DEPARTMENT OF HOMELAND SECURITY
U.S. COAST GUARD DRAFT ENVIRONMENTAL IMPACT STATEMENT

FOR

PROPOSED NEW BRIDGE ACROSS THE MANATEE RIVER, MILE 15.0,
AT PARRISH, MANATEE COUNTY, FLORIDA

APPENDIX B

TRAFFIC TECHNICAL MEMORANDUM

JUNE 2013

CERTIFICATION BY URS CORPORATION

TRAFFIC TECHNICAL MEMORANDUM FOR
FT. HAMER ROAD & RYE ROAD ALTERNATIVES
SR 64 TO US 301 - MANATEE COUNTY

I, Domingo Noriega, Florida P.E. Number 42019, have either prepared or reviewed/supervised the traffic analysis contained in this study. The study has been prepared in accordance and following guidelines and methodologies consistent with Florida Department of Transportation current policies, including the Project Forecasting Handbook and project traffic forecasting procedures 525-030-120. Based on traffic count information, general data sources, and other pertinent information, this traffic analysis was prepared using current traffic engineering, transportation planning, and Florida Department of Transportation practices and procedures.

Domingo Noriega, PE # 42019
URS CORPORATION SOUTHERN

Date

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EXECUTIVE SUMMARY

This Traffic Technical Memorandum documents existing and future conditions along Fort Hamer Road, Upper Manatee River Road, Rye Road, and Golf Course Road within eastern Manatee County. The Sarasota/Manatee Metropolitan Planning Organization (MPO) recognizes the need for corridor improvements in its 2035 Long Range Transportation Plan (LRTP) documented in Appendix A-1. Manatee County's Capital Improvement Program (CIP) has funded a two-lane bridge crossing the Manatee River connecting Upper Manatee River Road and Fort Hamer Road. In this report, three alternatives were evaluated:

- **No-Build Alternative** – The existing Interstate 75 (I-75) six-lane freeway does not include a Fort Hamer bridge crossing the Manatee River nor does it include separate turn-lane improvements with traffic signalization along Upper Manatee River Road and Fort Hamer Road.

- **Fort Hamer Alternative** – This build alternative consists of a new two-lane bridge crossing the Manatee River connecting the existing two-lane Upper Manatee River Road with the existing two-lane Fort Hamer Road. The construction limits of this alternative begin just north of the main entrance of the Waterlefe subdivision and terminate on the north side of the Manatee River approximately 2,000 feet south of Mulholland Drive, a total of approximately 1.4 miles. The study area for this alternative extends south to State Road (SR) 64 and north to U.S. Highway (US) 301 because of the increased traffic between these points that would result from this alternative.

- **Rye Road Alternative** – This build alternative consists of a new two-lane crossing the Manatee River adjacent to the existing Rye Road Bridge and the expansion of Rye Road from two to four lanes from SR 64 north to Golf Course Road, Golf Course Road from two to four lanes from Rye Road to Fort Hamer Road, and Fort Hamer Road from two to four lanes from Golf Course Road to US 301, a total of 10.2 miles.

Table ES-1 summarizes the annual average daily traffic (AADT) bridge volumes and levels of service (LOS) crossing the Manatee River for the baseline (2011) and the future (2035). The LOS criteria is documented in Appendix A-2. As this table summarizes, there is a need for more lanes crossing the Manatee River in 2035 for the No-Build Alternative, the MPO's Needs Plan, the Fort Hamer Alternative, and the Rye Road Alternative.

Table ES-2 summarizes the future (2035) travel statistics in terms of future daily traffic, vehicle miles traveled (VMT), and vehicle hours traveled (VHT) across the Manatee River.

TABLE ES-1
AADT/LOS COMPARISON

Bridge	Existing Lanes	2011 (AADT/LOS)	2035 No-Build (AADT/LOS)	2035 Needs Plan (AADT/LOS)	Fort Hamer Alternative (AADT/LOS)	Rye Road Alternative (AADT/LOS)
US 41	4	31,500/C	71,900/F	46,100/F	70,000/F	80,700/F
US 301	4	55,000/F	80,500/F	59,400/F	79,300/F	67,600/F
CR 683	---	---	---	62,300/F (four-lanes)	---	---
I-75	6	90,500/C	164,700/F	158,300/E (10-lanes)	163,300/F	165,200/F
Fort Hamer Road	---	---	---	33,500/D (four-lanes)	23,600/F	---
Rye Road	2	2,800/B	7,400/C	4,000/B	7,400/F	23,200

--- No bridge

TABLE ES-2
PROJECT AREA VMT AND VHT CHARACTERISTICS

Alternative	Bridge Location	AADT	Change	Total VMT	Total VHT
No-Build Alternative	I-75	164,700	----	13,762,689	736,049
	Fort Hamer Road	----	----		
	Rye Road	19,800	----		
Fort Hamer Alternative	I-75	163,300	-1,400	13,664,913 or 138,316 less miles compared to the No-Build Alternative	730,046 or 6,003 less hours compared to the No-Build Alternative
	Fort Hamer Road	23,600	23,600		
	Rye Road	7,400	-12,400		
Rye Road Alternative	I-75	165,200	+500	13,815,741 or increase of 50,052 miles compared to the No-Build Alternative	729,202 or 6,847 less hours compared to the No-Build Alternative
	Fort Hamer Road	----	----		
	Rye Road	24,000	+4,200		

--- No bridge

As seen in the above tables, the Fort Hamer Alternative will result in the lowest VMT for vehicles travelling this section of eastern Manatee County. The Rye Road Alternative is anticipated to have greater VMT due to its location within Manatee County compared with the No-Build Alternative and the Fort Hamer Alternative. With a two-lane Fort Hamer Alternative, the total VHT is greater than the Rye Road Alternative due to only including a two-lane bridge and a two-lane Upper Manatee River Road and a two-lane Fort Hamer Road anticipated to operate with LOS F conditions. The proposed river crossing at Fort Hamer Road is anticipated to generate 23,600 trips a day by 2035, demonstrating the need for a roadway connection over the Manatee River east of I-75. The Sarasota/Manatee/Charlotte (SMC) Travel Demand Model (TDM) HEVAL (Highway Evaluation) module reports are documented in Appendix A-3. All traffic projections are based on the latest available version of the SMC TDM, which at that time, has taken into consideration the current economic downturn in the State of Florida.

Section 1.0
INTRODUCTION

Manatee County (the County) has prepared a Draft Environmental Impact Statement (DEIS), in conjunction with the United States Coast Guard (USCG), to document a study of proposed improvements to north/south traffic movements in eastern Manatee County, Florida and to evaluate the potential impacts associated with those improvements. The objective of this transportation study is to identify the type, conceptual design, and location of improvements necessary to provide additional capacity for the projected north/south travel demand. The DEIS has been developed to satisfy the requirements of the *National Environmental Policy Act of 1969* (NEPA) and other related federal and state laws, rules, and regulations that apply to the Proposed Action.

For the purpose of the DEIS, two build alternatives are being evaluated. **Figure 1-1** shows the location, study areas, and construction limits of these alternatives. The study area of each alternative is defined as the area contained within a 0.5-mile buffer of the centerline. The two build alternatives are described below.

- **Fort Hamer Alternative** – This build alternative consists of a new two-lane bridge crossing the Manatee River connecting the existing two-lane Upper Manatee River Road with the existing two-lane Fort Hamer Road. The construction limits of this alternative begin just north of the main entrance of the Waterlefe subdivision and terminate on the north side of the Manatee River approximately 2,000 feet south of Mulholland Drive, a total of approximately 1.4 miles. The study area for this alternative extends south to State Road (SR) 64 and north to U.S. Highway (US) 301 because of the increased traffic between these points that would result from this alternative.

- **Rye Road Alternative** – This build alternative consists of a new two-lane crossing the Manatee River adjacent to the existing Rye Road Bridge and the expansion of Rye Road from two to four lanes from SR 64 north to Golf Course Road, Golf Course Road from two to four lanes from Rye Road to Fort Hamer Road, and Fort Hamer Road from two to four lanes from Golf Course Road to US 301, a total of 10.2 miles.

FIGURE 1-1
PROJECT AREA MAP

1.1 PROJECT NEED

Manatee County is proposing to add additional travel lanes across the Manatee River in eastern Manatee County. The purpose of the Proposed Action is to improve regional mobility by providing an alternative north/south transportation route between high-growth areas of Manatee County located east of Interstate 75 (I-75) and separated by the Manatee River. Studies have shown that there is a strong demand for multiple crossings over this waterway to alleviate the traffic burden on I-75. Several specific factors demonstrate the need for the Proposed Action, including:

- Accommodate existing and projected growth in eastern Manatee County,
- Improve the Level of Service (LOS) of the local roadway network,
- Improve emergency response times, and
- Improve evacuation capacity across the Manatee River.

The current river crossings located at I-75 and Rye Road create a circuitous route in eastern Manatee County that increases travel time/distance, reduces LOS, increases emergency response times, and are at capacity for evacuation scenarios.

1.2 ALTERNATIVES CONSIDERED

The Proposed Action is intended to service the demand for two additional lanes of capacity across the Manatee River east of I-75 and the other elements of the Purpose and Need statement noted in Chapter 1 of the DEIS. East of I-75, opportunities exist where existing roadways can be connected with a new crossing (Fort Hamer Alternative) or an existing bridge and roadway can be expanded (Rye Road Alternative). Other alternatives were considered preliminarily, but were discounted due to their obvious impacts to the natural and human environment or failure to meet the project's Purpose and Need.

For example, new crossing locations between I-75 and Fort Hamer Road would require not only a new crossing of the Manatee River, but miles of new roadway traversing established and growing residential developments, thus, displacing hundreds of residents. Natural environment impacts in this area were also obviously greater than those utilizing existing transportation corridors. A crossing location between Fort Hamer Road and Rye Road had similar issues related to residential developments, but substantially greater natural environment impacts due to the curvilinear nature of this section of the Manatee River, width of the 100-year floodplain, and habitats found along the river. For these reasons, alternatives that either did not utilize or expand existing transportation corridors were considered to be unreasonable and were not carried forward in the DEIS for further analysis.

Within the Fort Hamer Alternative, three bridge concept alternatives were evaluated:

- Bascule Concept
  - Single leaf bascule (moveable) bridge with a 10-foot vertical clearance
- Mid-Level Fixed Concept
  - Fixed span bridge with a 26-foot vertical clearance
- High-Level Fixed Concept
  - Fixed span bridge with a 40-foot vertical clearance

A vessel survey was conducted during the Memorial Day weekend 1999 to determine vessel type, size, and usage along this portion of the Manatee River. At the time it was determined that a vertical clearance (air draft) of 26 feet would accommodate all vessels in this portion of the Manatee River. These results were presented to the USCG and a vertical clearance of 26 feet was found acceptable.

Due to the length of time since that survey was conducted, a second vessel survey was conducted in spring 2011. All property owners with water access between Fort Hamer Road and Rye Road were identified using the Manatee County Property Appraisers Office database and mailed a

questionnaire. Based on the response of that survey, three respondents noted they had vessels that exceeded 26 feet in height. A subsequent field review in December 2011 indicated that one of these vessels (a small sailboat) was sunk in place at the owner's dock. The second vessel consisted of a houseboat with a flagpole that exceeded 26 feet in height; however, it was noted that the houseboat required less than 26 feet vertical clearance if the flagpole was lowered. The third vessel was a sailboat with a permanently mounted mast exceeding 26 feet in height. The results of both vessel surveys are provided in Appendix A of the DEIS.

Based on the estimated total lifetime cost (construction, maintenance, and operations) of the Bascule Bridge Concept ($106,142,880 - $111,083,600) and the very low number of vessels needing unlimited vertical clearance, it was recommended the Bascule Bridge Concept for the Fort Hamer Alternative be eliminated for further consideration.

The bridge height is the basis for the controversy related to the Waterlefe subdivision located immediately southwest of the proposed Fort Hamer Alternative crossing. The High-Level Fixed Bridge would increase the vertical clearance to 40 feet and be contradictory to the issues raised by that community. Additionally, because of the estimated total lifetime cost (construction, maintenance, and operations) of the High-Level Fixed Bridge Concept ($14,906,580 - $26,016,350) and the very low number of vessels needing a 40-foot vertical clearance, it was recommended the High-Level Fixed Bridge Concept for the Fort Hamer Alternative be eliminated for further consideration.

1.3 ALTERNATIVES RECOMMENDED FOR FURTHER EVALUATION

As a result of the preliminary evaluation of alternatives discussed above, it was determined that three alternatives would be considered "reasonable" for further, detailed analysis and evaluation in the DEIS:

- No-Build Alternative,
- Fort Hamer Alternative, and
- Rye Road Alternative.

The No-Build Alternative does not include any road capacity improvements other than the road safety improvements and scheduled maintenance already funded to be constructed in the Manatee County Capital Improvement Program (CIP), or improvements provided by private nongovernment entities, such as developers. For comparative purposes, the No-Build Alternative was retained and evaluated against the two build alternatives throughout the EIS process. The results of the No-Build Alternative analyses are presented in Chapter 2 of the DEIS. This BA only addresses the two build alternatives.

The Fort Hamer Alternative consists of a new two-lane bridge crossing the Manatee River connecting the existing two-lane Upper Manatee River Road with the existing two-lane Fort Hamer Road. The construction limits of this alternative extend from just north of the main entrance of the Waterlefe subdivision to the north side of the Manatee River, a total of approximately 1.4 miles. The length of the proposed bridge is approximately 2,570 feet. A conceptual plan view of the bridge, bridge approaches, and stormwater/floodplain features are shown on **Figure 1-2**. The proposed roadway and bridge typical sections for the Fort Hamer Alternative are shown in **Figure 1-3**.

The Rye Road Alternative consists of a new two-lane, 350-foot-long bridge crossing the Manatee River parallel to the existing Rye Road Bridge. To accommodate the two new lanes over the river, this alternative also includes the expansion of Rye Road from two to four lanes from SR 64 north to Golf Course Road, Golf Course Road from two to four lanes from Rye Road to Fort Hamer Road, and Fort Hamer Road from two to four lanes from Golf Course Road to US 301, a total of approximately 10.2 miles. Unlike the Fort Hamer Alternative, conceptual locations of the stormwater/floodplain compensation ponds have not been developed for the Rye Road Alternative since this alternative has not been advanced to preliminary designs. The proposed roadway and bridge typical sections for the Rye Road Alternative are shown in **Figure 1-4**.

1.4 PREFERRED ALTERNATIVE

The analysis presented in Chapter 2 of the DEIS resulted in the determination that the No-Build Alternative does not meet the stated Purpose and Need. The analysis further showed the Rye Road Alternative only minimally improves the local roadway network LOS and only minimally accommodates planned and approved growth in the area. The Rye Road Alternative does not improve emergency response times. After consideration of each alternative's ability to meet the stated Purpose and Need and the social, cultural, natural environment, and physical impacts of the No-Build Alternative and the two build alternatives, **the Fort Hamer Alternative has been selected as the preferred alternative**.

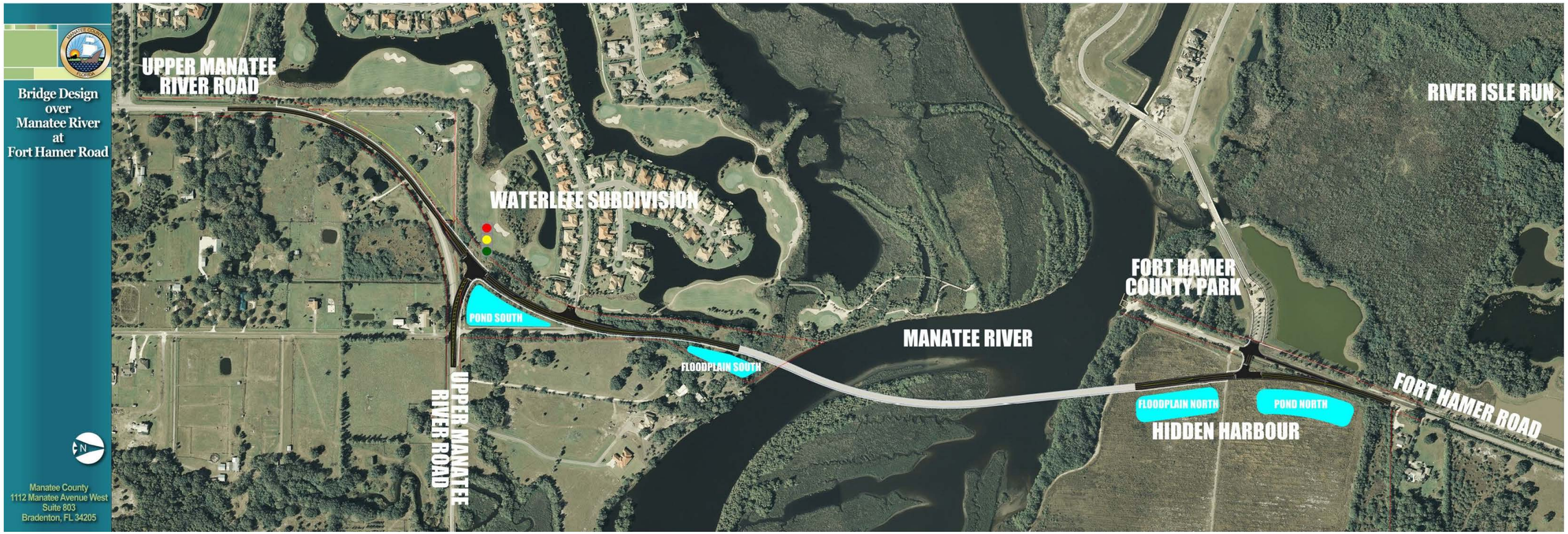
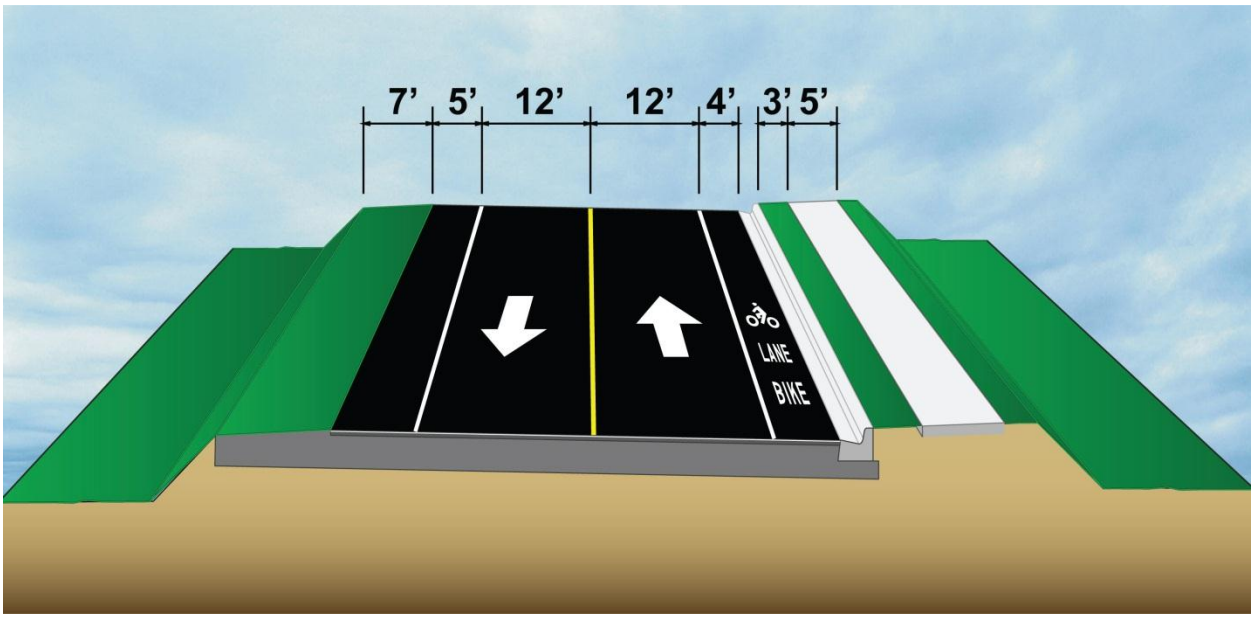


FIGURE 1-2
FORT HAMER ALTERNATIVE
CONCEPTUAL PLAN VIEW OF
BRIDGE AND APPROACHES

FIGURE 1-3
FORT HAMER ALTERNATIVE TYPICAL SECTIONS

ROADWAY TYPICAL SECTION



BRIDGE TYPICAL SECTION

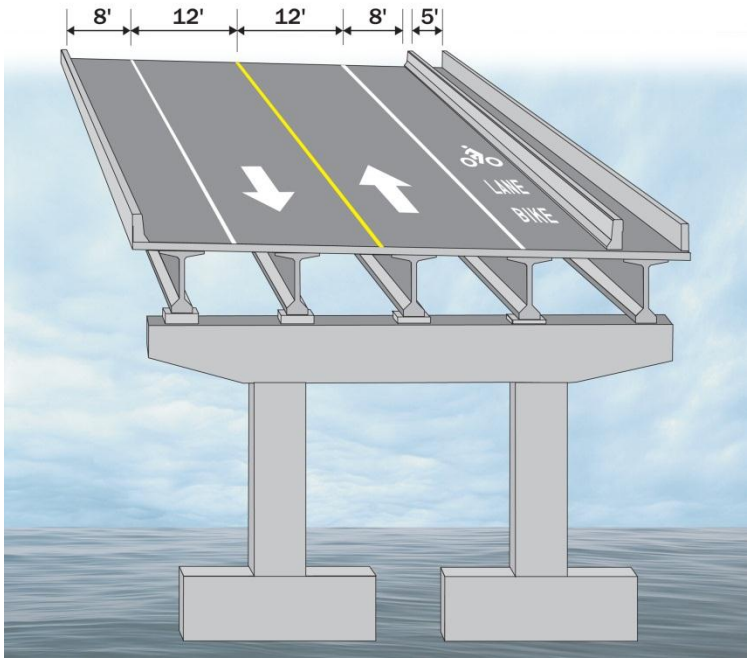
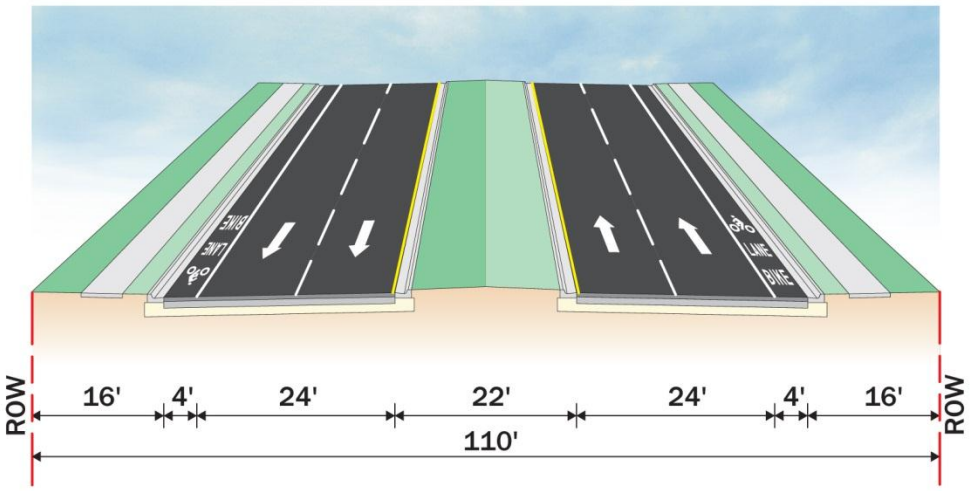
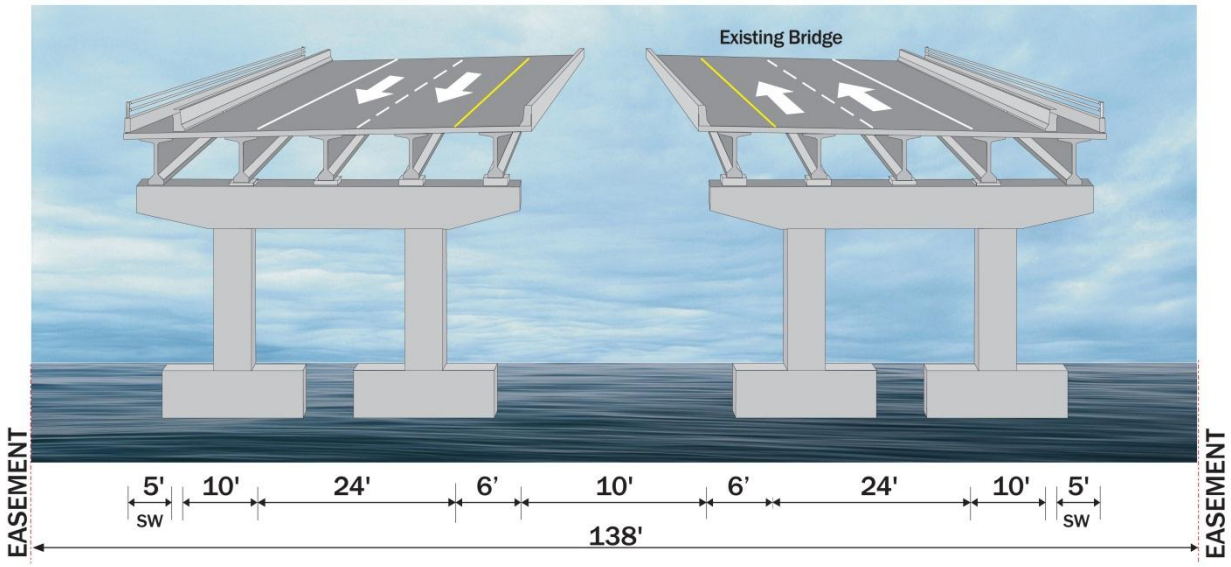


FIGURE 1-4
RYE ROAD ALTERNATIVE TYPICAL SECTIONS

ROADWAY TYPICAL SECTION



BRIDGE TYPICAL SECTION



Section 2.0
BASELINE (2011) TRAFFIC CONDITIONS

2.1 BASELINE TRAFFIC CONDITIONS

The purpose of this section is to document the existing geometry, recently-constructed roadway improvements, historical and current traffic characteristics, and current traffic conditions along Upper Manatee River Road, Fort Hamer Road, Rye Road, and Golf Course Road within the project area.

2.1.1 BASELINE AND COMMITTED GEOMETRICS

Upper Manatee River Road is an existing two-lane (one lane in each direction) roadway from north of SR 64 to its eastward terminus at Rye Road. East of Upper Manatee River Road, SR 64 continues eastward to Rye Road as a four-lane roadway. All other cross streets along Upper Manatee River Road/Fort Hamer Road are unsignalized (controlled by stop signs) and have two lanes (one lane in each direction).

The existing Fort Hamer Road is a two-lane (one lane in each direction) roadway from Fort Hamer County Park, located on the north side of the Manatee River, continuing north and terminating at US 301. The Florida Department of Transportation (FDOT) has constructed four through lanes (two through lanes in each direction) along US 301 from Old Tampa Road to CR 675. The existing geometry south of the Manatee River along Upper Manatee River Road and Rye Road is illustrated on **Figure 2-1**. Similarly, **Figure 2-2** illustrates the existing geometry north of the Manatee River along Fort Hamer Road and Rye Road. Fort Hamer Road, Upper Manatee River Road, Rye Road, and Golf Course Road are two-lane (one lane per direction), County-maintained roadways.

2.1.2 BASELINE TRAFFIC VOLUMES

Twenty-four hour traffic counts were conducted by URS Corporation (URS) for the following locations during March 2011:

- SR 64, west of Upper Manatee River Road;
- Fort Hamer Road, south of Old Tampa Road/Cross Creek Parkway;
- Rye Road, north of SR 64;
- Rye Road, north of Waterline Road;
- Rye Road, north of Upper Manatee River Road; and
- Rye Road, north of Golf Course Road.

FIGURE 2-1
BASELINE (2011) GEOMETRY – SOUTH SECTION

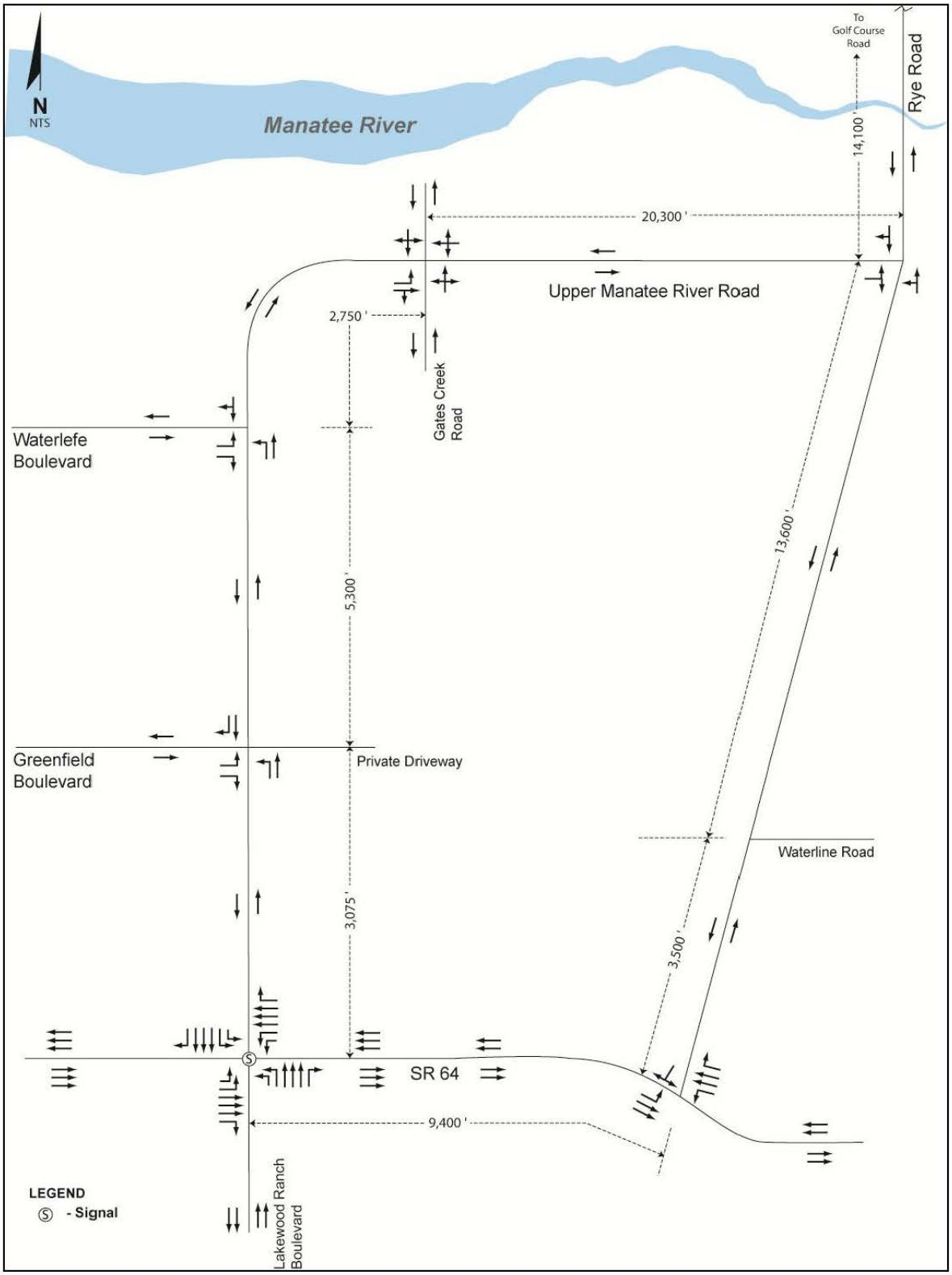
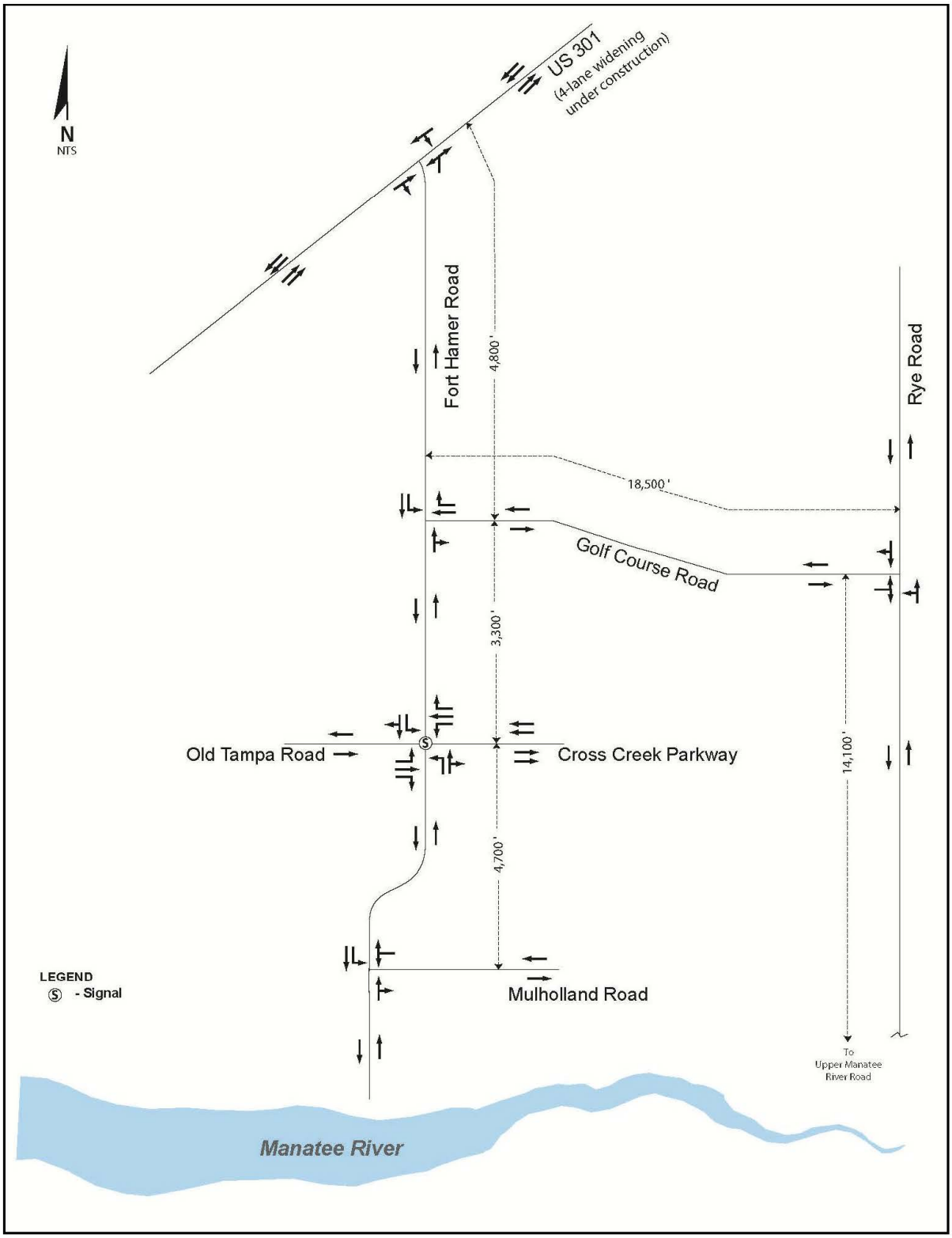


FIGURE 2-2
BASELINE (2011) GEOMETRY – NORTH SECTION



In April 2010 for:

- Fort Hamer Road, south of Mulholland Road and
- Upper Manatee River Road, north of Waterlefe Boulevard.

Similarly, consecutive 2-day traffic counts were conducted in April 2010 by URS along Fort Hamer Road, south of Mulholland Road and along Upper Manatee River Road from Waterlefe Boulevard to Gates Creek Road.

Morning (a.m.) and evening (p.m.) peak hour turning movement counts were obtained for the following intersections:

- Upper Manatee River Road/SR 64,
- Upper Manatee River Road/Greenfield Boulevard,
- Upper Manatee River Road/Waterlefe Boulevard,
- Upper Manatee River Road/Gates Creek Road,
- Fort Hamer Road/Mulholland Road,
- Fort Hamer Road/Old Tampa Road,
- Fort Hamer Road/Golf Course Road,
- Fort Hamer Road/US 301,
- Rye Road/SR 64,
- Rye Road/Upper Manatee River Road, and
- Rye Road/Golf Course Road.

This peak hour turning movement counts were conducted by URS from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. and are included in **Appendix A-4**. The 24-hour traffic counts were adjusted to AADT volumes using the County-wide weekly seasonal adjustment factors for Manatee County. For consistency, the peak hour turning movement counts were also adjusted using the seasonal adjustment factors. The AADTs in the project area are shown on **Figures 2-3** and **2-4**.

FIGURE 2-3
BASELIEN (2011) AADT VOLUMES – SOUTH SECTION

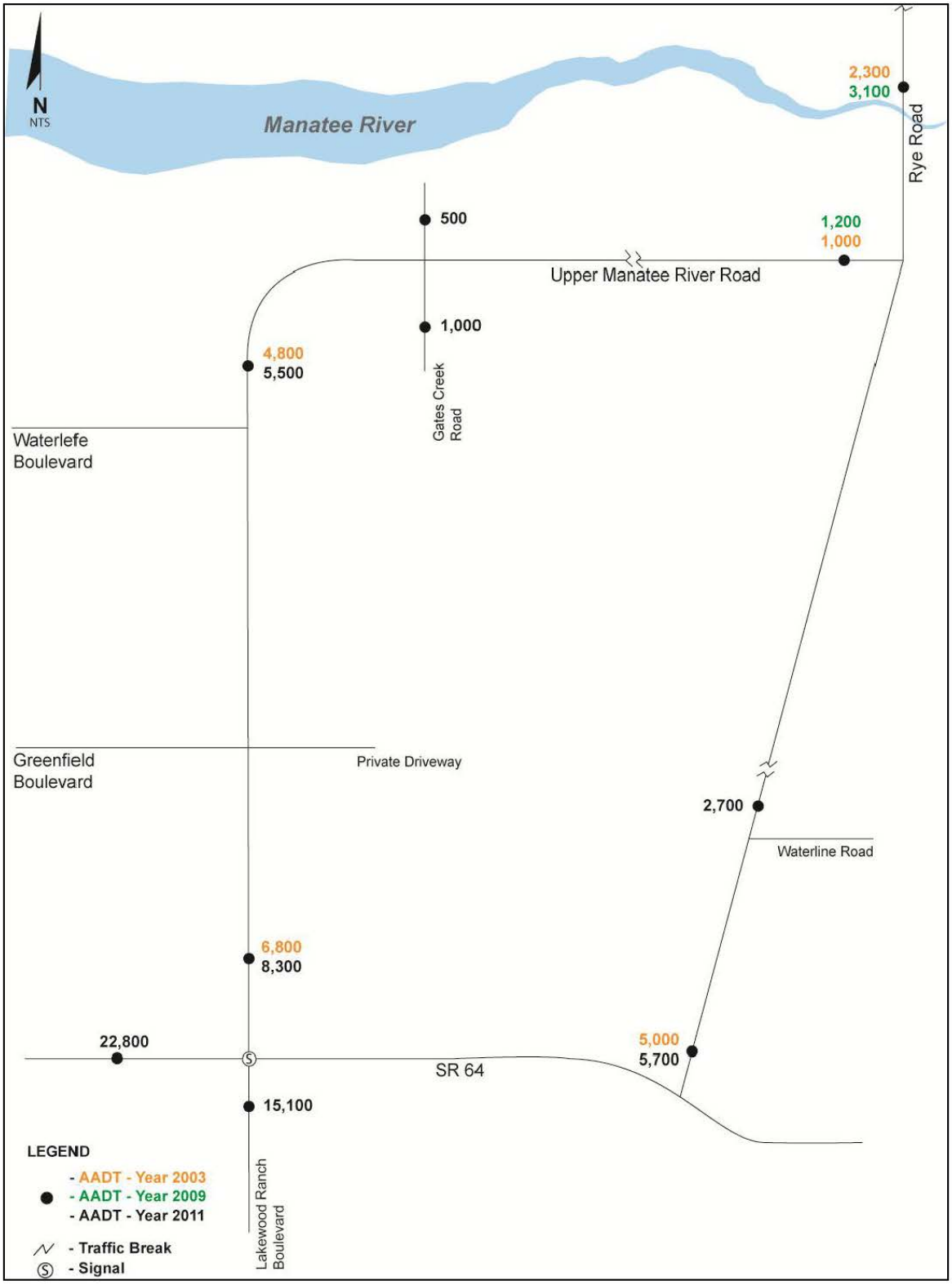
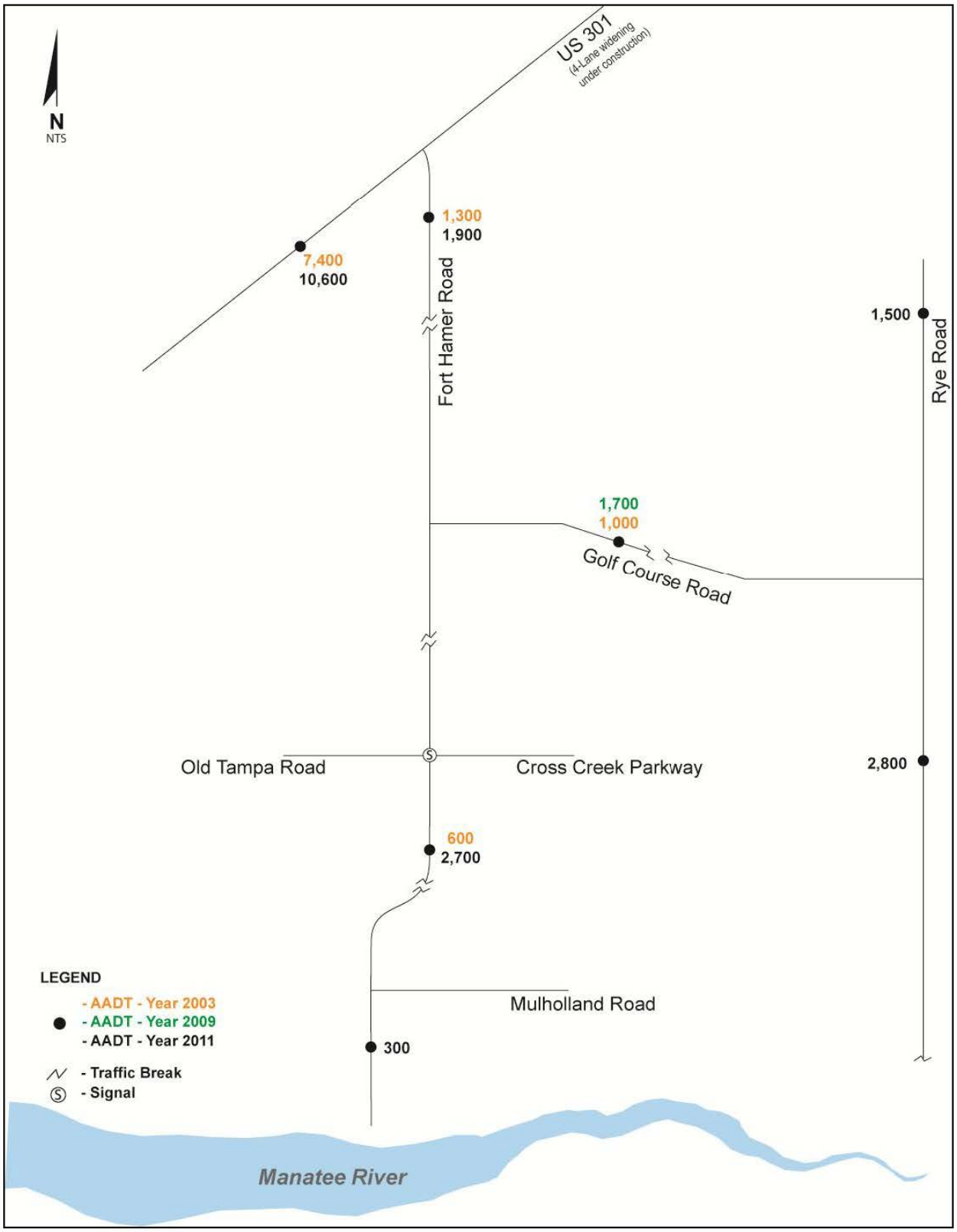


FIGURE 2-4
BASELINE (2011) AADT VOLUMES – NORTH SECTION



2.1.3 HISTORICAL TRAFFIC TRENDS

Along Upper Manatee River Road, an approximate 7 percent annual increase in daily traffic volumes has occurred since the previous daily traffic counts conducted in 2003, as illustrated in Figure 2-3. Upper Manatee River Road, west of Rye Road, has increased by approximately 3 percent annually between 2003 and 2009 as illustrated in Figure 2-3. Since 2003, additional development has taken place along Upper Manatee River Road, contributing to this increase in traffic volumes.

Rye Road has increased in traffic from 2003 to 2009/2011 as illustrated in Figures 2-3 and 2-4. Rye Road, north of SR 64, has increased by approximately a 2 percent annual rate from 2003 to 2011. At the Rye Road Bridge over Manatee River, the traffic has increased by approximately 4 percent annually. Golf Course Road has similarly experienced an increase in daily traffic. Since 2003 to 2009, Golf Course Road has experienced approximately a 9 percent increase in traffic as illustrated in Figure 2-4.

The greatest increase in daily traffic has occurred along Fort Hamer Road, Golf Course Road, and Upper Manatee River Road. Rye Road north of Upper Manatee River Road has shown an increase in traffic at a lesser amount. The historical traffic trends and traffic counts are documented in **Appendix A-4**.

2.1.4 BASELINE TRAFFIC CHARACTERISTICS

Existing peak hour traffic characteristics, including the peak hour-to-daily volume ratio, the directional distribution, and the percentage of trucks were obtained from the traffic count data. **Table 2-1** summarizes the baseline (2011) peak hour traffic characteristics.

TABLE 2-1
BASELINE (2011) PEAK HOUR TRAFFIC CHARACTERISTICS

Roadway	Location	AM Peak Hour			PM Peak Hour		
		Peak to Daily Ratio[1]	Directional Distribution[2]	% Heavy Vehicles	Peak to Daily Ratio[1]	Directional Distribution[2]	% Heavy Vehicles
Upper Manatee River Road	North of SR 64	0.083	0.805	2.0	0.089	0.595	2.0
	North of Waterlefe Boulevard	0.126	0.684	N/A	0.100	0.609	N/A
Fort Hamer Road	South of Old Tampa Road	0.094	0.578	1.4	0.100	0.596	2.4
	South of US 301	0.129	0.667	2.4	0.101	0.573	1.6
Rye Road	North of SR 64	0.106	0.691	1.8	0.101	0.649	4.2
	North of Upper Manatee River Road	0.097	0.671	3.7	0.099	0.609	2.2
	North of Golf Course Road	0.098	0.605	2.7	0.087	0.641	1.5
	Corridor Average	**0.105**	**0.671**	**--**	**0.097**	**0.610**	**--**

[1] Peak hour volume divided by 24-hour volume.
[2] Peak direction volume divided by two-way peak hour volume.

The design traffic factors (K_{30} and D_{30}) used in the development of design hour volumes were established in the previous approved version of the Upper Manatee Traffic Study (December 2005). These factors are a K_{30} of 10 percent and a D_{30} of 0.60 (60 percent northbound in the p.m. peak hour). These factors appear reasonable after reviewing the traffic characteristics from the updated traffic counts. The percentage of heavy vehicles ranged between 1.5 and 4.2 percent during the a.m. and p.m. peak hours based upon the amount of heavy vehicles traveling along Upper Manatee River Road, Fort Hamer Road, and Rye Road. Heavy vehicles are defined by Federal Highway Administration's (FHWA's) vehicle classification of Class 4 through Class 13 that consists of buses, single-unit trucks, and combination (tractor-trailer) trucks. The future percentage of heavy vehicles along Upper Manatee River Road and Fort Hamer Road was assumed to increase to four percent in the p.m. peak hour. This heavy vehicle increase is based upon truck activity along similar near-by facilities, such as SR 64 and US 301, where currently approximately 4 percent truck trips occur during the p.m. peak hour.

2.1.5 BASELINE TRAFFIC CONDITIONS ANALYSIS

Intersection analyses were performed at 11 intersections based on the traffic counts conducted in April 2010 and March 2011. Existing traffic operations for these signalized and unsignalized intersections were determined using the Transportation Research Board's (TRB) Highway Capacity Manual (HCM 2000), Version 5.5 software [(Highway Capacity Software (HCS)]. The LOS standard for the roadways within and abutting the study area is LOS D on all roads except on US 301 north of SR 64, which is LOS C.

LOS is a measure of the operating conditions of roadways based on six service flow rates: LOS A through LOS F. LOS A through LOS C represents stable flow with the least delay (LOS A) to moderate delay (LOS C). LOS D is representative of road operating conditions approaching unstable flow where many vehicles must stop and there are noticeable delays at intersections with vehicles having to wait more than one cycle to proceed through the intersection. LOS E is representative of operating conditions with more frequent delays with most vehicles having to stop. LOS F conditions are representative of forced flow operating conditions with the most delay occurring where vehicles are stopped at intersections for extended periods of time.

The intersection analyses were conducted using the peak hour volumes, as illustrated on **Figures 2-5 and 2-6**. Unsignalized intersection analyses were conducted along Fort Hamer Road, Upper Manatee River Road, Rye Road, and Golf Course Road, which are summarized in **Table 2-2** for the baseline (2011).

All of the unsignalized intersections on Fort Hamer Road are currently operating at LOS B or better during the p.m. peak hour. Along Upper Manatee River Road, all unsignalized intersections are operating at LOS C or better during the p.m. peak period. The signalized and unsignalized HCS analyses are provided in **Appendix B**. SR 64/Upper Manatee River Road currently operates at LOS D during the p.m. peak hour. The signalized intersection's volume-to-capacity (v/c) ratio average delay [seconds per vehicle (sec/veh)] and LOS for the baseline (2011) are summarized in **Table 2-3**.

FIGURE 2-5
BASELINE (2011) PEAK HOUR TRAFFIC VOLUMES – SOUTH SECTION

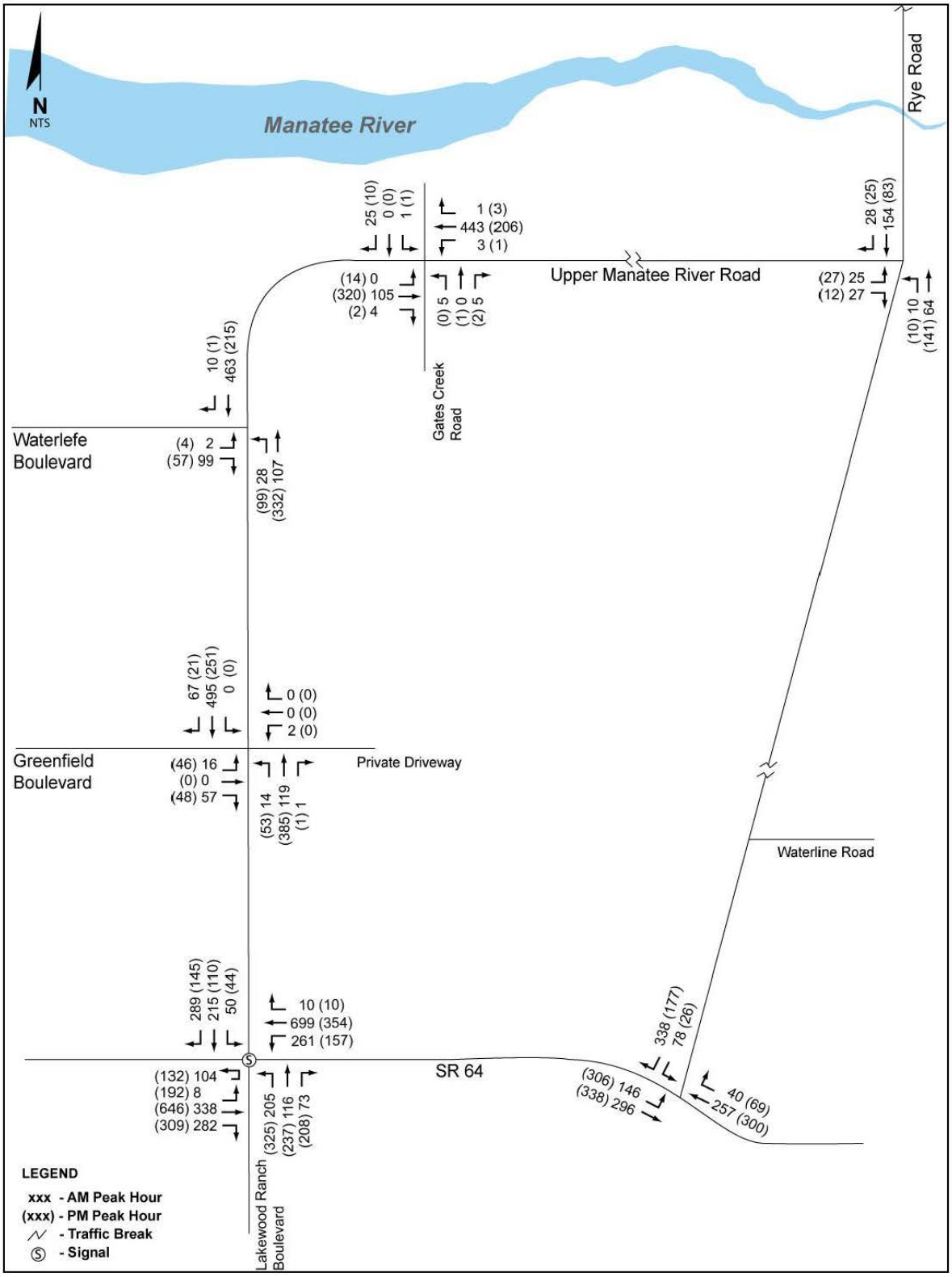


FIGURE 2-6
BASELINE (2011) PEAK HOUR TRAFFIC VOLUMES – NORTH SECTION

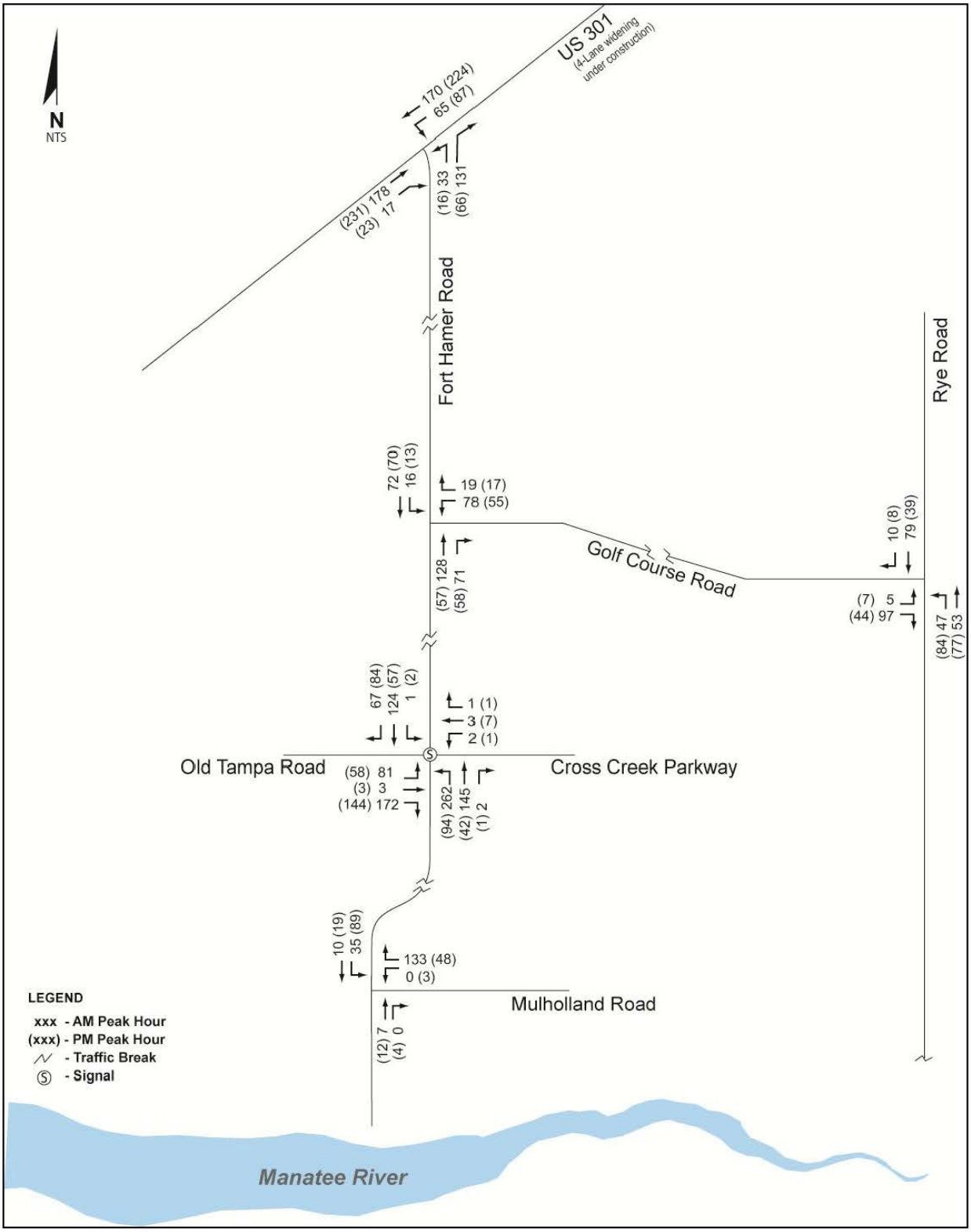


TABLE 2-2
BASELINE (2011) UNSIGNALIZED INTERSECTION PEAK HOUR LOS

Intersection	Approach	Movement	AM Peak Hour V/C Ratio	AM Peak Hour Average Delay (sec/veh)	AM Peak Hour LOS	PM Peak Hour V/C Ratio	PM Peak Hour Average Delay (sec/veh)	PM Peak Hour LOS
Upper Manatee River Road								
Greenfield Boulevard (Two-way Stop Sign Controlled)	Northbound	Left/Through FF	0.02	8.9	A	0.04	7.9	A
	Southbound	Through FF/Right	0.00	7.5	A	0.00	8.1	A
	Eastbound	Left	0.05	13.4	B	0.19	14.6	B
		Right	0.14			0.08		
	Westbound	Left/Right	0.01	16.4	C	--	--	--
Waterlefe Boulevard (Two-way Stop Sign Controlled)	Northbound	Left/Through FF	0.04	8.6	A	0.10	8.1	A
	Southbound	Through FF/Right FF	--	--	--	--	--	--
	Eastbound	Left	0.01	13.2	B	0.02	10.5	B
		Right	0.23			0.08		
Gates Creek Road (Two-way Stop Sign Controlled)	Northbound	Left/Through/Right	0.02	12.5	B	0.01	12.5	B
	Southbound	Left/Through/Right	0.08	11.7	B	0.02	10.2	B
	Eastbound	Left	0.00	8.3	A	0.02	7.8	A
		Through FF/Right FF	--	--	--	--	--	--
	Westbound	Left/Through FF/Right FF	0.00	7.6	A	0.00	8.2	A
Fort Hamer Road								
Mulholland Road (Two-way Stop Sign Controlled)	Northbound	Through FF/Right FF	--	--	--	--	--	--
	Southbound	Left/Through FF	0.03	7.3	A	0.06	7.4	A
	Westbound	Left/Right	0.17	9.1	A	0.07	8.8	A
Old Tampa Road (Flashing Beacon Controlled in the PM Peak Hour)	Northbound	Left	Signal Controlled During AM Peak See Table 2-3			0.2	7.4	A
		Through FF/Right FF				--	--	--
	Southbound	Left				0.00	7.2	A
		Through FF/Right FF				--	--	--
	Eastbound	Left				0.03	8.9	A
		Through				0.00		
		Right				0.09		
	Westbound	Left				0.00	9.9	A
		Through				0.01		
		Right				0.00		
Golf Course Road (Two-way Stop Sign Controlled)	Northbound	Through FF/Right FF	--	--	--	--	--	--
	Southbound	Left/Through FF	0.02	7.9	A	0.01	7.5	A
	Westbound	Left	0.18	11.7	B	0.08	9.7	A
		Right	0.03			0.02		
US 301 (Two-way Stop Sign Controlled)	Northbound	Left/Right	0.31	12.2	B	0.14	11.6	B
	Eastbound	Through FF/Right FF	--	--	--	--	--	--
	Westbound	Left/Through	0.05	7.8	A	0.08	8.0	A
Rye Road								
SR 64	Southbound	Left/Right	0.79	27.0	D	0.38	14.7	B
	Eastbound	Left/Through FF	0.15	8.6	A	0.30	9.5	A
Upper Manatee River Road	Northbound	Left/Through FF	0.01	7.8	A	0.01	7.5	A
	Eastbound	Left/Right	0.09	10.3	B	0.06	10.2	B
Golf Course Road	Northbound	Left/Through FF	0.05	7.6	A	0.07	7.5	A
	Eastbound	Left/Right	0.14	9.5	A	0.07	9.2	A

FF = Free flow movement not reported in HSC+ for Unsignalized Intersection.

TABLE 2-3
BASELINE (2011) SIGNALIZED INTERSECTION PEAK HOUR LOS

Intersection	Approach	Movement	AM Peak Hour V/C Ratio	AM Peak Hour Average Delay (sec/veh)	AM Peak Hour LOS	PM Peak Hour V/C Ratio	PM Peak Hour Average Delay (sec/veh)	PM Peak Hour LOS
Upper Manatee River Road								
SR 64 (Signal Controlled)	Eastbound	Left	0.25	43.7	D	0.55	43.3	D
		Through	0.33	37.0	D	0.62	40.8	D
		Right	0.34	8.8	A	0.35	8.9	A
		Overall	--	27.2	C	--	33.7	C
	Westbound	Left	0.49	46.0	D	0.23	39.6	D
		Through	0.56	39.9	D	0.29	36.5	D
		Right	0.01	6.7	A	0.01	6.7	A
		Overall	--	41.3	D	--	36.9	D
	Northbound	Left	0.43	45.5	D	0.82	63.3	E
		Through	0.11	34.7	C	0.20	35.6	D
		Right	0.08	7.1	A	0.21	7.9	A
		Overall	--	35.2	D	--	39.8	D
	Southbound	Left	0.10	42.5	D	0.12	46.8	D
		Through	0.20	35.6	D	0.10	34.7	C
		Right	0.48	23.1	C	0.22	17.0	B
		Overall	--	29.7	C	--	27.8	C
Overall Intersection			--	33.5	C		35.2	D
Fort Hamer Road								
Old Tampa Road (Signal Controlled in AM Peak Hour)	Eastbound	Left	0.16	14.4	B	Operates as a Flashing Beacon Controlled intersection during PM Peak Hour See Table 2-2		
		Through	0.01	24.1	C			
		Right	0.33	15.9	B			
		Overall	--	15.5	B			
	Westbound	Left	0.01	13.5	B			
		Through	0.02	24.1	C			
		Right	0.00	13.5	B			
		Overall	--	18.8	B			
	Northbound	Left	0.77	25.0	C			
		Through/Right	0.44	23.4	C			
		Overall	--	24.4	C			
	Southbound	Left	0.00	11.0	B			
		Through/Right	0.48	23.9	C			
		Overall	--	23.9	C			
Overall Intersection			--	21.8	C			

Section 3.0
OPENING YEAR (2015) TRAFFIC

3.1 OPENING YEAR (2015) TRAFFIC PROJECTIONS

The Opening Year (2015) daily volumes estimated with the SMC TDM were converted from peak season weekday average daily traffic (PSWADT) volumes to AADT volumes by applying a model output conversion factor (MOCF) of 0.89 applicable to Manatee County. The AADT volumes were then converted to directional design hour volumes (DDHV), by applying the design traffic factors.

The peak direction on the cross streets generally were assumed to be inbound in the p.m. peak hour if the land use was primarily residential. Conversely, if the land uses adjacent to the cross streets were primarily retail/office, then the peak direction was assumed to be outbound in the p.m. peak hour.

The total inbound and outbound peak hour volumes entering and exiting Upper Manatee River Road and Fort Hamer Road were adjusted by the turning movements at the locations where traffic counts were conducted. The a.m. peak hour volumes were obtained by reversing the reciprocal movements for p.m. peak hour.

The Opening Year (2015) AADT volumes generated for the traffic analysis zones (TAZs) located immediately adjacent to Upper Manatee River Road and Fort Hamer Road were checked for reasonableness. The 2015 AADT volumes for the Fort Hamer Alternative are illustrated on **Figures 3-1 and 3-2**. The 2015 AADT volume projected for the new bridge across the Manatee River is 17,400 vehicles per day (vpd). **Figures 3-3 and 3-4** illustrate the peak hour traffic volumes for the Opening Year (2015) for the Fort Hamer Alternative. Similarly, the 2015 AADT volumes estimated for Rye Road Alternative are illustrated on **Figures 3-5 and 3-6**. The 2015 AADT volume projected for the bridge across the Manatee River along Rye Road is 14,500 vpd. **Figures 3-7 and 3-8** illustrate the peak hour traffic volumes for the Opening Year (2015) for the Rye Road Alternative.

3.3 OPENING YEAR (2015) TRAFFIC ANALYSIS

Intersection analyses for Opening Year (2015) were conducted using 2015 projected volumes and a combination of Synchro and HCS software. The results of the analysis are summarized in **Table 3-1** for the Fort Hamer Alternative and **Table 3-2** for the Rye Road Alternative. The analysis worksheets are provided in **Appendix C**. The No-Build Alternative is evaluated for the Design Year (2035) only.

