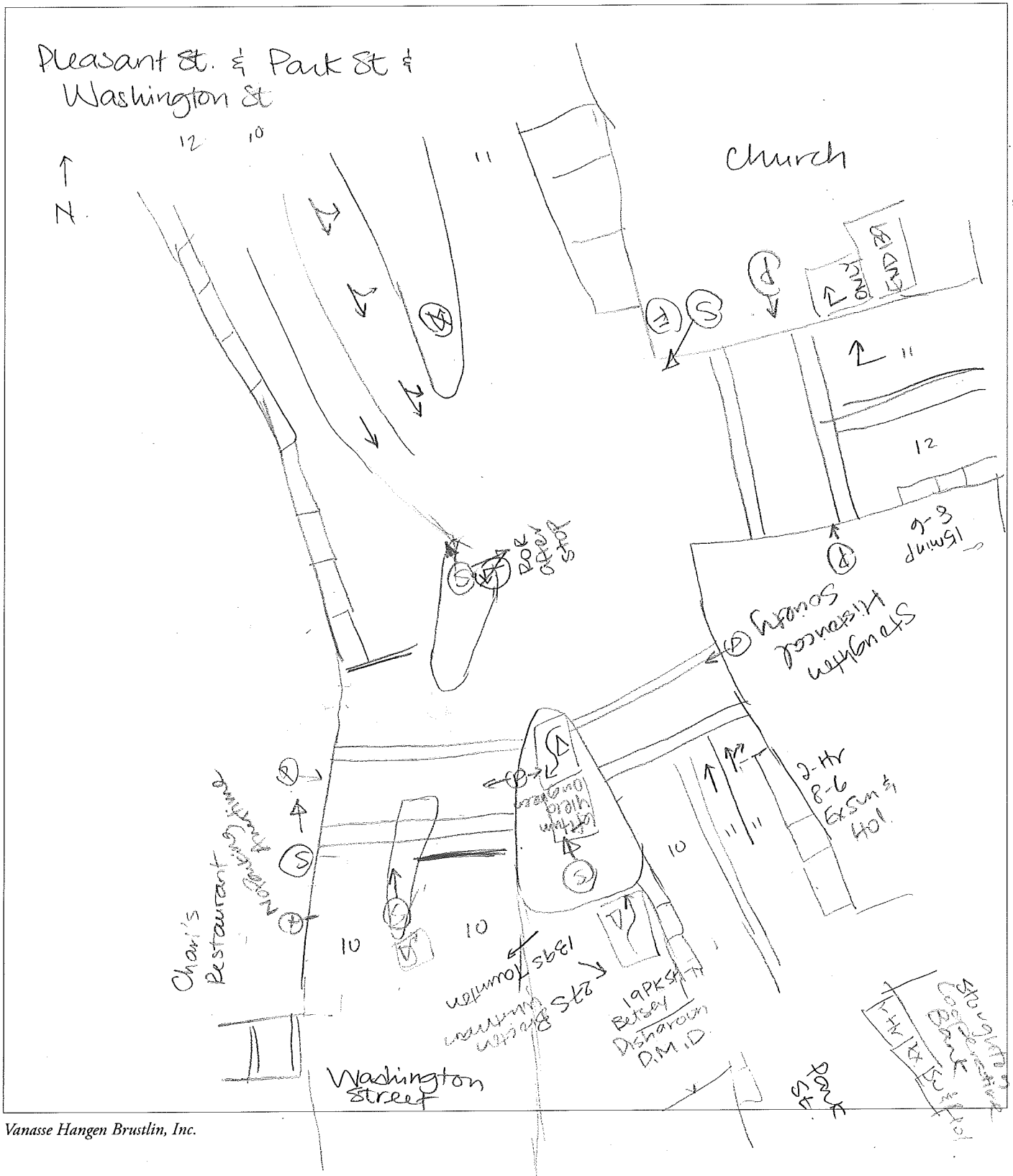
Location:		Sheet	2 of 10
Calculated by:		Date:	
Checked by:		Date:	
Title	Stoughton Station		



VHB *Computations*

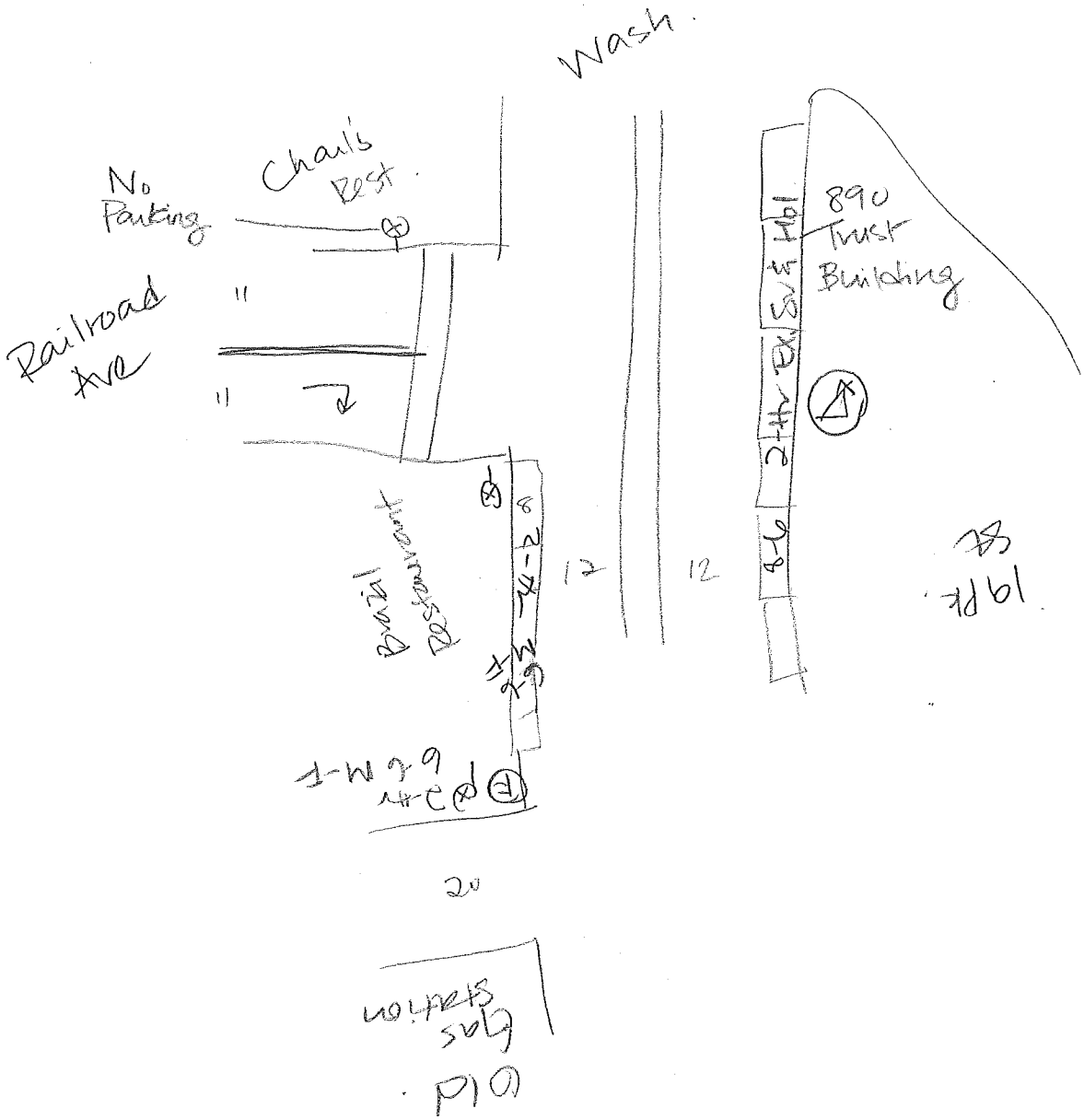
Project:		Project #	10111.34
Location:		Sheet	3 of 10
Calculated by:		Date:	
Checked by:		Date:	
Title	Stoughton Station		



VHB *Computations*

Project:		Project #	10111.34
Location:		Sheet	4 of 10
Calculated by:		Date:	
Checked by:		Date:	
Title	Stoughton Station		

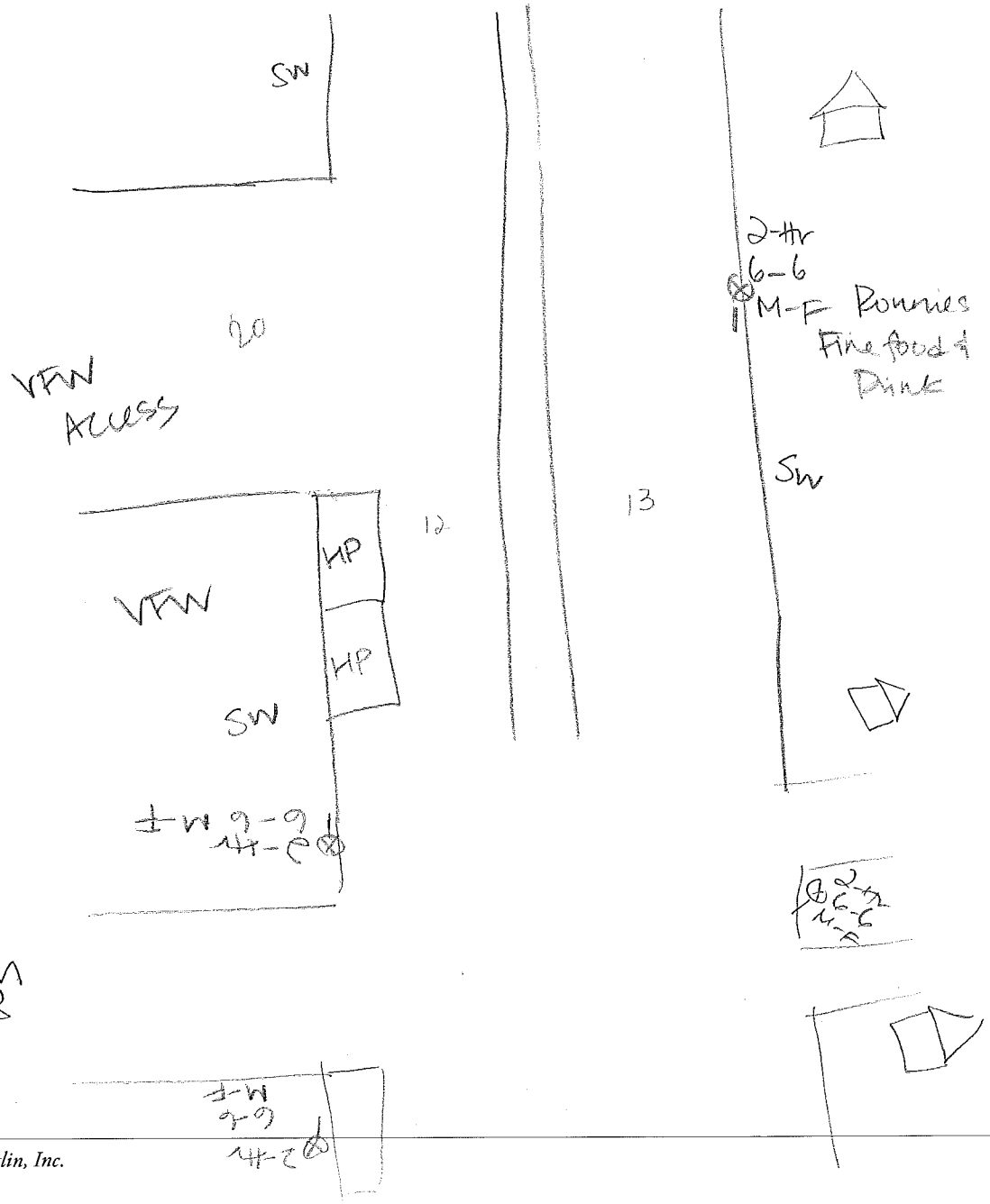
Washington St & Railroad Ave



VHB *Computations*

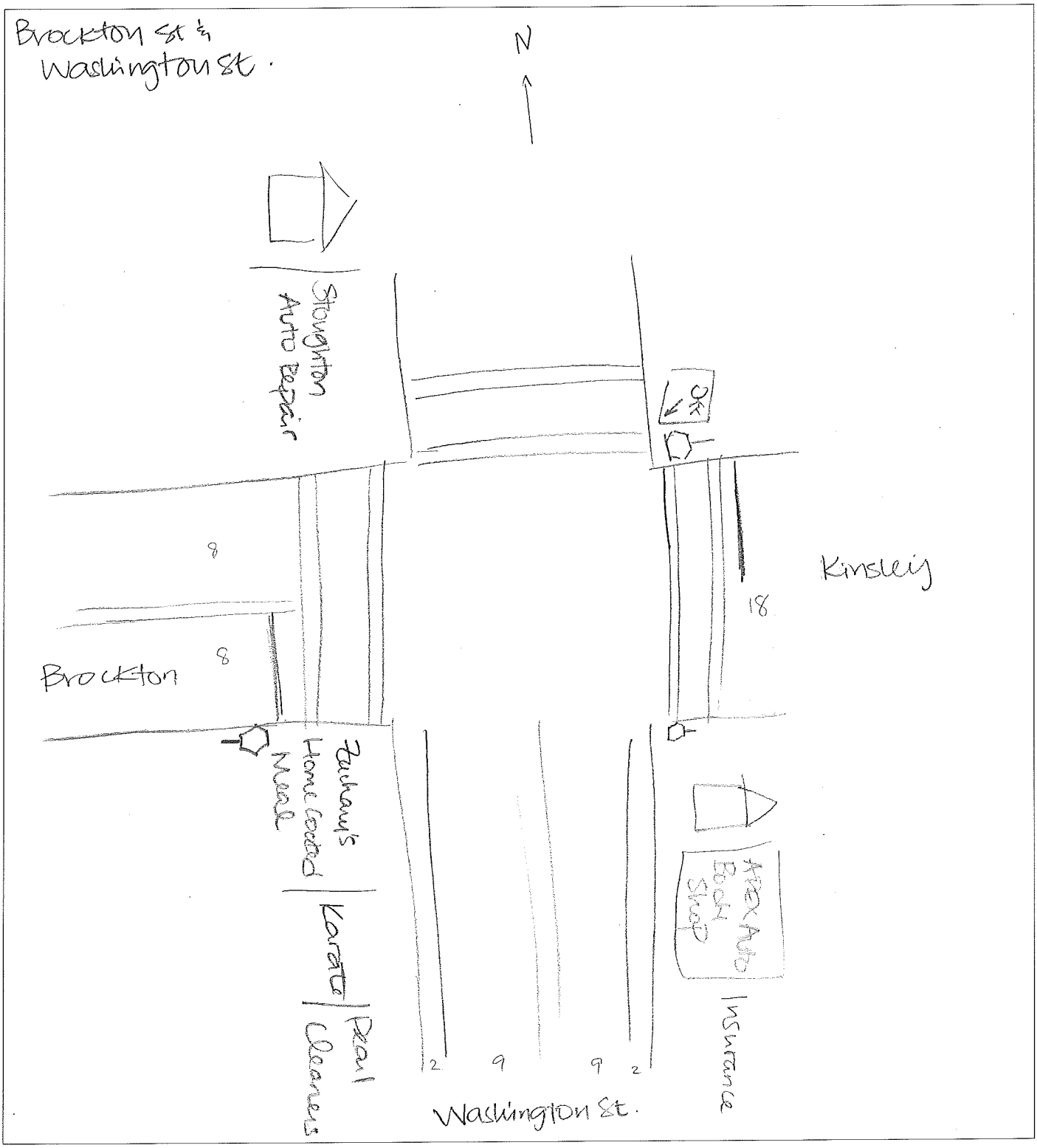
Project:	Project # 10111.34
Location:	Sheet 5 of 10
Calculated by:	Date:
Checked by:	Date:
Title Stoughton Station	

VFW Access &
Washington Street



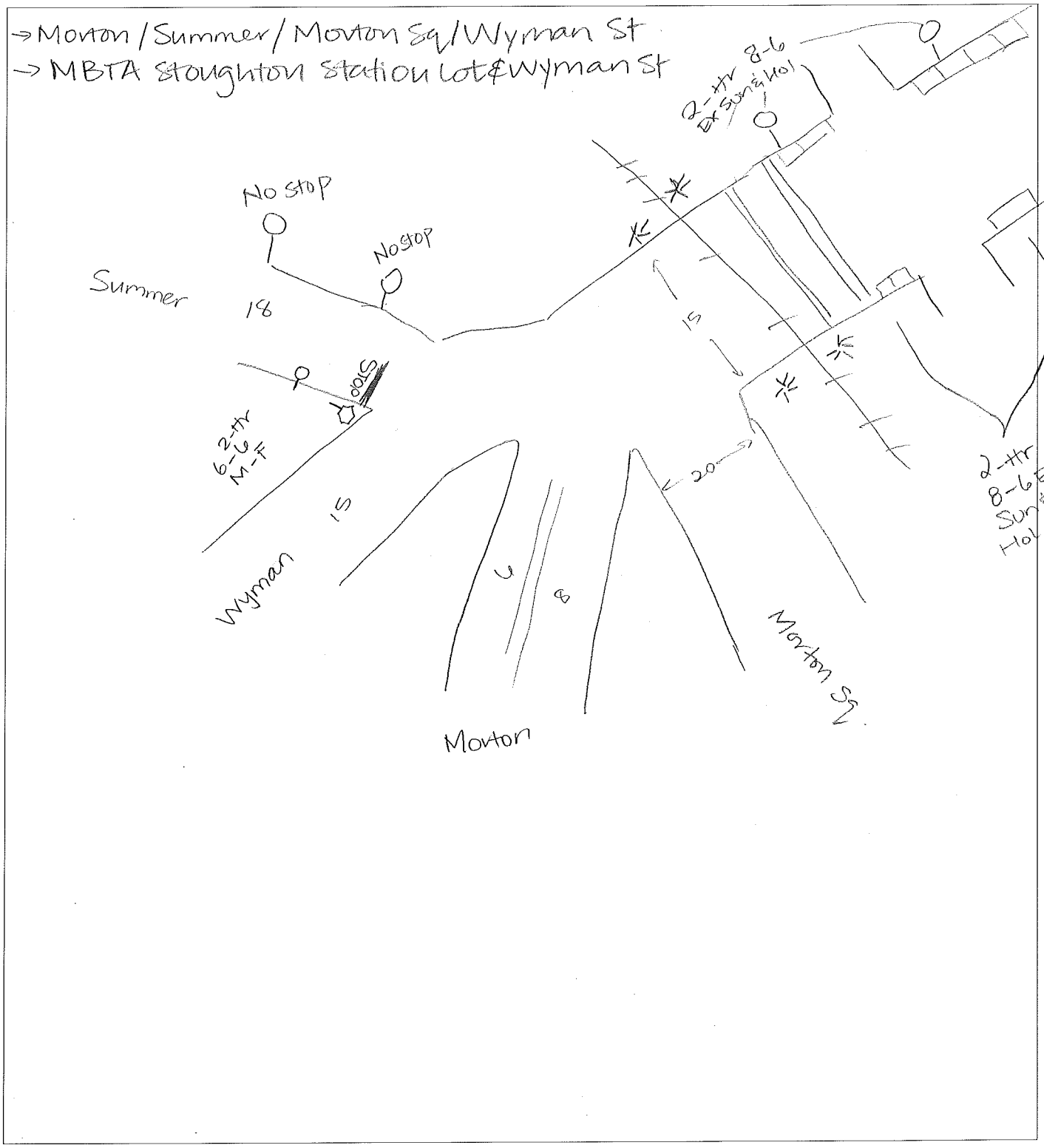
VHB *Computations*

Project:	Project # 10111.34
Location:	Sheet 6 of 10
Calculated by:	Date:
Checked by:	Date:
Title Stoughton Station	



VHB *Computations*

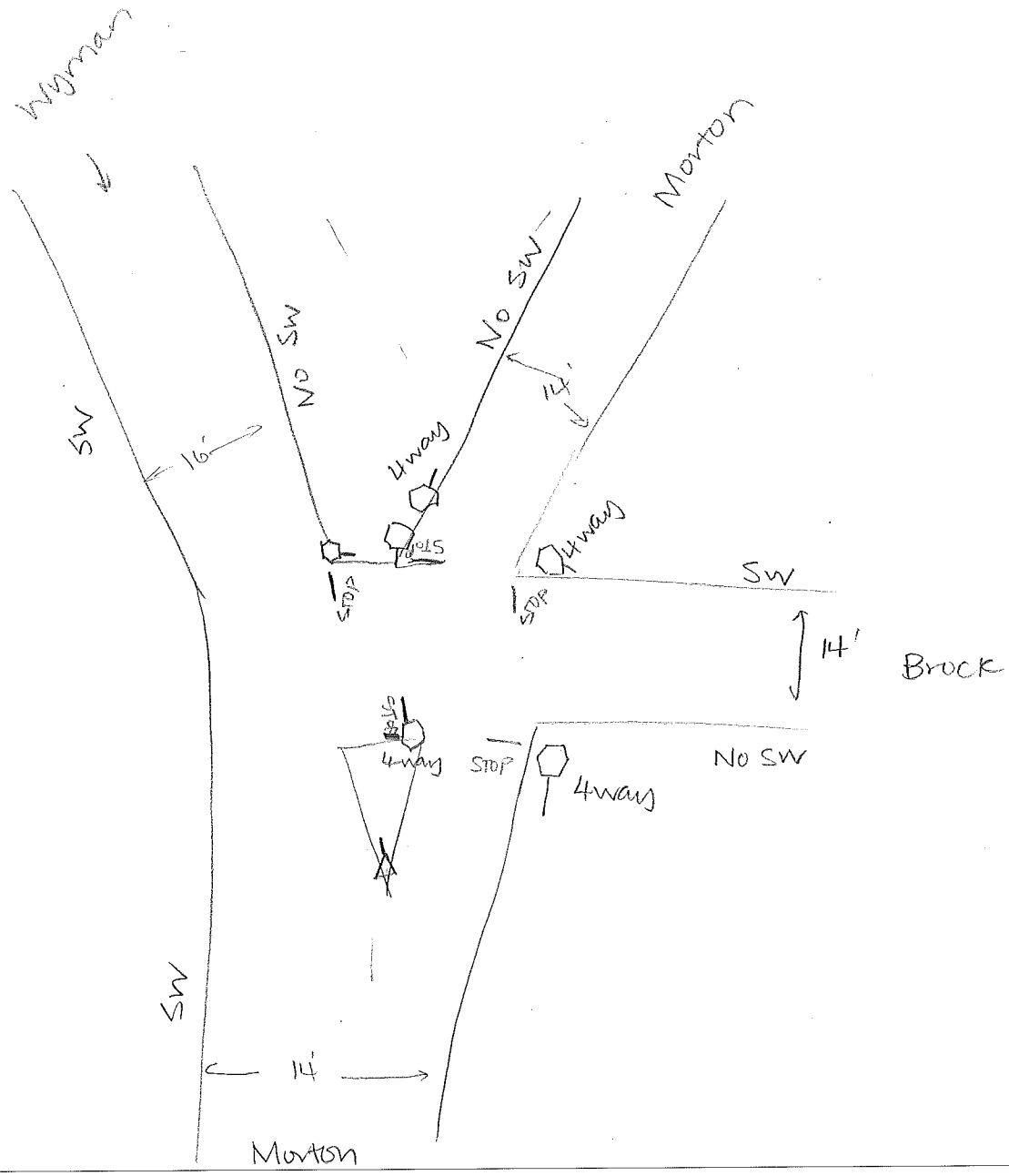
Project:		Project #	10111.34
Location:		Sheet	7 of 10
Calculated by:		Date:	
Checked by:		Date:	
Title	Stoughton Station		



VHB *Computations*

Project:		Project #	10111.34
Location:		Sheet	8 of 10
Calculated by:		Date:	
Checked by:		Date:	
Title	Stoughton Station		

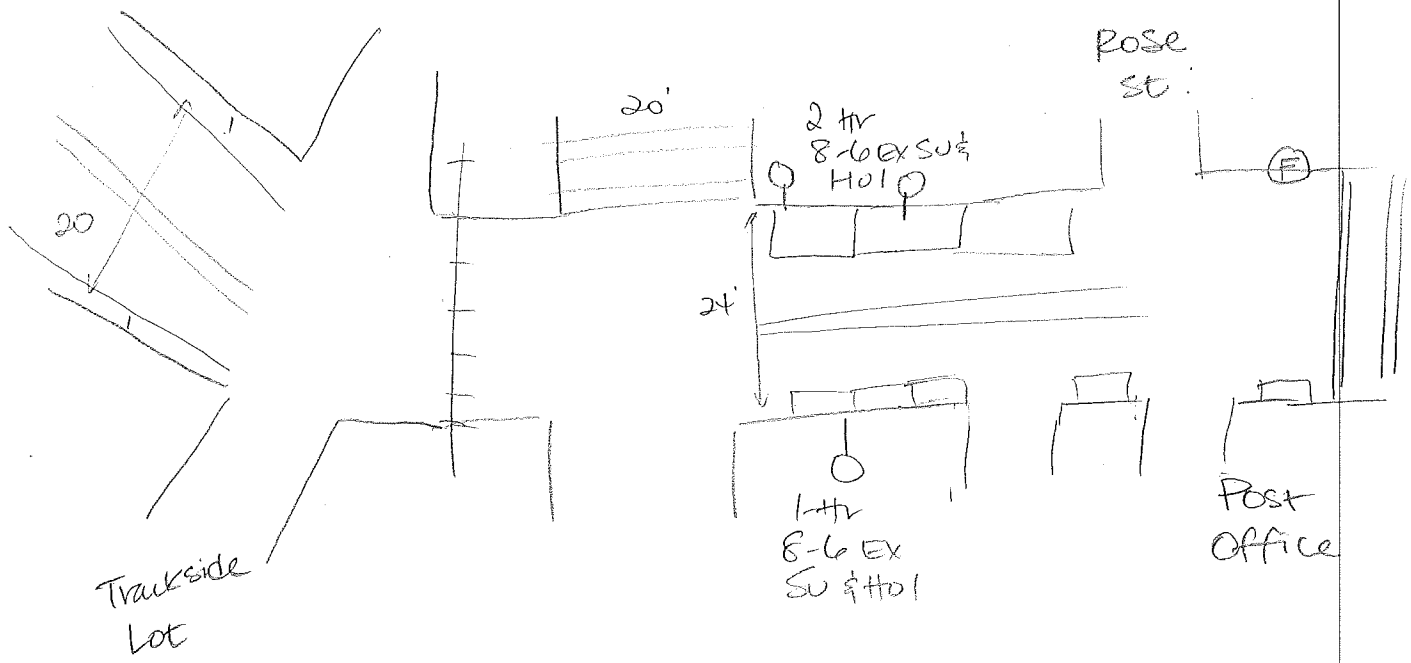
Morton St / Wyman St / Brock St



VHB *Computations*

Project:		Project #	10111.34
Location:		Sheet	9 of 10
Calculated by:		Date:	
Checked by:		Date:	
Title	Stoughton Station		

