PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-127317

Microphone Model 2560, Serial Number 3378, was calibrated on 08MAR2010. The microphone meets factory specifications per Test Procedure D0001.8167.

Instrument found to be in calibration as received: YES
Date Calibrated: 08MAR2010
Calibration due: 08MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2900	0575	12 Months	24JUN2010	2009-119575
Larson Davis	CAL250	42630	12 Months	21JUL2010	2009-120364
Larson Davis	PRM915	0102	12 Months	20AUG2010	2009-121224
Larson Davis	PRM902	0206	12 Months	20AUG2010	2009-121219
Larson Davis	2559	3034LF	12 Months	21AUG2010	2009-121293
Larson Davis	2559	2506	12 Months	03SEP2010	16868-1
Larson Davis	PRM902	0529	12 Months	08SEP2010	2009-121767
Larson Davis	PRM902	0528	12 Months	08SEP2010	2009-121766
Larson Davis	MTS1000 / 2201	1000 / 0100	12 Months	09SEP2010	SM090909-3
Hewlett Packard	34401A	3146A62099	12 Months	03NOV2010	4548881
Larson Davis	PRM916	0102	12 Months	17DEC2010	2009-125069

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data is the same as shipped data.

Signed: Abraham Ortega
Technician: Abraham Ortega

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2009-117125

Microphone Model 2559, Serial Number 1785, was calibrated on 07APR2009. The microphone meets factory specifications per Test Procedure D0001.8167.

Instrument found to be in calibration as received: YES
Date Calibrated: 07APR2009
Calibration due: 07APR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2900	0575	12 Months	24JUN2009	2008-107987
Larson Davis	CAL250	42630	12 Months	22JUL2009	2008-108777
Larson Davis	PRM915	0102	12 Months	27AUG2009	2008-110054
Larson Davis	PRM916	0102	12 Months	27AUG2009	2008-110064
Larson Davis	2559	3034LF	12 Months	27AUG2009	2008-110171
Larson Davis	2559	2504	12 Months	04SEP2009	16047-1
Larson Davis	PRM902	0529	12 Months	08SEP2009	2008-110458
Larson Davis	PRM902	0528	12 Months	08SEP2009	2008-11457
Larson Davis	MTS1000 / 2201	1000 / 0100	12 Months	10SEP2009	2008-SM908
Larson Davis	PRM902	0206	12 Months	09NOV2009	2008-110047
Hewlett Packard	34401A	3146A62099	12 Months	13NOV2009	4140196

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

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PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-127313

Microphone Model 2559, Serial Number 2029, was calibrated on 08MAR2010. The microphone meets factory specifications per Test Procedure D0001.8167.

Instrument found to be in calibration as received: YES
Date Calibrated: 08MAR2010
Calibration due: 08MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2900	0575	12 Months	24JUN2010	2009-119575
Larson Davis	CAL250	42630	12 Months	21JUL2010	2009-120364
Larson Davis	PRM915	0102	12 Months	20AUG2010	2009-121224
Larson Davis	PRM902	0206	12 Months	20AUG2010	2009-121219
Larson Davis	2559	3034LF	12 Months	21AUG2010	2009-121293
Larson Davis	2559	2506	12 Months	03SEP2010	16868-1
Larson Davis	PRM902	0529	12 Months	08SEP2010	2009-121767
Larson Davis	PRM902	0528	12 Months	08SEP2010	2009-121766
Larson Davis	MTS1000 / 2201	1000 / 0100	12 Months	09SEP2010	SM090909-3
Hewlett Packard	34401A	3146A62099	12 Months	03NOV2010	4548881
Larson Davis	PRM916	0102	12 Months	17DEC2010	2009-125069

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

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PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration

Certificate Number 2009-119812

Microphone Model GRAS 40AQ, Serial Number 16967, was calibrated on 06JUL2009. The microphone meets original equipment manufacturer's published specifications.

Instrument found to be in calibration as received: YES
Date Calibrated: 06JUL2009
Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	CAL250	42630	12 Months	22JUL2009	2008-108777
Larson Davis	PRM915	0102	12 Months	27AUG2009	2008-110054
Larson Davis	PRM916	0102	12 Months	27AUG2009	2008-110064
Larson Davis	2559	2504	12 Months	04SEP2009	16047-1
Larson Davis	MTS1000 / 2201	1000 / 0100	12 Months	10SEP2009	2008-SM908
Larson Davis	PRM902	0206	12 Months	09NOV2009	2008-110047
Hewlett Packard	34401A	3146A62099	12 Months	13NOV2009	4140196
Larson Davis	2900	0575	12 Months	24JUN2010	2009-119575

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

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Technician: Abraham Ortega

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Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

CERTIFICATE OF CALIBRATION FOR BRÜEL & KJÆR FREE FIELD MICROPHONE

The calibration is performed by comparison with Calibration Service Standard Microphone Cartridge Type **4160** Serial No. **991821**
Calibrated by **TS** (BRÜEL & KJÆR) Date **10 AUG 2010**
Re-calibration due **31 AUG 2011**

a) Estimated uncertainty of comparison: ± **0.05** dB
b) Estimated uncertainty of Calibration Service Standard Microphone Cartridge: ± **0.04** dB
c) Absolute uncertainty: Sq. Root (a_2+b_2) = **0.064** dB
d) Expanded uncertainty w. c.F.: 2 for 95% confidence level: ± **0.13** dB

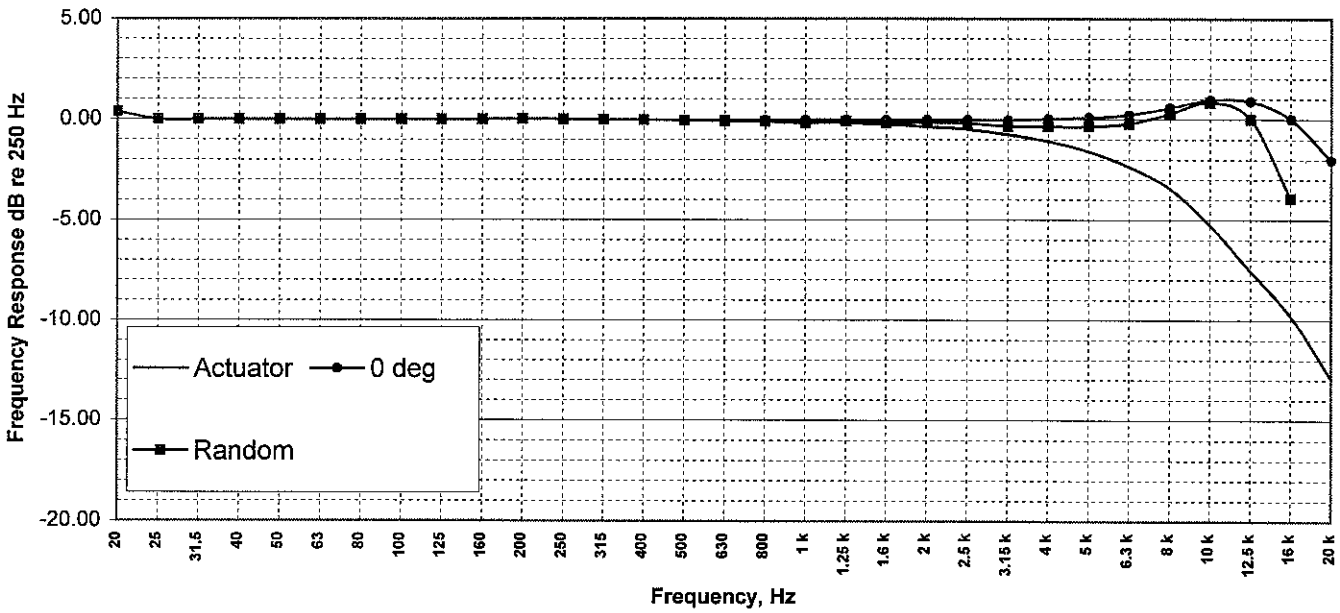
Microphone Cartridge Type	**4188**	
Serial No.	**2539490**	
ID #	**N/A**	
Open Circuit Sensitivity		
at 1013 mbar, 23$_o$ C, 50% R.H.:	**-30.66**	dB re. 1 V/Pa
Or	**29.31**	mV/Pa