FIGURE 3-1
OPENING YEAR (2015) AADT VOLUMES
FORT HAMER ALTERNATIVE - SOUTH SECTION

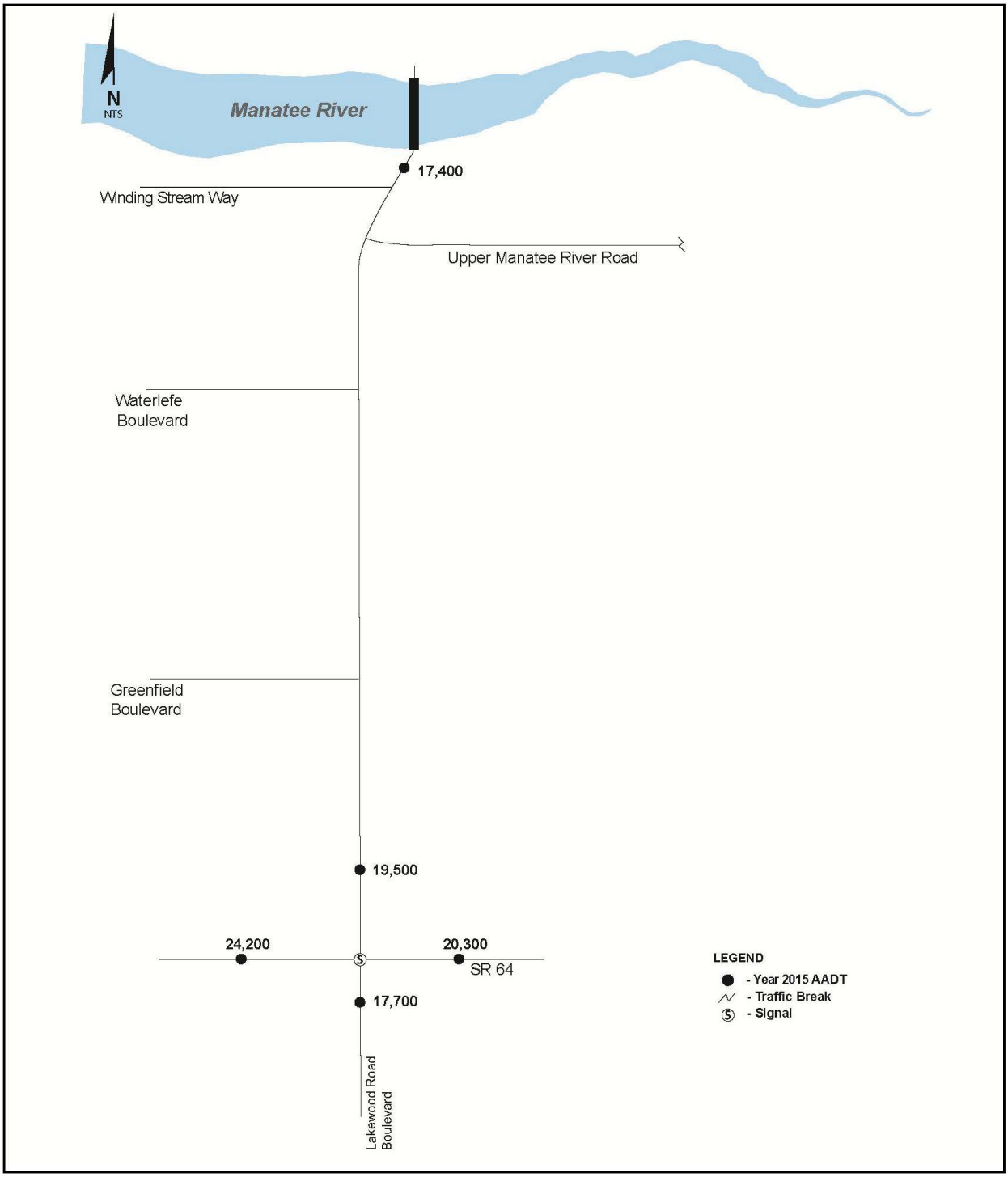


FIGURE 3-2
OPENING YEAR (2015) AADT VOLUMES
FORT HAMER ALTERNATIVE - NORTH SECTION

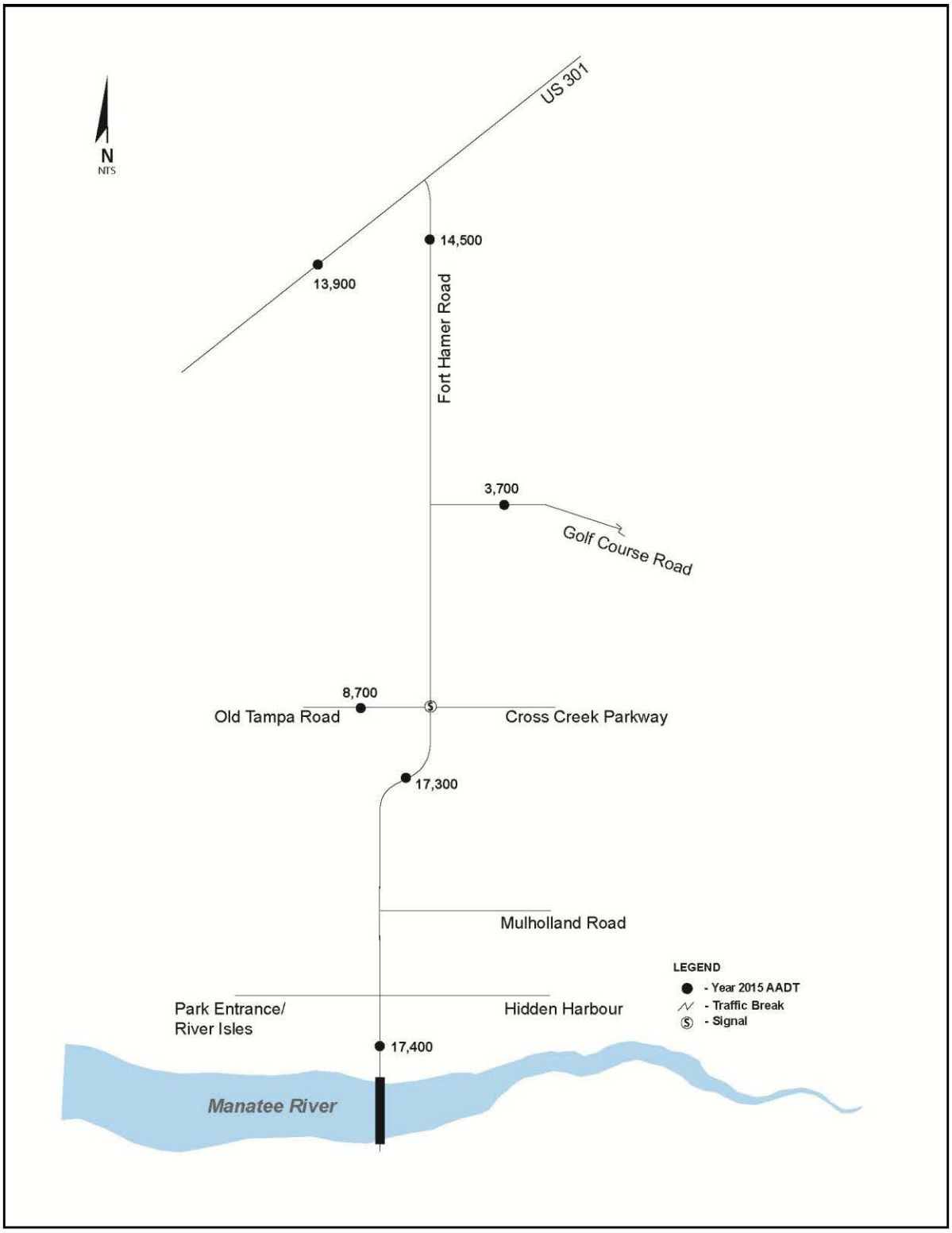


FIGURE 3-3
OPENING YEAR (2015) PEAK HOUR TRAFFIC VOLUMES
FORT HAMER ALTERNATIVE - SOUTH SECTION

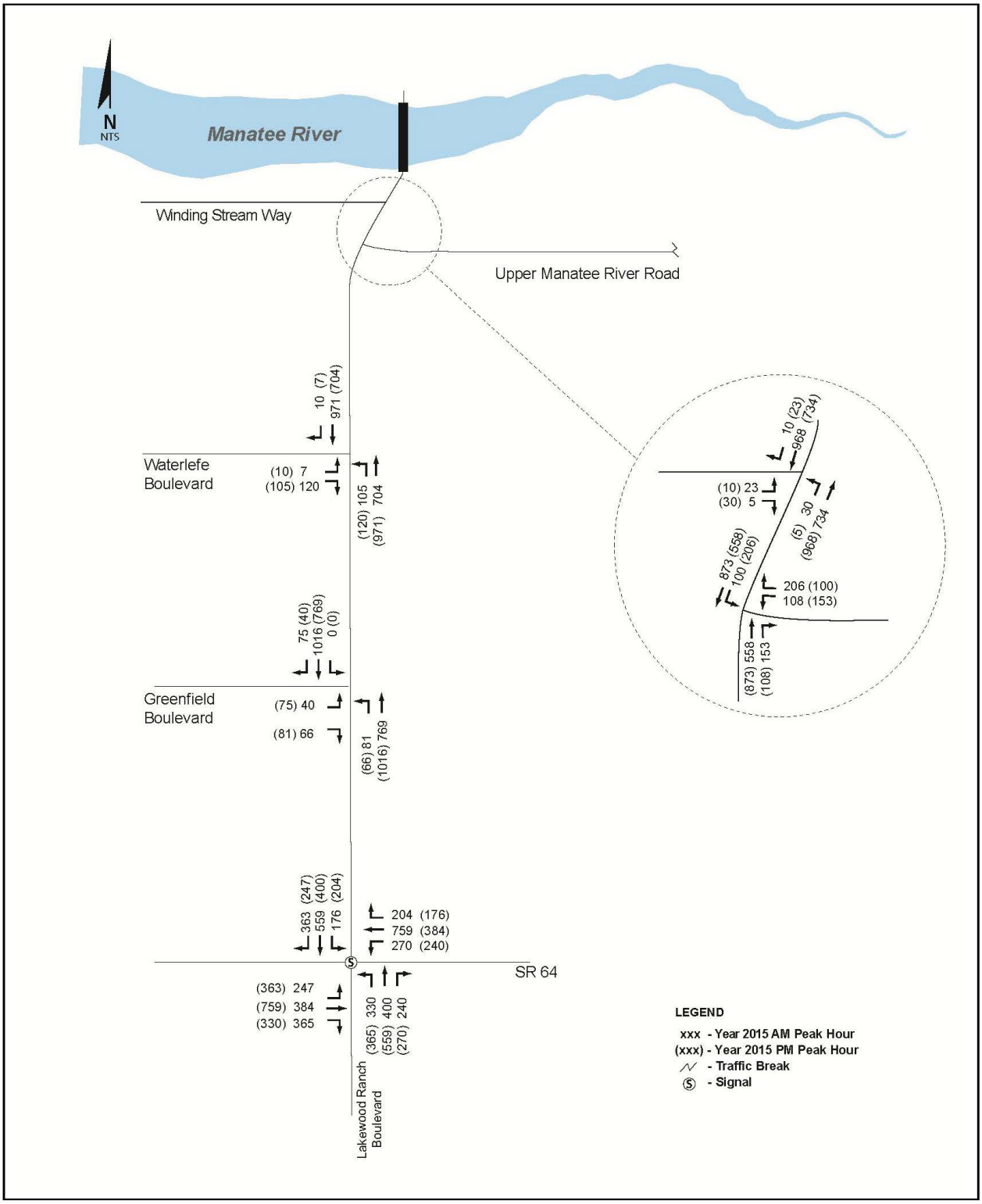


FIGURE 3-4
OPENING YEAR (2015) PEAK HOUR TRAFFIC VOLUMES
FORT HAMER ALTERNATIVE - NORTH SECTION

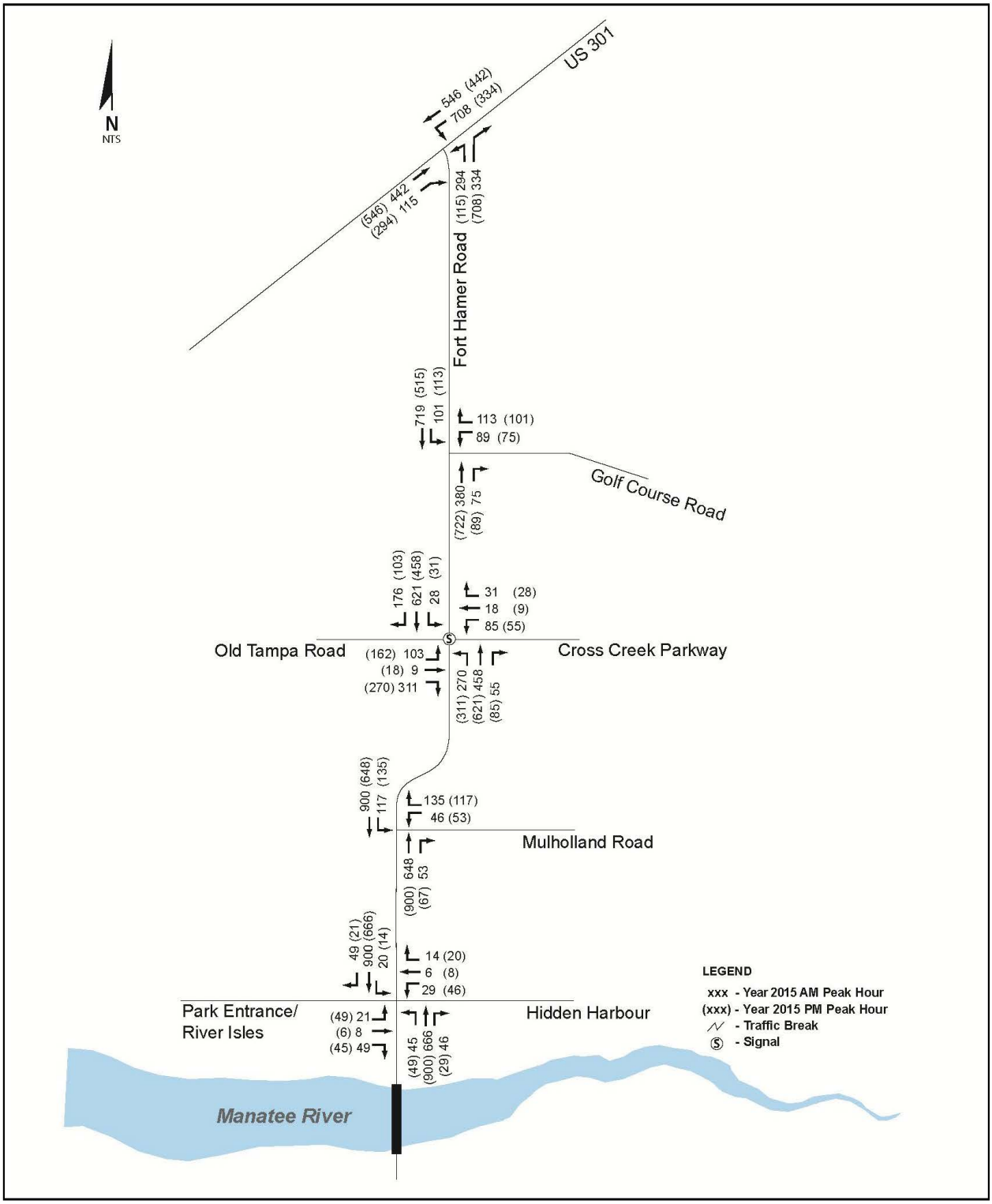


FIGURE 3-5
OPENING YEAR (2015) AADT VOLUMES
RYE ROAD ALTERNATIVE - SOUTH SECTION

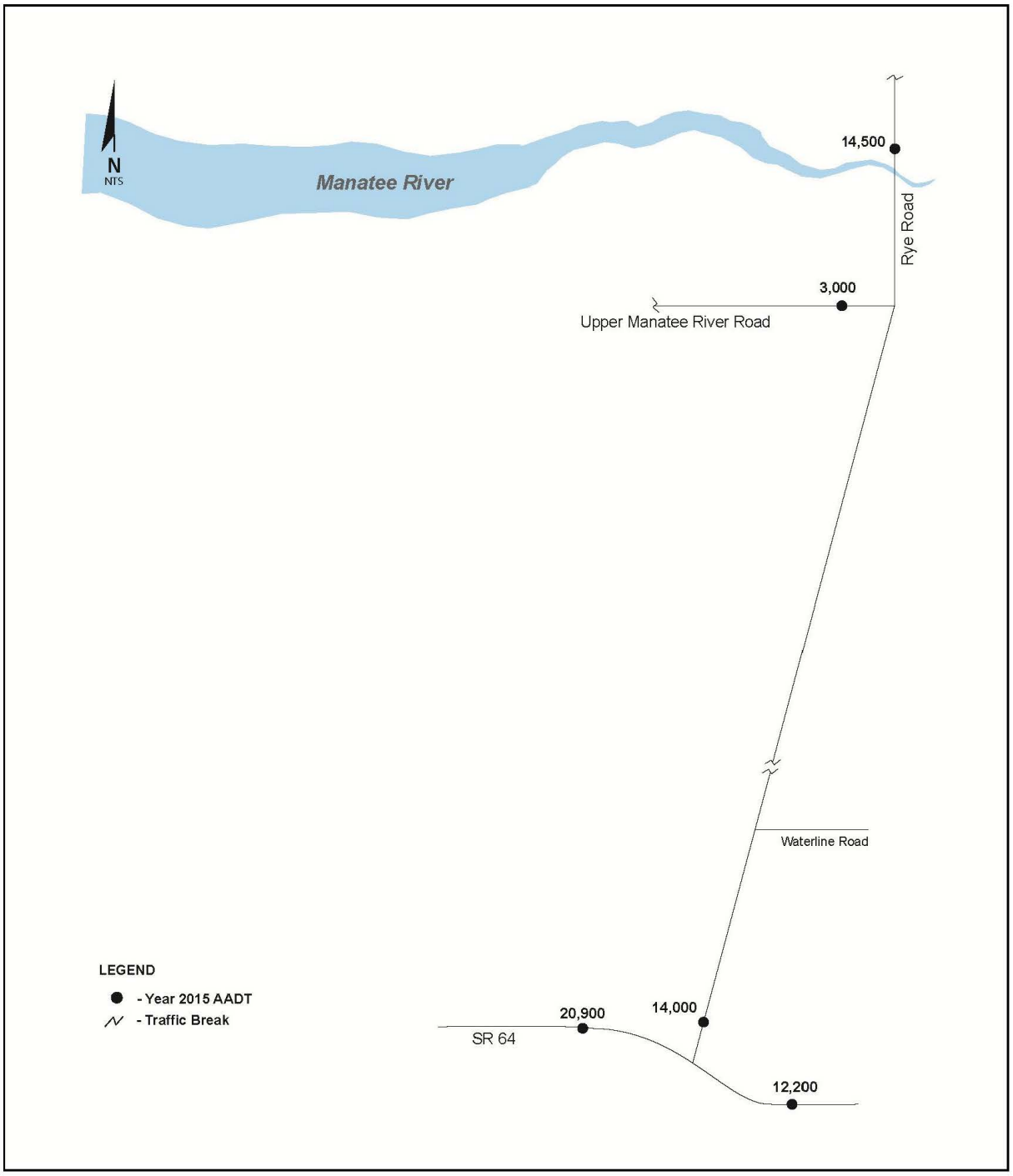


FIGURE 3-6
OPENING YEAR (2015) AADT VOLUMES
RYE ROAD ALTERNATIVE - NORTH SECTION

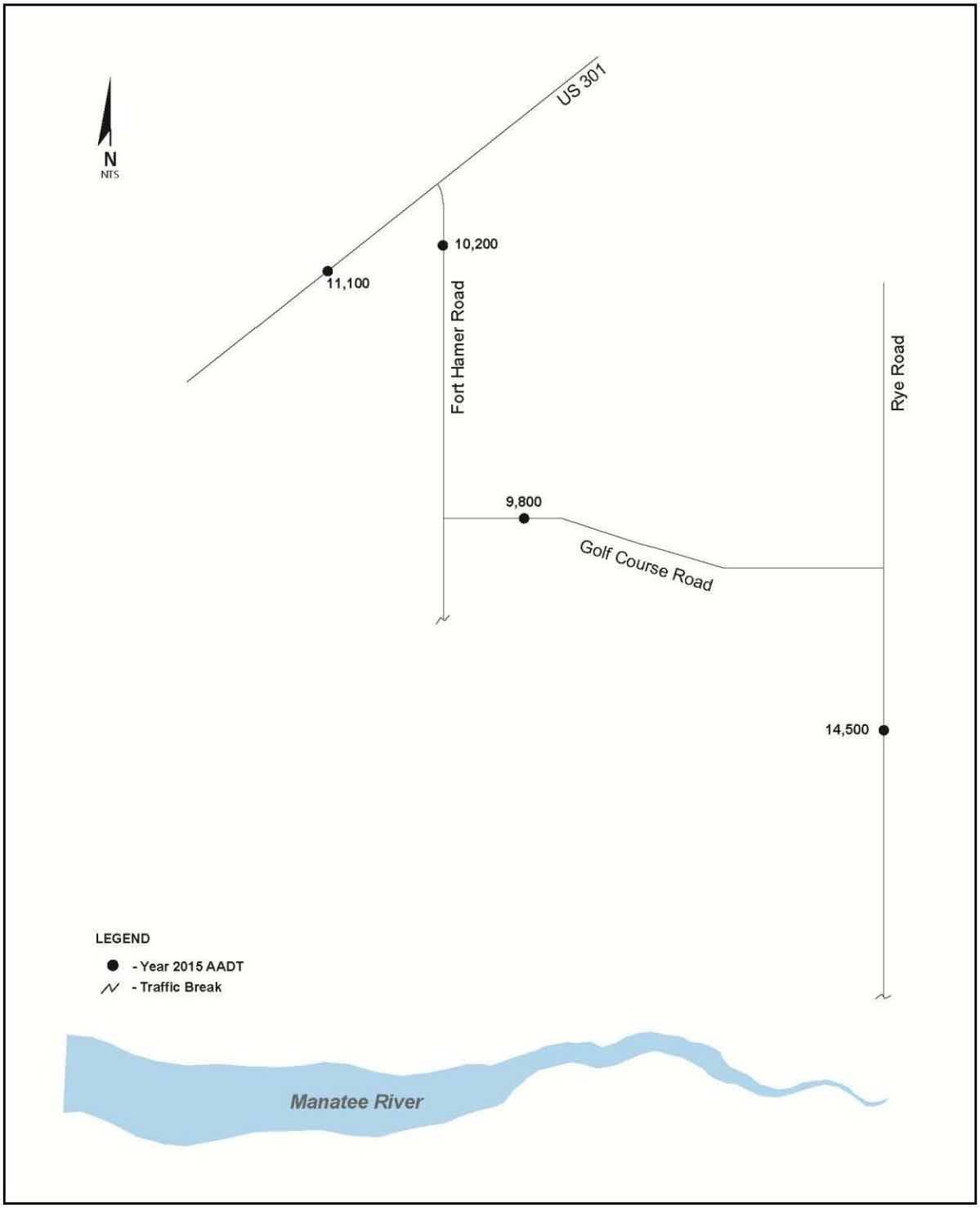


FIGURE 3-7
OPENING YEAR (2015) PEAK HOUR TRAFFIC VOLUMES
RYE ROAD ALTERNATIVE - SOUTH SECTION

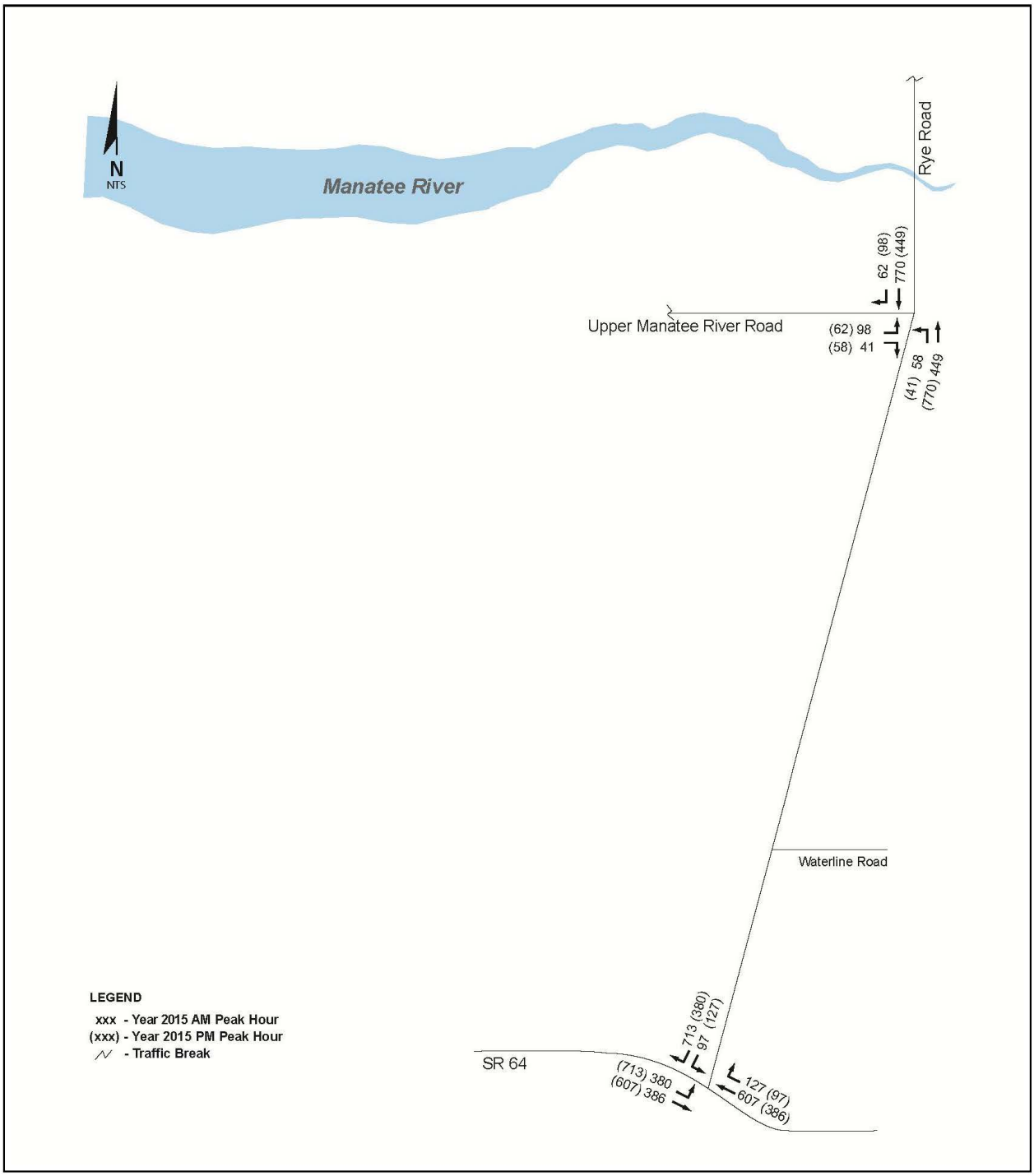


FIGURE 3-8
OPENING YEAR (2015) PEAK HOUR TRAFFIC VOLUMES
RYE ROAD ALTERNATIVE - NORTH SECTION

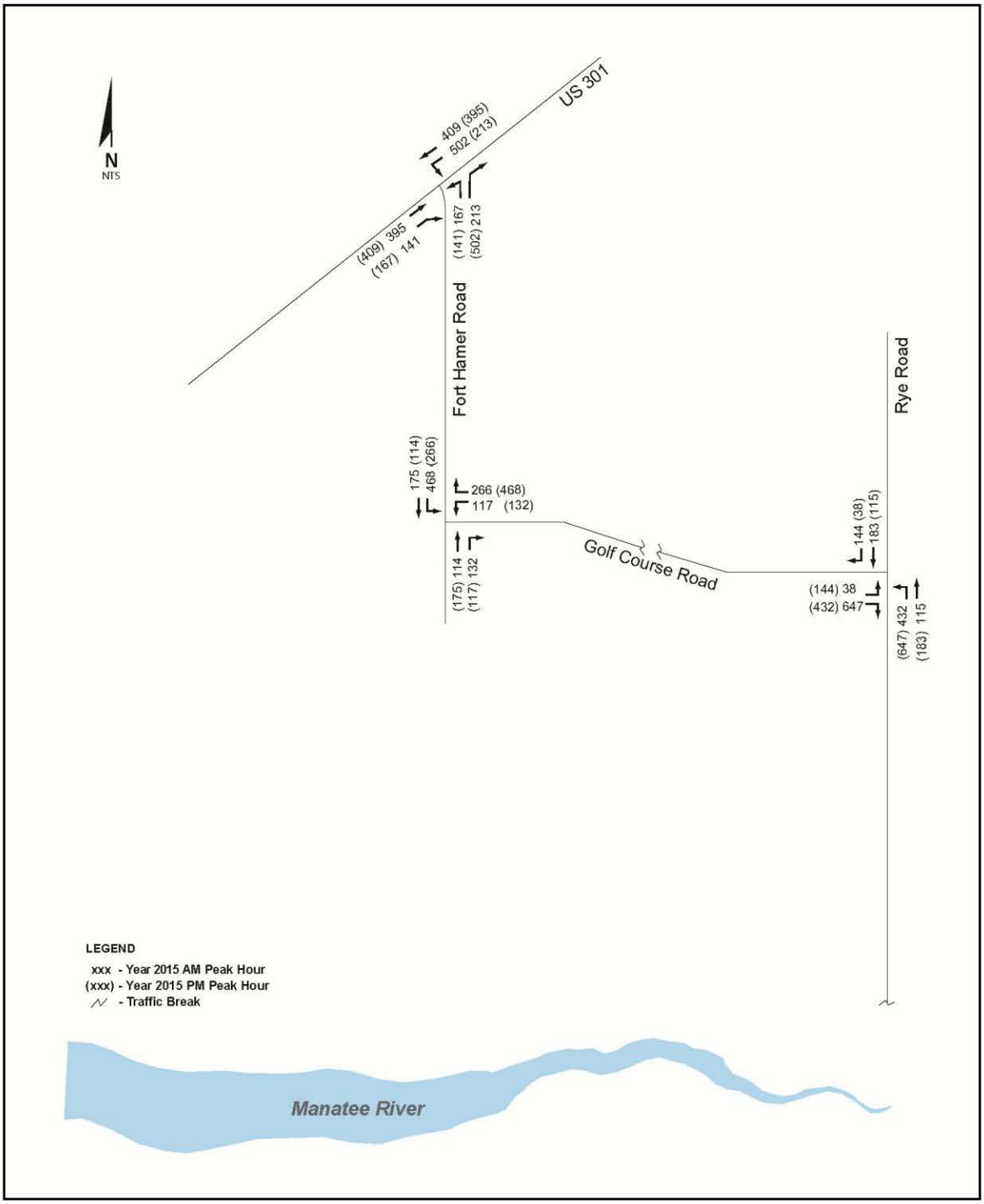


TABLE 3-1
OPENING YEAR (2015) UNSIGNALIZED INTERSECTION PEAK HOUR LOS
FORT HAMER ALTERNATIVE

Intersection	Approach	Movement	AM / (PM) Peak Hour V/C Ratio	AM / (PM) Peak Hour LOS
US 301	Northbound	Left	38.42 / (0.14)	F / (A)
		Right	0.46 / (2.10)	B / (F)
	Westbound	Left	0.77 / (0.47)	C / (B)
	Eastbound	Right	0.07 / (0.18)	A / (B)
Golf Course Road	Southbound	Left	0.12 / (0.32)	A / (B)
	Westbound	Left	0.83 / (0.74)	F / (F)
		Right	0.83 / (0.74)	F / (F)
Mulholland Road	Southbound	Left	0.14 / (0.21)	A /(B)
	Westbound	Left	0.73 /(0.96)	E / (F)
		Right	0.73 / (0.96)	E / (F)
Rive Isles/ Hidden Harbour entrances	Northbound	Left	0.07 / (0.06)	B / (A)
	Southbound	Left	0.02 / (0/02)	A / (B)
	Westbound	Left	0.13 / (1.10)	D / (F)
		Through/Right	0.80 / (0.19)	F / (D)
	Eastbound	Left	0.46 / (1.09)	F / (F)
		Through/Right	0.30 / (1.10)	D / (F)
Winding Stream Boulevard	Eastbound	Left	0.32 / (0.12)	F / (C)
		Right	0.32 / (0.45)	F / (C)
Upper Manatee River Road	Southbound	Left	0.12 / (0.33)	A / (B)
	Westbound	Left	1.33 / (3.37)	F / (F)
		Right	0.43 / (0.32)	C / (C)
Waterlefe Boulevard	Northbound	Left	0.17 / (0.15)	B / (C)
	Eastbound	Left	0.13 / (0.19)	F / (F)
		Right	0.44 / (1.27)	D / (C)
Greenfield Boulevard	Northbound	Left	0.14 / (0.63)	B / (B)
	Eastbound	Left	0.81 / (1.37)	F / (F)
		Right	0.14 / (0.09)	B / (B)

TABLE 3-2
OPENING YEAR (2015) UNSIGNALIZED INTERSECTION PEAK HOUR LOS
RYE ROAD ALTERNATIVE 3

Intersection	Approach	Movement	AM / (PM) Peak Hour[1] V/C Ratio	LOS
US 301/Fort Hamer Road	Northbound	Left	4.55 / (0.94)	F / (F)
		Right	0.28 / (0.67)	B / (C)
	Westbound	Left	0.53 / (0.23)	B / (A)
	Eastbound	Right	0.09 / (0.13)	A / (A)
Golf Course Road/ Fort Hamer Road	Southbound	Left	0.38 / (0.23)	A / (A)
	Westbound	Left	1.11 / (0.58)	F / (C)
		Right	0.07/ (0.11)	A / (A)
Rye Road/Golf Course Road	Northbound	Left	0.38 / (0.48)	A /(A)
	Eastbound	Left	0.81 / (3.08)	D / (F)
		Right	0.81 / (0.48)	D / (A)
Rye Road/ Upper Manatee River Road	Northbound	Left	0.08 / (0.48)	B / (B)
	Eastbound	Left	0.74 / (0.43)	F / (D)
		Right	0.74 /(0.04)	F / (A)
Rye Road/SR 64	Southbound	Left	0.82 / (4.75)	F / (F)
		Right	1.05 / (0.48)	F / (B)
	Eastbound	Left	0.48 / (0.72)	B / (C)

The results indicate that the Upper Manatee River Road and Fort Hamer Road are anticipated to operate at acceptable LOS (LOS B) or better during the p.m. peak hour.

The unsignalized intersection analysis results also indicated that many of the cross street movements that are projected to operate at LOS E/F are also projected to have v/c ratios less than 1.00. Therefore, even though the magnitude of the estimated vehicle delays exceeds the maximum LOS E value (50.0 sec/veh), the cross street volumes are not expected to exceed the available movement capacities. Following intersections are projected to have cross street v/c ratios greater than 1.00 in either the a.m. peak hour or the p.m. peak hour:

Fort Hamer Alternative

- Upper Manatee River Road/Fort Hamer Road
- Upper Manatee River Road/Rive Isles Entrance/Hidden Harbour Park Entrance
- Fort Hamer Road/US 301

Rye Road Alternative

- Fort Hamer Road/Golf Course Road
- Fort Hamer Road/US 301
- Rye Road/Golf Course Road
- Rye Road/SR 64

Although these intersections may initially not require (or warrant) signalization and may operate adequately as unsignalized intersections for a period of time after the roadway improvements are implemented, the 2015 peak hour unsignalized intersection analysis results indicate that traffic signals will be required at three locations by the Opening Year (2015) in the Fort Hamer Alternative and four locations in the Rye Road Alternative. This is needed to provide sufficient capacity for the cross street movements to operate at acceptable LOS. Based on these results, these intersections were re-analyzed as signalized intersections.

Signalized intersection analyses were conducted in the Fort Hamer Alternative for the Fort Hamer Road/US 301, Fort Hamer Road/Rive Isles Entrance/Hidden Harbour Entrance, and the Upper Manatee River Road/Fort Hamer Road intersections. Analyses were also conducted in the Rye Road Alternative for the Fort Hamer Road/Golf Course Road, Fort Hamer Road/US 301, Rye Road/Golf Course Road, and the Rye Road/SR 64 intersections.

If traffic signals were implemented at these intersections by the year 2015 with intersection improvements, all of these intersections would be expected to operate at LOS D or better overall in the a.m. and p.m. peak hours. In addition, all of the northbound and southbound approaches on Upper Manatee River Road and Fort Hamer Road are projected to operate at LOS C or better at these intersections.

Table 3-3 summarizes the results of the Opening Year (2015) signalized intersection analyses for the Fort Hamer Alternative assuming four through lanes (two through lanes per direction) on Upper Manatee River Road from Upper Manatee River Road to Waterlefe Boulevard. The remaining sections of Upper Manatee River Road and Fort Hamer Road can remain as a two-lane (one lane per direction) roadway.

Table 3-4 summarizes the Opening Year (2015) signalized intersection analyses for the Rye Road Alternative. With signalization, the four intersections along this corridor are anticipated to operate at an acceptable LOS.

The HCS signalized intersection analyses are provided in **Appendix D** for both build alternatives.

TABLE 3-3
OPENING YEAR (2015) SIGNALIZED INTERSECTION PEAK HOUR LOS WITH RECOMMENDED IMPROVEMENTS[1]
FORT HAMER ALTERNATIVE

Intersection	Approach	Lane Group	AM / (PM) Peak Hour Average Delay (in sec/veh)	AM / (PM) Peak Hour LOS
Fort Hamer Road/US 301	Eastbound	Through	41.2 / (24.2)	D / (C)
		Right	31.0 / (20.2)	C / (C)
		Overall	39.1 / (22.8)	D / (C)
	Westbound	Left	32.6 / (24.2)	C / (C)
		Through	6.6 / (13.0)	A / (B)
		Overall	21.3 / (22.8)	C / (C)
	Northbound	Left	42.4 / (19.5)	D / (B)
		Right	28.5 / (31.8)	C / (C)
		Overall	35.0 / (30.1)	C / (C)
	Overall		28.9 / (21.2)	C / (C)
Fort Hamer Road/Old Tampa Road/Cross Creek Parkway	Eastbound	Left	37.8 / (34.7)	D / (C)
		Through	39.2 / (34.5)	D / (C)
		Right	40.8 / (35.1)	D / (C)
		Overall	40.1 / (34.9)	D / (C)
	Westbound	Left	43.5 / (37.1)	D / (D)
		Through	41.8 / (38.9)	D / (D)
		Right	40.9 / (38.5)	D / (D)
		Overall	42.9 / (37.7)	D / (D)
	Northbound	Left	53.3 / (20.2)	D / (C)
		Through/Right	11.1 / (17.2)	B / (B)
		Overall	25.6 / (18.1)	C / (B)
	Southbound	Left	10.9 / (15.4)	B / (B)
		Through/Right	41.8 / (32.4)	D / (C)
		Overall	40.7 / (31.5)	D / (C)
	Overall		35.2 / (26.1)	C / (C)
Fort Hamer Road/Rive Isles Entrance/Hidden Harbour Entrance	Eastbound	Left	26.2 / (32.0)	C / (C)
		Through/Right	25.6 / (29.2)	C / (C)
		Overall	25.7 /(30.6)	C / (C)
	Westbound	Left	26.8 / (31.7)	C / (C)
		Through/Right	25.4 / (29.2)	C / (C)
		Overall	26.2 / (30.8)	C / (C)
	Northbound	Left	3.0 / (5.0)	A / (A)
		Through/Right	4.5 / (13.1)	A / (B)
		Overall	4.4 / (12.7)	A / (B)
	Southbound	Left	2.4 / (8.0)	A / (A)
		Through/Right	7.6 / (8.9)	A / (A)
		Overall	7.5 /(8.8)	A / (A)
	Overall		7.5 /(12.9	A / (B)

TABLE 3-3 (CONTINUED)
OPENING YEAR (2015) SIGNALIZED INTERSECTION PEAK HOUR
LOS WITH RECOMMENDED IMPROVEMENTS[1]
FORT HAMER ALTERNATIVE

Intersection	Approach	Lane Group	AM / (PM) Peak Hour Average Delay (in sec/veh)	AM / (PM) Peak Hour LOS
Upper Manatee River Road/ Fort Hamer Road	Westbound	Left	37.7/ (39.2)	D / (D)
		Right	34.3 / (31.7)	C / (C)
		Overall	35.5 / (36.3)	D / (D)
	Northbound	Through	37.1 / (49.6)	D / (D)
		Right	18.2 / (11.0)	B / (B)
		Overall	33.1 / (45.4)	C / (D)
	Southbound	Left	22.2 / (37.0)	C / (D)
		Through	34.2 /(47.9)	C / (D)
		Overall	33.0 / (45.0)	C / (D)
	Overall		33.4 / (44.1)	C / (D)
Upper Manatee River Road/SR 64	Eastbound	Left	50.2 / (47.5)	D / (D)
		Through	37.1 / (40.3)	D / (D)
		Right	38.6 / (34.4)	D / (C)
		Overall	40.9 / (40.7)	D / (D)
	Westbound	Left	49.9 /(48.5)	D / (D)
		Through	41.7 / (39.2)	D / (D)
		Right	34.5 / (36.8)	C / (D)
		Overall	42.3 / (41.5)	D / (D)
	Northbound	Left	49.6 / (47.6)	D / (D)
		Through	25.0 / (27.9)	C / (C)
		Right	24.7 / (26.5)	C / (C)
		Overall	33.3 / (33.6)	C / (C)
	Southbound	Left	50.4 /(48.7)	D / (D)
		Through	30.6 / (31.2)	C / (C)
		Right	31.6 / (30.3)	C / (C)
		Overall	34.1 / (35.1)	C / (D)
	Overall		37.8 / (37.8)	D / (D)

[1] Recommended geometric improvements are shown on Figures 4-9 and 4-10.

TABLE 3-4
OPENING YEAR (2015) SIGNALIZED INTERSECTION PEAK HOUR
LOS WITH RECOMMENDED IMPROVEMENTS[1]
RYE ROAD ALTERNATIVE

Intersection	Approach	Lane Group	AM / (PM) Peak Hour Average Delay (in sec/veh)	AM / (PM) Peak Hour LOS
Fort Hamer Road/ Golf Course Road	Westbound	Left	17.9 / (17.8)	B / (B)
		Right	24.5 / (17.4)	C / (B)
		Overall	22.5 / (17.5)	C / (B)
	Northbound	Through	3.2 / (4.5)	A / (A)
		Right	3.2 / (4.1)	A / (A)
		Overall	3.2 / (4.3)	A / (A)
	Southbound	Left	7.5 / (6.5)	A / (A)
		Through	3.4/ (4.2)	A / (A)
		Overall	6.4 / (5.8)	A / (A)
	Overall		**10.6 / (11.0)**	**B / (A)**
Fort Hamer Road/US 301	Eastbound	Through	22.1 / (15.7)	C / (B)
		Right	19.1 / (13.9)	B / (B)
		Overall	21.3 / (15.2)	C / (B)
	Westbound	Left	28.0 / (6.4)	C / (A)
		Through	7.7 / (5.5)	A / (A)
		Overall	18.9 / (5.9)	B / (A)
	Northbound	Left	15.5 / (16.7)	B / B)
		Right	14.4 / (16.5)	B / (B)
		Overall	14.9 / (16.5)	B / (B)
	Overall		**18.8 / (12.6)**	**B / (B)**
Rye Road/Golf Course Road	Eastbound	Left	19.3 / (43.8)	B / (D)
		Right	12.6 / (16.9)	B / (B)
		Overall	13.0 / (23.7)	B / (C)
	Northbound	Left	6.8 / (7.7)	A / (A)
		Right	4.3 / (3.7)	A / (A)
		Overall	6.3 / (6.8)	A / (A)
	Southbound	Through	14.3 / (16.8)	B / (B)
		Right	3.8 / (6.6)	A / (A)
		Overall	9.7 / (14.3)	A / (B)
	Overall		**9.9 / (13.8)**	**A / (B)**
Rye Road/SR 64	Eastbound	Left	26.7 / (25.3)	C / (C)
		Through	3.5 / (3.1)	A / (A)
		Overall	15.0 / (15.1)	B / (B)
	Westbound	Through	30.0 / (31.4)	C / (C)
		Right	23.8 / (26.5)	C / (C)
		Overall	28.9 / (30.4)	C / (C)
	Southbound	Left	38.2 / (32.0)	D / (C)
		Right	21.6 / (4.6)	C / (A)
		Overall	23.5 / (11.4)	C / (B)
	Overall		**22.4 / (17.5)**	**C / (B)**

[1] Recommended geometric improvements are shown on Figures 3-11 and 3-12.

From the analyses above, it was determined that two through lanes (one lane per direction) should be provided in the northbound and southbound directions of the Fort Hamer Alternative. The recommended Opening Year (2015) intersection geometry for the Fort Hamer Alternative is illustrated on **Figures 3-9 and 3-10**.

Similarly, **Figures 3-11 and 3-12** illustrate recommended Opening Year (2015) intersection geometry for Rye Road Alternative.

The roadway segment LOS analyses for the Fort Hamer Alternative and Rye Road Alternative with the proposed improvements were conducted using the Synchro software for an arterial analysis methodology. This is based on the recommended lane geometry of two through lanes (one lane per direction) from the existing four-lane terminus located north of SR 64 along Upper Manatee River Road and Fort Hamer Road north to US 301. For Opening Year (2015), a two-lane roadway with the intersection improvements described in **Table 3-4** is anticipated to operate at LOS D or better for the Fort Hamer Alternative. The arterial analysis is provided in **Appendix E**.

Similarly, the Rye Road Alternative, a two-lane facility with the intersection improvements described in **Table 3-5** is anticipated to operate at LOS D or better. The arterial analysis is documented in **Appendix E**.

The recommended storage lane lengths for the exclusive left- and right-turn lanes at intersections were determined using the 95th percentile queue length from the Synchro analyses. The recommended turn-lane storage lengths are summarized in Table 3-5 for the Fort Hamer Alternative and relevant information is provided in **Appendix F**. Although, US 301 will have separate turn lanes as part of the US 301 widening; the turn lane storage lengths are included in the summary table. Similarly, **Table 3-6** summarizes the Rye Road Alternative recommended turn-lane storage length improvements and relevant information is provided in **Appendix G**.

FIGURE 3-9
OPENING YEAR (2015) RECOMMENDED INTERSECTION GEOMETRY
FORT HAMER ALTERNATIVE - SOUTH SECTION

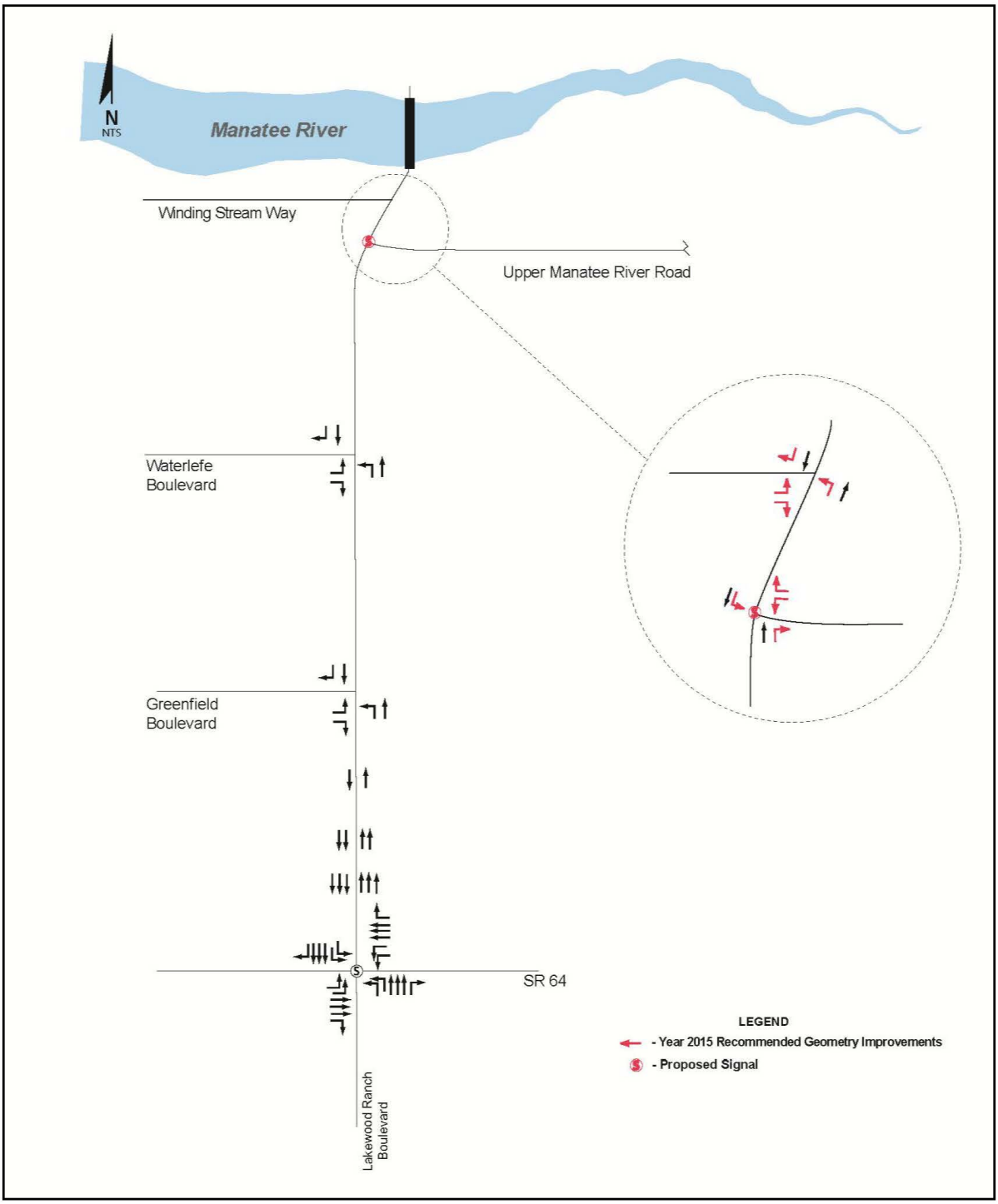


FIGURE 3-10
OPENING YEAR (2015) RECOMMENDED INTERSECTION GEOMETRY
FORT HAMER ALTERNATIVE - NORTH SECTION

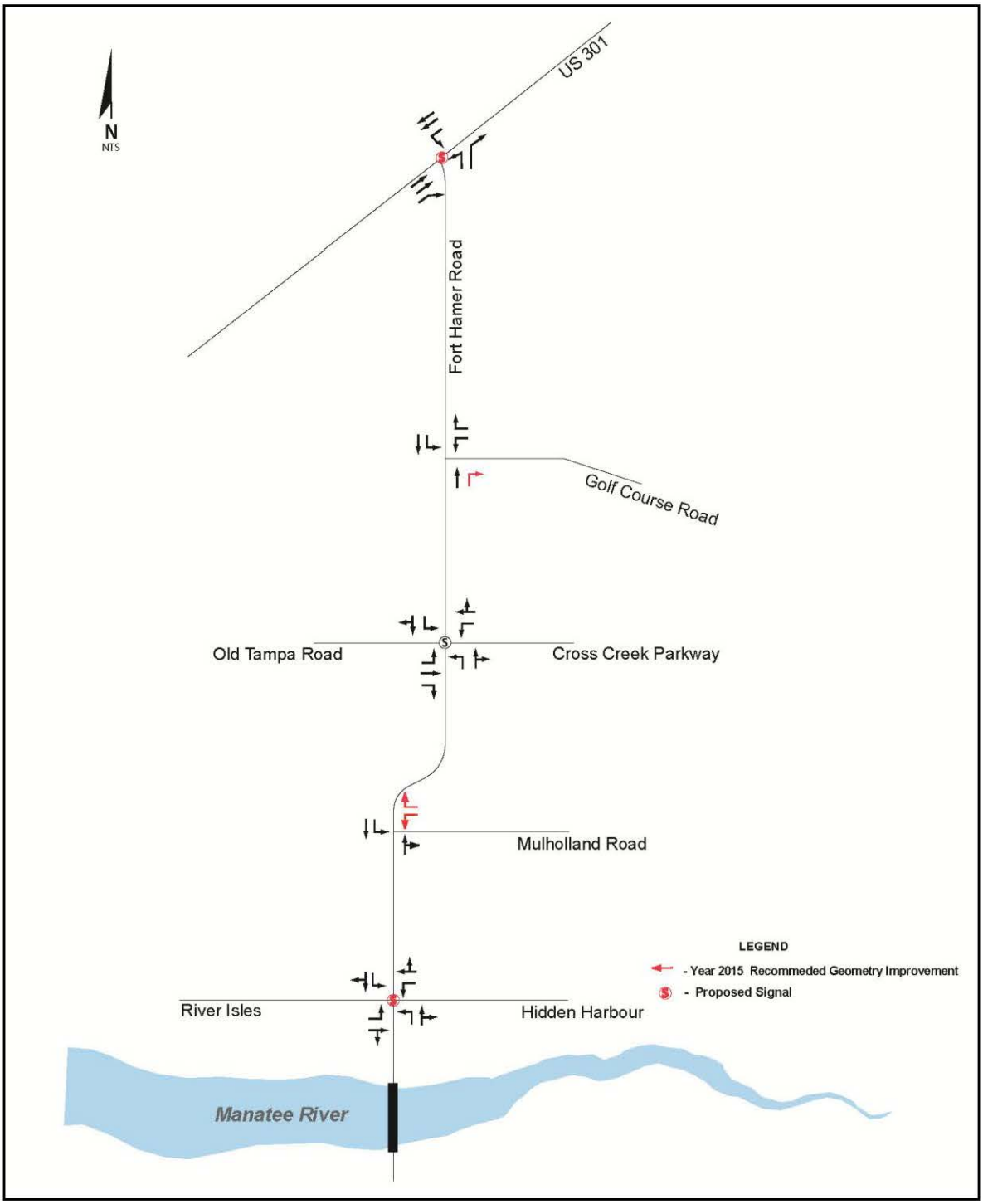


FIGURE 3-11
OPENING YEAR (2015) RECOMMENDED INTERSECTION GEOMETRY
RYE ROAD ALTERNATIVE - SOUTH SECTION

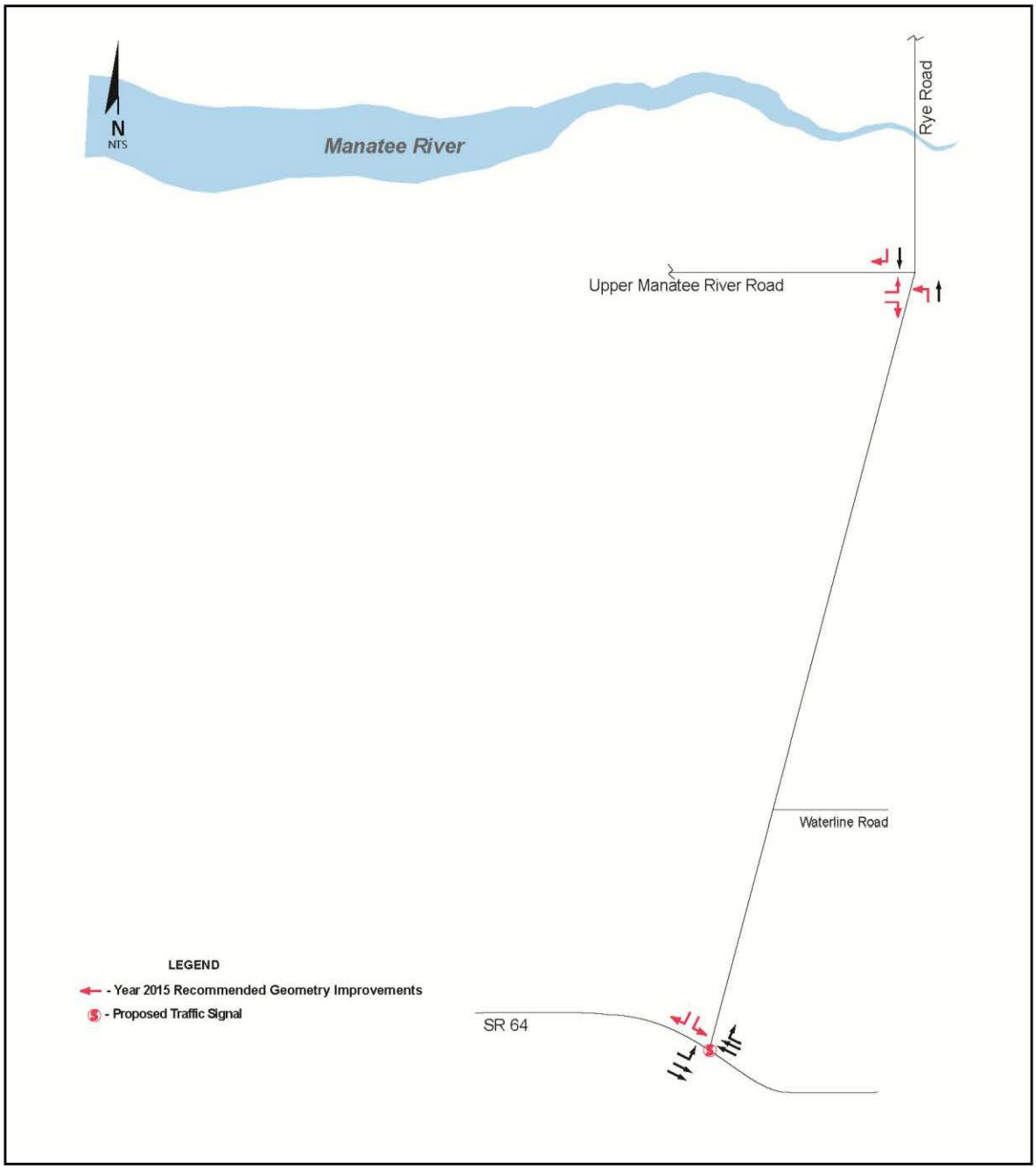


FIGURE 3-12
OPENING YEAR (2015) RECOMMENDED INTERSECTION GEOMETRY
RYE ROAD ALTERNATIVE - NORTH SECTION

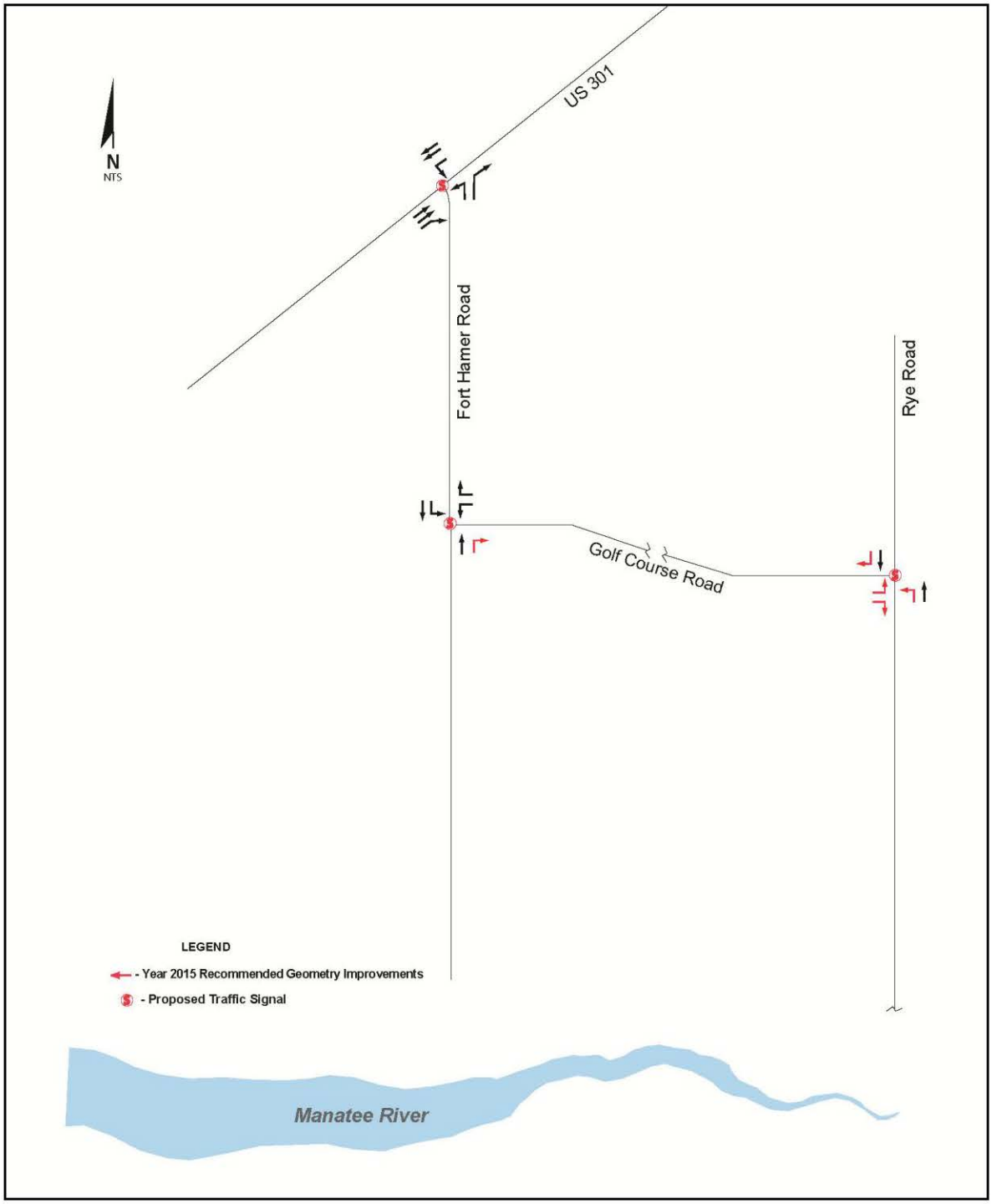


TABLE 3-5
OPENING YEAR (2015) RECOMMENDED STORAGE LANE LENGTH IMPROVEMENTS
FORT HAMER ALTERNATIVE

Intersection	Approach	Turn Lane	Storage Length[1] (in feet per lane)
Fort Hamer Road/US 301	Northbound	Left	300
		Right	275
	Westbound	Left	625
	Eastbound	Right	100
Fort Hamer Road/ Golf Course Road	Northbound	Right	25
	Southbound	Left	50
	Westbound	Left	175
		Right	25
		Left	225
		Right	25
Upper Manatee River Road/ Fort Hamer Road	Northbound	Right	50
	Southbound	Left	250
	Westbound	Left	150
		Right	75

[1] Storage length rounded to 25-foot average vehicle length and does not include deceleration or taper distance.

TABLE 3-6
OPENING YEAR (2015) RECOMMENDED STORAGE LANE LENGTH IMPROVEMENTS
RYE ROAD ALTERNATIVE

Intersection	Approach	Turn Lane	Storage Length[1] (in feet per lane)
Fort Hamer Road/US 301	Northbound	Left	125
		Right	75
	Westbound	Left	275
	Eastbound	Right	50
Fort Hamer Road/ Golf Course Road	Northbound	Right	25
	Southbound	Left	125
	Westbound	Left	75
		Right	75
Rye Road/Golf Course Road	Northbound	Left	275
	Southbound	Right	25
	Eastbound	Left	175
		Right	150
Rye Road/ Upper Manatee River Road	Northbound	Left	50
	Southbound	Right	50
	Eastbound	Left	125
		Right	25
Rye Road/SR 64	Westbound	Right	50
	Eastbound	Left	550
	Southbound	Left	150
		Right	450

[1] Storage length rounded to 25-foot average vehicle length and does not include deceleration or taper distance.

Section 4.0
DESIGN YEAR (2035) CONDITIONS

This section documents the traffic projections and traffic analysis for the Design Year (2035). The traffic projections are based on the Sarasota/Manatee MPO socioeconomic data and the more recently approved developments provided by Manatee County Planning Department located in the vicinity of the project.

4.1 DESIGN YEAR (2035) TRAFFIC

The Design Year (2035) AADT volumes were obtained from the updated SMC TDM and were checked for reasonableness.

The 2035 AADT volumes estimated for the Upper Manatee River Road/Fort Hamer Road corridor for No-Build Alternative, Fort Hamer Alternative, and Rye Road Alternative are illustrated on **Figures 4-1 through 4-6**. The 2035 design hour volumes for these alternatives were derived by multiplying the 2035 AADT volumes by a K_{30}-factor of 0.10 and a D factor of 0.60.

For the No-Build Alternative, the 2035 AADT volumes across Upper Manatee River Road and Rye Road are projected to be 14,500 vpd on Upper Manatee River Road and 15,600 vpd on Rye Road. The Rye Road two-lane bridge over the Manatee River is projected to have 19,800 vpd. Golf Course Road is projected to have 11,500 vpd. Fort Hamer Road, from Golf Course Road north to US 301 is projected to have 10,600 vpd. South of Golf Course Road along Fort Hamer Road is projected to have 3,300 vpd. The No-Build Alternative is based upon a two-lane collector road while the Fort Hamer Alternative and Rye Road Alternative are based upon arterial roadways with improved roadway design geometrics.

The proposed Fort Hamer Bridge over the Manatee River is projected to have 23,600 vpd. The proposed Rye Road Bridge is anticipated to have 24,000 vpd.

4.2 DESIGN YEAR (2035) TRAFFIC OPERATIONS

The Design Year (2035) LOS analyses were conducted for the mainline roadway segments on Upper Manatee River Road and Fort Hamer Road, as well as for signalized and unsignalized intersections using the Synchro software HCM analyses. The following sections discuss the results of these analyses.