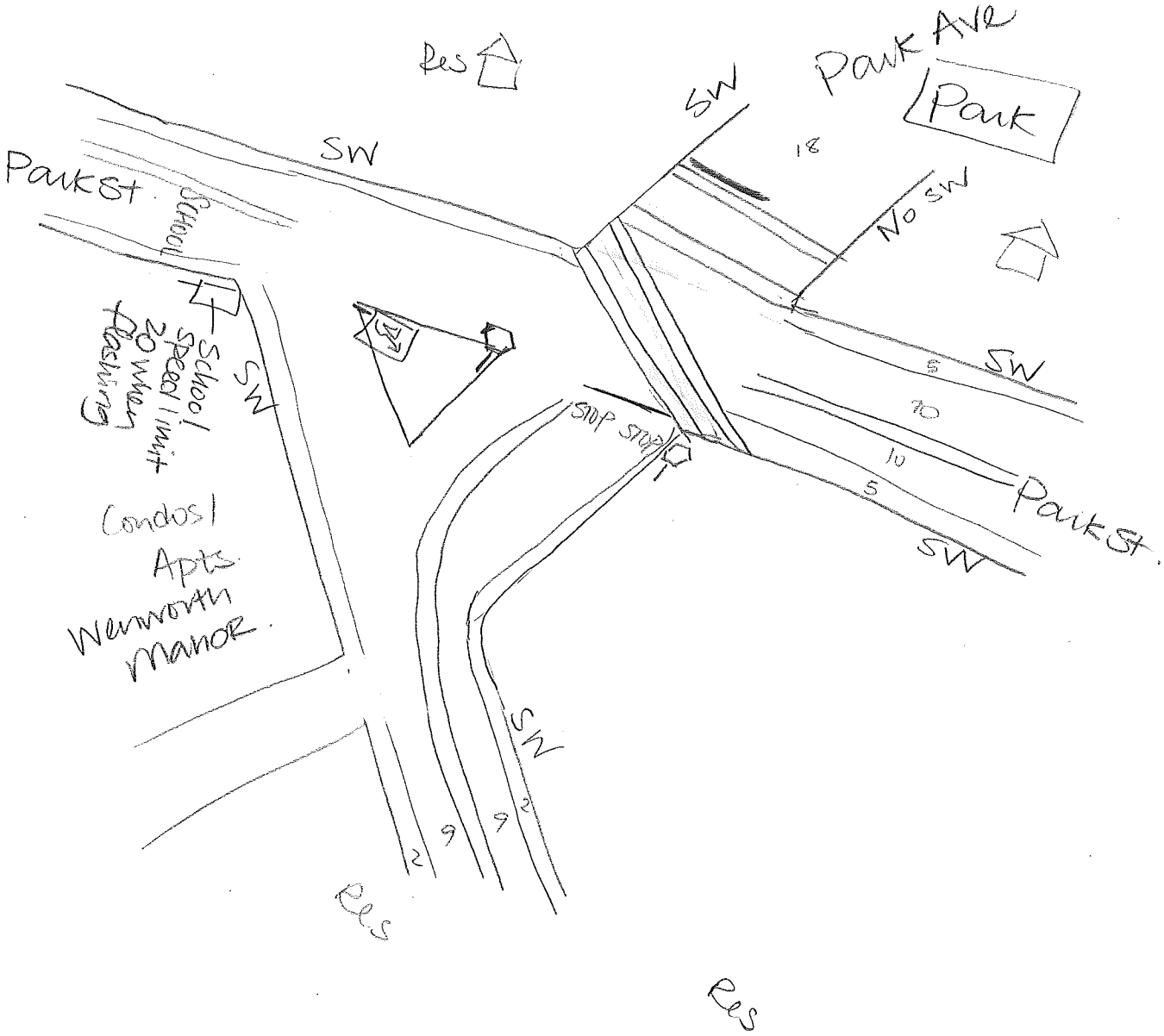
Porter St & MBTA Lots / Trackside Lot



VHB *Computations*

Project:		Project #	10114.34
Location:		Sheet	10 of 10
Calculated by:		Date:	
Checked by:		Date:	
Title	Stoughton Station		

Park St / Summer St / Park Ave



Crash Data

Brock at Kinsley/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/17/2007	5:15 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	BROCK STREET / WASHINGTON STREET	V1:Westbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	2/15/2007	6:50 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Ice	Daylight	Snow	KINSLEY STREET / WASHINGTON STREET	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/15/2007	8:20 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not Reported	MORTON STREET / BROCK STREET	V1:Northbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	2/17/2007	2:03 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/24/2007	10:40 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / KINSLEY STREET	V1:Southbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/24/2007	11:38 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Cloudy	WASHINGTON STREET / KINSLEY STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	6/19/2007	5:02 PM	Non-fatal injury	3	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / KINSLEY STREET / BROCK STREET	V1:Northbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2007	9/14/2007	6:55 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Dusk	Clear	WASHINGTON STREET Rte 138 / KINSLEY STREET / BROCK STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	10/1/2007	8:47 AM	Non-fatal injury	2	1	0	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N / KINSLEY STREET	V1:Northbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/12/2007	5:20 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	BROCK STREET / MORTON STREET	V1:Eastbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2007	12/7/2007	3:56 PM	Non-fatal injury	2	4	0	Angle	Snow	Dusk	Snow	WASHINGTON STREET Rte 138 / KINSLEY STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/17/2007	7:31 AM	Non-fatal injury	1	2	0	Single vehicle crash	Ice	Daylight	Clear		V1:Westbound	V1: Collision with light pole or other post/support
STOUGHTON	2008	2/27/2008	2:48 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Northbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2008	4/28/2008	9:36 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Cloudy/Rain	WASHINGTON STREET / KINSLEY STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	5/6/2008	4:52 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / BROCK STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/18/2008	1:25 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/4/2008	3:09 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Northbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/22/2008	5:00 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / KINSLEY STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	10/24/2008	4:00 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear/Unknown	WASHINGTON STREET Rte 138 / KINSLEY STREET / BROCK STREET	V1:Southbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	10/30/2008	7:48 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Other	KINSLEY STREET / PARK STREET	V1:Northbound / V2:Southbound	V1: Collision with other movable object / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/14/2008	12:22 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Wet	Daylight	Cloudy/Rain	PARK STREET / KINSLEY STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/20/2008	5:15 AM	Not Reported	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 / BROCK STREET / KINSLEY STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2009	2/13/2009	3:14 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Westbound / V2:Eastbound	V1: Collision with parked motor vehicle / V2: Other
STOUGHTON	2009	4/27/2009	10:04 AM	Non-fatal injury	3	2	0	Rear-to-rear	Dry	Daylight	Clear	PARK STREET / KINSLEY STREET	V1:Northbound / V2:Northbound / V3:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2009	5/6/2009	8:49 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Cloudy	BROCK STREET / Rte 138 / WASHINGTON STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/11/2009	9:47 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WYMAN STREET / BROCK STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/15/2009	9:02 PM	Non-fatal injury	2	3	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/25/2009	2:45 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	KINSLEY STREET / WASHINGTON STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	10/15/2009	9:02 AM	Non-fatal injury	2	3	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/5/2009	10:27 AM	Non-fatal injury	2	2	0	Rear-end	Wet	Daylight	Cloudy/Rain	KINSLEY STREET / PARK STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/25/2009	10:03 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Rain	PARK STREET / KINSLEY STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	1/14/2008	9:20 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Snow	Daylight	Snow		V1:Southbound	V1: Collision with utility pole
STOUGHTON	2009	2/7/2009	10:49 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/16/2009	8:13 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Brock at Wyman/Morton

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/11/2007	5:26 PM	Non-fatal injury	2	1	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / MORTON STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/17/2007	5:15 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	BROCK STREET / WASHINGTON STREET	V1:Westbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	2/5/2007	8:33 AM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	MORTON STREET / ROGERS DRIVE	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/9/2007	11:57 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/15/2007	8:20 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not Reported	MORTON STREET / BROCK STREET	V1:Northbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	2/17/2007	2:03 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/23/2007	1:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	2/23/2007	8:18 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Cloudy		V1:Westbound / V2:Westbound	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/25/2007	3:59 PM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Daylight	Clear	MORTON STREET / PLAIN STREET	V1:Westbound	V1: Collision with fence
STOUGHTON	2007	3/8/2007	9:44 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2007	4/17/2007	4:21 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dusk	Rain/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/12/2007	3:00 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	ROGERS DRIVE / MORTON STREET	V1:Westbound / V2:Eastbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	5/29/2007	9:58 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	6/3/2007	4:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Cloudy		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	6/19/2007	5:02 PM	Non-fatal injury	3	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / KINSLEY STREET / BROCK STREET	V1:Northbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2007	7/2/2007	7:20 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	8/30/2007	5:21 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / MORTON STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/12/2007	7:35 AM	Unknown	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Eastbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/14/2007	6:55 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Dusk	Clear	WASHINGTON STREET Rte 138 / KINSLEY STREET / BROCK STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	10/12/2007	5:20 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	BROCK STREET / MORTON STREET	V1:Eastbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2007	10/16/2007	10:40 AM	Property damage only (none injured)	2	0	0	Not reported	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / MORTON STREET	V1:Not reported / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	10/20/2007	2:16 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/25/2007	9:31 AM	Property damage only (none injured)	2	0	0	Head-on	Dry	Daylight	Cloudy	MORTON STREET / PERRY STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/17/2007	10:25 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/21/2007	6:54 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dark - roadway not lighted	Rain	WASHINGTON STREET Rte 138 N / MORTON STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/13/2007	8:54 AM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Clear/Cloudy	WYMAN STREET / WASHINGTON STREET	V1:Eastbound	V1: Collision with light pole or other
STOUGHTON	2007	12/16/2007	12:14 PM	Non-fatal injury	1	1	0	Sideswipe, same direction	Ice	Daylight	Sleet, hail (freezing rain or drizzle)		V1:Southbound	V1: Collision with pedestrian
STOUGHTON	2007	12/16/2007	7:33 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Ice	Dark - lighted roadway	Rain/Snow		V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/21/2007	3:36 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Ice	Daylight	Snow		V1:Southbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2008	1/8/2008	1:55 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Westbound	V1: Collision with motor vehicle in traffic
STOUGHTON	2008	2/1/2008	10:37 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Rain	MORTON STREET / PLAIN STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/3/2008	6:19 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear		V1:Eastbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with parked motor vehicle
STOUGHTON	2008	3/4/2008	12:56 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/27/2008	11:46 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Westbound	V1: Collision with light pole or other
STOUGHTON	2008	4/3/2008	2:56 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/16/2008	8:07 PM	Non-fatal injury	2	2	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/30/2008	1:36 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	5/6/2008	4:52 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / BROCK STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/11/2008	6:15 AM	Non-fatal injury	2	1	0	Not reported	Dry	Daylight	Clear	WASHINGTON STREET / MORTON STREET	V1:Northbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2008	6/18/2008	1:25 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	8/31/2008	9:00 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/4/2008	11:34 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	MORTON STREET / PLAIN STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/4/2008	3:09 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Northbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/7/2008	3:36 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported

Brock at Wyman/Morton

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2008	10/24/2008	4:00 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear/Unknown	WASHINGTON STREET Rte 138 / KINSLEY STREET / BROCK STREET	V1:Southbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	11/3/2008	3:21 PM	Non-fatal injury	1	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PARK STREET / PLEASANT STREET	V1:Eastbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)
STOUGHTON	2008	11/20/2008	5:15 AM	Not Reported	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 / BROCK STREET / KINSLEY STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	12/8/2008	11:00 AM	Not Reported	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / WYMAN STREET	V1:Southbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	12/19/2008	3:10 PM	Property damage only (none injured)	2	0	0	Rear-end	Ice	Daylight	Snow/Severe crosswinds	WASHINGTON STREET / MORTON STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/22/2008	9:18 AM	Property damage only (none injured)	2	0	0	Angle	Ice	Daylight	Clear	PLAIN STREET / MORTON STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/14/2009	8:35 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Ice	Dark - lighted roadway	Clear	WYMAN STREET / WATER STREET	V1:Northbound	V1: Collision with tree
STOUGHTON	2009	1/15/2009	5:46 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/21/2009	3:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Snow	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound	V1: Collision with light pole or other
STOUGHTON	2009	2/24/2009	5:27 PM	Non-fatal injury	2	2	0	Head-on	Dry	Dusk	Clear	WASHINGTON STREET Rte 27 S / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	4/26/2009	2:23 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Unknown		V1:Eastbound	V1: Collision with utility pole
STOUGHTON	2009	5/6/2009	8:49 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Cloudy	BROCK STREET / Rte 138 / WASHINGTON STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/11/2009	9:47 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WYMAN STREET / BROCK STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/12/2009	12:44 PM	Non-fatal injury	2	2	0	Head-on	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET / FREEMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/8/2009	8:53 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/20/2009	8:17 PM	Non-fatal injury	2	1	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/13/2009	1:30 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLAIN STREET / MORTON STREET	V1:Southbound / V2:Eastbound	V1: Not reported / V2: Not reported
STOUGHTON	2009	9/15/2009	9:02 PM	Non-fatal injury	2	3	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/21/2009	11:56 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	MORTON STREET / GREG ROAD	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	10/15/2009	9:02 AM	Non-fatal injury	2	3	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / BROCK STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/23/2009	8:30 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Cloudy		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/24/2009	7:04 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Rain		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/25/2009	9:44 PM	Non-fatal injury	1	1	0	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Fog, smog, smoke		V1:Southbound	V1: Collision with tree
STOUGHTON	2009	12/30/2009	3:32 PM	Property damage only (none injured)	2	0	0	Head-on	Dry	Daylight	Clear		V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Freeman at Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/2/2007	8:10 AM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Clear		V1:Not reported / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with parked motor vehicle
STOUGHTON	2007	1/10/2007	7:14 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/22/2007	9:57 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	4/25/2007	5:16 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain	WASHINGTON STREET / FREEMAN STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	6/18/2007	11:39 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Unknown		V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/5/2007	7:06 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / FREEMAN STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/3/2007	5:07 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET / FREEMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/23/2007	3:39 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/7/2008	12:04 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Snow	WASHINGTON STREET / FREEMAN STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/19/2008	3:11 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/26/2008	3:39 PM	Not Reported	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Not reported / V2:Not reported	V1: Collision with parked motor vehicle / V2:
STOUGHTON	2008	6/27/2008	9:05 AM	Non-fatal injury	2	2	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / FREEMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	10/23/2008	5:34 AM	Property damage only (none injured)	4	0	0	Angle	Dry	Daylight	Cloudy/Clear		V1:Northbound / V2:Eastbound / V3:Northbound / V4:Northbound	V1: Not reported / V2: Not reported / V3: Collision with motor vehicle in traffic / V4: Not reported
STOUGHTON	2009	1/17/2009	4:09 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dusk	Clear	FREEMAN STREET / WASHINGTON STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/12/2009	12:44 PM	Non-fatal injury	2	2	0	Head-on	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET / FREEMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/18/2009	4:29 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Cloudy/Clear	WASHINGTON STREET / FREEMAN STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/17/2009	12:57 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/22/2009	8:03 AM	Property damage only (none injured)	2	0	0	Angle	Snow	Daylight	Clear		V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/28/2009	9:04 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Southbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported

Morton at Summer/Wyman/Porter

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/11/2007	5:26 PM	Non-fatal injury	2	1	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / MORTON STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/5/2007	8:33 AM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	MORTON STREET / ROGERS DRIVE	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/9/2007	11:57 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/15/2007	8:20 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Not Reported	MORTON STREET / BROCK STREET	V1:Northbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	2/23/2007	1:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	2/23/2007	8:18 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Cloudy		V1:Westbound / V2:Westbound	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/25/2007	3:59 PM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Daylight	Clear	MORTON STREET / PLAIN STREET	V1:Westbound	V1: Collision with fence
STOUGHTON	2007	3/8/2007	9:44 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2007	4/17/2007	4:21 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dusk	Rain/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/12/2007	3:00 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	ROGERS DRIVE / MORTON STREET	V1:Westbound / V2:Eastbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	5/29/2007	9:58 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	6/3/2007	4:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Cloudy		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	7/2/2007	7:20 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	8/30/2007	5:21 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / MORTON STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/12/2007	7:35 AM	Unknown	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Eastbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/12/2007	5:20 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	BROCK STREET / MORTON STREET	V1:Eastbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2007	10/16/2007	10:40 AM	Property damage only (none injured)	2	0	0	Not reported	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / MORTON STREET	V1:Not reported / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	10/20/2007	2:16 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/25/2007	9:31 AM	Property damage only (none injured)	2	0	0	Head-on	Dry	Daylight	Cloudy	MORTON STREET / PERRY STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/17/2007	10:25 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/21/2007	6:54 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dark - roadway not lighted	Rain	WASHINGTON STREET Rte 138 N / MORTON STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/13/2007	8:54 AM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Clear/Cloudy	WYMAN STREET / WASHINGTON STREET	V1:Eastbound	V1: Collision with light pole or other
STOUGHTON	2007	12/16/2007	12:14 PM	Non-fatal injury	1	1	0	Sideswipe, same direction	Ice	Daylight	Sleet, hail (freezing rain or drizzle)		V1:Southbound	V1: Collision with pedestrian
STOUGHTON	2007	12/16/2007	7:33 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Ice	Dark - lighted roadway	Rain/Snow		V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/21/2007	3:36 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Ice	Daylight	Snow		V1:Southbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2008	1/8/2008	1:55 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Westbound	V1: Collision with motor vehicle in traffic
STOUGHTON	2008	2/1/2008	10:37 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Rain	MORTON STREET / PLAIN STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/3/2008	6:19 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear		V1:Eastbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with parked motor vehicle
STOUGHTON	2008	3/4/2008	12:56 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/27/2008	11:46 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Westbound	V1: Collision with light pole or other
STOUGHTON	2008	4/3/2008	2:56 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/16/2008	8:07 PM	Non-fatal injury	2	2	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/19/2008	7:07 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with parked motor vehicle
STOUGHTON	2008	4/30/2008	1:36 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/11/2008	6:15 AM	Non-fatal injury	2	1	0	Not reported	Dry	Daylight	Clear	WASHINGTON STREET / MORTON STREET	V1:Northbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2008	8/31/2008	9:00 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/4/2008	11:34 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	MORTON STREET / PLAIN STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/7/2008	3:36 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2008	11/3/2008	3:21 PM	Non-fatal injury	1	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PARK STREET / PLEASANT STREET	V1:Eastbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)
STOUGHTON	2008	12/8/2008	11:00 AM	Not Reported	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / WYMAN	V1:Southbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	12/19/2008	3:10 PM	Property damage only (none injured)	2	0	0	Rear-end	Ice	Daylight	Snow/Severe crosswinds	WASHINGTON STREET / MORTON STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/22/2008	9:18 AM	Property damage only (none injured)	2	0	0	Angle	Ice	Daylight	Clear	PLAIN STREET / MORTON STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Morton at Summer/Wyman/Porter

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2009	1/14/2009	8:35 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Ice	Dark - lighted roadway	Clear	WYMAN STREET / WATER STREET	V1:Northbound	V1: Collision with tree
STOUGHTON	2009	1/15/2009	5:46 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/21/2009	3:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Snow	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound	V1: Collision with light pole or other
STOUGHTON	2009	2/24/2009	5:27 PM	Non-fatal injury	2	2	0	Head-on	Dry	Dusk	Clear	WASHINGTON STREET Rte 27 S / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	4/26/2009	2:23 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Unknown		V1:Eastbound	V1: Collision with utility pole
STOUGHTON	2009	5/11/2009	9:47 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WYMAN STREET / BROCK STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/12/2009	12:44 PM	Non-fatal injury	2	2	0	Head-on	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET / FREEMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/8/2009	8:53 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/20/2009	8:17 PM	Non-fatal injury	2	1	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/13/2009	1:30 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLAIN STREET / MORTON STREET	V1:Southbound / V2:Eastbound	V1: Not reported / V2: Not reported
STOUGHTON	2009	9/21/2009	11:56 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	MORTON STREET / GREG ROAD	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/23/2009	8:30 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Cloudy		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/24/2009	7:04 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Rain		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/25/2009	9:44 PM	Non-fatal injury	1	1	0	Single vehicle crash	Wet	Dark - lighted roadway	Rain/Fog, smog, smoke		V1:Southbound	V1: Collision with tree
STOUGHTON	2009	12/30/2009	3:32 PM	Property damage only (none injured)	2	0	0	Head-on	Dry	Daylight	Clear		V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Pleasant at Park/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/3/2007	2:40 AM	Not Reported	2	0	0	Rear-end	Dry	Daylight	Clear	Rte 139 / PLEASANT STREET	V1:Eastbound / V2:Eastbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	1/9/2007	8:17 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Daylight	Clear		V1:Westbound	V1: Collision with other movable object
STOUGHTON	2007	1/13/2007	5:20 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dark - lighted roadway	Cloudy/Other	PLEASANT STREET Rte 139 / TURNPIKE STREET	V1:Southbound / V2:Southbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	1/18/2007	00:00 AM	Non-fatal injury	2	3	0	Head-on	Snow	Dark - lighted roadway	Snow/Cloudy		V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/21/2007	4:20 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET / PLEASANT STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/22/2007	2:58 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PINE STREET / PLEASANT STREET	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/24/2007	2:55 PM	Non-fatal injury	2	1	0	Rear-end	Dry	Daylight	Clear/Cloudy	PLEASANT STREET / LOWE AVENUE	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/30/2007	3:09 PM	Property damage only (none injured)	3	0	0	Angle	Dry	Daylight	Clear/Cloudy	PLEASANT STREET / LINCOLN STREET	V1:Southbound / V2:Westbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2007	2/9/2007	3:42 PM	Non-fatal injury	2	1	0	Sideswipe, opposite direction	Dry	Daylight	Clear	PLEASANT STREET / PINE STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/16/2007	8:25 PM	Property damage only (none injured)	2	0	0	Head-on	Ice	Dark - lighted roadway	Clear/Other	CENTRAL STREET / PLEASANT STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/23/2007	4:24 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Snow	Dark - lighted roadway	Snow	PLEASANT STREET / PINE STREET	V1:Eastbound	V1: Collision with tree
STOUGHTON	2007	2/24/2007	7:38 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	TURNPIKE STREET / PLEASANT STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/25/2007	7:05 AM	Non-fatal injury	2	2	0	Angle	Dry	Daylight	Clear/Other	PLEASANT STREET Rte 139 N / CENTRAL STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/26/2007	11:52 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Snow	Dark - lighted roadway	Snow/Sleet, hail (freezing rain or drizzle)		V1:Eastbound	V1: Collision with highway traffic sign post
STOUGHTON	2007	3/1/2007	2:20 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	LINCOLN STREET / PLEASANT STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/2/2007	6:31 PM	Property damage only (none injured)	2	0	0	Angle	Sand, mud, dirt, oil, gravel	Dark - lighted roadway	Clear	PLEASANT STREET / LINCOLN STREET	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/5/2007	3:24 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Cloudy		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/6/2007	8:25 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / LINCOLN STREET	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/13/2007	3:33 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/15/2007	12:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	TURNPIKE STREET / PLEASANT STREET	V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/18/2007	2:00 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PLEASANT STREET / PARK STREET	V1:Southbound / V2:Southbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	3/26/2007	3:30 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Cloudy/Rain	PLEASANT STREET / TURNPIKE STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	4/2/2007	10:30 AM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain	PLEASANT STREET Rte 139 / PINE STREET	V1:Eastbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	4/4/2007	3:25 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain/Sleet, hail (freezing rain or drizzle)		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/7/2007	3:11 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / LINCOLN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/17/2007	4:58 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET Rte 139 E / PARK STREET Rte 27 N	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/19/2007	1:39 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET Rte 139 / CHESTNUT STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/22/2007	3:04 PM	Non-fatal injury	2	1	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / TURNPIKE STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/23/2007	4:16 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Dawn	Clear	PARK STREET Rte 27 / PLEASANT STREET Rte 139	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	6/16/2007	9:41 AM	Property damage only (none injured)	3	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / OAKLAND STREET	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2007	6/20/2007	9:41 AM	Property damage only (none injured)	3	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / OAKLAND STREET	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2007	6/25/2007	1:37 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Dry	Dark - unknown roadway lighting	Clear	CENTRAL STREET / PLEASANT STREET	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	7/6/2007	3:40 AM	Not Reported	3	0	0	Rear-end	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Westbound / V2:Not reported /	V1: Not reported / V2: Not reported / V3: Not
STOUGHTON	2007	7/19/2007	12:30 PM	Not Reported	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	7/27/2007	7:30 AM	Property damage only (none injured)	1	0	0	Rear-end	Dry	Daylight	Cloudy	TURNPIKE STREET Rte 139 / PLEASANT STREET	V1:Southbound	V1: Not reported
STOUGHTON	2007	8/5/2007	3:20 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	8/14/2007	00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear		V1:Westbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2007	8/20/2007	8:45 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	TURNPIKE STREET / PLEASANT STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	8/31/2007	2:50 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Other		V1:Westbound	V1: Collision with guardrail
STOUGHTON	2007	8/31/2007	1:02 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/2/2007	5:32 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/6/2007	8:10 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/10/2007	8:37 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Cloudy	WASHINGTON STREET Rte 138 S / PLEASANT STREET Rte 139 N	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Pleasant at Park/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	9/18/2007	8:11 AM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	CAPEN STREET / PLEASANT STREET Rte 139 E	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/19/2007	9:50 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET Rte 139 W / WASHINGTON STREET Rte 138	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/20/2007	10:54 AM	Property damage only (none injured)	3	0	0	Not reported	Not reported	Not reported	Not Reported	PLEASANT STREET / TURNPIKE STREET	V1:Southbound / V2:Southbound / V3:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2007	9/25/2007	7:00 PM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / OAKLAND STREET	V1:Eastbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)
STOUGHTON	2007	10/11/2007	8:42 AM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Rain	PLEASANT STREET / CENTRAL STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/22/2007	3:45 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	10/29/2007	3:50 AM	Non-fatal injury	2	1	0	Not reported	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Northbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	11/3/2007	10:14 AM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Rain		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/11/2007	1:10 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET Rte 139 / LINCOLN STREET	V1:Westbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	11/20/2007	3:43 PM	Not Reported	2	0	0	Angle	Wet	Dusk	Rain	PLEASANT STREET / PINE STREET	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/2/2007	8:30 PM	Property damage only (none injured)	2	0	0	Rear-end	Snow	Dark - lighted roadway	Snow	PLEASANT STREET / CENTRAL STREET	V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	12/2/2007	8:38 PM	Property damage only (none injured)	2	0	0	Angle	Snow	Dark - lighted roadway	Snow/Sleet, hail (freezing rain or drizzle)	CENTRAL STREET / PLEASANT STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/4/2007	2:59 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/5/2007	8:46 AM	Non-fatal injury	4	1	0	Rear-end	Dry	Daylight	Clear	TURNPIKE STREET / PLEASANT STREET	V1:Westbound / V2:Westbound / V3:Westbound / V4:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic / V4: Collision with motor vehicle in traffic
STOUGHTON	2007	12/11/2007	11:03 PM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear		V1:Southbound	V1: Collision with utility pole
STOUGHTON	2007	12/12/2007	7:34 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dark - lighted roadway	Clear	PLEASANT STREET / TURNPIKE STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/13/2007	1:00 AM	Property damage only (none injured)	2	0	0	Rear-end	Snow	Daylight	Snow	PLEASANT STREET Rte 139 / PROSPECT STREET	V1:Westbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	12/18/2007	6:59 AM	Property damage only (none injured)	2	0	0	Head-on	Dry	Dawn	Sleet, hail (freezing rain or drizzle)	CENTRAL STREET / PLEASANT STREET Rte 139 N	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/18/2007	5:24 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	PLEASANT STREET Rte 139 E / CENTRAL STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/22/2007	11:00 AM	Not Reported	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	PLEASANT STREET / Rte 139	V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	12/24/2007	5:50 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	PLEASANT STREET / TURNPIKE STREET	V1:Westbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2007	12/28/2007	8:52 AM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Cloudy/Rain	PLEASANT STREET / CENTRAL STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/30/2007	6:17 PM	Non-fatal injury	2	2	0	Sideswipe, same direction	Dry	Dark - lighted roadway	Clear	LINCOLN STREET / PLEASANT STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/31/2007	12:03 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / PAGE STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	1/18/2008	8:47 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Wet	Daylight	Cloudy/Rain	PINE STREET / PLEASANT STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	1/18/2008	12:48 PM	Non-fatal injury	2	3	0	Head-on	Snow	Dark - lighted roadway	Snow/Cloudy		V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/2/2008	4:04 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Wet	Dark - lighted roadway	Rain		V1:Northbound	V1: Collision with utility pole
STOUGHTON	2008	2/8/2008	5:36 PM	Property damage only (none injured)	3	0	0	Rear-end	Wet	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)	TURNPIKE STREET / PLEASANT STREET	V1:Westbound / V2:Westbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2008	2/10/2008	1:10 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Clear/Cloudy	PLEASANT STREET / PINE STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/18/2008	5:36 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	Wet	Dark - lighted roadway	Rain		V1:Northbound / V2:Northbound / V3:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2008	2/24/2008	00:00 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	CENTRAL STREET / PLEASANT STREET Rte 139	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/21/2008	12:30 PM	Not Reported	2	0	0	Single vehicle crash	Dry	Daylight	Clear	PLEASANT STREET Rte 139 / CHESTNUT STREET	V1:Southbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2008	3/22/2008	4:00 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/7/2008	7:09 AM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear		V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/7/2008	7:47 AM	Non-fatal injury	2	1	0	Unknown	Dry	Daylight	Clear/Other	LINCOLN STREET / PLEASANT STREET Rte 139	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/29/2008	2:51 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain		V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	5/2/2008	6:42 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain	PROSPECT STREET / PLEASANT STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	5/12/2008	3:27 AM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear		V1:Westbound / V2:Eastbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	5/16/2008	5:00 AM	Non-fatal injury	1	1	0	Sideswipe, same direction	Wet	Dusk	Cloudy	CENTRAL STREET / PLEASANT STREET	V1:Northbound	V1: Not reported
STOUGHTON	2008	5/22/2008	2:33 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / GROVE STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	5/26/2008	10:51 AM	Not Reported	2	0	0	Sideswipe, same direction	Unknown	Unknown	Unknown		V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2008	5/29/2008	7:09 PM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PLEASANT STREET	V1:Eastbound	V1: Collision with motor vehicle in traffic