This calibration is traceable to:
NIST Test **#822/277993-09, D128**

Open Circuit Correction Factor K_0 =	**4.7**	dB
Open Circuit Sensitivity S_0	**N/A**	dB

with **Sound Level Meter** : NA
Serial No.: **NA**

Microphone Frequency Response Type 4188
S/N 2539490 : Measured 07 Sep 2010



The lower curve is the pressure response recorded with Electrostatic Actuator Type UA**0033**
The Free-Field Frequency Response Curve (0o) (if shown) is obtained by applying the corrections, found on the supplied chart, to the measured actuator response curve.
The Random Incidence Frequency Response Curve (if shown) is obtained by applying the corrections, found on the supplied chart to the measured actuator response curve.

Condition of Test:

Ambient Pressure:	**984.27**	hPa
Temperature:	**23**	°C
Relative Humidity:	**45**	%
Polarization voltage:	**Zero**	V
Frequency:	**250**	Hz
Date of calibration:	**07 SEP 2010**	
Re-calibration due on:	**07 SEP 2011**	

Calibration procedure: Brüel & Kjær 9559 System
Certificate#: **17684-2** PO # **Pending**

ODIN METROLOGY, INC.
CALIBRATION OF BRÜEL & KJÆR INSTRUMENTS
3533 Old Conejo Road, Suite 125
Thousand Oaks, CA 91320
TEL. (805) 375-0830 FAX : (805) 375-0405

For: **Parsons Engineering Science Inc**
Pasadena, CA 91124

Note: The calibration data is both "AS FOUND" and "AS FINAL"
Note: At the time of calibration this microphone was performing **wthin** manufactures specifications.
Calibration performed by:
Torben Ehlert, Quality Assurance Manager

Note: This calibration shall not be reproduced, except in full, without written consent by Odin Metrology, Inc

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2009-119749

Instrument Model 828, Serial Number 1629, was calibrated on 02JUL2009. The instrument meets factory specifications per Procedure D0001.8135.

Instrument found to be in calibration as received: YES
Date Calibrated: 02JUL2009
Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	MY41044529	12 Months	15JAN2010	4204375
Larson Davis	LDSigGn/2209	0277 / 0109	12 Months	25MAR2010	2009-116756

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 23 ° Centigrade

Relative Humidity: 37 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Signed: Ron Harris

Technician: Ron Harris

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-127480

Instrument Model 828, Serial Number 1891, was calibrated on 11MAR2010. The instrument meets factory specifications per Procedure D0001.8135.

Instrument found to be in calibration as received: YES
Date Calibrated: 11MAR2010
Calibration due: 11MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	US36015216	12 Months	06MAY2010	4342531
Larson Davis	LDSigGn/2209	0445 / 0111	12 Months	16NOV2010	2009-123995

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 26 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Signed: Eric Olson
Technician: Eric Olson

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-127481

Instrument Model 828, Serial Number 1901, was calibrated on 11MAR2010. The instrument meets factory specifications per Procedure D0001.8135.

Instrument found to be in calibration as received: YES
Date Calibrated: 11MAR2010
Calibration due: 11MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	US36015216	12 Months	06MAY2010	4342531
Larson Davis	LDSigGn/2209	0445 / 0111	12 Months	16NOV2010	2009-123995

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 26 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Signed: Eric Olson
Technician: Eric Olson

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-127479

Instrument Model 828, Serial Number 1938, was calibrated on 11MAR2010. The instrument meets factory specifications per Procedure D0001.8135.

Instrument found to be in calibration as received: YES
Date Calibrated: 11MAR2010
Calibration due: 11MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	US36015216	12 Months	06MAY2010	4342531
Larson Davis	LDSigGn/2209	0445 / 0111	12 Months	16NOV2010	2009-123995

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 26 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

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"AS RECEIVED" data same as shipped data.

Signed: Eric Olson
Technician: Eric Olson

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PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-128400

Instrument Model 900B, Serial Number 3202, was calibrated on 07APR2010. The instrument meets factory specifications per Procedure D0001.8201.

Instrument found to be in calibration as received: YES
Date Calibrated: 07APR2010
Calibration due: 07APR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	MY41044529	12 Months	15JAN2011	4629111
Larson Davis	LDSigGn/2209	0277 / 0109	12 Months	24MAR2011	2010-127832

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)*

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 26 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

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Signed: Ron Harris

Technician: Ron Harris

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PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-128398

Instrument Model 900B, Serial Number 3203, was calibrated on 07APR2010. The instrument meets factory specifications per Procedure D0001.8201.

Instrument found to be in calibration as received: YES
Date Calibrated: 07APR2010
Calibration due: 07APR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	MY41044529	12 Months	15JAN2011	4629111
Larson Davis	LDSigGn/2209	0277 / 0109	12 Months	24MAR2011	2010-127832

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)*

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 26 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

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"AS RECEIVED" data same as shipped data.

Signed: Ron Harris
Technician: Ron Harris

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PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2009-117379

Instrument Model CAL250, Serial Number 2479, was calibrated on 16APR2009. The instrument meets factory specifications per Procedure D0001.8192.

Instrument found to be in calibration as received: YES
Date Calibrated: 16APR2009
Calibration due: 16APR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	US36033460	12 Months	06JUN2009	3941596
Hewlett Packard	34401A	3146A10352	12 Months	02JUL2009	3964750
Larson Davis	2559	2504	12 Months	04SEP2009	16047-1
Larson Davis	PRM915	0112	12 Months	11SEP2009	2008-110617
Larson Davis	PRM902	0480	12 Months	11SEP2009	2008-110613
Larson Davis	MTS1000/2201	0111	12 Months	11SEP2009	2008-SM908
Schaevitz	P3061-15PSIA	17590	12 Months	19NOV2009	4140192
Larson Davis	2900	0661	12 Months	07APR2010	2009-117163

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as shown on calibration report.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

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"As Received" data is the same as shipped data.

Signed: Scott Montgomery
Technician: Scott Montgomery

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PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2010-127209

Instrument Model CAL250, Serial Number 2480, was calibrated on 03MAR2010. The instrument meets factory specifications per Procedure D0001.8192.

Instrument found to be in calibration as received: YES
Date Calibrated: 03MAR2010
Calibration due: 03MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2900	0661	12 Months	07APR2010	2009-117163
Hewlett Packard	34401A	US36033460	12 Months	16JUN2010	4382218
Hewlett Packard	34401A	3146A10352	12 Months	13JUL2010	4413817
Larson Davis	2559	2506	12 Months	03SEP2010	16868-1
Larson Davis	PRM915	0112	12 Months	09SEP2010	2009-121809
Larson Davis	PRM902	0480	12 Months	09SEP2010	2009-121820
Larson Davis	MTS1000/2201	0111	12 Months	09SEP2010	SM090909-1
PCB	1502B02FJ15PSIA	1342	12 Months	23NOV2010	3341845067

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as shown on calibration report.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"As Received" data is the same as shipped data.