FIGURE 4-1
DESIGN YEAR (2035) AADT VOLUMES
NO-BUILD ALTERNATIVE - SOUTH SECTION

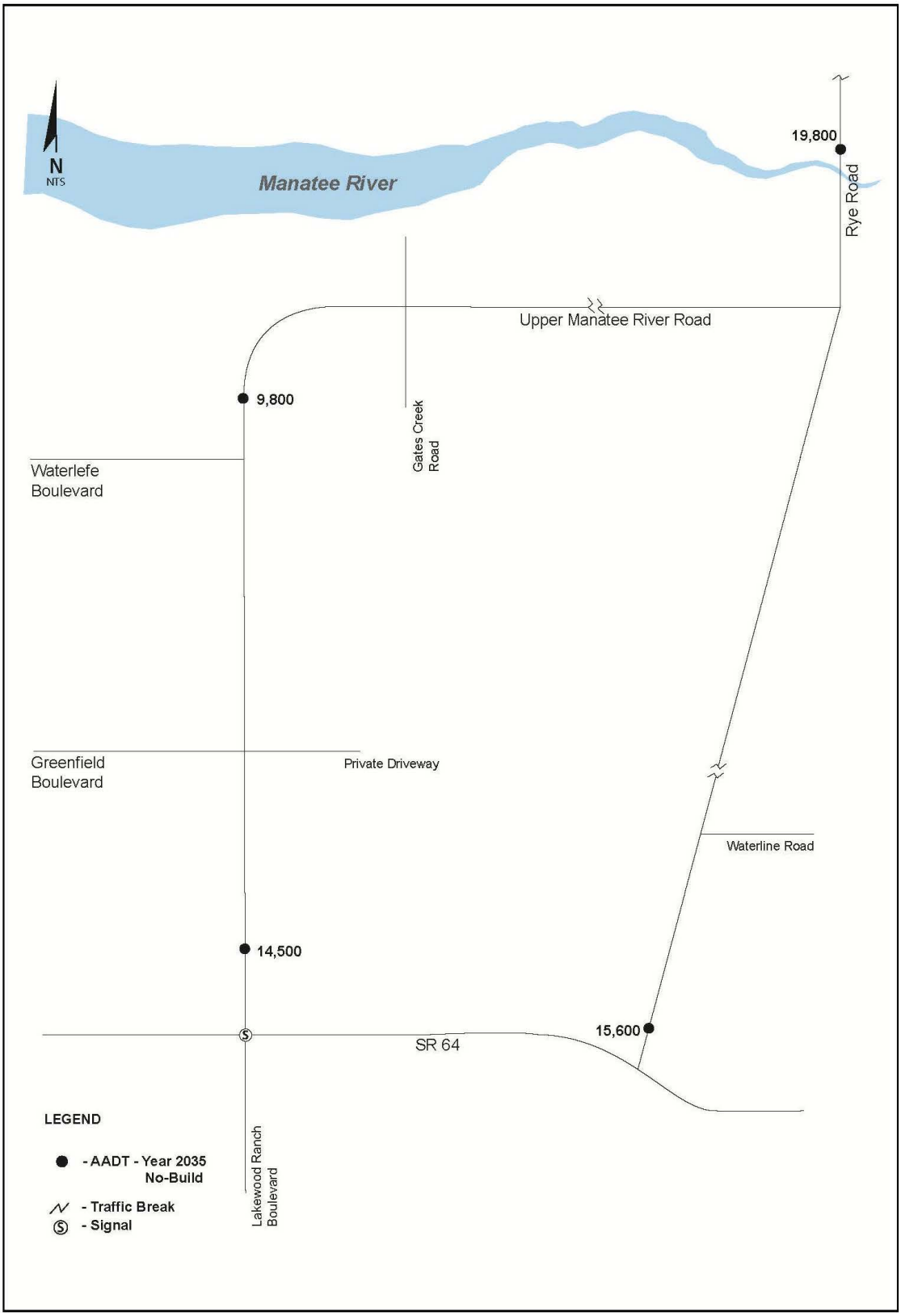


FIGURE 4-2
DESIGN YEAR (2035) AADT VOLUMES
NO-BUILD ALTERNATIVE - NORTH SECTION

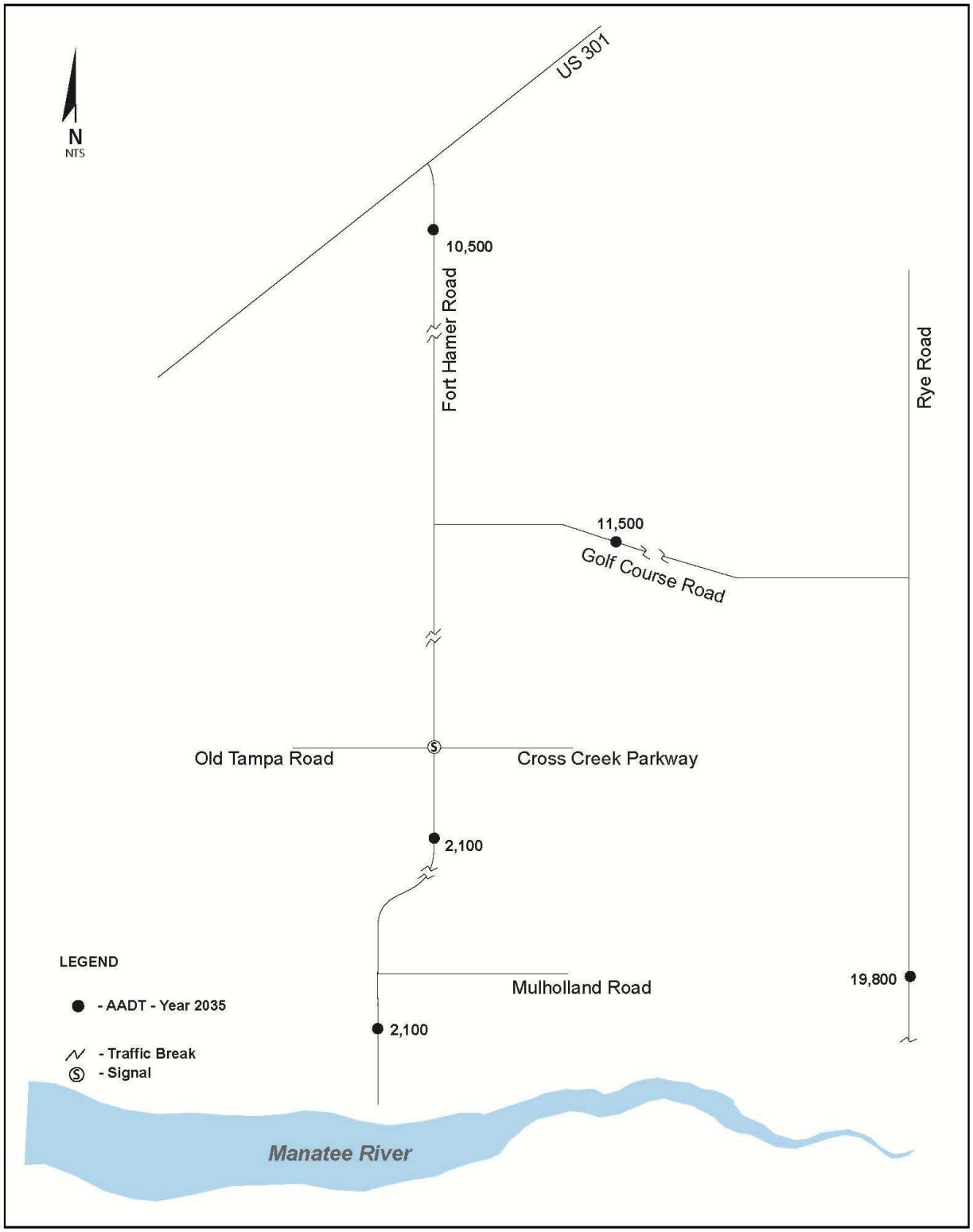


FIGURE 4-3
DESIGN YEAR (2035) AADT VOLUMES
FORT HAMER ALTERNATIVE - SOUTH SECTION

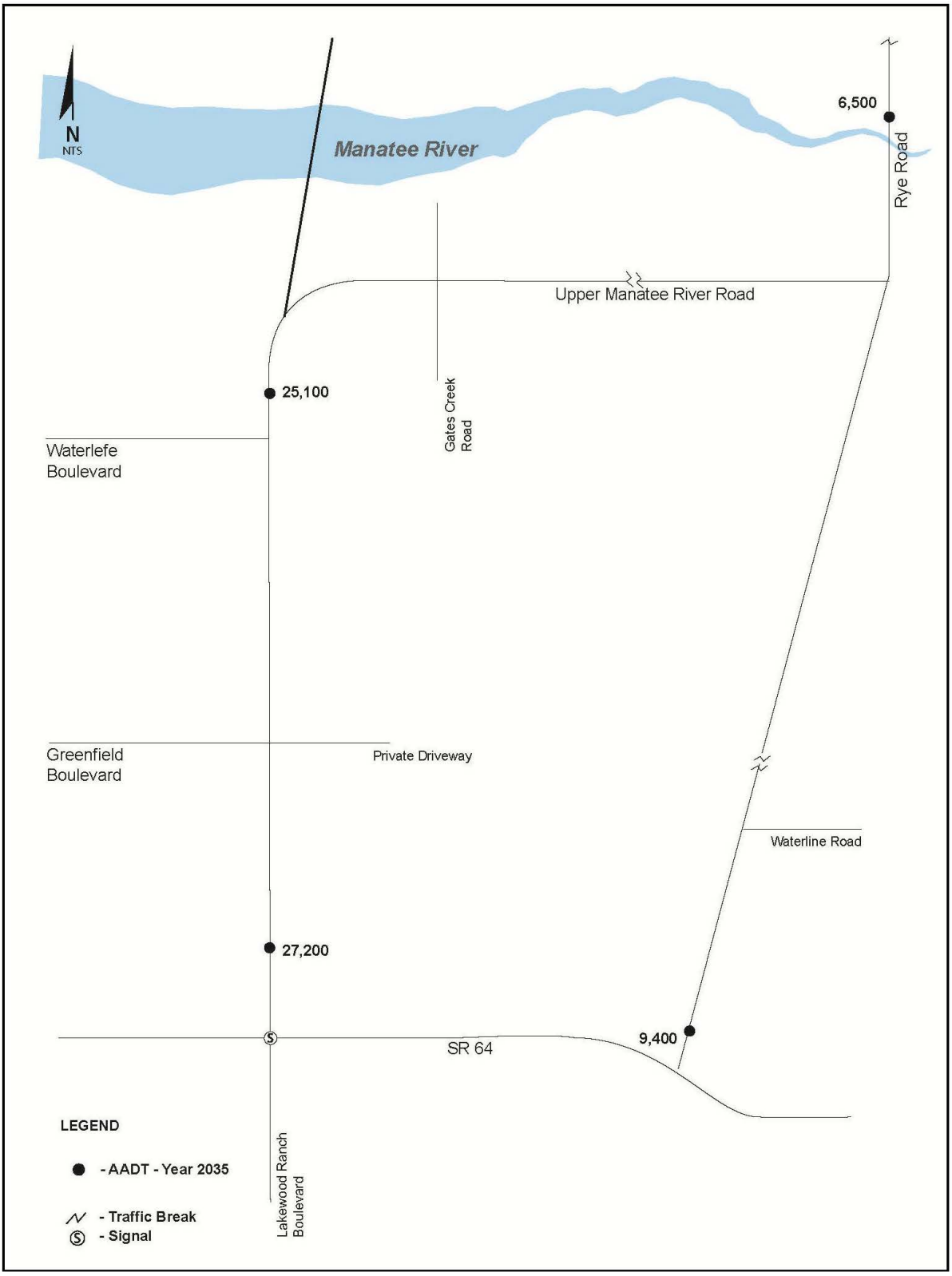


FIGURE 4-4
DESIGN YEAR (2035) AADT VOLUMES
FORT HAMER ALTERNATIVE - NORTH SECTION

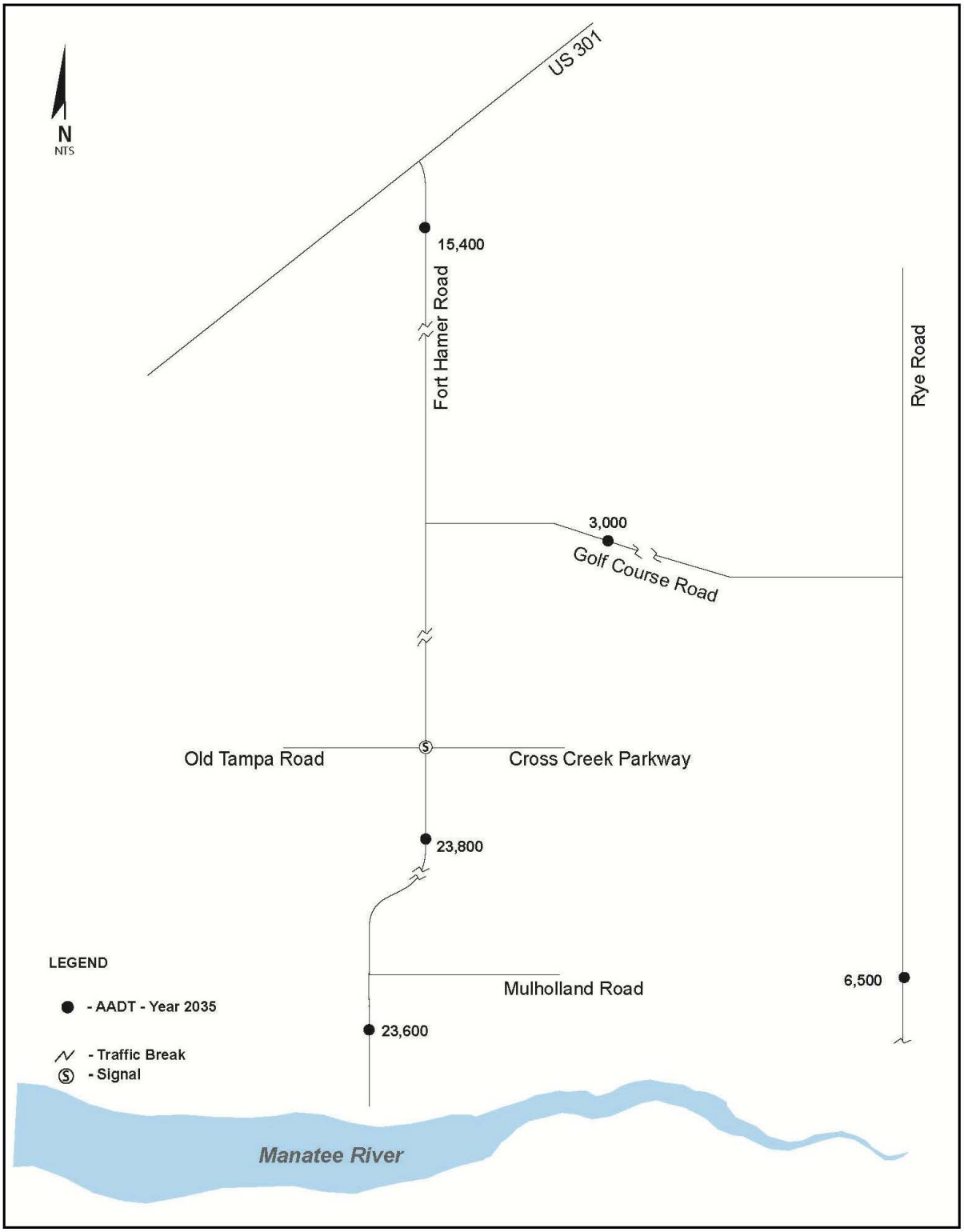


FIGURE 4-5
DESIGN YEAR (2035) AADT VOLUMES
RYE ROAD ALTERNATIVE - SOUTH SECTION

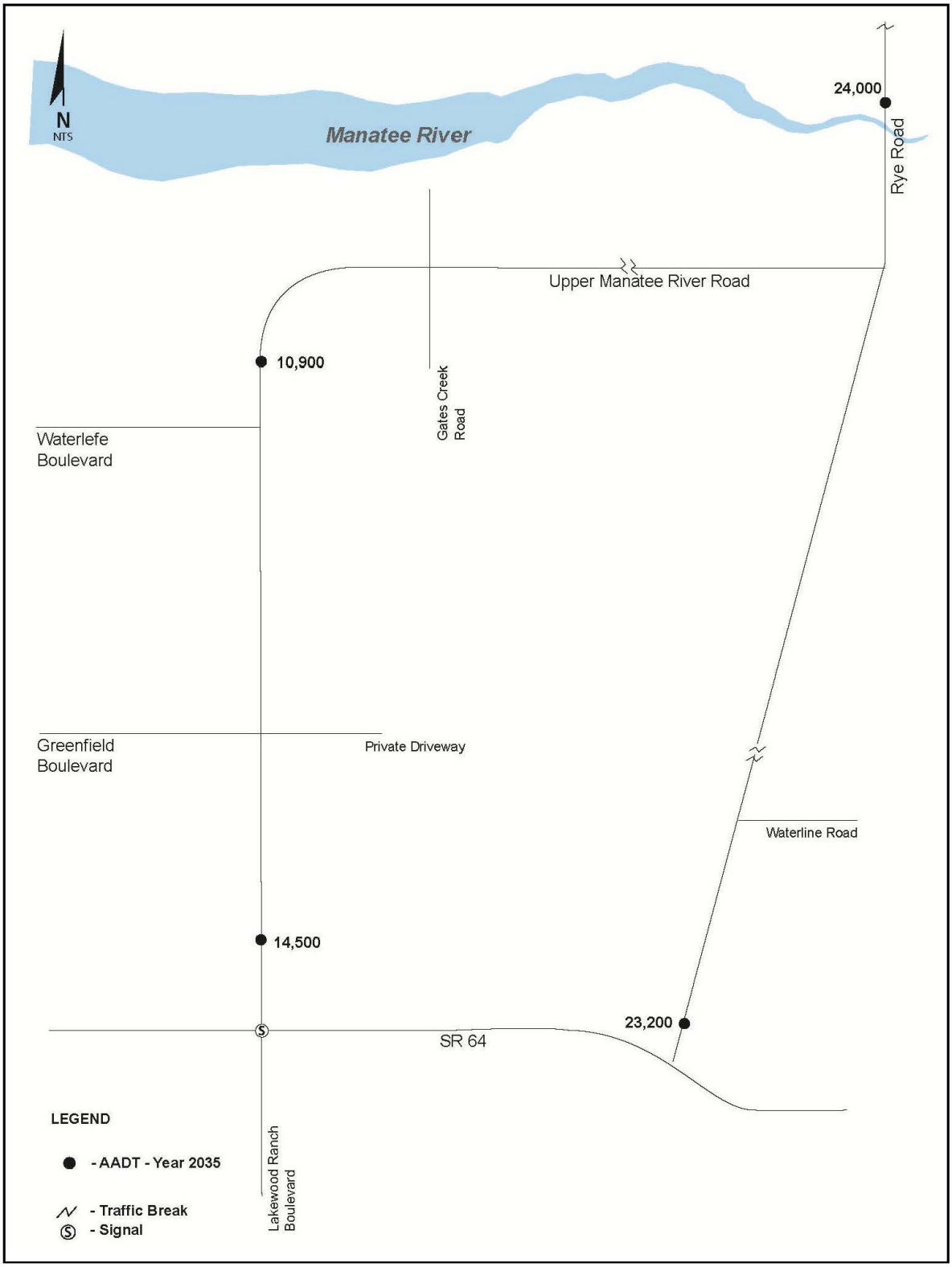
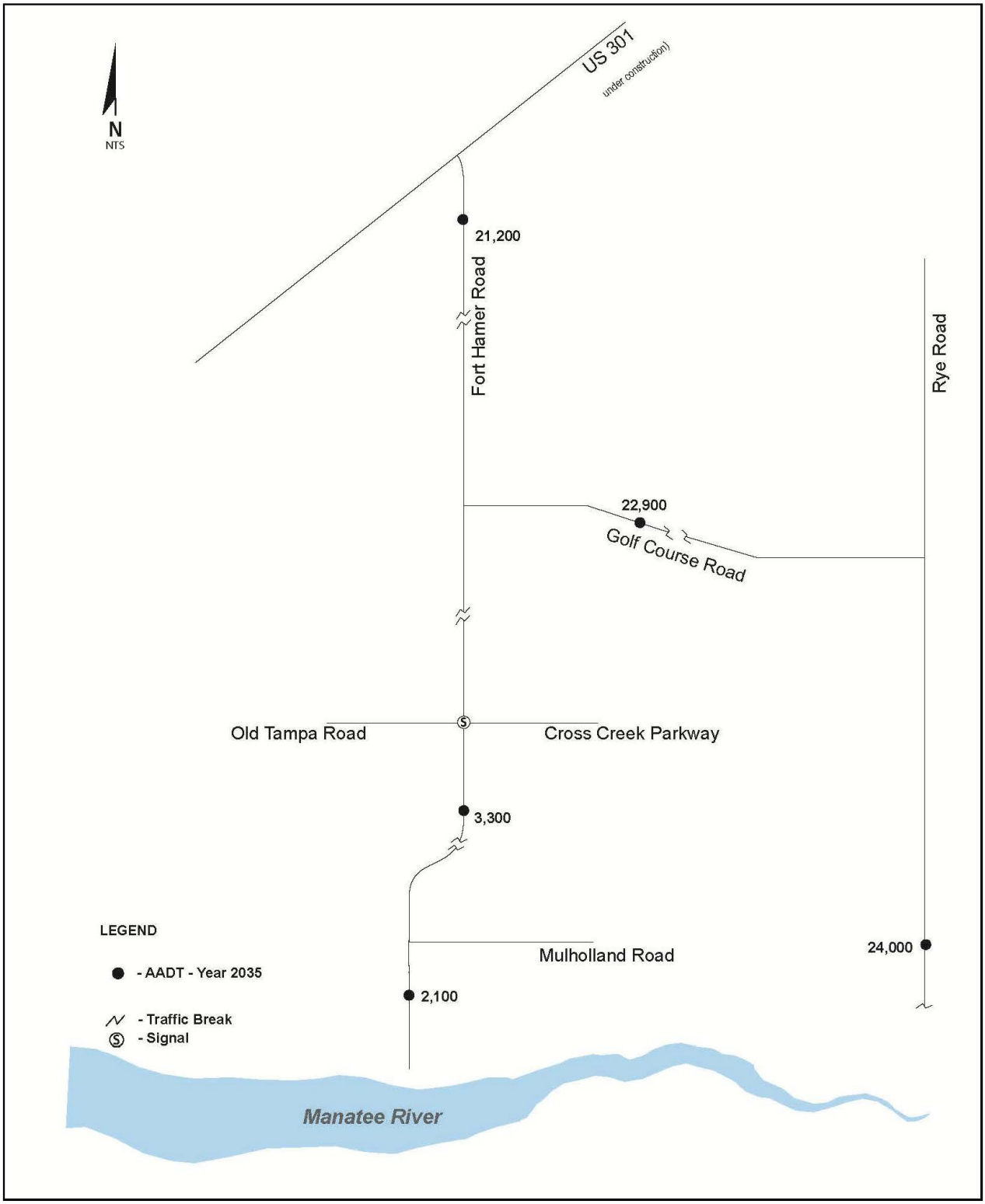


FIGURE 4-6
DESIGN YEAR (2035) AADT VOLUMES
RYE ROAD ALTERNATIVE - NORTH SECTION



4.2.1 NO-BUILD ALTERNATIVE

A No-Build Alternative (no bridge over the Manatee River) with the existing two-lane bridge along Rye Road analysis with the existing two lanes along Rye Road, Golf Course Road, and Fort Hamer Road was conducted to document the LOS that would be expected to occur in the year 2035, if no improvements were made in the corridor. The roadway segment LOS analyses were conducted using the current FDOT Generalized LOS tables accepted for two-lane collector roadways. The results are summarized in **Table 4-1** for Upper Manatee River Road and Fort Hamer Road and **Table 4-2** for Rye Road and Golf Course Road.

TABLE 4-1
DESIGN YEAR (2035) ROADWAY SEGMENT DAILY LOS
NO-BUILD ALTERNATIVE
UPPER MANATEE RIVER ROAD/FORT HAMER ROAD

From	To	AADT/Capacity	LOS
SR 64	Waterlefe Boulevard	14,500/14,200	F
Upper Manatee River Road	Gates Creek Road	9,800/14,200	D
Gates Creek Road	Manatee River	---	No Bridge
Manatee River	Mulholland Road	---	No Bridge
Mulholland Road	Golf Course Road	2,100/14,200	B
Golf Course Road	US 301	10,500/14,200	C

--- No bridge.

TABLE 4-2
DESIGN YEAR (2035) ROADWAY SEGMENT DAILY LOS
NO-BUILD ALTERNATIVE
RYE ROAD/GOLF COURSE ROAD

From	To	AADT/Capacity	LOS
Rye Road at SR 64	Upper Manatee River Road	15,600/14,200	F
Upper Manatee River Road	Golf Course Road	19,800/14,200	F
Golf Course Road at Rye Road	Fort Hamer Road	11,500/14,200	C

In the No-Build Alternative for 2035, Upper Manatee River Road south of Manatee River and Rye Road from SR 64 north to Golf Course Road including the existing two-lane bridge across the Manatee River is projected to operate at LOS F. Golf Course Road is projected to operate at acceptable LOS.

4.2.2 FORT HAMER ALTERNATIVE

The Fort Hamer Alternative is analyzed with a two-lane bridge with a two-lane with separate turn lane and signalization improvements**. Table 4-3** and **Table 4-4** summarizes the two-lane Fort Hamer Alternative AADT, two-lane road with separate turn lane and signalization improvements road capacities, and the LOS analyzed using the FDOT's Art Plan 2009 Planning Analysis documented in **Appendix H**.

TABLE 4-3
DESIGN YEAR (2035) ROADWAY SEGMENT DAILY LOS
FORT HAMER ALTERNATIVE
UPPER MANATEE RIVER ROAD/FORT HAMER ROAD

From	To	AADT/Capacity	LOS
SR 64	Waterlefe Boulevard	27,200/17,400	F
Upper Manatee River Road	Gates Creek Road	25,100/17,400	D
Gates Creek Road	Manatee River	23,600/17,400	F
Manatee River	Mulholland Road	23,600/17,400	F
Mulholland Road	Golf Course Road	23,800/17,400	F
Golf Course Road	US 301	15,400/17,400	B

TABLE 4-4
DESIGN YEAR (2035) ROADWAY SEGMENT DAILY LOS
FORT HAMER ALTERNATIVE
RYE ROAD/GOLF COURSE ROAD

From	To	AADT/Capacity	LOS
Rye Road at SR 64	Upper Manatee River Road	9,400/14,200	B
Upper Manatee River Road	Golf Course Road	6,500/14,200	B
Golf Course Road at Rye Road	Fort Hamer Road	3,000/14,200	B

As Tables 4-3 and 4-4 illustrates, in 2035, there is a need to widen the Fort Hamer Alternative to more than two through lanes with separate turn lane and signalization improvements. The Fort Hamer Alternative is anticipated to re-distribute the future 2035 traffic from Rye Road and Golf Course Road, thereby improving the LOS F conditions to acceptable level of LOS B.

The lane geometry and traffic signalization recommended for the Design Year (2035) is illustrated on **Figures 4-7** and **4-8**. The Fort Hamer Road/Winding Stream Way intersection would operate with a v/c ratio greater than 1.0 and LOS F. It is recommended that the left-turn in and the left-turn out movements at this intersection be closed due to the close proximity of the Fort Hamer Road/Winding Stream Way to the bridge. This intersection is a second driveway into the Waterlefe subdivision and closing of the left-turn movement at this intersection can be accommodated at the Upper River Road/Waterlefe Boulevard intersection.

FIGURE 4-7
DESIGN YEAR (2035) RECOMMENDED INTERSECTION AND THROUGH LANE GEOMETRY
FORT HAMER ALTERNATIVE - SOUTH SECTION

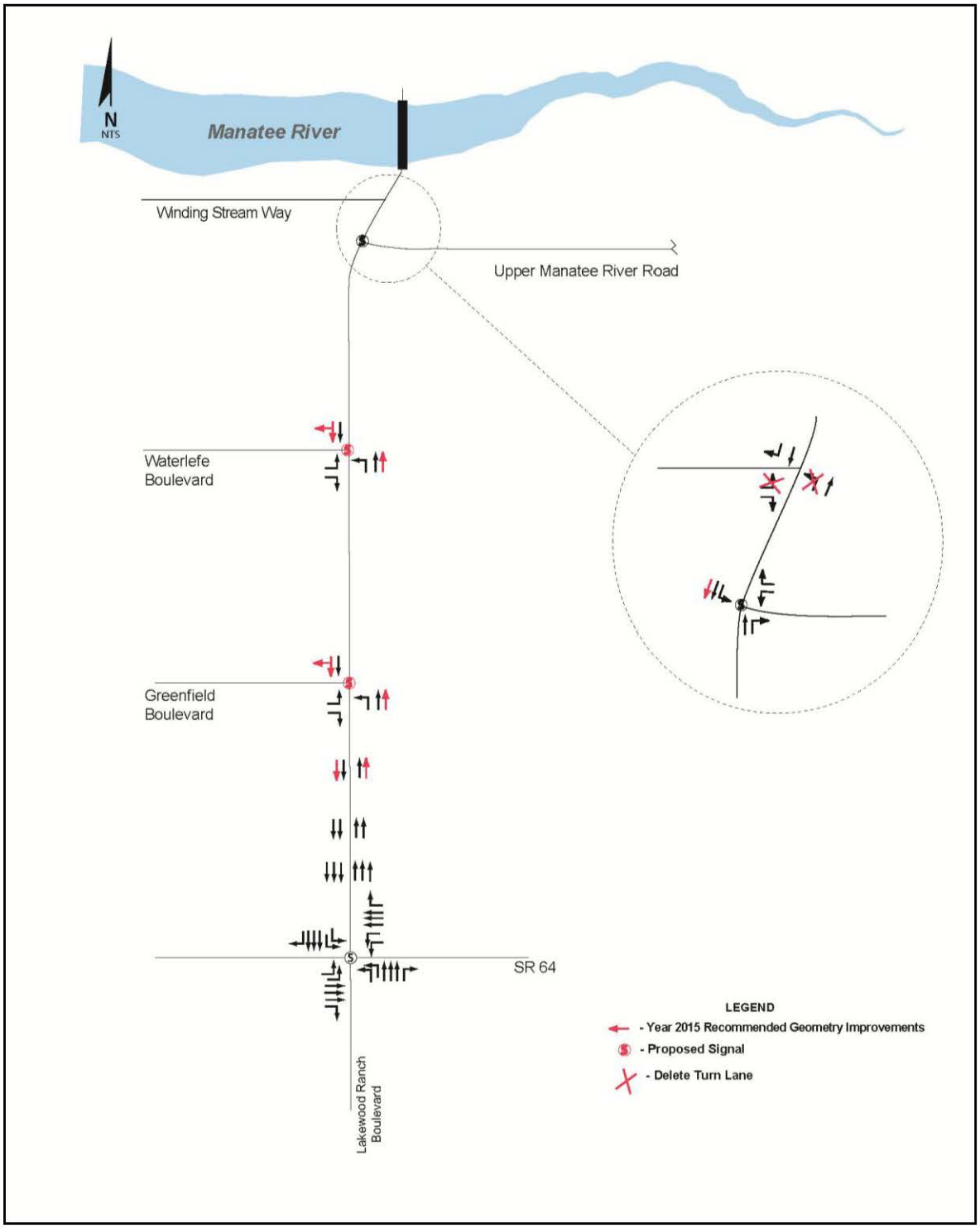
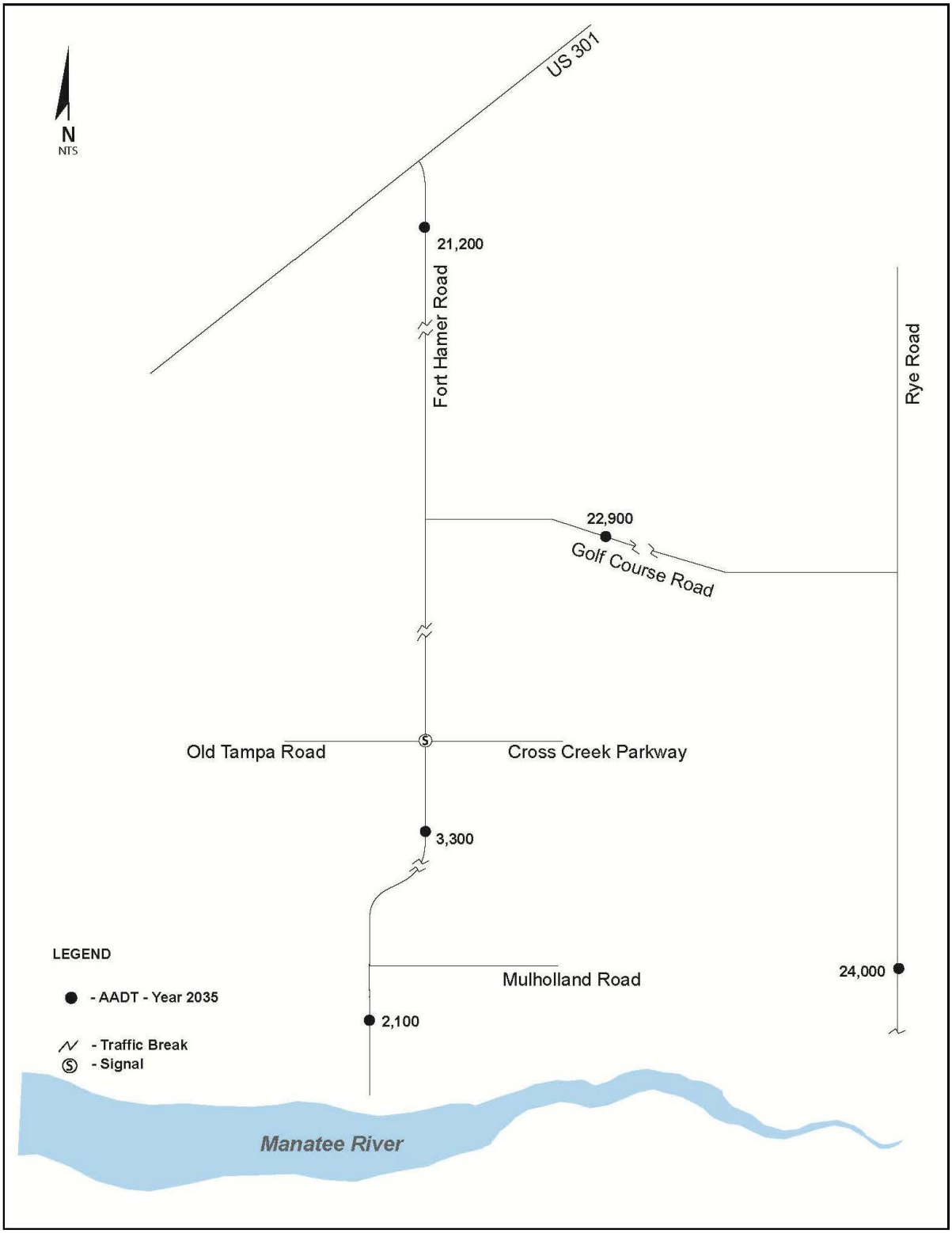


FIGURE 4-8
DESIGN YEAR (2035) RECOMMENDED INTERSECTION AND THROUGH LANE GEOMETRY
FORT HAMER ALTERNATIVE - NORTH SECTION



4.2.3 RYE ROAD ALTERNATIVE

The Rye Road Alternative is analyzed with a adding an additional two-lane bridge for a total of four lanes crossing the Manatee River. Rye Road, from SR 64 to Golf Course Road, Golf Course Road, from Rye Road to Fort Hamer Road, and Fort Hamer Road, from Golf Course Road to US 301 is widened to four through lanes with separate turn lane and signalization improvements. No improvements are included along Upper Manatee River Road. **Tables 4-5** and **4-6** summarizes the two-lane Fort Hamer Alternative AADT, two-lane road with separate turn lane and signalization improvements road capacities, and the LOS analyzed using the FDOT's Art Plan 2009 Planning Analysis documented in **Appendix H**.

TABLE 4-5
DESIGN YEAR (2035) ROADWAY SEGMENT DAILY LOS
RYE ROAD ALTERNATIVE
UPPER MANATEE RIVER ROAD/FORT HAMER ROAD

From	To	AADT/Capacity	LOS
SR 64	Waterlefe Boulevard	14,500/14,200	F
Upper Manatee River Road	Gates Creek Road	10,900/14,200	B
Gates Creek Road	Manatee River	---	No Bridge
Manatee River	Mulholland Road	2,100/14,200	B
Mulholland Road	Golf Course Road	3,300/14,200	B
Golf Course Road	US 301	22,900/39,400[1]	B

--- No bridge.
[1] – Fort Hamer Road, from Golf Course Road to US 301 is four-lanes,

TABLE 4-6
DESIGN YEAR (2035) ROADWAY SEGMENT DAILY LOS
RYE ROAD ALTERNATIVE
RYE ROAD/GOLF COURSE ROAD

From	To	AADT/Capacity	LOS
Rye Road at SR 64	Upper Manatee River Road	23,200/39,400	B
Upper Manatee River Road	Golf Course Road	24,000/39,400	B
Golf Course Road at Rye Road	Fort Hamer Road	22,900/39,400	B

As Tables 4-5 and 4-6 illustrate, in 2035, there is a need to widen Upper Manatee River Road, from SR 64 to Waterlefe Boulevard, to more than two through lanes with separate turn lane and signalization improvements. The Rye Road Alternative is anticipated to re-distribute the future 2035 traffic from Fort Hamer Road, from the Manatee River to Golf Course Road, thereby improving the LOS B conditions to acceptable LOS. **Figures 4-9** and **4-10** illustrate the intersection geometry for the Rye Road Alternative.

FIGURE 4-9
DESIGN YEAR (2035) RECOMMENDED INTERSECTION GEOMETRY
RYE ROAD ALTERNATIVE - SOUTH SECTION

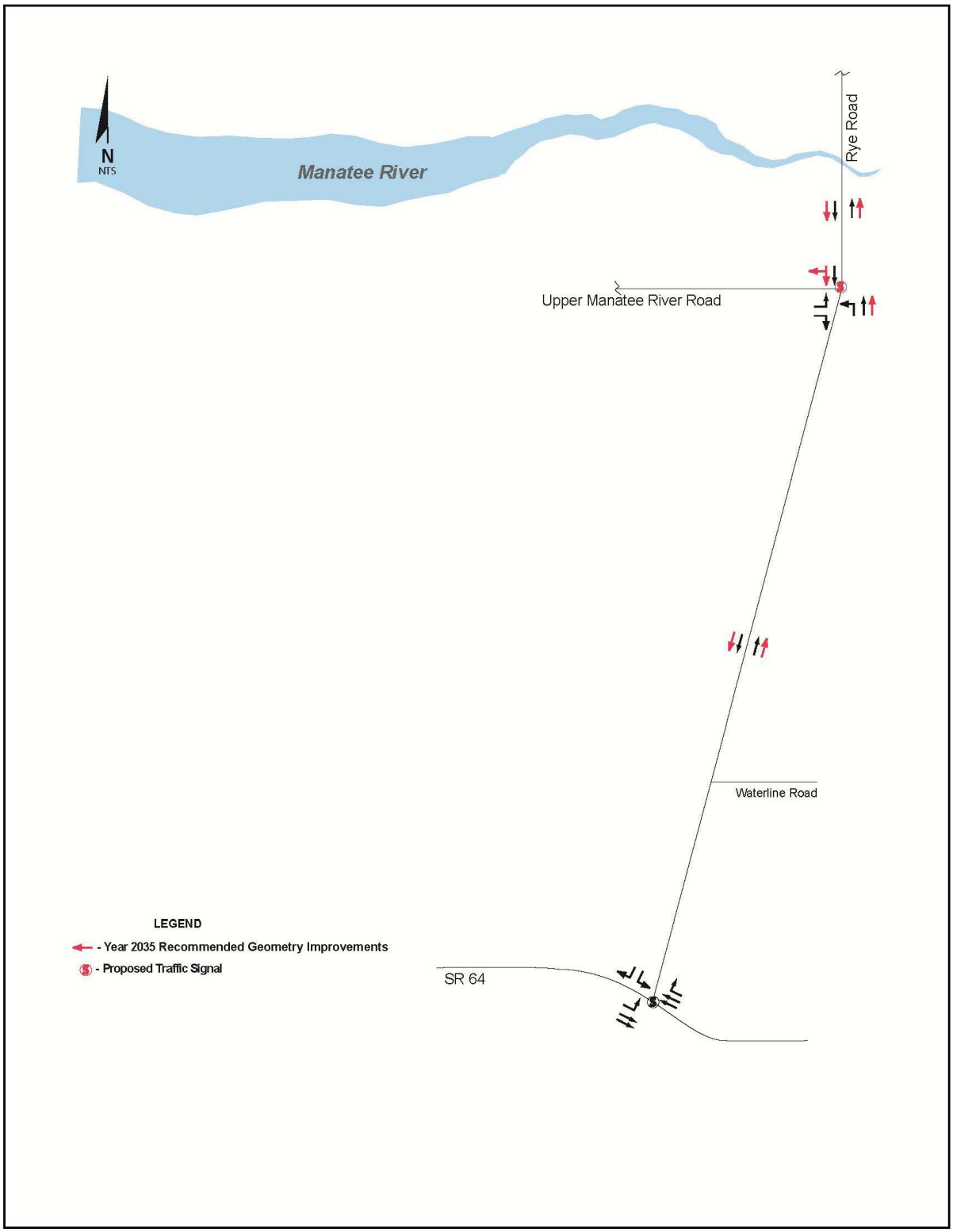
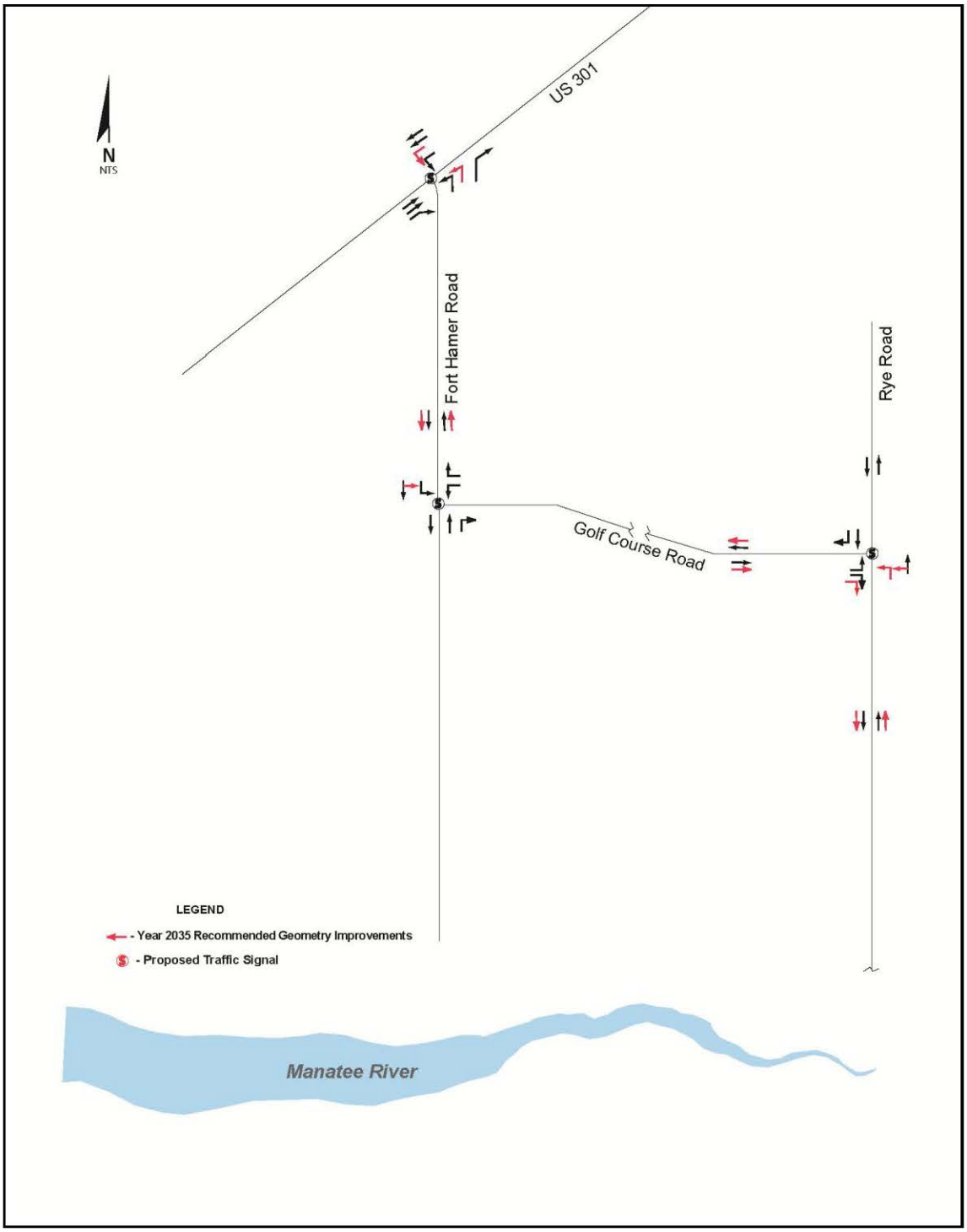


FIGURE 4-10
DESIGN YEAR (2035) RECOMMENDED INTERSECTION GEOMETRY
RYE ROAD ALTERNATIVE - NORTH SECTION



Section 5.0
COMPARATIVE ANALYSIS OF ALTERNATIVES

The HEVAL module was run for Manatee County using the SMC TDM for each alternative. HEVAL is a component of the Florida Standard Urban Transportation Modeling System (FSUTMS)/Cube model that takes a specific study area or region and evaluates the results of the highway assignment for that particular area. The HEVAL calculates daily system performance measures such as daily VMT and daily VHT. Those alternatives with lower overall VMT and VHT are deemed superior to those with higher totals, since they result in lower fuel and operating costs and also lower congestion. These measures reflect weekday conditions and provide a quantitative source for statistical comparison of the three alternatives for the year 2035 for the existing six lanes of I-75. AADT volumes were obtained for roadways depicted in **Table 5-1** each of the three alternatives. The LOS is based on the FDOT Generalized LOS Tables provided in **Appendix A-2**. The HEVAL output files are documented in **Appendix A-3**.

TABLE 5-1
DESIGN YEAR (2035) AADT VOLUMES BY ALTERNATIVE

Road	Manatee River Bridge Crossing	No-Build Alternative	Fort Hamer Alternative	Rye Road Alternative
I-75	At Manatee River	164,700	163,300	165,200
Rye Road	At Manatee River	19,800	7,400	23,200
Fort Hamer Road	At Manatee River	---	23,600	---

--- No-bridge included.

5.1 NO-BUILD ALTERNATIVE

The No-Build Alternative does not include the new Fort Hamer Bridge crossing the Manatee River connecting Fort Hamer Road with Upper Manatee River Road. The No-Build Alternative does not include any additional road capacity improvements other than the road safety improvements and scheduled maintenance already funded to be constructed in Manatee County's CIP, or improvements provided by private non-government entities, such as developers. This alternative is evaluated for the Design Year (2035) only.

This alternative does not adequately address travel demand needs within the project area for the following reasons:

- Both the I-75 and Rye Road bridges spanning the Manatee River are anticipated to operate at LOS F and LOS E, respectfully;

- The total VMT is 13,762,689 miles, the second highest of the three alternatives;
- This alternative has the highest VHT at 736,049 hours; and
- The southern section of Upper Manatee River Road and Rye Road are anticipated to operate at LOS F for the two-lane collector road.

5.2 FORT HAMER ALTERNATIVE

This alternative includes a two-lane bridge crossing over the Manatee River connecting Fort Hamer Road with Upper Manatee River Road. Additional turn lanes improvements along with signalization of intersections along Upper Manatee River Road and Fort Hamer Road are included in this alternative. Due to funding, only a two-lane bridge and a two-lane with separate turn-lane and signalization improvements along Upper Manatee River Road and Fort Hamer Road were analyzed. The study area is from south of SR 64 to north of US 301.

- Results in a reduction of 1,400 vpd on I-75 over the Manatee River and a reduction of 12,400 vpd on Rye Road Bridge when compared to the No-Build Alternative. This alternative is projected to have 23,600 vpd traveling in the new two-lane Fort Hamer Bridge over the Manatee River. This alternative shows a reduction in the total VMT to 13,664,913 miles or 138,316 miles less than the No-Build Alternative.
- Results in a VHT at 730,046 hours with a reduction of 6,003 VHT compared to the No-Build Alternative.
- This corridor is consistent with the Sarasota/Manatee MPO's 2035 LRTP and is currently funded for design, right-of-way (ROW) acquisition, and construction of a two-lane bridge over the Manatee River in Manatee County's CIP.

5.3 RYE ROAD ALTERNATIVE

The Rye Road Alternative includes four through lanes on Rye Road, from SR 64 to Upper Manatee River Road, four through lanes along Golf Course Road, and four through lanes along Fort Hamer Road, from Golf Course Road north to US 301. An additional two-lane bridge over the Manatee River paralleling the existing two-lane Rye Road Bridge is included in the Rye Road Alternative. This alternative:

- Results in the highest total VMT at 13,815,741 miles out of the three alternatives;
- The Rye Road bridge is projected to carry 24,000 vpd;
- Provides little or no relief to I-75;

- Results in higher VHT than the Fort Hamer Alternative;
- The existing two-lane bridge would need to be widened to a four-lane bridge spanning the Manatee River and along Rye Road/Golf Course Road/Fort Hamer Road corridor to maintain acceptable LOS; and
- Four-lane improvements to Rye Road Alternative are not consistent with the Sarasota/Manatee MPO's 2035 LRTP.

Section 6.0
CONCLUSIONS

The Fort Hamer Alternative, which includes a new Fort Hamer two-lane bridge, is anticipated to result in the lowest VMT within Manatee County. The travel demand forecasts also indicate that the proposed river crossing is anticipated to have almost 23,600 trips a day by the year 2035 for the Fort Hamer Alternative two-lane bridge with separate turn lane and signalization improvements. The Rye Road Alternative consists of an additional two-lane bridge paralleling the existing two-lane Rye Road Bridge together with widening to four lanes of Rye Road, from SR 64 to Golf Course Road, Golf Course Road, and Fort Hamer Road from Golf Course Road to US 301. In 2035, Rye Road Bridge is anticipated to have 23,200 vpd. Both build alternatives clearly demonstrate the need for a new roadway connection (i.e., a new bridge crossing) at either of these locations. All traffic projections are based on the latest version of the SMC TDM, which has taken into consideration the current economic downturn in the State of Florida.

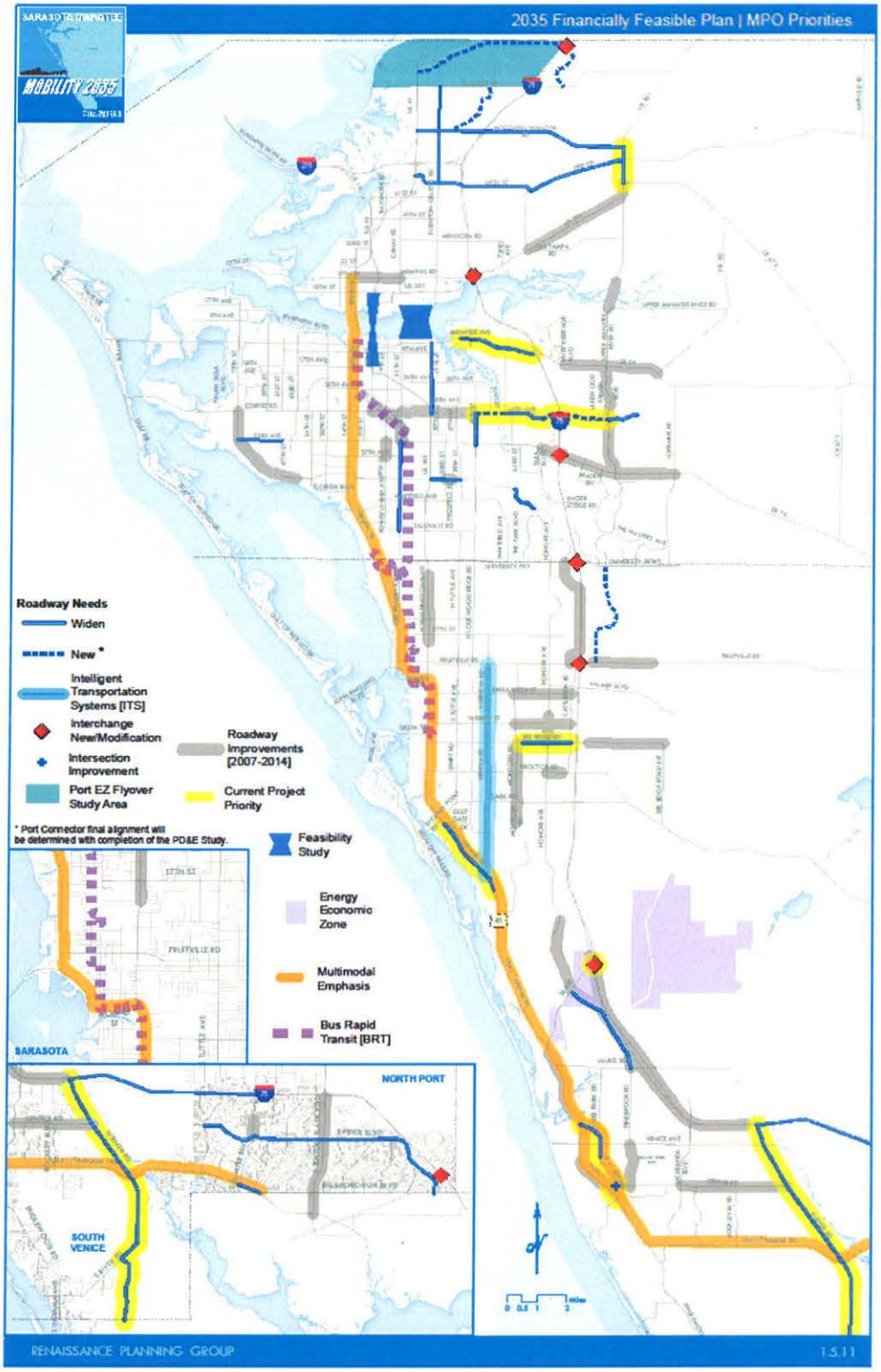
APPENDIX A

Traffic Analysis Data

APPENDIX A-1

Manatee County 2035 Financially Feasible Plan

Map 3: 2035 Financially Feasible Plan Projects



APPENDIX A-2

Florida Department of Transportation
Generalized Level of Service Tables

TABLE 1

Generalized **Annual Average Daily** Volumes for Florida's **Urbanized Areas**[1]

10/4/10

STATE SIGNALIZED ARTERIALS

Class I (>0.00 to 1.99 signalized intersections per mile)

Lanes	Median	B	C	D	E
2	Undivided	9,600	15,400	16,500	***
4	Divided	29,300	35,500	36,700	***
6	Divided	45,000	53,700	55,300	***
8	Divided	60,800	71,800	73,800	***

Class II (2.00 to 4.50 signalized intersections per mile)

Lanes	Median	B	C	D	E
2	Undivided	**	10,500	15,200	16,200
4	Divided	**	25,000	33,200	35,100
6	Divided	**	39,000	50,300	53,100
8	Divided	**	53,100	67,300	70,900

Class III/IV (more than 4.5 signalized intersections per mile)

Lanes	Median	B	C	D	E
2	Undivided	**	5,100	11,900	14,900
4	Divided	**	12,600	28,200	31,900
6	Divided	**	19,700	43,700	48,200
8	Divided	**	27,000	59,500	64,700

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Major City/County Roadways	- 10%
Other Signalized Roadways	- 35%

State & Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Divided/Undivided & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6.