Pleasant at Park/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2008	5/29/2008	7:09 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PLEASANT STREET	V1:Eastbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2008	5/30/2008	10:53 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear/Cloudy	TURNPIKE STREET / PLEASANT STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/4/2008	6:58 AM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Cloudy/Rain	PLEASANT STREET / CENTRAL STREET	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/5/2008	4:06 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Cloudy/Rain	PROSPECT STREET / PLEASANT STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/11/2008	6:42 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/13/2008	3:03 PM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Daylight	Clear		V1:Northbound	V1: Overturn/rollover
STOUGHTON	2008	6/26/2008	9:17 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	PLEASANT STREET / GLEN ECHO BOULEVARD	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	7/6/2008	3:45 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	7/14/2008	6:42 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / LINCOLN STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	7/21/2008	4:00 AM	Not Reported	2	0	0	Not reported	Not reported	Not reported	Rain		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2008	7/23/2008	9:57 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Cloudy/Clear	TURNPIKE STREET / PLEASANT STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	7/31/2008	8:45 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Cloudy/Rain	CENTRAL STREET / PLEASANT STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	8/2/2008	11:29 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear		V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	8/24/2008	6:01 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	TURNPIKE STREET / PLEASANT STREET	V1:Eastbound	V1: Collision with guardrail
STOUGHTON	2008	8/28/2008	7:00 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Unknown	PLEASANT STREET / CENTRAL STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	8/28/2008	5:57 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	PLEASANT STREET Rte 139 / CENTRAL STREET	V1:Eastbound	V1: Collision with light pole or other
STOUGHTON	2008	9/14/2008	11:25 AM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Cloudy/Rain	PLEASANT STREET / CENTRAL STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/14/2008	4:08 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Cloudy	PLEASANT STREET / LINCOLN STREET	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	9/15/2008	4:15 PM	Non-fatal injury	2	2	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / LINCOLN STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2008	9/21/2008	5:10 AM	Property damage only (none injured)	2	0	0	Head-on	Dry	Daylight	Clear/Clear		V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2008	10/21/2008	7:41 AM	Non-fatal injury	2	1	0	Rear-end	Dry	Daylight	Cloudy/Other		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	10/22/2008	3:19 PM	Non-fatal injury	2	1	0	Angle	Wet	Daylight	Rain		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/3/2008	3:21 PM	Non-fatal injury	1	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PARK STREET / PLEASANT STREET	V1:Eastbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)
STOUGHTON	2008	11/7/2008	10:07 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Clear		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/8/2008	5:02 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	PLEASANT STREET / GROVE STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/22/2008	8:56 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Cloudy		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/27/2008	6:40 AM	Non-fatal injury	2	3	0	Head-on	Dry	Dawn	Clear		V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/1/2008	12:00 PM	Not Reported	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / WASHINGTON STREET / PARK STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	12/4/2008	12:42 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / GROVE STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/9/2008	3:52 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Rain	PLEASANT STREET / GLEN ECHO BOULEVARD	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/17/2008	10:06 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	CENTRAL STREET / PLEASANT STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/21/2008	11:53 PM	Property damage only (none injured)	2	0	0	Angle	Snow	Dark - lighted roadway	Snow		V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/3/2009	00:00 AM	Property damage only (none injured)	1	0	0	Head-on	Ice	Dark - lighted roadway	Cloudy/Snow		V1:Southbound	V1: Collision with light pole or other
STOUGHTON	2009	1/12/2009	6:00 AM	Unknown	2	0	0	Rear-end	Wet	Dark - unknown roadway lighting	Clear		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2009	1/14/2009	1:55 PM	Property damage only (none injured)	3	0	0	Angle	Dry	Daylight	Clear	LINCOLN STREET / PLEASANT STREET	V1:Eastbound / V2:Northbound / V3:Southbound	V1: Collision with motor vehicle in traffic / V2: Not reported / V3: Collision with motor vehicle
STOUGHTON	2009	1/16/2009	5:32 PM	Non-fatal injury	2	1	0	Rear-end	Dry	Dark - lighted roadway	Clear	PLEASANT STREET / PINE STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/17/2009	8:04 AM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / CENTRAL STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/19/2009	3:05 PM	Non-fatal injury	2	2	0	Angle	Dry	Daylight	Clear	LINCOLN STREET / PLEASANT STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/26/2009	4:00 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Dry	Daylight	Clear	PLEASANT STREET / CENTRAL STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	2/3/2009	2:25 PM	Property damage only (none injured)	2	0	0	Rear-end	Ice	Daylight	Snow/Sleet, hail (freezing rain or drizzle)		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	2/12/2009	10:43 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	CHESTNUT STREET / PLEASANT STREET	V1:Southbound	V1: Collision with utility pole

Pleasant at Park/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2009	2/17/2009	9:11 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	3/8/2009	1:34 AM	Non-fatal injury	2	2	0	Angle	Dry	Dark - lighted roadway	Cloudy/Other	PLEASANT STREET / LOWE AVENUE	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	3/18/2009	1:50 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S / PLEASANT STREET Rte 139 E / PARK STREET Rte 27 N	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	3/25/2009	5:10 PM	Property damage only (none injured)	4	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / OAKLAND STREET	V1:Eastbound / V2:Eastbound / V3:Eastbound / V4:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic / V4: Collision with motor vehicle in traffic
STOUGHTON	2009	3/26/2009	1:10 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear	CENTRAL STREET / PLEASANT STREET	V1:Northbound	V1: Collision with light pole or other
STOUGHTON	2009	4/5/2009	12:54 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	4/15/2009	4:53 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	PLEASANT STREET / CENTRAL STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	4/20/2009	1:06 PM	Non-fatal injury	3	1	0	Angle	Dry	Daylight	Clear	PLEASANT STREET Rte 139 W / LINCOLN STREET	V1:Eastbound / V2:Southbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2009	4/20/2009	3:26 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N / PARK STREET Rte 27 S / PLEASANT STREET Rte 139 W	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	4/20/2009	5:16 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / LINCOLN STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/8/2009	9:00 AM	Non-fatal injury	2	2	0	Head-on	Dry	Daylight	Clear		V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/13/2009	2:36 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Other		V1:Westbound	V1: Overturn/rollover
STOUGHTON	2009	5/16/2009	9:47 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / CENTRAL STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/24/2009	5:02 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Wet	Daylight	Rain/Cloudy	PLEASANT STREET / CENTRAL STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/21/2009	4:29 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Wet	Daylight	Rain	LINCOLN STREET / PLEASANT STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/23/2009	8:18 AM	Non-fatal injury	2	1	0	Rear-end	Wet	Daylight	Cloudy/Rain		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/28/2009	3:30 PM	Property damage only (none injured)	2	0	0	Head-on	Wet	Dark - lighted roadway	Rain/Cloudy	CENTRAL STREET / PLEASANT STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	7/10/2009	4:51 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	PLEASANT STREET Rte 139 / LINCOLN STREET	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	7/19/2009	4:10 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	7/25/2009	3:06 PM	Non-fatal injury	2	2	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / PARK STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	8/5/2009	11:48 AM	Non-fatal injury	2	2	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / CHESTNUT STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	8/12/2009	8:00 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	8/12/2009	2:39 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 N / PARK STREET Rte 27 S / PLEASANT STREET Rte 139 W	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/11/2009	5:04 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Rain	TURNPIKE STREET / PLEASANT STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/19/2009	10:05 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/30/2009	6:23 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dawn	Clear	PLEASANT STREET / CENTRAL STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	10/9/2009	4:55 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Cloudy	PLEASANT STREET / CENTRAL STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	10/20/2009	8:40 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	10/21/2009	8:10 AM	Property damage only (none injured)	2	0	0	Single vehicle crash	Dry	Daylight	Clear	PAGE STREET / OLD MAPLE STREET / PLEASANT STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	10/29/2009	9:20 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/6/2009	4:42 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dusk	Clear	TURNPIKE STREET / PLEASANT STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/7/2009	11:36 AM	Non-fatal injury	3	3	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Eastbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic
STOUGHTON	2009	11/7/2009	4:23 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	CENTRAL STREET / PLEASANT STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/9/2009	6:15 PM	Not Reported	2	0	0	Not reported	Dry	Dark - lighted roadway	Clear	PLEASANT AVENUE Rte 139 / LINCOLN STREET / Rte 139	V1:Southbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2009	11/12/2009	4:51 PM	Property damage only (none injured)	2	0	0	Head-on	Dry	Dark - lighted roadway	Clear	PINE STREET / PLEASANT STREET	V1:Not reported / V2:Westbound	V1: Not reported / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/19/2009	7:09 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/25/2009	4:10 PM	Non-fatal injury	2	1	0	Angle	Wet	Dark - lighted roadway	Rain		V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/29/2009	6:53 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dawn	Clear		V1:Southbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)

Pleasant at Park/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2009	11/30/2009	3:44 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain/Cloudy	LINCOLN STREET / PLEASANT STREET	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/4/2009	6:24 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Other	Clear		V1:Northbound	V1: Collision with unknown movable object
STOUGHTON	2009	12/8/2009	11:54 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PLEASANT STREET / CENTRAL STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/10/2009	9:04 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/22/2009	8:24 AM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Clear	PLEASANT STREET / LOWE AVENUE	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/29/2009	1:52 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PLEASANT STREET / CENTRAL STREET	V1:Westbound / V2:Eastbound	V1: Not reported / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/1/2007	11:31 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Rain	PARK STREET / WASHINGTON STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/29/2007	4:02 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	4/9/2007	5:09 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	6/22/2007	7:37 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	7/2/2007	6:20 PM	Not Reported	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	7/28/2007	3:04 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/6/2007	7:32 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	1/14/2008	6:10 AM	Non-fatal injury	2	1	0	Rear-end	Snow	Dawn	Snow		V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	3/8/2008	5:43 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Wet	Dusk	Rain/Severe crosswinds	PARK STREET / WASHINGTON STREET	V1:Southbound	V1: Collision with highway traffic sign post
STOUGHTON	2008	7/28/2008	5:30 AM	Property damage only (none injured)	2	0	0	Not reported	Wet	Not reported	Rain		V1:Southbound / V2:Southbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	12/12/2008	4:21 AM	Non-fatal injury	2	1	0	Angle	Wet	Dark - lighted roadway	Rain	WASHINGTON STREET Rte 138 / Rte 139	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	12/26/2008	3:30 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Eastbound	V1: Not reported / V2: Not reported
STOUGHTON	2009	7/15/2009	11:30 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / PARK STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/18/2009	7:26 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / PARK STREET Rte 27	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Porter at Pearl/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/3/2007	7:54 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear	PORTER STREET / WASHINGTON STREET / PEARL STREET	V1:Northbound	V1: Collision with utility pole
STOUGHTON	2007	1/4/2007	4:35 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	PORTER STREET / WASHINGTON STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	1/28/2007	4:44 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET / PORTER STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/1/2007	10:17 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Not reported / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with parked motor vehicle
STOUGHTON	2007	3/8/2007	7:05 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear		V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	5/31/2007	11:21 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/31/2007	7:57 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear		V1:Eastbound / V2:Westbound	V1: Collision with parked motor vehicle / V2:
STOUGHTON	2007	6/13/2007	10:45 AM	Unknown	2	0	0	Angle	Dry	Daylight	Cloudy	PORTER STREET / Rte 27 N	V1:Westbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	6/13/2007	10:46 AM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Cloudy	PEARL STREET / PORTER STREET	V1:Southbound	V1: Collision with motor vehicle in traffic
STOUGHTON	2007	6/25/2007	11:10 AM	Not Reported	2	0	0	Angle	Dry	Daylight	Clear	PORTER STREET / ROSE STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	8/6/2007	11:48 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Not reported / V2:Eastbound	V1: Not reported / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/17/2007	5:27 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	PORTER STREET / HAYDEN STREET	V1:Westbound	V1: Not reported
STOUGHTON	2007	10/17/2007	11:09 AM	Non-fatal injury	2	1	0	Sideswipe, opposite direction	Dry	Daylight	Clear	WASHINGTON STREET / PORTER STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/13/2007	9:00 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	PORTER STREET / ROSE STREET	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/1/2007	8:29 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Unknown		V1:Southbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2007	12/17/2007	3:10 PM	Property damage only (none injured)	2	0	0	Angle	Ice	Daylight	Clear/Cloudy	PORTER STREET / ROSE STREET	V1:Southbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	1/4/2008	2:10 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PORTER STREET / ROSE STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	1/27/2008	3:18 PM	Property damage only (none injured)	2	0	0	Rear-end	Slush	Daylight	Snow/Sleet, hail (freezing rain or drizzle)	PORTER STREET / CANTON STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/7/2008	4:36 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dusk	Cloudy		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/28/2008	7:49 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / PORTER STREET / PEARL STREET	V1:Southbound	V1: Collision with other fixed object (wall, building, tunnel, etc.)
STOUGHTON	2008	2/29/2008	2:10 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear/Unknown	PORTER STREET / CANTON STREET	V1:Eastbound	V1: Collision with curb
STOUGHTON	2008	3/8/2008	11:24 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Wet	Daylight	Rain		V1:Westbound	V1: Collision with utility pole
STOUGHTON	2008	4/3/2008	8:04 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with parked motor vehicle
STOUGHTON	2008	4/3/2008	9:07 PM	Unknown	1	0	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear	CANTON STREET / PORTER STREET	V1:Eastbound	V1: Collision with curb
STOUGHTON	2008	4/5/2008	9:00 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Wet	Daylight	Cloudy		V1:Northbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2008	4/30/2008	6:15 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	ROSE STREET / PORTER STREET	V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2008	5/1/2008	12:20 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/8/2008	2:03 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / PORTER STREET	V1:Southbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2008	7/19/2008	3:53 PM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Daylight	Clear	PORTER STREET / CANTON STREET	V1:Westbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)
STOUGHTON	2008	7/25/2008	8:00 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	7/31/2008	12:41 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PORTER STREET / HAYDEN STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	2/20/2009	00:00 AM	Property damage only (none injured)	2	0	0	Angle	Ice	Dark - lighted roadway	Cloudy/Snow		V1:Westbound / V2:Eastbound	V1: Other / V2: Collision with parked motor
STOUGHTON	2009	5/21/2009	11:08 AM	Property damage only (none injured)	2	0	0	Angle	Not reported	Daylight	Clear	PORTER STREET / ROSE STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	8/14/2009	5:47 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	8/15/2009	10:17 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	PEARL STREET / PORTER STREET / WASHINGTON STREET Rte 27 N	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	8/20/2009	1:01 PM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Clear	PORTER STREET / WASHINGTON STREET	V1:Southbound	V1: Collision with light pole or other post/support
STOUGHTON	2009	8/23/2009	10:16 AM	Property damage only (none injured)	3	0	0	Angle	Dry	Daylight	Cloudy	CANTON STREET Rte 27 / PORTER STREET Rte 27	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with parked motor vehicle / V3: Collision with motor vehicle in traffic
STOUGHTON	2009	9/24/2009	3:23 PM	Property damage only (none injured)	4	0	0	Rear-end	Dry	Daylight	Clear		V1:Southbound / V2:Southbound / V3:Southbound / V4:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic / V4: Collision with motor vehicle in traffic
STOUGHTON	2009	10/12/2009	3:45 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PORTER STREET / PEARL STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Sumner at Park Avenue/Park

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/14/2007	10:39 PM	Non-fatal injury	1	3	0	Single vehicle crash	Wet	Dark - lighted roadway	Rain	RYAN ROAD / SUMNER STREET	V1:Southbound	V1: Collision with tree
STOUGHTON	2007	2/21/2007	3:40 PM	Property damage only (none injured)	2	0	0	Not reported	Dry	Daylight	Clear	SUMNER STREET / MANOR DRIVE	V1:Southbound / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2007	3/9/2007	6:53 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear	SUMNER STREET / PARK STREET	V1:Westbound	V1: Other
STOUGHTON	2007	4/5/2007	7:41 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	4/6/2007	7:04 AM	Non-fatal injury	1	1	0	Single vehicle crash	Ice	Daylight	Clear		V1:Northbound	V1: Collision with tree
STOUGHTON	2007	4/10/2007	3:39 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	4/12/2007	1:35 AM	Not Reported	2	0	0	Rear-end	Wet	Daylight	Rain		V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	8/14/2007	10:45 PM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Clear		V1:Southbound	V1: Collision with utility pole
STOUGHTON	2007	9/4/2007	4:38 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	PARK STREET / SUMNER STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/7/2007	8:35 PM	Non-fatal injury	2	2	0	Angle	Dry	Dark - lighted roadway	Clear	PARK STREET Rte 27 S / SUMNER STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/12/2007	7:10 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	SUMNER STREET / SUMNER STREET / PARK STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported
STOUGHTON	2007	10/8/2007	4:50 PM	Non-fatal injury	2	1	0	Sideswipe, opposite direction	Dry	Daylight	Cloudy		V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/26/2007	5:43 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Wet	Dark - lighted roadway	Clear	GAY STREET / SUMNER STREET	V1:Eastbound	V1: Collision with tree
STOUGHTON	2008	1/28/2008	7:46 PM	Property damage only (none injured)	2	0	0	Head-on	Dry	Dark - lighted roadway	Clear	PARK AVENUE / PARK STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/28/2008	6:23 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	SUMNER STREET / PARK STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/13/2008	8:46 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - roadway not lighted	Clear		V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/10/2008	2:49 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	PARK STREET / SUMNER STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	10/10/2008	3:01 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	PARK AVENUE / Rte 27 S	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/18/2008	1:10 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/18/2008	1:30 AM	Non-fatal injury	1	1	0	Single vehicle crash	Ice	Dark - lighted roadway	Sleet, hail (freezing rain or drizzle)		V1:Northbound	V1: Not reported
STOUGHTON	2008	12/24/2008	10:45 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Rain		V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	12/26/2008	7:12 PM	Non-fatal injury	1	1	0	Head-on	Ice	Dawn	Clear		V1:Northbound	V1: Collision with tree
STOUGHTON	2008	12/31/2008	6:36 PM	Property damage only (none injured)	2	0	0	Angle	Snow	Dark - lighted roadway	Snow/Blowing sand, snow		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/30/2009	7:15 AM	Property damage only (none injured)	2	0	0	Unknown	Snow	Daylight	Clear	SUMNER STREET / ATKINSON AVENUE	V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported
STOUGHTON	2009	3/24/2009	3:59 PM	Non-fatal injury	2	1	0	Rear-end	Dry	Daylight	Clear	PARK STREET / SUMNER STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	4/11/2009	1:22 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Wet	Dark - lighted roadway	Rain/Cloudy		V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	4/20/2009	12:55 PM	Property damage only (none injured)	2	0	0	Angle	Snow	Daylight	Clear/Clear	SUMNER STREET / VAUGHN COURT	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/12/2009	10:13 AM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/23/2009	7:26 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dawn	Rain/Cloudy	SUMNER STREET / BANCROFT ROAD / DUNCAN ROAD	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/24/2009	8:41 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Dawn	Clear/Other		V1:Northbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with parked motor vehicle
STOUGHTON	2009	9/27/2009	1:19 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain	SUMNER STREET / MELENDY AVENUE	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	9/28/2009	4:10 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/2/2009	4:56 PM	Non-fatal injury	2	1	0	Angle	Dry	Dark - roadway not lighted	Cloudy		V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/24/2009	2:05 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Cloudy		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Wyman at Freeman/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	1/2/2007	8:10 AM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Clear		V1:Not reported / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with parked motor vehicle
STOUGHTON	2007	1/10/2007	7:14 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/9/2007	11:57 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/22/2007	9:57 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/23/2007	8:18 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Cloudy		V1:Westbound / V2:Westbound	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/8/2007	9:44 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2007	4/17/2007	4:21 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dusk	Rain/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	4/25/2007	5:16 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain	WASHINGTON STREET / FREEMAN STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/29/2007	9:58 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	6/18/2007	11:39 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Unknown		V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	7/2/2007	7:20 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	9/5/2007	7:06 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / FREEMAN STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/3/2007	5:07 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	WASHINGTON STREET / FREEMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/20/2007	2:16 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	11/23/2007	3:39 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/13/2007	8:54 AM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Clear/Cloudy	WYMAN STREET / WASHINGTON STREET	V1:Eastbound	V1: Collision with light pole or other post/support
STOUGHTON	2007	12/16/2007	7:33 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Ice	Dark - lighted roadway	Rain/Snow		V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/7/2008	12:04 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Snow	WASHINGTON STREET / FREEMAN STREET	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	2/19/2008	3:11 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear		V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/3/2008	6:19 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear		V1:Eastbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with parked motor vehicle
STOUGHTON	2008	3/4/2008	12:56 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/27/2008	11:46 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Westbound	V1: Collision with light pole or other post/support
STOUGHTON	2008	4/3/2008	2:56 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/16/2008	8:07 PM	Non-fatal injury	2	2	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/30/2008	1:36 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	6/26/2008	3:39 PM	Not Reported	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Not reported / V2:Not reported	V1: Collision with parked motor vehicle / V2: Not reported
STOUGHTON	2008	6/27/2008	9:05 AM	Non-fatal injury	2	2	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / FREEMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	8/31/2008	9:00 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	10/23/2008	5:34 AM	Property damage only (none injured)	4	0	0	Angle	Dry	Daylight	Cloudy/Clear		V1:Northbound / V2:Eastbound / V3:Northbound / V4:Northbound	V1: Not reported / V2: Not reported / V3: Collision with motor vehicle in traffic / V4: Not reported

Wyman at Freeman/Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2008	11/3/2008	3:21 PM	Non-fatal injury	1	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PARK STREET / PLEASANT STREET	V1:Eastbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)
STOUGHTON	2008	12/8/2008	11:00 AM	Not Reported	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / WYMAN STREET	V1:Southbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2009	1/14/2009	8:35 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Ice	Dark - lighted roadway	Clear	WYMAN STREET / WATER STREET	V1:Northbound	V1: Collision with tree
STOUGHTON	2009	1/15/2009	5:46 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/17/2009	4:09 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dusk	Clear	FREEMAN STREET / WASHINGTON STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/21/2009	3:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Snow	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound	V1: Collision with light pole or other post/support
STOUGHTON	2009	2/24/2009	5:27 PM	Non-fatal injury	2	2	0	Head-on	Dry	Dusk	Clear	WASHINGTON STREET Rte 27 S / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/11/2009	9:47 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WYMAN STREET / BROCK STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/12/2009	12:44 PM	Non-fatal injury	2	2	0	Head-on	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET / FREEMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/18/2009	4:29 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Cloudy/Clear	WASHINGTON STREET / FREEMAN STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/8/2009	8:53 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/20/2009	8:17 PM	Non-fatal injury	2	1	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/17/2009	12:57 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/24/2009	7:04 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Rain		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/22/2009	8:03 AM	Property damage only (none injured)	2	0	0	Angle	Snow	Daylight	Clear		V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/30/2009	3:32 PM	Property damage only (none injured)	2	0	0	Head-on	Dry	Daylight	Clear		V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/3/2007	1:26 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Rain/Cloudy			V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/14/2007	3:55 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear			V1: Not reported / V2: Not reported
STOUGHTON	2008	10/30/2008	6:46 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Dawn	Clear/Other			V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	2/21/2009	12:33 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear			V1: Not reported / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/28/2009	9:04 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear			V1: Collision with motor vehicle in traffic / V2: Not reported