Signed: Scott Montgomery
Technician: Scott Montgomery

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2009-119877

Instrument Model CAL200, Serial Number 2924, was calibrated on 07JUL2009. The instrument meets factory specifications per Procedure D0001.8190.

Instrument found to be in calibration as received: YES
Date Calibrated: 07JUL2009
Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2559	2504	12 Months	04SEP2009	16047-1
Larson Davis	PRM915	0112	12 Months	11SEP2009	2008-110617
Larson Davis	PRM902	0480	12 Months	11SEP2009	2008-110613
Larson Davis	MTS1000/2201	0111	12 Months	11SEP2009	2008-SM908
Schaevitz	P3061-15PSIA	17590	12 Months	19NOV2009	4140192
Larson Davis	2900	0661	12 Months	07APR2010	2009-117163
Hewlett Packard	34401A	US36015216	12 Months	06MAY2010	4342531
Hewlett Packard	34401A	US36033460	12 Months	16JUN2010	4382218

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as shown on calibration report.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"As Received" data is the same as shipped data.

Signed: Scott Montgomery
Technician: Scott Montgomery

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

Brüel & Kjær
North America Inc.

Certificate Number 1-147206244-901
4231A 2.07 Rev

Brüel & Kjær
CERTIFICATE OF CALIBRATION

MEASUREMENT STANDARD
This calibration is performed by comparison with a Measurement Standard Pistonphone:

Type	4220	Serial Number	1048235
Calibrated by	JAS	Due Date	02-Apr-10
Cal Interval	24 mo	Trace Number	1-129404471-501

Type	HP5315A	Serial Number	2536A13949
Calibrated by	COM	Due Date	14-Aug-09
Cal Interval	12 mo	Trace Number	248554

EXPANDED UNCERTAINTY
Reported values represent expanded uncertainties expressed at approximately 95% confidence level using a coverage factor of k=2

Parameter	Expanded Uncertainty
Acoustic output level	0.12 dB
Output Frequency	100 ppm

Calibrator Type 4231
Serial Number 2507137
Submitted by Parsons
100 W. Walnut Street
Pasadena, CA 91124

Asset Number

As Received Data			
With 1.333 cm³ Effective Load Volume			
Nominal	Actual	Nominal	Actual
in dB re 20 μPa		in Hertz	
94.0 ± 0.2	94.0	1000 ± 1	1000
114.0 ± 0.2	114.0		

Final Data			
With 1.333 cm³ Effective Load Volume			
Nominal	Actual	Nominal	Actual
in dB re 20 μPa		in Hertz	
94.0 ± 0.2	94.0	1000 ± 1	1000
114.0 ± 0.2	114.0		

Total Harmonic Distortion*: Less than 1 %

This acoustic calibrator has been calibrated using standards with values traceable to the National Institute of Standards and Technology.

The calibration of this acoustic calibrator was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1.

This certificate shall not be reproduced, except in full, without the written approval of the Brüel and Kjær Calibration Laboratory-Norcross, GA.

The results of this calibration apply to the acoustic calibrator type and serial number identified above.

*Items marked with an asterisk (*) are not covered by the current A2LA accreditation.

Calibration Performed By Jim Rice
Technician

Date Certificate Issued 15-Sep-08
Approved By
Quality Representative

CONDITIONS OF TEST

Procedure Number	4231	9.05
Ambient Pressure	977	mbar
Temperature	23	° C
Relative Humidity	48	%
Date of Calibration	15-Sep-08	

The Brüel and Kjær North American Service Center is also Certified to ISO 9001:2000 KEMA ® Certificate Number 710009-001

ACCREDITED

Calibration Certificate # 1568.01

Brüel and Kjær Calibration Laboratory
2815 Colonnades Court Building A
Norcross, Georgia 30071-1588
Telephone 800/332-2040
FAX 770/447-4033

Appendix G Predicted Future Noise Levels and Noise Barrier Analysis

Table G-1 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 1

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 1.88 W	--	SFR	4	67 MOD	66	66	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	0	0
R 1.89 W		SFR	3	69 MOD	68	68	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	0
R 1.90 W	--	SFR	4	68 MOD	67	67	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.91 W*		SFR	3	63 MOD	62	62	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.92 W		SFR	5	68 M,LT5,CAL	67	67	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.93 W		SFR	4	67 MOD	66	67	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.94 W*		SFR	2	58 M,ST9A,CAL	57	57	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.95 W	S649 Shoulder	SFR	5	67 MOD	68	67	1	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	1	0	65	2	0
R 1.96 W*		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.97 W		SFR	4	64 M,ST9	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.98 W		SFR	4	64 MOD	65	64	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.99 W		SFR	2	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.100 W*		SFR	2	62 MOD	63	63	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.101 W		REC	3	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.102 W		REC	2	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.103 W		REC	1	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution; LIB - library.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 16 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and t interior noise criteria has been used for this receiver because there is no outdoor us
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-2 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 2

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*
R 2.1 W	S699 R/W	MFR	3	65 MOD	62	62	-3	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.2 W		MFR	3	63 MOD	60	62	-3	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.2A W		MFR	1	65 MOD	62	62	-3	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.3 W		MFR	6	68 M,LT6,CAL	65	64	-3	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.4 W		MFR	3	62 MOD	59	58	-3	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.4A W		MFR	2	65 MOD	62	61	-3	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.5 W	S705 Shoulder	MFR	3	67 MOD	64	64	-3	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 2.6 W		MFR	6	67 MOD	64	64	-3	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 2.7 W		MFR	6	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	0	*0*	63	1	*0*
R 2.8 W		MFR	3	62 MOD	63	64	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	63	1	*0*
R 2.8A W		MFR	2	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	57	2	*0*	56	3	*0*
R 2.9 W		MFR	4	62 M,ST11	63	64	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	61	3	*0*	60	4	*0*
R 2.10 W	--	MFR	6	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.11 W		MFR	8	57 MOD	58	57	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.12 W	--	SFR	3	62 MOD	63	64	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.13 W	S708, S710, & S718 Shoulder & R/W	SFR	2	57 M,ST12,CAL	58	62	1	4	B (67)	NONE	62	0	*0*	61	1	*0*	61	1	*0*	60	2	*0*	60	2	*0*
R 2.14 W,K3		SFR	2	67 MOD	68	70	1	2	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	69	1	*0*	69	1	*0*
R 2.15 W,K3		REC	2	68 MOD	69	70	1	1	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	68	2	*0*	67	3	*0*
R 2.16 W,K3		REC	0	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	2	*0*	62	3	*0*
R 2.17 W,K3		SFR	1	66 MOD	66	68	0	2	B (67)	A/E	68	0	*0*	67	1	*0*	66 T	2	*0*	65	3	*0*	64	4	*0*
R 2.18 W,K3		SFR	3	67 MOD	67	68	0	1	B (67)	A/E	67	1	*0*	66	2	*0*	64 T	4	*0*	**63 R**	**5**	*3*	61	7	*3*
R 2.19 W,K3		SFR	4	67 M,LT7,CAL	67	68	0	1	B (67)	A/E	67	1	*0*	66	2	*0*	64 T	4	*0*	**62 R**	**6**	*4*	61	7	*4*
R 2.20 W,K3,C		SFR	4	67 MOD	67	68	0	1	B (67)	A/E	67	1	*0*	66	2	*0*	64 T	4	*0*	**61 R**	**7**	*4*	61	7	*4*
R 2.21 W*		SFR	2	61 MOD	62	62	1	0	B (67)	NONE	62	0	*0*	62	0	*0*	61	1	*0*	60	2	*0*	59	3	*0*
R 2.21A W*		--	--	60 M,ST12A	61	62	1	1	--	--	62	0	--	61	1	--	61	1	--	60	2	--	59	3	--
R 2.22 W,K3		SFR	3	67 MOD	67	68	0	1	B (67)	A/E	67	1	*0*	66	2	*0*	64	4	*0*	**62 T,R**	**6**	*3*	61	7	*3*
R 2.23 W*		SFR	2	61 MOD	62	62	1	0	B (67)	NONE	62	0	*0*	62	0	*0*	61	1	*0*	60	2	*0*	59	3	*0*
R 2.24 W,K3		SFR	3	67 MOD	67	68	0	1	B (67)	A/E	67	1	*0*	66	2	*0*	64	4	*0*	**62 T,R**	**6**	*3*	61	7	*3*