FREEWAYS

Lanes	B	C	D	E
4	43,500	59,800	73,600	79,400
6	65,300	90,500	110,300	122,700
8	87,000	120,100	146,500	166,000
10	108,700	151,700	184,000	209,200
12	149,300	202,100	238,600	252,500

Freeway Adjustments

Auxiliary Lanes	Ramp Metering
+ 20,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	7,800	15,600	22,200	27,900
4	Divided	34,300	49,600	64,300	72,800
6	Divided	51,500	74,400	96,400	109,400

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

BICYCLE MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/ Bicycle Lane

Coverage	B	C	D	E
0-49%	**	3,200	12,100	>12,100
50-84%	2,400	3,700	>3,700	***
85-100%	6,300	>6,300	***	***

PEDESTRIAN MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	**	**	5,000	14,400
50-84%	**	**	11,300	18,800
85-100%	**	11,400	18,800	>18,800

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	>5	≥4	≥3	≥2
85-100%	>4	≥3	≥2	≥1

[1] Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. Although presented as daily volumes, they actually represent peak hour direction conditions with applicable K and D factors applied. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

** Cannot be achieved using table input value defaults.

*** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Planning Office
605 Suwannee Street, MS 19
Tallahassee, FL 32399-0450

APPENDIX A-3

Statistical Comparison of Alternatives Using HEVAL Output

```
NETWORK START: Tue 03/22/2011  9:02:30.67
DISTRIB START: Tue 03/22/2011  9:03:02.11
TR PREP START: Tue 03/22/2011  9:07:48.14
   MODE START: Tue 03/22/2011  9:11:54.11
TR ASGN START: Tue 03/22/2011  9:20:36.70
HASSIGN START: Tue 03/22/2011  9:20:59.95
POST PR START: Tue 03/22/2011  9:34:36.26

HEVAL for Manatee County in C:\FSUTMS\D1\SMC.C_3-1-11\SMC.C\YR2007\FF_Plan - 2035 No-Build - ALT1
************************* VOLUME AND COUNT SUMMARY BY SCREENLINE ************************
            Summary for SL= 99 VOL=    128,105 CNT=    128,350 VOL/CNT= 1.00    N=11
------------------------------------------------------------------------------------------
                        Total  VOL=    128,105 CNT=    128,350 VOL/CNT= 1.00    N=11

***************************** ROOT MEAN SQUARE ERROR SUMMARY ******************************
  Percent RMSE for Volume Group  1       1-  5,000:   4.3%  (<55.00% acceptable) N=7
  Percent RMSE for Volume Group  2   5,000- 10,000:   5.3%  (<45.00% acceptable) N=2
  Percent RMSE for Volume Group  6  40,000- 50,000:   0.9%  (<22.00% acceptable) N=2
  ------------------------------------------------------------------------------------------
                           Total       1-500,000:   2.3%  (<39.00% acceptable) N=11

********************** VOLUME AND COUNT SUMMARY BY FACILITY TYPE ***********************
Facility Type Summary for FT= 35 VOL=     30,249 CNT=     30,800 VOL/CNT= 0.98    N=6
Facility Type Summary for FT= 46 VOL=      1,542 CNT=      1,150 VOL/CNT= 1.34    N=2
Facility Type Summary for FT= 52 VOL=     96,314 CNT=     96,400 VOL/CNT= 1.00    N=3
------------------------------------------------------------------------------------------
                        Total  VOL=    128,105 CNT=    128,350 VOL/CNT= 1.00    N=11

************************* VOLUME AND COUNT SUMMARY BY AREA TYPE ************************
   Area Type Summary for AT= 31 VOL=     14,416 CNT=     15,000 VOL/CNT= 0.96    N=2
   Area Type Summary for AT= 52 VOL=    113,690 CNT=    113,350 VOL/CNT= 1.00    N=9
------------------------------------------------------------------------------------------
                        Total  VOL=    128,105 CNT=    128,350 VOL/CNT= 1.00    N=11

*****************************************************************************************
*******************************
*
*
*                                                    Overall Summary
*
*
*
*****************************************************************************************
*******************************

Total Number of Links:                 4,506
Total Centerline Miles:            1,092.19
Total Lane Miles:                  1,747.13
Total Directional Miles:           1,249.61
Total VMT using Volumes:            150,796    (Links With Counts)
Total VMT using Counts:             150,574    (Links With Counts)
Total VMT Volume over Counts:          1.00    (Links With Counts)
Total VHT using Volumes:              5,071    (Links With Counts)
Total VHT using Counts:               5,068    (Links With Counts)
Total VHT Volume over Counts:          1.00    (Links With Counts)
Total Volumes All Links:         51,942,397
Total VMT All Links:             13,762,689
Total VHT All Links:                736,049
Original Speed (MPH):                 35.20
Congested Speed (MPH):                28.33
```

```
                                        SUMMARY
POST PR START: Wed 04/10/2013  6:08:49.56

 HEVAL for Manatee County in C:\FSUTMS\D1\SMC.C_3_1_11\SMC.C\YR2007\FF_Plan\FF_UMMR
-
ALternative 2 2-lane Ft Hamer Bridge with turn lane improvements
on Upper Manatee River Rd & Ft Hamer Rd.
 ************************* VOLUME AND COUNT SUMMARY BY SCREENLINE
************************
              Summary for SL= 99 VOL=    129,110 CNT=    128,350 VOL/CNT= 1.01
N=11
------------------------------------------------------------------------------
-----
                          Total  VOL=    129,110 CNT=    128,350 VOL/CNT= 1.01
N=11
***************************** ROOT MEAN SQUARE ERROR SUMMARY
******************************
  Percent RMSE for Volume Group  1       1-  5,000:   4.2%  (<55.00% acceptable) N=7
  Percent RMSE for Volume Group  2   5,000- 10,000:   3.6%  (<45.00% acceptable) N=2
  Percent RMSE for Volume Group  6  40,000- 50,000:   0.9%  (<22.00% acceptable) N=2

------------------------------------------------------------------------------
---
                            Total       1-500,000:   2.0%  (<39.00% acceptable) N=11
*********************** VOLUME AND COUNT SUMMARY BY FACILITY TYPE
************************
Facility Type Summary for FT= 35 VOL=     31,295 CNT=     30,800 VOL/CNT= 1.02   N=6
Facility Type Summary for FT= 46 VOL=      1,497 CNT=      1,150 VOL/CNT= 1.30   N=2
Facility Type Summary for FT= 52 VOL=     96,318 CNT=     96,400 VOL/CNT= 1.00   N=3
------------------------------------------------------------------------------
-----
                          Total  VOL=    129,110 CNT=    128,350 VOL/CNT= 1.01
N=11
 ************************** VOLUME AND COUNT SUMMARY BY AREA TYPE
************************
    Area Type Summary for AT= 31 VOL=     15,518 CNT=     15,000 VOL/CNT= 1.03   N=2
    Area Type Summary for AT= 52 VOL=    113,591 CNT=    113,350 VOL/CNT= 1.00   N=9
------------------------------------------------------------------------------
-----
                          Total  VOL=    129,110 CNT=    128,350 VOL/CNT= 1.01
N=11
******************************************************************************
*****
                                                     Overall Summary


******************************************************************************
******
 Total Number of Links:                 4,508
 Total Centerline Miles:            1,095.16
 Total Lane Miles:                  1,749.21
 Total Directional Miles:           1,251.68
 Total VMT using Volumes:            151,152    (Links With Counts)
 Total VMT using Counts:             150,574    (Links With Counts)
 Total VMT Volume over Counts:          1.00    (Links With Counts)
 Total VHT using Volumes:              5,116    (Links With Counts)
 Total VHT using Counts:               5,094    (Links With Counts)
 Total VHT Volume over Counts:          1.00    (Links With Counts)
 Total Volumes All Links:         51,744,828
 Total VMT All Links:             13,664,913
 Total VHT All Links:                730,046
 Original Speed (MPH):                 35.22
 Congested Speed (MPH):                28.35
                                       Page 1
```

```
     GEN START: Tue 05/31/2011  7:57:48.93
 NETWORK START: Tue 05/31/2011  7:57:50.66
 DISTRIB START: Tue 05/31/2011  7:58:20.90
 TR PREP START: Tue 05/31/2011  8:02:48.24
    MODE START: Tue 05/31/2011  8:06:57.92
 TR ASGN START: Tue 05/31/2011  8:15:25.26
 HASSIGN START: Tue 05/31/2011  8:15:47.31
 POST PR START: Tue 05/31/2011  8:27:22.57

 HEVAL for Manatee County in C:\FSUTMS\D1\SMC.C_3-1-11_first\SMC.C\YR2007\FF_Plan Alternative 3
 ************************* VOLUME AND COUNT SUMMARY BY SCREENLINE ***********************
              Summary for SL= 99 VOL=     129,133 CNT=     128,350 VOL/CNT= 1.01    N=11
 ------------------------------------------------------------------------------------------
                          Total  VOL=     129,133 CNT=     128,350 VOL/CNT= 1.01    N=11

 ***************************** ROOT MEAN SQUARE ERROR SUMMARY ******************************
   Percent RMSE for Volume Group  1        1-  5,000:   5.9%  (<55.00% acceptable) N=7
   Percent RMSE for Volume Group  2    5,000- 10,000:   4.0%  (<45.00% acceptable) N=2
   Percent RMSE for Volume Group  6   40,000- 50,000:   0.9%  (<22.00% acceptable) N=2
   ------------------------------------------------------------------------------------------
                             Total        1-500,000:   2.2%  (<39.00% acceptable) N=11

 ********************** VOLUME AND COUNT SUMMARY BY FACILITY TYPE ***********************
 Facility Type Summary for FT= 35 VOL=      31,111 CNT=      30,800 VOL/CNT= 1.01    N=6
 Facility Type Summary for FT= 46 VOL=       1,703 CNT=       1,150 VOL/CNT= 1.48    N=2
 Facility Type Summary for FT= 52 VOL=      96,319 CNT=      96,400 VOL/CNT= 1.00    N=3
 ------------------------------------------------------------------------------------------
                          Total  VOL=     129,133 CNT=     128,350 VOL/CNT= 1.01    N=11

 ************************* VOLUME AND COUNT SUMMARY BY AREA TYPE ************************
    Area Type Summary for AT= 31 VOL=      15,336 CNT=      15,000 VOL/CNT= 1.02    N=2
    Area Type Summary for AT= 52 VOL=     113,797 CNT=     113,350 VOL/CNT= 1.00    N=9
 ------------------------------------------------------------------------------------------
                          Total  VOL=     129,133 CNT=     128,350 VOL/CNT= 1.01    N=11

*****************************************************************************************
*******************************
*
*
*                                                    Overall Summary
*
*
*
*****************************************************************************************
*******************************

 Total Number of Links:                 4,506
 Total Centerline Miles:            1,071.46
 Total Lane Miles:                  1,767.86
 Total Directional Miles:           1,249.61
 Total VMT using Volumes:            151,307    (Links With Counts)
 Total VMT using Counts:             150,574    (Links With Counts)
 Total VMT Volume over Counts:          1.00    (Links With Counts)
 Total VHT using Volumes:              5,116    (Links With Counts)
 Total VHT using Counts:               5,090    (Links With Counts)
 Total VHT Volume over Counts:          1.01    (Links With Counts)
 Total Volumes All Links:         52,100,864
 Total VMT All Links:             13,815,741
 Total VHT All Links:                729,202
 Original Speed (MPH):                 35.47
 Congested Speed (MPH):                28.63
```

APPENDIX A-4

Existing Traffic Counts

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0378
Counted By: URS
Weather: Sunny
Other:

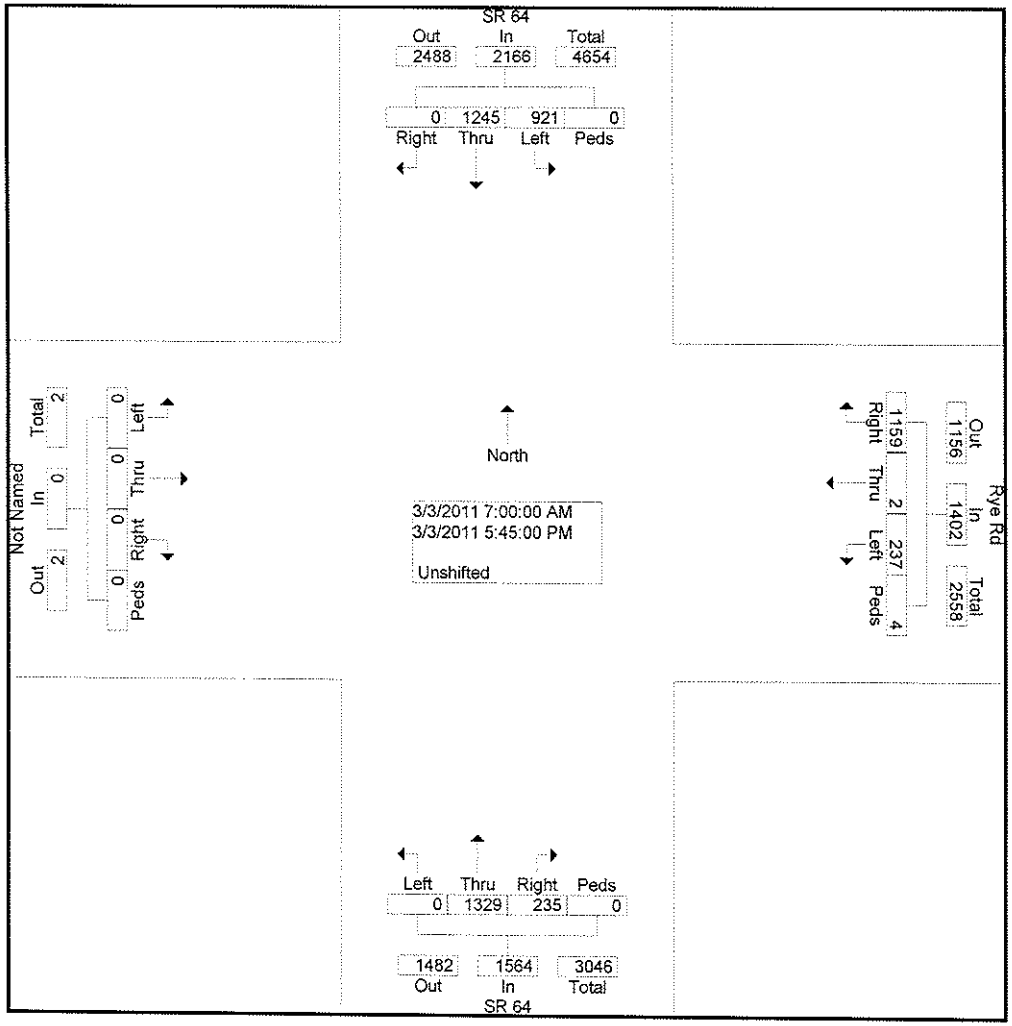
File Name : RYE Rd_SR 64
Site Code : 00000378
Start Date : 3/3/2011
Page No : 1

Groups Printed- Unshifted

	SR 64 South Bound				Rye Rd West Bound				SR 64 North Bound				East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	18	38	0	0	15	0	91	0	0	81	5	0	0	0	0	0	248
07:15 AM	24	58	0	0	14	0	146	0	0	98	8	0	0	0	0	0	348
07:30 AM	31	58	0	0	35	2	75	0	0	86	7	0	0	0	0	0	294
07:45 AM	44	57	0	0	30	0	81	0	0	71	9	0	0	0	0	0	292
Total	117	211	0	0	94	2	393	0	0	336	29	0	0	0	0	0	1182
08:00 AM	42	61	0	0	31	0	120	0	0	86	19	0	0	0	0	0	359
08:15 AM	58	64	0	0	34	0	121	4	0	38	8	0	0	0	0	0	327
08:30 AM	35	91	0	0	15	0	92	0	0	100	11	0	0	0	0	0	344
08:45 AM	33	124	0	0	10	0	55	0	0	71	8	0	0	0	0	0	301
Total	168	340	0	0	90	0	388	4	0	295	46	0	0	0	0	0	1331
04:00 PM	79	65	0	0	5	0	47	0	0	105	29	0	0	0	0	0	330
04:15 PM	77	78	0	0	7	0	50	0	0	67	24	0	0	0	0	0	303
04:30 PM	56	88	0	0	3	0	36	0	0	105	12	0	0	0	0	0	300
04:45 PM	72	74	0	0	8	0	42	0	0	76	16	0	0	0	0	0	288
Total	284	305	0	0	23	0	175	0	0	353	81	0	0	0	0	0	1221
05:00 PM	70	105	0	0	6	0	49	0	0	98	25	0	0	0	0	0	353
05:15 PM	91	102	0	0	8	0	43	0	0	70	16	0	0	0	0	0	330
05:30 PM	89	79	0	0	7	0	56	0	0	85	24	0	0	0	0	0	340
05:45 PM	102	103	0	0	9	0	55	0	0	92	14	0	0	0	0	0	375
Total	352	389	0	0	30	0	203	0	0	345	79	0	0	0	0	0	1398
Grand Total	921	1245	0	0	237	2	1159	4	0	1329	235	0	0	0	0	0	5132
Apprch %	42.5	57.5	0.0	0.0	16.9	0.1	82.7	0.3	0.0	85.0	15.0	0.0	0.0	0.0	0.0	0.0	
Total %	17.9	24.3	0.0	0.0	4.6	0.0	22.6	0.1	0.0	25.9	4.6	0.0	0.0	0.0	0.0	0.0	

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

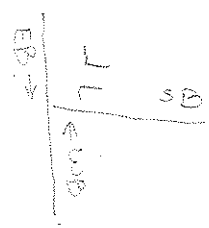
File Name : RYE Rd_SR 64
Site Code : 00000378
Start Date : 3/3/2011
Page No : 2



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : RYE Rd_SR 64
Site Code : 00000378
Start Date : 3/3/2011
Page No : 3

	SR 64 South Bound EB					Rye Rd West Bound SB					SR 64 North Bound WB					East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Intersection	08:00 AM																				
Volume	168	340	0	0	508	90	0	388	4	482	0	295	46	0	341	0	0	0	0	0	1331
Percent	33.1	66.9	0.0	0.0		18.7	0.0	80.5	0.8		0.0	86.5	13.5	0.0		0.0	0.0	0.0	0.0		
08:00 Volume	42	61	0	0	103	31	0	120	0	151	0	86	19	0	105	0	0	0	0	0	359
Peak Factor																					0.927
High Int.	08:45 AM					08:15 AM					08:30 AM					6:45:00 AM					
Volume	33	124	0	0	157	34	0	121	4	159	0	100	11	0	111						
Peak Factor	0	35			0.809	2		8		0.758		50	1		0.768						
		10.29				2.22		2.06				1.69	2.17								
Peak Hour From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	352	389	0	0	741	30	0	203	0	233	0	345	79	0	424	0	0	0	0	0	1398
Percent	47.5	52.5	0.0	0.0		12.9	0.0	87.1	0.0		0.0	81.4	18.6	0.0		0.0	0.0	0.0	0.0		
05:45 Volume	102	103	0	0	205	9	0	55	0	64	0	92	14	0	106	0	0	0	0	0	375
Peak Factor																					0.932
High Int.	05:45 PM					05:45 PM					05:00 PM										
Volume	102	103	0	0	205	9	0	55	0	64	0	98	25	0	123						
Peak Factor					0.904					0.910					0.862						
pm HV Vol	4	12				7		6				46	7								
pm % HV	1.0	18.5				23.3		2.95				13.3	8.86								



No. 7 Rye Rd @ SR64

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
WBT	19	2
WBR		
EBT	12	5
EBL		
SBL		
SBR	3	1

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
WBT	18	1
WBR	2	
EBT	10	4
EBL	1	
SBL		
SBR	3	

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
WBT	15	3
WBR		
EBT	10	4
EBL		
SBL		
SBR	2	2

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
WBT	21	3
WBR		
EBT	17	5
EBL	1	
SBL	1	
SBR		

No.7 Rye Rd @SR64
Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
WBT	14	1
WBR	1	
EBT	10	4
EBL		
SBL	1	
SBR	3	1

No.7 Rye Rd @SR64
Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses
WBT	10	
WBR		
EBT	6	
EBL		
SBL	1	
SBR	3	1

No.7 Rye Rd @SR64
Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses
WBT	8	
WBR		
EBT	4	
EBL		
SBL		
SBR		

No.7 Rye Rd @SR64
Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses	
WBT	15	2	50
WBR			1
EBT	8	3	35
EBL			0
SBL			2
SBR			8

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
WBT	10	4
WBR	2	
EBT	18	1
EBL		
SBL		
SBR	1	

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
WBT	12	5
WBR	1	
EBT	19	2
EBL		
SBL	1	
SBR		

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
WBT	13	6
WBR	4	
EBT	22	1
EBL	1	
SBL	1	
SBR		

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses
WBT	11	3
WBR	1	
EBT	18	2
EBL	1	
SBL		
SBR	1	

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
WBT	8	5
WBR	1	1
EBT	10	2
EBL	2	
SBL	1	2
SBR	1	

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
WBT	9	3
WBR	3	
EBT	23	
EBL	1	
SBT		2
SBR	1	1

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
WBT	11	
WBR	1	
EBT	19	
EBL		1
SBT	1	
SBR	1	1

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses	
WBT	10		46
WBR	3		7
EBT	18		72
EBL			4
SBT	1		7
SBR	1		6

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 1102
Counted By: URS
Weather: Cloudy
Other:

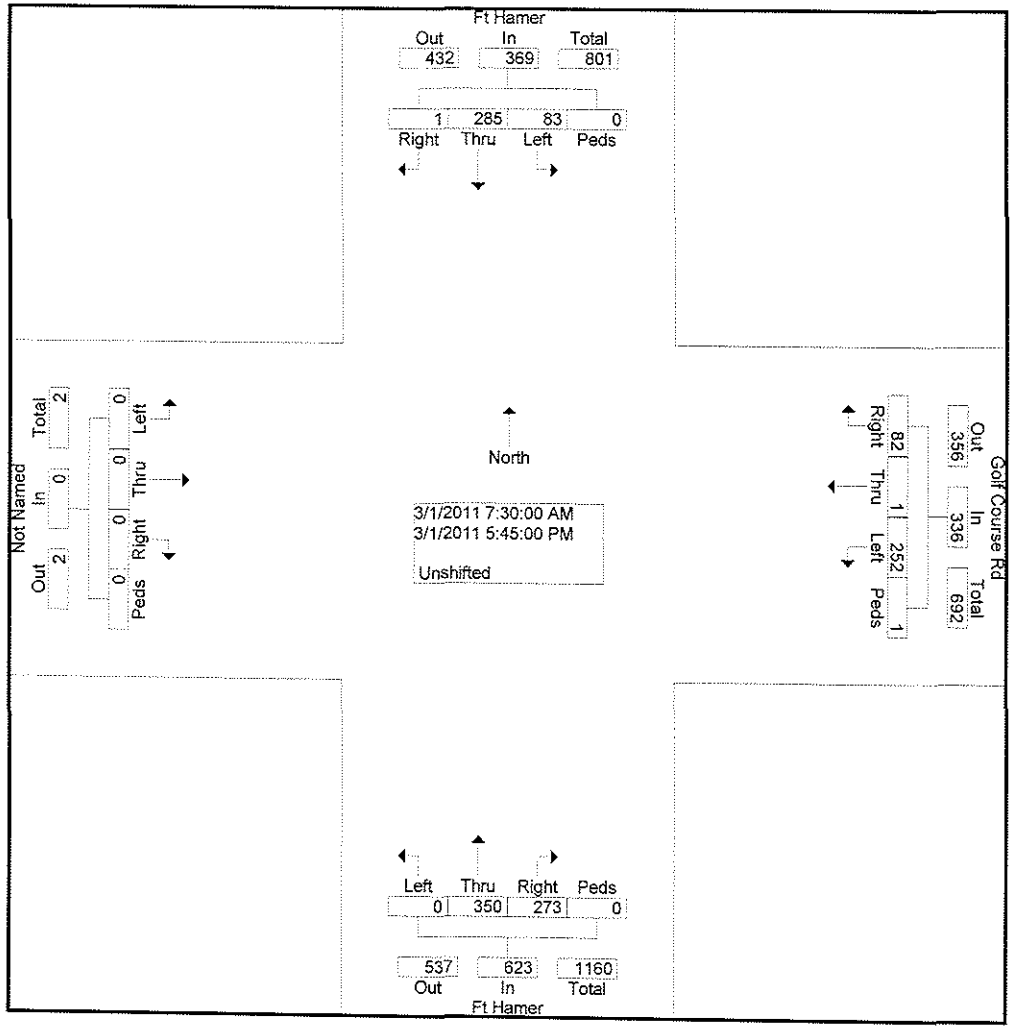
File Name : FTHAME~1
Site Code : 00001102
Start Date : 3/1/2011
Page No : 1

Groups Printed- Unshifted

	Ft Hamer South Bound				Golf Course Rd West Bound				Ft Hamer North Bound				East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:30 AM	6	14	0	0	13	0	6	0	0	30	19	0	0	0	0	0	88
07:45 AM	6	21	0	0	20	0	4	0	0	18	17	0	0	0	0	0	86
Total	12	35	0	0	33	0	10	0	0	48	36	0	0	0	0	0	174
08:00 AM	3	31	0	0	33	0	7	0	0	43	18	0	0	0	0	0	135
08:15 AM	3	17	0	0	24	0	5	0	0	56	28	0	0	0	0	0	133
08:30 AM	3	10	0	0	10	0	2	0	0	27	15	0	0	0	0	0	67
08:45 AM	7	6	0	0	8	1	6	0	0	22	14	0	0	0	0	0	64
Total	16	64	0	0	75	1	20	0	0	148	75	0	0	0	0	0	399
09:00 AM	12	14	0	0	15	0	4	0	0	15	16	0	0	0	0	0	76
09:15 AM	12	6	0	0	8	0	3	0	0	19	20	0	0	0	0	0	68
Total	24	20	0	0	23	0	7	0	0	34	36	0	0	0	0	0	144
04:00 PM	4	20	0	0	15	0	3	0	0	15	21	0	0	0	0	0	78
04:15 PM	6	22	0	0	17	0	6	0	0	18	15	0	0	0	0	0	84
04:30 PM	1	18	0	0	16	0	2	1	0	21	14	0	0	0	0	0	73
04:45 PM	4	20	0	0	15	0	9	0	0	12	17	0	0	0	0	0	77
Total	15	80	0	0	63	0	20	1	0	66	67	0	0	0	0	0	312
05:00 PM	5	22	0	0	20	0	2	0	0	10	10	0	0	0	0	0	69
05:15 PM	3	22	0	0	15	0	6	0	0	12	20	0	0	0	0	0	78
05:30 PM	6	19	0	0	9	0	8	0	0	12	13	0	0	0	0	0	67
05:45 PM	2	23	1	0	14	0	9	0	0	20	16	0	0	0	0	0	85
Total	16	86	1	0	58	0	25	0	0	54	59	0	0	0	0	0	299
Grand Total	83	285	1	0	252	1	82	1	0	350	273	0	0	0	0	0	1328
Apprch %	22.5	77.2	0.3	0.0	75.0	0.3	24.4	0.3	0.0	56.2	43.8	0.0	0.0	0.0	0.0	0.0	
Total %	6.3	21.5	0.1	0.0	19.0	0.1	6.2	0.1	0.0	26.4	20.6	0.0	0.0	0.0	0.0	0.0	

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : FTHAME~1
Site Code : 00001102
Start Date : 3/1/2011
Page No : 2



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : FTHAME~1
Site Code : 00001102
Start Date : 3/1/2011
Page No : 3

	Ft Hamer South Bound					Golf Course Rd West Bound					Ft Hamer North Bound					East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:30 AM to 12:45 PM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	18	83	0	0	101	90	0	22	0	112	0	147	82	0	229	0	0	0	0	0	442
Percent	17.8	82.2	0.0	0.0		80.4	0.0	19.6	0.0		0.0	64.2	35.8	0.0		0.0	0.0	0.0	0.0		
08:00 Volume	3	31	0	0	34	33	0	7	0	40	0	43	18	0	61	0	0	0	0	0	135
Peak Factor																					0.819
High Int.	08:00 AM					08:00 AM					08:15 AM					7:15:00 AM					
Volume	3	31	0	0	34	33	0	7	0	40	0	56	28	0	84						
Peak Factor					0.743					0.700					0.682						
	2 1.11	1 1.20				1 1.11						2 13.60	1 1.22								
Peak Hour From 01:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	15	80	0	0	95	63	0	20	1	84	0	66	67	0	133	0	0	0	0	0	312
Percent	15.8	84.2	0.0	0.0		75.0	0.0	23.8	1.2		0.0	49.6	50.4	0.0		0.0	0.0	0.0	0.0		
04:15 Volume	6	22	0	0	28	17	0	6	0	23	0	18	15	0	33	0	0	0	0	0	84
Peak Factor																					0.929
High Int.	04:15 PM					04:45 PM					04:00 PM										
Volume	6	22	0	0	28	15	0	9	0	24	0	15	21	0	36						
Peak Factor					0.848					0.875					0.924						
HV Vol		3										5	2								
% HV		3.75										7.57	2.98								

No.2 Ft Hamer @ Golf Course

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
NBT	1	1
NBR		
SBT		
SBL		
WBL		1
WBR		

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
NBT		
NBR		
SBT		1
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
NBT		1
NBR		
SBT		
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
NBT		
NBR	1	
SBT		1
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
NBT		1
NBR		
SBT		
SBL		
WBL		1
WBR		

Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses	
NBT			4
NBR			1
SBT			1
SBL	2		2
WBL			1
WBR			0

Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses
NBT		
NBR	1	
SBT	1	
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses
NBT		
NBR	1	
SBT		
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
NBT		
NBR		
SBT		
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
NBT	1	2
NBR		1
SBT		
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
NBT	1	
NBR	1	
SBT		1
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses	
NBT	1		5
NBR			2
SBT	1	1	3
SBL			
WBL			
WBR			

3
17
52

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
NBT		
NBR		1
SBT		
SBL		
WBL		1
WBR		

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
NBT		1
NBR		
SBT		
SBL		
WBL		
WBR		

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
NBT	1	
NBR		
SBT		
SBL		
WBL	1	
WBR		

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses
NBT		
NBR		
SBT		
SBL		
WBL		
WBR		

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0899
Counted By: URS
Weather: Sunny
Other:

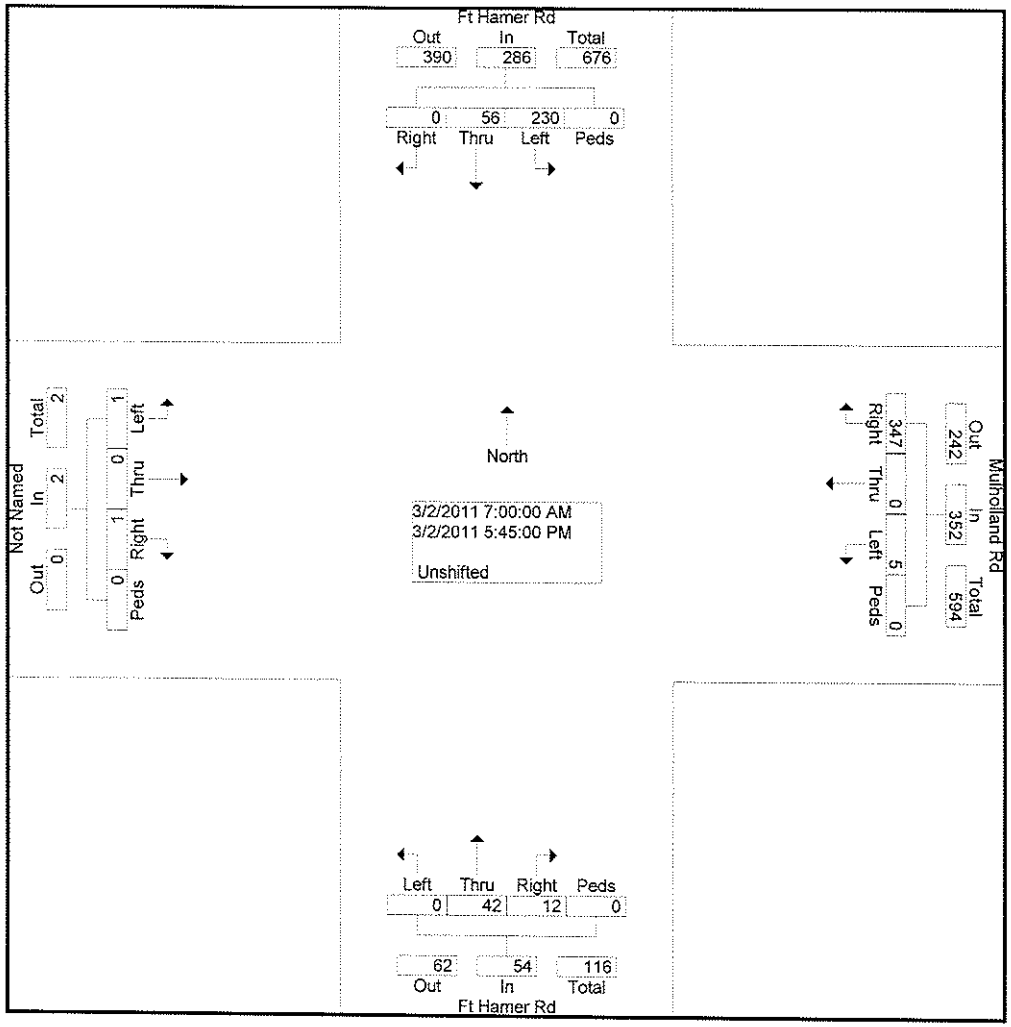
File Name : ft hamer_mulholland
Site Code : 00000899
Start Date : 3/2/2011
Page No : 1

Groups Printed- Unshifted

	Ft Hamer Rd South Bound				Mulholland Rd West Bound				Ft Hamer Rd North Bound				East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	2	0	0	0	0	27	0	0	2	0	0	0	0	0	0	31
07:15 AM	3	1	0	0	0	0	25	0	0	1	0	0	0	0	0	0	30
07:30 AM	4	4	0	0	0	0	38	0	0	1	0	0	0	0	0	0	47
07:45 AM	8	2	0	0	0	0	31	0	0	0	0	0	0	0	0	0	41
Total	15	9	0	0	0	0	121	0	0	4	0	0	0	0	0	0	149
08:00 AM	14	2	0	0	0	0	53	0	0	5	0	0	0	0	0	0	74
08:15 AM	14	4	0	0	0	0	31	0	0	2	0	0	0	0	0	0	51
08:30 AM	6	0	0	0	1	0	20	0	0	7	0	0	0	0	0	0	34
08:45 AM	8	5	0	0	0	0	19	0	0	1	0	0	0	0	0	0	33
Total	42	11	0	0	1	0	123	0	0	15	0	0	0	0	0	0	192
04:00 PM	15	3	0	0	0	0	14	0	0	3	3	0	1	0	1	0	40
04:15 PM	17	2	0	0	0	0	10	0	0	1	0	0	0	0	0	0	30
04:30 PM	21	2	0	0	1	0	10	0	0	3	2	0	0	0	0	0	39
04:45 PM	28	7	0	0	1	0	10	0	0	2	0	0	0	0	0	0	48
Total	81	14	0	0	2	0	44	0	0	9	5	0	1	0	1	0	157
05:00 PM	21	3	0	0	1	0	7	0	0	5	1	0	0	0	0	0	38
05:15 PM	26	7	0	0	0	0	22	0	0	5	2	0	0	0	0	0	62
05:30 PM	27	5	0	0	1	0	16	0	0	2	2	0	0	0	0	0	53
05:45 PM	18	7	0	0	0	0	14	0	0	2	2	0	0	0	0	0	43
Total	92	22	0	0	2	0	59	0	0	14	7	0	0	0	0	0	196
Grand Total	230	56	0	0	5	0	347	0	0	42	12	0	1	0	1	0	694
Apprch %	80.4	19.6	0.0	0.0	1.4	0.0	98.6	0.0	0.0	77.8	22.2	0.0	50.0	0.0	50.0	0.0	
Total %	33.1	8.1	0.0	0.0	0.7	0.0	50.0	0.0	0.0	6.1	1.7	0.0	0.1	0.0	0.1	0.0	

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : ft hamer_mulholland
Site Code : 00000899
Start Date : 3/2/2011
Page No : 2



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : ft hamer_mulholland
Site Code : 00000899
Start Date : 3/2/2011
Page No : 3

	Ft Hamer Rd South Bound					Mulholland Rd West Bound					Ft Hamer Rd North Bound					East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	40	12	0	0	52	0	0	153	0	153	0	8	0	0	8	0	0	0	0	0	213
Percent	76.9	23.1	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
08:00 Volume	14	2	0	0	16	0	0	53	0	53	0	5	0	0	5	0	0	0	0	0	74
Peak Factor																					0.720
High Int.	08:15 AM					08:00 AM					08:00 AM					6:45:00 AM					
Volume	14	4	0	0	18	0	0	53	0	53	0	5	0	0	5						
Peak Factor					0.722					0.722					0.400						
	2	1						1				1									
	5.0	8.33						0.65				12.5									
Peak Hour From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	102	22	0	0	124	3	0	55	0	58	0	14	5	0	19	0	0	0	0	0	201
Percent	82.3	17.7	0.0	0.0		5.2	0.0	94.8	0.0		0.0	73.7	26.3	0.0		0.0	0.0	0.0	0.0		
05:15 Volume	26	7	0	0	33	0	0	22	0	22	0	5	2	0	7	0	0	0	0	0	62
Peak Factor																					0.810
High Int.	04:45 PM					05:15 PM					05:15 PM										
Volume	28	7	0	0	35	0	0	22	0	22	0	5	2	0	7						
Peak Factor					0.886					0.659					0.679						
Pm HV Vol	1	3						2				1									
Pm %HV	0.98	13.63						3.63				7.14									

4. Ft. Hamer @ Mulholland Rd

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		1
SBT		
SBL		

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		2
SBT		
SBL		1

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		
SBT		
SBL		2

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		
SBT		
SBL		

Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
NBT	1	
NBR		
WBL		
WBR		
SBT		
SBL		

Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		1
SBT		1
SBL		

Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR	1	
SBT		
SBL		

Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		
SBT		
SBL	1	

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
NBT	1	
NBR		
WBL		
WBR		1
SBT		
SBL		

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
NBT	1	
NBR		
WBL		
WBR		
SBT		
SBL	1	

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
NBT	1	
NBR		
WBL		
WBR		
SBT		
SBL		

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		
SBT	1	
SBL		

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		
SBT	2	
SBL		1

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
NBT	1	
NBR		
WBL		
WBR		
SBT		
SBL		1

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		2
SBT		
SBL		

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses
NBT		
NBR		
WBL		
WBR		1
SBT	1	
SBL		

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0869
Counted By: URS
Weather: Sunny
Other:

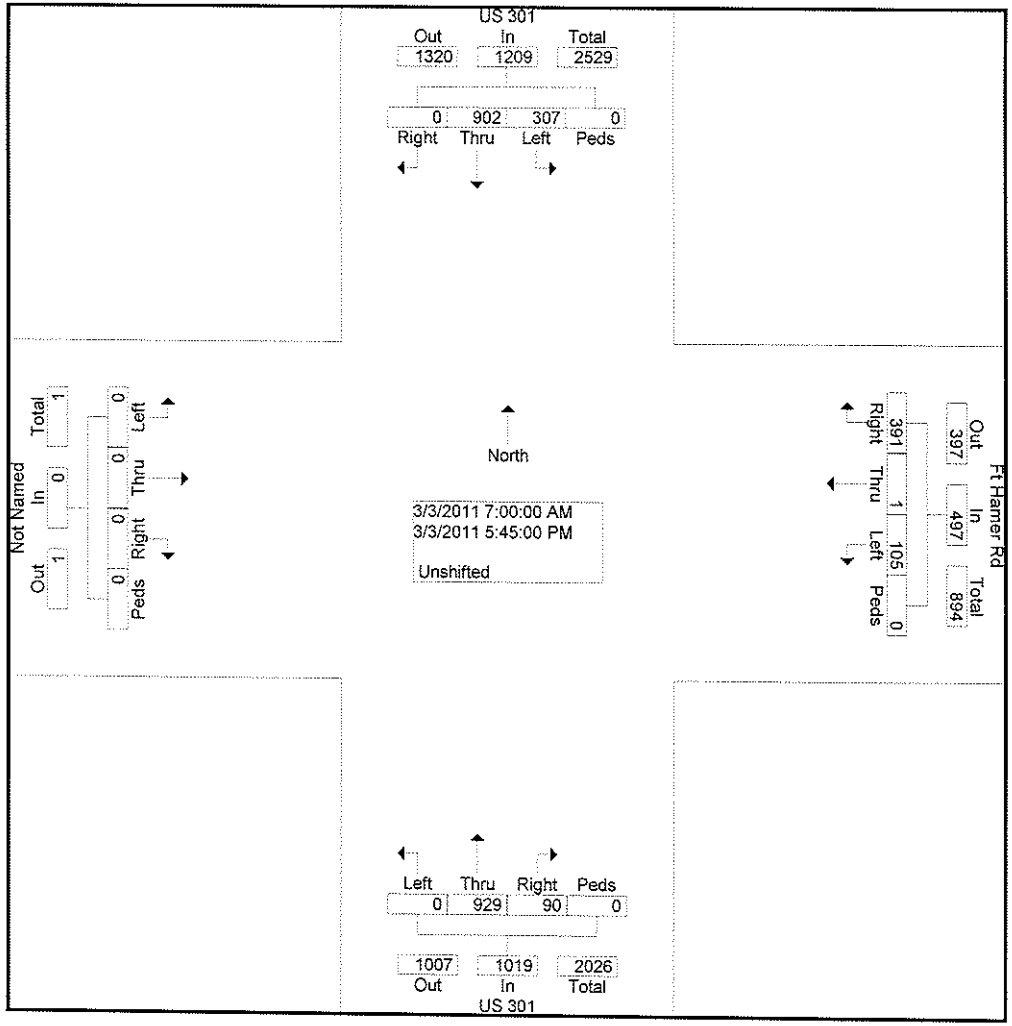
File Name : ft hamer_us 301
Site Code : 00000869
Start Date : 3/3/2011
Page No : 1

Groups Printed- Unshifted

	US 301 South Bound				Ft Hamer Rd West Bound				US 301 North Bound				East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	8	52	0	0	7	0	30	0	0	67	2	0	0	0	0	0	166
07:15 AM	13	66	0	0	8	0	34	0	0	52	5	0	0	0	0	0	178
07:30 AM	13	50	0	0	7	0	23	0	0	47	5	0	0	0	0	0	145
07:45 AM	21	50	0	0	6	0	37	0	0	55	1	0	0	0	0	0	170
Total	55	218	0	0	28	0	124	0	0	221	13	0	0	0	0	0	659
08:00 AM	28	45	0	0	7	0	36	0	0	55	10	0	0	0	0	0	181
08:15 AM	13	41	0	0	16	0	48	0	0	44	3	0	0	0	0	0	165
08:30 AM	13	59	0	0	9	0	30	0	0	51	5	0	0	0	0	0	167
08:45 AM	10	44	0	0	6	0	14	0	0	44	5	0	0	0	0	0	123
Total	64	189	0	0	38	0	128	0	0	194	23	0	0	0	0	0	636
04:00 PM	25	68	0	0	7	0	20	0	0	67	8	0	0	0	0	0	195
04:15 PM	22	54	0	0	4	0	11	0	0	58	5	0	0	0	0	0	154
04:30 PM	17	59	0	0	2	0	20	0	0	76	8	0	0	0	0	0	182
04:45 PM	24	56	0	0	8	1	12	0	0	48	7	0	0	0	0	0	156
Total	88	237	0	0	21	1	63	0	0	249	28	0	0	0	0	0	687
05:00 PM	23	62	0	0	5	0	22	0	0	72	8	0	0	0	0	0	192
05:15 PM	25	54	0	0	4	0	16	0	0	69	8	0	0	0	0	0	176
05:30 PM	21	79	0	0	5	0	17	0	0	64	4	0	0	0	0	0	190
05:45 PM	31	63	0	0	4	0	21	0	0	60	6	0	0	0	0	0	185
Total	100	258	0	0	18	0	76	0	0	265	26	0	0	0	0	0	743
Grand Total	307	902	0	0	105	1	391	0	0	929	90	0	0	0	0	0	2725
Apprch %	25.4	74.6	0.0	0.0	21.1	0.2	78.7	0.0	0.0	91.2	8.8	0.0	0.0	0.0	0.0	0.0	
Total %	11.3	33.1	0.0	0.0	3.9	0.0	14.3	0.0	0.0	34.1	3.3	0.0	0.0	0.0	0.0	0.0	

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : ft hamer_us 301
Site Code : 00000869
Start Date : 3/3/2011
Page No : 2



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7650 W. Courtney Campbell Cswy
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File Name : ft hamer_us 301
Site Code : 00000869
Start Date : 3/3/2011
Page No : 3

	US 301 South Bound					Ft Hamer Rd West Bound					US 301 North Bound					East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Intersection	07:45 AM																				
Volume	75	195	0	0	270	38	0	151	0	189	0	205	19	0	224	0	0	0	0	0	683
Percent	27.8	72.2	0.0	0.0		20.1	0.0	79.9	0.0		0.0	91.5	8.5	0.0		0.0	0.0	0.0	0.0		
08:00 Volume	28	45	0	0	73	7	0	36	0	43	0	55	10	0	65	0	0	0	0	0	181
Peak Factor																					0.943
High Int.	08:00 AM					08:15 AM					08:00 AM					6:45:00 AM					
Volume	28	45	0	0	73	16	0	48	0	64	0	55	10	0	65						
Peak Factor	2	19			0.925	1		3		0.738		13	.0		0.862						
	2.67	9.74				2.63		1.99				6.34	0								
Peak Hour From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	100	258	0	0	358	18	0	76	0	94	0	265	26	0	291	0	0	0	0	0	743
Percent	27.9	72.1	0.0	0.0		19.1	0.0	80.9	0.0		0.0	91.1	8.9	0.0		0.0	0.0	0.0	0.0		
05:00 Volume	23	62	0	0	85	5	0	22	0	27	0	72	8	0	80	0	0	0	0	0	192
Peak Factor																					0.967
High Int.	05:30 PM					05:00 PM					05:00 PM										
Volume	21	79	0	0	100	5	0	22	0	27	0	72	8	0	80						
Peak Factor					0.895					0.870					0.909						
PM HV Vol		3				1		2				5									
PM % HV		1.16				5.55		2.63				1.80									

No.1 Ft Hamer @ US 301

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
EBT	1	
EBR		
WBT		5
WBL		1
NBL	1	
NBR		

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
EBT	6	1
EBR		
WBT	5	3
WBL		
NBL	1	
NBR		

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
EBT	2	
EBR		
WBT		
WBL		
NBL		
NBR		1

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
EBT	6	
EBR		
WBT	4	2
WBL		1
NBL		
NBR		

Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
EBT	3	
EBR		
WBT	5	1
WBL		
NBL		
NBR		1

Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses
EBT	1	
EBR		
WBT	2	
WBL		
NBL		
NBR		

Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses	
EBT	3		13
EBR			
WBT	5		19
WBL	1		2
NBL		1	1
NBR	1	1	3

Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses
EBT	2	
EBR		
WBT	1	
WBL	1	1
NBL		
NBR		

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
EBT	3	1
EBR		
WBT		2
WBL		
NBL		
NBR		1

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
EBT	5	
EBR		
WBT	1	
WBL		
NBL		
NBR		1

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
EBT	2	1
EBR		1
WBT	1	2
WBL	1	
NBL		1
NBR	1	

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses
EBT		
EBR	1	
WBT		
WBL		
NBL		
NBR		

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
EBT	1	
EBL		
WBT		2
WBR		
NBL		
NBR	1	

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
EBT		
EBL		
WBT		
WBR		
NBL	1	
NBR	1	

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
EBT	1	
EBL		
WBT	1	
WBR		
NBL		
NBR		

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses	
EBT	3		5
EBL			
WBT			3
WBR			
NBL			1
NBR			2

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 1102
Counted By: URS
Weather: Cloudy
Other:

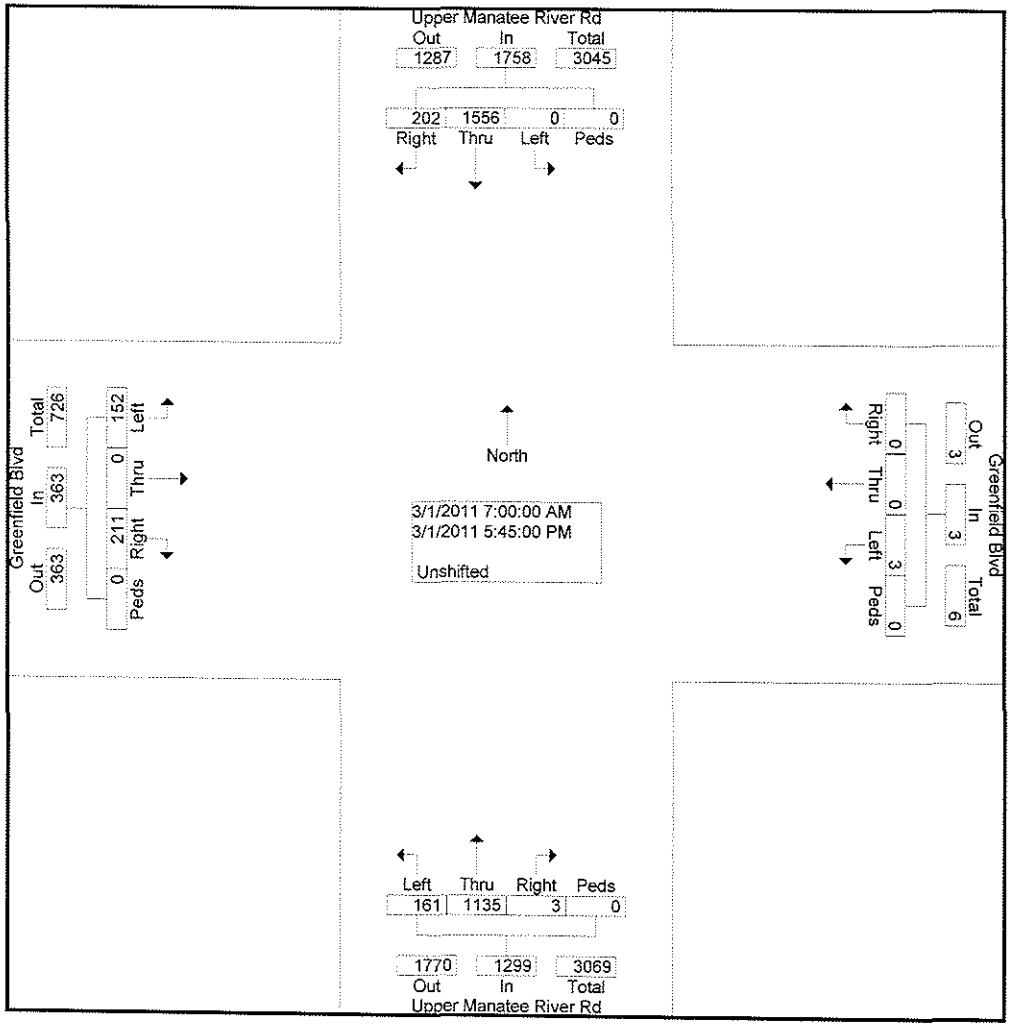
File Name : umrr_greenfield
Site Code : 00001122
Start Date : 3/1/2011
Page No : 1

Groups Printed- Unshifted

	Upper Manatee River Rd South Bound				Greenfield Blvd West Bound				Upper Manatee River Rd North Bound				Greenfield Blvd East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	158	10	0	0	0	0	0	5	18	0	0	1	0	10	0	202
07:15 AM	0	177	12	0	0	0	0	0	3	25	0	0	3	0	21	0	241
07:30 AM	0	137	11	0	0	0	0	0	4	43	1	0	3	0	19	0	218
07:45 AM	0	132	28	0	1	0	0	0	6	30	0	0	5	0	5	0	207
Total	0	604	61	0	1	0	0	0	18	116	1	0	12	0	55	0	868
08:00 AM	0	123	26	0	1	0	0	0	3	39	0	0	7	0	20	0	219
08:15 AM	0	83	17	0	0	0	0	0	12	46	0	0	9	0	11	0	178
08:30 AM	0	107	21	0	0	0	0	0	5	49	0	0	6	0	10	0	198
08:45 AM	0	80	20	0	0	0	0	0	5	48	0	0	12	0	12	0	177
Total	0	393	84	0	1	0	0	0	25	182	0	0	34	0	53	0	772
04:00 PM	0	64	11	0	0	0	0	0	12	99	1	0	22	0	13	0	222
04:15 PM	0	70	7	0	1	0	0	0	18	101	0	0	13	0	14	0	224
04:30 PM	0	66	10	0	0	0	0	0	12	95	0	0	6	0	10	0	199
04:45 PM	0	71	5	0	0	0	0	0	15	99	0	0	12	0	11	0	213
Total	0	271	33	0	1	0	0	0	57	394	1	0	53	0	48	0	858
05:00 PM	0	66	9	0	0	0	0	0	21	110	0	0	11	0	13	0	230
05:15 PM	0	72	7	0	0	0	0	0	18	111	1	0	18	0	17	0	244
05:30 PM	0	71	5	0	0	0	0	0	12	111	0	0	13	0	13	0	225
05:45 PM	0	79	3	0	0	0	0	0	10	111	0	0	11	0	12	0	226
Total	0	288	24	0	0	0	0	0	61	443	1	0	53	0	55	0	925
Grand Total	0	1556	202	0	3	0	0	0	161	1135	3	0	152	0	211	0	3423
Apprch %	0.0	88.5	11.5	0.0	100.0	0.0	0.0	0.0	12.4	87.4	0.2	0.0	41.9	0.0	58.1	0.0	
Total %	0.0	45.5	5.9	0.0	0.1	0.0	0.0	0.0	4.7	33.2	0.1	0.0	4.4	0.0	6.2	0.0	

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : umrr_greenfield
Site Code : 00001122
Start Date : 3/1/2011
Page No : 2



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : umrr_greenfield
Site Code : 00001122
Start Date : 3/1/2011
Page No : 3

	Upper Manatee River Rd South Bound					Greenfield Blvd West Bound					Upper Manatee River Rd North Bound					Greenfield Blvd East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	569	77	0	646	2	0	0	0	2	16	137	1	0	154	18	0	65	0	83	885
Percent	0.0	88.1	11.9	0.0		100.0	0.0	0.0	0.0		10.4	89.0	0.6	0.0		21.7	0.0	78.3	0.0		
07:15 Volume	0	177	12	0	189	0	0	0	0	0	3	25	0	0	28	3	0	21	0	24	241
Peak Factor																					0.918
High Int.	07:15 AM					07:45 AM					07:30 AM					08:00 AM					
Volume	0	177	12	0	189	1	0	0	0	1	4	43	1	0	48	7	0	20	0	27	
Peak Factor		3	2		0.854	0		0		0.500	0	8			0.802			1		0.769	
		0.53	2.60									5.80						1.5			
Peak Hour From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	288	24	0	312	0	0	0	0	0	61	443	1	0	505	53	0	55	0	108	925
Percent	0.0	92.3	7.7	0.0		0.0	0.0	0.0	0.0		12.1	87.7	0.2	0.0		49.1	0.0	50.9	0.0		
05:15 Volume	0	72	7	0	79	0	0	0	0	0	18	111	1	0	130	18	0	17	0	35	244
Peak Factor																					0.948
High Int.	05:45 PM										05:00 PM					05:15 PM					
Volume	0	79	3	0	82	0	0	0	0	0	21	110	0	0	131	18	0	17	0	35	
Peak Factor					0.951										0.964					0.771	
PM HV Vol		1										1									
PM % HV		0.35										0.23									

No.5 UMRR @ Greenfield Boulevard

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
NBL		
NBT		
SBR		1
SBT		1
EBL		
EBR		

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
NBL		
NBT		2
SBR		
SBT	1	1
EBL		
EBR		1

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
NBL		
NBT		2
SBR		
SBT		1
EBL		
EBR		

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
NBL		
NBT	1	
SBR		
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
NBL		
NBT		3
SBR		2
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses
NBL		
NBT	1	
SBR		1
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses
NBL		
NBT	1	
SBR		
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses
NBL		
NBT		
SBR		
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
NBL		
NBT		2
SBR		
SBT		2
EBL		
EBR		

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
NBL		
NBT	1	
SBR		1
SBT	1	
EBL		
EBR		

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
NBL		
NBT	1	
SBR		2
SBT	1	
EBL		
EBR		

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses
NBL		
NBT		
SBR		
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
NBL		
NBT		
SBR		
SBT		1
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
NBL		
NBT	1	
SBR		
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
NBL		
NBT		
SBR		
SBT		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses
NBL		
NBT		
SBR		
SBT		
EBL		
EBR		

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0379
Counted By: URS
Weather: Sunny
Other:

File Name : ummrr_Rye Rd
Site Code : 00000379
Start Date : 3/2/2011
Page No : 1

Groups Printed- Unshifted

	Rye Rd South Bound				Rye Rd West Bound				Rye Rd North Bound				Upper Manatee River Rd East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	49	12	0	0	0	0	0	2	9	0	0	6	0	3	0	81
07:15 AM	0	49	4	0	0	0	0	0	3	14	0	0	3	0	5	0	78
07:30 AM	0	45	4	0	0	0	0	0	1	15	0	0	5	0	5	0	75
07:45 AM	0	49	12	0	0	0	0	0	3	15	0	0	11	0	9	0	99
Total	0	192	32	0	0	0	0	0	9	53	0	0	25	0	22	0	333
08:00 AM	0	42	10	0	0	0	0	0	2	18	0	0	6	0	8	0	86
08:15 AM	0	41	6	0	0	0	0	0	6	25	0	0	7	0	9	0	94
08:30 AM	0	21	7	0	0	0	0	0	4	21	0	0	8	0	0	0	61
08:45 AM	0	23	5	0	0	0	0	0	3	21	0	0	7	0	0	0	59
Total	0	127	28	0	0	0	0	0	15	85	0	0	28	0	17	0	300
04:00 PM	0	19	8	0	0	0	0	0	2	36	0	0	9	0	1	0	75
04:15 PM	0	11	3	0	0	0	0	0	3	30	0	0	7	0	4	0	58
04:30 PM	0	19	5	0	0	0	0	0	2	26	0	0	11	0	0	0	63
04:45 PM	0	11	5	0	0	0	0	0	4	32	0	0	8	0	5	0	65
Total	0	60	21	0	0	0	0	0	11	124	0	0	35	0	10	0	261
05:00 PM	0	22	10	0	0	0	0	0	1	40	0	0	11	0	3	0	87
05:15 PM	0	29	5	0	0	0	0	0	4	45	0	0	8	0	4	0	95
05:30 PM	0	20	7	0	0	0	0	0	4	47	0	0	7	0	2	0	87
05:45 PM	0	24	7	0	0	0	0	0	3	30	0	0	5	0	5	0	74
Total	0	95	29	0	0	0	0	0	12	162	0	0	31	0	14	0	343
Grand Total	0	474	110	0	0	0	0	0	47	424	0	0	119	0	63	0	1237
Apprch %	0.0	81.2	18.8	0.0	0.0	0.0	0.0	0.0	10.0	90.0	0.0	0.0	65.4	0.0	34.6	0.0	
Total %	0.0	38.3	8.9	0.0	0.0	0.0	0.0	0.0	3.8	34.3	0.0	0.0	9.6	0.0	5.1	0.0	

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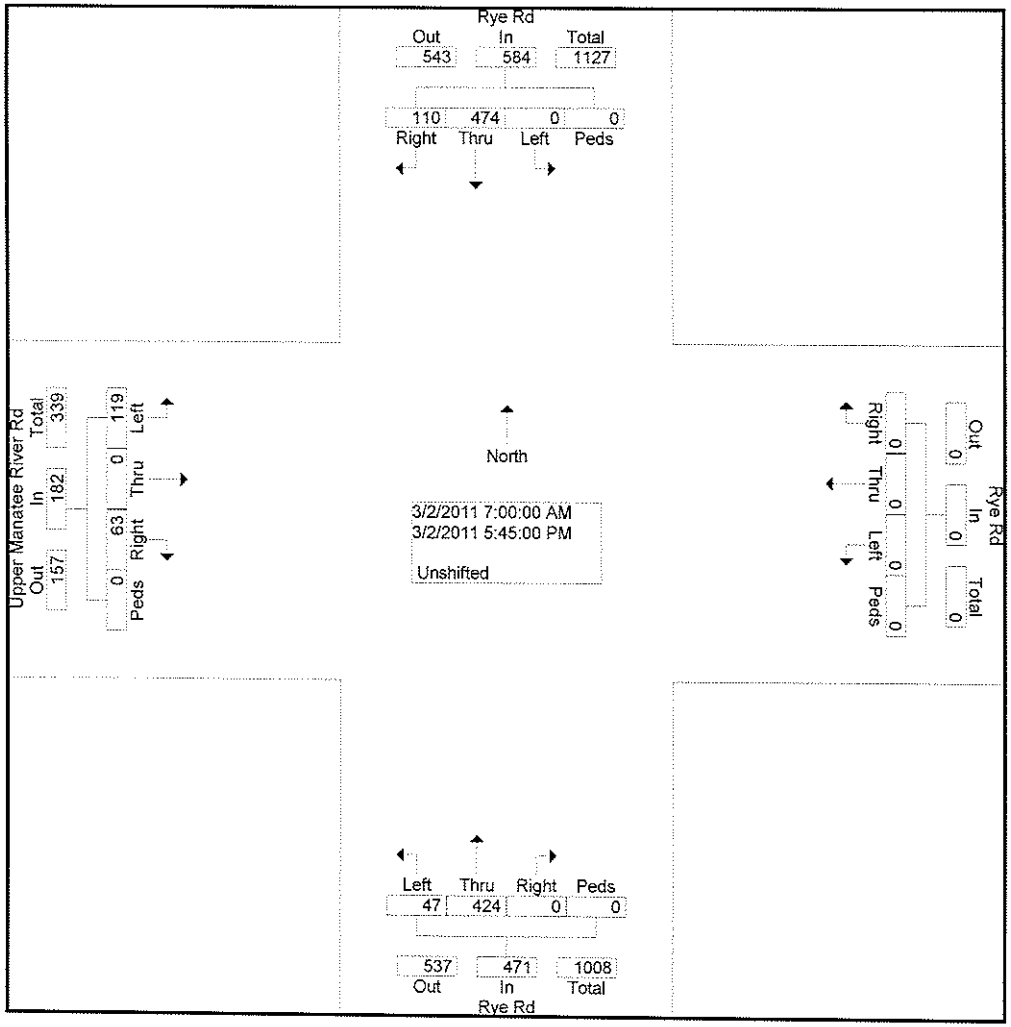
Tampa, Fl 33607 813-286-1711

File Name : ummrr_Rye Rd
Site Code : 00000379
Start Date : 3/2/2011
Page No : 2



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : ummrr_Rye Rd
Site Code : 00000379
Start Date : 3/2/2011
Page No : 3

	Rye Rd South Bound					Rye Rd West Bound					Rye Rd North Bound					Upper Manatee River Rd East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	0	177	32	0	209	0	0	0	0	0	12	73	0	0	85	29	0	31	0	60	354
Percent	0.0	84.7	15.3	0.0		0.0	0.0	0.0	0.0		14.1	85.9	0.0	0.0		48.3	0.0	51.7	0.0		
07:45 Volume	0	49	12	0	61	0	0	0	0	0	3	15	0	0	18	11	0	9	0	20	99
Peak Factor																					0.894
High Int.	07:45 AM					6:45:00 AM					08:15 AM					07:45 AM					
Volume	0	49	12	0	61	0	0	0	0	0	6	25	0	0	31	11	0	9	0	20	
Peak Factor		4	1		0.857						6	3			0.685	0		1		0.750	
		2.2	3.1								5.0	6.8						3.2			
Peak Hour From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	0	95	29	0	124	0	0	0	0	0	12	162	0	0	174	31	0	14	0	45	343
Percent	0.0	76.6	23.4	0.0		0.0	0.0	0.0	0.0		6.9	93.1	0.0	0.0		68.9	0.0	31.1	0.0		
05:15 Volume	0	29	5	0	34	0	0	0	0	0	4	45	0	0	49	8	0	4	0	12	95
Peak Factor																					0.903
High Int.	05:15 PM										05:30 PM					05:00 PM					
Volume	0	29	5	0	34	0	0	0	0	0	4	47	0	0	51	11	0	3	0	14	
Peak Factor					0.912										0.853					0.804	
Pm HV Vol		1									1	1				3				2	
Pm % HV		1.05									8.33	.006				9.68				4.44	

No. 8 UMRR @ Rye

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
NBL		
NBT	1	
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
NBL		
NBT	2	1
SBT		1
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
NBL		
NBT	2	
SBT	1	
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
NBL	1	1
NBT	1	
SBT	3	
SBR		
EBL		
EBR		1

Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
NBL	2	
NBT	1	
SBT		
SBR	1	
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses
NBL	2	
NBT	1	
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses
NBL		
NBT		
SBT	1	
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses
NBL		
NBT	2	
SBT	1	
SBR		
EBL	1	
EBR	2	

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
NBL		
NBT		1
SBT		
SBR		
EBL		
EBR		1

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
NBL		
NBT		
SBT	1	1
SBR		
EBL		
EBR	1	

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
NBL	1	
NBT	1	
SBT	1	
SBR		
EBL	3	
EBR	2	

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR		
EBL		
EBR		

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0869/0378
Counted By: URS
Weather: Cloudy
Other:

File Name : ummrr_SR 64
Site Code : 00000869
Start Date : 3/1/2011
Page No : 1

Groups Printed- 1 - Unshifted

	Upper Manatee River Rd South Bound				SR 64 West Bound				Lakewood Ranch Blvd North Bound				SR 64 East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	11	29	109	0	59	205	2	0	25	25	21	0	13	57	40	0	596
07:15 AM	13	86	100	0	69	206	2	0	52	28	22	0	18	83	77	0	756
07:30 AM	11	46	102	0	71	201	1	0	58	34	24	0	16	99	76	0	739
07:45 AM	15	49	88	0	82	195	3	0	58	35	17	0	53	118	85	0	798
Total	50	210	399	0	281	807	8	0	193	122	84	0	100	357	278	0	2889
08:00 AM	18	66	70	0	78	201	6	0	68	36	21	0	42	88	86	0	780
08:15 AM	17	47	57	0	75	155	8	0	85	38	32	0	74	98	67	0	753
08:30 AM	18	31	53	0	36	125	11	0	81	33	32	0	33	105	43	0	601
08:45 AM	17	36	62	0	65	100	6	0	75	48	13	0	35	84	69	0	610
Total	70	180	242	0	254	581	31	0	309	155	98	0	184	375	265	0	2744
04:00 PM	11	14	50	0	26	118	6	0	59	85	28	0	57	156	58	0	668
04:15 PM	16	38	38	0	33	123	6	0	60	64	36	0	66	144	88	0	712
04:30 PM	11	21	38	0	34	122	3	0	78	74	40	0	82	119	65	0	687
04:45 PM	16	35	41	0	36	125	6	0	87	54	33	0	69	145	87	0	734
Total	54	108	167	0	129	488	21	0	284	277	137	0	274	564	298	0	2801
05:00 PM	6	40	32	0	40	119	5	0	128	76	57	0	100	201	77	0	881
05:15 PM	16	31	44	0	44	118	4	0	97	67	63	0	97	180	81	0	842
05:30 PM	13	23	50	0	44	87	1	0	73	72	62	0	75	183	107	0	790
05:45 PM	16	32	40	0	52	83	2	0	76	57	57	0	101	179	90	0	785
Total	51	126	166	0	180	407	12	0	374	272	239	0	373	743	355	0	3298
Grand Total	225	624	974	0	844	2283	72	0	1160	826	558	0	931	2039	1196	0	11732
Apprch %	12.3	34.2	53.4	0.0	26.4	71.4	2.3	0.0	45.6	32.5	21.9	0.0	22.3	48.9	28.7	0.0	
Total %	1.9	5.3	8.3	0.0	7.2	19.5	0.6	0.0	9.9	7.0	4.8	0.0	7.9	17.4	10.2	0.0	

URS Corporation
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File Name : ummrr_SR 64
Site Code : 00000869
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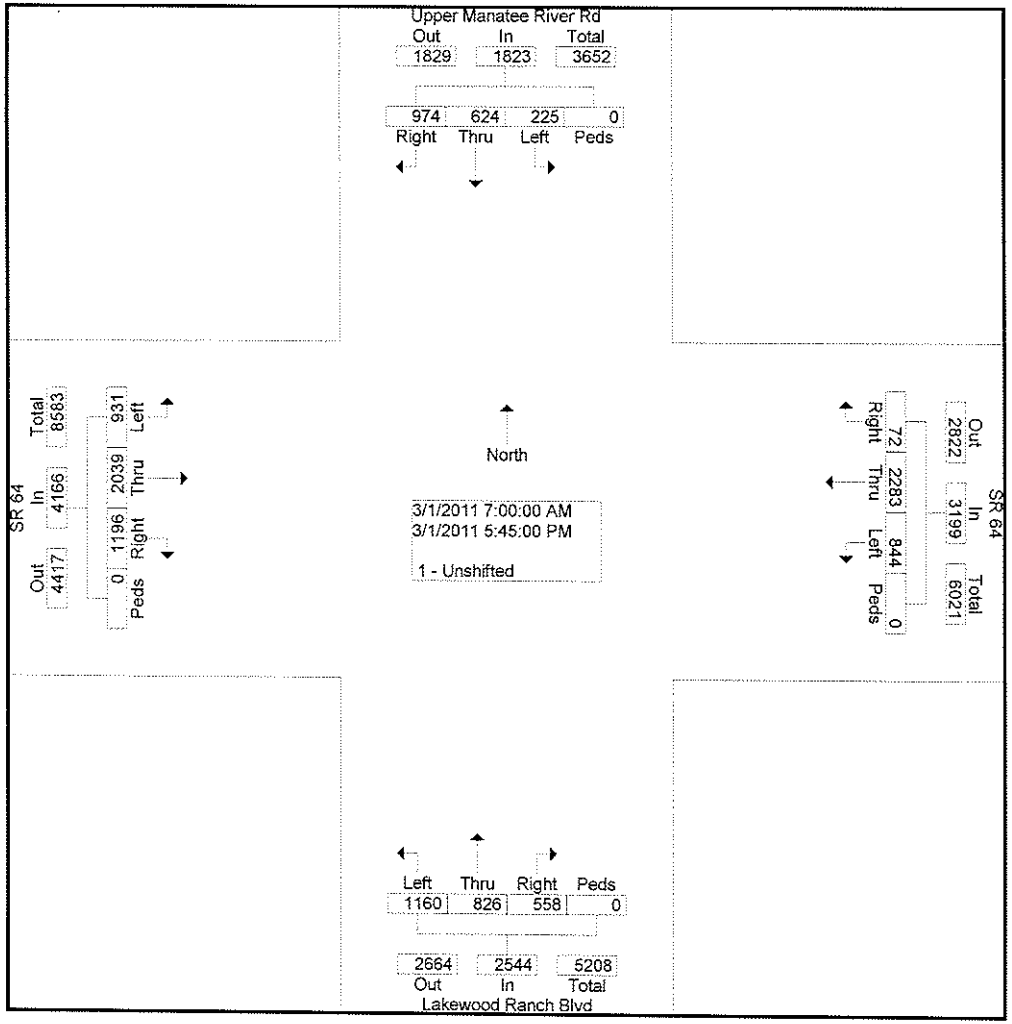

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Tampa, Fl 33607 813-286-1711

File Name : ummrr_SR 64
Site Code : 00000869
Start Date : 3/1/2011
Page No : 3

	Upper Manatee River Rd South Bound					SR 64 West Bound					Lakewood Ranch Blvd North Bound					SR 64 East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	57	247	360	0	664	300	803	12	0	1115	236	133	84	0	453	129	388	324	0	841	3073
Percent	8.6	37.2	54.2	0.0		26.9	72.0	1.1	0.0		52.1	29.4	18.5	0.0		15.3	46.1	38.5	0.0		
07:45 Volume	15	49	88	0	152	82	195	3	0	280	58	35	17	0	110	53	118	85	0	256	798
Peak Factor																					0.963
High Int.	07:15 AM					08:00 AM					08:00 AM					07:45 AM					
Volume	13	86	100	0	199	78	201	6	0	285	68	36	21	0	125	53	118	85	0	256	
Peak Factor					0.834					0.978					0.906					0.821	
		11					78					56						41			
		1.66					6.99					12.36						4.87			
Peak Hour From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	51	126	166	0	343	180	407	12	0	599	374	272	239	0	885	373	743	355	0	1471	3298
Percent	14.9	36.7	48.4	0.0		30.1	67.9	2.0	0.0		42.3	30.7	27.0	0.0		25.4	50.5	24.1	0.0		
05:00 Volume	6	40	32	0	78	40	119	5	0	164	128	76	57	0	261	100	201	77	0	378	881
Peak Factor																					0.936
High Int.	05:15 PM					05:15 PM					05:00 PM					05:00 PM					
Volume	16	31	44	0	91	44	118	4	0	166	128	76	57	0	261	100	201	77	0	378	
Peak Factor					0.942					0.902					0.848					0.973	
# HV Vol		1					22					10						7			
% HV		0.29					3.67					1.13						1.48			

6. UMRR @ SR 64

Heavy Vehicle Percentages
Interval 7:00am-7:15pm

	Trucks	School Buses
WBL	7	
WBT	13	2
WBR		
NBL	5	8
NBT	3	
NBR	8	5
EB	9	7
SB		

Heavy Vehicle Percentages
Interval 7:15am-7:30am

	Trucks	School Buses
WBL	8	
WBT	19	4
WBR		
NBL	9	6
NBT		2
NBR	3	4
EB	15	3
SB	4	

Heavy Vehicle Percentages
Interval 7:30am-7:45am

	Trucks	School Buses
WBL	1	
WBT	10	2
WBR		
NBL	6	5
NBT		
NBR	4	4
EB	5	1
SB	2	2

Heavy Vehicle Percentages
Interval 7:45am-8:00am

	Trucks	School Buses	
WBL	4		20
WBT	5	1	56
WBR			0
NBL	4		43
NBT	1		6
NBR	2	1	31
EB	5	3	48
SB	1	2	11

Heavy Vehicle Percentages
Interval 8:00am-8:15am

	Trucks	School Buses	
WBL	2	5	20
WBT	6	9	56
WBR	2		2
NBL	3		32
NBT			3
NBR	2		20
EB	5	4	41
SB			11

78
56
41
11

Heavy Vehicle Percentages
Interval 8:15am-8:30am

	Trucks	School Buses
WBL	2	4
WBT	4	8
WBR		
NBL	2	
NBT	0	
NBR	1	
EB	15	3
SB		1

Heavy Vehicle Percentages
Interval 8:30am-8:45am

	Trucks	School Buses
WBL	1	2
WBT	3	2
WBR		
NBL	2	
NBT		
NBR	1	
EB	12	1
SB	2	2

Heavy Vehicle Percentages
Interval 8:45am-9:00am

	Trucks	School Buses	
WBL	1		17
WBT	3		35
WBR			2
NBL	0		7
NBT			0
NBR	1		5
EB	15		55
SB	3		8