Wyman at Washington

Town	Year	Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Intersection	Vehicles Travel Directions	Most Harmful Events
STOUGHTON	2007	2/9/2007	11:57 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	2/23/2007	8:18 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Cloudy		V1:Westbound / V2:Westbound	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	3/8/2007	9:44 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Dark - lighted roadway	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Not reported
STOUGHTON	2007	4/17/2007	4:21 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dusk	Rain/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	5/29/2007	9:58 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear		V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	7/2/2007	7:20 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	10/20/2007	2:16 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2007	12/13/2007	8:54 AM	Property damage only (none injured)	1	0	0	Angle	Dry	Daylight	Clear/Cloudy	WYMAN STREET / WASHINGTON STREET	V1:Eastbound	V1: Collision with light pole or other
STOUGHTON	2007	12/16/2007	7:33 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	Ice	Dark - lighted roadway	Rain/Snow		V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/3/2008	6:19 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear		V1:Eastbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with parked motor vehicle
STOUGHTON	2008	3/4/2008	12:56 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Cloudy		V1:Northbound / V2:Not reported	V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	3/27/2008	11:46 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	Dry	Daylight	Clear		V1:Westbound	V1: Collision with light pole or other
STOUGHTON	2008	4/3/2008	2:56 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/16/2008	8:07 PM	Non-fatal injury	2	2	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	4/30/2008	1:36 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Eastbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	8/31/2008	9:00 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear/Cloudy	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2008	11/3/2008	3:21 PM	Non-fatal injury	1	1	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET / PARK STREET / PLEASANT STREET	V1:Eastbound	V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car)
STOUGHTON	2008	12/8/2008	11:00 AM	Not Reported	2	0	0	Angle	Dry	Daylight	Clear	WASHINGTON STREET Rte 138 / WYMAN STREET	V1:Southbound / V2:Westbound	V1: Not reported / V2: Not reported
STOUGHTON	2009	1/14/2009	8:35 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Ice	Dark - lighted roadway	Clear	WYMAN STREET / WATER STREET	V1:Northbound	V1: Collision with tree
STOUGHTON	2009	1/15/2009	5:46 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET Rte 138 S / WYMAN STREET	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	1/21/2009	3:00 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	Snow	Daylight	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound	V1: Collision with light pole or other
STOUGHTON	2009	2/24/2009	5:27 PM	Non-fatal injury	2	2	0	Head-on	Dry	Dusk	Clear	WASHINGTON STREET Rte 27 S / WYMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/11/2009	9:47 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Clear	WYMAN STREET / BROCK STREET	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	5/12/2009	12:44 PM	Non-fatal injury	2	2	0	Head-on	Dry	Daylight	Clear	WASHINGTON STREET / WYMAN STREET / FREEMAN STREET	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/8/2009	8:53 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	6/20/2009	8:17 PM	Non-fatal injury	2	1	0	Angle	Dry	Dark - lighted roadway	Clear	WASHINGTON STREET / WYMAN STREET	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	11/24/2009	7:04 PM	Property damage only (none injured)	2	0	0	Angle	Wet	Dark - lighted roadway	Rain		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic
STOUGHTON	2009	12/30/2009	3:32 PM	Property damage only (none injured)	2	0	0	Head-on	Dry	Daylight	Clear		V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic

Crash Rate Analysis

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

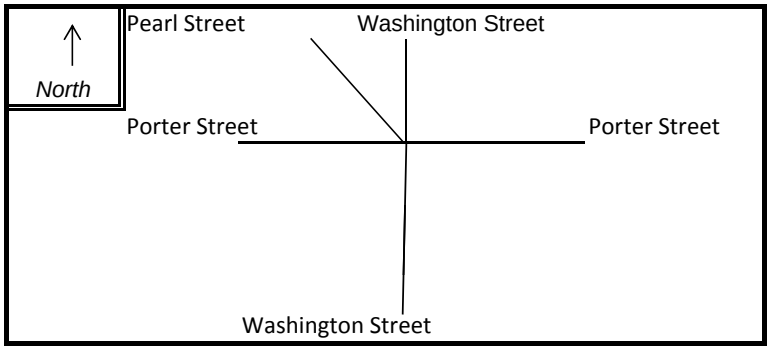
DISTRICT : 5 UNSIGNALIZED : [ ] 0.6 SIGNALIZED : [X] 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street, Pearl Street

MINOR STREET(S) : Porter Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SEB	SWB	
PEAK HOURLY VOLUMES (PM) :	530	25	960	185	545	**2,245**

" K " FACTOR : **0.086** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **26,105**

TOTAL # OF CRASHES : 14 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **4.67**

CRASH RATE CALCULATION : **0.49**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

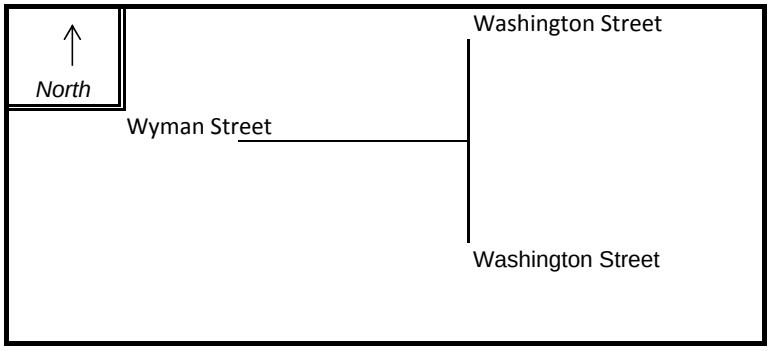
0.6 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Wyman Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	15	955	1,240			2,210

" K " FACTOR : **0.107** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **20,654**

TOTAL # OF CRASHES : 17 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **5.67**

CRASH RATE CALCULATION : **0.75** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

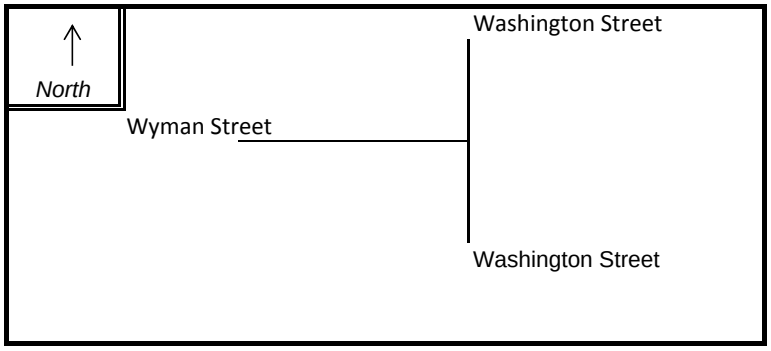
0.6 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Wyman Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	125	970	1,235			2,330

" K " FACTOR : **0.107** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **21,776**

TOTAL # OF CRASHES : 23 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **7.67**

CRASH RATE CALCULATION : **0.96** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

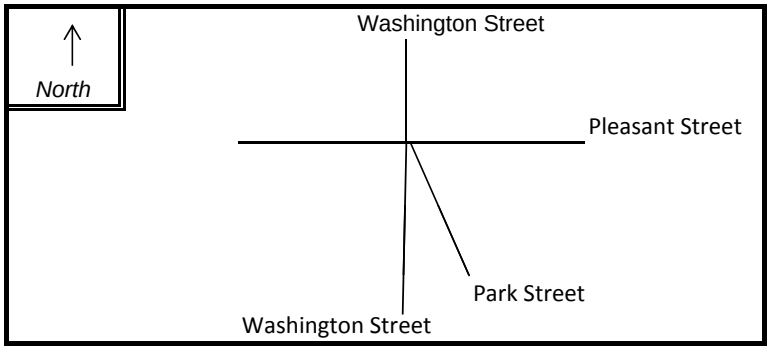
DISTRICT : 5 UNSIGNALIZED : [ ] 0.6 SIGNALIZED : [X] 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street, Park Street

MINOR STREET(S) : Pleasant Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NWB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	180	580	340	1,290		**2,390**

" K " FACTOR : **0.086** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **27,791**

TOTAL # OF CRASHES : 35 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **11.67**

CRASH RATE CALCULATION : **1.15**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

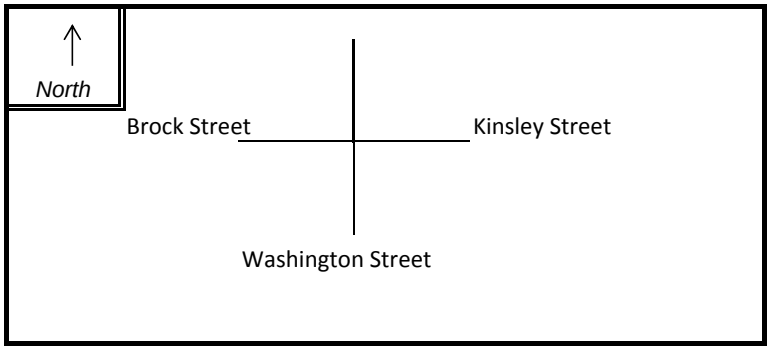
0.6 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : North University Drive

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	145	70	465	775		1,455

" K " FACTOR : **0.086** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **16,919**

TOTAL # OF CRASHES : 22 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **7.33**

CRASH RATE CALCULATION : **1.19** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

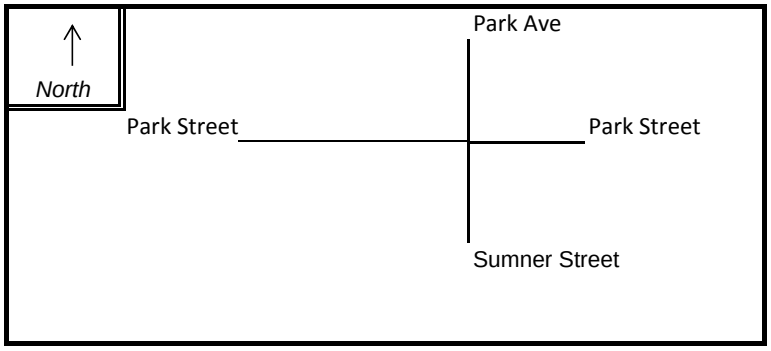
0.6 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : North University Drive

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	705	495	145	50		1,395

" K " FACTOR : **0.107** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **13,037**

TOTAL # OF CRASHES : 10 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **3.33**

CRASH RATE CALCULATION : **0.70**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

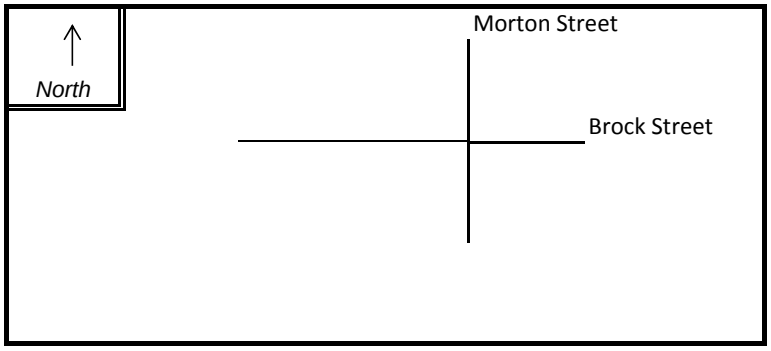
0.6 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : North University Drive

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	80	160	82	155		477

" K " FACTOR : **0.107** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **4,458**

TOTAL # OF CRASHES : 2 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.67**

CRASH RATE CALCULATION : **0.41** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

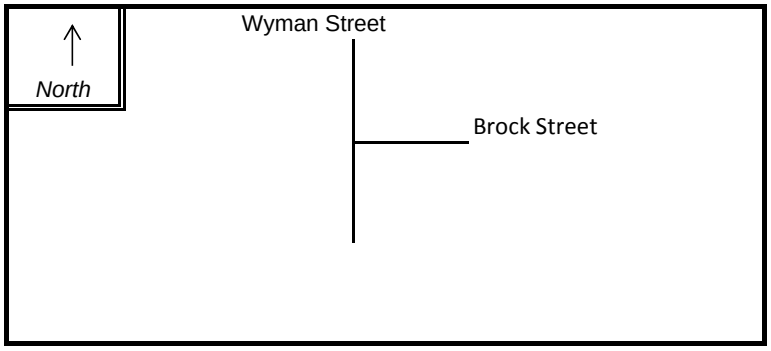
0.6 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Morton Street/ Wyman Street

MINOR STREET(S) : Brock Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	115	45	120			280

" K " FACTOR : **0.107** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **2,617**

TOTAL # OF CRASHES : 1 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : **0.35** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton, MA COUNT DATE : 4/12/2012

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

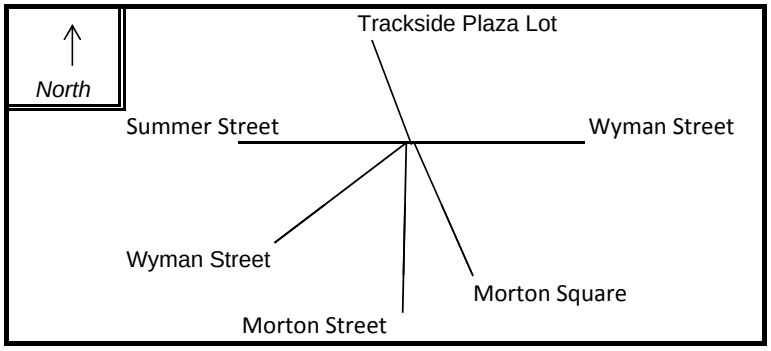
0.6 0.77

~ INTERSECTION DATA ~

MAJOR STREET : Summer/Wyman Street

MINOR STREET(S) : Wyman/Morton Street/Morton Square/ Trackside Plaza Lot

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	6	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	NEB	SEB	NWB	
PEAK HOURLY VOLUMES (PM) :	65	140	100	25	30	5	**365**

" K " FACTOR : **0.086** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **4,244**

TOTAL # OF CRASHES : 4 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **1.33**

CRASH RATE CALCULATION : **0.86**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : 2007 - 2009 MassDOT Crash Data

Project Title & Date:

Capacity Analysis

1: Porter Street & Washington Street (Rt138)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	695	10	10	230
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.54	0.54	0.98	0.98	0.93	0.93
Hourly flow rate (vph)	0	28	709	10	11	247
Pedestrians	13					13
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			77			
pX, platoon unblocked	0.90	0.90			0.90	
vC, conflicting volume	996	740			732	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	937	652			643	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	93			99	
cM capacity (veh/h)	257	410			822	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	719	258
Volume Left	0	0	11
Volume Right	28	10	0
cSH	410	1700	822
Volume to Capacity	0.07	0.42	0.01
Queue Length 95th (ft)	5	0	1
Control Delay (s)	14.4	0.0	0.5
Lane LOS	B		A
Approach Delay (s)	14.4	0.0	0.5
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		50.7%	ICU Level of Service A
Analysis Period (min)		15	

2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER	ø9
Lane Configurations						
Volume (vph)	470	165	705	230	180	
Turn Type	Over	Prot			custom	
Protected Phases	1	1	1 2 4	2		9
Permitted Phases					4	
Detector Phase	1	1	1 2 4	2	4	
Switch Phase						
Minimum Initial (s)	7.0	7.0		7.0	7.0	1.0
Minimum Split (s)	12.0	12.0		12.0	12.0	20.0
Total Split (s)	51.0	51.0	105.0	29.0	25.0	20.0
Total Split (%)	40.8%	40.8%	84.0%	23.2%	20.0%	16%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lead		Lag		
Lead-Lag Optimize?	Yes	Yes		Yes		
Recall Mode	None	None		Min	None	None
Act Effct Green (s)	35.6	35.6	86.9	18.8	17.5	
Actuated g/C Ratio	0.38	0.38	0.92	0.20	0.19	
v/c Ratio	0.68	0.70	0.45	0.67	0.66	
Control Delay	12.4	33.5	3.0	49.0	51.9	
Queue Delay	0.0	0.5	0.1	0.0	0.0	
Total Delay	12.4	34.0	3.1	49.0	51.9	
LOS	B	C	A	D	D	
Approach Delay			15.2	49.0		
Approach LOS			B	D		

Intersection Summary	
Cycle Length: 125	
Actuated Cycle Length: 94.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER
Lane Group Flow (vph)	588	494	766	250	216
v/c Ratio	0.68	0.70	0.45	0.67	0.66
Control Delay	12.4	33.5	3.0	49.0	51.9
Queue Delay	0.0	0.5	0.1	0.0	0.0
Total Delay	12.4	34.0	3.1	49.0	51.9
Queue Length 50th (ft)	63	230	0	133	114
Queue Length 95th (ft)	155	467	223	282	#249
Internal Link Dist (ft)			89	1	
Turn Bay Length (ft)					
Base Capacity (vph)	1052	1000	1712	522	410
Starvation Cap Reductn	0	190	182	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.56	0.61	0.50	0.48	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Volume (vph)	0	470	290	165	705	230	0	0	180	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00			1.00	
Frpb, ped/bikes		1.00		1.00	1.00	1.00			0.95	
Flpb, ped/bikes		1.00		1.00	1.00	1.00			1.00	
Frt		0.86		1.00	1.00	1.00			1.00	
Flt Protected		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (prot)		1596		1863	1863	1863			1766	
Flt Permitted		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (perm)		1596		1863	1863	1863			1766	
Peak-hour factor, PHF	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	0	588	315	179	766	250	0	0	214	2
RTOR Reduction (vph)	0	265	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	323	0	494	766	250	0	0	216	0
Confl. Peds. (#/hr)		12	12							12
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		Over	Prot	Prot					custom	
Protected Phases		1	1	1	1 2 4	2				
Permitted Phases									4	
Actuated Green, G (s)		35.6		35.6	81.9	18.8			17.5	
Effective Green, g (s)		35.6		35.6	81.9	18.8			17.5	
Actuated g/C Ratio		0.37		0.37	0.86	0.20			0.18	
Clearance Time (s)		5.0		5.0		5.0			5.0	
Vehicle Extension (s)		2.0		2.0		2.0			2.0	
Lane Grp Cap (vph)		595		694	1598	367			324	
v/s Ratio Prot		0.20		c0.27	0.41	c0.13				
v/s Ratio Perm									c0.12	
v/c Ratio		0.54		0.71	0.48	0.68			0.67	
Uniform Delay, d1		23.6		25.6	1.6	35.6			36.3	
Progression Factor		1.00		1.00	1.00	1.00			1.00	
Incremental Delay, d2		0.5		2.9	0.1	4.1			4.0	
Delay (s)		24.1		28.5	1.7	39.7			40.3	
Level of Service		C		C	A	D			D	
Approach Delay (s)	24.1				12.2	39.7		40.3		
Approach LOS	C				B	D		D		

Intersection Summary

HCM Average Control Delay	20.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	95.5	Sum of lost time (s)	23.6
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

3: Freeman Street & Washington Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	10	1150	5	5	875
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.58	0.58	0.86	0.86	0.89	0.89
Hourly flow rate (vph)	0	17	1337	6	6	983
Pedestrians	39					39
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					3
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			256			169
pX, platoon unblocked	0.75	0.75			0.75	
vC, conflicting volume	1882	1418			1382	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2007	1391			1343	
tC, single (s)	6.8	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	81			98	
cM capacity (veh/h)	37	93			363	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	17	1343	333	655
Volume Left	0	0	6	0
Volume Right	17	6	0	0
cSH	93	1700	363	1700
Volume to Capacity	0.19	0.79	0.02	0.39
Queue Length 95th (ft)	16	0	1	0
Control Delay (s)	52.4	0.0	0.5	0.0
Lane LOS	F		A	
Approach Delay (s)	52.4	0.0	0.2	
Approach LOS	F			

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

4: Wyman Street & Washington Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	125	15	1155	815	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.86	0.86	0.89	0.89
Hourly flow rate (vph)	0	152	17	1343	916	67
Pedestrians	17			17		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				183	242	
pX, platoon unblocked	0.76					
vC, conflicting volume	2344	526	1000			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2613	526	1000			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	100	68	97			
cM capacity (veh/h)	14	473	666			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	152	1360	610	373
Volume Left	0	17	0	0
Volume Right	152	0	0	67
cSH	473	666	1700	1700
Volume to Capacity	0.32	0.03	0.36	0.22
Queue Length 95th (ft)	35	2	0	0
Control Delay (s)	16.2	1.4	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	16.2	1.4	0.0	
Approach LOS	C			

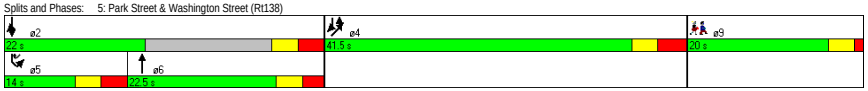
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	NBT	SBL	SBT	SBR	NET	SWR	ø9
Lane Configurations							
Volume (vph)	710	175	530	235	90	100	
Turn Type		Prot		pt+ov		Over	
Protected Phases	6	5	2	2 4	4	5	9
Permitted Phases							
Detector Phase	6	5	2	2 4	4	5	
Switch Phase							
Minimum Initial (s)	7.0	5.0	7.0		10.0	5.0	1.0
Minimum Split (s)	21.5	11.0	22.0		22.5	11.0	19.0
Total Split (s)	22.5	14.0	22.0	63.5	41.5	14.0	20.0
Total Split (%)	23.0%	14.3%	22.4%	64.8%	42.3%	14.3%	20%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.5	3.0	3.0		3.5	3.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	6.0	6.0	6.0	6.5	6.0	
Lead/Lag	Lag	Lead				Lead	
Lead-Lag Optimize?	Yes	Yes				Yes	
Recall Mode	Min	None	Min		None	None	None
Act Effct Green (s)	17.5	8.2	31.4	67.5	24.2	8.2	
Actuated g/C Ratio	0.25	0.12	0.44	0.95	0.34	0.12	
v/c Ratio	0.89	0.99	0.75	0.15	0.82	0.23	
Control Delay	42.5	98.9	27.4	1.4	34.3	1.1	
Queue Delay	0.0	0.0	1.4	0.0	0.0	0.0	
Total Delay	42.5	98.9	28.8	1.4	34.3	1.1	
LOS	D	F	C	A	C	A	
Approach Delay	42.5		35.0		34.3		
Approach LOS	D		D		C		

Intersection Summary

Cycle Length: 98
Actuated Cycle Length: 71.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 35.5 — Intersection LOS: D
Intersection Capacity Utilization 76.7% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 5: Park Street & Washington Street (Rt138)



Lane Group	NBT	SBL	SBT	SBR	NET	SWR
Lane Group Flow (vph)	755	199	602	267	500	122
v/c Ratio	0.89	0.99	0.75	0.15	0.82	0.23
Control Delay	42.5	98.9	27.4	1.4	34.3	1.1
Queue Delay	0.0	0.0	1.4	0.0	0.0	0.0
Total Delay	42.5	98.9	28.8	1.4	34.3	1.1
Queue Length 50th (ft)	154	82	188	0	178	0
Queue Length 95th (ft)	#418	#291	#584	60	393	0
Internal Link Dist (ft)	171		18		24	
Turn Bay Length (ft)						
Base Capacity (vph)	853	201	807	1736	908	520
Starvation Cap Reductn	0	0	77	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.99	0.82	0.15	0.55	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

5: Park Street & Washington Street (Rt138)

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	710	30	175	530	235	360	90	0	0	0	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5		6.0	6.0	6.0		6.5				6.0
Lane Util. Factor		0.95		1.00	1.00	1.00		1.00				1.00
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Frt		1.00		1.00	1.00	1.00		1.00				0.86
Flt Protected		1.00		0.95	1.00	1.00		0.96				1.00
Satd. Flow (prot)		3465		1736	1827	1827		1791				1508
Flt Permitted		1.00		0.95	1.00	1.00		0.96				1.00
Satd. Flow (perm)		3465		1736	1827	1827		1791				1508
Peak-hour factor, PHF	0.98	0.98	0.98	0.88	0.88	0.88	0.90	0.90	0.90	0.82	0.82	0.82
Adj. Flow (vph)	0	724	31	199	602	267	400	100	0	0	0	122
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	109
Lane Group Flow (vph)	0	755	0	199	602	267	0	500	0	0	0	13
Confl. Peds. (#/hr)			9									4
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	9%	9%	9%
Turn Type				Prot		pt+ov	custom					Over
Protected Phases		6		5	2	2 4	4	4				5
Permitted Phases							4					
Actuated Green, G (s)		17.7		8.2	31.4	61.6		24.2				8.2
Effective Green, g (s)		17.7		8.2	31.4	61.6		24.2				8.2
Actuated g/C Ratio		0.24		0.11	0.42	0.83		0.33				0.11
Clearance Time (s)		5.5		6.0	6.0			6.5				6.0
Vehicle Extension (s)		2.0		2.0	2.0			2.0				2.0
Lane Grp Cap (vph)		827		192	773	1517		584				167
v/s Ratio Prot		c0.22		0.11	c0.33	0.15		c0.28				0.01
v/s Ratio Perm												
v/c Ratio		0.91		1.04	0.78	0.18		0.86				0.08
Uniform Delay, d1		27.5		33.0	18.4	1.3		23.4				29.6
Progression Factor		1.00		1.00	1.00	1.00		1.00				1.00
Incremental Delay, d2		14.1		74.8	4.5	0.0		11.4				0.1
Delay (s)		41.6		107.8	23.0	1.3		34.8				29.7
Level of Service		D		F	C	A		C				C
Approach Delay (s)		41.6			33.4			34.8			29.7	
Approach LOS		D			C			C			C	

Intersection Summary				
HCM Average Control Delay	36.0	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.92			
Actuated Cycle Length (s)	74.2	Sum of lost time (s)	24.1	
Intersection Capacity Utilization	76.7%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

9: Wyman Street & Trackside Plaza South Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	95	180	15	5	60	2	1	0	1	2	1	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.88	0.88	0.88	0.50	0.50	0.50	0.54	0.54	0.54
Hourly flow rate (vph)	128	243	20	6	68	2	2	0	2	4	2	19
Pedestrians		16			43			37			43	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			4			3			4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	113			301			663	672	333	679	681	128
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	113			301			663	672	333	679	681	128
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			100			99	100	100	99	99	98
cM capacity (veh/h)	1399			1205			307	319	662	298	315	877