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
K3 - A calibration factor of +1.5 dB is applied for this receptor and adjacent receptors with similar geographic features.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-2 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 2 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*
R 2.25 W,K3	S718 Shoulder	SFR	2	66 MOD	67	69	1	2	B (67)	A/E	66	3	*0*	66	3	*0*	65	4	*0*	64 T	5	*2*	**63 R,5**	**6**	*2*
R 2.26 W*		SFR	2	60 MOD	61	60	1	-1	B (67)	NONE	60	0	*0*	60	0	*0*	60	0	*0*	59	1	*0*	58	2	*0*
R 2.27 W,K3		SFR	2	66 MOD	67	66	1	-1	B (67)	A/E	64	2	*0*	63	3	*0*	63	3	*0*	62 T	4	*0*	**61 R**	**5**	*2*
R 2.28 W,K4	--	SFR	3	58 M,ST13,CAL	59	55	1	-4	B (67)	NONE	53	2	*0*	53	2	*0*	52	3	*0*	52	3	*0*	51	4	*0*
R 2.29 W,K4		SFR	3	58 MOD	59	53	1	-6	B (67)	NONE	52	1	*0*	52	1	*0*	52	1	*0*	52	1	*0*	51	2	*0*
R 2.30 W,K4		SFR	1	56 MOD	57	53	1	-4	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.31 W	--	SFR	3	59 MOD	61	56	2	-5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.32 W		SFR	3	60 MOD	62	57	2	-5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.33 W		SFR	3	62 MOD	64	55	2	-9	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.33A W		--	--	63 MOD	65	58	2	-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.34 W,C	S733 Shoulder	SFR	1	66 MOD	68	66	2	-2	B (67)	A/E	63	3	*0*	62	4	*0*	62 T	4	*0*	**61 R**	**5**	*1*	60	6	*1*
R 2.35 W	--	SFR	3	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65 T	1	*0*	63	3	*0*
R 2.36 W*		SFR	2	62 MOD	64	64	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	62	2	*0*	61	3	*0*
R 2.37 W		SFR	2	64 M,LT8	66	67	2	1	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	66	1	*0*	65	2	*0*
R 2.38 W*		SFR	2	64 MOD	66	66	2	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	66 T	0	*0*	66	0	*0*
R 2.39 W		SFR	2	64 MOD	66	66	2	0	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	65	1	*0*	64	2	*0*
R 2.40 W	S747 R/W	SFR	2	67 MOD	69	71	2	2	B (67)	A/E	--	--	--	--	--	--	67	4	*0*	66 T	5	*2*	**66 R**	**5**	*2*
R 2.41 W,C,P		SCH	1	63 M,ST15	69	71	6	2	B (67)	A/E	--	--	--	--	--	--	66	5	*1*	65 T	6	*1*	**64 R,5**	**7**	*1*
R 2.42 W,P		SCH	1	58 MOD	64	65	6	1	B (67)	NONE	63	2	*0*	63	2	*0*	62	3	*0*	61	4	*0*	**60 R**	**5**	*1*
R 2.43	--	MOT	1	51 MOD	53	53	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.44		MOT	1	55 MOD	57	58	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
P - Design Year No Build and Build noise levels do not account for the privacy screen that was present at the time of measurement
K3 - A calibration factor of +1.5 dB is applied for this receptor and adjacent receptors with similar geographic features.
K4 - A calibration factor of -3 dB is applied for this receptor and adjacent receptors with similar geographic features.

Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-2 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 2 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 2.45 W	S746 R/W	SFR	1	59 MOD	61	66	2	5	B (67)	A/E	61	5	0	61	5	1	**60 T,R**	**6**	1	60	6	1	59	7	1
R 2.45A W		SFR	1	57 MOD	59	61	2	2	B (67)	NONE	59	2	0	58	3	0	58	3	0	58	3	0	58	3	0
R 2.46 W,C		SCH	1	68 M,ST16	70	74	2	4	B (67)	A/E	69	5	1	68 T	6	1	**67 R,5**	**7**	1	67	7	1	67	7	1
R 2.47 W	--	SFR	2	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 2.48 W		SFR	1	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 2.49 W		SFR	3	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 2.50 W*		SFR	1	59 MOD	59	60	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	59	1	0
R 2.51 W		SFR	3	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 2.52 W		SFR	4	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 2.53 W		SFR	4	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	0	0
R 2.54 W*		SFR	1	59 MOD	59	60	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	58	2	0
R 2.55 W		SFR	3	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 2.56 W		SFR	3	65 M,LT9,CAL	65	67	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 2.57 W*	S766 R/W	SFR	2	58 MOD	58	59	0	1	B (67)	NONE	59	0	0	59	0	0	59 T	0	0	58	1	0	58	1	0
R 2.58 W		SFR	2	65 MOD	65	68	0	3	B (67)	A/E	68	0	0	67 T	1	0	67	1	0	67	1	0	67	1	0
R 2.59 W		SFR	2	61 MOD	61	67	0	6	B (67)	A/E	65	2	0	65 T	2	0	64	3	0	64	3	0	64	3	0
R 2.60 W	--	MFR	1	60 MOD	57	58	-3	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.61 W		MFR	2	60 M,ST17	57	58	-3	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.61A W		--	--	66 M,ST17A	64	65	-2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.62 W		MFR	1	60 MOD	57	58	-3	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.63 W	S765 R/W	SFR	1	62 MOD	61	66	-1	5	B (67)	A/E	65	1	0	65	1	0	64	2	0	63 T	3	0	63	3	0
R 2.64 W		SFR	2	64 MOD	63	68	-1	5	B (67)	A/E	67	1	0	67	1	0	66	2	0	65 T	3	0	64	4	0
R 2.65 W		SFR	1	67 M,LT10,CAL	66	69	-1	3	B (67)	A/E	69	0	0	68	1	0	68 T	1	0	67	2	0	67	2	0