Heavy Vehicle Percentages
Interval 4:00pm-4:15pm

	Trucks	School Buses
WBL	9	
WBT	10	4
WBR		
NBL	7	1
NBT	2	
NBR	6	2
EB	5	5
SB	1	

Heavy Vehicle Percentages
Interval 4:15pm-4:30pm

	Trucks	School Buses
WBL	10	
WBT	15	5
WBR		
NBL	5	2
NBT		
NBR	5	2
EB		4
SB		2

Heavy Vehicle Percentages
Interval 4:30pm-4:45pm

	Trucks	School Buses
WBL	2	
WBT	8	3
WBR		
NBL	5	2
NBT		
NBR	3	2
EB	5	
SB		

Heavy Vehicle Percentages
Interval 4:45pm-5:00pm

	Trucks	School Buses	
WBL	6		27
WBT	6	2	53
WBR			0
NBL	3		25
NBT	1		3
NBR	2	1	23
EB	5		24
SB	2		5

Heavy Vehicle Percentages
Interval 5:00pm-5:15pm

	Trucks	School Buses
WBL	2	
WBT	4	1
WBR	1	1
NBL	2	
NBT		
NBR	2	
EB	4	1
SB		

Heavy Vehicle Percentages
Interval 5:15pm-5:30pm

	Trucks	School Buses
WBL	3	
WBT	3	
WBR		
NBL	1	
NBT	1	
NBR	1	
EB	1	
SB		1

Heavy Vehicle Percentages
Interval 5:30pm-5:45pm

	Trucks	School Buses
WBL	2	
WBT	2	
WBR		
NBL	1	
NBT		
NBR	1	
EB		
SB		

Heavy Vehicle Percentages
Interval 5:45pm-6:00pm

	Trucks	School Buses	
WBL	1		8
WBT	2		12
WBR			2
NBL	0		4
NBT			1
NBR	1		5
EB	1		7
SB			1

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0869
Counted By: URS
Weather: Sunny
Other:

File Name : ft hamer_old tampa
Site Code : 00008691
Start Date : 3/2/2011
Page No : 1

Groups Printed- Unshifted

	Ft Hamer Rd South Bound				Old Tampa Hwy West Bound				Ft Hamer Rd North Bound				Old Tampa Hwy East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	4	15	0	0	0	0	0	38	13	0	0	14	2	13	0	99
07:15 AM	0	10	17	0	0	0	0	0	43	12	1	0	12	1	20	0	116
07:30 AM	0	12	19	0	0	0	0	0	45	16	0	0	12	2	26	0	132
07:45 AM	0	44	20	0	0	1	1	0	53	29	1	0	19	1	56	0	225
Total	0	70	71	0	0	1	1	0	179	70	2	0	57	6	115	0	572
08:00 AM	0	45	20	0	1	2	0	0	117	56	0	0	18	0	70	0	329
08:15 AM	0	41	18	0	1	0	0	0	87	66	1	0	44	1	46	0	305
08:30 AM	0	5	15	0	0	2	0	0	35	15	0	0	12	2	10	0	96
08:45 AM	0	12	21	0	0	1	0	0	16	12	0	0	13	0	12	0	87
Total	0	103	74	0	2	5	0	0	255	149	1	0	87	3	138	0	817
04:00 PM	0	8	20	0	0	3	0	0	17	12	0	0	17	3	29	0	109
04:15 PM	1	7	20	0	0	1	0	0	23	3	0	0	17	3	30	0	105
04:30 PM	0	7	21	0	0	1	0	0	29	5	0	0	19	0	31	0	113
04:45 PM	0	20	22	0	1	1	0	0	19	13	0	0	21	0	38	0	135
Total	1	42	83	0	1	6	0	0	88	33	0	0	74	6	128	0	462
05:00 PM	0	15	26	0	0	4	0	0	23	12	0	0	14	2	22	2	120
05:15 PM	2	15	27	0	0	3	1	0	35	8	0	0	18	1	68	0	178
05:30 PM	0	15	22	0	0	0	0	0	31	15	1	0	14	1	38	0	137
05:45 PM	0	9	15	0	1	2	1	0	24	17	1	0	25	4	36	0	135
Total	2	54	90	0	1	9	2	0	113	52	2	0	71	8	164	2	570
Grand Total	3	269	318	0	4	21	3	0	635	304	5	0	289	23	545	2	2421
Apprch %	0.5	45.6	53.9	0.0	14.3	75.0	10.7	0.0	67.3	32.2	0.5	0.0	33.6	2.7	63.4	0.2	
Total %	0.1	11.1	13.1	0.0	0.2	0.9	0.1	0.0	26.2	12.6	0.2	0.0	11.9	1.0	22.5	0.1	

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File Name : ft hamer_old tampa
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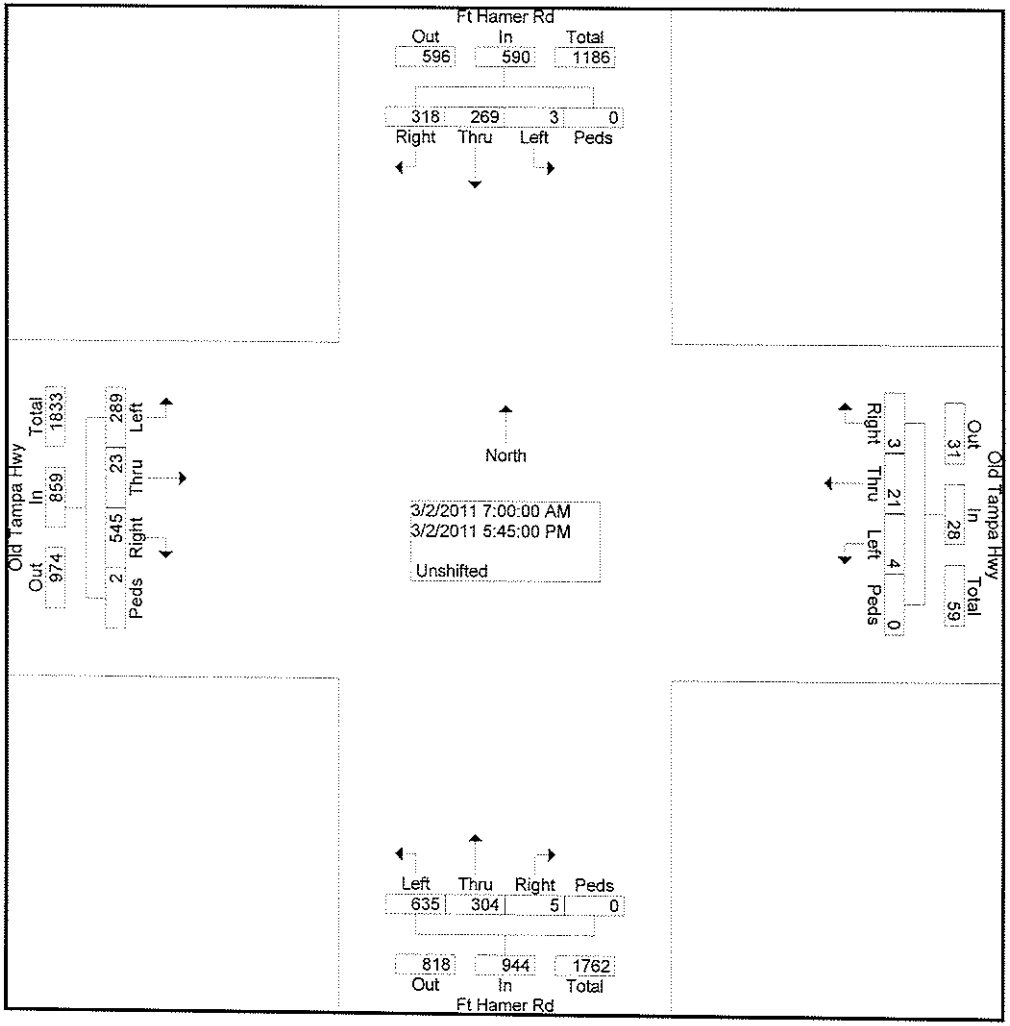

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7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

File Name : ft hamer_old tampa
Site Code : 00008691
Start Date : 3/2/2011
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	Ft Hamer Rd South Bound					Old Tampa Hwy West Bound					Ft Hamer Rd North Bound					Old Tampa Hwy East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	0	142	77	0	219	2	3	1	0	6	302	167	2	0	471	93	4	198	0	295	991
Percent	0.0	64.8	35.2	0.0		33.3	50.0	16.7	0.0		64.1	35.5	0.4	0.0		31.5	1.4	67.1	0.0		
08:00 Volume	0	45	20	0	65	1	2	0	0	3	117	56	0	0	173	18	0	70	0	88	329
Peak Factor																					0.753
High Int.	08:00 AM					08:00 AM					08:00 AM					08:15 AM					
Volume	0	45	20	0	65	1	2	0	0	3	117	56	0	0	173	44	1	46	0	91	
HV Vol Peak Factor	0	3	1		0.842	0	0	0		0.500	4	3	0		0.681	2	0	4		0.810	
		2.41	1.30								1.32	1.80				2.15		2.02			
Peak Hour From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	2	65	97	0	164	1	8	1	0	10	108	48	1	0	157	67	4	166	2	239	570
Percent	1.2	39.6	59.1	0.0		10.0	80.0	10.0	0.0		68.8	30.6	0.6	0.0		28.0	1.7	69.5	0.8		
05:15 Volume	2	15	27	0	44	0	3	1	0	4	35	8	0	0	43	18	1	68	0	87	178
Peak Factor																					0.801
High Int.	05:15 PM					05:00 PM					05:30 PM					05:15 PM					
Volume	2	15	27	0	44	0	4	0	0	4	31	15	1	0	47	18	1	68	0	87	
Peak Factor					0.932					0.625					0.835					0.687	
Pm HV Vol		1	1								3	2						2			
Pm % HV		1.54	1.03								2.78	4.17						1.20			

No.3 Ft Hamer @ Old Tampa

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
EBL	1	
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR		

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
EBL		
EBT		
EBR	1	2
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR	1	

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
EBL		
EBT		
EBR		2
WBL		
WBT		
WBR		
NBL		2
NBT		1
NBR		
SBL		
SBT		1
SBR		

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
EBL		
EBT		
EBR	2	
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR		

Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
EBL		
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		1
NBT		
NBR		
SBL		
SBT		1
SBR		

Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses
EBL		2
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		1
NBT		2
NBR		
SBL		1
SBT		1
SBR		

Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses
EBL		
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		
NBT	1	
NBR		
SBL		
SBT		
SBR		

Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses
EBL		
EBT		
EBR		
WBL		
WBT		
WBR		
NBL	1	
NBT		
NBR		
SBL		
SBT		
SBR	2	

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
EBL	1	
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR		

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
EBL	1	
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR		1

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
EBL		
EBT		
EBR	1	
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR	2	1

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses
EBL		
EBT		
EBR		
WBL		
WBT		
WBR		
NBL	3	
NBT		
NBR		
SBL		
SBT		
SBR	1	

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
EBL		
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT	1	
SBR		

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
EBL		
EBT		
EBR		1
WBL		
WBT		
WBR		
NBL		
NBT	1	1
NBR		
SBL		
SBT		
SBR		

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
EBL		
EBT		
EBR		1
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR		

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses
EBL		
EBT		
EBR		
WBL		
WBT		
WBR		
NBL		
NBT		
NBR		
SBL		
SBT		
SBR	1	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Counter: 1102
Counted By: URS
Weather: Sunny
Other:

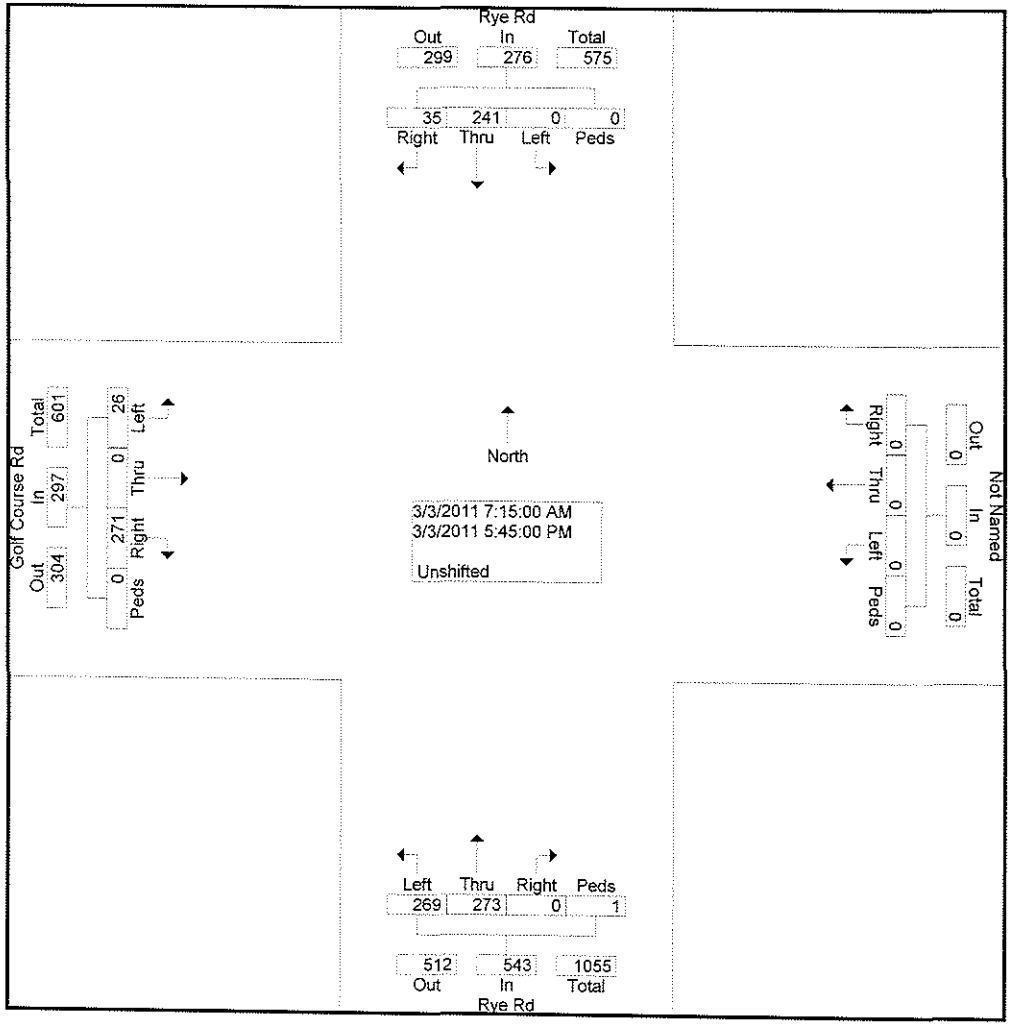
File Name : RYE_GO~1
Site Code : 00001102
Start Date : 3/3/2011
Page No : 1

Groups Printed- Unshifted

	Rye Rd From North				From East				Rye Rd From South				Golf Course Rd From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:15 AM	1	18	0	0	0	0	0	0	0	10	6	0	13	0	2	0	50
07:30 AM	3	29	0	0	0	0	0	0	0	15	9	0	29	0	1	0	86
07:45 AM	3	25	0	0	0	0	0	0	0	4	8	0	30	0	2	0	72
Total	7	72	0	0	0	0	0	0	0	29	23	0	72	0	5	0	208
08:00 AM	2	25	0	0	0	0	0	0	0	24	17	0	34	0	2	0	104
08:15 AM	3	12	0	0	0	0	0	0	0	18	20	0	18	0	1	0	72
08:30 AM	1	11	0	0	0	0	0	0	0	9	10	0	23	0	2	0	56
08:45 AM	2	8	0	0	0	0	0	0	0	12	8	0	9	0	2	0	41
Total	8	56	0	0	0	0	0	0	0	63	55	0	84	0	7	0	273
09:00 AM	1	14	0	0	0	0	0	0	0	15	14	0	15	0	1	0	60
Total	1	14	0	0	0	0	0	0	0	15	14	0	15	0	1	0	60
04:00 PM	2	12	0	0	0	0	0	0	0	15	17	1	13	0	1	0	61
04:15 PM	4	18	0	0	0	0	0	0	0	22	23	0	7	0	1	0	75
04:30 PM	0	11	0	0	0	0	0	0	0	20	16	0	11	0	1	0	59
04:45 PM	4	13	0	0	0	0	0	0	0	20	25	0	18	0	2	0	82
Total	10	54	0	0	0	0	0	0	0	77	81	1	49	0	5	0	277
05:00 PM	1	13	0	0	0	0	0	0	0	18	18	0	14	0	0	0	64
05:15 PM	2	5	0	0	0	0	0	0	0	15	22	0	10	0	3	0	57
05:30 PM	3	14	0	0	0	0	0	0	0	24	27	0	16	0	3	0	87
05:45 PM	3	13	0	0	0	0	0	0	0	32	29	0	11	0	2	0	90
Total	9	45	0	0	0	0	0	0	0	89	96	0	51	0	8	0	298
Grand Total	35	241	0	0	0	0	0	0	0	273	269	1	271	0	26	0	1116
Apprch %	12.7	87.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.3	49.5	0.2	91.2	0.0	8.8	0.0	
Total %	3.1	21.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.5	24.1	0.1	24.3	0.0	2.3	0.0	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

File Name : RYE_GO~1
Site Code : 00001102
Start Date : 3/3/2011
Page No : 2



JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

File Name : RYE_GO~1
Site Code : 00001102
Start Date : 3/3/2011
Page No : 3

	Rye Rd ~~From North~~ Southbound					From East					Rye Rd Northbound ~~From South~~					Golf Course Rd From ~~West~~ Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	11	91	0	0	102	0	0	0	0	0	0	61	54	0	115	111	0	6	0	117	334
Percent	10.8	89.2	0.0	0.0		0.0	0.0	0.0	0.0		0.0	53.0	47.0	0.0		94.9	0.0	5.1	0.0		
08:00 Volume	2	25	0	0	27	0	0	0	0	0	0	24	17	0	41	34	0	2	0	36	104
Peak Factor																					0.803
High Int.	07:30 AM					7:00:00 AM					08:00 AM					08:00 AM					
Volume	3	29	0	0	32	0	0	0	0	0	0	24	17	0	41	34	0	2	0	36	
Peak Factor	2	0			0.797							2	3		0.701	2		0		0.813	
	18.1											3.3	5.5			1.8					
Peak Hour From 01:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	9	45	0	0	54	0	0	0	0	0	0	89	96	0	185	51	0	8	0	59	298
Percent	16.7	83.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	48.1	51.9	0.0		86.4	0.0	13.6	0.0		
05:45 Volume	3	13	0	0	16	0	0	0	0	0	0	32	29	0	61	11	0	2	0	13	90
Peak Factor																					0.828
High Int.	05:30 PM										05:45 PM					05:30 PM					
Volume	3	14	0	0	17	0	0	0	0	0	0	32	29	0	61	16	0	3	0	19	
Peak Factor					0.794										0.758					0.776	

PM HV Vol 1 1 4

PM % HV 11% 1.12 5.0

No. 9 Rye @ Golf Course

Heavy Vehicle Percentages
Interval 7:00 to 7:15 am

	Trucks	School Buses
NBL		2
NBT		
SBT		
SBR		2
EBL		
EBR		

Heavy Vehicle Percentages
Interval 7:15 to 7:30 am

	Trucks	School Buses
NBL	1	
NBT		
SBT		
SBR	1	
EBL		
EBR	1	

Heavy Vehicle Percentages
Interval 7:30 to 7:45 am

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR	1	
EBL		
EBR		

Heavy Vehicle Percentages
Interval 7:45 to 8:00 am

	Trucks	School Buses
NBL	1	1
NBT		
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:00 to 8:15 am

	Trucks	School Buses
NBL	1	
NBT	1	
SBT		
SBR	1	
EBL		
EBR		1

Heavy Vehicle Percentages
Interval 8:15 to 8:30 am

	Trucks	School Buses	
NBL			3
NBT		1	2
SBT			0
SBR	1		2
EBL			0
EBR	1		2

Heavy Vehicle Percentages
Interval 8:30 to 8:45 am

	Trucks	School Buses
NBL		
NBT		
SBT	1	
SBR	1	
EBL		
EBR		

Heavy Vehicle Percentages
Interval 8:45 to 9:00 am

	Trucks	School Buses
NBL		
NBT		
SBT	1	
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 4:00 to 4:15 pm

	Trucks	School Buses
NBL		1
NBT		1
SBT		1
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 4:15 to 4:30 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR	1	
EBL		1
EBR		

Heavy Vehicle Percentages
Interval 4:30 to 4:45 pm

	Trucks	School Buses
NBL	1	
NBT	2	
SBT	1	
SBR		
EBL		
EBR	1	1

Heavy Vehicle Percentages
Interval 4:45 to 5:00 pm

	Trucks	School Buses
NBL		1
NBT		
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:00 to 5:15 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR		
EBL		
EBR	2	1

Heavy Vehicle Percentages
Interval 5:15 to 5:30 pm

	Trucks	School Buses
NBL		
NBT		1
SBT		
SBR		
EBL		
EBR		

Heavy Vehicle Percentages
Interval 5:30 to 5:45 pm

	Trucks	School Buses
NBL		
NBT		
SBT		
SBR		
EBL		
EBR		1

Heavy Vehicle Percentages
Interval 5:45 to 6:00 pm

	Trucks	School Buses	
NBL			
NBT			1
SBT			
SBR	1		1
EBL			
EBR			4

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

SR 64
West of UMMR

Site Code: 000000000021
Station ID: 000000000021
Latitude: 27' 29.126 North
Longitude: 82' 26.438 West
SR 64 WEST OF UMMR

Start	01-Mar-11	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Tue	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		11	161			13	235				
12:15		15	155			7	186				
12:30		10	175			5	216				
12:45		5	183	41	674	7	201	32	838	73	1512
01:00		11	190			8	174				
01:15		8	146			4	171				
01:30		7	220			12	161				
01:45		3	200	29	756	2	176	26	682	55	1438
02:00		4	185			6	181				
02:15		2	195			4	190				
02:30		8	222			0	236				
02:45		6	230	20	832	4	246	14	853	34	1685
03:00		11	220			3	198				
03:15		8	248			5	256				
03:30		6	246			10	226				
03:45		9	278	34	992	14	212	32	892	66	1884
04:00		9	263			9	193				
04:15		5	285			15	221				
04:30		14	221			22	238				
04:45		17	284	45	1053	29	216	75	868	120	1921
05:00		21	327			29	279				
05:15		26	349			48	213				
05:30		26	325			64	210				
05:45		28	310	101	1311	86	199	227	901	328	2212
06:00		42	299			90	201				
06:15		52	202			148	178				
06:30		76	235			224	179				
06:45		108	215	278	951	242	138	704	696	982	1647
07:00		128	172			336	149				
07:15		195	187			353	113				
07:30		259	154			357	95				
07:45		295	122	877	635	313	98	1359	455	2236	1090
08:00		241	101	990		331	64	1354		2344	
08:15		205	124			355	87				
08:30		181	116			293	68				
08:45		218	119	845	460	237	66	1216	285	2061	745
09:00		176	84			242	70				
09:15		130	94			220	76				
09:30		151	89			191	54				
09:45		177	72	634	339	198	48	851	248	1485	587
10:00		149	67			212	39				
10:15		161	62			200	15				
10:30		158	41			220	29				
10:45		190	48	658	218	179	18	811	101	1469	319
11:00		150	23			204	26				
11:15		172	26			228	18				
11:30		177	36			202	25				
11:45		200	13	699	98	230	8	864	77	1563	175
Total		4261	8319			6211	6896			10472	15215
Percent		33.9%	66.1%			47.4%	52.6%			40.8%	59.2%

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

SR 64
West of UMMR

Site Code: 000000000021
Station ID: 000000000021
Latitude: 27' 29.126 North
Longitude: 82' 26.438 West
SR 64 WEST OF UMMR

Start Time	02-Mar-11 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		20	202			10	205				
12:15		17	177			4	235				
12:30		12	222			5	228				
12:45		10	231	59	832	6	198	25	866	84	1698
01:00		9	219			8	217				
01:15		2	213			4	204				
01:30		12	202			8	233				
01:45		7	193	30	827	3	213	23	867	53	1694
02:00		7	246			3	196				
02:15		3	238			1	186				
02:30		0	219			0	226				
02:45		10	229	20	932	4	203	8	811	28	1743
03:00		3	211			5	229				
03:15		8	242			1	239				
03:30		5	237			6	241				
03:45		5	248	21	938	2	204	14	913	35	1851
04:00		14	242			15	206				
04:15		11	229			14	212				
04:30		15	265			15	258				
04:45		17	299	57	1035	27	198	71	874	128	1909
05:00		18	294			23	250				
05:15		26	366			43	258				
05:30		32	320			65	203				
05:45		40	259	116	1239	67	212	198	923	314	2162
06:00		39	339			102	170				
06:15		49	325			164	189				
06:30		90	232			202	175				
06:45		138	266	316	1162	252	135	720	669	1036	1831
07:00		144	152			315	155				
07:15		201	186			358	135				
07:30		253	163			315	99				
07:45		260	142	858	643	338	87	1326	476	2184	1119
08:00		243	139	957		357	93	1368		2325	
08:15		233	138			324	101				
08:30		220	146			291	134				
08:45		192	113	888	536	246	96	1218	424	2106	960
09:00		209	133			242	94				
09:15		161	86			244	54				
09:30		153	88			201	68				
09:45		173	64	696	371	219	45	906	261	1602	632
10:00		143	63			217	53				
10:15		148	50			184	23				
10:30		164	43			189	26				
10:45		190	49	645	205	224	29	814	131	1459	336
11:00		159	28			202	31				
11:15		172	23			224	22				
11:30		181	22			232	12				
11:45		203	20	715	93	158	9	816	74	1531	167
Total		4421	8813			6139	7289			10560	16102
Percent		33.4%	66.6%			45.7%	54.3%			39.6%	60.4%
Grand Total		8682	17132			12350	14185			21032	31317
Percent		33.6%	66.4%			46.5%	53.5%			40.2%	59.8%

ADT ADT 26,174 AADT 26,174

SF = .87

AADT = 22,771

Avg P-to-D = 0.086

AM (Avg + Adj)
EB = 847
WB = 1184
2031

PM (Avg + Adj)
EB = 1109
WB = 793
1902

P-to-D .089 .083

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS_VOL

Start Time	01-Mar-11 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	19			0	23				
12:15		0	26			1	21				
12:30		0	17			2	19				
12:45		0	19	0	81	0	20	3	83	3	164
01:00		2	17			1	24				
01:15		1	16			0	14				
01:30		0	16			1	24				
01:45		2	22	5	71	0	22	2	84	7	155
02:00		1	15			0	20				
02:15		0	17			0	14				
02:30		1	23			0	18				
02:45		1	32	3	87	0	25	0	77	3	164
03:00		2	33			0	42				
03:15		0	27			1	41				
03:30		1	16			0	28				
03:45		1	27	4	103	0	31	1	142	5	245
04:00		1	14			0	43				
04:15		3	28			1	39				
04:30		0	21			2	41				
04:45		5	20	9	83	0	37	3	160	12	243
05:00		3	18			0	40				
05:15		9	17			2	47				
5:15 05:30		14	35			2	59				
6:15P 05:45		8	37	34	107	1	59	5	205	39	312
06:00		19	25		114	1	47		212		326
06:15		14	28			4	31				
06:30		33	18			4	35				
06:45		38	23	104	94	5	38	14	151	118	245
07:00		47	13			5	35				
7:15 07:15		58	14			5	22				
8:15A 07:30		44	3			14	28				
07:45		53	9	202	39	13	29	37	114	239	153
08:00		71	10	226		16	23	48		274	
08:15		46	9			25	20				
08:30		34	10			12	18				
08:45		35	10	186	39	11	23	64	84	250	123
09:00		21	7			22	12				
09:15		22	1			16	22				
09:30		26	6			14	9				
09:45		12	3	81	17	17	7	69	50	150	67
10:00		20	3			13	9				
10:15		26	1			11	9				
10:30		26	4			12	8				
10:45		18	3	90	11	19	7	55	33	145	44
11:00		21	1			13	8				
11:15		23	0			16	5				
11:30		18	0			25	5				
11:45		25	1	87	2	12	4	66	22	153	24
Total		805	734			319	1205			1124	1939
Percent		52.3%	47.7%			20.9%	79.1%			36.7%	63.3%

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS_VOL

Start Time	02-Mar-11 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	17			3	23				
12:15		0	16			2	23				
12:30		0	22			5	26				
12:45		0	28	1	83	1	20	11	92	12	175
01:00		0	40			0	22				
01:15		0	30			0	48				
01:30		0	21			2	32				
01:45		0	32	0	123	0	33	2	135	2	258
02:00		1	25			0	31				
02:15		0	17			0	28				
02:30		0	19			0	31				
02:45		0	18	1	79	0	26	0	116	1	195
03:00		1	23			0	27				
03:15		1	28			0	38				
03:30		1	33			0	44				
03:45		3	23	6	107	0	32	0	141	6	248
04:00		0	21			0	34				
04:15		1	17			1	27				
04:30		2	27			0	35				
04:45		4	14	7	79	0	52	1	148	8	227
05:00		6	17			0	34				
05:15		13	29			1	57				
5:15 6:15P 05:30		13	25			4	40				
05:45		9	34	41	105	1	42	6	173	47	278
06:00		19	37		125	3	40		179		304
06:15		20	41			4	38				
06:30		24	20			6	27				
06:45		35	13	98	111	3	31	16	136	114	247
07:00		48	14			6	38				
07:15		43	2			6	26				
07:30		57	11			8	18				
7:30 8:30A 07:45		55	2	203	29	12	23	32	105	235	134
08:00		81	9			19	24				
08:15		54	4	247		28	20	67		314	
08:30		42	6			14	23				
08:45		27	4	204	23	19	29	80	96	284	119
09:00		26	10			24	13				
09:15		16	7			16	21				
09:30		23	2			20	9				
09:45		29	7	94	26	12	10	72	53	166	79
10:00		16	2			17	18				
10:15		21	3			9	11				
10:30		19	1			17	6				
10:45		22	2	78	8	10	3	53	38	131	46
11:00		12	3			11	10				
11:15		23	4			21	7				
11:30		20	2			23	5				
11:45		27	1	82	10	26	3	81	25	163	35
Total		815	783			354	1258			1169	2041
Percent		51.0%	49.0%			22.0%	78.0%			36.4%	63.6%
Grand Total		1620	1517			673	2463			2293	3980
Percent		51.6%	48.4%			21.5%	78.5%			36.6%	63.4%

ADT ADT 3,136 AADT 3,136

SF = 0.87

AADT = 2,728

Avg P-to-D = 0.097

AM (Avg + SF)

NB = 206 .805
SB = 50 19.5
256

PM (Avg + SF)

NB = 103 37.8
SB = 170 .622
273

P-to-D .094 .100

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS

Northbound

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Total
3/1/11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	9
05:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15	0	6	2	1	0	0	0	0	0	0	0	0	0	0	0	9
05:30	0	12	0	1	1	0	0	0	0	0	0	0	0	0	0	14
05:45	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	8
	0	27	4	2	1	0	0	0	0	0	0	0	0	0	0	34
06:00	0	12	5	1	1	0	0	0	0	0	0	0	0	0	0	19
06:15	0	9	5	0	0	0	0	0	0	0	0	0	0	0	0	14
06:30	1	28	3	1	0	0	0	0	0	0	0	0	0	0	0	33
06:45	0	30	7	0	0	1	0	0	0	0	0	0	0	0	0	38
	1	79	20	2	1	1	0	0	0	0	0	0	0	0	0	104
07:00	1	38	8	0	0	0	0	0	0	0	0	0	0	0	0	47
07:15	0	50	7	0	0	1	0	0	0	0	0	0	0	0	0	58
07:30	0	36	5	2	1	0	0	0	0	0	0	0	0	0	0	44
07:45	0	46	4	1	0	0	0	0	1	1	0	0	0	0	0	53
	1	170	24	3	1	1	0	0	1	1	0	0	0	0	0	202
08:00	1	59	9	0	1	0	0	1	0	0	0	0	0	0	0	71
08:15	1	38	6	1	0	0	0	0	0	0	0	0	0	0	0	46
08:30	0	32	2	0	0	0	0	0	0	0	0	0	0	0	0	34
08:45	0	28	6	0	1	0	0	0	0	0	0	0	0	0	0	35
	2	157	23	1	2	0	0	1	0	0	0	0	0	0	0	186
09:00	0	20	1	0	0	0	0	0	0	0	0	0	0	0	0	21
09:15	0	18	4	0	0	0	0	0	0	0	0	0	0	0	0	22
09:30	0	24	2	0	0	0	0	0	0	0	0	0	0	0	0	26
09:45	0	7	5	0	0	0	0	0	0	0	0	0	0	0	0	12
	0	69	12	0	0	0	0	0	0	0	0	0	0	0	0	81
10:00	0	18	2	0	0	0	0	0	0	0	0	0	0	0	0	20
10:15	0	21	5	0	0	0	0	0	0	0	0	0	0	0	0	26
10:30	0	18	6	0	1	0	0	1	0	0	0	0	0	0	0	26
10:45	0	11	3	0	1	1	0	2	0	0	0	0	0	0	0	18
	0	68	16	0	2	1	0	3	0	0	0	0	0	0	0	90
11:00	0	16	4	0	1	0	0	0	0	0	0	0	0	0	0	21
11:15	0	17	4	0	2	0	0	0	0	0	0	0	0	0	0	23
11:30	1	13	4	0	0	0	0	0	0	0	0	0	0	0	0	18
11:45	0	19	5	0	1	0	0	0	0	0	0	0	0	0	0	25
	1	65	17	0	4	0	0	0	0	0	0	0	0	0	0	87
Total	5	653	119	8	11	3	0	4	1	1	0	0	0	0	0	805
Percent	0.6%	81.1%	14.8%	1.0%	1.4%	0.4%	0.0%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS

Northbound

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Total
12 PM	0	15	1	0	1	0	0	0	0	0	0	0	0	0	0	17
12:15	0	13	3	0	0	0	0	0	0	0	0	0	0	0	0	16
12:30	0	16	3	0	2	0	0	1	0	0	0	0	0	0	0	22
12:45	0	16	11	0	1	0	0	0	0	0	0	0	0	0	0	28
	0	60	18	0	4	0	0	1	0	0	0	0	0	0	0	83
13:00	0	33	4	1	2	0	0	0	0	0	0	0	0	0	0	40
13:15	0	23	3	1	2	0	0	1	0	0	0	0	0	0	0	30
13:30	0	17	4	0	0	0	0	0	0	0	0	0	0	0	0	21
13:45	0	26	3	2	0	1	0	0	0	0	0	0	0	0	0	32
	0	99	14	4	4	1	0	1	0	0	0	0	0	0	0	123
14:00	0	19	3	0	3	0	0	0	0	0	0	0	0	0	0	25
14:15	0	9	7	0	1	0	0	0	0	0	0	0	0	0	0	17
14:30	0	14	4	1	0	0	0	0	0	0	0	0	0	0	0	19
14:45	2	13	3	0	0	0	0	0	0	0	0	0	0	0	0	18
	2	55	17	1	4	0	0	0	0	0	0	0	0	0	0	79
15:00	0	16	5	1	1	0	0	0	0	0	0	0	0	0	0	23
15:15	0	21	7	0	0	0	0	0	0	0	0	0	0	0	0	28
15:30	0	26	5	0	2	0	0	0	0	0	0	0	0	0	0	33
15:45	0	17	4	1	0	0	0	1	0	0	0	0	0	0	0	23
	0	80	21	2	3	0	0	1	0	0	0	0	0	0	0	107
16:00	0	19	0	0	2	0	0	0	0	0	0	0	0	0	0	21
16:15	0	12	5	0	0	0	0	0	0	0	0	0	0	0	0	17
16:30	0	22	3	0	1	0	0	1	0	0	0	0	0	0	0	27
16:45	0	8	5	0	1	0	0	0	0	0	0	0	0	0	0	14
	0	61	13	0	4	0	0	1	0	0	0	0	0	0	0	79
17:00	0	14	3	0	0	0	0	0	0	0	0	0	0	0	0	17
17:15	0	25	2	1	1	0	0	0	0	0	0	0	0	0	0	29
17:30	0	23	2	0	0	0	0	0	0	0	0	0	0	0	0	25
17:45	0	27	6	0	0	0	0	0	0	1	0	0	0	0	0	34
	0	89	13	1	1	0	0	0	0	1	0	0	0	0	0	105
18:00	0	30	5	0	0	0	0	2	0	0	0	0	0	0	0	37
18:15	1	31	8	0	0	0	1	0	0	0	0	0	0	0	0	41
18:30	0	15	4	0	1	0	0	0	0	0	0	0	0	0	0	20
18:45	1	11	1	0	0	0	0	0	0	0	0	0	0	0	0	13
	2	87	18	0	1	0	1	2	0	0	0	0	0	0	0	111
19:00	1	9	4	0	0	0	0	0	0	0	0	0	0	0	0	14
19:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
19:30	0	9	2	0	0	0	0	0	0	0	0	0	0	0	0	11
19:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	1	22	6	0	0	0	0	0	0	0	0	0	0	0	0	29
20:00	0	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9
20:15	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4
20:30	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
20:45	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
	0	15	8	0	0	0	0	0	0	0	0	0	0	0	0	23
21:00	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	10
21:15	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
21:30	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
21:45	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
	1	23	2	0	0	0	0	0	0	0	0	0	0	0	0	26
22:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
22:15	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
22:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
22:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
	0	5	2	0	0	0	0	1	0	0	0	0	0	0	0	8
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
23:15	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
23:30	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	6	605	133	8	21	1	1	7	0	1	0	0	0	0	0	783
Percent	0.8%	77.3%	17.0%	1.0%	2.7%	0.1%	0.1%	0.9%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grand Total	21	2491	486	32	63	14	1	24	3	2	0	0	0	0	0	3137
Percent	0.7%	79.4%	15.5%	1.0%	2.0%	0.4%	0.0%	0.8%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Daily AVG		1499		16		55										1568
		95.6%		1.0%		3.4%										

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS

Southbound

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Total
3/1/11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
00:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
05:30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
05:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	5
06:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:15	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
06:30	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	4
06:45	0	2	2	0	0	0	0	1	0	0	0	0	0	0	0	5
	1	7	2	2	0	0	0	2	0	0	0	0	0	0	0	14
07:00	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
07:15	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
07:30	0	8	1	3	2	0	0	0	0	0	0	0	0	0	0	14
07:45	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	0	29	3	3	2	0	0	0	0	0	0	0	0	0	0	37
08:00	0	13	2	0	1	0	0	0	0	0	0	0	0	0	0	16
08:15	0	20	1	1	2	0	0	1	0	0	0	0	0	0	0	25
08:30	0	8	4	0	0	0	0	0	0	0	0	0	0	0	0	12
08:45	0	7	3	0	0	1	0	0	0	0	0	0	0	0	0	11
	0	48	10	1	3	1	0	1	0	0	0	0	0	0	0	64
09:00	0	17	5	0	0	0	0	0	0	0	0	0	0	0	0	22
09:15	0	13	3	0	0	0	0	0	0	0	0	0	0	0	0	16
09:30	0	9	3	0	1	0	0	0	1	0	0	0	0	0	0	14
09:45	0	10	5	0	0	1	1	0	0	0	0	0	0	0	0	17
	0	49	16	0	1	1	1	0	1	0	0	0	0	0	0	69
10:00	0	9	2	0	1	0	0	1	0	0	0	0	0	0	0	13
10:15	0	9	1	0	0	0	0	1	0	0	0	0	0	0	0	11
10:30	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
10:45	0	9	8	0	1	0	0	1	0	0	0	0	0	0	0	19
	0	39	11	0	2	0	0	3	0	0	0	0	0	0	0	55
11:00	0	8	5	0	0	0	0	0	0	0	0	0	0	0	0	13
11:15	0	13	2	0	1	0	0	0	0	0	0	0	0	0	0	16
11:30	0	17	6	0	2	0	0	0	0	0	0	0	0	0	0	25
11:45	0	9	3	0	0	0	0	0	0	0	0	0	0	0	0	12
	0	47	16	0	3	0	0	0	0	0	0	0	0	0	0	66
Total	1	231	58	8	11	2	1	6	1	0	0	0	0	0	0	319
Percent	0.3%	72.4%	18.2%	2.5%	3.4%	0.6%	0.3%	1.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS

Southbound

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Total
12 PM	0	17	5	0	1	0	0	0	0	0	0	0	0	0	0	23
12:15	1	17	3	0	0	0	0	0	0	0	0	0	0	0	0	21
12:30	1	16	1	0	0	0	0	1	0	0	0	0	0	0	0	19
12:45	0	15	4	0	0	0	0	1	0	0	0	0	0	0	0	20
	2	65	13	0	1	0	0	2	0	0	0	0	0	0	0	83
13:00	0	18	5	0	0	0	0	1	0	0	0	0	0	0	0	24
13:15	0	13	1	0	0	0	0	0	0	0	0	0	0	0	0	14
13:30	0	18	5	0	1	0	0	0	0	0	0	0	0	0	0	24
13:45	0	14	7	0	1	0	0	0	0	0	0	0	0	0	0	22
	0	63	18	0	2	0	0	1	0	0	0	0	0	0	0	84
14:00	0	16	2	1	0	0	0	1	0	0	0	0	0	0	0	20
14:15	0	13	1	0	0	0	0	0	0	0	0	0	0	0	0	14
14:30	0	15	2	0	1	0	0	0	0	0	0	0	0	0	0	18
14:45	0	18	5	1	0	0	0	1	0	0	0	0	0	0	0	25
	0	62	10	2	1	0	0	2	0	0	0	0	0	0	0	77
15:00	0	33	4	2	2	0	0	1	0	0	0	0	0	0	0	42
15:15	0	33	5	1	1	0	0	1	0	0	0	0	0	0	0	41
15:30	0	19	8	0	0	0	1	0	0	0	0	0	0	0	0	28
15:45	1	25	3	1	0	0	0	1	0	0	0	0	0	0	0	31
	1	110	20	4	3	0	1	3	0	0	0	0	0	0	0	142
16:00	0	33	8	0	2	0	0	0	0	0	0	0	0	0	0	43
16:15	0	32	5	2	0	0	0	0	0	0	0	0	0	0	0	39
16:30	0	27	12	0	2	0	0	0	0	0	0	0	0	0	0	41
16:45	1	33	2	0	0	0	1	0	0	0	0	0	0	0	0	37
	1	125	27	2	4	0	1	0	0	0	0	0	0	0	0	160
17:00	0	33	4	0	2	0	0	1	0	0	0	0	0	0	0	40
17:15	0	42	4	0	0	0	0	1	0	0	0	0	0	0	0	47
17:30	0	53	4	0	1	0	0	1	0	0	0	0	0	0	0	59
17:45	0	53	5	0	1	0	0	0	0	0	0	0	0	0	0	59
	0	181	17	0	4	0	0	3	0	0	0	0	0	0	0	205
18:00	0	38	9	0	0	0	0	0	0	0	0	0	0	0	0	47
18:15	0	23	8	0	0	0	0	0	0	0	0	0	0	0	0	31
18:30	0	30	5	0	0	0	0	0	0	0	0	0	0	0	0	35
18:45	0	34	4	0	0	0	0	0	0	0	0	0	0	0	0	38
	0	125	26	0	0	0	0	0	0	0	0	0	0	0	0	151
19:00	1	27	7	0	0	0	0	0	0	0	0	0	0	0	0	35
19:15	0	20	2	0	0	0	0	0	0	0	0	0	0	0	0	22
19:30	0	25	3	0	0	0	0	0	0	0	0	0	0	0	0	28
19:45	0	25	4	0	0	0	0	0	0	0	0	0	0	0	0	29
	1	97	16	0	0	0	0	0	0	0	0	0	0	0	0	114
20:00	0	21	2	0	0	0	0	0	0	0	0	0	0	0	0	23
20:15	1	16	3	0	0	0	0	0	0	0	0	0	0	0	0	20
20:30	1	13	3	0	1	0	0	0	0	0	0	0	0	0	0	18
20:45	0	15	8	0	0	0	0	0	0	0	0	0	0	0	0	23
	2	65	16	0	1	0	0	0	0	0	0	0	0	0	0	84
21:00	0	10	2	0	0	0	0	0	0	0	0	0	0	0	0	12
21:15	0	20	2	0	0	0	0	0	0	0	0	0	0	0	0	22
21:30	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
21:45	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	0	46	4	0	0	0	0	0	0	0	0	0	0	0	0	50
22:00	0	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9
22:15	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	9
22:30	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
22:45	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
	0	27	6	0	0	0	0	0	0	0	0	0	0	0	0	33
23:00	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
23:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
23:30	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
23:45	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
	0	21	1	0	0	0	0	0	0	0	0	0	0	0	0	22
Total	7	987	174	8	16	0	2	11	0	0	0	0	0	0	0	1205
Percent	0.6%	81.9%	14.4%	0.7%	1.3%	0.0%	0.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS

Southbound

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Total
3/2/11	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
00:15	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
00:30	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	9	1	0	0	1	0	0	0	0	0	0	0	0	0	11
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	4
05:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	6
06:00	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3
06:15	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
06:30	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	6
06:45	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
	1	10	3	2	0	0	0	0	0	0	0	0	0	0	0	16
07:00	0	3	2	0	0	0	1	0	0	0	0	0	0	0	0	6
07:15	0	3	1	1	1	0	0	0	0	0	0	0	0	0	0	6
07:30	0	5	0	2	0	0	1	0	0	0	0	0	0	0	0	8
07:45	0	9	2	0	0	0	0	1	0	0	0	0	0	0	0	12
	0	20	5	3	1	0	2	1	0	0	0	0	0	0	0	32
08:00	0	17	0	0	1	0	0	1	0	0	0	0	0	0	0	19
08:15	0	25	2	0	1	0	0	0	0	0	0	0	0	0	0	28
08:30	0	11	2	0	1	0	0	0	0	0	0	0	0	0	0	14
08:45	0	14	5	0	0	0	0	0	0	0	0	0	0	0	0	19
	0	67	9	0	3	0	0	1	0	0	0	0	0	0	0	80
09:00	0	17	6	0	1	0	0	0	0	0	0	0	0	0	0	24
09:15	0	13	1	0	1	1	0	0	0	0	0	0	0	0	0	16
09:30	0	15	4	0	1	0	0	0	0	0	0	0	0	0	0	20
09:45	0	8	3	0	1	0	0	0	0	0	0	0	0	0	0	12
	0	53	14	0	4	1	0	0	0	0	0	0	0	0	0	72
10:00	0	11	5	0	1	0	0	0	0	0	0	0	0	0	0	17
10:15	0	5	2	0	1	0	0	1	0	0	0	0	0	0	0	9
10:30	0	11	5	0	0	0	0	1	0	0	0	0	0	0	0	17
10:45	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0	10
	0	33	16	0	2	0	0	2	0	0	0	0	0	0	0	53
11:00	0	9	1	0	0	0	1	0	0	0	0	0	0	0	0	11
11:15	0	14	7	0	0	0	0	0	0	0	0	0	0	0	0	21
11:30	0	18	5	0	0	0	0	0	0	0	0	0	0	0	0	23
11:45	0	22	3	0	0	1	0	0	0	0	0	0	0	0	0	26
	0	63	16	0	0	1	1	0	0	0	0	0	0	0	0	81
Total	1	262	64	7	10	3	3	4	0	0	0	0	0	0	0	354
Percent	0.3%	74.0%	18.1%	2.0%	2.8%	0.8%	0.8%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Ft Hamer Rd
Between Mulholland And Old Tampa

Site Code: 000000000025
Station ID: 000000000025
Latitude: 27' 32.485 North
Longitude: 82' 25.525 West
RYE RD 01_CLASS

Southbound

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Total
12 PM	0	18	3	0	0	0	0	2	0	0	0	0	0	0	0	23
12:15	1	18	2	0	2	0	0	0	0	0	0	0	0	0	0	23
12:30	0	15	10	0	1	0	0	0	0	0	0	0	0	0	0	26
12:45	0	17	3	0	0	0	0	0	0	0	0	0	0	0	0	20
	1	68	18	0	3	0	0	2	0	0	0	0	0	0	0	92
13:00	0	15	3	2	2	0	0	0	0	0	0	0	0	0	0	22
13:15	0	39	8	0	1	0	0	0	0	0	0	0	0	0	0	48
13:30	0	27	3	1	1	0	0	0	0	0	0	0	0	0	0	32
13:45	2	22	6	1	1	1	0	0	0	0	0	0	0	0	0	33
	2	103	20	4	5	1	0	0	0	0	0	0	0	0	0	135
14:00	0	22	7	0	1	0	0	1	0	0	0	0	0	0	0	31
14:15	0	19	6	1	2	0	0	0	0	0	0	0	0	0	0	28
14:30	0	24	7	0	0	0	0	0	0	0	0	0	0	0	0	31
14:45	0	17	7	1	1	0	0	0	0	0	0	0	0	0	0	26
	0	82	27	2	4	0	0	1	0	0	0	0	0	0	0	116
15:00	0	24	3	0	0	0	0	0	0	0	0	0	0	0	0	27
15:15	0	31	5	0	1	0	1	0	0	0	0	0	0	0	0	38
15:30	0	30	10	0	1	1	0	2	0	0	0	0	0	0	0	44
15:45	1	27	2	1	0	0	0	1	0	0	0	0	0	0	0	32
	1	112	20	1	2	1	1	3	0	0	0	0	0	0	0	141
16:00	0	26	6	0	0	0	1	1	0	0	0	0	0	0	0	34
16:15	0	23	3	0	1	0	0	0	0	0	0	0	0	0	0	27
16:30	1	30	4	0	0	0	0	0	0	0	0	0	0	0	0	35
16:45	1	39	10	0	1	1	0	0	0	0	0	0	0	0	0	52
	2	118	23	0	2	1	1	1	0	0	0	0	0	0	0	148
17:00	0	25	6	1	1	0	0	1	0	0	0	0	0	0	0	34
17:15	0	51	5	0	0	0	1	0	0	0	0	0	0	0	0	57
17:30	1	34	5	0	0	0	0	0	0	0	0	0	0	0	0	40
17:45	0	35	6	0	0	0	0	1	0	0	0	0	0	0	0	42
	1	145	22	1	1	0	1	2	0	0	0	0	0	0	0	173
18:00	0	30	10	0	0	0	0	0	0	0	0	0	0	0	0	40
18:15	0	33	4	0	1	0	0	0	0	0	0	0	0	0	0	38
18:30	0	21	5	0	0	0	0	1	0	0	0	0	0	0	0	27
18:45	0	27	4	0	0	0	0	0	0	0	0	0	0	0	0	31
	0	111	23	0	1	0	0	1	0	0	0	0	0	0	0	136
19:00	1	30	7	0	0	0	0	0	0	0	0	0	0	0	0	38
19:15	0	25	1	0	0	0	0	0	0	0	0	0	0	0	0	26
19:30	0	17	1	0	0	0	0	0	0	0	0	0	0	0	0	18
19:45	0	19	4	0	0	0	0	0	0	0	0	0	0	0	0	23
	1	91	13	0	0	0	0	0	0	0	0	0	0	0	0	105
20:00	0	19	5	0	0	0	0	0	0	0	0	0	0	0	0	24
20:15	0	16	4	0	0	0	0	0	0	0	0	0	0	0	0	20
20:30	0	19	4	0	0	0	0	0	0	0	0	0	0	0	0	23
20:45	0	24	5	0	0	0	0	0	0	0	0	0	0	0	0	29
	0	78	18	0	0	0	0	0	0	0	0	0	0	0	0	96
21:00	0	11	2	0	0	0	0	0	0	0	0	0	0	0	0	13
21:15	0	17	4	0	0	0	0	0	0	0	0	0	0	0	0	21
21:30	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
21:45	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	10
	0	46	7	0	0	0	0	0	0	0	0	0	0	0	0	53
22:00	1	16	1	0	0	0	0	0	0	0	0	0	0	0	0	18
22:15	1	10	0	0	0	0	0	0	0	0	0	0	0	0	0	11
22:30	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
22:45	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	2	35	1	0	0	0	0	0	0	0	0	0	0	0	0	38
23:00	1	8	1	0	0	0	0	0	0	0	0	0	0	0	0	10
23:15	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
23:30	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
23:45	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	1	22	2	0	0	0	0	0	0	0	0	0	0	0	0	25
Total	11	1011	194	8	18	3	3	10	0	0	0	0	0	0	0	1258
Percent	0.9%	80.4%	15.4%	0.6%	1.4%	0.2%	0.2%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grand Total	20	2491	490	31	55	8	9	31	1	0	0	0	0	0	0	3136
Percent	0.6%	79.4%	15.6%	1.0%	1.8%	0.3%	0.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Daily Avg		1,500		16			53									1568
		95.7		1.0			3.3%									

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between UMMR & Waterline Rd

Site Code: 000000000056
Station ID: 000000000006
Latitude: 27' 29.986 North
Longitude: 82' 22.883 West
RYE RD 04_SPEED_VOL

Start Time	01-Mar-11 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	19			1	20				
12:15		1	25			1	21				
12:30		2	14			1	18				
12:45		4	21	8	79	0	23	3	82	11	161
01:00		1	20			2	15				
01:15		0	17			0	14				
01:30		0	14			1	25				
01:45		0	16	1	67	0	25	3	79	4	146
02:00		0	16			1	25				
02:15		0	22			0	33				
02:30		1	27			2	22				
02:45		0	22	1	87	0	25	3	105	4	192
03:00		1	36			0	27				
03:15		1	39			1	20				
03:30		0	26			1	33				
03:45		1	29	3	130	0	23	2	103	5	233
04:00		0	38			2	21				
04:15		0	60			2	26				
04:30		0	30			2	28				
04:45		0	39	0	167	4	29	10	104	10	271
05:00		0	50		179	1	22		105		284
05:15		1	46			3	15				
05:30		1	52			9	21				
05:45		2	42	4	190	8	15	21	73	25	263
06:00		1	45			15	25				
06:15		7	34			24	23				
06:30		3	40			25	21				
06:45		7	22	18	141	38	19	102	88	120	229
07:00		10	25			52	14				
07:15		15	14			73	13				
07:30		26	18			50	10				
07:45		17	20	68	77	70	3	245	40	313	117
08:00		23	19			61	9				
08:15		23	19	89		73	8	254		343	
08:30		17	16			35	7				
08:45		23	21	86	75	18	1	187	25	273	100
09:00		19	19			22	8				
09:15		18	14			24	3				
09:30		14	7			24	0				
09:45		14	14	65	54	23	5	93	16	158	70
10:00		13	10			22	5				
10:15		18	14			18	0				
10:30		15	3			12	4				
10:45		12	3	58	30	14	2	66	11	124	41
11:00		26	2			12	2				
11:15		10	0			17	0				
11:30		14	1			20	1				
11:45		15	2	65	5	18	0	67	3	132	8
Total		377	1102			802	729			1179	1831
Percent		25.5%	74.5%			52.4%	47.6%			39.2%	60.8%

4:15
5:15

7:30
8:30 Am

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between UMMR & Waterline Rd

Site Code: 000000000056
Station ID: 000000000006
Latitude: 27' 29.986 North
Longitude: 82' 22.883 West
RYE RD 04_SPEED_VOL

Start Time	02-Mar-11 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	19			0	21				
12:15		4	21			1	26				
12:30		0	18			1	27				
12:45		1	25	7	83	1	27	3	101	10	184
01:00		0	28			0	28				
01:15		1	34			0	33				
01:30		0	25			0	27				
01:45		0	27	1	114	0	20	0	108	1	222
02:00		0	26			0	15				
02:15		0	23			0	26				
02:30		0	29			0	20				
02:45		0	40	0	118	1	25	1	86	1	204
03:00		0	22			1	24				
03:15		1	34			1	20				
03:30		4	29			0	18				
03:45		0	36	5	121	1	20	3	82	8	203
04:00		1	41			2	19				
04:15		0	33			2	23				
04:30		0	33			2	24				
04:45		0	41	1	148	6	22	12	88	13	236
05:00		0	47			2	16				
05:15		2	52			5	44				
05:30		1	52			5	25				
05:45		2	38	5	189	7	30	19	115	24	304
06:00		2	35			15	36				
06:15		6	42			32	29				
06:30		7	31			31	18				
06:45		8	26	23	134	31	21	109	104	132	238
07:00		9	17			50	7				
07:15		19	20			68	7				
07:30		15	24			45	8				
07:45		23	16	66	77	72	7	235	29	301	106
08:00		30	20			71	8				
08:15		31	35	99		63	12	251		850	
08:30		30	24			30	6				
08:45		32	28	123	107	29	4	193	30	316	137
09:00		16	24			29	5				
09:15		29	13			27	3				
09:30		18	10			23	3				
09:45		23	7	86	54	26	6	105	17	191	71
10:00		11	4			21	2				
10:15		12	9			15	4				
10:30		26	3			21	1				
10:45		11	2	60	18	22	2	79	9	139	27
11:00		14	3			12	1				
11:15		19	4			26	0				
11:30		17	1			27	2				
11:45		9	3	59	11	18	2	83	5	142	16
Total		436	1174			842	774			1278	1948
Percent		27.1%	72.9%			52.1%	47.9%			39.6%	60.4%
Grand Total		813	2276			1644	1503			2457	3779
Percent		26.3%	73.7%			52.2%	47.8%			39.4%	60.6%

ADT ADT 3,118 AADT 3,118

SF 0.87

AADT = 2713

Avg P-to-D = .102

Am (avg + SF)
NB = 82
SB = 220
302

Pm (avg + SF)
NB = 160
SB = 96
256

P-to-D .111 .094

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between Rutland Rd & Golf Course Rd

Site Code: 000000000015
Station ID: 000000000055
Latitude: 27' 33.382 North
Longitude: 82' 22.118 West
RYE RD 02

Start Time	01-Mar-11 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	6			0	18				
12:15		1	17			1	7				
12:30		1	12			1	13				
12:45		0	8	2	43	1	14	3	52	5	95
01:00		0	10			0	7				
01:15		0	11			0	11				
01:30		0	10			0	16				
01:45		1	13	1	44	0	16	0	50	1	94
02:00		0	4			0	15				
02:15		0	16			0	12				
02:30		1	13			0	13				
02:45		0	21	1	54	0	11	0	51	1	105
03:00		0	16			0	7				
03:15		0	27			0	15				
03:30		0	17			0	18				
03:45		0	15	0	75	1	23	1	63	1	138
04:00		1	30			0	12				
04:15		0	22			2	14				
04:30		2	19			2	19				
04:45		0	14	3	85	2	16	6	61	9	146
05:00		0	19			1	13				
05:15		0	27			2	24				
05:30		4	28			4	10				
05:45		5	18	9	92	8	13	15	60	24	152
06:00		2	27		100	10	14		61		161
06:15		5	18			12	9				
06:30		5	16			18	14				
06:45		12	12	24	73	16	16	56	53	80	126
07:00		11	14			28	10				
07:15		12	7			19	5				
07:30		17	7			30	3				
07:45		14	16	54	44	37	3	114	21	168	65
08:00		12	9			29	3				
08:15		23	15	66		26	5	122		188	
08:30		15	5			13	5				
08:45		12	10	62	39	10	4	78	17	140	56
09:00		14	9			16	3				
09:15		19	7			14	0				
09:30		17	6			10	1				
09:45		13	2	63	24	12	2	52	6	115	30
10:00		11	5			17	0				
10:15		7	1			10	0				
10:30		11	0			9	2				
10:45		3	2	32	8	8	1	44	3	76	11
11:00		11	3			12	0				
11:15		17	0			12	2				
11:30		7	0			9	1				
11:45		16	0	51	3	4	0	37	3	88	6
Total		302	584			406	440			708	1024
Percent		34.1%	65.9%			48.0%	52.0%			40.9%	59.1%

5:15
6:15

7:30
8:30

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between Rutland Rd & Golf Course Rd

Site Code: 000000000015
Station ID: 000000000055
Latitude: 27' 33.382 North
Longitude: 82' 22.118 West
RYE RD 02

Start Time	02-Mar-11 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	8			1	8				
12:15		1	8			1	17				
12:30		2	14			0	19				
12:45		0	10	8	40	0	14	2	58	10	98
01:00		0	10			0	13				
01:15		0	15			0	14				
01:30		1	16			0	10				
01:45		0	21	1	62	0	7	0	44	1	106
02:00		0	16			0	10				
02:15		0	15			0	7				
02:30		0	16			0	6				
02:45		1	14	1	61	1	15	1	38	2	99
03:00		0	17			0	13				
03:15		0	18			1	9				
03:30		0	16			0	11				
03:45		0	20	0	71	1	15	2	48	2	119
04:00		1	22			1	16				
04:15		0	24			1	13				
04:30		0	27			1	13				
04:45		0	18	1	91	3	4	6	46	7	137
05:00		0	25			1	13				
05:15		2	36			2	23				
05:30		5	28			4	23				
05:45		3	27	10	116	3	22	10	81	20	197
06:00		2	19			11	17				
06:15		7	23			19	19				
06:30		7	20			19	9				
06:45		8	15	24	77	19	8	68	53	92	130
07:00		10	9			36	5				
07:15		15	8			27	10				
07:30		19	8			21	9				
07:45		13	8	57	33	34	6	118	30	175	63
08:00		14	10			29	10				
08:15		18	12			21	5				
08:30		18	9			13	6				
08:45		15	12	65	43	10	5	73	26	138	69
09:00		9	10			15	1				
09:15		13	5			17	4				
09:30		16	4			21	0				
09:45		19	5	57	24	10	2	63	7	120	31
10:00		11	5			13	1				
10:15		4	1			5	2				
10:30		19	2			5	0				
10:45		14	0	48	8	12	0	35	3	83	11
11:00		12	1			11	0				
11:15		9	1			12	2				
11:30		10	0			11	0				
11:45		4	1	35	3	7	0	41	2	76	5
Total		307	629			419	436			726	1065
Percent		32.8%	67.2%			49.0%	51.0%			40.5%	59.5%
Grand Total		609	1213			825	876			1434	2089
Percent		33.4%	66.6%			48.5%	51.5%			40.7%	59.3%

500
600

700
800

ADT ADT 1,762 AADT 1,762

SF = .87
AADT = 1533
Avg P-to-D = .102

AM (Avg+Adj)
NB = 53
SB = 104
157

PM (Avg/Adj)
NB = 94
SB = 62
156

P-to-D .102 .102

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between Golf Course Rd and UMMR

Site Code: 000000000003
Station ID: 000000000003
Latitude: 27' 30.953 North
Longitude: 82' 21.974 West
RYE RD 03

Start Time	01-Mar-11 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	17			0	23				
12:15		1	23			2	21				
12:30		2	15			0	25				
12:45		0	19	4	74	2	23	4	92	8	166
01:00		0	24			1	19				
01:15		0	18			0	24				
01:30		0	20			0	24				
01:45		1	18	1	80	0	24	1	91	2	171
02:00		1	23			0	26				
02:15		0	21			0	32				
02:30		1	37			1	19				
02:45		0	30	2	111	0	34	1	111	3	222
03:00		0	30			0	23				
03:15		0	40			1	26				
03:30		0	34			1	33				
03:45		0	37	0	141	0	26	2	108	2	249
04:00		0	34			1	19				
04:15		0	51			2	29				
04:30		1	33			4	21				
04:45		0	38	1	156	3	33	10	102	11	258
05:00		0	42			2	18				
05:15		1	52			1	26				
05:30		3	49			8	23				
05:45		3	39	7	182	8	17	19	84	26	266
06:00		1	49		189	15	28		94		283
06:15		4	35			22	20				
06:30		5	32			28	18				
06:45		11	28	21	144	32	17	97	83	118	227
07:00		12	25			52	17				
07:15		17	14			60	14				
07:30		24	14			53	4				
07:45		23	18	76	71	67	3	232	38	308	109
08:00		26	20			62	4				
08:15		21	18	94		55	7	237		331	
08:30		19	14			29	9				
08:45		27	21	93	73	20	5	166	25	259	98
09:00		25	16			31	3				
09:15		25	17			28	4				
09:30		17	7			29	1				
09:45		19	11	86	51	21	4	109	12	195	63
10:00		18	8			26	4				
10:15		13	6			21	0				
10:30		17	3			17	4				
10:45		10	3	58	20	14	2	78	10	136	30
11:00		29	3			14	1				
11:15		12	0			18	2				
11:30		25	1			22	2				
11:45		21	0	87	4	15	0	69	5	156	9
Total		436	1107			788	761			1224	1868
Percent		28.3%	71.7%			50.9%	49.1%			39.6%	60.4%

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between Golf Course Rd and UMMR

Site Code: 000000000003
Station ID: 000000000003
Latitude: 27' 30.953 North
Longitude: 82' 21.974 West
RYE RD 03

Start Time	02-Mar-11 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	21			0	23				
12:15		2	20			1	23				
12:30		2	22			1	22				
12:45		1	27	6	90	0	25	2	93	8	183
01:00		0	27			0	23				
01:15		1	32			0	31				
01:30		0	25			0	29				
01:45		0	32	1	116	0	20	0	103	1	219
02:00		0	29			0	16				
02:15		0	29			0	25				
02:30		0	35			0	23				
02:45		0	37	0	130	1	25	1	89	1	219
03:00		0	25			1	27				
03:15		0	29			1	23				
03:30		1	32			0	21				
03:45		1	33	2	119	0	21	2	92	4	211
04:00		1	46			2	24				
04:15		0	34			1	22				
04:30		0	37			2	21				
04:45		0	42	1	159	6	19	11	86	12	245
05:00		1	50			3	27				
05:15		2	60			3	35				
05:30		4	48			5	26				
05:45		2	42	9	200	5	25	16	113	25	313
06:00		1	45			15	33				
06:15		6	28			28	32				
06:30		6	37			32	19				
06:45		8	26	21	136	33	15	108	99	129	235
07:00		9	15			61	7				
07:15		18	21			57	7				
07:30		16	22			44	8				
07:45		28	17	71	75	69	12	231	34	302	109
08:00		25	17			63	13				
08:15		26	29	95		50	9	226		321	
08:30		31	22			34	9				
08:45		28	27	110	95	27	5	174	36	284	131
09:00		24	21			30	6				
09:15		27	13			23	4				
09:30		27	10			29	3				
09:45		22	6	100	50	18	4	100	17	200	67
10:00		19	5			26	1				
10:15		17	7			13	2				
10:30		23	5			33	0				
10:45		27	1	86	18	14	2	86	5	172	23
11:00		25	2			13	0				
11:15		19	2			31	0				
11:30		15	0			23	2				
11:45		9	1	68	5	23	0	90	2	158	7
Total		475	1193			821	769			1296	1962
Percent		28.5%	71.5%			51.6%	48.4%			39.8%	60.2%
Grand Total		911	2300			1609	1530			2520	3830
Percent		28.4%	71.6%			51.3%	48.7%			39.7%	60.3%