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	392	76	4	24
Volume Left	128	6	2	4
Volume Right	20	2	2	19
cSH	1399	1205	420	611
Volume to Capacity	0.09	0.00	0.01	0.04
Queue Length 95th (ft)	8	0	1	3
Control Delay (s)	3.1	0.6	13.7	11.1
Lane LOS	A	A	B	B
Approach Delay (s)	3.1	0.6	13.7	11.1
Approach LOS			B	B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	45	50	5	35	10	130	240	40	5	290	50
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.73	0.73	0.73	0.81	0.81	0.81	0.92	0.92	0.92
Hourly flow rate (vph)	33	59	66	7	48	14	160	296	49	5	315	54
Pedestrians		6			8			4			8	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1047	1034	352	1103	1036	337	376			354		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1047	1034	352	1103	1036	337	376			354		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	77	70	90	94	76	98	86			100		
cM capacity (veh/h)	144	197	685	116	197	696	1177			1170		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	158	68	506	375
Volume Left	33	7	160	5
Volume Right	66	14	49	54
cSH	253	212	1177	1170
Volume to Capacity	0.62	0.32	0.14	0.00
Queue Length 95th (ft)	95	33	12	0
Control Delay (s)	40.3	29.9	3.7	0.2
Lane LOS	E	D	A	A
Approach Delay (s)	40.3	29.9	3.7	0.2
Approach LOS	E	D		

Intersection Summary				
Average Delay	9.3			
Intersection Capacity Utilization	63.1%	ICU Level of Service	B	
Analysis Period (min)	15			

16: Brock Street & Morton Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	60	0	30	90	85	2	175	45	15	60	2
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.71	0.71	0.71	0.72	0.72	0.72
Hourly flow rate (vph)	0	69	0	39	118	112	3	246	63	21	83	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	69	270	313	107
Volume Left (vph)	0	39	3	21
Volume Right (vph)	0	112	63	3
Hadj (s)	0.03	-0.17	-0.09	0.07
Departure Headway (s)	5.4	4.9	4.9	5.3
Degree Utilization, x	0.10	0.37	0.42	0.16
Capacity (veh/h)	590	681	703	617
Control Delay (s)	9.1	10.8	11.4	9.3
Approach Delay (s)	9.1	10.8	11.4	9.3
Approach LOS	A	B	B	A

Intersection Summary				
Delay		10.7		
HCM Level of Service		B		
Intersection Capacity Utilization		38.8%	ICU Level of Service	A
Analysis Period (min)		15		

17: Brock Street & Wyman Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	90	70	1	60	30
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.75	0.75	0.87	0.87
Hourly flow rate (vph)	7	118	93	1	69	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	266	94			95	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	266	94			95	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	88			95	
cM capacity (veh/h)	687	960			1499	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	125	95	103
Volume Left	7	0	69
Volume Right	118	1	0
cSH	940	1700	1499
Volume to Capacity	0.13	0.06	0.05
Queue Length 95th (ft)	11	0	4
Control Delay (s)	9.4	0.0	5.1
Lane LOS	A		A
Approach Delay (s)	9.4	0.0	5.1
Approach LOS	A		

Intersection Summary				
Average Delay		5.3		
Intersection Capacity Utilization		24.1%	ICU Level of Service	A
Analysis Period (min)		15		

18: Park Street & Park Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	435	0	10	555	10	205	5	10	5	5	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph)	6	500	0	11	631	11	238	6	12	6	6	12
Pedestrians		1			1			1			1	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	643			501			1187	1178	502	1187	1173	638
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	643			501			1187	1178	502	1187	1173	638
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			0	97	98	96	97	98
cM capacity (veh/h)	927			1052			153	185	562	155	189	476

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	506	653	238	17	24
Volume Left	6	11	238	0	6
Volume Right	0	11	0	12	12
cSH	927	1052	153	334	251
Volume to Capacity	0.01	0.01	1.56	0.05	0.09
Queue Length 95th (ft)	0	1	406	4	8
Control Delay (s)	0.2	0.3	335.2	16.4	20.8
Lane LOS	A	A	F	C	C
Approach Delay (s)	0.2	0.3	313.5		20.8
Approach LOS			F		C

Intersection Summary				
Average Delay		56.3		
Intersection Capacity Utilization		60.5%	ICU Level of Service	B
Analysis Period (min)		15		

19: Summer Street & Wyman Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	30	1	5	45	20	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	1	5	49	22	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	92	33	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	92	33	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	100	100			
cM capacity (veh/h)	904	1041	1565			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	34	54	43
Volume Left	33	5	0
Volume Right	1	0	22
cSH	908	1565	1700
Volume to Capacity	0.04	0.00	0.03
Queue Length 95th (ft)	3	0	0
Control Delay (s)	9.1	0.8	0.0
Lane LOS	A	A	
Approach Delay (s)	9.1	0.8	0.0
Approach LOS	A		

Intersection Summary				
Average Delay		2.6		
Intersection Capacity Utilization		16.5%	ICU Level of Service	A
Analysis Period (min)		15		

1: Porter Street & Washington Street (Rt138)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	25	460	15	15	530
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.60	0.60	0.97	0.97	0.95	0.95
Hourly flow rate (vph)	0	42	474	15	16	558
Pedestrians	26		21			26
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	2		2			2
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			77			
pX, platoon unblocked	0.95	0.95			0.95	
vC, conflicting volume	1118	534			516	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1098	482			463	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			98	
cM capacity (veh/h)	211	531			1020	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	42	490	574
Volume Left	0	0	16
Volume Right	42	15	0
cSH	531	1700	1020
Volume to Capacity	0.08	0.29	0.02
Queue Length 95th (ft)	6	0	1
Control Delay (s)	12.4	0.0	0.4
Lane LOS	B		A
Approach Delay (s)	12.4	0.0	0.4
Approach LOS	B		

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		55.8%	ICU Level of Service B
Analysis Period (min)		15	

2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER	ø9
Lane Configurations						
Volume (vph)	530	155	475	530	180	
Turn Type	Over	Prot			custom	
Protected Phases	1	1	1 2 4	2		9
Permitted Phases					4	
Detector Phase	1	1	1 2 4	2	4	
Switch Phase						
Minimum Initial (s)	7.0	7.0		7.0	7.0	1.0
Minimum Split (s)	12.0	12.0		12.0	12.0	20.0
Total Split (s)	51.0	51.0	105.0	29.0	25.0	20.0
Total Split (%)	40.8%	40.8%	84.0%	23.2%	20.0%	16%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lead		Lag		
Lead-Lag Optimize?	Yes	Yes		Yes		
Recall Mode	None	None		Min	None	None
Act Effct Green (s)	34.6	34.6	90.8	25.3	16.7	
Actuated g/C Ratio	0.35	0.35	0.92	0.26	0.17	
v/c Ratio	0.74	0.76	0.29	1.13	0.74	
Control Delay	17.7	38.0	2.1	118.3	58.1	
Queue Delay	0.0	0.7	0.1	0.0	0.0	
Total Delay	17.7	38.7	2.2	118.3	58.1	
LOS	B	D	A	F	E	
Approach Delay			20.6	118.3		
Approach LOS			C	F		

Intersection Summary	
Cycle Length: 125	
Actuated Cycle Length: 98.4	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 45.8	Intersection LOS: D
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER
Lane Group Flow (vph)	589	500	490	535	220
v/c Ratio	0.74	0.76	0.29	1.13	0.74
Control Delay	17.7	38.0	2.1	118.3	58.1
Queue Delay	0.0	0.7	0.1	0.0	0.0
Total Delay	17.7	38.7	2.2	118.3	58.1
Queue Length 50th (ft)	110	244	0	~362	119
Queue Length 95th (ft)	312	474	115	#813	#256
Internal Link Dist (ft)			89	1	
Turn Bay Length (ft)					
Base Capacity (vph)	972	918	1705	474	376
Starvation Cap Reductn	0	165	245	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.66	0.34	1.13	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Volume (vph)	0	530	330	155	475	530	0	0	180	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00			1.00	
Frpb, ped/bikes		1.00		1.00	1.00	1.00			0.94	
Flpb, ped/bikes		1.00		1.00	1.00	1.00			1.00	
Frt		0.86		1.00	1.00	1.00			1.00	
Flt Protected		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (prot)		1611		1863	1863	1845			1760	
Flt Permitted		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (perm)		1611		1863	1863	1845			1760	
Peak-hour factor, PHF	0.90	0.90	0.97	0.97	0.97	0.99	0.99	0.84	0.84	0.84
Adj. Flow (vph)	0	589	340	160	490	535	0	0	214	6
RTOR Reduction (vph)	0	231	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	358	0	500	490	535	0	0	220	0
Confl. Peds. (#/hr)		12								12
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%
Turn Type		Over	Prot	Prot					custom	
Protected Phases		1	1	1	1 2 4	2				
Permitted Phases									4	
Actuated Green, G (s)		34.6		34.6	86.6	25.3			16.7	
Effective Green, g (s)		34.6		34.6	86.6	25.3			16.7	
Actuated g/C Ratio		0.34		0.34	0.86	0.25			0.17	
Clearance Time (s)		5.0		5.0		5.0			5.0	
Vehicle Extension (s)		2.0		2.0		2.0			2.0	
Lane Grp Cap (vph)		555		642	1607	465			293	
v/s Ratio Prot		0.22		c0.27	0.26	c0.29				
v/s Ratio Perm									c0.13	
v/c Ratio		0.65		0.78	0.30	1.15			0.75	
Uniform Delay, d1		27.7		29.5	1.3	37.6			39.9	
Progression Factor		1.00		1.00	1.00	1.00			1.00	
Incremental Delay, d2		1.9		5.4	0.0	90.0			9.2	
Delay (s)		29.7		34.9	1.3	127.6			49.1	
Level of Service		C		C	A	F			D	
Approach Delay (s)	29.7				18.3	127.6		49.1		
Approach LOS	C				B	F		D		

Intersection Summary

HCM Average Control Delay	49.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.4	Sum of lost time (s)	23.8
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

3: Freeman Street & Washington Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	945	10	5	1235
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.70	0.70	0.95	0.95	0.94	0.94
Hourly flow rate (vph)	0	21	995	11	5	1314
Pedestrians	37					37
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					3
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			256			169
pX, platoon unblocked	0.78	0.78			0.78	
vC, conflicting volume	1705	1074			1042	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1762	954			914	
tC, single (s)	7.1	7.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	100	88			99	
cM capacity (veh/h)	50	174			561	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	21	1005	443	876
Volume Left	0	0	5	0
Volume Right	21	11	0	0
cSH	174	1700	561	1700
Volume to Capacity	0.12	0.59	0.01	0.52
Queue Length 95th (ft)	10	0	1	0
Control Delay (s)	28.5	0.0	0.3	0.0
Lane LOS	D		A	
Approach Delay (s)	28.5	0.0	0.1	
Approach LOS	D			

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

4: Wyman Street & Washington Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	125	15	955	1165	70
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.95	0.95	0.94	0.94
Hourly flow rate (vph)	0	154	16	1005	1239	74
Pedestrians	24			24		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	2			2		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				183	242	
pX, platoon unblocked	0.79					
vC, conflicting volume	2337	705	1338			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2561	705	1338			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	58	97			
cM capacity (veh/h)	16	364	501			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	154	1021	826	488
Volume Left	0	16	0	0
Volume Right	154	0	0	74
cSH	364	501	1700	1700
Volume to Capacity	0.42	0.03	0.49	0.29
Queue Length 95th (ft)	51	2	0	0
Control Delay (s)	22.0	1.1	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	22.0	1.1	0.0	
Approach LOS	C			

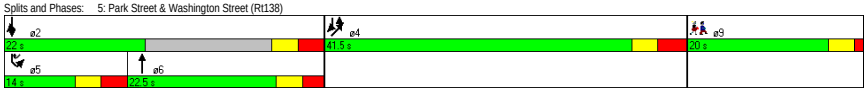
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	NBT	SBL	SBT	SBR	NET	SWR	ø9
Lane Configurations							
Volume (vph)	545	140	625	525	95	180	
Turn Type		Prot		pt+ov		Over	
Protected Phases	6	5	2	2 4	4	5	9
Permitted Phases							
Detector Phase	6	5	2	2 4	4	5	
Switch Phase							
Minimum Initial (s)	7.0	5.0	7.0		10.0	5.0	1.0
Minimum Split (s)	21.5	11.0	22.0		22.5	11.0	19.0
Total Split (s)	22.5	14.0	22.0	63.5	41.5	14.0	20.0
Total Split (%)	23.0%	14.3%	22.4%	64.8%	42.3%	14.3%	20%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.5	3.0	3.0		3.5	3.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	6.0	6.0	6.0	6.5	6.0	
Lead/Lag	Lag	Lead				Lead	
Lead-Lag Optimize?	Yes	Yes				Yes	
Recall Mode	Min	None	Min		None	None	None
Act Effct Green (s)	17.9	8.4	32.1	65.4	22.0	8.4	
Actuated g/C Ratio	0.25	0.12	0.44	0.90	0.30	0.12	
v/c Ratio	0.78	0.71	0.79	0.32	0.74	0.37	
Control Delay	37.5	57.2	31.5	3.0	32.2	1.8	
Queue Delay	0.0	0.0	2.6	0.0	0.0	0.0	
Total Delay	37.5	57.2	34.2	3.0	32.2	1.8	
LOS	D	E	C	A	C	A	
Approach Delay	37.5		24.0		32.2		
Approach LOS	D		C		C		

Intersection Summary

Cycle Length: 98
Actuated Cycle Length: 72.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 26.9 — Intersection LOS: C
Intersection Capacity Utilization 68.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Park Street & Washington Street (Rt138)



Lane Group	NBT	SBL	SBT	SBR	NET	SWR
Lane Group Flow (vph)	675	144	644	541	400	220
v/c Ratio	0.78	0.71	0.79	0.32	0.74	0.37
Control Delay	37.5	57.2	31.5	3.0	32.2	1.8
Queue Delay	0.0	0.0	2.6	0.0	0.0	0.0
Total Delay	37.5	57.2	34.2	3.0	32.2	1.8
Queue Length 50th (ft)	120	53	178	0	132	0
Queue Length 95th (ft)	#332	#211	#657	140	273	0
Internal Link Dist (ft)	171		18		24	
Turn Bay Length (ft)						
Base Capacity (vph)	864	204	820	1694	908	592
Starvation Cap Reductn	0	0	89	185	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.71	0.88	0.36	0.44	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

5: Park Street & Washington Street (Rt138)

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	545	35	140	625	525	245	95	0	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5		6.0	6.0	6.0		6.5				6.0
Lane Util. Factor		0.95		1.00	1.00	1.00		1.00				1.00
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Frt		1.00		1.00	1.00	1.00		1.00				0.86
Flt Protected		1.00		0.95	1.00	1.00		0.97				1.00
Satd. Flow (prot)		3527		1770	1863	1863		1798				1611
Flt Permitted		1.00		0.95	1.00	1.00		0.97				1.00
Satd. Flow (perm)		3527		1770	1863	1863		1798				1611
Peak-hour factor, PHF	0.86	0.86	0.86	0.97	0.97	0.97	0.85	0.85	0.85	0.82	0.82	0.82
Adj. Flow (vph)	0	634	41	144	644	541	288	112	0	0	0	220
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	195
Lane Group Flow (vph)	0	675	0	144	644	541	0	400	0	0	0	25
Confl. Peds. (#/hr)			18	8					23			8
Turn Type				Prot		pt+ov	custom					Over
Protected Phases		6		5	2	2 4	4	4				5
Permitted Phases							4					
Actuated Green, G (s)		18.2		8.4	32.1	60.1		22.0				8.4
Effective Green, g (s)		18.2		8.4	32.1	60.1		22.0				8.4
Actuated g/C Ratio		0.24		0.11	0.43	0.80		0.29				0.11
Clearance Time (s)		5.5		6.0	6.0			6.5				6.0
Vehicle Extension (s)		2.0		2.0	2.0			2.0				2.0
Lane Grp Cap (vph)		856		198	797	1493		527				180
v/s Ratio Prot		0.19		0.08	c0.35	0.29		c0.22				0.02
v/s Ratio Perm												
v/c Ratio		0.79		0.73	0.81	0.36		0.76				0.14
Uniform Delay, d1		26.6		32.2	18.8	2.1		24.1				30.0
Progression Factor		1.00		1.00	1.00	1.00		1.00				1.00
Incremental Delay, d2		4.5		10.7	5.7	0.1		5.5				0.1
Delay (s)		31.1		42.9	24.5	2.1		29.6				30.2
Level of Service		C		D	C	A		C				C
Approach Delay (s)		31.1			17.4			29.6			30.2	
Approach LOS		C			B			C			C	

Intersection Summary				
HCM Average Control Delay	23.8	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.79			
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.9	
Intersection Capacity Utilization	68.5%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group

9: Wyman Street & Trackside Plaza South Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	110	2	5	130	5	5	0	0	5	0	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.90	0.90	0.90	0.29	0.29	0.29	0.60	0.60	0.60
Hourly flow rate (vph)	26	141	3	6	144	6	17	0	0	8	0	42
Pedestrians		11			43			43			40	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			4			4			3	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	190			187			448	438	228	435	436	198
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	190			187			448	438	228	435	436	198
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			96	100	100	98	100	95
cM capacity (veh/h)	1293			1338			440	466	754	461	467	807

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	169	156	17	50
Volume Left	26	6	17	8
Volume Right	3	6	0	42
cSH	1293	1338	440	718
Volume to Capacity	0.02	0.00	0.04	0.07
Queue Length 95th (ft)	2	0	3	6
Control Delay (s)	1.3	0.3	13.5	10.4
Lane LOS	A	A	B	B
Approach Delay (s)	1.3	0.3	13.5	10.4
Approach LOS			B	B

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	55	70	20	45	5	65	380	20	10	715	50
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.86	0.86	0.86	0.95	0.95	0.95	0.85	0.85	0.85
Hourly flow rate (vph)	23	62	80	23	52	6	68	400	21	12	841	59
Pedestrians		1						1				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		4.0						4.0				
Percent Blockage		0						0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1474	1453	873	1553	1472	411	901			421		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1474	1453	873	1553	1472	411	901			421		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	63	47	77	39	54	99	91			99		
cM capacity (veh/h)	62	117	349	38	114	641	754			1138		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	165	81	489	912
Volume Left	23	23	68	12
Volume Right	80	6	21	59
cSH	146	76	754	1138
Volume to Capacity	1.13	1.08	0.09	0.01
Queue Length 95th (ft)	228	147	7	1
Control Delay (s)	174.7	222.0	2.5	0.3
Lane LOS	F	F	A	A
Approach Delay (s)	174.7	222.0	2.5	0.3
Approach LOS	F	F		

Intersection Summary				
Average Delay		29.3		
Intersection Capacity Utilization		78.8%	ICU Level of Service	D
Analysis Period (min)		15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	70	0	25	115	25	2	70	20	40	115	0
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.71	0.71	0.71	0.72	0.72	0.72
Hourly flow rate (vph)	6	80	0	33	151	33	3	99	28	56	160	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	86	217	130	215
Volume Left (vph)	6	33	3	56
Volume Right (vph)	0	33	28	0
Hadj (s)	0.05	-0.01	-0.09	0.10
Departure Headway (s)	5.1	4.9	4.9	5.0
Degree Utilization, x	0.12	0.30	0.18	0.30
Capacity (veh/h)	635	686	680	680
Control Delay (s)	8.9	9.9	8.9	10.0
Approach Delay (s)	8.9	9.9	8.9	10.0
Approach LOS	A	A	A	B

Intersection Summary				
Delay		9.6		
HCM Level of Service		A		
Intersection Capacity Utilization		37.1%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	115	45	0	75	45
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.75	0.75	0.87	0.87
Hourly flow rate (vph)	0	151	60	0	86	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	284	60			60	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	284	60			60	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	85			94	
cM capacity (veh/h)	665	1003			1544	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	151	60	138
Volume Left	0	0	86
Volume Right	151	0	0
cSH	1003	1700	1544
Volume to Capacity	0.15	0.04	0.06
Queue Length 95th (ft)	13	0	4
Control Delay (s)	9.2	0.0	4.8
Lane LOS	A		A
Approach Delay (s)	9.2	0.0	4.8
Approach LOS	A		

Intersection Summary				
Average Delay		5.9		
Intersection Capacity Utilization		27.0%	ICU Level of Service	A
Analysis Period (min)		15		

18: Park Street & Park Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	525	0	20	460	15	120	10	15	10	15	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.83	0.83	0.83	0.72	0.72	0.72
Hourly flow rate (vph)	22	565	0	21	474	15	145	12	18	14	21	35
Pedestrians		2			6			6			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	492			571			1184	1146	577	1163	1139	486
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	492			571			1184	1146	577	1163	1139	486
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			98			0	94	96	91	89	94
cM capacity (veh/h)	1070			997			137	190	511	151	192	579

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	586	510	145	30	69
Volume Left	22	21	145	0	14
Volume Right	0	15	0	18	35
cSH	1070	997	137	305	267
Volume to Capacity	0.02	0.02	1.05	0.10	0.26
Queue Length 95th (ft)	2	2	196	8	25
Control Delay (s)	0.6	0.6	155.4	18.1	23.2
Lane LOS	A	A	F	C	C
Approach Delay (s)	0.6	0.6	131.8		23.2
Approach LOS			F		C

Intersection Summary				
Average Delay		18.8		
Intersection Capacity Utilization		55.1%	ICU Level of Service	B
Analysis Period (min)		15		

19: Summer Street & Wyman Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	55	10	0	25	25	30
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	60	11	0	27	27	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	71	43	60			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	71	43	60			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	99	100			
cM capacity (veh/h)	934	1027	1544			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	71	27	60
Volume Left	60	0	0
Volume Right	11	0	33
cSH	947	1544	1700
Volume to Capacity	0.07	0.00	0.04
Queue Length 95th (ft)	6	0	0
Control Delay (s)	9.1	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.1	0.0	0.0
Approach LOS	A		

Intersection Summary				
Average Delay		4.1		
Intersection Capacity Utilization		13.7%	ICU Level of Service	A
Analysis Period (min)		15		

1: Porter Street & Washington Street (Rt138)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	730	10	10	245
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.54	0.54	0.98	0.98	0.93	0.93
Hourly flow rate (vph)	0	28	745	10	11	263
Pedestrians	13					13
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			77			
pX, platoon unblocked	0.89	0.89			0.89	
vC, conflicting volume	1048	776			768	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	992	686			677	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	93			99	
cM capacity (veh/h)	237	389			792	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	755	274
Volume Left	0	0	11
Volume Right	28	10	0
cSH	389	1700	792
Volume to Capacity	0.07	0.44	0.01
Queue Length 95th (ft)	6	0	1
Control Delay (s)	15.0	0.0	0.5
Lane LOS	B		A
Approach Delay (s)	15.0	0.0	0.5
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		52.6%	ICU Level of Service A
Analysis Period (min)		15	

2: Porter Street & Washington Street (Rt138)

Lane Group	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER	SER2	ø9
Lane Configurations											
Volume (vph)	0	495	310	175	740	245	0	0	190	2	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red		Yes								No	
Link Speed (mph)	30				30	30		30			
Link Distance (ft)	255				169	77		193			
Travel Time (s)	5.8				3.8	1.8		4.4			
Confl. Peds. (#/hr)		12	12							12	
Peak Hour Factor	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.84	0.84	0.84	
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	619	0	527	804	266	0	0	228	0	
Turn Type		Over	Prot	Prot					custom		
Protected Phases		1	1	1	1 2 4	2					9
Permitted Phases									4		
Detector Phase		1	1	1	1 2 4	2			4		
Switch Phase											
Minimum Initial (s)		7.0	7.0	7.0		7.0			7.0		1.0
Minimum Split (s)		12.0	12.0	12.0		12.0			12.0		20.0
Total Split (s)	0.0	51.0	51.0	51.0	105.0	29.0	0.0	0.0	25.0	0.0	20.0
Total Split (%)	0.0%	40.8%	40.8%	40.8%	84.0%	23.2%	0.0%	0.0%	20.0%	0.0%	16%
Yellow Time (s)		3.0	3.0	3.0		3.0			3.0		3.0
All-Red Time (s)		2.0	2.0	2.0		2.0			2.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	
Lead/Lag		Lead	Lead	Lead		Lag					
Lead-Lag Optimize?		Yes	Yes	Yes		Yes					
Recall Mode		None	None	None		Min			None		None
v/c Ratio		0.71		0.73	0.47	0.71			0.71		
Control Delay		14.6		34.9	3.2	51.4			55.2		
Queue Delay		0.0		1.2	0.1	0.0			0.0		
Total Delay		14.6		36.1	3.3	51.4			55.2		
Queue Length 50th (ft)		94		259	0	152			132		
Queue Length 95th (ft)		199		508	243	#316			#271		
Internal Link Dist (ft)	175				89	1		113			
Turn Bay Length (ft)											
Base Capacity (vph)		1010		944	1697	492			387		
Starvation Cap Reductn		0		216	173	0			0		
Spillback Cap Reductn		0		0	0	0			0		
Storage Cap Reductn		0		0	0	0			0		
Reduced v/c Ratio		0.61		0.72	0.53	0.54			0.59		

Intersection Summary	
Area Type:	Other
Cycle Length: 125	
Actuated Cycle Length: 97.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Porter Street & Washington Street (Rt138)

Movement	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Volume (vph)	0	495	310	175	740	245	0	0	190	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00			1.00	
Frpb, ped/bikes		1.00		1.00	1.00	1.00			0.95	
Flpb, ped/bikes		1.00		1.00	1.00	1.00			1.00	
Frt		0.86		1.00	1.00	1.00			1.00	
Flt Protected		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (prot)		1596		1863	1863	1863			1765	
Flt Permitted		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (perm)		1596		1863	1863	1863			1765	
Peak-hour factor, PHF	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	0	619	337	190	804	266	0	0	226	2
RTOR Reduction (vph)	0	252	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	367	0	527	804	266	0	0	228	0
Confl. Peds. (#/hr)		12	12							12
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		Over	Prot	Prot					custom	
Protected Phases		1	1	1	1 2 4	2				
Permitted Phases									4	
Actuated Green, G (s)		38.0		38.0	85.8	19.8			18.0	
Effective Green, g (s)		38.0		38.0	85.8	19.8			18.0	
Actuated g/C Ratio		0.38		0.38	0.86	0.20			0.18	
Clearance Time (s)		5.0		5.0		5.0			5.0	
Vehicle Extension (s)		2.0		2.0		2.0			2.0	
Lane Grp Cap (vph)		610		711	1606	371			319	
v/s Ratio Prot		0.23		c0.28	0.43	c0.14				
v/s Ratio Perm									c0.13	
v/c Ratio		0.60		0.74	0.50	0.72			0.71	
Uniform Delay, d1		24.7		26.5	1.7	37.2			38.3	
Progression Factor		1.00		1.00	1.00	1.00			1.00	
Incremental Delay, d2		1.1		3.7	0.1	5.4			6.2	
Delay (s)		25.8		30.2	1.7	42.7			44.5	
Level of Service		C		C	A	D			D	
Approach Delay (s)	25.8				13.0	42.7		44.5		
Approach LOS	C				B	D		D		