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-2 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 2 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 2.66 W	--	SFR	3	66 MOD	65	66	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.67 W*	--	SFR	1	60 MOD	59	60	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.68 W	--	SFR	2	55 MOD	54	54	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.69 W	--	SFR	3	65 MOD	64	65	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.70 W*	--	SFR	1	58 MOD	57	58	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.71 W	--	SFR	3	64 MOD	63	64	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.72 W*	--	SFR	2	59 MOD	58	59	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.73 W*	--	SFR	2	54 MOD	53	53	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.74 W	--	SFR	3	64 MOD	63	63	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.75 W	--	SFR	3	64 MOD	63	61	-1	-2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.76 W	--	SFR	4	64 MOD	63	58	-1	-5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.77 W	--	MFR	2	60 MOD	61	58	1	-3	B (67)	NONE	57	1	0	57	1	0	57	1	0	56	2	0	56	2	0
R 2.78 W	--	MFR	4	61 M,ST19	62	59	1	-3	B (67)	NONE	57	2	0	56	3	0	56	3	0	56	3	0	56	3	0
R 2.79 W	--	MFR	4	65 MOD	66	60	1	-6	B (67)	NONE	58	2	0	58	2	0	58	2	0	57	3	0	57	3	0
R 2.80 W	S788, & S792 Shoulder	SFR	3	64 MOD	65	62	1	-3	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.81 W	S788, & S792 Shoulder	SFR	3	68 MOD	69	66	1	-3	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	62	4	0	62	4	0
R 2.82 W	S788, & S792 Shoulder	SFR	2	67 MOD	68	67	1	-1	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	64	3	0	64	3	0
R 2.83 W	S788, & S792 Shoulder	SFR	3	66 MOD	66	65	0	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	2	0	63	2	0
R 2.84 W	S788, & S792 Shoulder	SFR	4	66 M,LT11,CAL	66	65	0	-1	B (67)	NONE	--	--	--	--	--	--	-- T	--	--	64	1	0	64	1	0
R 2.85 W	S788, & S792 Shoulder	SFR	4	66 MOD	66	66	0	0	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	65	1	0	65	1	0
R 2.86 W	--	SFR	3	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	2	0	62	3	0
R 2.87 W	--	SFR	4	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	62	2	0	62	2	0
R 2.88 W	--	SFR	4	62 MOD	62	61	0	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.89 W	--	SFR	3	63 MOD	63	57	0	-6	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.90 W	--	SFR	3	62 MOD	62	58	0	-4	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.91 W	--	SFR	2	63 MOD	63	62	0	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.92 W	--	SFR	1	61 MOD	61	60	0	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution; LIB - library.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 16 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-3 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 3