5:00
6:00

ADT ADT 3,175 AADT 3,175

SF = .87
AADT = 2762
Avg P-to-D = 0.098

Am (Avg + Adj)
NB = 82
SB = 201
283

Pm (Avg + Adj)
NB = 169
SB = 90
259

P-to-D .102 .094

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between Waterline & SR 64

Site Code: 000000000020
Station ID: 000000000002
Latitude: 27' 28.957 North
Longitude: 82' 24.261 West
RYE RD 05

Start Time	01-Mar-11 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	43			2	31				
12:15		1	40			2	36				
12:30		1	35			0	40				
12:45		3	43	8	161	0	43	4	150	12	311
01:00		1	32			1	35				
01:15		1	48			1	36				
01:30		1	40			1	33				
01:45		1	33	4	153	1	54	4	158	8	311
02:00		0	40			0	39				
02:15		0	49			0	45				
02:30		1	87			1	36				
02:45		0	72	1	248	3	43	4	163	5	411
03:00		0	70			1	63				
03:15		1	74			1	78				
03:30		0	61			3	64				
03:45		0	63	1	268	3	50	8	255	9	523
04:00		0	93			1	44				
04:15		1	88			7	47				
04:30		0	69			6	43				
04:45		0	80	1	330	8	49	22	183	23	513
05:00		2	80			8	54				
05:15		0	104			9	50				
05:30		4	89			16	60				
05:45		2	86	8	359	20	45	53	209	61	568
06:00		5	97		376	30	42		197		573
06:15		17	78			52	35				
06:30		10	78			62	39				
06:45		17	66	49	319	75	35	219	151	268	470
07:00		16	57			120	29				
07:15		78	35			165	24				
07:30		37	38			106	15				
07:45		50	48	181	178	124	8	515	76	696	254
08:00		109	35	274		165	16	560		834	
08:15		53	38			145	13				
08:30		24	44			87	13				
08:45		39	47	225	164	59	6	456	48	681	212
09:00		47	42			41	11				
09:15		28	21			41	9				
09:30		35	32			41	2				
09:45		19	18	129	113	47	9	170	31	299	144
10:00		24	25			42	6				
10:15		28	18			40	2				
10:30		28	6			39	4				
10:45		30	6	110	55	30	4	151	16	261	71
11:00		39	8			33	4				
11:15		28	3			39	2				
11:30		25	7			40	6				
11:45		28	5	120	23	39	0	151	12	271	35
Total		837	2371			1757	1452			2594	3823
Percent		26.1%	73.9%			54.8%	45.2%			40.4%	59.6%

5:15
6:15
7:15
8:15

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between Waterline & SR 64

Site Code: 000000000020
Station ID: 000000000002
Latitude: 27' 28.957 North
Longitude: 82' 24.261 West
RYE RD 05

Start Time	02-Mar-11 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	41			1	31				
12:15		5	43			1	47				
12:30		0	57			1	47				
12:45		2	93	11	234	0	43	3	168	14	402
01:00		2	84			1	39				
01:15		1	59			0	92				
01:30		0	41			0	72				
01:45		0	61	3	245	1	38	2	241	5	486
02:00		0	42			1	47				
02:15		0	59			0	52				
02:30		0	69			1	36				
02:45		0	63	0	233	1	44	3	179	3	412
03:00		0	62			1	52				
03:15		0	50			1	48				
03:30		2	53			1	42				
03:45		1	82	3	247	0	36	3	178	6	425
04:00		1	76			4	43				
04:15		2	66			5	52				
04:30		0	72			8	44				
04:45		0	77	3	291	10	46	27	185	30	476
05:00		1	105			8	52				
05:15		2	109			9	63				
5:15 05:30		3	104			14	50				
6:15 05:45		3	77	9	395	19	52	50	217	59	612
06:00		6	85		325	30	56		221		596
06:15		16	85			55	47				
06:30		13	52			58	38				
06:45		16	54	51	276	70	33	213	174	264	450
07:00		24	44			119	20				
07:15		50	59			154	13				
7:15 07:30		47	47			95	19				
8:15 07:45		55	34	176	184	138	9	506	61	682	245
08:00		70	43	222		145	12	532		754	
08:15		71	64			138	15				
08:30		42	74			67	10				
08:45		37	39	220	220	74	8	424	45	644	265
09:00		41	38			63	4				
09:15		47	24			60	8				
09:30		29	22			42	9				
09:45		34	21	151	105	41	7	206	28	357	133
10:00		16	14			45	6				
10:15		29	14			37	4				
10:30		36	9			35	1				
10:45		32	6	113	43	33	3	150	14	263	57
11:00		36	9			30	6				
11:15		35	7			45	3				
11:30		35	4			56	3				
11:45		37	5	143	25	45	1	176	13	319	38
Total		883	2498			1763	1503			2646	4001
Percent		26.1%	73.9%			54.0%	46.0%			39.8%	60.2%
Grand Total		1720	4869			3520	2955			5240	7824
Percent		26.1%	73.9%			54.4%	45.6%			40.1%	59.9%

ADT ADT 6,532 AADT 6,532

SF = .87
AADT = 5683
Avg P-to-D = .105

	AM (Avg + Adj)	PM (Avg + Adj)
NB =	215	327
SB =	475	182
	690	509
P-to-D	.121	.089

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between UMMR & Waterline Rd

Site Code: 000000000056
Station ID: 000000000006
Latitude: 27' 29.986 North
Longitude: 82' 22.883 West
RYE RD 04_SPEED

speeds

Northbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
3/1/11	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
00:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
00:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
00:45	0	0	0	0	0	1	0	0	2	1	0	0	0	0	0	4
	0	0	0	0	0	1	0	1	5	1	0	0	0	0	0	8
01:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	3
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
05:45	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	4
06:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
06:15	0	0	0	0	0	2	3	0	1	1	0	0	0	0	0	7
06:30	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	3
06:45	0	0	0	0	0	0	1	1	2	3	0	0	0	0	0	7
	0	0	0	0	0	2	4	4	3	5	0	0	0	0	0	18
07:00	0	0	0	0	0	0	1	6	2	1	0	0	0	0	0	10
07:15	0	0	0	0	0	0	2	6	2	5	0	0	0	0	0	15
07:30	1	0	0	0	1	12	6	5	1	0	0	0	0	0	0	26
07:45	0	0	0	0	1	7	6	2	0	1	0	0	0	0	0	17
	1	0	0	0	2	19	15	19	5	7	0	0	0	0	0	68
08:00	0	0	0	0	1	8	9	3	2	0	0	0	0	0	0	23
08:15	0	0	1	1	0	8	9	4	0	0	0	0	0	0	0	23
08:30	0	0	0	0	0	5	6	1	3	1	1	0	0	0	0	17
08:45	0	0	0	0	2	8	3	4	6	0	0	0	0	0	0	23
	0	0	1	1	3	29	27	12	11	1	1	0	0	0	0	86
09:00	0	1	0	0	0	1	6	5	2	4	0	0	0	0	0	19
09:15	0	0	0	0	0	0	3	3	8	3	1	0	0	0	0	18
09:30	0	0	0	0	1	0	2	3	5	3	0	0	0	0	0	14
09:45	0	0	0	0	0	0	6	3	2	3	0	0	0	0	0	14
	0	1	0	0	1	1	17	14	17	13	1	0	0	0	0	65
10:00	0	0	0	0	0	1	2	7	2	0	1	0	0	0	0	13
10:15	0	0	0	0	0	2	4	4	6	2	0	0	0	0	0	18
10:30	0	0	0	0	0	0	0	7	4	3	1	0	0	0	0	15
10:45	1	0	0	0	0	5	0	2	4	0	0	0	0	0	0	12
	1	0	0	0	0	8	6	20	16	5	2	0	0	0	0	58
11:00	0	0	0	1	0	2	6	6	5	4	1	1	0	0	0	26
11:15	0	0	0	0	0	1	0	4	2	1	2	0	0	0	0	10
11:30	0	0	0	0	0	0	0	4	7	3	0	0	0	0	0	14
11:45	0	0	0	0	0	0	6	2	7	0	0	0	0	0	0	15
	0	0	0	1	0	3	12	16	21	8	3	1	0	0	0	65
Total	2	1	1	2	6	63	85	86	80	43	7	1	0	0	0	377

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between UMMR & Waterline Rd

Site Code: 000000000056
Station ID: 000000000006
Latitude: 27' 29.986 North
Longitude: 82' 22.883 West
RYE RD 04_SPEED

Northbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
12 PM	0	0	1	0	0	0	4	5	7	2	0	0	0	0	0	19
12:15	0	0	0	0	0	1	9	5	7	3	0	0	0	0	0	25
12:30	0	0	0	0	0	1	0	6	6	0	1	0	0	0	0	14
12:45	0	0	0	0	0	1	4	6	7	2	1	0	0	0	0	21
	0	0	1	0	0	3	17	22	27	7	2	0	0	0	0	79
13:00	0	0	0	0	1	1	2	3	8	4	1	0	0	0	0	20
13:15	0	0	0	0	0	1	2	3	5	5	1	0	0	0	0	17
13:30	0	0	0	0	0	0	1	9	2	1	0	1	0	0	0	14
13:45	0	0	0	0	0	2	3	2	6	2	0	1	0	0	0	16
	0	0	0	0	1	4	8	17	21	12	2	2	0	0	0	67
14:00	0	1	0	0	0	3	2	1	7	2	0	0	0	0	0	16
14:15	0	0	0	0	1	0	2	7	9	2	1	0	0	0	0	22
14:30	0	0	0	0	0	6	5	10	5	1	0	0	0	0	0	27
14:45	0	0	0	0	0	0	14	6	1	0	0	1	0	0	0	22
	0	1	0	0	1	9	23	24	22	5	1	1	0	0	0	87
15:00	0	0	0	2	1	11	12	5	4	0	0	1	0	0	0	36
15:15	0	0	1	0	2	12	13	8	3	0	0	0	0	0	0	39
15:30	0	0	0	0	0	2	6	9	6	2	1	0	0	0	0	26
15:45	0	0	0	0	0	0	3	11	11	3	1	0	0	0	0	29
	0	0	1	2	3	25	34	33	24	5	2	1	0	0	0	130
16:00	0	0	0	0	0	3	7	16	4	7	1	0	0	0	0	38
16:15	0	0	0	0	0	0	8	18	17	16	1	0	0	0	0	60
16:30	0	0	0	0	0	1	3	4	15	6	1	0	0	0	0	30
16:45	0	0	0	0	0	0	4	11	15	9	0	0	0	0	0	39
	0	0	0	0	0	4	22	49	51	38	3	0	0	0	0	167
17:00	0	0	0	0	0	1	4	11	21	11	2	0	0	0	0	50
17:15	0	0	0	0	1	0	0	8	22	14	1	0	0	0	0	46
17:30	0	0	1	0	3	0	5	9	24	8	2	0	0	0	0	52
17:45	0	0	0	0	0	0	3	5	18	15	1	0	0	0	0	42
	0	0	1	0	4	1	12	33	85	48	6	0	0	0	0	190
18:00	0	0	0	0	0	0	0	15	16	13	1	0	0	0	0	45
18:15	0	0	0	0	0	1	1	16	11	4	1	0	0	0	0	34
18:30	0	0	0	0	0	0	3	7	20	8	1	0	0	1	0	40
18:45	0	0	0	0	0	0	0	7	8	6	1	0	0	0	0	22
	0	0	0	0	0	1	4	45	55	31	4	0	0	1	0	141
19:00	0	0	0	0	0	1	1	4	6	11	2	0	0	0	0	25
19:15	0	0	0	0	0	0	0	2	9	1	2	0	0	0	0	14
19:30	0	0	0	0	0	2	4	4	5	2	0	0	0	0	1	18
19:45	0	0	0	0	0	0	1	5	5	7	2	0	0	0	0	20
	0	0	0	0	0	3	6	15	25	21	6	0	0	0	1	77
20:00	0	0	0	0	0	1	0	4	7	5	1	1	0	0	0	19
20:15	0	0	0	0	0	2	0	2	7	5	3	0	0	0	0	19
20:30	0	0	0	0	0	0	0	5	5	5	0	0	1	0	0	16
20:45	0	0	0	0	0	0	5	3	10	2	0	1	0	0	0	21
	0	0	0	0	0	3	5	14	29	17	4	2	1	0	0	75
21:00	0	0	0	0	0	0	1	2	9	6	0	1	0	0	0	19
21:15	0	0	0	0	0	1	1	4	5	2	1	0	0	0	0	14
21:30	0	0	0	0	0	0	0	2	3	0	2	0	0	0	0	7
21:45	0	0	0	0	0	0	1	5	4	4	0	0	0	0	0	14
	0	0	0	0	0	1	3	13	21	12	3	1	0	0	0	54
22:00	0	0	0	0	0	0	1	2	5	1	0	0	0	0	1	10
22:15	0	0	0	0	0	0	1	1	5	3	2	1	0	0	1	14
22:30	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3
22:45	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3
	0	0	0	0	0	0	2	4	12	7	2	1	0	0	2	30
23:00	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
23:45	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	0	0	0	0	0	0	1	2	1	0	1	0	0	0	0	5
Total	0	1	3	2	9	54	137	271	373	203	36	8	1	1	3	1102

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between UMMR & Waterline Rd

Site Code: 000000000056
Station ID: 000000000006
Latitude: 27' 29.986 North
Longitude: 82' 22.883 West
RYE RD 04_SPEED

Northbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
3/2/11	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
00:15	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	4
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	0	0	0	0	0	0	0	2	1	4	0	0	0	0	0	7
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	3	1	0	0	0	0	0	0	5
04:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
05:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:45	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	5
06:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
06:15	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	6
06:30	0	0	0	1	0	1	1	1	2	0	1	0	0	0	0	7
06:45	0	0	0	0	0	1	1	0	2	3	1	0	0	0	0	8
	0	0	0	1	0	2	2	3	8	5	2	0	0	0	0	23
07:00	0	0	0	0	0	0	1	3	2	3	0	0	0	0	0	9
07:15	0	0	0	0	0	1	2	6	7	3	0	0	0	0	0	19
07:30	0	0	0	0	2	4	3	5	1	0	0	0	0	0	0	15
07:45	0	0	0	0	2	10	5	3	2	0	1	0	0	0	0	23
	0	0	0	0	4	15	11	17	12	6	1	0	0	0	0	66
08:00	0	0	1	1	3	10	9	6	0	0	0	0	0	0	0	30
08:15	0	0	0	0	3	7	15	5	1	0	0	0	0	0	0	31
08:30	0	0	0	0	1	6	16	5	0	2	0	0	0	0	0	30
08:45	0	0	0	3	1	7	14	3	2	1	1	0	0	0	0	32
	0	0	1	4	8	30	54	19	3	3	1	0	0	0	0	123
09:00	0	0	0	0	0	1	7	2	3	3	0	0	0	0	0	16
09:15	0	0	0	0	0	3	13	6	3	3	0	1	0	0	0	29
09:30	0	0	0	0	0	0	3	9	4	2	0	0	0	0	0	18
09:45	0	0	0	0	0	1	4	11	3	4	0	0	0	0	0	23
	0	0	0	0	0	5	27	28	13	12	0	1	0	0	0	86
10:00	0	0	0	0	0	1	0	3	5	1	1	0	0	0	0	11
10:15	0	0	0	0	0	1	1	3	5	1	1	0	0	0	0	12
10:30	0	0	0	0	0	5	8	7	3	3	0	0	0	0	0	26
10:45	0	0	0	0	1	1	1	2	4	2	0	0	0	0	0	11
	0	0	0	0	1	8	10	15	17	7	2	0	0	0	0	60
11:00	0	0	0	0	1	2	3	3	3	2	0	0	0	0	0	14
11:15	0	0	0	0	0	0	4	3	10	2	0	0	0	0	0	19
11:30	0	0	0	1	0	1	2	5	4	4	0	0	0	0	0	17
11:45	0	0	0	0	0	0	1	5	2	1	0	0	0	0	0	9
	0	0	0	1	1	3	10	16	19	9	0	0	0	0	0	59
Total	0	0	1	6	15	63	117	105	75	47	6	1	0	0	0	436

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between UMMR & Waterline Rd

Site Code: 000000000056
Station ID: 000000000006
Latitude: 27' 29.986 North
Longitude: 82' 22.883 West
RYE RD 04_SPEED

Northbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
12 PM	0	0	0	0	0	2	2	5	5	4	0	0	0	0	1	19
12:15	0	0	1	0	0	2	7	5	3	3	0	0	0	0	0	21
12:30	0	0	0	0	0	0	7	4	5	2	0	0	0	0	0	18
12:45	0	0	0	2	4	8	5	3	2	1	0	0	0	0	0	25
	0	0	1	2	4	12	21	17	15	10	0	0	0	0	1	83
13:00	1	0	0	0	2	12	8	4	1	0	0	0	0	0	0	28
13:15	0	0	0	0	4	10	11	8	0	1	0	0	0	0	0	34
13:30	0	0	0	0	2	11	5	6	1	0	0	0	0	0	0	25
13:45	0	0	0	0	0	4	0	5	13	5	0	0	0	0	0	27
	1	0	0	0	8	37	24	23	15	6	0	0	0	0	0	114
14:00	0	0	0	0	1	1	4	7	11	2	0	0	0	0	0	26
14:15	0	0	0	0	0	2	4	9	7	0	1	0	0	0	0	23
14:30	0	0	0	1	0	1	2	6	10	7	1	1	0	0	0	29
14:45	0	0	0	2	2	2	8	12	10	2	1	0	1	0	0	40
	0	0	0	3	3	6	18	34	38	11	3	1	1	0	0	118
15:00	0	0	0	0	0	0	1	7	7	5	1	0	0	0	1	22
15:15	0	0	0	0	0	2	7	13	7	5	0	0	0	0	0	34
15:30	0	0	0	0	0	1	6	8	10	4	0	0	0	0	0	29
15:45	0	0	0	0	0	0	4	5	15	12	0	0	0	0	0	36
	0	0	0	0	0	3	18	33	39	26	1	0	0	0	1	121
16:00	0	0	0	0	0	0	3	15	15	7	1	0	0	0	0	41
16:15	0	0	0	0	0	1	3	9	13	5	2	0	0	0	0	33
16:30	0	0	0	0	1	1	3	10	17	0	0	0	0	1	0	33
16:45	0	0	0	0	1	1	6	14	16	1	2	0	0	0	0	41
	0	0	0	0	2	3	15	48	61	13	5	0	0	1	0	148
17:00	0	0	0	0	0	1	2	9	19	12	3	1	0	0	0	47
17:15	0	0	0	0	0	0	5	14	27	6	0	0	0	0	0	52
17:30	0	0	0	0	1	0	5	21	12	12	1	0	0	0	0	52
17:45	0	0	0	0	1	3	1	6	15	8	4	0	0	0	0	38
	0	0	0	0	2	4	13	50	73	38	8	1	0	0	0	189
18:00	1	0	0	0	0	0	1	16	12	5	0	0	0	0	0	35
18:15	0	0	0	0	0	0	8	9	21	3	1	0	0	0	0	42
18:30	0	0	0	0	0	0	4	4	15	7	1	0	0	0	0	31
18:45	0	0	0	0	0	1	0	10	8	7	0	0	0	0	0	26
	1	0	0	0	0	1	13	39	56	22	2	0	0	0	0	134
19:00	0	0	0	0	0	1	3	4	5	4	0	0	0	0	0	17
19:15	0	0	0	0	0	0	1	4	7	7	0	0	1	0	0	20
19:30	0	0	0	0	0	0	0	9	8	5	2	0	0	0	0	24
19:45	0	0	0	0	0	0	4	5	4	3	0	0	0	0	0	16
	0	0	0	0	0	1	8	22	24	19	2	0	1	0	0	77
20:00	0	0	0	0	0	0	0	6	9	4	1	0	0	0	0	20
20:15	0	0	0	0	0	0	1	15	16	1	2	0	0	0	0	35
20:30	0	0	0	0	0	0	3	10	9	2	0	0	0	0	0	24
20:45	0	0	0	0	0	3	1	3	11	10	0	0	0	0	0	28
	0	0	0	0	0	3	5	34	45	17	3	0	0	0	0	107
21:00	0	0	0	0	1	0	2	11	4	5	1	0	0	0	0	24
21:15	0	0	0	0	0	0	0	5	2	4	1	1	0	0	0	13
21:30	0	0	0	0	0	0	0	1	1	4	3	1	0	0	0	10
21:45	0	0	0	0	1	0	2	0	0	1	2	1	0	0	0	7
	0	0	0	0	2	0	4	17	7	14	7	3	0	0	0	54
22:00	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
22:15	0	0	0	0	0	0	2	0	3	1	2	1	0	0	0	9
22:30	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3
22:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
	0	0	0	0	0	0	4	4	6	1	2	1	0	0	0	18
23:00	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
23:15	0	0	0	0	0	1	0	0	0	2	0	1	0	0	0	4
23:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
23:45	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	3
	0	0	0	0	0	2	0	1	3	3	1	1	0	0	0	11
Total	2	0	1	5	21	72	143	322	382	180	34	7	2	1	2	1174
Total	4	2	6	15	51	252	482	784	910	473	83	17	3	2	5	3089

Stats	
15th Percentile :	47 MPH
50th Percentile :	55 MPH
85th Percentile :	62 MPH
95th Percentile :	65 MPH
Mean Speed(Average) :	55 MPH
10 MPH Pace Speed :	51-60 MPH
Number in Pace :	1694
Percent in Pace :	54.8%
Number of Vehicles > 55 MPH :	1493
Percent of Vehicles > 55 MPH :	48.3%

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
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Longitude: 82' 22.883 West
RYE RD 04_SPEED

Southbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
3/1/11	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
00:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
00:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	3
01:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2
04:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
04:15	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
04:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
04:45	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	4
	0	0	0	0	0	0	2	1	5	2	0	0	0	0	0	10
05:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:15	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	3
05:30	0	0	0	0	0	0	2	0	3	3	1	0	0	0	0	9
05:45	0	0	0	0	0	0	3	1	1	1	1	1	0	0	0	8
	0	0	0	0	1	0	5	1	6	5	2	1	0	0	0	21
06:00	0	0	0	0	0	0	1	6	3	4	1	0	0	0	0	15
06:15	0	0	0	0	0	1	3	4	11	2	3	0	0	0	0	24
06:30	0	0	0	0	0	0	2	5	6	8	2	2	0	0	0	25
06:45	0	0	0	0	0	0	11	8	12	7	0	0	0	0	0	38
	0	0	0	0	0	1	17	23	32	21	6	2	0	0	0	102
07:00	0	0	0	0	0	1	9	11	20	9	0	1	1	0	0	52
07:15	0	0	0	0	0	2	7	23	22	19	0	0	0	0	0	73
07:30	0	0	0	0	1	1	20	16	9	3	0	0	0	0	0	50
07:45	0	0	0	1	2	11	22	23	7	4	0	0	0	0	0	70
	0	0	0	1	3	15	58	73	58	35	0	1	1	0	0	245
08:00	0	0	0	2	2	8	29	15	5	0	0	0	0	0	0	61
08:15	0	0	0	0	12	17	25	16	1	1	0	0	0	0	1	73
08:30	0	0	0	0	0	5	9	14	5	2	0	0	0	0	0	35
08:45	0	0	1	0	2	2	8	1	3	1	0	0	0	0	0	18
	0	0	1	2	16	32	71	46	14	4	0	0	0	0	1	187
09:00	0	0	0	0	0	2	4	8	8	0	0	0	0	0	0	22
09:15	0	0	0	0	0	0	4	13	6	1	0	0	0	0	0	24
09:30	0	0	0	0	2	1	7	8	4	2	0	0	0	0	0	24
09:45	0	0	0	0	0	2	6	10	2	3	0	0	0	0	0	23
	0	0	0	0	2	5	21	39	20	6	0	0	0	0	0	93
10:00	0	0	0	1	1	3	7	6	1	1	1	1	0	0	0	22
10:15	0	0	0	0	0	2	2	6	5	3	0	0	0	0	0	18
10:30	0	0	0	0	0	0	1	5	3	3	0	0	0	0	0	12
10:45	0	0	0	0	0	1	3	6	4	0	0	0	0	0	0	14
	0	0	0	1	1	6	13	23	13	7	1	1	0	0	0	66
11:00	0	0	1	0	0	2	4	4	1	0	0	0	0	0	0	12
11:15	0	0	0	1	0	1	1	9	3	1	1	0	0	0	0	17
11:30	0	0	0	0	0	2	5	6	4	2	1	0	0	0	0	20
11:45	0	0	0	0	1	1	4	7	4	1	0	0	0	0	0	18
	0	0	1	1	1	6	14	26	12	4	2	0	0	0	0	67
Total	0	0	2	5	24	67	204	232	164	85	12	5	1	0	1	802

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RYE RD 04_SPEED

Southbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
12 PM	0	0	0	0	1	1	6	9	2	0	0	1	0	0	0	20
12:15	0	0	0	0	1	0	0	12	5	3	0	0	0	0	0	21
12:30	0	0	0	0	0	2	2	7	5	2	0	0	0	0	0	18
12:45	0	0	1	0	0	3	4	6	7	2	0	0	0	0	0	23
	0	0	1	0	2	6	12	34	19	7	0	1	0	0	0	82
13:00	0	0	0	0	0	3	5	5	0	2	0	0	0	0	0	15
13:15	0	0	0	0	0	1	2	6	3	1	1	0	0	0	0	14
13:30	0	0	0	0	0	2	3	15	4	1	0	0	0	0	0	25
13:45	0	0	0	0	1	1	5	9	7	0	1	1	0	0	0	25
	0	0	0	0	1	7	15	35	14	4	2	1	0	0	0	79
14:00	0	0	0	0	0	4	7	11	2	0	1	0	0	0	0	25
14:15	0	0	0	0	0	2	10	16	3	2	0	0	0	0	0	33
14:30	0	0	0	0	1	3	6	4	6	2	0	0	0	0	0	22
14:45	0	0	0	0	2	3	6	9	2	2	0	1	0	0	0	25
	0	0	0	0	3	12	29	40	13	6	1	1	0	0	0	105
15:00	0	0	0	0	2	12	7	6	0	0	0	0	0	0	0	27
15:15	0	0	0	0	1	2	6	5	5	1	0	0	0	0	0	20
15:30	0	1	0	1	4	7	10	6	2	2	0	0	0	0	0	33
15:45	0	0	0	0	0	0	2	13	6	2	0	0	0	0	0	23
	0	1	0	1	7	21	25	30	13	5	0	0	0	0	0	103
16:00	0	0	0	0	0	2	6	8	4	1	0	0	0	0	0	21
16:15	0	0	0	0	0	1	6	10	8	1	0	0	0	0	0	26
16:30	0	0	0	0	0	4	6	6	10	2	0	0	0	0	0	28
16:45	0	0	0	0	0	2	6	5	12	2	1	0	1	0	0	29
	0	0	0	0	0	9	24	29	34	6	1	0	1	0	0	104
17:00	0	0	0	1	1	0	4	7	5	4	0	0	0	0	0	22
17:15	0	0	0	0	0	0	0	4	8	3	0	0	0	0	0	15
17:30	0	0	0	0	0	2	2	5	7	5	0	0	0	0	0	21
17:45	0	0	0	0	0	0	2	2	8	3	0	0	0	0	0	15
	0	0	0	1	1	2	8	18	28	15	0	0	0	0	0	73
18:00	0	0	0	0	0	0	2	11	7	4	1	0	0	0	0	25
18:15	0	0	0	0	0	0	4	8	5	4	2	0	0	0	0	23
18:30	0	0	0	0	0	0	2	8	9	2	0	0	0	0	0	21
18:45	0	0	0	0	1	1	7	5	3	2	0	0	0	0	0	19
	0	0	0	0	1	1	15	32	24	12	3	0	0	0	0	88
19:00	0	0	0	0	0	0	2	6	4	2	0	0	0	0	0	14
19:15	0	0	0	0	0	0	0	6	6	1	0	0	0	0	0	13
19:30	0	0	0	0	0	2	1	2	4	1	0	0	0	0	0	10
19:45	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
	0	0	0	0	0	2	3	14	16	5	0	0	0	0	0	40
20:00	0	0	0	0	0	0	1	5	2	1	0	0	0	0	0	9
20:15	0	0	0	0	0	0	1	1	4	2	0	0	0	0	0	8
20:30	0	0	0	0	0	1	1	5	0	0	0	0	0	0	0	7
20:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	0	0	0	0	0	1	3	12	6	3	0	0	0	0	0	25
21:00	0	0	0	0	0	1	0	4	1	2	0	0	0	0	0	8
21:15	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	3	1	1	0	0	0	0	0	5
	0	0	0	0	0	1	0	9	3	3	0	0	0	0	0	16
22:00	0	0	0	0	0	0	0	3	1	1	0	0	0	0	0	5
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4
22:45	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
	0	0	0	0	0	0	3	4	3	1	0	0	0	0	0	11
23:00	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3
Total	0	1	1	2	15	62	137	258	173	69	7	3	1	0	0	729

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RYE RD 04_SPEED

Southbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
3/2/11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
00:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
00:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	3
04:00	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
04:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
04:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
04:45	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	6
	0	0	0	0	0	0	1	3	8	0	0	0	0	0	0	12
05:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
05:15	0	0	0	0	0	0	2	1	1	1	0	0	0	0	0	5
05:30	0	0	0	0	0	0	1	1	1	2	0	0	0	0	0	5
05:45	0	0	0	0	0	0	1	3	2	1	0	0	0	0	0	7
	0	0	0	0	0	0	4	5	6	4	0	0	0	0	0	19
06:00	0	0	0	0	0	0	0	8	3	3	1	0	0	0	0	15
06:15	0	0	0	0	0	0	3	8	10	6	2	1	1	0	1	32
06:30	0	0	0	0	0	0	3	4	12	11	0	1	0	0	0	31
06:45	0	0	0	0	0	0	2	11	13	5	0	0	0	0	0	31
	0	0	0	0	0	0	8	31	38	25	3	2	1	0	1	109
07:00	0	0	0	0	1	0	6	19	17	6	1	0	0	0	0	50
07:15	0	0	0	0	0	0	1	24	32	11	0	0	0	0	0	68
07:30	0	0	0	0	0	0	10	19	12	4	0	0	0	0	0	45
07:45	0	0	0	2	4	14	27	23	2	0	0	0	0	0	0	72
	0	0	0	2	5	14	44	85	63	21	1	0	0	0	0	235
08:00	0	0	1	0	8	8	27	17	9	1	0	0	0	0	0	71
08:15	0	0	0	0	2	11	21	20	8	1	0	0	0	0	0	63
08:30	0	0	0	0	0	5	8	9	7	0	1	0	0	0	0	30
08:45	0	0	0	0	1	5	14	8	1	0	0	0	0	0	0	29
	0	0	1	0	11	29	70	54	25	2	1	0	0	0	0	193
09:00	0	0	0	0	0	0	3	6	12	5	1	0	0	2	0	29
09:15	0	0	0	0	1	3	4	9	5	5	0	0	0	0	0	27
09:30	0	0	0	0	0	1	4	11	4	3	0	0	0	0	0	23
09:45	0	0	0	0	1	0	6	13	4	2	0	0	0	0	0	26
	0	0	0	0	2	4	17	39	25	15	1	0	0	2	0	105
10:00	0	0	0	0	0	2	5	7	6	1	0	0	0	0	0	21
10:15	0	0	0	0	0	0	2	5	4	4	0	0	0	0	0	15
10:30	0	0	0	0	0	2	5	6	5	3	0	0	0	0	0	21
10:45	0	0	0	0	0	3	5	5	7	2	0	0	0	0	0	22
	0	0	0	0	0	7	17	23	22	10	0	0	0	0	0	79
11:00	0	0	0	2	1	0	0	6	1	2	0	0	0	0	0	12
11:15	0	0	0	0	0	1	3	9	9	2	2	0	0	0	0	26
11:30	0	0	0	0	0	1	4	12	8	1	0	1	0	0	0	27
11:45	0	0	0	0	0	0	4	1	7	4	1	1	0	0	0	18
	0	0	0	2	1	2	11	28	25	9	3	2	0	0	0	83
Total	0	0	1	4	20	56	174	270	212	88	9	4	1	2	1	842

URS Corporation

7650 W. Courtney Campbell Cswy
Tampa, Fl 33607

Rye Rd
Between UMMR & Waterline Rd

Site Code: 000000000056
Station ID: 000000000006
Latitude: 27' 29.986 North
Longitude: 82' 22.883 West
RYE RD 04_SPEED

Southbound

Start Time	0 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 147	Total
12 PM	0	0	0	0	0	0	3	5	7	5	1	0	0	0	0	21
12:15	0	0	0	0	0	1	7	8	7	3	0	0	0	0	0	26
12:30	0	1	0	0	0	5	6	9	5	0	0	1	0	0	0	27
12:45	0	0	1	0	2	9	5	6	4	0	0	0	0	0	0	27
	0	1	1	0	2	15	21	28	23	8	1	1	0	0	0	101
13:00	0	0	0	2	3	4	9	7	3	0	0	0	0	0	0	28
13:15	0	0	0	0	5	16	5	4	2	1	0	0	0	0	0	33
13:30	0	0	0	0	0	3	8	8	6	1	1	0	0	0	0	27
13:45	0	0	0	0	0	1	3	7	8	1	0	0	0	0	0	20
	0	0	0	2	8	24	25	26	19	3	1	0	0	0	0	108
14:00	0	0	0	0	0	1	5	4	4	1	0	0	0	0	0	15
14:15	0	0	0	0	0	3	10	7	3	3	0	0	0	0	0	26
14:30	0	0	0	0	1	0	3	9	4	3	0	0	0	0	0	20
14:45	0	0	0	0	0	0	4	10	7	3	1	0	0	0	0	25
	0	0	0	0	1	4	22	30	18	10	1	0	0	0	0	86
15:00	0	0	0	0	0	0	3	13	5	1	1	0	1	0	0	24
15:15	0	0	0	0	0	1	6	7	4	2	0	0	0	0	0	20
15:30	0	0	1	0	0	2	3	3	7	1	1	0	0	0	0	18
15:45	0	0	1	0	0	1	4	4	8	1	0	1	0	0	0	20
	0	0	2	0	0	4	16	27	24	5	2	1	1	0	0	82
16:00	0	0	0	0	0	0	2	9	7	1	0	0	0	0	0	19
16:15	0	0	0	0	0	1	5	5	8	3	1	0	0	0	0	23
16:30	0	0	1	0	1	1	4	4	7	3	3	0	0	0	0	24
16:45	0	0	0	0	1	1	2	11	4	3	0	0	0	0	0	22
	0	0	1	0	2	3	13	29	26	10	4	0	0	0	0	88
17:00	0	0	0	0	0	0	2	3	5	5	1	0	0	0	0	16
17:15	0	0	0	0	0	2	2	13	16	8	3	0	0	0	0	44
17:30	0	0	0	0	0	0	2	12	7	3	1	0	0	0	0	25
17:45	0	0	0	0	0	2	3	11	12	1	1	0	0	0	0	30
	0	0	0	0	0	4	9	39	40	17	6	0	0	0	0	115
18:00	0	0	0	0	0	1	1	15	13	4	2	0	0	0	0	36
18:15	0	0	0	0	0	0	3	10	12	4	0	0	0	0	0	29
18:30	0	0	0	0	1	2	0	7	5	3	0	0	0	0	0	18
18:45	0	0	0	0	0	1	4	4	6	6	0	0	0	0	0	21
	0	0	0	0	1	4	8	36	36	17	2	0	0	0	0	104
19:00	0	0	0	0	0	1	2	2	2	0	0	0	0	0	0	7
19:15	0	0	0	0	0	1	1	3	1	1	0	0	0	0	0	7
19:30	0	0	0	0	0	0	2	3	3	0	0	0	0	0	0	8
19:45	0	0	0	0	1	2	0	2	0	1	1	0	0	0	0	7
	0	0	0	0	1	4	5	10	6	2	1	0	0	0	0	29
20:00	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	8
20:15	0	0	0	0	0	0	3	3	6	0	0	0	0	0	0	12
20:30	0	0	0	0	0	0	0	0	4	1	1	0	0	0	0	6
20:45	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	4
	0	0	0	0	0	0	4	5	15	5	1	0	0	0	0	30
21:00	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	5
21:15	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	3
21:30	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3
21:45	0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	6
	0	0	0	0	0	0	2	5	8	0	2	0	0	0	0	17
22:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
22:15	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	4
22:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
22:45	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
	0	0	0	0	1	2	2	2	1	1	0	0	0	0	0	9
23:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
23:45	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	5
Total	0	1	4	2	16	64	127	239	219	78	21	2	1	0	0	774
Total	0	2	8	13	75	249	642	999	768	320	49	14	4	2	2	3147

Stats

15th Percentile :	46 MPH
50th Percentile :	53 MPH
85th Percentile :	60 MPH
95th Percentile :	64 MPH
Mean Speed(Average) :	53 MPH
10 MPH Pace Speed :	51-60 MPH
Number in Pace :	1767
Percent in Pace :	56.1%
Number of Vehicles > 55 MPH :	1159
Percent of Vehicles > 55 MPH :	36.8%

Synopsis Report: 130050CL-20090519.syn
Page: 1

County: 13
Station: 0050
Description: SR 64, EAST OF SR 93/I-75
Start Date: 05/19/2009
Start Time: 0600

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	22	17	14	16	69	13	9	7	8	37	106
0100	12	12	8	6	38	2	16	5	11	34	72
0200	8	10	10	9	37	13	7	13	12	45	82
0300	14	2	5	8	29	11	12	11	19	53	82
0400	3	8	14	12	37	7	11	22	31	71	108
0500	30	22	34	49	135	32	56	64	86	238	373
0600	49	78	127	198	452	124	170	215	276	785	1237
0700	133	195	240	253	821	341	371	354	292	1358	2179
0800	218	213	216	186	833	304	327	296	294	1221	2054
0900	165	179	166	174	684	297	261	227	239	1024	1708
1000	171	174	178	161	684	225	224	226	198	873	1557
1100	175	180	162	186	703	198	230	258	223	909	1612
1200	174	204	231	202	811	204	244	218	188	854	1665
1300	197	194	229	184	804	211	187	201	196	795	1599
1400	205	232	240	217	894	213	243	206	243	905	1799
1500	275	233	283	292	1083	215	265	235	220	935	2018
1600	282	272	263	288	1105	257	225	238	249	969	2074
1700	311	405	332	317	1365	257	275	262	224	1018	2383
1800	287	303	283	234	1107	222	225	179	143	769	1876
1900	192	192	159	155	698	134	122	88	83	427	1125
2000	179	139	144	122	584	92	91	90	95	368	952
2100	123	109	82	96	410	90	80	54	37	261	671
2200	71	81	46	60	258	63	43	37	27	170	428
2300	41	46	46	29	162	36	24	19	15	94	256
24-Hour Totals:					13803					14213	28016

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0730	924	0700	1358	0715	2227
P.M.	1700	1365	1645	1043	1700	2383
Daily	1700	1365	0700	1358	1700	2383

Truck Percentage 7.48 7.30 7.39

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	27	9430	3314	31	417	181	11	214	154	10	0	0	14	0	0	1032	13803
W	32	10073	3071	33	375	174	52	214	159	12	0	0	18	0	0	1037	14213

Generated by SPS 5.0.16

Synopsis Report: 130073CL-20090331.syn
Page: 1

County: 13
Station: 0073
Description: SR 64, EAST OF UPPER MANATEE RIVER ROAD
Start Date: 03/31/2009
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	13	11	8	5	37	9	5	3	4	21	58
0100	3	5	5	8	21	3	6	10	4	23	44
0200	5	9	4	8	26	3	9	4	0	16	42
0300	5	5	3	1	14	5	3	8	10	26	40
0400	6	3	3	11	23	6	11	16	20	53	76
0500	15	9	15	13	52	34	28	52	43	157	209
0600	24	38	39	78	179	73	102	159	178	512	691
0700	52	86	91	118	347	228	254	247	141	870	1217
0800	98	87	104	101	390	163	191	173	171	698	1088
0900	105	83	72	84	344	125	134	125	153	537	881
1000	100	92	87	100	379	120	133	136	150	539	918
1100	98	98	92	72	360	141	109	130	131	511	871
1200	104	111	112	126	453	112	148	132	114	506	959
1300	100	114	127	108	449	113	118	120	107	458	907
1400	100	120	203	164	587	138	128	123	126	515	1102
1500	149	166	169	206	690	137	160	138	132	567	1257
1600	168	184	175	187	714	132	111	123	133	499	1213
1700	213	204	208	210	835	174	153	145	123	595	1430
1800	203	187	169	140	699	119	122	99	92	432	1131
1900	160	148	119	136	563	72	66	63	46	247	810
2000	126	114	103	82	425	50	49	39	33	171	596
2100	109	103	95	62	369	46	36	30	23	135	504
2200	65	44	25	29	163	19	22	19	18	78	241
2300	30	28	15	15	88	22	13	15	14	64	152
24-Hour Totals:					8207					8230	16437

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0745	407	0645	907	0700	1217
P.M.	1700	835	1645	605	1700	1430
Daily	1700	835	0645	907	1700	1430

Truck Percentage 7.07 6.89 6.98

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	61	5592	1974	14	239	46	12	128	123	7	1	1	9	0	0	580	8207
W	55	5821	1787	15	203	48	2	130	136	13	0	0	20	0	0	567	8230

Generated by SPS 5.0.16

Synopsis Report: 130081CL-20090331.syn
Page: 1

County: 13
Station: 0081
Description: SR 43/US 301, NE OF CHIN ROAD
Start Date: 03/31/2009
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	12	3	2	7	24	6	4	3	3	16	40
0100	3	2	5	2	12	4	1	4	2	11	23
0200	4	1	7	5	17	2	8	7	6	23	40
0300	1	1	3	0	5	3	3	2	6	14	19
0400	3	5	9	9	26	4	7	20	19	50	76
0500	7	13	11	21	52	15	23	32	42	112	164
0600	31	46	62	83	222	49	69	62	78	258	480
0700	74	75	68	98	315	118	148	135	139	540	855
0800	63	77	96	109	345	108	114	119	140	481	826
0900	81	76	69	76	302	119	85	88	102	394	696
1000	64	60	65	76	265	87	87	95	100	369	634
1100	62	73	89	76	300	113	103	98	89	403	703
1200	79	85	82	82	328	94	73	98	88	353	681
1300	81	93	82	88	344	86	85	91	87	349	693
1400	76	87	99	103	365	83	90	97	98	368	733
1500	96	123	96	108	423	82	82	95	111	370	793
1600	108	121	142	140	511	85	94	112	118	409	920
1700	122	153	129	147	551	105	100	112	136	453	1004
1800	138	120	110	111	479	105	78	68	74	325	804
1900	96	103	74	72	345	66	51	53	53	223	568
2000	70	62	71	49	252	68	41	34	32	175	427
2100	60	55	36	36	187	34	17	22	14	87	274
2200	38	35	18	25	116	13	9	14	13	49	165
2300	23	13	13	11	60	12	10	8	4	34	94
24-Hour Totals:					5846					5866	11712

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0815	363	0700	540	0700	855
P.M.	1715	567	1700	453	1715	1020
Daily	1715	567	0700	540	1715	1020

Truck Percentage 8.83 8.06 8.44

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	42	3404	1884	13	256	58	4	120	49	8	0	0	8	0	0	516	5846
W	49	3575	1769	5	231	28	10	128	64	6	0	0	1	0	0	473	5866

Generated by SPS 5.0.16

Synopsis Report: 130080CL-20090331.syn
Page: 1

County: 13
Station: 0080
Description: SR 43/US 301, NE OF 100TH AVENUE EAST
Start Date: 03/31/2009
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	16	6	11	6	39	6	4	2	7	19	58
0100	5	6	4	3	18	5	1	6	3	15	33
0200	6	3	9	7	25	2	8	7	6	23	48
0300	1	2	4	3	10	4	4	3	7	18	28
0400	3	7	6	17	33	5	10	25	22	62	95
0500	13	17	16	21	67	27	33	53	60	173	240
0600	33	51	63	82	229	56	93	104	109	362	591
0700	77	81	82	95	335	179	203	202	195	779	1114
0800	67	94	107	131	399	181	158	152	165	656	1055
0900	94	94	84	98	370	134	133	118	123	508	878
1000	77	76	91	98	342	120	125	123	138	506	848
1100	74	103	93	111	381	131	130	141	118	520	901
1200	104	104	102	114	424	114	90	118	131	453	877
1300	111	120	109	112	452	117	111	105	112	445	897
1400	120	119	129	144	512	96	103	123	103	425	937
1500	142	170	135	156	603	104	105	114	114	437	1040
1600	168	173	190	199	730	94	106	127	116	443	1173
1700	173	193	215	185	766	129	104	123	140	496	1262
1800	199	164	153	145	661	125	84	88	91	388	1049
1900	133	132	117	109	491	73	65	52	66	256	747
2000	106	86	90	61	343	65	50	44	29	188	531
2100	95	60	57	52	264	39	21	31	18	109	373
2200	42	49	33	34	158	17	16	31	16	80	238
2300	27	18	18	16	79	20	16	8	5	49	128
24-Hour Totals:					7731					7410	15141

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0815	426	0715	781	0700	1114
P.M.	1715	792	1700	496	1715	1284
Daily	1715	792	0715	781	1715	1284

Truck Percentage 6.22 6.83 6.52

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	52	5062	2136	17	235	37	5	111	75	1	0	0	0	0	0	481	7731
W	52	4705	2147	14	256	31	12	122	64	4	0	0	3	0	0	506	7410

Generated by SPS 5.0.16

Synopsis Report: 130014CL-20090519.syn
Page: 1

County: 13
Station: 0014
Description: SR 43/US 301, S OF SR 62/81ST STREET PARRISH
Start Date: 05/19/2009
Start Time: 0000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	8	6	2	1	17	10	1	3	3	17	34
0100	1	4	3	0	8	2	2	2	1	7	15
0200	0	3	4	1	8	9	2	1	6	18	26
0300	2	1	4	4	11	0	3	7	3	13	24
0400	2	6	6	11	25	3	6	18	12	39	64
0500	16	15	25	27	83	5	16	17	23	61	144
0600	50	63	95	89	297	25	30	43	56	154	451
0700	91	90	78	82	341	54	55	62	55	226	567
0800	59	68	46	55	228	62	42	41	43	188	416
0900	56	67	50	63	236	45	55	47	57	204	440
1000	64	46	63	40	213	61	54	63	56	234	447
1100	53	49	54	60	216	45	55	65	59	224	440
1200	65	58	61	52	236	65	62	65	61	253	489
1300	57	58	72	50	237	51	67	40	42	200	437
1400	50	63	60	65	238	50	58	60	66	234	472
1500	60	65	55	54	234	74	55	56	68	253	487
1600	54	76	83	89	302	78	74	95	74	321	623
1700	84	67	78	51	280	94	104	102	115	415	695
1800	68	55	54	44	221	98	82	54	68	302	523
1900	42	25	39	34	140	68	45	36	42	191	331
2000	35	25	22	14	96	29	35	24	19	107	203
2100	23	25	16	18	82	19	18	21	22	80	162
2200	14	15	12	6	47	12	14	18	11	55	102
2300	2	7	7	1	17	16	5	6	4	31	48
24-Hour Totals:					3813					3827	7640

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0630	365	0715	234	0645	575
P.M.	1615	332	1715	419	1700	695
Daily	0630	365	1715	419	1700	695

Truck Percentage 12.12 11.68 11.90

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	12	2113	1226	3	175	36	17	106	111	13	0	0	1	0	0	462	3813
S	11	2125	1244	1	152	49	6	123	110	6	0	0	0	0	0	447	3827

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County: 13
Station: 0014
Description: SR 43/US 301, S OF SR 62/81ST STREET PARRISH
Start Date: 05/20/2009
Start Time: 0000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	7	1	3	1	12	3	7	6	0	16	28
0100	1	1	1	0	3	3	3	1	1	8	11
0200	2	1	2	1	6	7	3	1	2	13	19
0300	1	3	4	6	14	2	0	5	7	14	28
0400	3	9	4	12	28	0	9	14	18	41	69
0500	17	7	22	39	85	4	9	21	15	49	134
0600	49	54	100	88	291	24	34	35	51	144	435
0700	93	74	80	90	337	60	60	53	70	243	580
0800	62	75	61	47	245	62	39	68	49	218	463
0900	43	44	60	68	215	49	54	48	54	205	420
1000	40	58	73	38	209	52	57	59	75	243	452
1100	65	40	40	56	201	64	64	53	51	232	433
1200	48	64	74	63	249	57	78	59	65	259	508
1300	67	69	48	65	249	56	55	58	60	229	478
1400	42	64	66	56	228	49	50	56	68	223	451
1500	57	79	56	51	243	54	59	60	73	246	489
1600	89	64	78	82	313	60	97	85	83	325	638
1700	83	93	66	78	320	88	101	115	133	437	757
1800	73	63	57	54	247	86	67	79	68	300	547
1900	42	32	42	42	158	52	50	34	41	177	335
2000	47	22	35	17	121	37	42	32	26	137	258
2100	28	25	23	25	101	18	29	13	13	73	174
2200	12	14	9	10	45	24	21	11	13	69	114
2300	12	9	4	5	30	14	10	7	4	35	65
24-Hour Totals:					3950					3936	7886

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0630	355	0715	245	0700	580
P.M.	1630	336	1700	437	1700	757
Daily	0630	355	1700	437	1700	757

Truck Percentage 11.22 11.84 11.53

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	21	2249	1237	2	151	46	9	110	123	2	0	0	0	0	0	443	3950
S	14	2253	1203	2	149	48	2	130	129	6	0	0	0	0	0	466	3936

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Synopsis Report: 130052CL-20090521.syn
Page: 1

County: 13
Station: 0052
Description: SR 43/US 301, WEST OF 18TH ST & E OF SR93/US I-75
Start Date: 05/21/2009
Start Time: 1200

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	30	29	25	30	114	9	11	15	12	47	161
0100	18	23	24	19	84	9	6	8	10	33	117
0200	7	12	14	16	49	9	8	5	9	31	80
0300	12	8	13	9	42	11	15	15	13	54	96
0400	9	8	19	16	52	9	16	33	30	88	140
0500	16	22	18	39	95	55	66	89	114	324	419
0600	35	60	79	109	283	149	194	259	257	859	1142
0700	99	131	123	158	511	401	478	489	430	1798	2309
0800	143	168	154	191	656	405	433	374	304	1516	2172
0900	174	188	186	208	756	275	335	310	280	1200	1956
1000	229	199	231	188	847	314	266	297	274	1151	1998
1100	207	261	260	227	955	281	285	283	302	1151	2106
1200	230	265	229	244	968	252	261	257	302	1072	2040
1300	261	245	226	265	997	231	278	234	282	1025	2022
1400	236	256	256	319	1067	219	257	224	246	946	2013
1500	298	334	299	321	1252	252	218	246	242	958	2210
1600	327	383	364	417	1491	238	230	217	252	937	2428
1700	426	467	398	417	1708	212	239	221	225	897	2605
1800	352	336	262	254	1204	255	250	228	156	889	2093
1900	243	217	202	169	831	170	150	119	104	543	1374
2000	212	211	175	173	771	128	119	92	64	403	1174
2100	155	187	139	139	620	76	62	76	83	297	917
2200	132	99	84	72	387	71	37	41	29	178	565
2300	52	59	50	35	196	28	30	17	12	87	283
24-Hour Totals:					15936					16484	32420

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0915	811	0715	1802	0715	2357
P.M.	1645	1708	1230	1068	1645	2632
Daily	1645	1708	0715	1802	1645	2632

Truck Percentage 5.49 5.34 5.42

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	32	10628	4401	34	438	53	2	196	150	2	0	0	0	0	0	875	15936
W	30	11242	4331	25	469	64	5	218	96	4	0	0	0	0	0	881	16484

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Florida Department of Transportation
Transportation Statistics Office
2009 Historical AADT Report

County: 13 - MANATEE

Site: 0081 - SR 43/US 301, NE OF CHIN ROAD

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	10600 C	E 5300	W 5300	9.90	55.60	8.40
2008	9600 C	E 4800	W 4800	10.11	54.86	8.30
2007	9700 C	E 4900	W 4800	9.73	56.20	9.90
2006	9800 C	E 4900	W 4900	9.55	54.19	13.80
2005	9200 C	E 4600	W 4600	9.70	54.40	14.50
2004	8000 C	E 4000	W 4000	9.70	53.90	14.50
2003	6100 F	E 2800	W 3300	9.70	54.30	15.80
2002	5900 C	E 2700	W 3200	10.40	56.10	12.40
2001	6200 C	E 3100	W 3100	10.50	54.00	15.80

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate
S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Synopsis Report: 130073CL-20090331.syn
Page: 1

County: 13
Station: 0073
Description: SR 64, EAST OF UPPER MANATEE RIVER ROAD
Start Date: 03/31/2009
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	13	11	8	5	37	9	5	3	4	21	58
0100	3	5	5	8	21	3	6	10	4	23	44
0200	5	9	4	8	26	3	9	4	0	16	42
0300	5	5	3	1	14	5	3	8	10	26	40
0400	6	3	3	11	23	6	11	16	20	53	76
0500	15	9	15	13	52	34	28	52	43	157	209
0600	24	38	39	78	179	73	102	159	178	512	691
0700	52	86	91	118	347	228	254	247	141	870	1217
0800	98	87	104	101	390	163	191	173	171	698	1088
0900	105	83	72	84	344	125	134	125	153	537	881
1000	100	92	87	100	379	120	133	136	150	539	918
1100	98	98	92	72	360	141	109	130	131	511	871
1200	104	111	112	126	453	112	148	132	114	506	959
1300	100	114	127	108	449	113	118	120	107	458	907
1400	100	120	203	164	587	138	128	123	126	515	1102
1500	149	166	169	206	690	137	160	138	132	567	1257
1600	168	184	175	187	714	132	111	123	133	499	1213
1700	213	204	208	210	835	174	153	145	123	595	1430
1800	203	187	169	140	699	119	122	99	92	432	1131
1900	160	148	119	136	563	72	66	63	46	247	810
2000	126	114	103	82	425	50	49	39	33	171	596
2100	109	103	95	62	369	46	36	30	23	135	504
2200	65	44	25	29	163	19	22	19	18	78	241
2300	30	28	15	15	88	22	13	15	14	64	152
24-Hour Totals:					8207					8230	16437

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0745	407	0645	907	0700	1217
P.M.	1700	835	1645	605	1700	1430
Daily	1700	835	0645	907	1700	1430

Truck Percentage 7.07 6.89 6.98

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	61	5592	1974	14	239	46	12	128	123	7	1	1	9	0	0	580	8207
W	55	5821	1787	15	203	48	2	130	136	13	0	0	20	0	0	567	8230

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Synopsis Report: 135076CL-20090520.syn
Page: 1

County: 13
Station: 5076
Description: SR 64, WEST OF LORRAINE ROAD
Start Date: 05/20/2009
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	6	3	3	4	16	5	4	3	3	15	31
0100	3	2	3	3	11	2	6	6	7	21	32
0200	1	2	3	2	8	4	3	0	4	11	19
0300	5	1	0	4	10	3	4	4	3	14	24
0400	4	7	3	10	24	3	4	6	8	21	45
0500	7	11	28	13	59	8	18	15	24	65	124
0600	15	39	42	62	158	21	23	50	62	156	314
0700	77	91	108	94	370	58	70	59	57	244	614
0800	81	95	71	62	309	71	72	59	57	259	568
0900	54	61	54	57	226	65	58	48	46	217	443
1000	52	50	57	40	199	47	54	70	48	219	418
1100	57	48	48	48	201	56	58	50	64	228	429
1200	56	62	57	67	242	66	61	69	73	269	511
1300	71	83	88	56	298	74	68	63	64	269	567
1400	60	59	66	70	255	57	79	78	86	300	555
1500	71	83	58	55	267	69	93	75	77	314	581
1600	45	52	73	54	224	60	70	68	72	270	494
1700	59	67	62	59	247	85	91	75	62	313	560
1800	71	46	60	59	236	37	57	39	34	167	403
1900	26	43	32	30	131	32	32	35	37	136	267
2000	26	35	40	28	129	29	33	31	38	131	260
2100	28	30	19	14	91	21	26	21	19	87	178
2200	22	20	10	10	62	18	16	14	9	57	119
2300	13	14	11	13	51	9	4	10	2	25	76
24-Hour Totals:					3824					3808	7632

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0730	378	0730	259	0730	637
P.M.	1245	309	1430	326	1430	616
Daily	0730	378	1430	326	0730	637

Truck Percentage 18.20 18.01 18.11

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	10	1873	1245	15	195	105	3	132	243	2	0	0	1	0	0	696	3824
W	13	2006	1103	11	146	62	36	124	299	8	0	0	0	0	0	686	3808

Generated by SPS 5.0.16

County: 13
Station: 5076
Description: SR 64, WEST OF LORRAINE ROAD
Start Date: 05/21/2009
Start Time: 0000

	Direction: E					Direction: W					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	5	9	5	1	20	8	1	7	2	18	38
0100	8	1	1	1	11	2	1	3	1	7	18
0200	4	0	5	5	14	4	1	3	1	9	23
0300	4	1	1	1	7	2	2	2	0	6	13
0400	3	4	6	6	19	2	2	8	4	16	35
0500	15	12	21	14	62	8	11	14	24	57	119
0600	19	31	29	74	153	27	38	60	69	194	347
0700	72	92	100	90	354	62	78	53	48	241	595
0800	89	79	83	68	319	55	70	54	55	234	553
0900	46	42	51	58	197	56	48	45	61	210	407
1000	62	58	73	32	225	50	68	53	42	213	438
1100	47	48	58	52	205	68	59	65	63	255	460
1200	34	58	60	54	206	60	62	57	67	246	452
1300	59	60	66	54	239	50	56	65	72	243	482
1400	54	56	65	82	257	67	57	81	72	277	534
1500	81	78	62	71	292	61	89	97	72	319	611
1600	68	71	71	79	289	76	72	68	63	279	568
1700	61	65	74	83	283	77	88	85	86	336	619
1800	65	75	44	50	234	75	81	51	41	248	482
1900	47	37	50	42	176	36	40	38	41	155	331
2000	39	46	39	35	159	36	49	28	23	136	295
2100	21	29	26	27	103	30	23	20	22	95	198
2200	14	24	12	13	63	15	17	8	10	50	113
2300	12	10	7	10	39	12	2	8	6	28	67
24-Hour Totals:					3926					3872	7798

Peak Volume Information

	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0715	371	0630	269	0715	605
P.M.	1430	306	1700	336	1730	624
Daily	0715	371	1700	336	1730	624

Truck Percentage 18.39 17.82 18.11

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
E	8	1959	1237	14	193	100	19	132	258	5	0	0	1	0	0	722	3926
W	6	2087	1089	10	119	64	51	125	314	6	0	0	1	0	0	690	3872

Generated by SPS 5.0.16

2009 Peak Season Factor Category Report - Report Type: ALL
Category: 1300 MANATEE COUNTYWIDE

MOCF: 0.89

Week	Dates	SF	PSCF
1	01/01/2009 - 01/03/2009	1.02	1.14
2	01/04/2009 - 01/10/2009	0.99	1.11
3	01/11/2009 - 01/17/2009	0.96	1.07
4	01/18/2009 - 01/24/2009	0.95	1.06
* 5	01/25/2009 - 01/31/2009	0.93	1.04
* 6	02/01/2009 - 02/07/2009	0.92	1.03
* 7	02/08/2009 - 02/14/2009	0.90	1.01
* 8	02/15/2009 - 02/21/2009	0.88	0.99
* 9	02/22/2009 - 02/28/2009	0.88	0.99
*10	03/01/2009 - 03/07/2009	0.87	0.97
*11	03/08/2009 - 03/14/2009	0.87	0.97
*12	03/15/2009 - 03/21/2009	0.86	0.96
*13	03/22/2009 - 03/28/2009	0.87	0.97
*14	03/29/2009 - 04/04/2009	0.89	1.00
*15	04/05/2009 - 04/11/2009	0.90	1.01
*16	04/12/2009 - 04/18/2009	0.91	1.02
*17	04/19/2009 - 04/25/2009	0.93	1.04
18	04/26/2009 - 05/02/2009	0.95	1.06
19	05/03/2009 - 05/09/2009	0.97	1.09
20	05/10/2009 - 05/16/2009	0.98	1.10
21	05/17/2009 - 05/23/2009	1.00	1.12
22	05/24/2009 - 05/30/2009	1.01	1.13
23	05/31/2009 - 06/06/2009	1.03	1.15
24	06/07/2009 - 06/13/2009	1.04	1.16
25	06/14/2009 - 06/20/2009	1.05	1.18
26	06/21/2009 - 06/27/2009	1.07	1.20
27	06/28/2009 - 07/04/2009	1.08	1.21
28	07/05/2009 - 07/11/2009	1.09	1.22
29	07/12/2009 - 07/18/2009	1.11	1.24
30	07/19/2009 - 07/25/2009	1.11	1.24
31	07/26/2009 - 08/01/2009	1.12	1.25
32	08/02/2009 - 08/08/2009	1.12	1.25
33	08/09/2009 - 08/15/2009	1.12	1.25
34	08/16/2009 - 08/22/2009	1.13	1.27
35	08/23/2009 - 08/29/2009	1.13	1.27
36	08/30/2009 - 09/05/2009	1.14	1.28
37	09/06/2009 - 09/12/2009	1.14	1.28
38	09/13/2009 - 09/19/2009	1.15	1.29
39	09/20/2009 - 09/26/2009	1.12	1.25
40	09/27/2009 - 10/03/2009	1.09	1.22
41	10/04/2009 - 10/10/2009	1.07	1.20
42	10/11/2009 - 10/17/2009	1.04	1.16
43	10/18/2009 - 10/24/2009	1.04	1.16
44	10/25/2009 - 10/31/2009	1.03	1.15
45	11/01/2009 - 11/07/2009	1.03	1.15
46	11/08/2009 - 11/14/2009	1.03	1.15
47	11/15/2009 - 11/21/2009	1.03	1.15
48	11/22/2009 - 11/28/2009	1.03	1.15
49	11/29/2009 - 12/05/2009	1.02	1.14
50	12/06/2009 - 12/12/2009	1.02	1.14
51	12/13/2009 - 12/19/2009	1.02	1.14
52	12/20/2009 - 12/26/2009	0.99	1.11
53	12/27/2009 - 12/31/2009	0.96	1.07

* Peak Season

Florida Department of Transportation
Transportation Statistics Office
2009 Historical AADT Report

County: 13 - MANATEE

Site: 0072 - SR 64, EAST OF LENA ROAD

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	23000 C	E 11500	W 11500	13.22	60.14	7.40
2008	28000 F	E 14000	W 14000	10.99	59.34	7.80
2007	29000 C	E 14500	W 14500	10.21	55.66	7.80
2006	28000 C	E 14000	W 14000	10.19	54.91	11.00
2005	24500 S	E 12000	W 12500	10.10	53.40	10.90
2004	23500 F	E 11500	W 12000	10.40	56.00	10.90
2003	22500 C	E 11000	W 11500	10.20	55.90	10.90
2002	19800 C	E 9800	W 10000	10.40	56.10	9.60
2001	18000 C	E 8900	W 9100	10.50	54.00	9.70

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate
S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Florida Department of Transportation
Transportation Statistics Office
2009 Historical AADT Report

County: 13 - MANATEE

Site: 0073 - SR 64, EAST OF UPPER MANATEE RIVER ROAD

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	15300 C	E 7600	W 7700	13.22	60.14	7.00
2008	15500 F	E 8000	W 7500	10.99	59.34	12.70
2007	16100 C	E 8300	W 7800	10.21	55.66	12.70
2006	21000 C	E 10500	W 10500	10.19	54.91	12.30
2005	15800 C	E 8000	W 7800	10.10	53.40	10.00
2004	16300 C	E 8100	W 8200	10.40	56.00	10.00
2003	14900 C	E 7400	W 7500	10.20	55.90	13.70
2002	12400 C	E 6200	W 6200	10.40	56.10	14.00
2001	11200 C	E 5300	W 5900	10.50	54.00	10.40

15900

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate
S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Florida Department of Transportation
Transportation Statistics Office
2009 Historical AADT Report