Intersection Summary				
HCM Average Control Delay	22.4	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.73			
Actuated Cycle Length (s)	99.5	Sum of lost time (s)	23.7	
Intersection Capacity Utilization	69.6%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	10	1215	5	5	925
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.58	0.58	0.86	0.86	0.89	0.89
Hourly flow rate (vph)	0	17	1413	6	6	1039
Pedestrians	39					39
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					3
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			256			169
pX, platoon unblocked	0.74	0.74			0.74	
vC, conflicting volume	1986	1494			1458	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2153	1492			1443	
tC, single (s)	6.8	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	78			98	
cM capacity (veh/h)	29	78			328	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	17	1419	352	693
Volume Left	0	0	6	0
Volume Right	17	6	0	0
cSH	78	1700	328	1700
Volume to Capacity	0.22	0.83	0.02	0.41
Queue Length 95th (ft)	19	0	1	0
Control Delay (s)	63.4	0.0	0.6	0.0
Lane LOS	F		A	
Approach Delay (s)	63.4	0.0	0.2	
Approach LOS	F			

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

4: Wyman Street & Washington Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	130	15	1220	860	65
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.86	0.86	0.89	0.89
Hourly flow rate (vph)	0	159	17	1419	966	73
Pedestrians	17			17		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				183	242	
pX, platoon unblocked	0.75					
vC, conflicting volume	2473	554	1056			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2798	554	1056			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	100	65	97			
cM capacity (veh/h)	10	453	634			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	159	1436	644	395
Volume Left	0	17	0	0
Volume Right	159	0	0	73
cSH	453	634	1700	1700
Volume to Capacity	0.35	0.03	0.38	0.23
Queue Length 95th (ft)	39	2	0	0
Control Delay (s)	17.2	1.9	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	17.2	1.9	0.0	
Approach LOS	C			

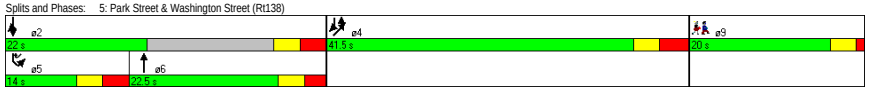
Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

5: Park Street & Washington Street (Rt138)

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR	ø9
Lane Configurations													
Volume (vph)	0	750	30	185	560	245	380	95	0	0	0	105	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			No			No			No			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		251			98			104			233		
Travel Time (s)		5.7			2.2			2.4			5.3		
Confl. Peds. (#/hr)			9									4	
Confl. Bikes (#/hr)			1										
Peak Hour Factor	0.98	0.98	0.98	0.88	0.88	0.88	0.90	0.90	0.90	0.82	0.82	0.82	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	9%	9%	9%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	796	0	210	636	278	0	528	0	0	0	128	
Turn Type				Prot		pt+ov	custom					Over	
Protected Phases		6		5	2	2 4	4	4				5	9
Permitted Phases							4						
Detector Phase		6		5	2	2 4	4	4				5	
Switch Phase													
Minimum Initial (s)		7.0		5.0	7.0		10.0	10.0				5.0	1.0
Minimum Split (s)		21.5		11.0	22.0		22.5	22.5				11.0	19.0
Total Split (s)	0.0	22.5	0.0	14.0	22.0	63.5	41.5	41.5	0.0	0.0	0.0	14.0	20.0
Total Split (%)	0.0%	23.0%	0.0%	14.3%	22.4%	64.8%	42.3%	42.3%	0.0%	0.0%	0.0%	14.3%	20%
Yellow Time (s)		3.0		3.0	3.0		3.0	3.0				3.0	3.0
All-Red Time (s)		2.5		3.0	3.0		3.5	3.5				3.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.5	4.0	6.0	6.0	6.0	6.5	6.5	4.0	4.0	4.0	6.0	
Lead/Lag		Lag		Lead								Lead	
Lead-Lag Optimize?		Yes		Yes								Yes	
Recall Mode		Min		None	Min		None	None				None	None
v/c Ratio		0.96		1.07	0.81	0.16		0.82				0.25	
Control Delay		54.1		122.3	31.6	1.4		34.2				1.2	
Queue Delay		0.0		0.0	2.8	0.0		0.0				0.0	
Total Delay		54.1		122.3	34.4	1.4		34.2				1.2	
Queue Length 50th (ft)		176		~101	226	0		192				0	
Queue Length 95th (ft)		#447		#308	#630	63		#456				0	
Internal Link Dist (ft)		171			18			24			153		
Turn Bay Length (ft)													
Base Capacity (vph)		829		196	785	1727		883				507	
Starvation Cap Reductn		0		0	72	0		0				0	
Spillback Cap Reductn		0		0	0	0		0				0	
Storage Cap Reductn		0		0	0	0		0				0	
Reduced v/c Ratio		0.96		1.07	0.89	0.16		0.60				0.25	

Intersection Summary	
Area Type:	Other
Cycle Length: 98	
Actuated Cycle Length: 72.9	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 5: Park Street & Washington Street (Rt138)



5: Park Street & Washington Street (Rt138)

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	750	30	185	560	245	380	95	0	0	0	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5		6.0	6.0	6.0		6.5				6.0
Lane Util. Factor		0.95		1.00	1.00	1.00		1.00				1.00
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Frt		1.00		1.00	1.00	1.00		1.00				0.86
Flt Protected		1.00		0.95	1.00	1.00		0.96				1.00
Satd. Flow (prot)		3466		1736	1827	1827		1791				1508
Flt Permitted		1.00		0.95	1.00	1.00		0.96				1.00
Satd. Flow (perm)		3466		1736	1827	1827		1791				1508
Peak-hour factor, PHF	0.98	0.98	0.98	0.88	0.88	0.88	0.90	0.90	0.90	0.82	0.82	0.82
Adj. Flow (vph)	0	765	31	210	636	278	422	106	0	0	0	128
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	114
Lane Group Flow (vph)	0	796	0	210	636	278	0	528	0	0	0	14
Confl. Peds. (#/hr)			9									4
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	9%	9%	9%
Turn Type				Prot		pt+ov	custom					Over
Protected Phases		6		5	2	2 4	4	4				5
Permitted Phases							4					
Actuated Green, G (s)		17.6		8.2	31.3	63.3		26.0				8.2
Effective Green, g (s)		17.6		8.2	31.3	63.3		26.0				8.2
Actuated g/C Ratio		0.23		0.11	0.41	0.83		0.34				0.11
Clearance Time (s)		5.5		6.0	6.0			6.5				6.0
Vehicle Extension (s)		2.0		2.0	2.0			2.0				2.0
Lane Grp Cap (vph)		804		188	753	1524		614				163
v/s Ratio Prot		c0.23		0.12	c0.35	0.15		c0.29				0.01
v/s Ratio Perm												
v/c Ratio		0.99		1.12	0.84	0.18		0.86				0.08
Uniform Delay, d1		29.1		33.9	20.1	1.2		23.3				30.5
Progression Factor		1.00		1.00	1.00	1.00		1.00				1.00
Incremental Delay, d2		29.1		100.5	8.3	0.0		11.2				0.1
Delay (s)		58.2		134.4	28.4	1.3		34.4				30.6
Level of Service		E		F	C	A		C				C
Approach Delay (s)		58.2			41.5			34.4			30.6	
Approach LOS		E			D			C			C	

Intersection Summary				
HCM Average Control Delay	44.7	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.96			
Actuated Cycle Length (s)	75.9	Sum of lost time (s)	24.1	
Intersection Capacity Utilization	79.7%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

9: Wyman Street & Trackside Plaza South Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	105	195	17	5	62	2	1	0	1	2	1	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.88	0.88	0.88	0.50	0.50	0.50	0.54	0.54	0.54
Hourly flow rate (vph)	142	264	23	6	70	2	2	0	2	4	2	20
Pedestrians		16			43			37			43	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			4			3			4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	116			323			716	723	355	730	733	131
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	116			323			716	723	355	730	733	131
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			100			99	100	100	99	99	98
cM capacity (veh/h)	1397			1182			280	295	644	274	291	874

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	428	78	4	26
Volume Left	142	6	2	4
Volume Right	23	2	2	20
cSH	1397	1182	391	600
Volume to Capacity	0.10	0.00	0.01	0.04
Queue Length 95th (ft)	8	0	1	3
Control Delay (s)	3.2	0.6	14.3	11.3
Lane LOS	A	A	B	B
Approach Delay (s)	3.2	0.6	14.3	11.3
Approach LOS			B	B

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		

10: Wyman Street & Morton Street

Intersection Sign configuration not allowed in HCM analysis.

15: Brock Street & Washington Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	45	55	5	35	10	140	255	40	5	305	55
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.73	0.73	0.73	0.81	0.81	0.81	0.92	0.92	0.92
Hourly flow rate (vph)	33	59	72	7	48	14	173	315	49	5	332	60
Pedestrians		6			8			4			8	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1109	1096	371	1171	1101	356	397			372		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1109	1096	371	1171	1101	356	397			372		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	74	67	89	93	73	98	85			100		
cM capacity (veh/h)	126	178	669	98	177	679	1155			1152		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	164	68	537	397
Volume Left	33	7	173	5
Volume Right	72	14	49	60
cSH	235	190	1155	1152
Volume to Capacity	0.70	0.36	0.15	0.00
Queue Length 95th (ft)	115	38	13	0
Control Delay (s)	49.8	34.3	3.9	0.2
Lane LOS	E	D	A	A
Approach Delay (s)	49.8	34.3	3.9	0.2
Approach LOS	E	D		

Intersection Summary			
Average Delay	10.9		
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	65	0	30	95	90	2	190	45	15	65	2
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.71	0.71	0.71	0.72	0.72	0.72
Hourly flow rate (vph)	0	75	0	39	125	118	3	268	63	21	90	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	75	283	334	114
Volume Left (vph)	0	39	3	21
Volume Right (vph)	0	118	63	3
Hadj (s)	0.03	-0.17	-0.08	0.07
Departure Headway (s)	5.6	5.0	5.0	5.4
Degree Utilization, x	0.12	0.40	0.46	0.17
Capacity (veh/h)	571	666	681	602
Control Delay (s)	9.3	11.3	12.1	9.6
Approach Delay (s)	9.3	11.3	12.1	9.6
Approach LOS	A	B	B	A

Intersection Summary				
Delay		11.2		
HCM Level of Service		B		
Intersection Capacity Utilization		39.7%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	95	75	1	65	30
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.75	0.75	0.87	0.87
Hourly flow rate (vph)	7	125	100	1	75	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	285	101			101	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	285	101			101	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	87			95	
cM capacity (veh/h)	668	952			1491	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	132	101	109
Volume Left	7	0	75
Volume Right	125	1	0
cSH	932	1700	1491
Volume to Capacity	0.14	0.06	0.05
Queue Length 95th (ft)	12	0	4
Control Delay (s)	9.5	0.0	5.3
Lane LOS	A		A
Approach Delay (s)	9.5	0.0	5.3
Approach LOS	A		

Intersection Summary				
Average Delay		5.3		
Intersection Capacity Utilization		24.7%	ICU Level of Service	A
Analysis Period (min)		15		

18: Park Street & Park Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	460	0	10	585	10	215	5	10	5	5	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph)	6	529	0	11	665	11	250	6	12	6	6	12
Pedestrians		1			1			1			1	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	677			530			1250	1241	531	1250	1235	672
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	677			530			1250	1241	531	1250	1235	672
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			0	97	98	96	97	97
cM capacity (veh/h)	900			1027			138	169	542	140	173	455

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	534	688	250	17	24
Volume Left	6	11	250	0	6
Volume Right	0	11	0	12	12
cSH	900	1027	138	312	231
Volume to Capacity	0.01	0.01	1.82	0.06	0.10
Queue Length 95th (ft)	0	1	475	4	8
Control Delay (s)	0.2	0.3	449.6	17.2	22.3
Lane LOS	A	A	F	C	C
Approach Delay (s)	0.2	0.3	421.4		22.3
Approach LOS			F		C

Intersection Summary				
Average Delay		75.0		
Intersection Capacity Utilization		62.7%	ICU Level of Service	B
Analysis Period (min)		15		

19: Summer Street & Wyman Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	35	1	5	50	20	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	1	5	54	22	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	98	33	43			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	98	33	43			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	100	100			
cM capacity (veh/h)	898	1041	1565			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	39	60	43
Volume Left	38	5	0
Volume Right	1	0	22
cSH	902	1565	1700
Volume to Capacity	0.04	0.00	0.03
Queue Length 95th (ft)	3	0	0
Control Delay (s)	9.2	0.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.2	0.7	0.0
Approach LOS	A		

Intersection Summary				
Average Delay		2.8		
Intersection Capacity Utilization		16.8%	ICU Level of Service	A
Analysis Period (min)		15		

1: Porter Street & Washington Street (Rt138)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	25	485	15	15	555
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.60	0.60	0.97	0.97	0.95	0.95
Hourly flow rate (vph)	0	42	500	15	16	584
Pedestrians	26		21			26
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	2		2			2
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			77			
pX, platoon unblocked	0.95	0.95			0.95	
vC, conflicting volume	1171	560			541	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1152	506			487	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			98	
cM capacity (veh/h)	196	513			996	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	42	515	600
Volume Left	0	0	16
Volume Right	42	15	0
cSH	513	1700	996
Volume to Capacity	0.08	0.30	0.02
Queue Length 95th (ft)	7	0	1
Control Delay (s)	12.6	0.0	0.4
Lane LOS	B		A
Approach Delay (s)	12.6	0.0	0.4
Approach LOS	B		

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		57.1%	ICU Level of Service B
Analysis Period (min)		15	

2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER	ø9
Lane Configurations						
Volume (vph)	565	165	500	555	190	
Turn Type	Over	Prot			custom	
Protected Phases	1	1	1 2 4	2		9
Permitted Phases					4	
Detector Phase	1	1	1 2 4	2	4	
Switch Phase						
Minimum Initial (s)	7.0	7.0		7.0	7.0	1.0
Minimum Split (s)	12.0	12.0		12.0	12.0	20.0
Total Split (s)	51.0	51.0	105.0	29.0	25.0	20.0
Total Split (%)	40.8%	40.8%	84.0%	23.2%	20.0%	16%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lead		Lag		
Lead-Lag Optimize?	Yes	Yes		Yes		
Recall Mode	None	None		Min	None	None
Act Effct Green (s)	36.5	36.5	93.2	25.0	17.6	
Actuated g/C Ratio	0.36	0.36	0.92	0.25	0.17	
v/c Ratio	0.78	0.79	0.30	1.23	0.76	
Control Delay	20.9	39.5	2.2	155.4	59.7	
Queue Delay	0.0	1.4	0.1	0.0	0.0	
Total Delay	20.9	40.9	2.3	155.4	59.7	
LOS	C	D	A	F	E	
Approach Delay			21.9	155.4		
Approach LOS			C	F		

Intersection Summary	
Cycle Length: 125	
Actuated Cycle Length: 101	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 55.5	Intersection LOS: E
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER
Lane Group Flow (vph)	628	531	515	561	232
v/c Ratio	0.78	0.79	0.30	1.23	0.76
Control Delay	20.9	39.5	2.2	155.4	59.7
Queue Delay	0.0	1.4	0.1	0.0	0.0
Total Delay	20.9	40.9	2.3	155.4	59.7
Queue Length 50th (ft)	147	273	0	~431	132
Queue Length 95th (ft)	373	513	123	#859	#277
Internal Link Dist (ft)			89	1	
Turn Bay Length (ft)					
Base Capacity (vph)	947	885	1713	457	363
Starvation Cap Reductn	0	184	239	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.76	0.35	1.23	0.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Volume (vph)	0	565	350	165	500	555	0	0	190	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00			1.00	
Frpb, ped/bikes		1.00		1.00	1.00	1.00			0.95	
Flpb, ped/bikes		1.00		1.00	1.00	1.00			1.00	
Frt		0.86		1.00	1.00	1.00			1.00	
Flt Protected		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (prot)		1611		1863	1863	1845			1761	
Flt Permitted		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (perm)		1611		1863	1863	1845			1761	
Peak-hour factor, PHF	0.90	0.90	0.97	0.97	0.97	0.99	0.99	0.84	0.84	0.84
Adj. Flow (vph)	0	628	361	170	515	561	0	0	226	6
RTOR Reduction (vph)	0	223	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	405	0	531	515	561	0	0	232	0
Confl. Peds. (#/hr)		12								12
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%
Turn Type		Over	Prot	Prot					custom	
Protected Phases		1	1	1	1 2 4	2				
Permitted Phases									4	
Actuated Green, G (s)		36.5		36.5	89.1	25.0			17.6	
Effective Green, g (s)		36.5		36.5	89.1	25.0			17.6	
Actuated g/C Ratio		0.35		0.35	0.87	0.24			0.17	
Clearance Time (s)		5.0		5.0		5.0			5.0	
Vehicle Extension (s)		2.0		2.0		2.0			2.0	
Lane Grp Cap (vph)		571		660	1612	448			301	
v/s Ratio Prot		0.25		c0.29	0.28	c0.30				
v/s Ratio Perm									c0.13	
v/c Ratio		0.71		0.80	0.32	1.25			0.77	
Uniform Delay, d1		28.7		30.0	1.3	39.0			40.8	
Progression Factor		1.00		1.00	1.00	1.00			1.00	
Incremental Delay, d2		3.3		6.7	0.0	130.8			10.6	
Delay (s)		32.0		36.7	1.3	169.8			51.4	
Level of Service		C		D	A	F			D	
Approach Delay (s)	32.0				19.3	169.8		51.4		
Approach LOS	C				B	F		D		

Intersection Summary

HCM Average Control Delay	59.8	HCM Level of Service	E
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	103.0	Sum of lost time (s)	23.9
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

3: Freeman Street & Washington Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	995	10	5	1305
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.70	0.70	0.95	0.95	0.94	0.94
Hourly flow rate (vph)	0	21	1047	11	5	1388
Pedestrians	37					37
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					3
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			256			169
pX, platoon unblocked	0.77	0.77			0.77	
vC, conflicting volume	1794	1127			1095	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1882	1016			974	
tC, single (s)	7.1	7.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	100	86			99	
cM capacity (veh/h)	40	156			526	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	21	1058	468	926
Volume Left	0	0	5	0
Volume Right	21	11	0	0
cSH	156	1700	526	1700
Volume to Capacity	0.14	0.62	0.01	0.54
Queue Length 95th (ft)	12	0	1	0
Control Delay (s)	31.7	0.0	0.3	0.0
Lane LOS	D		A	
Approach Delay (s)	31.7	0.0	0.1	
Approach LOS	D			

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		

4: Wyman Street & Washington Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	140	15	1005	1230	75
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.95	0.95	0.94	0.94
Hourly flow rate (vph)	0	173	16	1058	1309	80
Pedestrians	24			24		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	2			2		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				183	242	
pX, platoon unblocked	0.78					
vC, conflicting volume	2462	742	1412			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2740	742	1412			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	50	97			
cM capacity (veh/h)	12	344	469			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	173	1074	872	516
Volume Left	0	16	0	0
Volume Right	173	0	0	80
cSH	344	469	1700	1700
Volume to Capacity	0.50	0.03	0.51	0.30
Queue Length 95th (ft)	67	3	0	0
Control Delay (s)	25.6	1.3	0.0	0.0
Lane LOS	D	A		
Approach Delay (s)	25.6	1.3	0.0	
Approach LOS	D			

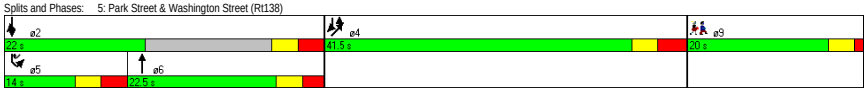
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	NBT	SBL	SBT	SBR	NET	SWR	ø9
Lane Configurations							
Volume (vph)	575	150	665	555	100	190	
Turn Type		Prot		pt+ov		Over	
Protected Phases	6	5	2	2 4	4	5	9
Permitted Phases							
Detector Phase	6	5	2	2 4	4	5	
Switch Phase							
Minimum Initial (s)	7.0	5.0	7.0		10.0	5.0	1.0
Minimum Split (s)	21.5	11.0	22.0		22.5	11.0	19.0
Total Split (s)	22.5	14.0	22.0	63.5	41.5	14.0	20.0
Total Split (%)	23.0%	14.3%	22.4%	64.8%	42.3%	14.3%	20%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.5	3.0	3.0		3.5	3.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	6.0	6.0	6.0	6.5	6.0	
Lead/Lag	Lag	Lead				Lead	
Lead-Lag Optimize?	Yes	Yes				Yes	
Recall Mode	Min	None	Min		None	None	None
Act Effct Green (s)	17.9	8.4	32.0	66.4	23.1	8.4	
Actuated g/C Ratio	0.24	0.11	0.43	0.90	0.31	0.11	
v/c Ratio	0.83	0.77	0.85	0.34	0.74	0.40	
Control Delay	41.0	63.7	36.2	3.1	32.3	2.0	
Queue Delay	0.0	0.0	6.0	0.1	0.0	0.0	
Total Delay	41.0	63.7	42.2	3.1	32.3	2.0	
LOS	D	E	D	A	C	A	
Approach Delay	41.0		28.8		32.3		
Approach LOS	D		C		C		

Intersection Summary

Cycle Length: 98
Actuated Cycle Length: 73.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 30.2 — Intersection LOS: C
Intersection Capacity Utilization 71.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Park Street & Washington Street (Rt138)



Lane Group	NBT	SBL	SBT	SBR	NET	SWR
Lane Group Flow (vph)	710	155	686	572	418	232
v/c Ratio	0.83	0.77	0.85	0.34	0.74	0.40
Control Delay	41.0	63.7	36.2	3.1	32.3	2.0
Queue Delay	0.0	0.0	6.0	0.1	0.0	0.0
Total Delay	41.0	63.7	42.2	3.1	32.3	2.0
Queue Length 50th (ft)	134	59	209	0	140	0
Queue Length 95th (ft)	#355	#228	#715	151	287	0
Internal Link Dist (ft)	171		18		24	
Turn Bay Length (ft)						
Base Capacity (vph)	852	202	808	1686	895	582
Starvation Cap Reductn	0	0	84	179	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.77	0.95	0.38	0.47	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

5: Park Street & Washington Street (Rt138)

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	575	35	150	665	555	255	100	0	0	0	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5		6.0	6.0	6.0		6.5				6.0
Lane Util. Factor		0.95		1.00	1.00	1.00		1.00				1.00
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Frt		1.00		1.00	1.00	1.00		1.00				0.86
Flt Protected		1.00		0.95	1.00	1.00		0.97				1.00
Satd. Flow (prot)		3528		1770	1863	1863		1798				1611
Flt Permitted		1.00		0.95	1.00	1.00		0.97				1.00
Satd. Flow (perm)		3528		1770	1863	1863		1798				1611
Peak-hour factor, PHF	0.86	0.86	0.86	0.97	0.97	0.97	0.85	0.85	0.85	0.82	0.82	0.82
Adj. Flow (vph)	0	669	41	155	686	572	300	118	0	0	0	232
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	206
Lane Group Flow (vph)	0	710	0	155	686	572	0	418	0	0	0	26
Confl. Peds. (#/hr)			18	8					23			8
Turn Type				Prot		pt+ov	custom					Over
Protected Phases		6		5	2	2 4	4	4				5
Permitted Phases							4					
Actuated Green, G (s)		18.2		8.4	32.1	61.2		23.1				8.4
Effective Green, g (s)		18.2		8.4	32.1	61.2		23.1				8.4
Actuated g/C Ratio		0.24		0.11	0.42	0.80		0.30				0.11
Clearance Time (s)		5.5		6.0	6.0			6.5				6.0
Vehicle Extension (s)		2.0		2.0	2.0			2.0				2.0
Lane Grp Cap (vph)		844		195	786	1498		546				178
v/s Ratio Prot		0.20		0.09	c0.37	0.31		c0.23				0.02
v/s Ratio Perm												
v/c Ratio		0.84		0.79	0.87	0.38		0.77				0.14
Uniform Delay, d1		27.6		33.0	20.1	2.1		24.0				30.6
Progression Factor		1.00		1.00	1.00	1.00		1.00				1.00
Incremental Delay, d2		7.3		18.5	10.2	0.1		5.7				0.1
Delay (s)		34.9		51.5	30.3	2.2		29.8				30.7
Level of Service		C		D	C	A		C				C
Approach Delay (s)		34.9			21.3			29.8			30.7	
Approach LOS		C			C			C			C	

Intersection Summary				
HCM Average Control Delay	26.8	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.83			
Actuated Cycle Length (s)	76.1	Sum of lost time (s)	20.9	
Intersection Capacity Utilization	71.5%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group

9: Wyman Street & Trackside Plaza South Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	120	2	5	140	5	5	0	0	5	0	28
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.90	0.90	0.90	0.29	0.29	0.29	0.60	0.60	0.60
Hourly flow rate (vph)	27	154	3	6	156	6	17	0	0	8	0	47
Pedestrians		11			43			43			40	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			4			4			3	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	201			199			479	464	241	461	463	209
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	201			199			479	464	241	461	463	209
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			96	100	100	98	100	94
cM capacity (veh/h)	1280			1324			416	450	742	442	451	796

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	183	167	17	55
Volume Left	27	6	17	8
Volume Right	3	6	0	47
cSH	1280	1324	416	710
Volume to Capacity	0.02	0.00	0.04	0.08
Queue Length 95th (ft)	2	0	3	6
Control Delay (s)	1.3	0.3	14.0	10.5
Lane LOS	A	A	B	B
Approach Delay (s)	1.3	0.3	14.0	10.5
Approach LOS			B	B

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	60	75	20	45	5	70	400	20	10	755	55
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.86	0.86	0.86	0.95	0.95	0.95	0.85	0.85	0.85
Hourly flow rate (vph)	23	68	85	23	52	6	74	421	21	12	888	65
Pedestrians		1						1				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		4.0						4.0				
Percent Blockage		0						0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1556	1535	923	1643	1556	432	954			442		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1556	1535	923	1643	1556	432	954			442		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	54	34	74	9	48	99	90			99		
cM capacity (veh/h)	49	103	327	26	100	624	720			1118		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	176	81	516	965
Volume Left	23	23	74	12
Volume Right	85	6	21	65
cSH	127	56	720	1118
Volume to Capacity	1.38	1.44	0.10	0.01
Queue Length 95th (ft)	293	183	9	1
Control Delay (s)	278.0	395.6	2.8	0.3
Lane LOS	F	F	A	A
Approach Delay (s)	278.0	395.6	2.8	0.3
Approach LOS	F	F		

Intersection Summary			
Average Delay	47.7		
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	75	0	25	120	25	2	75	20	40	125	0
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.71	0.71	0.71	0.72	0.72	0.72
Hourly flow rate (vph)	6	86	0	33	158	33	3	106	28	56	174	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	92	224	137	229
Volume Left (vph)	6	33	3	56
Volume Right (vph)	0	33	28	0
Hadj (s)	0.05	-0.01	-0.09	0.10
Departure Headway (s)	5.2	5.0	5.0	5.0
Degree Utilization, x	0.13	0.31	0.19	0.32
Capacity (veh/h)	623	674	667	672
Control Delay (s)	9.0	10.2	9.1	10.3
Approach Delay (s)	9.0	10.2	9.1	10.3
Approach LOS	A	B	A	B