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L	NBR	Leq(h)	I.L	NBR	Leq(h)	I.L	NBR	Leq(h)	I.L	NBR	Leq(h)	I.L	NBR
R 3.1 W	--	MFR	4	59 MOD	59	59	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.2 W	--	MFR	5	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.3 W	S828 Shoulder	MFR	7	65 M,ST22	65	64	0	-1	B (67)	NONE	--	--	--	--	--	--	64	0	0	63	1	0	63	1	0
R 3.4 W		MFR	2	66 MOD	66	66	0	0	B (67)	A/E	--	--	--	--	--	--	65	1	0	65	1	0	64	2	0
R 3.5 W*		SFR	3	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	--	--	--	62	3	0	62	3	0	62	3	0
R 3.6 W		SFR	2	67 MOD	67	67	0	0	B (67)	A/E	--	--	--	--	--	--	64	3	0	63	4	0	**62** R	**5**	2
R 3.7 W		SFR	4	65 MOD	65	67	0	2	B (67)	A/E	--	--	--	--	--	--	64	3	0	64	3	0	63	4	0
R 3.8 W		SFR	4	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	66	3	0	65	4	0	65	4	0
R 3.9 W		SFR	2	68 M,LT13,CAL	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	67	2	0	66	3	0	65	4	0
R 3.10 W		SFR	2	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	67	2	0	66	3	0	65	4	0
R 3.11 W*		SFR	5	64 MOD	64	65	0	1	B (67)	NONE	--	--	--	--	--	--	63	2	0	62	3	0	61	4	0
R 3.12 W		SFR	1	69 MOD	69	70	0	1	B (67)	A/E	--	--	--	--	--	--	67	3	0	66	4	0	**65** R	**5**	1
R 3.13 W*		SFR	3	67 MOD	67	68	0	1	B (67)	A/E	--	--	--	--	--	--	65 T	3	0	64	4	0	**63** R	**5**	2
R 3.14 W		SFR	2	68 MOD	68	70	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	4	0	66	4	0
R 3.15 W*		SFR	4	62 MOD	62	63	0	1	B (67)	NONE	61	2	0	60	3	0	59	4	0	58	5	3	58	5	3
R 3.16 W,C		SFR	1	70 MOD	70	71	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	4	0	**66** R	**5**	1
R 3.17 W		SFR	2	69 MOD	69	70	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	3	0	66	4	0
R 3.17A W		--	--	68 M,ST23	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	4	--	64	5	--
R 3.18 W		SFR	1	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	3	0	65	4	0
R 3.19 W*		SFR	2	60 MOD	60	61	0	1	B (67)	NONE	60	1	0	59	2	0	58	3	0	58	3	0	57	4	0
R 3.19A W*		SFR	1	63 MOD	63	64	0	1	B (67)	NONE	61	3	0	61	3	0	60	4	0	59	5	1	59	5	1
R 3.20 W		SFR	2	65 MOD	65	67	0	2	B (67)	A/E	64	3	0	63	4	0	**61** T,R	**6**	2	61 D	6	2	61 D	6	2
R 3.21 W*		SFR	2	60 MOD	60	61	0	1	B (67)	NONE	59	2	0	59	2	0	58	3	0	58	3	0	57	4	0
R 3.22 W*	--	MFR	8	55 MOD	56	55	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.22A W	--	MFR	2	54 M,ST20	55	55	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.23 W*	--	MFR	9	51 MOD	52	52	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
D - Sound level is forced to this value due to inaccurate sound levels obtained from the model because of double diffraction issues between the existing wall and design soundwall.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-3 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 3 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*
R 3.23A	S807 Shoulder & S811 R/W	REC	--	62 MOD	63	64	1	1	B (67)	NONE	61	3	--	60	4	--	60	4	--	59	5	--	58	6	--
R 3.23B C		REC	7	65 MOD	66	68	1	2	B (67)	A/E	65	3	*0*	64	4	*0*	**62 T,R**	**6**	*7*	62	6	*7*	61	7	*7*
R 3.24 K1,W		SFR	2	64 MOD	65	67	1	2	B (67)	A/E	--	--	--	--	--	--	64	3	*0*	**62 T,R**	**5**	*2*	61	6	*2*
R 3.25 K1,W*		SFR	2	59 MOD	60	62	1	2	B (67)	NONE	--	--	--	--	--	--	60	2	*0*	59	3	*0*	58	4	*0*
R 3.26 K1,W	--	SFR	3	64 MOD	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	62	4	*0*	62	4	*0*	62	4	*0*
R 3.27 K1,W*		SFR	2	64 MOD	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	62	4	*0*	62	4	*0*	62	4	*0*
R 3.28 K1,W		SFR	3	65 MOD	66	67	1	1	B (67)	A/E	--	--	--	--	--	--	63	4	*0*	63	4	*0*	63	4	*0*
R 3.28A K1,W		--	--	64 M,CAL	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	65	1	--	64	2	--	63	3	--
R 3.29 K1,W*		SFR	2	60 MOD	61	62	1	1	B (67)	NONE	--	--	--	--	--	--	61	1	*0*	59	3	*0*	58	4	*0*
R 3.30 K,1W	S819 R/W	SFR	3	60 MOD	61	61	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	60	1	*0*	58	3	*0*
R 3.31 K1,W		SFR	2	62 MOD	63	64	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 3.32 K1,W	--	SFR	4	64 M,LT12	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	64	2	*0*	63	3	*0*
R 3.33 K1,W		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	*0*	62	3	*0*
R 3.34 K1,W*		SFR	2	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 3.35 K1,W		SFR	1	66 M,ST21	65	66	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	1	*0*	64	2	*0*
R 3.36 K1,W*		SFR	3	58 MOD	59	60	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	59	1	*0*	58	2	*0*
R 3.37 K1,W*		SFR	2	60 MOD	61	62	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	61	1	*0*	60	2	*0*
R 3.38 K1,W		SFR	2	64 MOD	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	64	2	*0*	63	3	*0*
R 3.39 K1,W*		SFR	3	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	59	0	*0*	57	2	*0*
R 3.40 K1,W		SFR	5	62 MOD	63	64	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 3.41 K1,W*		SFR	3	57 MOD	58	59	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	58	1	*0*	56	3	*0*
R 3.42 K1,W		SFR	3	62 MOD	63	68	1	5	B (67)	A/E	--	--	--	--	--	--	64	4	*1*	64	4	*0*	64	4	*0*
R 3.43 W	--	MFR	8	58 MOD	58	59	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.44 W*		MFR	7	59 MOD	59	60	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.45 W		MFR	10	58 MOD	58	59	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.46 W		MFR	8	56 MOD	56	57	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
K1 - A calibration factor of -2.5 dB is applied for this receptor and adjacent receptors with similar geographic features.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-3 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 3 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 3.47 W	S841 Shoulder	SFR	2	62 MOD	63	67	1	4	B (67)	A/E	63	4	0	63	4	0	**61** T,R	**6**	2	61	6	2	60	7	2
R 3.48 C		SFR	1	69 MOD	70	76	1	6	B (67)	A/E	69	7	1	67	9	1	**65** T,R	**11**	1	65	11	1	64	12	1
R 3.49 W		SFR	2	60 MOD	61	64	1	3	B (67)	NONE	62	2	0	62	2	0	61	3	0	61	3	0	60	4	0
R 3.50 W		SFR	1	70 M,LT14	71	75	1	4	B (67)	A/E	70	5	1	68	7	1	67 T	8	1	67	8	1	**67** R,5	**8**	1
R 3.51 W*		SFR	2	62 MOD	63	65	1	2	B (67)	NONE	62	3	0	62	3	0	60	5	1	59	6	2	59	6	2
R 3.52 W		REC	1	68 MOD	69	70	1	1	B (67)	A/E	67	3	0	66	4	0	66 T	4	0	66	4	0	**65** R	**5**	1
R 3.53 W	--	MFR	6	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	1	0	64	2	0
R 3.53A W*		REC	5	54 MOD	56	57	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	55	2	0	55	2	0
R 3.54 W		MFR	4	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	1	0	64	2	0
R 3.54A W		MFR	3	62 M,ST24	64	65	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	2	0	63	2	0
R 3.55 W		MFR	4	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	1	0	64	2	0
R 3.55A W		MFR	4	63 MOD	65	65	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	65	0	0	64	1	0
R 3.56 W,C	S857 Shoulder	MFR	7	67 MOD	69	70	2	1	B (67)	A/E	67	3	0	66	4	0	**65** T,R	**5**	7	65	5	7	65	5	7
R 3.57 W	--	SFR	2	61 MOD	62	65	1	3	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.58 W		SFR	3	60 MOD	61	63	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.59 W		SFR	4	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.60 W		SFR	2	61 M,ST25A,CAL	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.60A W		SFR	--	63 M,ST25	62	63	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.61 W*		SFR	7	59 MOD	60	60	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.62 W*		SFR	4	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.63 W,C	S868 R/W	SFR	1	65 MOD	66	66	1	0	B (67)	A/E	64	2	0	64	2	0	63 T	3	0	62	4	0	**60** R	**6**	1
R 3.64 W	--	SFR	3	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	63	0	0	62	1	0	61	2	0
R 3.65 W		SFR	2	59 MOD	60	62	1	2	B (67)	NONE	--	--	--	--	--	--	61	1	0	61	1	0	59	3	0
R 3.66 W		MFR	5	60 M,ST26	58	59	-2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.66A W		MFR	8	56 MOD	54	54	-2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.66B W		MFR	4	56 MOD	54	54	-2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-3 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 3 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*	Leq(h)	I.L.	*NBR*
R 3.67 W	--	MH	4	58 MOD	60	60	2	0	B (67)	NONE	--	--	--	--	--	--	59	1	*0*	59	1	*0*	58	2	*0*
R 3.68 W*		REC	1	52 MOD	54	55	2	1	B (67)	NONE	--	--	--	--	--	--	55	0	*0*	55	0	*0*	54	1	*0*
R 3.69 W		MH	4	62 MOD	64	65	2	1	B (67)	NONE	--	--	--	--	--	--	63	2	*0*	63	2	*0*	61	4	*0*
R 3.70 W		MH	4	64 MOD	66	67	2	1	B (67)	A/E	--	--	--	--	--	--	66 T	1	*0*	65	2	*0*	64	3	*0*
R 3.71 W*		MH	7	65 MOD	67	68	2	1	B (67)	A/E	--	--	--	--	--	--	67	1	*0*	66 T	2	*0*	65	3	*0*
R 3.72 W		MH	2	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 3.72A W		MH	2	63 M,ST27	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	*0*
R 3.73 W		MH	5	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	*0*
R 3.74 W*		MH	11	64 MOD	66	66	2	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	*0*
R 3.74A W		MH	2	65 MOD	67	68	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	*0*
R 3.75 W		MH	4	65 MOD	67	68	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	2	*0*
R 3.76 W*	S896 R/W	MH	2	63 MOD	65	67	2	2	B (67)	A/E	66	1	*0*	66	1	*0*	66	1	*0*	66 T	1	*0*	66	1	*0*
R 3.77 W		MH	3	62 MOD	64	67	2	3	B (67)	A/E	67	0	*0*	67 T	0	*0*	66	1	*0*	66	1	*0*	66	1	*0*
R 3.78 W*	S902 Shoulder	SFR	2	63 MOD	63	64	0	1	B (67)	NONE	--	--	--	64	0	*0*	63	1	*0*	62	2	*0*	61	3	*0*
R 3.79 W		REC	1	62 MOD	62	64	0	2	B (67)	NONE	--	--	--	63	1	*0*	62	2	*0*	59	5	*1*	58	6	*1*
R 3.80 W		SFR	3	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	62	2	*0*	61	3	*0*	60	4	*0*	60	4	*0*
R 3.81 W		SFR	2	67 MOD	67	68	0	1	B (67)	A/E	--	--	--	67	1	*0*	66	2	*0*	65	3	*0*	65	3	*0*
R 3.81A W		SFR	3	66 M,LT15,CAL	66	66	0	0	B (67)	A/E	--	--	--	65	1	*0*	65	1	*0*	64	2	*0*	63	3	*0*
R 3.82 W		SFR	3	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	64	1	*0*	64	1	*0*	63	2	*0*	63	2	*0*
R 3.83 W	S910 & S916 Shoulder	SFR	5	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	64	0	*0*	63	1	*0*	62	2	*0*	62	2	*0*
R 3.84 W		SFR	3	64 MOD	64	65	0	1	B (67)	NONE	--	--	--	63	2	*0*	63	2	*0*	62	3	*0*	62	3	*0*
R 3.85 W		SFR	2	66 MOD	66	66	0	0	B (67)	A/E	63	3	*0*	62 T	4	*0*	62	4	*0*	**61 R**	**5**	*2*	61	5	*2*
R 3.86 W		SFR	3	66 MOD	66	66	0	0	B (67)	A/E	64	2	*0*	62 T	4	*0*	61	5	*3*	**61 R,5**	**5**	*3*	60	6	*3*
R 3.86A W,C		SFR	2	65 MOD	65	66	0	1	B (67)	A/E	63	3	*0*	62	4	*0*	61 T	5	*2*	**60 R,5**	**6**	*2*	59	7	*2*