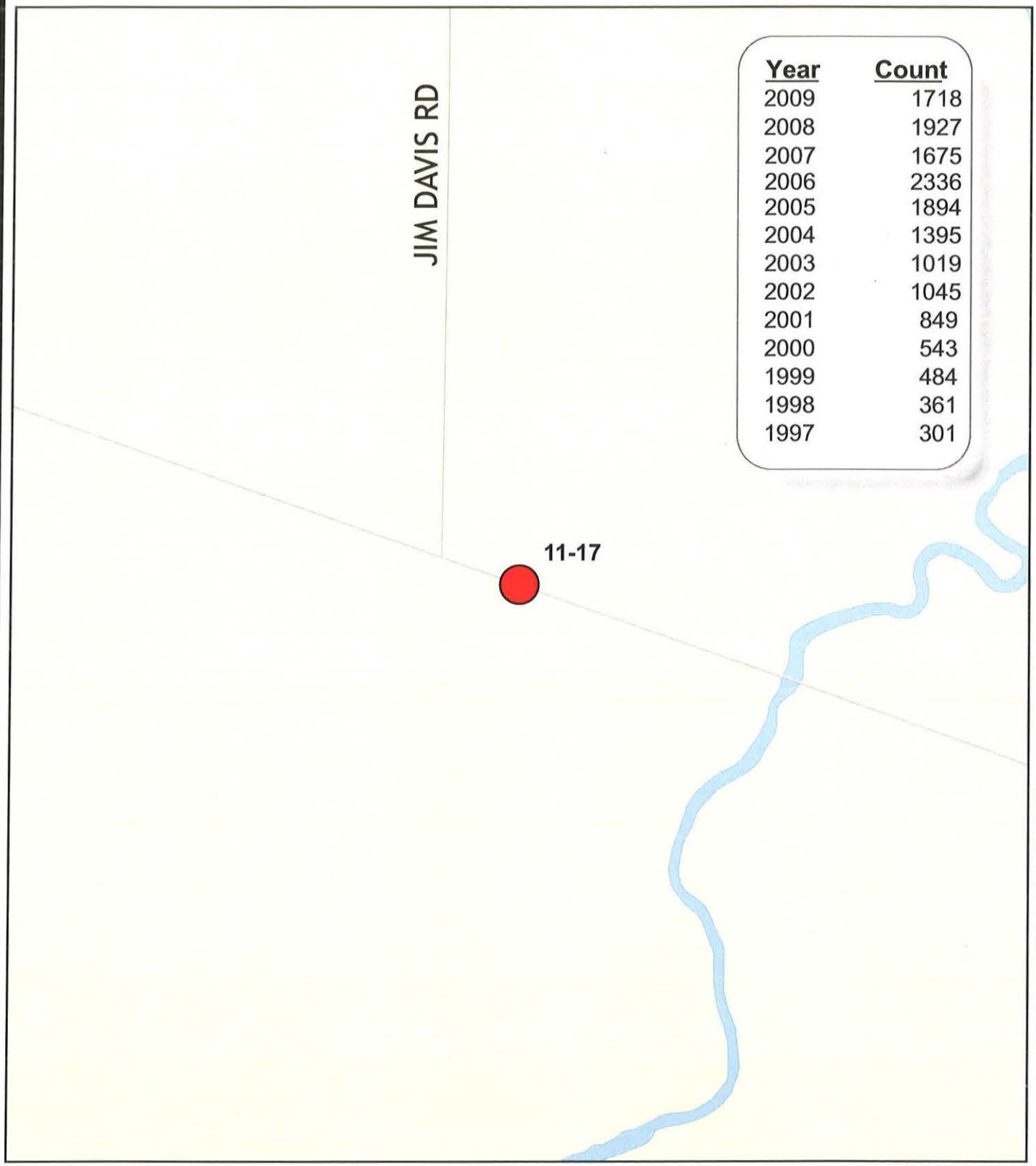
County: 13 - MANATEE

Site: 1102 - FORT HAMMER RD, S OF SR 43/US 301 MC 11-02

Year	AADT	Direction 1	Direction 2	K Factor	D Factor	T Factor
2009	1500 F	N 800	S 700	11.36	61.18	6.90
2008	1500 C	N 800	S 700	14.25	66.71	6.90

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate
S = Second Year Estimate; T = Third Year Estimate; X = Unknown

Traffic Count Station 11-17



Year	Count
2009	1718
2008	1927
2007	1675
2006	2336
2005	1894
2004	1395
2003	1019
2002	1045
2001	849
2000	543
1999	484
1998	361
1997	301

Count Stations

send corrections to gis@mymanatee.org

Feet

260 130 0 260

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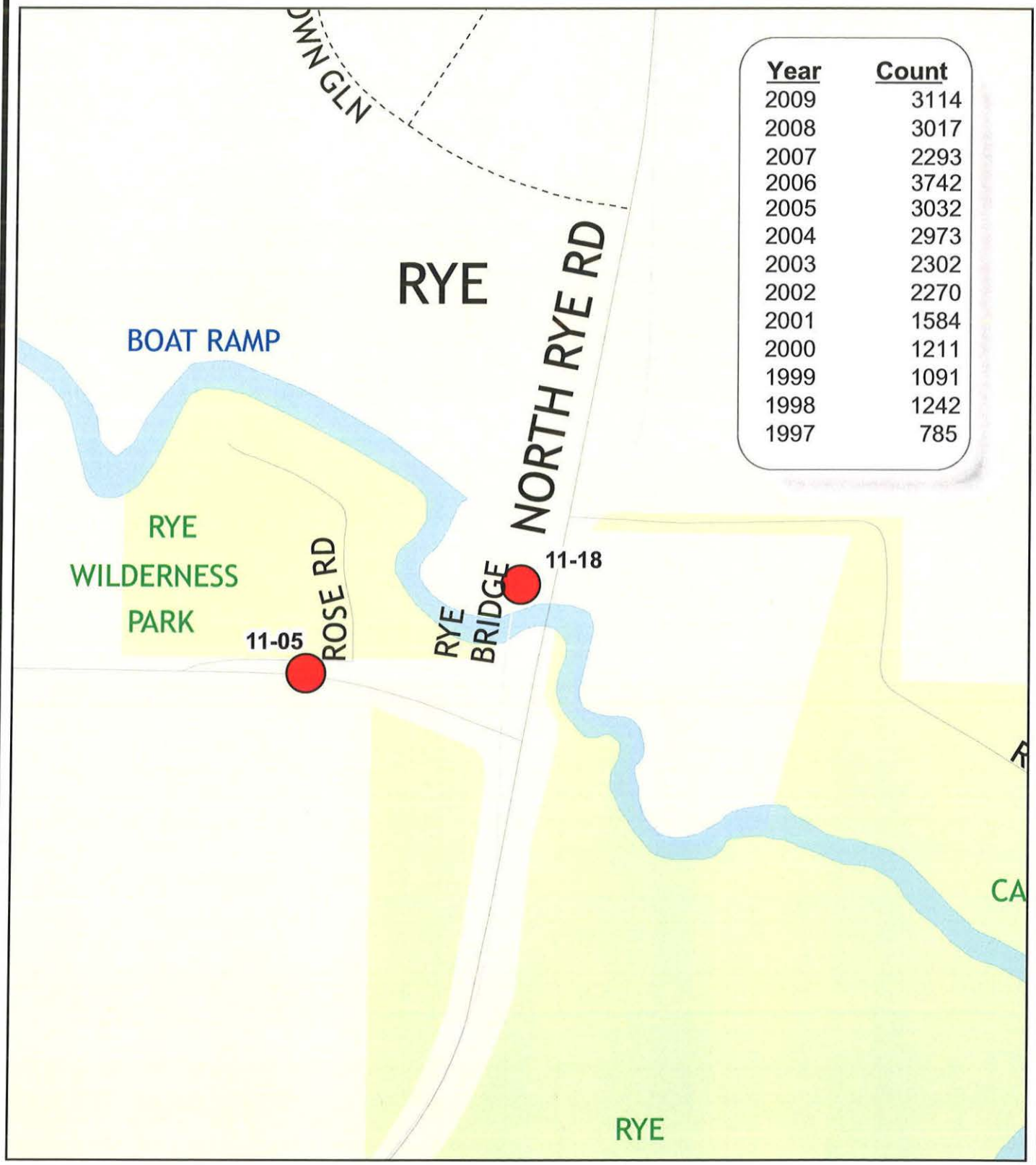
Projection: State Plane Florida West (U.S. Feet)
Coordinate System: Transverse Mercator
Datum: North American 1983
False Easting: 656166.666667
False Northing: 0.000000
Central Meridian: -82.000000
Scale Factor: 0.999941
Latitude of Origin: 24.333333

Traffic Count Station 11-18



Year	Count
2009	3114
2008	3017
2007	2293
2006	3742
2005	3032
2004	2973
2003	2302
2002	2270
2001	1584
2000	1211
1999	1091
1998	1242
1997	785

Count Stations

send corrections to gis@mymanatee.org

Feet

260 130 0 260

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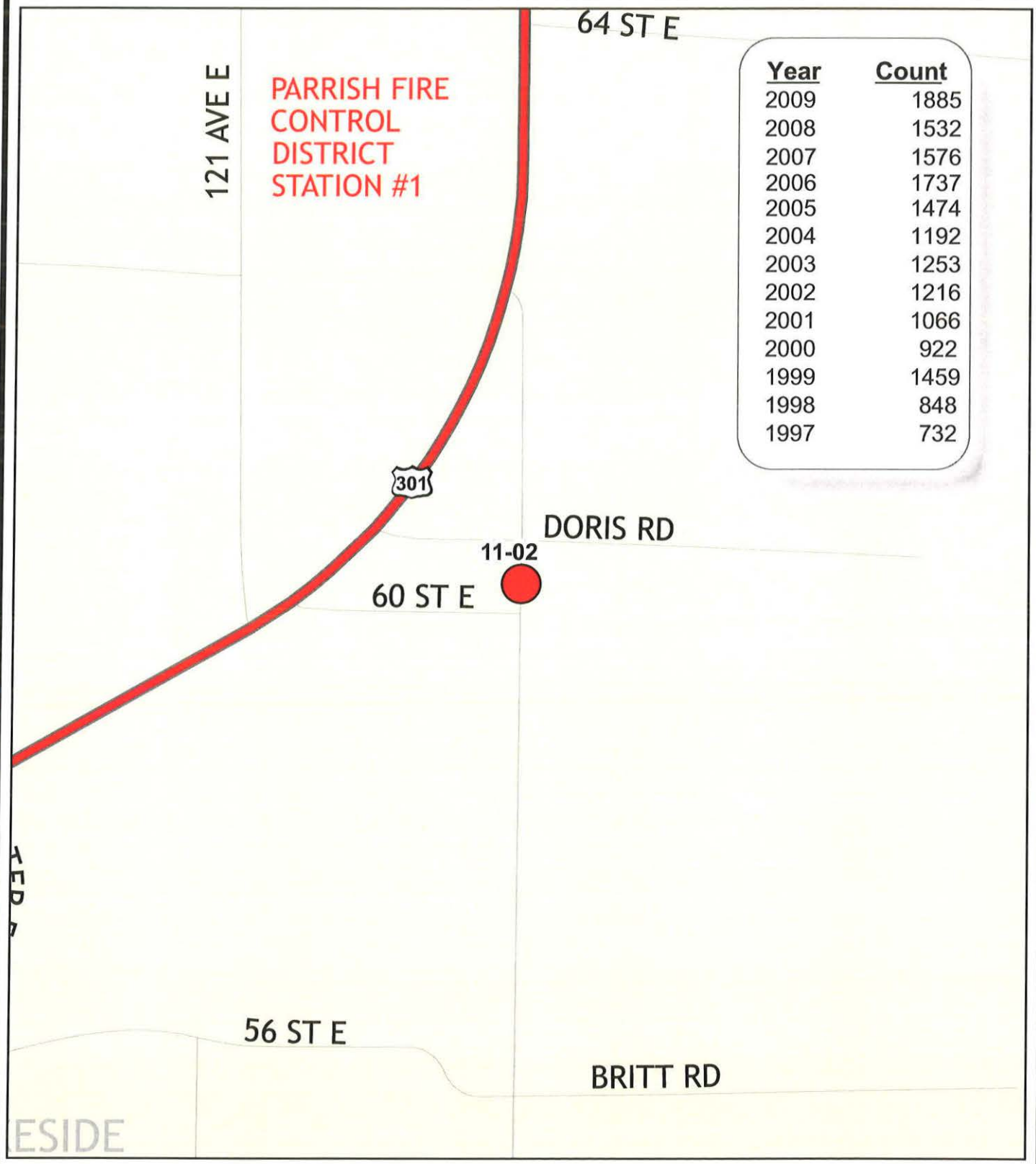
Coordinate System: Transverse Mercator
Datum: North American 1983
False Easting: 656166.666667
False Northing: 0.000000
Central Meridian: -82.000000
Scale Factor: 0.999941
Latitude of Origin: 24.333333

Traffic Count Station 11-02



Year	Count
2009	1885
2008	1532
2007	1576
2006	1737
2005	1474
2004	1192
2003	1253
2002	1216
2001	1066
2000	922
1999	1459
1998	848
1997	732

Count Stations

send corrections to gis@mymanatee.org

Feet

260 130 0 260

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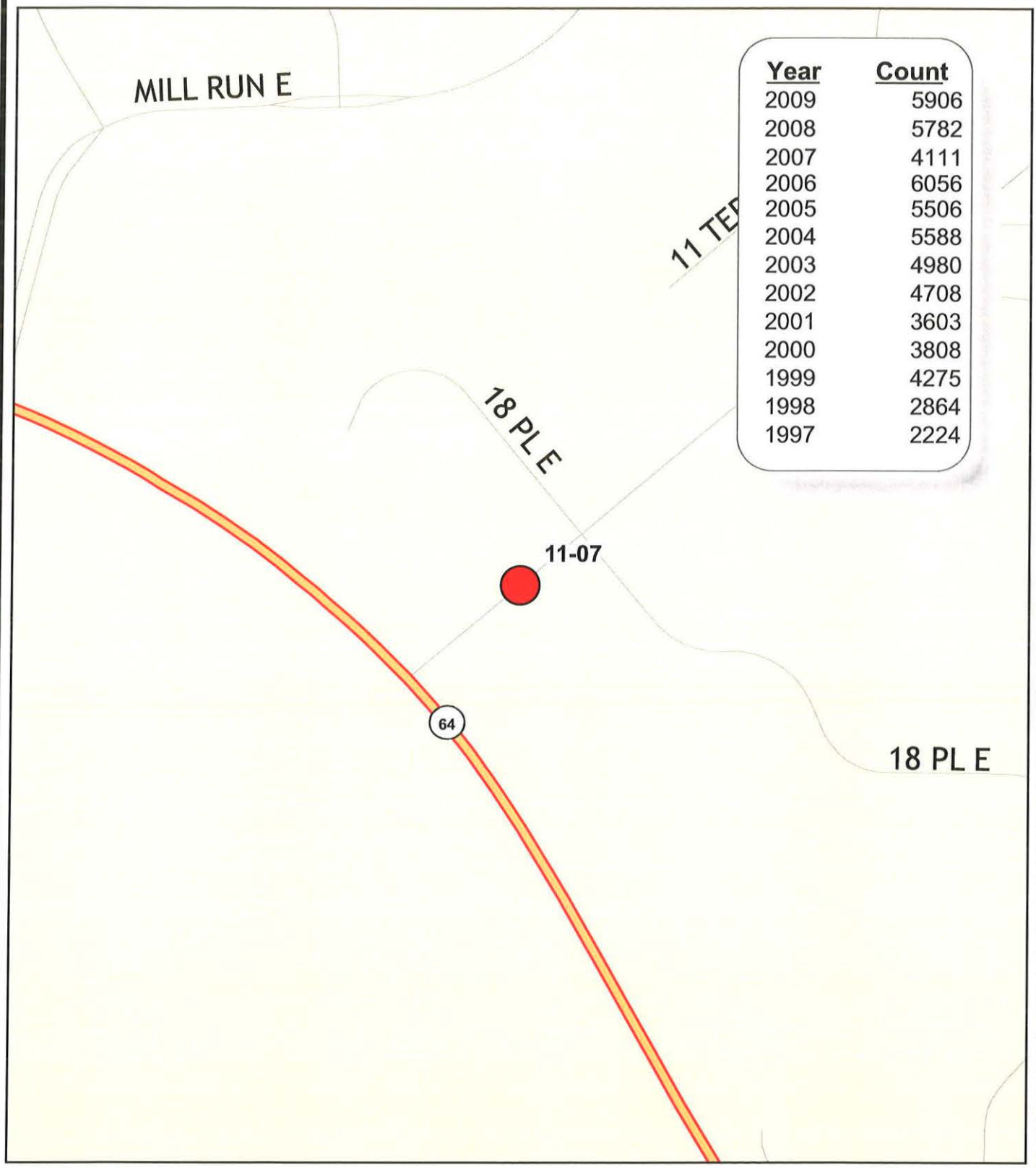
Projection: State Plane Florida West (U.S. Feet)
Coordinate System: Transverse Mercator
Datum: North American 1983
False Easting: 656166.666667
False Northing: 0.000000
Central Meridian: -82.000000
Scale Factor: 0.999941
Latitude of Origin: 24.333333

Traffic Count Station 11-07



Year	Count
2009	5906
2008	5782
2007	4111
2006	6056
2005	5506
2004	5588
2003	4980
2002	4708
2001	3603
2000	3808
1999	4275
1998	2864
1997	2224

Count Stations

send corrections to gis@mymanatee.org

Feet

260 130 0 260

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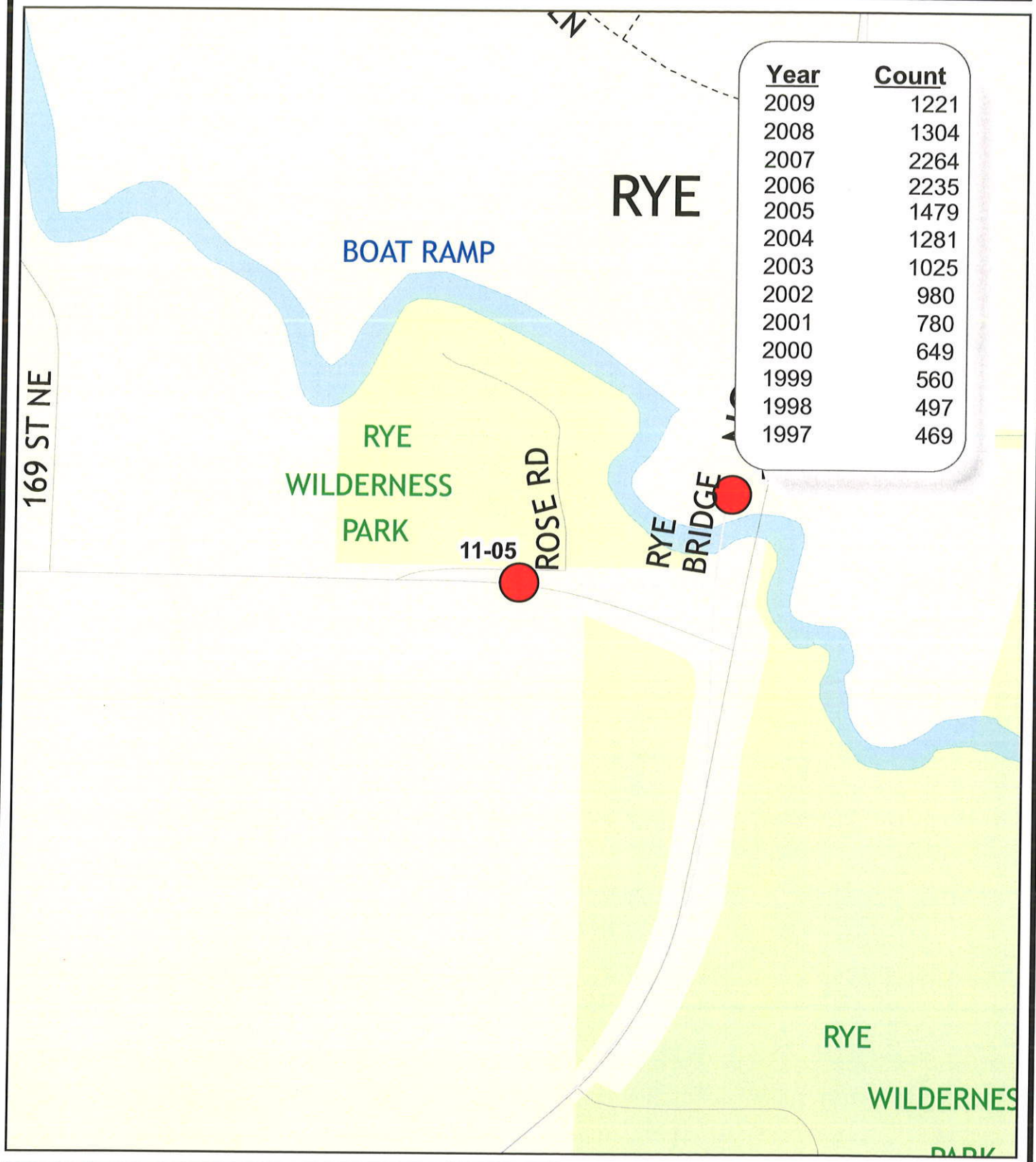
Projection: State Plane Florida West (U.S. Feet)
Coordinate System: Transverse Mercator
Datum: North American 1983
False Easting: 656166.666667
False Northing: 0.000000
Central Meridian: -82.000000
Scale Factor: 0.999941
Latitude of Origin: 24.333333

Traffic Count Station 11-05



Year	Count
2009	1221
2008	1304
2007	2264
2006	2235
2005	1479
2004	1281
2003	1025
2002	980
2001	780
2000	649
1999	560
1998	497
1997	469

Count Stations

send corrections to gis@mymanatee.org

Feet

260 130 0 260

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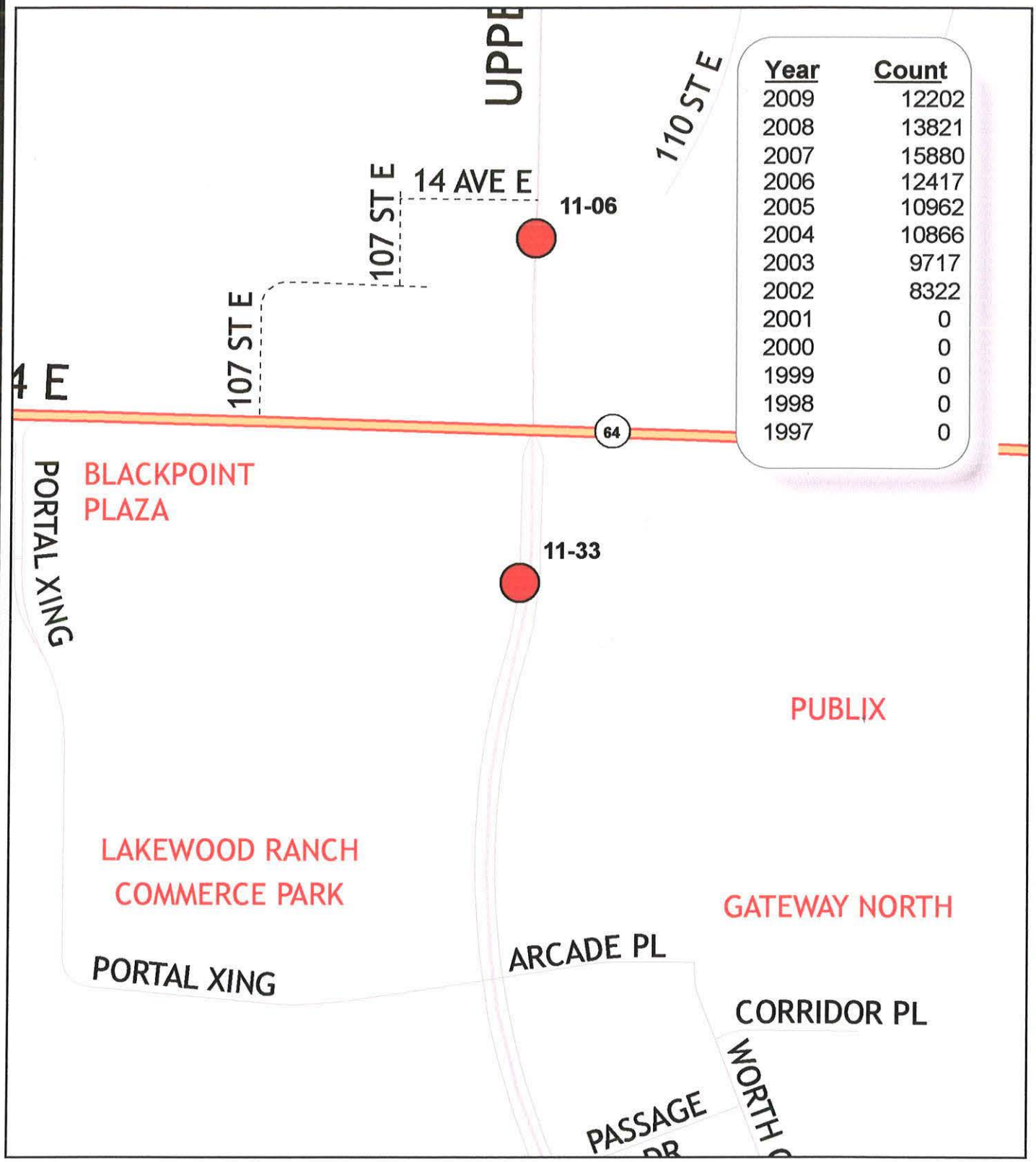
Projection: State Plane Florida West (U.S. Feet)
Coordinate System: Transverse Mercator
Datum: North American 1983
False Easting: 656166.666667
False Northing: 0.000000
Central Meridian: -82.000000
Scale Factor: 0.999941
Latitude of Origin: 24.333333

Traffic Count Station 11-33



Year	Count
2009	12202
2008	13821
2007	15880
2006	12417
2005	10962
2004	10866
2003	9717
2002	8322
2001	0
2000	0
1999	0
1998	0
1997	0

Count Stations

send corrections to gis@mymanatee.org

Feet

260 130 0 260

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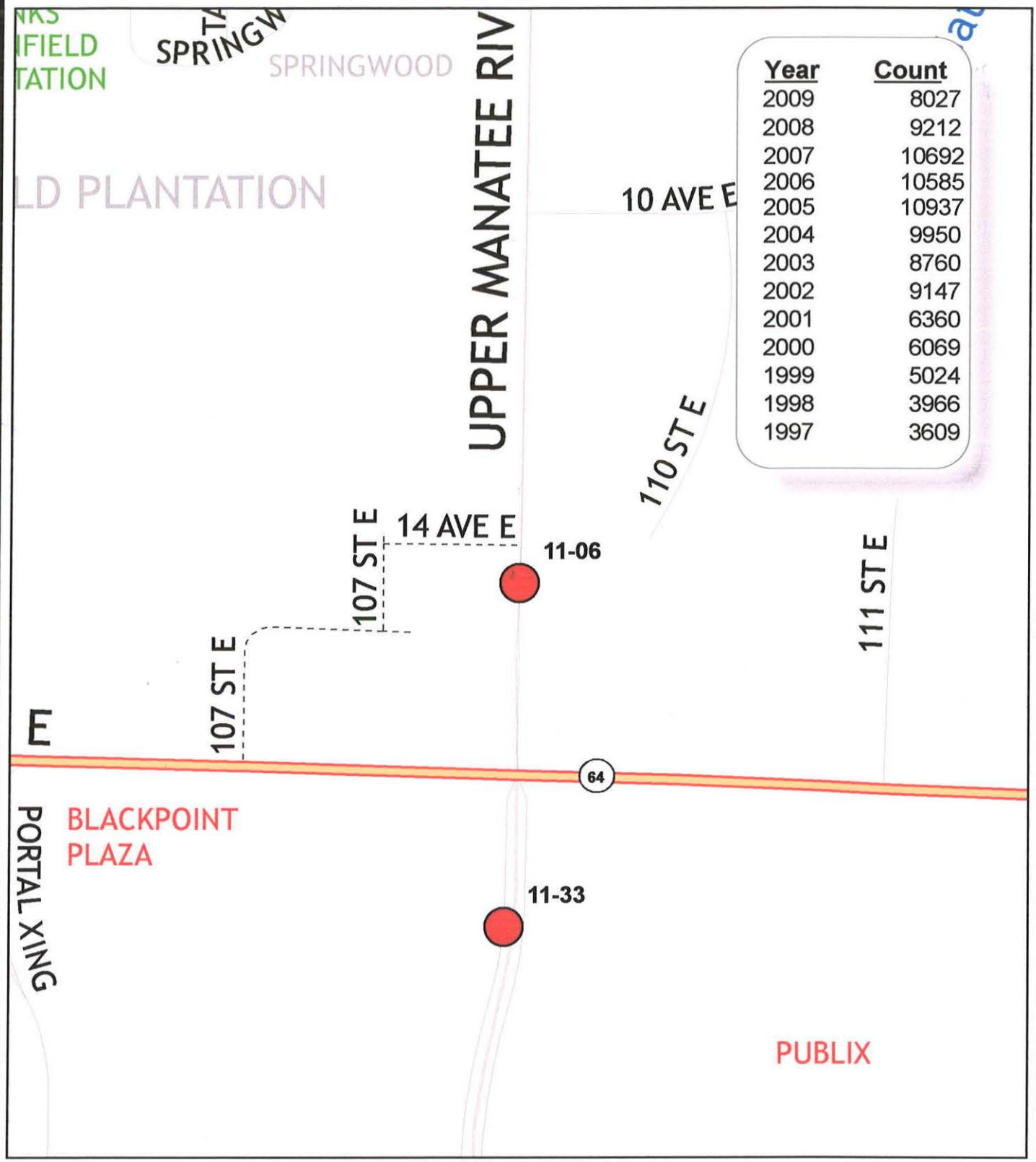
Projection: State Plane Florida West (U.S. Feet)
Coordinate System: Transverse Mercator
Datum: North American 1983
False Easting: 656166.666667
False Northing: 0.000000
Central Meridian: -82.000000
Scale Factor: 0.999941
Latitude of Origin: 24.333333

GIS

Traffic Count Station 11-06



Year	Count
2009	8027
2008	9212
2007	10692
2006	10585
2005	10937
2004	9950
2003	8760
2002	9147
2001	6360
2000	6069
1999	5024
1998	3966
1997	3609

Count Stations

send corrections to gis@mymanatee.org

Feet

260 130 0 260

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Projection: State Plane Florida West (U.S. Feet)
Coordinate System: Transverse Mercator
Datum: North American 1983
False Easting: 656166.666667
False Northing: 0.000000
Central Meridian: -82.000000
Scale Factor: 0.999941
Latitude of Origin: 24.333333

APPENDIX B

Baseline (2011) Analysis of Unsignalized and Signalized Intersections

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/11
Analysis Time Period: AM Peak
Intersection: UMRR/Greeefield Blvd.
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS
East/West Street: GREENFIELD BLVD
North/South Street: UMRR
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	14	119	1	0	495	67
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.85	0.85	0.85
Hourly Flow Rate, HFR	17	148	1	0	582	78
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Raised curb			/ 1		
RT Channelized?						No
Lanes	1	1	0	0	1	1
Configuration	L		TR	LT		R
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2		0	16		57
Peak Hour Factor, PHF	0.50		0.50	0.77		0.77
Hourly Flow Rate, HFR	4		0	20		74
Percent Heavy Vehicles	0		0	0		2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0	1		1
Configuration		LR		L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	LT		LR		L		R
v (vph)	17	0		4		20		74
C(m) (vph)	938	1445		319		413		513
v/c	0.02	0.00		0.01		0.05		0.14
95% queue length	0.06	0.00		0.04		0.15		0.50
Control Delay	8.9	7.5		16.4		14.2		13.2
LOS	A	A		C		B		B
Approach Delay				16.4			13.4	
Approach LOS				C			B	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/16/2011
Analysis Time Period: AM
Intersection: UMRR/Waterlefe Blvd
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: Waterlefe Blvd.
North/South Street: Upper Manatee River Rd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	28	107			463	10
Peak-Hour Factor, PHF	0.63	0.90			0.95	0.95
Hourly Flow Rate, HFR	44	118			487	10
Percent Heavy Vehicles	4	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	1	1			1	0
Configuration	L	T				TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				2		99
Peak Hour Factor, PHF				0.95		0.75
Hourly Flow Rate, HFR				2		132
Percent Heavy Vehicles				4		4
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes				1		1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L					L		R
v (vph)	44					2		132
C(m) (vph)	1057					387		573
v/c	0.04					0.01		0.23
95% queue length	0.13					0.02		0.88
Control Delay	8.6					14.4		13.2
LOS	A					B		B
Approach Delay							13.2	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Analyst: URS
Agency/Co.: URS
Date Performed: 3/16/2011
Analysis Time Period: AM
Intersection: UMRR/Gates Ck Rd
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: Upper Manatee River Rd.
North/South Street: Gates Creek Rd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	105	4	3	443	1
Peak-Hour Factor, PHF	0.66	0.66	0.66	0.94	0.94	0.94
Hourly Flow Rate, HFR	0	159	6	3	471	1
Percent Heavy Vehicles	4	--	--	4	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	1	1	0	0	1	0
Configuration	L	TR		LTR		
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	5	0	5	1	0	25
Peak Hour Factor, PHF	0.83	0.83	0.83	0.57	0.57	0.57
Hourly Flow Rate, HFR	6	0	6	1	0	43
Percent Heavy Vehicles	4	4	4	4	4	4
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	LTR		LTR			LTR	
v (vph)	0	3		12			44	
C(m) (vph)	1079	1401		495			581	
v/c	0.00	0.00		0.02			0.08	
95% queue length	0.00	0.01		0.07			0.24	
Control Delay	8.3	7.6		12.5			11.7	
LOS	A	A		B			B	
Approach Delay				12.5			11.7	
Approach LOS				B			B	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM Peak
Intersection: Mulholland Rd & Ft Hamer Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS
East/West Street: MULHOLLAND RD
North/South Street: FT HAMER RD
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		7	0	35	10	
Peak-Hour Factor, PHF		0.40	0.40	0.72	0.72	
Hourly Flow Rate, HFR		17	0	48	13	
Percent Heavy Vehicles		--	--	5	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0		0	1
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0		133			
Peak Hour Factor, PHF	0.72		0.72			
Hourly Flow Rate, HFR	0		184			
Percent Heavy Vehicles	1		1			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		48		184				
C(m) (vph)		1581		1065				
v/c		0.03		0.17				
95% queue length		0.09		0.62				
Control Delay		7.3		9.1				
LOS		A		A				
Approach Delay				9.1				
Approach LOS				A				

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM Peak
Intersection: Golf Course Rd & Ft Hamer Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS
East/West Street: GOLF COURSE RD
North/South Street: FT HAMER RD
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		128	71	16	72	
Peak-Hour Factor, PHF		0.68	0.68	0.74	0.74	
Hourly Flow Rate, HFR		188	104	21	97	
Percent Heavy Vehicles		--	--	1	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	1	1	
Configuration			TR	L	T	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	78		19			
Peak Hour Factor, PHF	0.70		0.70			
Hourly Flow Rate, HFR	111		27			
Percent Heavy Vehicles	1		1			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes		1	1			
Configuration		L	R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		L	L		R			
v (vph)		21	111		27			
C(m) (vph)		1275	615		801			
v/c		0.02	0.18		0.03			
95% queue length		0.05	0.65		0.10			
Control Delay		7.9	12.1		9.7			
LOS		A	B		A			
Approach Delay				11.7				
Approach LOS				B				

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM Peak
Intersection: US 301 & Ft Hamer Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS Note: US 301 under construction
East/West Street: US 301
North/South Street: FT HAMER RD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		178	17	65	170	
Peak-Hour Factor, PHF		0.86	0.86	0.93	0.93	
Hourly Flow Rate, HFR		206	19	69	182	
Percent Heavy Vehicles		--	--	3	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	33		131			
Peak Hour Factor, PHF	0.74		0.74			
Hourly Flow Rate, HFR	44		177			
Percent Heavy Vehicles	3		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0	0				
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		69		221				
C(m) (vph)		1338		720				
v/c		0.05		0.31				
95% queue length		0.16		1.30				
Control Delay		7.8		12.2				
LOS		A		B				
Approach Delay				12.2				
Approach LOS				B				

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM
Intersection: SR 64/Rye Rd.
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: SR 64
North/South Street: Rye Rd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	146	296			257	40
Peak-Hour Factor, PHF	0.81	0.81			0.77	0.77
Hourly Flow Rate, HFR	180	365			333	51
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	TWLTL			/ 1		
RT Channelized?						No
Lanes	1	2			2	1
Configuration	L	T			T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				78		338
Peak Hour Factor, PHF				0.76		0.76
Hourly Flow Rate, HFR				102		444
Percent Heavy Vehicles				2		2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L						LR	
v (vph)	180						546	
C(m) (vph)	1186						690	
v/c	0.15						0.79	
95% queue length	0.53						7.90	
Control Delay	8.6						27.0	
LOS	A						D	
Approach Delay							27.0	
Approach LOS							D	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM
Intersection: Rye Rd/UMRR
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: UMRR
North/South Street: Rye Rd.
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	10	64			154	28
Peak-Hour Factor, PHF	0.69	0.69			0.86	0.86
Hourly Flow Rate, HFR	14	92			179	32
Percent Heavy Vehicles		--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				25		27
Peak Hour Factor, PHF				0.75		0.75
Hourly Flow Rate, HFR				33		36
Percent Heavy Vehicles				0		3
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	14						69	
C(m) (vph)	1302						754	
v/c	0.01						0.09	
95% queue length	0.03						0.30	
Control Delay	7.8						10.3	
LOS	A						B	
Approach Delay							10.3	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM
Intersection: Rye Rd/Golf Course Rd.
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: Golf Course Rd
North/South Street: Rye Rd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	47	53			79	10
Peak-Hour Factor, PHF	0.70	0.70			0.80	0.80
Hourly Flow Rate, HFR	67	75			98	12
Percent Heavy Vehicles	6	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				5		97
Peak Hour Factor, PHF				0.80		0.80
Hourly Flow Rate, HFR				6		121
Percent Heavy Vehicles				2		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	67						127	
C(m) (vph)	1456						935	
v/c	0.05						0.14	
95% queue length	0.14						0.47	
Control Delay	7.6						9.5	
LOS	A						A	
Approach Delay							9.5	
Approach LOS							A	

2011AM_UMRR_SR 64
HCS+: Signalized Intersections Release 5.5

Analyst:
Roa20Agency: URS
Date: 3/15/2011
Period: AM PEAK
Project ID: UMRR EIS
E/W St: SR 64

Inter.: SR 64 & Upper Manatee River
Area Type: All other areas
Jurisd: Manatee County
Year : 2011 Existing

N/S St: Upper Manatee River Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	3	1	2	3	1	2	3	1	2	3	1
LGConfig	L	T	R	L	T	R	L	T	R	L	T	R
Volume	112	338	282	261	669	10	205	116	73	50	215	289
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A			
	Thru		A				Thru		A		
	Right	A	A				Right	A	A		
	Peds						Peds				
WB	Left	A				SB	Left	A			
	Thru		A				Thru		A		
	Right	A	A				Right		A		
	Peds						Peds				
NB	Right	A				EB	Right	A			
SB	Right	A				WB	Right	A			
Green		20.0	30.0					20.0	30.0		
Yellow		4.0	4.0					4.0	4.0		
All Red		1.0	1.0					1.0	1.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	556	3338	0.25	0.17	43.7	D		
T	1232	4929	0.33	0.25	37.0	D	27.2	C
R	1025	1538	0.34	0.67	8.8	A		
Westbound								
L	546	3276	0.49	0.17	46.0	D		
T	1209	4837	0.56	0.25	39.9	D	41.3	D
R	1006	1509	0.01	0.67	6.7	A		
Northbound								
L	522	3130	0.43	0.17	45.5	D		
T	1155	4621	0.11	0.25	34.7	C	35.2	D
R	961	1442	0.08	0.67	7.1	A		
Southbound								
L	573	3437	0.10	0.17	42.5	D		
T	1269	5074	0.20	0.25	35.6	D	29.7	C
R	726	1583	0.48	0.46	23.1	C		

Intersection Delay = 33.5 (sec/veh) Intersection LOS = C

2011AM_UMRR_SR 64

Baseline

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM PEAK
Intersection: SR 64 & Upper Manatee River Roa2011 Existing
Area Type: All other areas
Jurisdiction: Manatee County
Analysis Year: 2011 Existing
Project ID: UMRR EIS
E/W St: SR 64 N/S St: Upper Manatee River Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	112	338	282	261	669	10	205	116	73	50	215	289
% Heavy Veh	5	5	5	7	7	7	12	12	12	2	2	2
PHF	0.82	0.82	0.82	0.98	0.98	0.98	0.91	0.91	0.91	0.83	0.83	0.83
PK 15 Vol	34	103	86	67	171	3	56	32	20	15	65	87
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
ParkExist												
NumPark												
No. Lanes	2	3	1	2	3	1	2	3	1	2	3	1
LGConfig	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0
Adj Flow	137	412	344	266	683	10	225	127	80	60	259	348
%InSharedLn												
Prop LTs		0.000			0.000			0.000			0.000	
Prop RTs		0.000	1.000		0.000	1.000		0.000	1.000		0.000	1.000
Peds Bikes		0			0			0			0	
Buses	0	0	0	0	0	0	0	0	0	0	0	0
%InProtPhase												
Duration	0.25		Area Type: All other areas									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arriv. Type	3	3	3	3	3	3	3	3	3	3	3	3
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination 1 2 3 4 | 5 6 7 8

EB	Left	A		NB	Left	A	
	Thru		A		Thru		A
	Right	A	A		Right	A	A
	Peds				Peds		
WB	Left	A		SB	Left	A	
	Thru		A		Thru		A
	Right	A	A		Right		A
	Peds				Peds		
NB	Right	A		EB	Right	A	
SB	Right	A		WB	Right	A	
Green		20.0	30.0			20.0	30.0
Yellow		4.0	4.0			4.0	4.0
All Red		1.0	1.0			1.0	1.0

Cycle Length: 120.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	112	338	282	261	669	10	205	116	73	50	215	289
PHF	0.82	0.82	0.82	0.98	0.98	0.98	0.91	0.91	0.91	0.83	0.83	0.83
Adj flow	137	412	344	266	683	10	225	127	80	60	259	348
No. Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Adj flow	137	412	344	266	683	10	225	127	80	60	259	348
Prop LTs		0.000			0.000			0.000			0.000	
Prop RTs		0.000	1.000		0.000	1.000		0.000	1.000		0.000	1.000

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
LG	L	T	R	L	T	R	L	T	R	L	T	R
So	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lanes	2	3	1	2	3	1	2	3	1	2	3	1
fW	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fHV	0.952	0.952	0.952	0.935	0.935	0.935	0.893	0.893	0.893	0.980	0.980	0.980
fG	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fP	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fBB	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
fLU	0.971	0.908	1.000	0.971	0.908	1.000	0.971	0.908	1.000	0.971	0.908	1.000
fRT		1.000	0.850		1.000	0.850		1.000	0.850		1.000	0.850
fLT	0.950	1.000		0.950	1.000		0.950	1.000		0.950	1.000	
Sec.												
fLpb	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
fRpb		1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000
S	3338	4929	1538	3276	4837	1509	3130	4621	1442	3437	5074	1583
Sec.												

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound							
	Prot						

Perm							
Left	L	137	3338	0.04	0.17	556	0.25
Prot							
Perm							
Thru	T	412	4929	0.08	0.25	1232	0.33
Right	R	344	1538	0.22	0.67	1025	0.34
Westbound							
Prot							
Perm							
Left	L	266	3276	0.08	0.17	546	0.49
Prot							
Perm							
Thru	T	683	4837	# 0.14	0.25	1209	0.56
Right	R	10	1509	0.01	0.67	1006	0.01
Northbound							
Prot							
Perm							
Left	L	225	3130	# 0.07	0.17	522	0.43
Prot							
Perm							
Thru	T	127	4621	0.03	0.25	1155	0.11
Right	R	80	1442	0.06	0.67	961	0.08
Southbound							
Prot							
Perm							
Left	L	60	3437	0.02	0.17	573	0.10
Prot							
Perm							
Thru	T	259	5074	0.05	0.25	1269	0.20
Right	R	348	1583	# 0.22	0.46	726	0.48

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.43
Total lost time per cycle, L = 15.00 sec
Critical flow rate to capacity ratio, Xc = (Yc)(C)/(C-L) = 0.49

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios v/c	Ratios g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Incremental Del d2	Res Del d3	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound												
L	0.25	0.17	43.5	1.000	556	0.11	0.2	0.0	43.7	D		
T	0.33	0.25	36.8	1.000	1232	0.11	0.2	0.0	37.0	D	27.2	C
R	0.34	0.67	8.6	1.000	1025	0.11	0.2	0.0	8.8	A		
Westbound												
L	0.49	0.17	45.3	1.000	546	0.11	0.7	0.0	46.0	D		
T	0.56	0.25	39.3	1.000	1209	0.16	0.6	0.0	39.9	D	41.3	D
R	0.01	0.67	6.7	1.000	1006	0.11	0.0	0.0	6.7	A		
Northbound												
L	0.43	0.17	44.9	1.000	522	0.11	0.6	0.0	45.5	D		
T	0.11	0.25	34.7	1.000	1155	0.11	0.0	0.0	34.7	C	35.2	D
R	0.08	0.67	7.1	1.000	961	0.11	0.0	0.0	7.1	A		
Southbound												
L	0.10	0.17	42.4	1.000	573	0.11	0.1	0.0	42.5	D		
T	0.20	0.25	35.6	1.000	1269	0.11	0.1	0.0	35.6	D	29.7	C
R	0.48	0.46	22.6	1.000	726	0.11	0.5	0.0	23.1	C		

Intersection delay = 33.5 (sec/veh) Intersection LOS = C

SUPPLEMENTAL PERMITTED LT WORKSHEET
for exclusive lefts
Page 4

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				
Cycle length, C 120.0 sec				
Total actual green time for LT lane group, G (s)				
Effective permitted green time for LT lane group, g(s)				
Opposing effective green time, go (s)				
Number of lanes in LT lane group, N				
Number of lanes in opposing approach, No				
Adjusted LT flow rate, VLT (veh/h)				
Proportion of LT in LT lane group, PLT				
Proportion of LT in opposing flow, PLTo				
Adjusted opposing flow rate, Vo (veh/h)				
Lost time for LT lane group, tL				
Computation				
LT volume per cycle, LTC=VLTC/3600				
Opposing lane util. factor, fLUo	0.908	0.908	0.908	0.908
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)				
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g				
Opposing platoon ratio, Rpo (refer Exhibit 16-11)				
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]				
gq, (see Exhibit C16-4,5,6,7,8)				
gu=g-gq if gq>=gf, or = g-gf if gq<gf				
n=Max(gq-gf)/2,0)				
PTHo=1-PLTo				
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]				
EL1 (refer to Exhibit C16-3)				
EL2=Max((1-Ptho**n)/Plto, 1.0)				
fmin=2(1+PL)/g or fmin=2(1+Pl)/g				
gdiff=max(gq-gf,0)				
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)				
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT				

For special case of single-lane approach opposed by multilane approach, see text.
* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.
** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.
For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET
for shared lefts

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				
Cycle length, C 120.0 sec				
Total actual green time for LT lane group, G (s)				
Effective permitted green time for LT lane group, g(s)				
Opposing effective green time, go (s)				
Number of lanes in LT lane group, N				
Number of lanes in opposing approach, No				
Adjusted LT flow rate, VLT (veh/h)				
Proportion of LT in LT lane group, PLT	0.000	0.000	0.000	0.000
Proportion of LT in opposing flow, PLTo				
Adjusted opposing flow rate, Vo (veh/h)				
Lost time for LT lane group, tL				
Computation				
LT volume per cycle, LTC=VLTC/3600				
Opposing lane util. factor, fLUo	0.908	0.908	0.908	0.908
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)				

gf=G[exp(- a * (LTC ** b))]-tl, gf<=g
Opposing platoon ratio, Rpo (refer Exhibit 16-11)
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]
gq, (see Exhibit C16-4,5,6,7,8)
gu=g-gq if gq>=gf, or = g-gf if gq<gf
n=Max(gq-gf)/2,0)
PTHo=1-PLTo
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]
EL1 (refer to Exhibit C16-3)
EL2=Max((1-Ptho**n)/Plto, 1.0)
fmin=2(1+PL)/g or fmin=2(1+Pl)/g
gdiff=max(gq-gf,0)
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)
or flt=[fm+0.91(N-1)]/N**
Left-turn adjustment, fLT

For special case of single-lane approach opposed by multilane approach, see text.
* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.
** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.
For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns	EB	WB	NB	SB
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Pedestrian flow rate, Vpedg (p/h)				
OCCpedg				
Opposing queue clearing green, gq (s)				
Eff. ped. green consumed by opp. veh. queue, gq/gp				
OCCpedu				
Opposing flow rate, Vo (veh/h)				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion of left turns, PLT				
Proportion of left turns using protected phase, PLTA				
Left-turn adjustment, fLpb				
Permitted Right Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Conflicting bicycle volume, Vbic (bicycles/h)				
Vpedg				
OCCpedg				
Effective green, g (s)				
Vbicg				
OCCbicg				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion right-turns, PRT				
Proportion right-turns using protected phase, PRTA				
Right turn adjustment, fRpb				

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT

Cycle length, C 120.0 sec
Adj. LT vol from Vol Adjustment Worksheet, v
v/c ratio from Capacity Worksheet, X
Protected phase effective green interval, g (s)
Opposing queue effective green interval, gq
Unopposed green interval, gu
Red time r=(C-g-gq-gu)
Arrival rate, qa=v/(3600(max[X,1.0]))
Protected ph. departure rate, Sp=s/3600
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)
XPerm
XProt
Case
Queue at beginning of green arrow, Qa
Queue at beginning of unsaturated green, Qu
Residual queue, Qr
Uniform Delay, d1

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay Unadj. ds	Uniform Delay Adj. d1 sec	Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
Eastbound								
L	0.0	0.00	50.0	43.5	0.00	0.0	0.0	43.7
T	0.0	0.00	45.0	36.8	0.00	0.0	0.0	37.0
R	0.0	0.00	20.0	8.6	0.00	0.0	0.0	8.8
Westbound								
L	0.0	0.00	50.0	45.3	0.00	0.0	0.0	46.0
T	0.0	0.00	45.0	39.3	0.00	0.0	0.0	39.9
R	0.0	0.00	20.0	6.7	0.00	0.0	0.0	6.7
Northbound								
L	0.0	0.00	50.0	44.9	0.00	0.0	0.0	45.5
T	0.0	0.00	45.0	34.7	0.00	0.0	0.0	34.7
R	0.0	0.00	20.0	7.1	0.00	0.0	0.0	7.1
Southbound								
L	0.0	0.00	50.0	42.4	0.00	0.0	0.0	42.5
T	0.0	0.00	45.0	35.6	0.00	0.0	0.0	35.6
R	0.0	0.00	32.5	22.6	0.00	0.0	0.0	23.1

Intersection Delay 33.5 sec/veh Intersection LOS C

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound			Southbound		
LaneGroup	L	T	R	L	T	R	L	T	R	L	T	R
Init Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow Rate	70	151	344	136	250	10	115	46	80	30	95	348
So	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
No.Lanes	2	3	1	2	3	1	2	3	1	2	3	1
SL	1719	1809	1538	1687	1775	1509	1612	1696	1442	1770	1862	1583
LnCapacity	286	452	1025	281	443	1006	268	424	961	295	465	726
Flow Ratio	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.2
v/c Ratio	0.24	0.33	0.34	0.48	0.56	0.01	0.43	0.11	0.08	0.10	0.20	0.48
Grn Ratio	0.17	0.25	0.67	0.17	0.25	0.67	0.17	0.25	0.67	0.17	0.25	0.46
I Factor		1.000			1.000			1.000			1.000	
AT or PVG	3	3	3	3	3	3	3	3	3	3	3	3
Pltn Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

2011AM_UMRR_SR 64

PF2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1	2.0	4.1	4.9	4.1	7.3	0.1	3.4	1.2	0.9	0.8	2.5	8.1
kB	0.4	0.5	0.8	0.4	0.5	0.8	0.4	0.5	0.8	0.4	0.5	0.7
Q2	0.1	0.3	0.4	0.4	0.6	0.0	0.3	0.1	0.1	0.0	0.1	0.6
Q Average	2.2	4.4	5.3	4.5	7.9	0.1	3.7	1.2	1.0	0.9	2.6	8.7
Q Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q Storage	0	0	0	0	0	0	0	0	0	0	0	0
Q S Ratio												
70th Percentile Output:												
fB%	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
BOQ	2.6	5.2	6.3	5.3	9.4	0.1	4.4	1.5	1.2	1.1	3.1	10.2
QSRatio												
85th Percentile Output:												
fB%	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5
BOQ	3.4	6.8	8.3	7.0	12.1	0.2	5.8	2.0	1.6	1.4	4.2	13.2
QSRatio												
90th Percentile Output:												
fB%	1.8	1.7	1.7	1.7	1.7	1.8	1.7	1.8	1.8	1.8	1.8	1.7
BOQ	3.8	7.5	9.1	7.7	13.2	0.2	6.4	2.2	1.8	1.6	4.6	14.4
QSRatio												
95th Percentile Output:												
fB%	2.0	2.0	1.9	2.0	1.9	2.1	2.0	2.1	2.1	2.1	2.0	1.9
BOQ	4.4	8.6	10.4	8.8	14.9	0.3	7.4	2.6	2.1	1.8	5.3	16.2
QSRatio												
98th Percentile Output:												
fB%	2.5	2.4	2.4	2.4	2.2	2.7	2.5	2.6	2.6	2.6	2.5	2.2
BOQ	5.5	10.6	12.6	10.8	17.8	0.3	9.1	3.2	2.7	2.3	6.6	19.2
QSRatio												

ERROR MESSAGES

No errors to report.

2011AM_Ft Hamer Rd_Old Tampa Rd
HCS+: Signalized Intersections Release 5.5

Analyst:
Agency: URS
Date: 03/15/2011
Period: AM PEAK
Project ID: UMRR EIS
E/W St: Old Tampa Rd/Cross Creek Rd.

Inter.: Ft. Hamer Rd. & Old Tampa Rd.
Area Type: All other areas
Jurisd:
Year : 2011 Existing
Note: Flash mode in PM
N/S St: Ft. Hamer Rd.

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	81	3	172	2	3	1	262	145	2	1	124	67
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A	A			NB	Left	A	A		
	Thru		A				Thru		A		
	Right		A				Right		A		
	Peds						Peds				
WB	Left	A	A			SB	Left	A	A		
	Thru		A				Thru		A		
	Right		A				Right		A		
	Peds						Peds				
NB	Right	A				EB	Right	A			
SB	Right	A				WB	Right	A			
Green		10.0	15.0					10.0	20.0		
Yellow		3.0	3.0					3.0	3.0		
All Red		2.0	2.0					2.0	2.0		

Cycle Length: 75.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	607	1770	0.16	0.40	14.4	B		
T	380	1900	0.01	0.20	24.1	C	15.5	B
R	633	1583	0.33	0.40	15.9	B		
Westbound								
L	621	1805	0.01	0.40	13.5	B		
T	380	1900	0.02	0.20	24.1	C	18.8	B
R	646	1615	0.00	0.40	13.5	B		
Northbound								
L	501	1787	0.77	0.47	25.0	C		
TR	496	1859	0.44	0.27	23.4	C	24.4	C
Southbound								
L	517	1805	0.00	0.47	11.0	B		
TR	472	1771	0.48	0.27	23.9	C	23.9	C

Intersection Delay = 21.8 (sec/veh) Intersection LOS = C

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/16/11
Analysis Time Period: PM Peak
Intersection: UMRR/Greefield Blvd.
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS Note: WB is a driveway to one house
East/West Street: GREENFIELD BLVD.
North/South Street: UMRR
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	53	385	1	0	251	21
Peak-Hour Factor, PHF	0.96	0.96	0.96	0.95	0.95	0.95
Hourly Flow Rate, HFR	55	401	1	0	264	22
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						No
Lanes	1	1	0	0	1	1
Configuration	L		TR	LT		R
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0		0	46		48
Peak Hour Factor, PHF	0.92		0.92	0.77		0.77
Hourly Flow Rate, HFR	0		0	59		62
Percent Heavy Vehicles	0		0	0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0	1		1
Configuration		LR		L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	LT		LR		L		R
v (vph)	55	0		0		59		62
C(m) (vph)	1288	1168				307		780
v/c	0.04	0.00				0.19		0.08
95% queue length	0.13	0.00				0.70		0.26
Control Delay	7.9	8.1				19.5		10.0+
LOS	A	A				C		B
Approach Delay							14.6	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Analyst: URS
Agency/Co.: URS
Date Performed: 3/16/2011
Analysis Time Period: PM
Intersection: UMRR/Waterlefe Blvd
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: Ft. Hamer Bridge
East/West Street: Waterlefe Blvd.
North/South Street: Upper Manatee River Rd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	99	332			215	1
Peak-Hour Factor, PHF	0.78	0.78			0.85	0.85
Hourly Flow Rate, HFR	126	425			252	1
Percent Heavy Vehicles	4	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	1	1			1	0
Configuration	L	T				TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				4		57
Peak Hour Factor, PHF				0.86		0.86
Hourly Flow Rate, HFR				4		66
Percent Heavy Vehicles				4		4
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes				1		1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L					L		R
v (vph)	126					4		66
C(m) (vph)	1301					266		782
v/c	0.10					0.02		0.08
95% queue length	0.32					0.05		0.28
Control Delay	8.1					18.7		10.0+
LOS	A					C		B
Approach Delay							10.5	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Analyst: URS
Agency/Co.: URS
Date Performed: 3/16/2011
Analysis Time Period: PM
Intersection: UMRR/Gates Ck Rd
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: Upper Manatee River Rd
North/South Street: Gates Creek Rd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	14	320	2	1	206	3
Peak-Hour Factor, PHF	0.47	0.77	0.77	0.81	0.81	0.81
Hourly Flow Rate, HFR	29	415	2	1	254	3
Percent Heavy Vehicles	4	--	--	4	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	1	1	0	0	1	0
Configuration	L	TR		LTR		
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	1	2	1	0	10
Peak Hour Factor, PHF	0.40	0.40	0.40	0.69	0.69	0.69
Hourly Flow Rate, HFR	0	2	4	1	0	14
Percent Heavy Vehicles	4	4	4	4	4	4
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	LTR		LTR			LTR	
v (vph)	29	1		6			15	
C(m) (vph)	1296	1131		489			712	
v/c	0.02	0.00		0.01			0.02	
95% queue length	0.07	0.00		0.04			0.06	
Control Delay	7.8	8.2		12.5			10.2	
LOS	A	A		B			B	
Approach Delay				12.5			10.2	
Approach LOS				B			B	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: AM Peak
Intersection: Mulholland Rd & Ft Hamer Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS
East/West Street: MULHOLLAND RD
North/South Street: FT HAMER RD
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		12	4	89	19	
Peak-Hour Factor, PHF		0.68	0.68	0.89	0.89	
Hourly Flow Rate, HFR		17	5	100	21	
Percent Heavy Vehicles		--	--	6	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	3		48			
Peak Hour Factor, PHF	0.66		0.66			
Hourly Flow Rate, HFR	4		72			
Percent Heavy Vehicles	6		6			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		100		76				
C(m) (vph)		1568		1019				
v/c		0.06		0.07				
95% queue length		0.20		0.24				
Control Delay		7.5		8.8				
LOS		A		A				
Approach Delay				8.8				
Approach LOS				A				

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/16/2011
Analysis Time Period: PM
Intersection: Ft. Hamer Rd/Old Tampa Rd
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS Note: Flash mode in PM
East/West Street: Old Tampa Rd.
North/South Street: Ft. Hamer Rd.
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	31	15	1	2	15	27
Peak-Hour Factor, PHF	0.84	0.84	0.84	0.93	0.93	0.93
Hourly Flow Rate, HFR	36	17	1	2	16	29
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	1	1	0	1	1	0
Configuration	L	TR		L	TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	4	0	18	1	68
Peak Hour Factor, PHF	0.63	0.63	0.63	0.69	0.69	0.69
Hourly Flow Rate, HFR	0	6	0	26	1	98
Percent Heavy Vehicles	0	0	0	0	0	1
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes	1	1	1	1	1	1
Configuration	L	T	R	L	T	R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L	L	T	R	L	T	R
v (vph)	36	2	0	6	0	26	1	98
C(m) (vph)	1557	1612	705	738	1066	831	751	1047
v/c	0.02	0.00	0.00	0.01	0.00	0.03	0.00	0.09
95% queue length	0.07	0.00	0.00	0.02	0.00	0.10	0.00	0.31
Control Delay	7.4	7.2	10.1	9.9	8.4	9.5	9.8	8.8
LOS	A	A	B	A	A	A	A	A
Approach Delay				9.9			8.9	
Approach LOS				A			A	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: PM Peak
Intersection: Golf Course Rd & Ft Hamer Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS
East/West Street: GOLF COURSE RD
North/South Street: FT HAMER RD
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		57	58	13	70	
Peak-Hour Factor, PHF		0.92	0.92	0.85	0.85	
Hourly Flow Rate, HFR		61	63	15	82	
Percent Heavy Vehicles		--	--	0	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	1	1	
Configuration			TR	L	T	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	55		17			
Peak Hour Factor, PHF	0.87		0.87			
Hourly Flow Rate, HFR	63		19			
Percent Heavy Vehicles	0		0			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes		1	1			
Configuration		L	R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		L	L		R			
v (vph)		15	63		19			
C(m) (vph)		1475	781		971			
v/c		0.01	0.08		0.02			
95% queue length		0.03	0.26		0.06			
Control Delay		7.5	10.0+		8.8			
LOS		A	B		A			
Approach Delay				9.7				
Approach LOS				A				

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/16/2011
Analysis Time Period: PM Peak
Intersection: US 301 & Ft Hamer Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2011 Existing
Project ID: UMRR EIS Note: US 301 under construction
East/West Street: US 301
North/South Street: FT HAMER RD
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		231	23	87	224	
Peak-Hour Factor, PHF		0.91	0.91	0.87	0.87	
Hourly Flow Rate, HFR		253	25	99	257	
Percent Heavy Vehicles		--	--	0	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	16		66			
Peak Hour Factor, PHF	0.90		0.90			
Hourly Flow Rate, HFR	17		73			
Percent Heavy Vehicles	6		3			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No	/		/
Lanes	0	0				
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		99		90				
C(m) (vph)		1296		633				
v/c		0.08		0.14				
95% queue length		0.25		0.49				
Control Delay		8.0		11.6				
LOS		A		B				
Approach Delay				11.6				
Approach LOS				B				

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/16/2011
Analysis Time Period: PM
Intersection: SR 64/Rye Rd.
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: SR 64
North/South Street: Rye Rd.
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	306	338			300	69
Peak-Hour Factor, PHF	0.90	0.90			0.86	0.86
Hourly Flow Rate, HFR	340	375			348	80
Percent Heavy Vehicles	1	--	--		--	--
Median Type/Storage	TWLTL			/ 1		
RT Channelized?						No
Lanes	1	2			2	1
Configuration	L	T			T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				26		177
Peak Hour Factor, PHF				0.91		0.91
Hourly Flow Rate, HFR				28		194
Percent Heavy Vehicles				23		3
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L						LR	
v (vph)	340						222	
C(m) (vph)	1135						591	
v/c	0.30						0.38	
95% queue length	1.27						1.74	
Control Delay	9.5						14.7	
LOS	A						B	
Approach Delay							14.7	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: PM
Intersection: UMRR/Rye Rd
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: UMRR
North/South Street: Rye Rd.
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	10	141			83	25
Peak-Hour Factor, PHF	0.85	0.85			0.91	0.91
Hourly Flow Rate, HFR	11	165			91	27
Percent Heavy Vehicles	8	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				27		12
Peak Hour Factor, PHF				0.80		0.80
Hourly Flow Rate, HFR				33		14
Percent Heavy Vehicles				10		4
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	11						47	
C(m) (vph)	1434						740	
v/c	0.01						0.06	
95% queue length	0.02						0.20	
Control Delay	7.5						10.2	
LOS	A						B	
Approach Delay							10.2	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Analyst:
Agency/Co.: URS
Date Performed: 3/15/2011
Analysis Time Period: PM
Intersection: Rye Rd/Golf Course Rd.
Jurisdiction: Manatee County
Units: U. S. Customary
Analysis Year: Existing - 2011
Project ID: UMRR EIS
East/West Street: Golf Course Rd
North/South Street: Rye Rd
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	84	77			39	8
Peak-Hour Factor, PHF	0.76	0.76			0.79	0.79
Hourly Flow Rate, HFR	110	101			49	10
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT				TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				7		44
Peak Hour Factor, PHF				0.78		0.78
Hourly Flow Rate, HFR				8		56
Percent Heavy Vehicles				5		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	110						64	
C(m) (vph)	1558						930	
v/c	0.07						0.07	
95% queue length	0.23						0.22	
Control Delay	7.5						9.2	
LOS	A						A	
Approach Delay							9.2	
Approach LOS							A	

2011PM_UMRR_SR 64
HCS+: Signalized Intersections Release 5.5

Analyst:
Roa20Agency: URS
Date: 3/21/2011
Period: PM PEAK
Project ID: UMRR EIS
E/W St: SR 64

Inter.: SR 64 & Upper Manatee River
Area Type: All other areas
Jurisd: Manatee County
Year : 2011 Existing

N/S St: Upper Manatee River Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	3	1	2	3	1	2	3	1	2	3	1
LGConfig	L	T	R	L	T	R	L	T	R	L	T	R
Volume	324	646	309	157	354	10	325	237	208	44	110	145
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	A				NB	Left	A			
Thru		A				Thru		A		
Right	A	A				Right	A	A		
Peds						Peds				
WB Left	A				SB	Left	A			
Thru		A				Thru		A		
Right	A	A				Right		A		
Peds						Peds				
NB Right	A				EB	Right	A			
SB Right	A				WB	Right	A			
Green	25.0	30.0					15.0	30.0		
Yellow	4.0	4.0					4.0	4.0		
All Red	1.0	1.0					1.0	1.0		