Intersection Summary				
Delay		9.9		
HCM Level of Service		A		
Intersection Capacity Utilization		38.0%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	120	45	0	80	45
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.75	0.75	0.87	0.87
Hourly flow rate (vph)	0	158	60	0	92	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	296	60			60	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	296	60			60	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	84			94	
cM capacity (veh/h)	652	1003			1544	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	158	60	144
Volume Left	0	0	92
Volume Right	158	0	0
cSH	1003	1700	1544
Volume to Capacity	0.16	0.04	0.06
Queue Length 95th (ft)	14	0	5
Control Delay (s)	9.3	0.0	5.0
Lane LOS	A		A
Approach Delay (s)	9.3	0.0	5.0
Approach LOS	A		

Intersection Summary				
Average Delay		6.0		
Intersection Capacity Utilization		27.6%	ICU Level of Service	A
Analysis Period (min)		15		

18: Park Street & Park Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	560	0	20	485	15	125	10	15	10	15	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.83	0.83	0.83	0.72	0.72	0.72
Hourly flow rate (vph)	22	602	0	21	500	15	151	12	18	14	21	35
Pedestrians		2			6			6			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	517			608			1247	1210	614	1226	1202	512
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	517			608			1247	1210	614	1226	1202	512
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			98			0	93	96	90	88	94
cM capacity (veh/h)	1047			965			123	174	487	136	176	560

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	624	536	151	30	69
Volume Left	22	21	151	0	14
Volume Right	0	15	0	18	35
cSH	1047	965	123	283	245
Volume to Capacity	0.02	0.02	1.23	0.11	0.28
Queue Length 95th (ft)	2	2	236	9	28
Control Delay (s)	0.6	0.6	222.6	19.2	25.4
Lane LOS	A	A	F	C	D
Approach Delay (s)	0.6	0.6	188.7		25.4
Approach LOS			F		D

Intersection Summary				
Average Delay		25.9		
Intersection Capacity Utilization		57.4%	ICU Level of Service	B
Analysis Period (min)		15		

19: Summer Street & Wyman Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	60	10	0	25	25	35
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	11	0	27	27	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	73	46	65			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	73	46	65			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	99	100			
cM capacity (veh/h)	930	1023	1537			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	76	27	65
Volume Left	65	0	0
Volume Right	11	0	38
cSH	943	1537	1700
Volume to Capacity	0.08	0.00	0.04
Queue Length 95th (ft)	7	0	0
Control Delay (s)	9.2	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.2	0.0	0.0
Approach LOS	A		

Intersection Summary				
Average Delay		4.1		
Intersection Capacity Utilization		14.1%	ICU Level of Service	A
Analysis Period (min)		15		

1: Porter Street & Washington Street (Rt138)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	730	10	10	255
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.54	0.54	0.98	0.98	0.93	0.93
Hourly flow rate (vph)	0	28	745	10	11	274
Pedestrians	13					13
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	1					1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			77			
pX, platoon unblocked	0.89	0.89			0.89	
vC, conflicting volume	1059	776			768	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1002	683			674	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	93			99	
cM capacity (veh/h)	232	390			791	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	755	285
Volume Left	0	0	11
Volume Right	28	10	0
cSH	390	1700	791
Volume to Capacity	0.07	0.44	0.01
Queue Length 95th (ft)	6	0	1
Control Delay (s)	15.0	0.0	0.5
Lane LOS	B		A
Approach Delay (s)	15.0	0.0	0.5
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		52.6%	ICU Level of Service A
Analysis Period (min)		15	

2: Porter Street & Washington Street (Rt138)

Lane Group	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER	ø9
Lane Configurations										
Volume (vph)	0	390	245	175	740	255	0	0	190	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red		Yes								
Link Speed (mph)	30				30	30		30		
Link Distance (ft)	255				169	77		193		
Travel Time (s)	5.8				3.8	1.8		4.4		
Confl. Peds. (#/hr)		12	12							
Peak Hour Factor	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.84	0.84	
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%	2%	2%	
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	488	0	456	804	277	0	0	226	
Turn Type		Over	Prot	Prot					custom	
Protected Phases		1	1	1	1 2 4	2				9
Permitted Phases									4	
Detector Phase		1	1	1	1 2 4	2			4	
Switch Phase										
Minimum Initial (s)		7.0	7.0	7.0		7.0			7.0	1.0
Minimum Split (s)		12.0	12.0	12.0		12.0			12.0	20.0
Total Split (s)	0.0	51.0	51.0	51.0	105.0	29.0	0.0	0.0	25.0	20.0
Total Split (%)	0.0%	40.8%	40.8%	40.8%	84.0%	23.2%	0.0%	0.0%	20.0%	16%
Yellow Time (s)		3.0	3.0	3.0		3.0			3.0	3.0
All-Red Time (s)		2.0	2.0	2.0		2.0			2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	
Lead/Lag		Lead	Lead	Lead		Lag				
Lead-Lag Optimize?		Yes	Yes	Yes		Yes				
Recall Mode		None	None	None		Min			None	None
v/c Ratio		0.58		0.67	0.47	0.70			0.66	
Control Delay		8.5		32.7	3.2	49.1			50.8	
Queue Delay		0.0		0.3	0.1	0.0			0.0	
Total Delay		8.5		33.0	3.3	49.1			50.8	
Queue Length 50th (ft)		31		211	0	142			117	
Queue Length 95th (ft)		84		422	243	#338			#247	
Internal Link Dist (ft)	175				89	1		113		
Turn Bay Length (ft)										
Base Capacity (vph)		1048		1006	1689	525			437	
Starvation Cap Reductn		0		166	173	0			0	
Spillback Cap Reductn		0		0	0	0			0	
Storage Cap Reductn		0		0	0	0			0	
Reduced v/c Ratio		0.47		0.54	0.53	0.53			0.52	

Intersection Summary	
Area Type:	Other
Cycle Length: 125	
Actuated Cycle Length: 93.6	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Porter Street & Washington Street (Rt138)

Movement	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations									
Volume (vph)	0	390	245	175	740	255	0	0	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	5.0			5.0
Lane Util. Factor		1.00		1.00	1.00	1.00			1.00
Frpb, ped/bikes		1.00		1.00	1.00	1.00			1.00
Flpb, ped/bikes		1.00		1.00	1.00	1.00			1.00
Frt		0.86		1.00	1.00	1.00			1.00
Flt Protected		1.00		1.00	1.00	1.00			1.00
Satd. Flow (prot)		1596		1863	1863	1863			1863
Flt Permitted		1.00		1.00	1.00	1.00			1.00
Satd. Flow (perm)		1596		1863	1863	1863			1863
Peak-hour factor, PHF	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.84	0.84
Adj. Flow (vph)	0	488	266	190	804	277	0	0	226
RTOR Reduction (vph)	0	258	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	230	0	456	804	277	0	0	226
Confl. Peds. (#/hr)		12	12						
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	2%	2%	2%
Turn Type		Over	Prot	Prot					custom
Protected Phases		1	1	1	1 2 4	2			
Permitted Phases									4
Actuated Green, G (s)		34.2		34.2	81.4	19.9			17.3
Effective Green, g (s)		34.2		34.2	81.4	19.9			17.3
Actuated g/C Ratio		0.36		0.36	0.86	0.21			0.18
Clearance Time (s)		5.0		5.0		5.0			5.0
Vehicle Extension (s)		2.0		2.0		2.0			2.0
Lane Grp Cap (vph)		575		671	1598	391			340
v/s Ratio Prot		0.14		c0.24	0.43	c0.15			
v/s Ratio Perm									c0.12
v/c Ratio		0.40		0.68	0.50	0.71			0.66
Uniform Delay, d1		22.7		25.7	1.7	34.8			36.1
Progression Factor		1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2		0.2		2.2	0.1	4.7			3.8
Delay (s)		22.9		27.9	1.8	39.6			39.9
Level of Service		C		C	A	D			D
Approach Delay (s)	22.9				11.2	39.6		39.9	
Approach LOS	C				B	D		D	

Intersection Summary				
HCM Average Control Delay	20.1	HCM Level of Service		C
HCM Volume to Capacity ratio	0.68			
Actuated Cycle Length (s)	94.9	Sum of lost time (s)		23.5
Intersection Capacity Utilization	65.0%	ICU Level of Service		C
Analysis Period (min)	15			
c Critical Lane Group				

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	10	1150	5	5	830
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.58	0.58	0.86	0.86	0.89	0.89
Hourly flow rate (vph)	0	17	1337	6	6	933
Pedestrians	39					39
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					3
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			256			169
pX, platoon unblocked	0.76	0.76			0.76	
vC, conflicting volume	1857	1418			1382	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1972	1392			1344	
tC, single (s)	6.8	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	81			98	
cM capacity (veh/h)	39	93			364	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	17	1343	316	622
Volume Left	0	0	6	0
Volume Right	17	6	0	0
cSH	93	1700	364	1700
Volume to Capacity	0.19	0.79	0.02	0.37
Queue Length 95th (ft)	16	0	1	0
Control Delay (s)	52.3	0.0	0.5	0.0
Lane LOS	F		A	
Approach Delay (s)	52.3	0.0	0.2	
Approach LOS	F			

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

4: Wyman Street & Washington Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	115	15	1155	760	70
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.86	0.86	0.89	0.89
Hourly flow rate (vph)	0	140	17	1343	854	79
Pedestrians	17			17		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				183	242	
pX, platoon unblocked	0.76					
vC, conflicting volume	2288	500	950			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2536	500	950			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	100	71	97			
cM capacity (veh/h)	15	491	697			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	140	1360	569	363
Volume Left	0	17	0	0
Volume Right	140	0	0	79
cSH	491	697	1700	1700
Volume to Capacity	0.29	0.03	0.33	0.21
Queue Length 95th (ft)	29	2	0	0
Control Delay (s)	15.2	1.3	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	15.2	1.3	0.0	
Approach LOS	C			

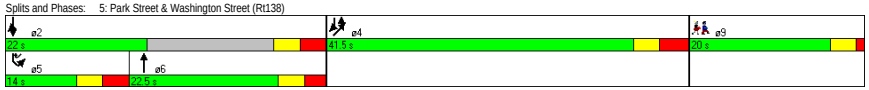
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		

5: Park Street & Washington Street (Rt138)

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR	ø9
Lane Configurations													
Volume (vph)	0	710	30	160	475	240	360	120	0	0	0	100	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Right Turn on Red			No			No			No			Yes	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		251			98			104			233		
Travel Time (s)		5.7			2.2			2.4			5.3		
Confl. Peds. (#/hr)			9									4	
Confl. Bikes (#/hr)			1										
Peak Hour Factor	0.98	0.98	0.98	0.88	0.88	0.88	0.90	0.90	0.90	0.82	0.82	0.82	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	9%	9%	9%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	755	0	182	540	273	0	533	0	0	0	122	
Turn Type				Prot		pt+ov	custom					Over	
Protected Phases		6		5	2	2 4	4	4				5	9
Permitted Phases							4						
Detector Phase		6		5	2	2 4	4	4				5	
Switch Phase													
Minimum Initial (s)		7.0		5.0	7.0		10.0	10.0				5.0	1.0
Minimum Split (s)		21.5		11.0	22.0		22.5	22.5				11.0	19.0
Total Split (s)	0.0	22.5	0.0	14.0	22.0	63.5	41.5	41.5	0.0	0.0	0.0	14.0	20.0
Total Split (%)	0.0%	23.0%	0.0%	14.3%	22.4%	64.8%	42.3%	42.3%	0.0%	0.0%	0.0%	14.3%	20%
Yellow Time (s)		3.0		3.0	3.0		3.0	3.0				3.0	3.0
All-Red Time (s)		2.5		3.0	3.0		3.5	3.5				3.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.5	4.0	6.0	6.0	6.0	6.5	6.5	4.0	4.0	4.0	6.0	
Lead/Lag		Lag		Lead								Lead	
Lead-Lag Optimize?		Yes		Yes								Yes	
Recall Mode		Min		None	Min		None	None				None	None
v/c Ratio		0.91		0.93	0.69	0.16		0.83				0.24	
Control Delay		47.0		88.0	26.3	1.4		34.3				1.1	
Queue Delay		0.0		0.0	0.9	0.0		0.0				0.0	
Total Delay		47.0		88.0	27.2	1.4		34.3				1.1	
Queue Length 50th (ft)		165		79	178	0		195				0	
Queue Length 95th (ft)		#418		#266	#500	61		#462				0	
Internal Link Dist (ft)		171			18			24			153		
Turn Bay Length (ft)													
Base Capacity (vph)		827		195	782	1725		883				517	
Starvation Cap Reductn		0		0	78	0		0				0	
Spillback Cap Reductn		0		0	0	0		0				0	
Storage Cap Reductn		0		0	0	0		0				0	
Reduced v/c Ratio		0.91		0.93	0.77	0.16		0.60				0.24	

Intersection Summary	
Area Type:	Other
Cycle Length: 98	
Actuated Cycle Length: 73.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 5: Park Street & Washington Street (Rt138)



5: Park Street & Washington Street (Rt138)

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	710	30	160	475	240	360	120	0	0	0	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5		6.0	6.0	6.0		6.5				6.0
Lane Util. Factor		0.95		1.00	1.00	1.00		1.00				1.00
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Frt		1.00		1.00	1.00	1.00		1.00				0.86
Flt Protected		1.00		0.95	1.00	1.00		0.96				1.00
Satd. Flow (prot)		3465		1736	1827	1827		1795				1508
Flt Permitted		1.00		0.95	1.00	1.00		0.96				1.00
Satd. Flow (perm)		3465		1736	1827	1827		1795				1508
Peak-hour factor, PHF	0.98	0.98	0.98	0.88	0.88	0.88	0.90	0.90	0.90	0.82	0.82	0.82
Adj. Flow (vph)	0	724	31	182	540	273	400	133	0	0	0	122
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	109
Lane Group Flow (vph)	0	755	0	182	540	273	0	533	0	0	0	13
Confl. Peds. (#/hr)			9									4
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	9%	9%	9%
Turn Type				Prot		pt+ov	custom					Over
Protected Phases		6		5	2	2 4	4	4				5
Permitted Phases							4					
Actuated Green, G (s)		17.6		8.2	31.3	63.5		26.2				8.2
Effective Green, g (s)		17.6		8.2	31.3	63.5		26.2				8.2
Actuated g/C Ratio		0.23		0.11	0.41	0.83		0.34				0.11
Clearance Time (s)		5.5		6.0	6.0			6.5				6.0
Vehicle Extension (s)		2.0		2.0	2.0			2.0				2.0
Lane Grp Cap (vph)		801		187	751	1525		618				162
v/s Ratio Prot		c0.22		0.10	c0.30	0.15		c0.30				0.01
v/s Ratio Perm												
v/c Ratio		0.94		0.97	0.72	0.18		0.86				0.08
Uniform Delay, d1		28.8		33.8	18.7	1.2		23.3				30.6
Progression Factor		1.00		1.00	1.00	1.00		1.00				1.00
Incremental Delay, d2		19.0		57.4	2.8	0.0		11.5				0.1
Delay (s)		47.7		91.3	21.5	1.2		34.8				30.6
Level of Service		D		F	C	A		C				C
Approach Delay (s)		47.7			28.7			34.8			30.6	
Approach LOS		D			C			C			C	

Intersection Summary				
HCM Average Control Delay	36.1	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.92			
Actuated Cycle Length (s)	76.1	Sum of lost time (s)	24.1	
Intersection Capacity Utilization	77.4%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

9: Wyman Street & Trackside Plaza South Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	115	0	0	80	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.88	0.88	0.88	0.50	0.50	0.50	0.54	0.54	0.54
Hourly flow rate (vph)	0	155	0	0	91	0	0	0	0	0	0	0
Pedestrians		16			43			37			43	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			4			3			4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	134			192			299	326	235	332	326	150
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134			192			299	326	235	332	326	150
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1375			1321			593	553	751	548	553	853

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	155	91	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1375	1321	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	135	95	5	85	10	165	235	40	5	305	45
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.73	0.73	0.73	0.81	0.81	0.81	0.92	0.92	0.92
Hourly flow rate (vph)	72	178	125	7	116	14	204	290	49	5	332	49
Pedestrians		6			8			4			8	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1175	1128	366	1315	1128	331	386			348		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1175	1128	366	1315	1128	331	386			348		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	0	0	81	0	30	98	83			100		
cM capacity (veh/h)	62	166	674	0	166	701	1166			1176		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	375	137	543	386
Volume Left	72	7	204	5
Volume Right	125	14	49	49
cSH	154	0	1166	1176
Volume to Capacity	2.43	Err	0.17	0.00
Queue Length 95th (ft)	799	Err	16	0
Control Delay (s)	708.9	Err	4.5	0.2
Lane LOS	F	F	A	A
Approach Delay (s)	708.9	Err	4.5	0.2
Approach LOS	F	F		

Intersection Summary				
Average Delay		Err		
Intersection Capacity Utilization	75.8%	ICU Level of Service	D	
Analysis Period (min)	15			

16: Brock Street & Morton Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	70	0	35	95	60	5	210	45	15	60	0
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.71	0.71	0.71	0.72	0.72	0.72
Hourly flow rate (vph)	0	80	0	46	125	79	7	296	63	21	83	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	80	250	366	104
Volume Left (vph)	0	46	7	21
Volume Right (vph)	0	79	63	0
Hadj (s)	0.03	-0.10	-0.07	0.09
Departure Headway (s)	5.6	5.2	4.9	5.4
Degree Utilization, x	0.12	0.36	0.50	0.16
Capacity (veh/h)	571	646	694	603
Control Delay (s)	9.4	11.0	12.7	9.4
Approach Delay (s)	9.4	11.0	12.7	9.4
Approach LOS	A	B	B	A

Intersection Summary				
Delay			11.4	
HCM Level of Service			B	
Intersection Capacity Utilization			38.4%	ICU Level of Service A
Analysis Period (min)			15	

17: Brock Street & Wyman Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	95	75	5	65	30
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.75	0.75	0.87	0.87
Hourly flow rate (vph)	7	125	100	7	75	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	287	103			107	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	287	103			107	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	87			95	
cM capacity (veh/h)	666	949			1484	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	132	107	109
Volume Left	7	0	75
Volume Right	125	7	0
cSH	929	1700	1484
Volume to Capacity	0.14	0.06	0.05
Queue Length 95th (ft)	12	0	4
Control Delay (s)	9.5	0.0	5.3
Lane LOS	A		A
Approach Delay (s)	9.5	0.0	5.3
Approach LOS	A		

Intersection Summary				
Average Delay			5.3	
Intersection Capacity Utilization			24.7%	ICU Level of Service A
Analysis Period (min)			15	

18: Park Street & Park Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	460	0	10	590	10	215	5	10	5	5	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph)	6	529	0	11	670	11	250	6	12	6	6	12
Pedestrians		1			1			1			1	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	683			530			1256	1247	531	1256	1241	678
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	683			530			1256	1247	531	1256	1241	678
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			0	97	98	96	97	97
cM capacity (veh/h)	895			1027			136	168	542	139	172	451

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	534	693	250	17	24
Volume Left	6	11	250	0	6
Volume Right	0	11	0	12	12
cSH	895	1027	136	311	229
Volume to Capacity	0.01	0.01	1.83	0.06	0.10
Queue Length 95th (ft)	0	1	478	4	8
Control Delay (s)	0.2	0.3	457.6	17.3	22.5
Lane LOS	A	A	F	C	C
Approach Delay (s)	0.2	0.3	428.9		22.5
Approach LOS			F		C

Intersection Summary				
Average Delay		76.1		
Intersection Capacity Utilization		63.0%	ICU Level of Service	B
Analysis Period (min)		15		

19: Summer Street & Wyman Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	50	5	65	45	45
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	54	5	71	49	49
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	155	73	98			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	155	73	98			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	95	100			
cM capacity (veh/h)	834	988	1495			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	54	76	98
Volume Left	0	5	0
Volume Right	54	0	49
cSH	988	1495	1700
Volume to Capacity	0.05	0.00	0.06
Queue Length 95th (ft)	4	0	0
Control Delay (s)	8.9	0.6	0.0
Lane LOS	A	A	
Approach Delay (s)	8.9	0.6	0.0
Approach LOS	A		

Intersection Summary				
Average Delay		2.3		
Intersection Capacity Utilization		17.5%	ICU Level of Service	A
Analysis Period (min)		15		

56: MBTA Driveway North & Morton Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	65	110	160	110	55
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	71	120	174	120	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	505	207			293	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	505	207			293	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	92			91	
cM capacity (veh/h)	477	834			1268	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	92	293	179
Volume Left	22	0	120
Volume Right	71	174	0
cSH	709	1700	1268
Volume to Capacity	0.13	0.17	0.09
Queue Length 95th (ft)	11	0	8
Control Delay (s)	10.8	0.0	5.7
Lane LOS	B		A
Approach Delay (s)	10.8	0.0	5.7
Approach LOS	B		

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

58: Brock Street & MBTA Driveway South

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	5	125	200	125	155	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	136	217	136	168	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	353				432	285
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	353				432	285
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				71	99
cM capacity (veh/h)	1205				578	754

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	141	353	174
Volume Left	5	0	168
Volume Right	0	136	5
cSH	1205	1700	582
Volume to Capacity	0.00	0.21	0.30
Queue Length 95th (ft)	0	0	31
Control Delay (s)	0.3	0.0	13.8
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	13.8
Approach LOS			B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

1: Porter Street & Washington Street (Rt138)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	25	485	15	15	570
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.60	0.60	0.97	0.97	0.95	0.95
Hourly flow rate (vph)	0	42	500	15	16	600
Pedestrians	26		21			26
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	2		2			2
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			77			
pX, platoon unblocked	0.95	0.95			0.95	
vC, conflicting volume	1186	560			541	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1171	513			494	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			98	
cM capacity (veh/h)	192	512			997	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	42	515	616
Volume Left	0	0	16
Volume Right	42	15	0
cSH	512	1700	997
Volume to Capacity	0.08	0.30	0.02
Queue Length 95th (ft)	7	0	1
Control Delay (s)	12.7	0.0	0.4
Lane LOS	B		A
Approach Delay (s)	12.7	0.0	0.4
Approach LOS	B		

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		57.9%	ICU Level of Service B
Analysis Period (min)		15	

2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER	ø9
Lane Configurations						
Volume (vph)	525	165	500	570	190	
Turn Type	Over	Prot			custom	
Protected Phases	1	1	1 2 4	2		9
Permitted Phases					4	
Detector Phase	1	1	1 2 4	2	4	
Switch Phase						
Minimum Initial (s)	7.0	7.0		7.0	7.0	1.0
Minimum Split (s)	12.0	12.0		12.0	12.0	20.0
Total Split (s)	51.0	51.0	105.0	29.0	25.0	20.0
Total Split (%)	40.8%	40.8%	84.0%	23.2%	20.0%	16%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lead		Lag		
Lead-Lag Optimize?	Yes	Yes		Yes		
Recall Mode	None	None		Min	None	None
Act Effct Green (s)	32.6	32.6	89.6	25.0	17.1	
Actuated g/C Ratio	0.35	0.35	0.96	0.27	0.18	
v/c Ratio	0.74	0.70	0.29	1.16	0.72	
Control Delay	16.9	32.9	1.4	127.8	52.5	
Queue Delay	0.0	0.3	0.1	0.0	0.0	
Total Delay	16.9	33.2	1.4	127.8	52.5	
LOS	B	C	A	F	D	
Approach Delay			16.3	127.8		
Approach LOS			B	F		

Intersection Summary	
Cycle Length: 125	
Actuated Cycle Length: 93.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 47.2	Intersection LOS: D
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Porter Street & Washington Street (Rt138)

Lane Group	EBR	NBL	NBT	SBT	SER
Lane Group Flow (vph)	583	454	515	576	232
v/c Ratio	0.74	0.70	0.29	1.16	0.72
Control Delay	16.9	32.9	1.4	127.8	52.5
Queue Delay	0.0	0.3	0.1	0.0	0.0
Total Delay	16.9	33.2	1.4	127.8	52.5
Queue Length 50th (ft)	112	216	0	~388	119
Queue Length 95th (ft)	310	420	123	#886	#277
Internal Link Dist (ft)			89	1	
Turn Bay Length (ft)					
Base Capacity (vph)	997	959	1757	495	393
Starvation Cap Reductn	0	135	239	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.55	0.34	1.16	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL2	NBL	NBT	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Volume (vph)	0	525	275	165	500	570	0	0	190	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00			1.00	
Frpb, ped/bikes		1.00		1.00	1.00	1.00			0.95	
Flpb, ped/bikes		1.00		1.00	1.00	1.00			1.00	
Frt		0.86		1.00	1.00	1.00			1.00	
Flt Protected		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (prot)		1611		1863	1863	1845			1764	
Flt Permitted		1.00		1.00	1.00	1.00			1.00	
Satd. Flow (perm)		1611		1863	1863	1845			1764	
Peak-hour factor, PHF	0.90	0.90	0.97	0.97	0.97	0.99	0.99	0.84	0.84	0.84
Adj. Flow (vph)	0	583	284	170	515	576	0	0	226	6
RTOR Reduction (vph)	0	228	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	355	0	454	515	576	0	0	232	0
Confl. Peds. (#/hr)		12								12
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%
Turn Type		Over	Prot	Prot					custom	
Protected Phases		1	1	1	1 2 4	2				
Permitted Phases									4	
Actuated Green, G (s)		32.6		32.6	84.7	25.0			17.1	
Effective Green, g (s)		32.6		32.6	84.7	25.0			17.1	
Actuated g/C Ratio		0.34		0.34	0.88	0.26			0.18	
Clearance Time (s)		5.0		5.0		5.0			5.0	
Vehicle Extension (s)		2.0		2.0		2.0			2.0	
Lane Grp Cap (vph)		547		633	1644	480			314	
v/s Ratio Prot		0.22		c0.24	0.28	c0.31				
v/s Ratio Perm									c0.13	
v/c Ratio		0.65		0.72	0.31	1.20			0.74	
Uniform Delay, d1		26.9		27.7	0.9	35.5			37.3	
Progression Factor		1.00		1.00	1.00	1.00			1.00	
Incremental Delay, d2		2.0		3.2	0.0	108.6			7.6	
Delay (s)		28.9		30.9	1.0	144.1			45.0	
Level of Service		C		C	A	F			D	
Approach Delay (s)	28.9				15.0	144.1		45.0		
Approach LOS	C				B	F		D		

Intersection Summary

HCM Average Control Delay	52.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

3: Freeman Street & Washington Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	15	925	10	5	1280
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.70	0.70	0.95	0.95	0.94	0.94
Hourly flow rate (vph)	0	21	974	11	5	1362
Pedestrians	37					37
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	4.0					4.0
Percent Blockage	3					3
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			256			169
pX, platoon unblocked	0.78	0.78			0.78	
vC, conflicting volume	1707	1053			1021	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1764	930			890	
tC, single (s)	7.1	7.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	100	88			99	
cM capacity (veh/h)	50	182			576	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	21	984	459	908
Volume Left	0	0	5	0
Volume Right	21	11	0	0
cSH	182	1700	576	1700
Volume to Capacity	0.12	0.58	0.01	0.53
Queue Length 95th (ft)	10	0	1	0
Control Delay (s)	27.4	0.0	0.3	0.0
Lane LOS	D		A	
Approach Delay (s)	27.4	0.0	0.1	
Approach LOS	D			