Notes:

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3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-3 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 3 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 3.87 W,C	S909 & S911 Shoulder	REC	3	65 MOD	65	67	0	2	B (67)	A/E	63	4	0	62 T	5	3	61	6	3	**61 R,5**	**6**	3	61	6	3
R 3.88 W		REC	1	66 MOD	66	68	0	2	B (67)	A/E	64 T	4	0	63	5	1	63	5	1	**63 R,5**	**5**	1	62	6	1
R 3.89 W		REC	2	65 M,ST28	65	67	0	2	B (67)	A/E	64	3	0	63 T	4	0	63	4	0	**62 R**	**5**	2	62	5	2
R 3.90 W*	S141 Shoulder	SFR	1	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	62	2	0	63	1	0	60	4	0	60	4	0
R 3.91 W		SFR	3	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	63	1	0	64	0	0	62	2	0	61	3	0
R 3.92 W		SFR	4	65 MOD	64	65	-1	1	B (67)	NONE	--	--	--	64	1	0	64	1	0	63	2	0	62	3	0
R 3.93 W		SFR	4	67 MOD	66	66	-1	0	B (67)	A/E	--	--	--	65	1	0	66	0	0	64	2	0	63	3	0
R 3.93A W		SFR	3	67 M,LT16,CAL	66	66	-1	0	B (67)	A/E	--	--	--	65	1	0	66	0	0	64	2	0	63	3	0
R 3.94 W,*	S141 Shoulder	SFR	1	65 MOD	64	63	-1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	62	1	0	62	1	0
R 3.95 W		SFR	3	68 MOD	67	68	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	3	0	64	4	0
R 3.96 W		SFR	5	69 MOD	68	68	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	2	0	65	3	0
R 3.97 W,*		SFR	1	64 MOD	63	63	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	62	1	0	62	1	0
R 3.98 W		SFR	12	66 MOD	65	66	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	0	0	64	2	0
R 3.99 K2,W,C	S935 R/W	SFR	1	66 MOD	64	66	-2	2	B (67)	A/E	64	2	0	63 T	3	0	62	4	0	**61 R**	**5**	1	61	5	1
R 3.99A K2,W		SFR	2	65 M,ST29,CAL	63	64	-2	1	B (67)	NONE	63	1	0	61	3	0	60	4	0	60	4	0	59	5	2
R 3.100 K2,W		SFR	2	64 MOD	62	64	-2	2	B (67)	NONE	62	2	0	60	4	2	60	4	2	59	5	2	58	6	2
R 3.100A K2,W		SFR	1	64 MOD	62	63	-2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.101 K2,W		SFR	2	62 MOD	60	61	-2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
K2 - A calibration factor of -2.5 dB is applied for this receptor and adjacent receptors with similar geographic features.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-4 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 4

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 4. 1 W,C	S995 R/W	SFR	2	69 MOD	70	71	1	1	B (67)	A/E	--	--	--	--	--	--	69	2	*0*	67 T	4	*0*	**66 R**	**5**	***2***
R 4. 2 W	--	SFR	3	69 MOD	70	70	1	0	B (67)	A/E	--	--	--	--	--	--	68	2	*0*	67	3	*0*	66	4	*0*
R 4. 3 W		SCH	3	68 MOD	69	70	1	1	B (67)	A/E	--	--	--	--	--	--	68	2	*0*	67	3	*0*	66	4	*0*
R 4. 4 W,*		SFR	2	65 MOD	66	66	1	0	B (67)	A/E	--	--	--	--	--	--	65	1	*0*	64	2	*0*	63	3	*0*
R 4. 5 W,*		SFR	1	66 MOD	67	67	1	0	B (67)	A/E	--	--	--	--	--	--	67	0	*0*	65	2	*0*	64	3	*0*
R 4. 6 W	--	SFR	2	68 M,LT19,CAL	69	69	1	0	B (67)	A/E	--	--	--	--	--	--	68	1	*0*	67	2	*0*	66	3	*0*
R 4. 7 W		SFR	2	67 MOD	68	68	1	0	B (67)	A/E	--	--	--	--	--	--	67	1	*0*	66	2	*0*	65	3	*0*
R 4. 8 W,*	S1009 R/W/ Shoulder	SFR	2	65 MOD	66	66	1	0	B (67)	A/E	66	0	*0*	65	1	*0*	64	2	*0*	64	2	*0*	63	3	*0*
R 4. 9 *		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	64	1	*0*	64	1	*0*	63	2	*0*	63	2	*0*	63	2	*0*
R 4. 10		REC	3	73 MOD	74	74	1	0	B (67)	A/E	70	4	*0*	69	5	*3*	**68 R,T**	**6**	***3***	66	8	*3*	65	9	*3*
R 4. 11 C		REC	2	73 MOD	74	74	1	0	B (67)	A/E	67 T	7	*2*	66	8	*2*	**65 R,5**	**9**	***2***	63	11	*2*	62	12	*2*
R 4. 12		REC	1	70 MOD	71	68	1	-3	B (67)	A/E	64	4	*0*	63 T	5	*1*	**62 R,5**	**6**	***1***	62	6	*1*	61	7	*1*
R 4. 13 W		SFR	5	62 MOD	63	62	1	-1	B (67)	NONE	58 T	4	*0*	58	4	*0*	**57 R**	**5**	***5***	57	5	*5*	56	6	*5*