Cycle Length: 120.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	723	3471	0.55	0.21	43.3	D		
T	1281	5124	0.62	0.25	40.8	D	33.7	C
R	1066	1599	0.35	0.67	8.9	A		
Westbound								
L	709	3403	0.23	0.21	39.6	D		
T	1256	5025	0.29	0.25	36.5	D	36.9	D
R	1045	1568	0.01	0.67	6.7	A		
Northbound								
L	434	3471	0.82	0.13	63.3	E		
T	1281	5124	0.20	0.25	35.6	D	39.8	D
R	1066	1599	0.21	0.67	7.9	A		
Southbound								
L	434	3471	0.12	0.13	46.8	D		
T	1281	5124	0.10	0.25	34.7	C	27.8	C
R	800	1599	0.22	0.50	17.0	B		

Intersection Delay = 35.2 (sec/veh) Intersection LOS = D

APPENDIX C

Opening Year (2015) Analysis of Unsignalized Intersections without Improvements

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	442	115	708	546	294	334
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	465	121	745	575	309	352
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			586		2243	233
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			586		2243	233
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			23		0	54
cM capacity (veh/h)			971		8	763

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	233	233	121	745	287	287	309	352
Volume Left	0	0	0	745	0	0	309	0
Volume Right	0	0	121	0	0	0	0	352
cSH	1700	1700	1700	971	1700	1700	8	763
Volume to Capacity	0.14	0.14	0.07	0.77	0.17	0.17	38.42	0.46
Queue Length 95th (ft)	0	0	0	194	0	0	Err	61
Control Delay (s)	0.0	0.0	0.0	19.8	0.0	0.0	Err	13.7
Lane LOS				C			F	B
Approach Delay (s)	0.0			11.2			4688.3	
Approach LOS							F	

Intersection Summary			
Average Delay	1212.9		
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	89	113	533	105	101	719
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	94	119	561	111	106	757
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1531	561			672	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1531	561			672	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	17	77			88	
cM capacity (veh/h)	112	523			910	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	213	561	111	106	757
Volume Left	94	0	0	106	0
Volume Right	119	0	111	0	0
cSH	255	1700	1700	910	1700
Volume to Capacity	0.83	0.33	0.07	0.12	0.45
Queue Length 95th (ft)	166	0	0	10	0
Control Delay (s)	58.5	0.0	0.0	9.5	0.0
Lane LOS	F			A	
Approach Delay (s)	58.5	0.0		1.2	
Approach LOS	F				

Intersection Summary			
Average Delay	7.7		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	46	135	648	53	117	900
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	48	142	682	56	123	947
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1876	682			738	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1876	682			738	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	27	68			86	
cM capacity (veh/h)	67	446			859	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	191	682	56	123	947
Volume Left	48	0	0	123	0
Volume Right	142	0	56	0	0
cSH	262	1700	1700	859	1700
Volume to Capacity	0.73	0.40	0.03	0.14	0.56
Queue Length 95th (ft)	127	0	0	12	0
Control Delay (s)	49.1	0.0	0.0	9.9	0.0
Lane LOS	E			A	
Approach Delay (s)	49.1	0.0		1.1	
Approach LOS	E				

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	8	49	29	6	14	45	666	46	20	900	49
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	22	8	52	31	6	15	47	701	48	21	947	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1829	1859	973	1865	1861	725	999			749		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1829	1859	973	1865	1861	725	999			749		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	54	87	83	20	90	97	93			98		
cM capacity (veh/h)	48	66	303	38	66	422	685			851		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	22	60	31	21	47	749	21	999
Volume Left	22	0	31	0	47	0	21	0
Volume Right	0	52	0	15	0	48	0	52
cSH	48	201	38	160	685	1700	851	1700
Volume to Capacity	0.46	0.30	0.80	0.13	0.07	0.44	0.02	0.59
Queue Length 95th (ft)	42	30	73	11	6	0	2	0
Control Delay (s)	130.6	30.3	242.8	30.8	10.6	0.0	9.3	0.0
Lane LOS	F	D	F	D	B		A	
Approach Delay (s)	57.3		156.3		0.6		0.2	
Approach LOS	F		F					

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBR	SBR	SBR2	NEL2	NEL
Lane Configurations						
Volume (veh/h)	23	5	968	10	30	734
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	24	5	1019	11	32	773
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1855	1019			1029	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1855	1019			1029	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	68	98			95	
cM capacity (veh/h)	76	285			667	

Direction, Lane #	EB 1	SB 1	SB 2	NE 1	NE 2
Volume Total	29	1019	11	32	773
Volume Left	24	0	0	32	0
Volume Right	5	0	11	0	0
cSH	93	1700	1700	667	1700
Volume to Capacity	0.32	0.60	0.01	0.05	0.45
Queue Length 95th (ft)	30	0	0	4	0
Control Delay (s)	62.9	0.0	0.0	10.7	0.0
Lane LOS	F			B	
Approach Delay (s)	62.9	0.0		0.4	
Approach LOS	F				

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	108	206	558	153	100	873
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	114	217	587	161	105	919
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1717	587			748	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1717	587			748	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	57			88	
cM capacity (veh/h)	86	506			851	

Direction, Lane #	WB 1	WB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	114	217	587	161	105	919
Volume Left	114	0	0	0	105	0
Volume Right	0	217	0	161	0	0
cSH	86	506	1700	1700	851	1700
Volume to Capacity	1.33	0.43	0.35	0.09	0.12	0.54
Queue Length 95th (ft)	213	53	0	0	11	0
Control Delay (s)	295.7	17.4	0.0	0.0	9.8	0.0
Lane LOS	F	C			A	
Approach Delay (s)	113.1		0.0		1.0	
Approach LOS	F					

Intersection Summary			
Average Delay	18.3		
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	120	105	704	971	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	126	111	741	1022	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1984	1022	1033			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1984	1022	1033			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	56	83			
cM capacity (veh/h)	55	284	665			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	7	126	111	741	1022	11
Volume Left	7	0	111	0	0	0
Volume Right	0	126	0	0	0	11
cSH	55	284	665	1700	1700	1700
Volume to Capacity	0.13	0.44	0.17	0.44	0.60	0.01
Queue Length 95th (ft)	11	54	15	0	0	0
Control Delay (s)	79.6	27.5	11.5	0.0	0.0	0.0
Lane LOS	F	D	B			
Approach Delay (s)	30.3		1.5		0.0	
Approach LOS	D					

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	40	66	81	769	1016	75
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	42	69	85	809	1069	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2049	1069	1148			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2049	1069	1148			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	19	74	86			
cM capacity (veh/h)	52	266	601			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	112	85	809	1069	79
Volume Left	42	85	0	0	0
Volume Right	69	0	0	0	79
cSH	138	601	1700	1700	1700
Volume to Capacity	0.81	0.14	0.48	0.63	0.05
Queue Length 95th (ft)	126	12	0	0	0
Control Delay (s)	88.6	12.0	0.0	0.0	0.0
Lane LOS	F	B			
Approach Delay (s)	88.6	1.1		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	546	294	334	442	115	708
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	575	309	352	465	121	745
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			884		1511	287
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			884		1511	287
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			53		0	0
cM capacity (veh/h)			748		58	703

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	287	287	309	352	233	233	121	745
Volume Left	0	0	0	352	0	0	121	0
Volume Right	0	0	309	0	0	0	0	745
cSH	1700	1700	1700	748	1700	1700	58	703
Volume to Capacity	0.17	0.17	0.18	0.47	0.14	0.14	2.10	1.06
Queue Length 95th (ft)	0	0	0	63	0	0	294	488
Control Delay (s)	0.0	0.0	0.0	14.0	0.0	0.0	660.2	74.7
Lane LOS				B			F	F
Approach Delay (s)	0.0			6.0			156.5	
Approach LOS							F	

Intersection Summary			
Average Delay	54.7		
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	75	101	722	89	113	515
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	79	106	760	94	119	542
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1540	760			854	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1540	760			854	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	26	74			85	
cM capacity (veh/h)	106	403			777	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	185	760	94	119	542
Volume Left	79	0	0	119	0
Volume Right	106	0	94	0	0
cSH	250	1700	1700	777	1700
Volume to Capacity	0.74	0.45	0.06	0.15	0.32
Queue Length 95th (ft)	131	0	0	13	0
Control Delay (s)	53.2	0.0	0.0	10.5	0.0
Lane LOS	F			B	
Approach Delay (s)	53.2	0.0		1.9	
Approach LOS	F				

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	53	117	900	67	135	648
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	56	123	947	71	142	682
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1914	947			1018	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1914	947			1018	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	4	61			79	
cM capacity (veh/h)	58	314			674	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	179	947	71	142	682
Volume Left	56	0	0	142	0
Volume Right	123	0	71	0	0
cSH	186	1700	1700	674	1700
Volume to Capacity	0.96	0.56	0.04	0.21	0.40
Queue Length 95th (ft)	194	0	0	20	0
Control Delay (s)	85.5	0.0	0.0	11.8	0.0
Lane LOS	F			B	
Approach Delay (s)	85.5	0.0		2.0	
Approach LOS	F				

Intersection Summary			
Average Delay	8.4		
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	6	45	46	8	20	49	900	29	14	666	21
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	52	6	47	48	8	21	52	947	31	15	701	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1817	1823	712	1847	1818	963	723			978		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1817	1823	712	1847	1818	963	723			978		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	91	89	0	88	93	94			98		
cM capacity (veh/h)	47	70	429	44	71	307	870			698		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	52	54	48	29	52	978	15	723
Volume Left	52	0	48	0	52	0	15	0
Volume Right	0	47	0	21	0	31	0	22
cSH	47	268	44	157	870	1700	698	1700
Volume to Capacity	1.09	0.20	1.10	0.19	0.06	0.58	0.02	0.43
Queue Length 95th (ft)	117	18	113	17	5	0	2	0
Control Delay (s)	295.7	21.8	310.7	33.1	9.4	0.0	10.3	0.0
Lane LOS	F	C	F	D	A		B	
Approach Delay (s)	156.0		205.6		0.5		0.2	
Approach LOS	F		F					

Intersection Summary			
Average Delay	17.0		
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBR	SBR	SBR2	NEL2	NEL
Lane Configurations						
Volume (veh/h)	10	30	734	23	5	968
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	32	773	24	5	1019
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1802	773			797	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1802	773			797	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	92			99	
cM capacity (veh/h)	86	396			816	

Direction, Lane #	EB 1	SB 1	SB 2	NE 1	NE 2
Volume Total	42	773	24	5	1019
Volume Left	11	0	0	5	0
Volume Right	32	0	24	0	0
cSH	344	1700	1700	816	1700
Volume to Capacity	0.12	0.45	0.01	0.01	0.60
Queue Length 95th (ft)	10	0	0	0	0
Control Delay (s)	24.3	0.0	0.0	9.4	0.0
Lane LOS	C			A	
Approach Delay (s)	24.3	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	153	100	873	108	206	558
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	161	105	919	114	217	587
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1940	919			1033	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1940	919			1033	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	68			67	
cM capacity (veh/h)	48	326			665	

Direction, Lane #	WB 1	WB 2	NE 1	NE 2	SW 1	SW 2
Volume Total	161	105	919	114	217	587
Volume Left	161	0	0	0	217	0
Volume Right	0	105	0	114	0	0
cSH	48	326	1700	1700	665	1700
Volume to Capacity	3.37	0.32	0.54	0.07	0.33	0.35
Queue Length 95th (ft)	Err	34	0	0	35	0
Control Delay (s)	Err	21.2	0.0	0.0	13.0	0.0
Lane LOS	F	C			B	
Approach Delay (s)	6055.2		0.0		3.5	
Approach LOS	F					

Intersection Summary			
Average Delay	768.1		
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	105	120	971	704	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	111	126	1022	741	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2016	741	748			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2016	741	748			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	81	73	85			
cM capacity (veh/h)	54	413	851			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	11	111	126	1022	741	7
Volume Left	11	0	126	0	0	0
Volume Right	0	111	0	0	0	7
cSH	54	413	851	1700	1700	1700
Volume to Capacity	0.19	0.27	0.15	0.60	0.44	0.00
Queue Length 95th (ft)	16	27	13	0	0	0
Control Delay (s)	87.0	16.9	10.0	0.0	0.0	0.0
Lane LOS	F	C	A			
Approach Delay (s)	23.0		1.1		0.0	
Approach LOS	C					

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	75	81	66	1016	769	40
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	79	85	69	1069	809	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2018	809	852			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2018	809	852			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	77	91			
cM capacity (veh/h)	58	377	779			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	164	69	1069	809	42
Volume Left	79	69	0	0	0
Volume Right	85	0	0	0	42
cSH	120	779	1700	1700	1700
Volume to Capacity	1.37	0.09	0.63	0.48	0.02
Queue Length 95th (ft)	277	7	0	0	0
Control Delay (s)	183.7	10.1	0.0	0.0	0.0
Lane LOS	F	B			
Approach Delay (s)	183.7	0.6		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	14.3		
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	395	141	502	409	167	213
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	416	148	528	431	176	224
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			564		1688	208
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			564		1688	208
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			47		0	72
cM capacity (veh/h)			990		39	792

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	208	208	148	528	215	215	176	224
Volume Left	0	0	0	528	0	0	176	0
Volume Right	0	0	148	0	0	0	0	224
cSH	1700	1700	1700	990	1700	1700	39	792
Volume to Capacity	0.12	0.12	0.09	0.53	0.13	0.13	4.55	0.28
Queue Length 95th (ft)	0	0	0	81	0	0	Err	29
Control Delay (s)	0.0	0.0	0.0	12.7	0.0	0.0	Err	11.3
Lane LOS				B			F	B
Approach Delay (s)	0.0			7.0			4400.6	
Approach LOS							F	

Intersection Summary			
Average Delay	918.8		
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	117	266	114	132	468	175
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	123	280	120	139	493	184
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1289	120			259	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1289	120			259	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	70			62	
cM capacity (veh/h)	111	926			1294	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	403	120	139	493	184
Volume Left	123	0	0	493	0
Volume Right	280	0	139	0	0
cSH	362	1700	1700	1294	1700
Volume to Capacity	1.11	0.07	0.08	0.38	0.11
Queue Length 95th (ft)	377	0	0	45	0
Control Delay (s)	66.2	0.0	0.0	9.5	0.0
Lane LOS	F			A	
Approach Delay (s)	66.2	0.0		6.9	
Approach LOS	F				

Intersection Summary			
Average Delay	23.4		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	38	647	432	115	183	144
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	40	681	455	121	193	152
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1223	193	344			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1223	193	344			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	67	19	62			
cM capacity (veh/h)	122	844	1204			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	721	455	121	193	152
Volume Left	40	455	0	0	0
Volume Right	681	0	0	0	152
cSH	893	1204	1700	1700	1700
Volume to Capacity	0.81	0.38	0.07	0.11	0.09
Queue Length 95th (ft)	222	45	0	0	0
Control Delay (s)	25.8	9.8	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	25.8	7.7		0.0	
Approach LOS	D				

Intersection Summary			
Average Delay	14.0		
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	98	41	58	449	770	62
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	103	43	61	473	811	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1405	811	876			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1405	811	876			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	26	89	92			
cM capacity (veh/h)	140	377	762			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	146	61	473	811	65
Volume Left	103	61	0	0	0
Volume Right	43	0	0	0	65
cSH	198	762	1700	1700	1700
Volume to Capacity	0.74	0.08	0.28	0.48	0.04
Queue Length 95th (ft)	121	7	0	0	0
Control Delay (s)	62.1	10.1	0.0	0.0	0.0
Lane LOS	F	B			
Approach Delay (s)	62.1	1.2		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	6.2		
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst		Intersection	
Agency/Co.	URS	Jurisdiction	Manatee County
Date Performed	5/12/2011	Analysis Year	2015
Analysis Time Period	AM		

Project Description *Ft Hamer Bridge & EIS Update*

East/West Street: *SR 64* | North/South Street: *Rye Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	380	386			607	127
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	400	406	0	0	638	133
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	0	0	2	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				97		713
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.95	1.00	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	102	0	750
Percent Heavy Vehicles	0	0	0	4	0	4
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	400					102		750
C (m) (veh/h)	827					125		714
v/c	0.48					0.82		1.05
95% queue length	2.68					4.91		19.17
Control Delay (s/veh)	13.4					103.3		71.5
LOS	B					F		F
Approach Delay (s/veh)	--	--				75.3		
Approach LOS	--	--				F		

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	409	167	213	395	141	502
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	431	176	224	416	148	528
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			606		1087	215
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			606		1087	215
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			77		6	33
cM capacity (veh/h)			954		159	783

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	215	215	176	224	208	208	148	528
Volume Left	0	0	0	224	0	0	148	0
Volume Right	0	0	176	0	0	0	0	528
cSH	1700	1700	1700	954	1700	1700	159	783
Volume to Capacity	0.13	0.13	0.10	0.23	0.12	0.12	0.94	0.67
Queue Length 95th (ft)	0	0	0	23	0	0	171	133
Control Delay (s)	0.0	0.0	0.0	9.9	0.0	0.0	111.9	18.6
Lane LOS				A			F	C
Approach Delay (s)	0.0			3.5			39.0	
Approach LOS							E	

Intersection Summary			
Average Delay	14.9		
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	132	468	175	117	266	114
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	139	493	184	123	280	120
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	864	184			307	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	864	184			307	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	44	42			77	
cM capacity (veh/h)	249	853			1242	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	632	184	123	280	120
Volume Left	139	0	0	280	0
Volume Right	493	0	123	0	0
cSH	1094	1700	1700	1242	1700
Volume to Capacity	0.58	0.11	0.07	0.23	0.07
Queue Length 95th (ft)	96	0	0	22	0
Control Delay (s)	19.5	0.0	0.0	8.7	0.0
Lane LOS	C			A	
Approach Delay (s)	19.5	0.0		6.1	
Approach LOS	C				

Intersection Summary			
Average Delay	11.0		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	144	432	647	183	115	38
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	152	455	681	193	121	40
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1676	121	161			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1676	121	161			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	51	52			
cM capacity (veh/h)	53	925	1406			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	606	681	193	121	40
Volume Left	152	681	0	0	0
Volume Right	455	0	0	0	40
cSH	197	1406	1700	1700	1700
Volume to Capacity	3.08	0.48	0.11	0.07	0.02
Queue Length 95th (ft)	Err	68	0	0	0
Control Delay (s)	Err	9.9	0.0	0.0	0.0
Lane LOS	F	A			
Approach Delay (s)	Err	7.8		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	3698.4		
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	62	58	41	770	449	98
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	65	61	43	811	473	103
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1369	473	576			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1369	473	576			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	57	90	96			
cM capacity (veh/h)	153	587	988			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	126	43	811	473	103
Volume Left	65	43	0	0	0
Volume Right	61	0	0	0	103
cSH	296	988	1700	1700	1700
Volume to Capacity	0.43	0.04	0.48	0.28	0.06
Queue Length 95th (ft)	51	3	0	0	0
Control Delay (s)	29.0	8.8	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	29.0	0.4		0.0	
Approach LOS	D				

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst		Intersection	
Agency/Co.	*URS*	Jurisdiction	*Manatee County*
Date Performed	*5/12/2011*	Analysis Year	*2015*
Analysis Time Period	*PM*		

Project Description *Ft Hamer Bridge & EIS Update*

East/West Street: *SR 64* | North/South Street: *Rye Rd*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*713*	*607*			*386*	*97*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*1.00*	*1.00*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*750*	*638*	*0*	*0*	*406*	*102*
Percent Heavy Vehicles	*4*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*127*		*380*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*133*	*0*	*400*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*0*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*750*					*133*		*400*
C (m) (veh/h)	*1039*					*28*		*830*
v/c	*0.72*					*4.75*		*0.48*
95% queue length	*6.59*					*16.20*		*2.66*
Control Delay (s/veh)	*16.9*					*1971*		*13.3*
LOS	*C*					*F*		*B*
Approach Delay (s/veh)	--	--				*501.7*		
Approach LOS	--	--				*F*		

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APPENDIX D

Opening Year (2015) Analysis of Signalized Intersections

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	442	115	708	546	294	334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3471	1553	1736	3471	1736	1553
Flt Permitted	1.00	1.00	0.22	1.00	0.95	1.00
Satd. Flow (perm)	3471	1553	397	3471	1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	465	121	745	575	309	352
RTOR Reduction (vph)	0	100	0	0	0	272
Lane Group Flow (vph)	465	21	745	575	309	80
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	15.5	15.5	58.0	58.0	20.2	20.2
Effective Green, g (s)	15.5	15.5	58.0	58.0	20.2	20.2
Actuated g/C Ratio	0.17	0.17	0.65	0.65	0.23	0.23
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	603	270	814	2257	393	352
v/s Ratio Prot	0.13		c0.38	0.17	c0.18	
v/s Ratio Perm		0.01	c0.22			0.05
v/c Ratio	0.77	0.08	0.92	0.25	0.79	0.23
Uniform Delay, d1	35.2	30.9	17.9	6.5	32.5	28.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	0.1	14.7	0.1	10.0	0.3
Delay (s)	41.2	31.0	32.6	6.6	42.4	28.5
Level of Service	D	C	C	A	D	C
Approach Delay (s)	39.1			21.3	35.0	
Approach LOS	D			C	C	

Intersection Summary			
HCM Average Control Delay	28.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	89.2	Sum of lost time (s)	11.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	9	311	85	18	11	270	458	55	28	621	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1827	1553	1736	1827	1553	1736	1797		1736	1766	
Flt Permitted	0.58	1.00	1.00	0.75	1.00	1.00	0.08	1.00		0.46	1.00	
Satd. Flow (perm)	1052	1827	1553	1373	1827	1553	137	1797		838	1766	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	94	9	327	89	19	12	284	482	58	29	654	185
RTOR Reduction (vph)	0	0	286	0	0	11	0	4	0	0	9	0
Lane Group Flow (vph)	94	9	41	89	19	1	284	536	0	29	830	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	15.1	9.7	9.7	10.7	7.5	7.5	66.8	58.1		50.9	47.7	
Effective Green, g (s)	15.1	9.7	9.7	10.7	7.5	7.5	66.8	58.1		50.9	47.7	
Actuated g/C Ratio	0.16	0.10	0.10	0.11	0.08	0.08	0.69	0.60		0.53	0.50	
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	204	184	157	165	142	121	321	1085		473	876	
v/s Ratio Prot	c0.03	0.00		0.02	0.01		c0.13	0.30		0.00	c0.47	
v/s Ratio Perm	c0.05		0.03	0.04		0.00	0.49			0.03		
v/c Ratio	0.46	0.05	0.26	0.54	0.13	0.01	0.88	0.49		0.06	0.95	
Uniform Delay, d1	36.2	39.1	39.9	40.1	41.3	40.9	29.4	10.8		10.8	23.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.6	0.1	0.9	3.4	0.4	0.0	23.8	0.4		0.1	18.7	
Delay (s)	37.8	39.2	40.8	43.5	41.8	40.9	53.3	11.1		10.9	41.8	
Level of Service	D	D	D	D	D	D	D	B		B	D	
Approach Delay (s)		40.1			42.9			25.6			40.7	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	35.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	96.2	Sum of lost time (s)	16.5
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	8	49	29	6	14	45	666	46	20	900	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.87		1.00	0.89		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1589		1736	1631		1736	1809		1736	1813	
Flt Permitted	0.74	1.00		0.72	1.00		0.20	1.00		0.33	1.00	
Satd. Flow (perm)	1359	1589		1312	1631		361	1809		596	1813	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	22	8	52	31	6	15	47	701	48	21	947	52
RTOR Reduction (vph)	0	47	0	0	14	0	0	2	0	0	2	0
Lane Group Flow (vph)	22	13	0	31	7	0	47	747	0	21	997	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	5.7	5.7		5.7	5.7		44.4	44.4		44.4	44.4	
Effective Green, g (s)	5.7	5.7		5.7	5.7		44.4	44.4		44.4	44.4	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.73	0.73		0.73	0.73	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	127	148		122	152		262	1315		433	1317	
v/s Ratio Prot		0.01			0.00			0.41			c0.55	
v/s Ratio Perm	0.02			c0.02			0.13			0.04		
v/c Ratio	0.17	0.09		0.25	0.05		0.18	0.57		0.05	0.76	
Uniform Delay, d1	25.5	25.3		25.7	25.2		2.6	3.9		2.4	5.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.3		1.1	0.1		0.3	0.6		0.0	2.5	
Delay (s)	26.2	25.6		26.8	25.4		3.0	4.5		2.4	7.6	
Level of Service	C	C		C	C		A	A		A	A	
Approach Delay (s)		25.7			26.2			4.4			7.5	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	11.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	108	206	558	153	100	873
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1736	1553	1827	1553	1736	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1736	1553	1827	1553	1736	3471
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	114	217	587	161	105	919
RTOR Reduction (vph)	0	189	0	101	0	0
Lane Group Flow (vph)	114	28	587	60	105	919
Turn Type		Perm		Perm	Split	
Protected Phases	2		4		1	1
Permitted Phases		2		4		
Actuated Green, G (s)	11.3	11.3	32.5	32.5	27.6	27.6
Effective Green, g (s)	11.3	11.3	32.5	32.5	27.6	27.6
Actuated g/C Ratio	0.13	0.13	0.37	0.37	0.31	0.31
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	223	200	676	574	545	1090
v/s Ratio Prot	c0.07		c0.32		0.06	c0.26
v/s Ratio Perm		0.02		0.04		
v/c Ratio	0.51	0.14	0.87	0.10	0.19	0.84
Uniform Delay, d1	35.7	34.0	25.7	18.2	22.0	28.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.3	11.4	0.1	0.2	6.1
Delay (s)	37.7	34.3	37.1	18.2	22.2	34.2
Level of Service	D	C	D	B	C	C
Approach Delay (s)	35.5		33.1			33.0
Approach LOS	D		C			C

Intersection Summary			
HCM Average Control Delay	33.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	87.9	Sum of lost time (s)	16.5
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	247	384	365	270	759	204	330	400	240	176	559	363
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	4988	1553	3367	4988	1553	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	4988	1553	3367	4988	1553	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	260	404	384	284	799	215	347	421	253	185	588	382
RTOR Reduction (vph)	0	0	231	0	0	166	0	0	162	0	0	212
Lane Group Flow (vph)	260	404	153	284	799	49	347	421	91	185	588	170
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	13.2	24.1	24.1	14.1	25.0	25.0	16.2	40.0	40.0	10.6	34.4	34.4
Effective Green, g (s)	13.2	24.1	24.1	14.1	25.0	25.0	16.2	40.0	40.0	10.6	34.4	34.4
Actuated g/C Ratio	0.12	0.22	0.22	0.13	0.23	0.23	0.15	0.36	0.36	0.10	0.31	0.31
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	401	1085	338	428	1125	350	492	1801	561	322	1549	482
v/s Ratio Prot	0.08	0.08		c0.08	c0.16		c0.10	0.08		0.05	c0.12	
v/s Ratio Perm			0.10			0.03			0.06			0.11
v/c Ratio	0.65	0.37	0.45	0.66	0.71	0.14	0.71	0.23	0.16	0.57	0.38	0.35
Uniform Delay, d1	46.6	36.9	37.6	46.1	39.6	34.3	45.0	24.7	24.0	47.9	29.9	29.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.6	0.2	1.0	3.9	2.1	0.2	4.6	0.3	0.6	2.5	0.7	2.0
Delay (s)	50.2	37.1	38.6	49.9	41.7	34.5	49.6	25.0	24.7	50.4	30.6	31.6
Level of Service	D	D	D	D	D	C	D	C	C	D	C	C
Approach Delay (s)		40.9			42.3			33.3			34.1	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	37.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	110.8	Sum of lost time (s)	16.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	546	294	334	442	115	708
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3471	1553	1736	3471	1736	1553
Flt Permitted	1.00	1.00	0.25	1.00	0.95	1.00
Satd. Flow (perm)	3471	1553	448	3471	1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	575	309	352	465	121	745
RTOR Reduction (vph)	0	228	0	0	0	402
Lane Group Flow (vph)	575	81	352	465	121	343
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	18.3	18.3	39.0	39.0	19.7	19.7
Effective Green, g (s)	18.3	18.3	39.0	39.0	19.7	19.7
Actuated g/C Ratio	0.26	0.26	0.56	0.56	0.28	0.28
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	911	408	532	1942	491	439
v/s Ratio Prot	0.17		c0.14	0.13	0.07	
v/s Ratio Perm		0.05	c0.23			c0.22
v/c Ratio	0.63	0.20	0.66	0.24	0.25	0.78
Uniform Delay, d1	22.7	20.0	9.9	7.8	19.3	23.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.2	3.1	0.1	0.3	8.8
Delay (s)	24.2	20.2	13.0	7.9	19.5	31.8
Level of Service	C	C	B	A	B	C
Approach Delay (s)	22.8			10.1	30.1	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	21.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	11.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	162	18	270	55	9	28	311	621	85	31	458	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1827	1553	1736	1827	1553	1736	1794		1736	1777	
Flt Permitted	0.41	1.00	1.00	0.82	1.00	1.00	0.15	1.00		0.31	1.00	
Satd. Flow (perm)	746	1827	1553	1491	1827	1553	281	1794		558	1777	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	19	284	58	9	29	327	654	89	33	482	108
RTOR Reduction (vph)	0	0	252	0	0	27	0	4	0	0	8	0
Lane Group Flow (vph)	171	19	32	58	9	2	327	739	0	33	582	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	18.8	9.8	9.8	9.0	4.9	4.9	55.9	48.2		36.0	33.8	
Effective Green, g (s)	18.8	9.8	9.8	9.0	4.9	4.9	55.9	48.2		36.0	33.8	
Actuated g/C Ratio	0.22	0.11	0.11	0.10	0.06	0.06	0.65	0.56		0.42	0.39	
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	266	207	176	167	104	88	462	1002		263	696	
v/s Ratio Prot	c0.07	0.01		0.02	0.00		c0.14	c0.41		0.00	c0.33	
v/s Ratio Perm	c0.07		0.02	0.02		0.00	0.32			0.05		
v/c Ratio	0.64	0.09	0.18	0.35	0.09	0.02	0.71	0.74		0.13	0.84	
Uniform Delay, d1	29.4	34.3	34.6	35.8	38.6	38.4	15.3	14.3		15.2	23.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.2	0.2	0.5	1.3	0.4	0.1	4.9	2.9		0.2	8.6	
Delay (s)	34.7	34.5	35.1	37.1	38.9	38.5	20.2	17.2		15.4	32.4	
Level of Service	C	C	D	D	D	D	C	B		B	C	
Approach Delay (s)		34.9			37.7			18.1			31.5	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	27.5
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	6	45	46	8	20	49	900	29	14	666	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.87		1.00	0.89		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1584		1736	1628		1736	1818		1736	1819	
Flt Permitted	0.74	1.00		0.72	1.00		0.28	1.00		0.16	1.00	
Satd. Flow (perm)	1349	1584		1320	1628		506	1818		296	1819	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	52	6	47	48	8	21	52	947	31	15	701	22
RTOR Reduction (vph)	0	42	0	0	19	0	0	1	0	0	1	0
Lane Group Flow (vph)	52	11	0	48	10	0	52	977	0	15	722	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	6.9	6.9		6.9	6.9		49.2	46.8		45.6	45.0	
Effective Green, g (s)	6.9	6.9		6.9	6.9		49.2	46.8		45.6	45.0	
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.69	0.66		0.64	0.64	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	131	154		129	159		393	1202		203	1156	
v/s Ratio Prot		0.01			0.01		c0.00	c0.54		0.00	0.40	
v/s Ratio Perm	c0.04			0.04			0.09			0.05		
v/c Ratio	0.40	0.07		0.37	0.06		0.13	0.81		0.07	0.62	
Uniform Delay, d1	30.0	29.0		29.9	29.0		4.8	8.8		7.8	7.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.0	0.2		1.8	0.2		0.2	4.3		0.2	1.1	
Delay (s)	32.0	29.2		31.7	29.2		5.0	13.1		8.0	8.9	
Level of Service	C	C		C	C		A	B		A	A	
Approach Delay (s)		30.6			30.8			12.7			8.8	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	70.8	Sum of lost time (s)	11.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	153	100	873	108	206	558
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1736	1553	1827	1553	1736	3471
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1736	1553	1827	1553	1736	3471
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	161	105	919	114	217	587
RTOR Reduction (vph)	0	89	0	56	0	0
Lane Group Flow (vph)	161	16	919	58	217	587
Turn Type		Perm		Perm	Split	
Protected Phases	2		8		1	1
Permitted Phases		2		8		
Actuated Green, G (s)	12.8	12.8	43.6	43.6	16.4	16.4
Effective Green, g (s)	12.8	12.8	43.6	43.6	16.4	16.4
Actuated g/C Ratio	0.15	0.15	0.51	0.51	0.19	0.19
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	257	230	923	785	330	660
v/s Ratio Prot	c0.09		c0.50		0.13	c0.17
v/s Ratio Perm		0.01		0.04		
v/c Ratio	0.63	0.07	1.00	0.07	0.66	0.89
Uniform Delay, d1	34.5	31.6	21.3	11.0	32.4	34.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.7	0.1	28.4	0.0	4.7	13.9
Delay (s)	39.2	31.7	49.6	11.0	37.0	47.9
Level of Service	D	C	D	B	D	D
Approach Delay (s)	36.3		45.4			45.0
Approach LOS	D		D			D

Intersection Summary			
HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	363	759	330	240	384	176	365	559	270	204	400	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3367	4988	1553	3367	4988	1553	3367	4988	1553	3367	4988	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3367	4988	1553	3367	4988	1553	3367	4988	1553	3367	4988	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	382	799	347	253	404	185	384	588	284	215	421	260
RTOR Reduction (vph)	0	0	267	0	0	150	0	0	189	0	0	186
Lane Group Flow (vph)	382	799	80	253	404	35	384	588	95	215	421	74
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	17.7	25.4	25.4	13.3	21.0	21.0	17.7	36.8	36.8	12.0	31.1	31.1
Effective Green, g (s)	17.7	25.4	25.4	13.3	21.0	21.0	17.7	36.8	36.8	12.0	31.1	31.1
Actuated g/C Ratio	0.16	0.23	0.23	0.12	0.19	0.19	0.16	0.34	0.34	0.11	0.28	0.28
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	544	1157	360	409	957	298	544	1676	522	369	1417	441
v/s Ratio Prot	c0.11	c0.16		0.08	0.08		c0.11	c0.12		0.06	0.08	
v/s Ratio Perm			0.05			0.02			0.06			0.05
v/c Ratio	0.70	0.69	0.22	0.62	0.42	0.12	0.71	0.35	0.18	0.58	0.30	0.17
Uniform Delay, d1	43.4	38.5	34.1	45.7	38.9	36.6	43.4	27.4	25.7	46.4	30.7	29.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.1	1.8	0.3	2.8	0.3	0.2	4.2	0.6	0.8	2.3	0.5	0.8
Delay (s)	47.5	40.3	34.4	48.5	39.2	36.8	47.6	27.9	26.5	48.7	31.2	30.3
Level of Service	D	D	C	D	D	D	D	C	C	D	C	C
Approach Delay (s)		40.7			41.5			33.6			35.1	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	37.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	109.5	Sum of lost time (s)	16.5
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	395	141	502	409	167	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3471	1553	1736	3471	1736	1553
Flt Permitted	1.00	1.00	0.32	1.00	0.95	1.00
Satd. Flow (perm)	3471	1553	578	3471	1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	416	148	528	431	176	224
RTOR Reduction (vph)	0	116	0	0	0	152
Lane Group Flow (vph)	416	32	528	431	176	72
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	12.8	12.8	31.7	31.7	19.3	19.3
Effective Green, g (s)	12.8	12.8	31.7	31.7	19.3	19.3
Actuated g/C Ratio	0.21	0.21	0.53	0.53	0.32	0.32
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	740	331	583	1834	558	500
v/s Ratio Prot	0.12		c0.22	0.12	c0.10	
v/s Ratio Perm		0.02	c0.26			0.05
v/c Ratio	0.56	0.10	0.91	0.24	0.32	0.14
Uniform Delay, d1	21.1	19.0	10.4	7.6	15.4	14.5
Progression Factor	1.00	1.00	1.00	1.00	0.91	0.96
Incremental Delay, d2	1.0	0.1	17.6	0.1	1.4	0.6
Delay (s)	22.1	19.1	28.0	7.7	15.5	14.4
Level of Service	C	B	C	A	B	B
Approach Delay (s)	21.3			18.9	14.9	
Approach LOS	C			B	B	

Intersection Summary			
HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	117	266	114	132	468	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1736	1553	1827	1553	1736	1827
Flt Permitted	0.95	1.00	1.00	1.00	0.68	1.00
Satd. Flow (perm)	1736	1553	1827	1553	1242	1827
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	123	280	120	139	493	184
RTOR Reduction (vph)	0	236	0	43	0	0
Lane Group Flow (vph)	123	44	120	96	493	184
Turn Type		Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Actuated Green, G (s)	9.5	9.5	41.5	41.5	41.5	41.5
Effective Green, g (s)	9.5	9.5	41.5	41.5	41.5	41.5
Actuated g/C Ratio	0.16	0.16	0.69	0.69	0.69	0.69
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	275	246	1264	1074	859	1264
v/s Ratio Prot	c0.07		0.07			0.10
v/s Ratio Perm		0.03		0.06	c0.40	
v/c Ratio	0.45	0.18	0.09	0.09	0.57	0.15
Uniform Delay, d1	22.9	21.9	3.1	3.0	4.7	3.2
Progression Factor	0.74	1.10	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.3	0.1	0.2	2.8	0.2
Delay (s)	17.9	24.5	3.2	3.2	7.5	3.4
Level of Service	B	C	A	A	A	A
Approach Delay (s)	22.5		3.2			6.4
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	38	647	432	115	183	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1736	1553	1736	1827	1827	1553
Flt Permitted	0.95	1.00	0.53	1.00	1.00	1.00
Satd. Flow (perm)	1736	1553	966	1827	1827	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	40	681	455	121	193	152
RTOR Reduction (vph)	0	243	0	0	0	52
Lane Group Flow (vph)	40	438	455	121	193	100
Turn Type		pt+ov	pm+pt			pt+ov
Protected Phases	4	4 5	5	2	6	6 4
Permitted Phases			2			
Actuated Green, G (s)	12.6	28.7	38.4	38.4	22.3	39.4
Effective Green, g (s)	12.6	28.7	38.4	38.4	22.3	39.4
Actuated g/C Ratio	0.21	0.48	0.64	0.64	0.37	0.66
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	365	743	767	1169	679	1020
v/s Ratio Prot	0.02	c0.28	0.11	0.07	0.11	0.06
v/s Ratio Perm			c0.26			
v/c Ratio	0.11	0.59	0.59	0.10	0.28	0.10
Uniform Delay, d1	19.2	11.4	5.6	4.2	13.2	3.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.3	1.2	0.2	1.0	0.0
Delay (s)	19.3	12.6	6.8	4.3	14.3	3.8
Level of Service	B	B	A	A	B	A
Approach Delay (s)	13.0			6.3	9.7	
Approach LOS	B			A	A	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	4.5
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NBL	NBR	SEL	SER	SWL	SWR
	WB-L	WB-R	EB-L	EB-R	SB-L	SB-R
Lane Configurations						
Volume (vph)	607	127	380	386	97	713
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	*0.95	1.00	1.00	*0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3471	1553	1736	3471	1736	1553
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3471	1553	1736	3471	1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	639	134	400	406	102	751
RTOR Reduction (vph)	0	90	0	102	0	19
Lane Group Flow (vph)	639	44	400	304	102	732
Turn Type		Perm		custom		pt+ov
Protected Phases	2		1	6	8	1 8
Permitted Phases		2	1			
Actuated Green, G (s)	32.5	32.5	37.9	74.9	16.1	58.5
Effective Green, g (s)	32.5	32.5	37.9	74.9	16.1	58.5
Actuated g/C Ratio	0.32	0.32	0.38	0.75	0.16	0.58
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1128	505	658	2600	279	909
v/s Ratio Prot	c0.18		0.23	0.09	0.06	c0.47
v/s Ratio Perm		0.03				
v/c Ratio	0.57	0.09	0.61	0.12	0.37	0.81
Uniform Delay, d1	27.9	23.4	25.1	3.5	37.4	16.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.1	0.3	1.6	0.1	0.8	5.3
Delay (s)	30.0	23.8	26.7	3.5	38.2	21.6
Level of Service	C	C	C	A	D	C
Approach Delay (s)	28.9		15.0		23.5	
Approach LOS	C		B		C	

Intersection Summary			
HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	409	167	213	395	141	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3471	1553	1736	3471	1736	1553
Flt Permitted	1.00	1.00	0.35	1.00	0.95	1.00
Satd. Flow (perm)	3471	1553	633	3471	1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	431	176	224	416	148	528
RTOR Reduction (vph)	0	131	0	0	0	412
Lane Group Flow (vph)	431	45	224	416	148	116
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	12.3	12.3	26.7	26.7	10.6	10.6
Effective Green, g (s)	12.3	12.3	26.7	26.7	10.6	10.6
Actuated g/C Ratio	0.25	0.25	0.55	0.55	0.22	0.22
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	884	395	553	1919	381	341
v/s Ratio Prot	c0.12		c0.07	0.12	c0.09	
v/s Ratio Perm		0.03	0.15			0.07
v/c Ratio	0.49	0.11	0.41	0.22	0.39	0.34
Uniform Delay, d1	15.3	13.8	6.0	5.5	16.1	15.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.5	0.1	0.7	0.6
Delay (s)	15.7	13.9	6.4	5.5	16.7	16.5
Level of Service	B	B	A	A	B	B
Approach Delay (s)	15.2			5.9	16.5	
Approach LOS	B			A	B	

Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	48.3	Sum of lost time (s)	16.5
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	144	432	647	183	115	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1736	1553	1736	1827	1827	1553
Flt Permitted	0.95	1.00	0.60	1.00	1.00	1.00
Satd. Flow (perm)	1736	1553	1097	1827	1827	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	152	455	681	193	121	40
RTOR Reduction (vph)	0	250	0	0	0	15
Lane Group Flow (vph)	152	205	681	193	121	25
Turn Type		pt+ov	pm+pt			pt+ov
Protected Phases	4	4 5	5	2	6	6 4
Permitted Phases			2			
Actuated Green, G (s)	13.5	43.3	71.6	71.6	41.8	60.8
Effective Green, g (s)	13.5	43.3	71.6	71.6	41.8	60.8
Actuated g/C Ratio	0.14	0.45	0.75	0.75	0.43	0.63
Clearance Time (s)	5.5		5.5	5.5	5.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	244	700	979	1361	795	983
v/s Ratio Prot	c0.09	0.13	c0.18	0.11	0.07	0.02
v/s Ratio Perm			c0.34			
v/c Ratio	0.62	0.29	0.70	0.14	0.15	0.03
Uniform Delay, d1	38.9	16.7	5.5	3.5	16.4	6.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.9	0.2	2.2	0.2	0.4	0.0
Delay (s)	43.8	16.9	7.7	3.7	16.8	6.6
Level of Service	D	B	A	A	B	A
Approach Delay (s)	23.7			6.8	14.3	
Approach LOS	C			A	B	

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	96.1	Sum of lost time (s)	11.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	132	468	175	117	266	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1736	1553	1827	1553	1736	1827
Flt Permitted	0.95	1.00	1.00	1.00	0.64	1.00
Satd. Flow (perm)	1736	1553	1827	1553	1172	1827
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	139	493	184	123	280	120
RTOR Reduction (vph)	0	391	0	47	0	0
Lane Group Flow (vph)	139	102	184	76	280	120
Turn Type		Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Actuated Green, G (s)	10.3	10.3	30.7	30.7	30.7	30.7
Effective Green, g (s)	10.3	10.3	30.7	30.7	30.7	30.7
Actuated g/C Ratio	0.21	0.21	0.61	0.61	0.61	0.61
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	320	1122	954	720	1122
v/s Ratio Prot	c0.08		0.10			0.07
v/s Ratio Perm		0.07		0.05	c0.24	
v/c Ratio	0.39	0.32	0.16	0.08	0.39	0.11
Uniform Delay, d1	17.1	16.9	4.1	3.9	4.9	4.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.6	0.3	0.2	1.6	0.2
Delay (s)	17.8	17.4	4.5	4.1	6.5	4.2
Level of Service	B	B	A	A	A	A
Approach Delay (s)	17.5		4.3			5.8
Approach LOS	B		A			A

Intersection Summary			
HCM Average Control Delay	11.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NBL	NBR	SEL	SER	SWL	SWR
	WB-L	WB-T	EB-L	EB-T	SB-L	SB-R
Lane Configurations						
Volume (vph)	386	97	713	607	127	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	*0.95	1.00	1.00	*0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3471	1553	1736	3471	1736	1553
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3471	1553	1736	3471	1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	406	102	751	639	134	400
RTOR Reduction (vph)	0	83	0	164	0	15
Lane Group Flow (vph)	406	19	751	475	134	385
Turn Type		Perm		custom		pt+ov
Protected Phases	2		1	6	8	1 8
Permitted Phases		2	1			
Actuated Green, G (s)	14.8	14.8	39.9	58.7	12.3	56.2
Effective Green, g (s)	14.8	14.8	39.9	58.7	12.3	56.2
Actuated g/C Ratio	0.19	0.19	0.51	0.74	0.16	0.71
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	650	291	877	2579	270	1105
v/s Ratio Prot	c0.12		c0.43	0.14	c0.08	0.25
v/s Ratio Perm		0.01				
v/c Ratio	0.62	0.07	0.86	0.18	0.50	0.35
Uniform Delay, d1	29.5	26.4	17.1	3.0	30.5	4.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.1	8.2	0.0	1.4	0.2
Delay (s)	31.4	26.5	25.3	3.1	32.0	4.6
Level of Service	C	C	C	A	C	A
Approach Delay (s)	30.4		15.1		11.4	
Approach LOS	C		B		B	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX E

Opening Year (2015) Analysis of Arterial Segments

Arterial Level of Service: NB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Hidden Harbour	II	45	71.5	5.9	77.4	0.89	41.6	A
Cross Creek Parkway	II	45	116.2	11.6	127.8	1.45	40.9	A
US 301	II	45	113.4	49.5	162.9	1.42	31.3	B
Total	II		301.1	67.0	368.1	3.76	36.8	A

Arterial Level of Service: SB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Old Tampa Road	II	45	113.4	44.5	157.9	1.42	32.3	B
River Isles	II	45	116.2	9.3	125.5	1.45	41.7	A
UMRR	II	45	71.5	28.5	100.0	0.89	32.2	B
Total	II		301.1	82.3	383.4	3.76	35.4	A

Arterial Level of Service: NE UMRR

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
UMRR	II	45	156.0	4.3	160.3	1.95	43.8	A
Total	II		156.0	4.3	160.3	1.95	43.8	A

Arterial Level of Service: SB UMRR

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ft. Hamer Road	II	45	42.3	38.8	81.1	0.47	20.6	D
SR 64	II	45	156.0	32.3	188.3	1.95	37.3	A
Total	II		198.3	71.1	269.4	2.41	32.3	B

Arterial Level of Service: NB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Hidden Harbour	II	45	71.1	11.9	83.0	0.89	38.6	A
Cross Creek Parkway	II	45	116.2	17.6	133.8	1.45	39.1	A
US 301	II	45	113.4	20.8	134.2	1.42	38.0	A
Total	II		300.7	50.3	351.0	3.76	38.6	A

Arterial Level of Service: SB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Old Tampa Road	II	45	113.4	37.1	150.5	1.42	33.9	B
River Isles	II	45	116.2	11.1	127.3	1.45	41.1	A
UMRR	II	45	71.1	49.3	120.4	0.89	26.6	C
Total	II		300.7	97.5	398.2	3.76	34.0	B

Arterial Level of Service: NE UMRR

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
UMRR	II	45	156.0	3.1	159.1	1.95	44.1	A
Total	II		156.0	3.1	159.1	1.95	44.1	A

Arterial Level of Service: SB UMRR

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ft. Hamer Road	II	45	42.4	44.8	87.2	0.47	19.2	D
SR 64	II	45	156.0	33.4	189.4	1.95	37.1	A
Total	II		198.4	78.2	276.6	2.42	31.4	B

Arterial Level of Service: NB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	42.7	3.9	46.6	0.49	37.5	A
US 301	II	45	63.8	16.9	80.7	0.80	35.6	A
Total	II		106.5	20.8	127.3	1.28	36.3	A

Arterial Level of Service: SB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	63.8	5.8	69.6	0.80	41.3	A
Total	II		63.8	5.8	69.6	0.80	41.3	A

Arterial Level of Service: EB Golf Course Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Rye Road	II	45	281.2	23.1	304.3	3.52	41.6	A
Total	II		281.2	23.1	304.3	3.52	41.6	A

Arterial Level of Service: WB Golf Course Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ft. Hamer Road	II	45	281.2	21.0	302.2	3.52	41.9	A
Total	II		281.2	21.0	302.2	3.52	41.9	A

Arterial Level of Service: NB Rye Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	473.9	5.8	479.7	5.93	44.5	A
Total	II		473.9	5.8	479.7	5.93	44.5	A

Arterial Level of Service: SW Rye Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	26.4	17.0	43.4	0.25	21.0	D
SR64	II	45	473.9	41.7	515.6	5.93	41.4	A
Total	II		500.3	58.7	559.0	6.18	39.8	A

Arterial Level of Service: NB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	24.1	5.8	29.9	0.23	27.9	C
US 301	II	45	63.8	20.6	84.4	0.80	34.0	B
Total	II		87.9	26.4	114.3	1.03	32.4	B

Arterial Level of Service: SB Ft. Hamer Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	63.8	5.7	69.5	0.80	41.3	A
Total	II		63.8	5.7	69.5	0.80	41.3	A

Arterial Level of Service: EB Golf Course Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Rye Road	II	45	281.2	50.5	331.7	3.52	38.2	A
Total	II		281.2	50.5	331.7	3.52	38.2	A

Arterial Level of Service: WB Golf Course Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ft. Hamer Road	II	45	281.2	18.9	300.1	3.52	42.2	A
Total	II		281.2	18.9	300.1	3.52	42.2	A

Arterial Level of Service: NB Rye Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	473.9	4.2	478.1	5.93	44.6	A
Total	II		473.9	4.2	478.1	5.93	44.6	A

Arterial Level of Service: SW Rye Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Golf Course Road	II	45	26.4	21.4	47.8	0.25	19.1	D
SR64	II	45	473.9	42.1	516.0	5.93	41.3	A
Total	II		500.3	63.5	563.8	6.18	39.5	A

APPENDIX F

Opening Year (2015) Storage Lane Lengths
Fort Hamer Alternative

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	465	121	745	575	309	352
v/c Ratio	0.78	0.33	0.92	0.26	0.79	0.57
Control Delay	47.5	9.9	36.3	7.2	49.5	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	9.9	36.3	7.2	49.5	7.4
Queue Length 50th (ft)	148	0	344	69	181	0
Queue Length 95th (ft)	#227	49	#610	100	#287	71
Internal Link Dist (ft)	15213			920	4196	
Turn Bay Length (ft)		500	750		500	
Base Capacity (vph)	659	393	914	2569	489	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.31	0.82	0.22	0.63	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	575	309	352	465	121	745
v/c Ratio	0.66	0.50	0.67	0.24	0.25	0.89
Control Delay	31.4	7.2	19.4	10.7	20.8	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	7.2	19.4	10.7	20.8	20.3
Queue Length 50th (ft)	113	0	75	47	41	66
Queue Length 95th (ft)	#263	71	#236	127	84	251
Internal Link Dist (ft)	15213			920	4196	
Turn Bay Length (ft)		500	750		500	
Base Capacity (vph)	1104	704	661	2453	1139	1211
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.44	0.53	0.19	0.11	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	89	113	533	105	101	719
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	94	119	561	111	106	757
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1531	561			672	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1531	561			672	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	17	77			88	
cM capacity (veh/h)	112	523			910	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	213	561	111	106	757
Volume Left	94	0	0	106	0
Volume Right	119	0	111	0	0
cSH	255	1700	1700	910	1700
Volume to Capacity	0.83	0.33	0.07	0.12	0.45
Queue Length 95th (ft)	166	0	0	10	0
Control Delay (s)	58.5	0.0	0.0	9.5	0.0
Lane LOS	F			A	
Approach Delay (s)	58.5	0.0		1.2	
Approach LOS	F				

Intersection Summary			
Average Delay	7.7		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	75	101	722	89	113	515
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	79	106	760	94	119	542
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1540	760			854	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1540	760			854	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	26	74			85	
cM capacity (veh/h)	106	403			777	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	185	760	94	119	542
Volume Left	79	0	0	119	0
Volume Right	106	0	94	0	0
cSH	250	1700	1700	777	1700
Volume to Capacity	0.74	0.45	0.06	0.15	0.32
Queue Length 95th (ft)	131	0	0	13	0
Control Delay (s)	53.2	0.0	0.0	10.5	0.0
Lane LOS	F			B	
Approach Delay (s)	53.2	0.0		1.9	
Approach LOS	F				

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	46	135	648	53	117	900
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	48	142	682	56	123	947
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1904	710			738	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1904	710			738	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	24	67			86	
cM capacity (veh/h)	64	430			859	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	191	738	123	947
Volume Left	48	0	123	0
Volume Right	142	56	0	0
cSH	252	1700	859	1700
Volume to Capacity	0.76	0.43	0.14	0.56
Queue Length 95th (ft)	136	0	12	0
Control Delay (s)	52.5	0.0	9.9	0.0
Lane LOS	F		A	
Approach Delay (s)	52.5	0.0	1.1	
Approach LOS	F			

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	53	117	900	67	135	648
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	56	123	947	71	142	682
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		12				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1949	983			1018	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1949	983			1018	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	59			79	
cM capacity (veh/h)	55	299			674	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	179	1018	142	682
Volume Left	56	0	142	0
Volume Right	123	71	0	0
cSH	177	1700	674	1700
Volume to Capacity	1.01	0.60	0.21	0.40
Queue Length 95th (ft)	208	0	20	0
Control Delay (s)	93.6	0.0	11.8	0.0
Lane LOS	F		B	
Approach Delay (s)	93.6	0.0	2.0	
Approach LOS	F			

Intersection Summary			
Average Delay	9.1		
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Lane Group Flow (vph)	114	217	105	919	587	161
v/c Ratio	0.46	0.53	0.29	0.89	0.83	0.22
Control Delay	39.8	10.7	27.9	15.1	33.8	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	10.7	27.9	15.1	33.8	4.4
Queue Length 50th (ft)	46	0	41	11	202	0
Queue Length 95th (ft)	119	63	92	#210	#559	40
Internal Link Dist (ft)	2376		728		1100	
Turn Bay Length (ft)	300		300			300
Base Capacity (vph)	433	550	730	1169	903	886
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.39	0.14	0.79	0.65	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Lane Group Flow (vph)	161	105	217	587	919	114
v/c Ratio	0.62	0.33	0.73	0.78	1.02	0.13
Control Delay	44.8	9.9	49.3	11.4	59.1	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	9.9	49.3	11.4	59.1	3.1
Queue Length 50th (ft)	83	0	111	0	~556	0
Queue Length 95th (ft)	146	43	#208	106	#826	27
Internal Link Dist (ft)	2378		721		1100	
Turn Bay Length (ft)	300		300			300
Base Capacity (vph)	341	390	341	777	900	860
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.27	0.64	0.76	1.02	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX G

Opening Year (2015) Storage Lane Lengths
Rye Road Alternative

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	416	148	528	431	176	224
v/c Ratio	0.56	0.33	0.91	0.24	0.31	0.34
Control Delay	23.8	6.0	32.7	7.6	16.9	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	6.0	32.7	7.6	16.9	4.5
Queue Length 50th (ft)	70	0	115	39	51	0
Queue Length 95th (ft)	102	36	#257	53	106	49
Internal Link Dist (ft)	3927			966	4133	
Turn Bay Length (ft)		500	750		500	
Base Capacity (vph)	926	523	585	2025	560	652
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.28	0.90	0.21	0.31	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	431	176	224	416	148	528
v/c Ratio	0.50	0.34	0.41	0.22	0.39	0.70
Control Delay	18.7	5.6	8.6	6.3	20.6	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	5.6	8.6	6.3	20.6	7.9
Queue Length 50th (ft)	51	0	26	25	35	0
Queue Length 95th (ft)	111	40	74	60	89	66
Internal Link Dist (ft)	3927			966	4133	
Turn Bay Length (ft)		500	750		500	
Base Capacity (vph)	1657	834	780	3199	1522	1427
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.21	0.29	0.13	0.10	0.37

Intersection Summary

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	123	280	120	139	493	184
v/c Ratio	0.45	0.58	0.10	0.12	0.57	0.15
Control Delay	21.0	8.4	3.9	1.2	11.6	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	8.4	3.9	1.2	11.6	5.8
Queue Length 50th (ft)	41	32	11	0	95	22
Queue Length 95th (ft)	m59	55	30	15	m142	m44
Internal Link Dist (ft)	7747		2482			4133
Turn Bay Length (ft)		500		500	500	
Base Capacity (vph)	466	622	1263	1117	859	1263
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.45	0.10	0.12	0.57	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	139	493	184	123	280	120
v/c Ratio	0.39	0.69	0.16	0.12	0.39	0.11
Control Delay	18.9	7.5	5.8	2.1	8.3	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	7.5	5.8	2.1	8.3	5.7
Queue Length 50th (ft)	36	0	18	0	32	11
Queue Length 95th (ft)	61	51	57	19	107	40
Internal Link Dist (ft)	7747		1143			4133
Turn Bay Length (ft)		500		500	500	
Base Capacity (vph)	608	864	1122	1002	720	1122
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.57	0.16	0.12	0.39	0.11

Intersection Summary

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	123	280	120	139	493	184
v/c Ratio	0.45	0.58	0.10	0.12	0.57	0.15
Control Delay	21.0	8.4	3.9	1.2	11.6	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	8.4	3.9	1.2	11.6	5.8
Queue Length 50th (ft)	41	32	11	0	95	22
Queue Length 95th (ft)	m59	55	30	15	m142	m44
Internal Link Dist (ft)	7747		2482			4133
Turn Bay Length (ft)		500		500	500	
Base Capacity (vph)	466	622	1263	1117	859	1263
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.45	0.10	0.12	0.57	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	139	493	184	123	280	120
v/c Ratio	0.39	0.69	0.16	0.12	0.39	0.11
Control Delay	18.9	7.5	5.8	2.1	8.3	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	7.5	5.8	2.1	8.3	5.7
Queue Length 50th (ft)	36	0	18	0	32	11
Queue Length 95th (ft)	61	51	57	19	107	40
Internal Link Dist (ft)	7747		1143			4133
Turn Bay Length (ft)		500		500	500	
Base Capacity (vph)	608	864	1122	1002	720	1122
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.57	0.16	0.12	0.39	0.11

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	40	681	455	121	193	152
v/c Ratio	0.11	0.69	0.59	0.10	0.28	0.14
Control Delay	23.1	7.7	10.4	5.8	17.0	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	7.7	10.4	5.8	17.0	1.1
Queue Length 50th (ft)	15	69	69	15	54	0
Queue Length 95th (ft)	m30	111	150	38	103	14
Internal Link Dist (ft)	5531			8591	1259	
Turn Bay Length (ft)		500	500			500
Base Capacity (vph)	506	998	775	1168	679	1186
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.68	0.59	0.10	0.28	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	152	455	681	193	121	40
v/c Ratio	0.63	0.48	0.70	0.14	0.15	0.04
Control Delay	50.5	2.7	10.0	4.2	21.4	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	2.7	10.0	4.2	21.4	3.8
Queue Length 50th (ft)	89	0	145	28	43	0
Queue Length 95th (ft)	153	37	258	56	107	16
Internal Link Dist (ft)	5531			8591	1259	
Turn Bay Length (ft)		500	500			500
Base Capacity (vph)	317	1201	1134	1362	795	1061
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.38	0.60	0.14	0.15	0.04

Intersection Summary

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	98	41	58	449	770	62
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	103	43	61	473	811	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1405	811	876			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1405	811	876			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	26	89	92			
cM capacity (veh/h)	140	377	762			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	146	61	473	811	65
Volume Left	103	61	0	0	0
Volume Right	43	0	0	0	65
cSH	198	762	1700	1700	1700
Volume to Capacity	0.74	0.08	0.28	0.48	0.04
Queue Length 95th (ft)	121	7	0	0	0
Control Delay (s)	62.1	10.1	0.0	0.0	0.0
Lane LOS	F	B			
Approach Delay (s)	62.1	1.2		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	6.2		
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	62	58	41	770	449	98
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	65	61	43	811	473	103
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		20				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1369	473	576			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1369	473	576			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	57	90	96			
cM capacity (veh/h)	153	587	988			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	126	43	811	473	103
Volume Left	65	43	0	0	0
Volume Right	61	0	0	0	103
cSH	296	988	1700	1700	1700
Volume to Capacity	0.43	0.04	0.48	0.28	0.06
Queue Length 95th (ft)	51	3	0	0	0
Control Delay (s)	29.0	8.8	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	29.0	0.4		0.0	
Approach LOS	D				

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

	WB-L	WB-R	EB-L	EB-R	SB-L	SB-R
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Group Flow (vph)	639	134	400	406	102	751
v/c Ratio	0.57	0.23	0.61	0.15	0.37	0.81
Control Delay	31.9	6.1	28.4	0.5	41.7	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	6.1	28.4	0.5	41.7	22.5
Queue Length 50th (ft)	187	0	188	0	59	297
Queue Length 95th (ft)	254	44	273	10	110	440
Internal Link Dist (ft)	1747		2649		15683	
Turn Bay Length (ft)	500	500	750			500
Base Capacity (vph)	1127	595	755	2702	279	1012
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.23	0.53	0.15	0.37	0.74

Intersection Summary

	WB-L	WB-R	EB-L	EB-R	SB-L	SB-R
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Group Flow (vph)	406	102	751	639	134	400
v/c Ratio	0.64	0.28	0.86	0.23	0.50	0.36
Control Delay	37.7	9.9	29.3	0.5	42.1	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	9.9	29.3	0.5	42.1	4.7
Queue Length 50th (ft)	100	0	307	0	63	53
Queue Length 95th (ft)	179	45	543	11	139	100
Internal Link Dist (ft)	1747		2649		15683	
Turn Bay Length (ft)	500	500	750			500
Base Capacity (vph)	835	451	1239	3170	371	1347
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.23	0.61	0.20	0.36	0.30

Intersection Summary

APPENDIX H

Design Year (2035) Art Plan Analysis

ARTPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Arterial Name**	UMRR	**Study Period**	K100
Date Prepared	9/10/2012 9:36:57 AM	**From**	SR 64	**Modal Analysis**	Auto Only
Agency		**To**	UMRR	**Program**	ARTPLAN 2009
Area Type	Other Urbanized	**Peak Direction**	Northbound	**Version Date**	12/12/10
Arterial Class	1				

File Name	C:\Documents and Settings\bob_johnson\Local Settings\Temp\preview.xml
User Notes	2-Lane Collector Rd.

Arterial Data

K	0.1	**PHF**	0.925	**Control Type**	Actuated
D	0.6	**% Heavy Vehicles**	2	**Base Sat. Flow Rate**	1950

Automobile Intersection and Segment Data

Segment #	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	FFS	Median Type
1 (to UMRR)	120	0.38	3	1	15	25	Yes	2	470	0.25	Yes	8345	14500	870	1	50	None

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS
1 (to UMRR)	564	1339	1.109	89.94	F	0.10	25.84	D

Arterial Length	**1.5805**	**Weighted g/C**	**0.38**	**FFS Delay**	**106.38**	**Threshold Delay**	**0.00**	**Auto Speed**	**###**	**Auto LOS**	**###**

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	**Annual Average Daily Traffic**				
2	**	11400	14200	***	***
			[illegible]	***	[illegible]
		[illegible]	[illegible]	***	[illegible]
	[illegible]	[illegible]	[illegible]	***	[illegible]
*	**	11400	14200	***	***

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**
 # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

ARTPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Arterial Name**	UMRR	**Study Period**	K100
Date Prepared	9/10/2012 9:36:57 AM	**From**	SR 64	**Modal Analysis**	Auto Only
Agency		**To**	US301	**Program**	ARTPLAN 2009
Area Type	Other Urbanized	**Peak Direction**	Northbound	**Version Date**	12/12/10
Arterial Class	1				

File Name	C:\Documents and Settings\bob_johnson\Local Settings\Temp\preview.xml
User Notes	2-Lane Collector Rd.

Arterial Data

K	0.1	**PHF**	0.925	**Control Type**	Actuated
D	0.6	**% Heavy Vehicles**	2	**Base Sat. Flow Rate**	1950

Automobile Intersection and Segment Data

Segment #	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	FFS	Median Type
1 (to UMRR)	90	0.56	3	1	0	11	No				Yes	8375	19500	1170	1	50	None
2 (to Riv Isles)	100	0.7	3	1	5	3	Yes	1	300	0.15	No	3920	17400	1044	1	50	None
3 (to Old Tampa)	101	0.6	3	1	30	8	Yes	1	300	0.15	No	7820	17300	1038	1	50	None
4 (to US301)	100	0.55	3	1	14	45	Yes	1	300	0.25	Yes	7485	14500	870	1	50	None

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS
1 (to UMRR)	1126	1666	1.206	113.98	F	0.00	23.20	D
2 (to Riv Isles)	1072	1739	0.881	12.53	B	0.12	35.37	B
3 (to Old Tampa)	786	1689	0.775	16.48	B	#	38.08	B
4 (to US301)	386	840	0.835	25.92	C	0.30	35.70	B

Arterial Length	**5.2273**	**Weighted g/C**	**##**	**FFS Delay**	**228.26**	**Threshold Delay**	**0.00**	**Auto Speed**	**###**	**Auto LOS**	**###**

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	**Annual Average Daily Traffic**				
2	8400	16700	17400	***	***
4	[illegible]	[illegible]	[illegible]	***	***
6	[illegible]	[illegible]	[illegible]	***	***
8	[illegible]	[illegible]	[illegible]	***	***
*	8400	16700	17400	***	***

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**
 # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.