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

4: Wyman Street & Washington Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	90	15	935	1205	75
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.95	0.95	0.94	0.94
Hourly flow rate (vph)	0	111	16	984	1282	80
Pedestrians	24			24		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	2			2		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				183	242	
pX, platoon unblocked	0.79					
vC, conflicting volume	2362	729	1386			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2586	729	1386			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	68	97			
cM capacity (veh/h)	16	351	480			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	111	1000	855	507
Volume Left	0	16	0	0
Volume Right	111	0	0	80
cSH	351	480	1700	1700
Volume to Capacity	0.32	0.03	0.50	0.30
Queue Length 95th (ft)	33	3	0	0
Control Delay (s)	19.9	1.2	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	19.9	1.2	0.0	
Approach LOS	C			

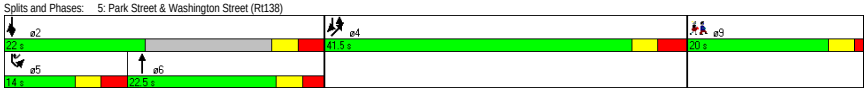
Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	NBT	SBL	SBT	SBR	NET	SWR	ø9
Lane Configurations							
Volume (vph)	535	135	610	550	115	175	
Turn Type		Prot		pt+ov		Over	
Protected Phases	6	5	2	2 4	4	5	9
Permitted Phases							
Detector Phase	6	5	2	2 4	4	5	
Switch Phase							
Minimum Initial (s)	7.0	5.0	7.0		10.0	5.0	1.0
Minimum Split (s)	21.5	11.0	22.0		22.5	11.0	19.0
Total Split (s)	22.5	14.0	22.0	63.5	41.5	14.0	20.0
Total Split (%)	23.0%	14.3%	22.4%	64.8%	42.3%	14.3%	20%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.5	3.0	3.0		3.5	3.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	6.0	6.0	6.0	6.5	6.0	
Lead/Lag	Lag	Lead				Lead	
Lead-Lag Optimize?	Yes	Yes				Yes	
Recall Mode	Min	None	Min		None	None	None
Act Effct Green (s)	17.9	8.4	32.1	66.4	23.0	8.4	
Actuated g/C Ratio	0.24	0.11	0.43	0.90	0.31	0.11	
v/c Ratio	0.78	0.69	0.78	0.34	0.74	0.36	
Control Delay	37.9	56.8	31.7	3.0	32.2	1.7	
Queue Delay	0.0	0.0	2.5	0.1	0.0	0.0	
Total Delay	37.9	56.8	34.3	3.1	32.2	1.7	
LOS	D	E	C	A	C	A	
Approach Delay	37.9		23.4		32.2		
Approach LOS	D		C		C		

Intersection Summary

Cycle Length: 98
Actuated Cycle Length: 73.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 26.7 — Intersection LOS: C
Intersection Capacity Utilization 68.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Park Street & Washington Street (Rt138)



Lane Group	NBT	SBL	SBT	SBR	NET	SWR
Lane Group Flow (vph)	663	139	629	567	417	213
v/c Ratio	0.78	0.69	0.78	0.34	0.74	0.36
Control Delay	37.9	56.8	31.7	3.0	32.2	1.7
Queue Delay	0.0	0.0	2.5	0.1	0.0	0.0
Total Delay	37.9	56.8	34.3	3.1	32.2	1.7
Queue Length 50th (ft)	123	53	183	0	139	0
Queue Length 95th (ft)	#323	#202	#637	149	287	0
Internal Link Dist (ft)	171		18		24	
Turn Bay Length (ft)						
Base Capacity (vph)	852	202	808	1687	897	595
Starvation Cap Reductn	0	0	89	180	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.69	0.87	0.38	0.46	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

5: Park Street & Washington Street (Rt138)

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	535	35	135	610	550	240	115	0	0	0	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5		6.0	6.0	6.0		6.5				6.0
Lane Util. Factor		0.95		1.00	1.00	1.00		1.00				1.00
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00				1.00
Frt		1.00		1.00	1.00	1.00		1.00				0.86
Flt Protected		1.00		0.95	1.00	1.00		0.97				1.00
Satd. Flow (prot)		3527		1770	1863	1863		1802				1611
Flt Permitted		1.00		0.95	1.00	1.00		0.97				1.00
Satd. Flow (perm)		3527		1770	1863	1863		1802				1611
Peak-hour factor, PHF	0.86	0.86	0.86	0.97	0.97	0.97	0.85	0.85	0.85	0.82	0.82	0.82
Adj. Flow (vph)	0	622	41	139	629	567	282	135	0	0	0	213
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	189
Lane Group Flow (vph)	0	663	0	139	629	567	0	417	0	0	0	24
Confl. Peds. (#/hr)			18	8					23			8
Turn Type				Prot		pt+ov	custom					Over
Protected Phases		6		5	2	2 4	4	4				5
Permitted Phases							4					
Actuated Green, G (s)		18.2		8.4	32.1	61.1		23.0				8.4
Effective Green, g (s)		18.2		8.4	32.1	61.1		23.0				8.4
Actuated g/C Ratio		0.24		0.11	0.42	0.80		0.30				0.11
Clearance Time (s)		5.5		6.0	6.0			6.5				6.0
Vehicle Extension (s)		2.0		2.0	2.0			2.0				2.0
Lane Grp Cap (vph)		845		196	787	1498		545				178
v/s Ratio Prot		0.19		0.08	c0.34	0.30		c0.23				0.01
v/s Ratio Perm												
v/c Ratio		0.78		0.71	0.80	0.38		0.77				0.13
Uniform Delay, d1		27.1		32.6	19.1	2.1		24.0				30.5
Progression Factor		1.00		1.00	1.00	1.00		1.00				1.00
Incremental Delay, d2		4.5		9.2	5.3	0.1		5.7				0.1
Delay (s)		31.5		41.8	24.5	2.2		29.8				30.6
Level of Service		C		D	C	A		C				C
Approach Delay (s)		31.5			16.8			29.8			30.6	
Approach LOS		C			B			C			C	

Intersection Summary				
HCM Average Control Delay	23.7	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.78			
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	20.9	
Intersection Capacity Utilization	68.5%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group

9: Wyman Street & Trackside Plaza South Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	85	0	0	100	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.90	0.90	0.90	0.29	0.29	0.29	0.60	0.60	0.60
Hourly flow rate (vph)	0	109	0	0	111	0	0	0	0	0	0	0
Pedestrians		11			43			43			40	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			4			4			3	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	151			152			274	303	195	303	303	162
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	151			152			274	303	195	303	303	162
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1336			1378			614	568	787	574	568	845

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	109	111	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1336	1378	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	125	135	20	90	5	90	380	20	10	705	95
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.86	0.86	0.86	0.95	0.95	0.95	0.85	0.85	0.85
Hourly flow rate (vph)	40	142	153	23	105	6	95	400	21	12	829	112
Pedestrians		1						1				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		4.0						4.0				
Percent Blockage		0						0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1568	1520	887	1734	1566	411	942			421		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1568	1520	887	1734	1566	411	942			421		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	55	0	0	99	87			99		
cM capacity (veh/h)	0	102	342	0	96	641	727			1138		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	335	134	516	953
Volume Left	40	23	95	12
Volume Right	153	6	21	112
cSH	0	0	727	1138
Volume to Capacity	Err	Err	0.13	0.01
Queue Length 95th (ft)	Err	Err	11	1
Control Delay (s)	Err	Err	3.5	0.3
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	3.5	0.3
Approach LOS	F	F		

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	100.0%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	75	0	35	120	15	5	80	20	40	140	0
Peak Hour Factor	0.87	0.87	0.87	0.76	0.76	0.76	0.71	0.71	0.71	0.72	0.72	0.72
Hourly flow rate (vph)	6	86	0	46	158	20	7	113	28	56	194	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	92	224	148	250
Volume Left (vph)	6	46	7	56
Volume Right (vph)	0	20	28	0
Hadj (s)	0.05	0.04	-0.07	0.10
Departure Headway (s)	5.3	5.1	5.0	5.0
Degree Utilization, x	0.14	0.32	0.21	0.35
Capacity (veh/h)	607	652	658	669
Control Delay (s)	9.2	10.5	9.3	10.8
Approach Delay (s)	9.2	10.5	9.3	10.8
Approach LOS	A	B	A	B

Intersection Summary				
Delay		10.2		
HCM Level of Service		B		
Intersection Capacity Utilization		38.8%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	125	45	0	80	45
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.76	0.76	0.75	0.75	0.87	0.87
Hourly flow rate (vph)	0	164	60	0	92	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	296	60			60	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	296	60			60	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	84			94	
cM capacity (veh/h)	652	1003			1544	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	164	60	144
Volume Left	0	0	92
Volume Right	164	0	0
cSH	1003	1700	1544
Volume to Capacity	0.16	0.04	0.06
Queue Length 95th (ft)	15	0	5
Control Delay (s)	9.3	0.0	5.0
Lane LOS	A		A
Approach Delay (s)	9.3	0.0	5.0
Approach LOS	A		

Intersection Summary				
Average Delay		6.1		
Intersection Capacity Utilization		27.9%	ICU Level of Service	A
Analysis Period (min)		15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	565	0	20	490	15	125	10	15	10	15	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.83	0.83	0.83	0.72	0.72	0.72
Hourly flow rate (vph)	22	608	0	21	505	15	151	12	18	14	21	35
Pedestrians		2			6			6			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	523			614			1258	1220	620	1237	1213	517
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	523			614			1258	1220	620	1237	1213	517
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			98			0	93	96	90	88	94
cM capacity (veh/h)	1042			961			120	171	483	133	173	557

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	629	541	151	30	69
Volume Left	22	21	151	0	14
Volume Right	0	15	0	18	35
cSH	1042	961	120	280	242
Volume to Capacity	0.02	0.02	1.25	0.11	0.29
Queue Length 95th (ft)	2	2	241	9	29
Control Delay (s)	0.6	0.6	232.7	19.4	25.8
Lane LOS	A	A	F	C	D
Approach Delay (s)	0.6	0.6	197.1		25.8
Approach LOS			F		D

Intersection Summary				
Average Delay		26.8		
Intersection Capacity Utilization		57.7%	ICU Level of Service	B
Analysis Period (min)		15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	75	10	0	35	40	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	11	0	38	43	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	114	76	109			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	114	76	109			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	99	100			
cM capacity (veh/h)	882	985	1482			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	92	38	109
Volume Left	82	0	0
Volume Right	11	0	65
cSH	893	1482	1700
Volume to Capacity	0.10	0.00	0.06
Queue Length 95th (ft)	9	0	0
Control Delay (s)	9.5	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.5	0.0	0.0
Approach LOS	A		

Intersection Summary				
Average Delay		3.7		
Intersection Capacity Utilization		17.2%	ICU Level of Service	A
Analysis Period (min)		15		

56: North Driveway & Morton Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	80	75	70	30	70	100
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	87	82	76	33	76	109
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	353	92			109	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	353	92			109	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	86	92			95	
cM capacity (veh/h)	611	965			1482	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	168	109	185
Volume Left	87	0	76
Volume Right	82	33	0
cSH	743	1700	1482
Volume to Capacity	0.23	0.06	0.05
Queue Length 95th (ft)	22	0	4
Control Delay (s)	11.3	0.0	3.4
Lane LOS	B		A
Approach Delay (s)	11.3	0.0	3.4
Approach LOS	B		

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		

58: Brock Street & South Driveway

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	135	160	115	140	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	147	174	125	152	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	299				383	236
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	299				383	236
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				75	99
cM capacity (veh/h)	1262				619	803

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	147	299	163
Volume Left	0	0	152
Volume Right	0	125	11
cSH	1262	1700	629
Volume to Capacity	0.00	0.18	0.26
Queue Length 95th (ft)	0	0	26
Control Delay (s)	0.0	0.0	12.7
Lane LOS			B
Approach Delay (s)	0.0	0.0	12.7
Approach LOS			B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	135	95	5	85	10	165	235	40	5	305	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		328			131			380			991	
Travel Time (s)		7.5			3.0			8.6			22.5	
Confl. Peds. (#/hr)	6		2	4		8	2		4	8		6
Peak Hour Factor	0.76	0.76	0.76	0.73	0.73	0.73	0.81	0.81	0.81	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	375	0	0	137	0	0	543	0	0	386	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.68			0.24			0.76			0.42	
Control Delay		20.5			12.8			18.9			8.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.5			12.8			18.9			8.7	
Queue Length 50th (ft)		79			26			109			58	
Queue Length 95th (ft)		119			46			177			108	
Internal Link Dist (ft)		248			51			300			911	
Turn Bay Length (ft)												
Base Capacity (vph)		553			582			713			910	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.68			0.24			0.76			0.42	

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 50
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 50
Control Type: Pretimed

Splits and Phases: 15: Brock Street & Washington Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	135	95	5	85	10	165	235	40	5	305	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.99			0.99			0.98	
Flt Protected		0.99			1.00			0.98			1.00	
Satd. Flow (prot)		1746			1826			1801			1738	
Flt Permitted		0.92			0.98			0.74			0.99	
Satd. Flow (perm)		1614			1791			1357			1729	
Peak-hour factor, PHF	0.76	0.76	0.76	0.73	0.73	0.73	0.81	0.81	0.81	0.92	0.92	0.92
Adj. Flow (vph)	72	178	125	7	116	14	204	290	49	5	332	49
RTOR Reduction (vph)	0	36	0	0	8	0	0	7	0	0	11	0
Lane Group Flow (vph)	0	339	0	0	129	0	0	536	0	0	375	0
Confl. Peds. (#/hr)	6		2	4		8	2		4	8		6
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	7%	7%	7%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			26.0			26.0	
Effective Green, g (s)		16.0			16.0			26.0			26.0	
Actuated g/C Ratio		0.32			0.32			0.52			0.52	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		516			573			706			899	
v/s Ratio Prot												
v/s Ratio Perm		c0.21			0.07			c0.39			0.22	
v/c Ratio		0.66			0.22			0.76			0.42	
Uniform Delay, d1		14.6			12.5			9.5			7.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		6.4			0.9			7.5			1.4	
Delay (s)		21.0			13.4			17.0			8.8	
Level of Service		C			B			B			A	
Approach Delay (s)		21.0			13.4			17.0			8.8	
Approach LOS		C			B			B			A	

Intersection Summary

HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	35	125	20	90	90	380	10	705
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		16.0		16.0		36.0		36.0
Actuated g/C Ratio		0.27		0.27		0.60		0.60
v/c Ratio		0.68		0.29		0.61		0.87
Control Delay		24.2		19.1		11.3		21.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		24.2		19.1		11.3		21.1
LOS		C		B		B		C
Approach Delay		24.2		19.1		11.3		21.1
Approach LOS		C		B		B		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 100.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 15: Brock Street & Washington Street

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	335	134	516	953
v/c Ratio	0.68	0.29	0.61	0.87
Control Delay	24.2	19.1	11.3	21.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.2	19.1	11.3	21.1
Queue Length 50th (ft)	85	37	100	245
Queue Length 95th (ft)	#166	73	184	#461
Internal Link Dist (ft)	247	51	300	911
Turn Bay Length (ft)				
Base Capacity (vph)	490	459	852	1098
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.29	0.61	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	125	135	20	90	5	90	380	20	10	705	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.94			0.99			0.99			0.98	
Flt Protected		0.99			0.99			0.99			1.00	
Satd. Flow (prot)		1720			1836			1836			1827	
Flt Permitted		0.95			0.92			0.76			0.99	
Satd. Flow (perm)		1647			1710			1415			1817	
Peak-hour factor, PHF	0.88	0.88	0.88	0.86	0.86	0.86	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	40	142	153	23	105	6	95	400	21	12	829	112
RTOR Reduction (vph)	0	51	0	0	3	0	0	2	0	0	8	0
Lane Group Flow (vph)	0	284	0	0	131	0	0	514	0	0	945	0
Confl. Peds. (#/hr)			1				1					1
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			36.0			36.0	
Effective Green, g (s)		16.0			16.0			36.0			36.0	
Actuated g/C Ratio		0.27			0.27			0.60			0.60	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		439			456			849			1090	
v/s Ratio Prot												
v/s Ratio Perm		c0.17			0.08			0.36			c0.52	
v/c Ratio		0.65			0.29			0.60			0.87	
Uniform Delay, d1		19.5			17.5			7.5			10.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		7.2			1.6			3.2			9.3	
Delay (s)		26.7			19.1			10.7			19.3	
Level of Service		C			B			B			B	
Approach Delay (s)		26.7			19.1			10.7			19.3	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Signal Warrant Analysis

2009 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection:

Major Street Direction: Northbound-Southbound

Year: 2012 **Condition:** Existing

Operating speed on major roadway: 40 mph

Number of approaches: 4

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM	43	488	148	636	No	No	No	No	No
7:00 - 8:00 AM	129	584	332	916	No	Yes	Yes	Verify	No
8:00 - 9:00 AM	138	518	354	872	No	Yes	Yes	Verify	No
9:00 - 10:00 AM	83	438	301	739	No	No	No	No	No
10:00 - 11:00 AM	71	365	345	710	No	No	No	No	No
11:00 - 12:00 AM	67	372	412	784	No	No	No	No	No
12:00 - 1:00 PM	65	395	369	764	No	No	No	No	No
1:00 - 2:00 PM	75	388	419	807	No	No	No	No	No
2:00 - 3:00 PM	104	383	481	864	No	Yes	No	No	No
3:00 - 4:00 PM	119	398	493	891	No	Yes	No	Verify	No
4:00 - 5:00 PM	129	373	616	989	No	Yes	Yes	Yes	No
5:00 - 6:00 PM	159	373	731	1104	Yes	Yes	Yes	Yes	Verify
6:00 - 7:00 PM	121	345	560	905	No	Yes	Yes	Verify	No
					No	**No**	**No**	**Verify**	**Verify**
				Warrants Met?		**1**		**2**	**3**
						NO		**Verify**	**Verify**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 22

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2009 Edition [2009]

2009 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection:

Major Street Direction: Northbound-Southbound

Year: 2030 **Condition:** Build

Operating speed on major roadway: 40 mph

Number of approaches: 4

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
6:00 - 7:00 AM	43	488	148	636	No	No	No	No	No
7:00 - 8:00 AM	285	584	332	916	Yes	Yes	Yes	Yes	Yes
8:00 - 9:00 AM	150	518	354	872	No	Yes	Yes	Verify	No
9:00 - 10:00 AM	83	438	301	739	No	No	No	No	No
10:00 - 11:00 AM	71	365	345	710	No	No	No	No	No
11:00 - 12:00 AM	67	372	412	784	No	No	No	No	No
12:00 - 1:00 PM	65	395	369	764	No	No	No	No	No
1:00 - 2:00 PM	75	388	419	807	No	No	No	No	No
2:00 - 3:00 PM	104	383	481	864	No	Yes	No	No	No
3:00 - 4:00 PM	119	398	493	891	No	Yes	No	Verify	No
4:00 - 5:00 PM	129	373	616	989	No	Yes	Yes	Yes	No
5:00 - 6:00 PM	295	373	731	1104	Yes	Yes	Yes	Yes	Yes
6:00 - 7:00 PM	121	345	560	905	No	Yes	Yes	Verify	No
					No	**No**	**No**	**Verify**	**Yes**
				Warrants Met?		**1**		**2**	**3**
						NO		**Verify**	**Yes**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 22

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2009 Edition [2009]

Appendix 4.1-L

No-Build Project Descriptions

No-Build Projects

New Bedford

A new traffic signal system was installed and activated in early 2009 at the intersection of King's Highway and Mount Pleasant Street. The No-Build analysis of this location reflects the four phase operation of this traffic signal system. The initial phase provides for a protected southbound left-turn movement from Mount Pleasant Street. The second phase controls movements for both the northbound and southbound Mount Pleasant Street approaches. The third and fourth phases provide protected movements for the Jones Road and King's Highway approaches. Pedestrians would cross the northbound approach concurrently with the fourth phase.

The Enhanced Bus No-Build Alternative includes expanding the existing park-and-ride lot on Mt. Pleasant Street at the Route 140 interchange. An expanded facility with a maximum of 447 spaces could be developed using adjacent vacant wooded land within the Route 140 state highway layout next to the existing lot. Access to the lot would be through the existing curb cut on Mt. Pleasant Street. The lot design would allow for bus access and circulation through the parking aisles with adequate turning radii for entering and exiting movements.

Freetown

On the west side of South Main Street just south of Route 24 Exit 9, the Payne's Crossing development is proposed to include:

- A 167,000 square foot home-improvement warehouse store;
- A 195,000 square foot discount superstore;
- 15,000 square feet of other retail space; and
- 1,530 parking spaces.

Proposed traffic mitigation for the Payne's Crossing project includes proposed improvements at Route 24 Exit 9:

- Widening a portion of South Main Street between the Payne's Crossing driveway and the northbound ramps intersection at Exit 9; and
- Installing traffic signals at the South Main Street intersections with the Route 24 northbound and southbound ramps.

The Riverfront Business Park is a proposed 1.7-million square foot commercial development on the west side of South Main Street south of the Stop & Shop Distribution Center.

The Campanelli Warehouse project currently includes a 70,000 square foot facility along Ridge Hill Road east of South Main Street just north of Route 24 Exit 9. Approximately 730,000 additional square feet of warehouse development are planned to be developed on the site.

In conjunction with the proposed Fall River Executive Park (FREP) development in Fall River and Freetown, a new interchange is under construction on Route 24 between Exits 8 and 9. The purpose of new interchange is to serve the proposed FREP development, provide improved access to Route 24 for the Stop & Shop Distribution Center and other development along South Main Street in Freetown, and divert traffic away from South Main Street in Freetown and from Route 24 Exits 8 and 9.

Fall River

The proposed FREP development will contain three million square feet of office and light industrial space. It is proposed for a site located on the Fall River/Freetown municipal boundary east of and adjacent to Route 24. The bulk of the development will be located in the City of Fall River. A new interchange is under construction on Route 24 between Exits 8 and 9 in Freetown that will provide the primary access to the FREP. Additional access will provided to Route 24 Exit 8 via a connection to Rigginbach Road in Fall River.

The Fall River Commerce Park is an existing commercial development with room for approximately 258,000 square feet of additional industrial and warehousing space. The Park is located off Airport Road east of Route 24 (Exit 8) and north of the Fall River Industrial Park.

Taunton

East Taunton Industrial Park is an industrial development located along Stevens Street. Phase I is located on the south side of Stevens Street and contains 1,783,360 square feet of warehouse/distribution facilities, including 183,440 square feet of associated office space, 63,000 square feet of retail space, and 53,000 feet of amenities. Phase II is located on the north side of Stevens Street and contains approximately 663,000 square feet of warehouse/ distribution facilities, including approximately 69,900 square feet of office space.

The proposed Taunton Crossing is a retail development which will be located on Mozzone Boulevard off Route 140 (County Street). The project consists of constructing 83,000 square feet of retail space on a 7.85-acre parcel of land with parking for 297 vehicles. Access to the site will be provided via two full access driveways on Mozzone Boulevard, one of which will be shared with an adjacent restaurant development.

Several roadway improvements along Route 140 are part of the mitigation commitments for the proposed Taunton Crossing and East Taunton Industrial Park developments. These improvements were included in the No-Build traffic analysis. The Taunton Crossing improvements include:

- Widening the Route 140 approaches to Mozzone Boulevard to provide turn lanes; and

The East Taunton Industrial Park improvements include:

- Constructing a new Route 24 southbound off-ramp to Route 140 westbound;
- Eliminating the left turn from the existing southbound off-ramp to Route 140 northbound; and
- Providing a channelized right-turn onto Route 140 southbound.

The existing 211-space park-and-ride lot at the Silver City Galleria in Taunton was found to be operating at capacity during both summer and fall 2008 utilization surveys. An excess older paved parking area located along an access road within the mall property appears to have the potential for an expanded park-and-ride facility that could provide up to 486 spaces. The expanded facility would include a new bus turnaround to expedite bus entry and exit, a bus shelter with amenities such as benches and lighting, and convenient access from Galleria Mall Drive at Exit 11 off Route 140.

Easton

A new apartment building of 182 units is proposed to be constructed in the existing Shovel Shop complex in Easton, Massachusetts. The site is located southeast of the Main Street/Oliver Street intersection and adjacent to the proposed Easton Village Station. The project includes the revitalization of older industrial buildings with new construction of 182 apartment units and 8,400 square feet of light industrial space. The site will be served by four driveways, two located on Main Street and two located on Oliver Street.

The Shovel Shop Square project identified a safety issue on the segment of Main Street, between Barrows Street and Center Street. Vehicles were observed to park perpendicular to the roadway on both sides of the street, encroaching on the traveled way. The Shovel Shop Square project has recommended eliminating parking from the northerly side and restriping the parking spaces on the southerly side with angle parking.

Queset Commons is a Smart Growth project proposed for a location west of Route 138 and north of Morse's Pond. It is planned to include:

- 60 condominium units;
- 83 assisted living units;
- 137 apartments;
- 60,000 square feet of retail and commercial space;
- A 16,000 square foot conference center;
- A 15,000 square foot food market; and
- 25,000 square feet of office space.

Signalization of the intersection of Route 138 (Washington Street) and Roosevelt Circle is also part of the mitigation for the proposed Queset Commons development. The improvements include:

- Widening the northbound approach to provide a through lane and an exclusive left-turn turn lane; and
- Installing a traffic signal at this intersection to be coordinated with the traffic signal at the intersection of Route 138 and Belmont Street. The signal is proposed to provide an actuated three phase cycle, which includes a northbound protected phase, a permissive northbound/southbound phase, and an exclusive eastbound phase.

Reconstruction of the intersection of Route 138 (Washington Street) and Route 123 (Belmont Street) is also part of the mitigation for the proposed Queset Commons development. The improvements include:

- Widening the approaches to provide turn lanes;
- Updating the signal timings and phasing; and
- Restriping the westbound approach to provide a shared through/left-turn lane with an exclusive right-turn lane.

Raynham

A new 210,000 square foot Wal-Mart store is proposed to be constructed on the west side of Route 138, south of First Street. The project will include 64,000 square feet of grocery sales space and approximately 1,075 parking spaces. Access to the site will be provided via a new driveway on Route 138.

As part of the Wal-Mart project, several roadway improvements will be made along Route 138. These improvements were included in the No-Build traffic analysis and include:

- Widening Route 138 between Center Street and Carver Street;
- Signalizing the two intersections with the I-495 ramps;
- Signalizing the Center Street intersection and widening the northbound and southbound approaches;
- Modifying signal timings at the intersection with Carver Street; and
- Coordinating the signal at Elm Street with the new signals at the I-495 ramps.