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-4 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 4 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 4. 14A W	S182 Shoulder	SFR	1	65 MOD	66	67	1	1	B (67)	A/E	--	--	--	--	--	--	65	2	0	65	2	0	64	3	0
R 4. 14 W		SFR	3	67 MOD	68	68	1	0	B (67)	A/E	--	--	--	--	--	--	67	1	0	66	2	0	65	3	0
R 4. 15 W		SFR	3	64 M,LT17,CAL	65	68	1	3	B (67)	A/E	--	--	--	--	--	--	67	1	0	66	2	0	65	3	0
R 4. 16 W,*		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	63	2	0	62	3	0	61	4	0
R 4. 17 W		SFR	4	65 MOD	66	67	1	1	B (67)	A/E	--	--	--	--	--	--	66	1	0	65	2	0	64	3	0
R 4. 18 W		SFR	4	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	64	1	0	63	2	0	62	3	0
R 4. 19 W		SFR	1	62 MOD	64	64	2	0	B (67)	NONE	--	--	--	--	--	--	63	1	0	62	2	0	62	2	0
R 4. 20 W,*		SFR	2	61 MOD	63	63	2	0	B (67)	NONE	--	--	--	--	--	--	62	1	0	61	2	0	61	2	0
R 4. 21 W		SFR	1	61 MOD	63	64	2	1	B (67)	NONE	--	--	--	--	--	--	63	1	0	62	2	0	62	2	0
R 4. 22 W		--	--	61 M,ST30	63	63	2	0	B (67)	NONE	--	--	--	--	--	--	63	0	0	62	1	0	62	1	0
R 4. 23 W	S972 & S978 Shoulder	SFR	2	61 MOD	63	62	2	-1	B (67)	NONE	--	--	--	--	--	--	59	3	0	59	3	0	58	4	0
R 4. 24		SCH	3	66 MOD	66	66	0	0	B (67)	A/E	--	--	--	--	--	--	62 T	4	0	**61 R**	**5**	**3**	60	6	3
R 4. 25A C		REC	2	69 MOD	69	70	0	1	B (67)	A/E	65	5	2	64	6	2	**63 R,T**	**7**	**2**	62	8	2	61	9	2
R 4. 25B		REC	2	65 MOD	65	68	0	3	B (67)	A/E	64	4	0	63	5	2	**62 R,T**	**6**	**2**	61	7	2	60	8	2
R 4. 25		REC	2	67 M,ST31	67	67	0	0	B (67)	A/E	63	4	0	63	4	0	**62 R,T**	**5**	**2**	61	6	2	60	7	2
R 4. 26		REC	2	65 MOD	65	63	0	-2	B (67)	NONE	62	1	0	61	2	0	61	2	0	61	2	0	60	3	0
R 4. 27 W	--	MFR	1	69 MOD	70	71	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	70	1	0
R 4. 28 W		MFR	3	64 M,ST32A	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	64	1	0
R 4. 29 W		MFR	1	68 M,ST32	68	68	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	0
R 4. 29A W		MFR	1	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	63	1	0
R 4. 30 W		MFR	1	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	63	2	0
R 4. 31 W		MFR	7	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	61	2	0
R 4. 31A W		MFR	1	66 MOD	67	67	1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	63	4	0
R 4. 32 C	S998 R/W	SFR	2	71 M,LT18,CAL	72	72	1	0	B (67)	A/E	70	2	0	69	3	0	68 T	4	0	68	4	0	**67 R**	**5**	**2**
R 4. 33A	S1006 R/W	MOT	--	75 MOD	78	79	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 33A Int		MOT	6	50 MOD	53	54	3	1	E (52)	A/E	46	8	6	**45 R**	**9**	**6**	43	11	6	42	12	6	41	13	6
R 4. 33 C		MOT	1	73 M,ST33	76	77	3	1	B (67)	A/E	70	7	1	**69 R,T**	**8**	**1**	68	9	1	67	10	1	66	11	1

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-4 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 4 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 4. 34	--	SFR	2	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 34A		SFR	2	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 35 W	--	SFR	3	64 M,ST36	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	64	2	0	63	3	0
R 4. 36 W,*		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	0	63	2	0
R 4. 37 W,*	--	SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	0	64	1	0
R 4. 38 W		SFR	2	66 MOD	67	68	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	1	0	66	2	0
R 4. 39 W		SFR	3	67 MOD	68	69	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 40 W,*		SFR	2	64 MOD	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	0	63	2	0
R 4. 41 W		SFR	7	67 MOD	68	69	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 42 W		SFR	7	67 MOD	68	69	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 42A W,*		SFR	1	60 MOD	61	61	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	60	1	0	58	3	0
R 4. 43 W		SFR	5	67 M,LT21,CAL	68	69	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 44 W		SFR	4	66 MOD	67	68	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	1	0	66	2	0
R 4. 45 W,*		SFR	2	59 MOD	60	61	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	59	2	0	58	3	0
R 4. 46 W		SFR	8	67 MOD	68	70	1	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	69	1	0	67	3	0
R 4. 46A W,*		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	0	63	2	0
R 4. 47A W,*		SFR	2	65 MOD	66	67	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	1	0	65	2	0
R 4. 47 W		SFR	4	67 MOD	68	69	1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-4 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 4 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 4. 48 W,*	--	SFR	5	61 MOD	63	64	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63 T	1	0	61	3	0
R 4. 49 W		SFR	2	65 MOD	67	68	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	2	0	65	3	0
R 4. 50 W		SFR	2	65 M,ST38	67	68	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	0	0	66	2	0
R 4. 50A W		SFR	2	63	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	64	2	0	63	3	0
R 4. 51 W,*		SFR	5	61 MOD	63	64	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	0	61	3	0
R 4. 52 W		SFR	2	64 MOD	66	68	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	2	0	64	4	0
R 4. 53 W,*		SFR	5	61 MOD	63	64	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	0	61	3	0
R 4. 54 W		SFR	2	66 MOD	68	69	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	2	0	66	3	0
R 4. 55 W,*		SFR	2	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	1	0	63	3	0
R 4. 56 W		SFR	2	66 MOD	68	68	2	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	2	0	65	3	0
R 4. 57 W,*		SFR	4	60 MOD	62	63	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	62	1	0	61	2	0
R 4. 58 W		SFR	2	66 MOD	68	68	2	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	1	0	66	2	0
R 4. 59 W,*	S1079 & S1083 R/W	SFR	3	61 MOD	64	66	3	2	B (67)	A/E	66	0	0	66	0	0	66	0	0	65	1	0	64	2	0
R 4. 60 W,C		SFR	1	64 MOD	67	73	3	6	B (67)	A/E	70	3	0	69	4	0	69 T	4	0	**68 R**	**5**	**1**	66	7	1
R 4. 60A W,*		SFR	1	62 MOD	65	67	3	2	B (67)	A/E	66	1	0	66	1	0	65	2	0	64	3	0	63	4	0
R 4. 61 W		SFR	2	65 M,ST38A	68	72	3	4	B (67)	A/E	69	3	0	68	4	0	**67 R,T**	**5**	**2**	65	7	2	65	7	2
R 4. 62 W		SFR	2	62 MOD	65	69	3	4	B (67)	A/E	66	3	0	65	4	0	**64 R,T**	**5**	**2**	63	6	2	62	7	2
R 4. 62A W	R/W	SFR	1	59 MOD	62	64	3	2	B (67)	NONE	63	1	0	62	2	0	62	2	0	61	3	0	61	3	0
R 4. 62B W		SFR	2	58 MOD	61	63	3	2	B (67)	NONE	62	1	0	62	1	0	61	2	0	61	2	0	60	3	0
R 4. 63 W		SFR	2	57 MOD	60	62	3	2	B (67)	NONE	62	0	0	61	1	0	61	1	0	60	2	0	60	2	0

Notes:

1 - $L_{eq(h)}$ are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
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Table G-4 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 4 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L	NBR	Leq(h)	I.L	NBR	Leq(h)	I.L	NBR	Leq(h)	I.L	NBR	Leq(h)	I.L	NBR
R 4. 64A	--	SFR	3	59 MOD	59	57	0	-2	B (67)	NONE	56	1	0	56	1	0	55	2	0	55	2	0	55	2	0
R 4. 64B		--	--	66 MOD	66	62	0	-4	B (67)	NONE	59	3	--	59	3	--	59	3	--	58	4	--	58	4	--
R 4. 64C	S1016 & S1020 Shoulder S1024 R/W	SCH	1	71 MOD	71	69	0	-2	B (67)	A/E	67	2	0	65	4	0	64	5	1	**63 R,T**	**6**	**1**	62	7	1
R 4. 64D		SCH	1	68 MOD	68	67	0	-1	B (67)	A/E	65	2	0	64	3	0	63	4	0	62 T	5	1	**62 R,5**	**5**	**1**
R 4. 64 W		REC	3	72 MOD	72	72	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	69 T	3	0	**67 R**	**5**	**3**
R 4. 65 W,C		REC	3	69 M,ST35	69	73	0	4	B (67)	A/E	--	--	--	--	--	--	--	--	--	69 T	4	0	**68 R**	**5**	**3**
R 4. 66 W,C	S1026 & S1028 R/W	SFR	1	71 MOD	71	72	0	1	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	68	4	0	**67 R**	**5**	**1**
R 4. 67 W	--	SFR	3	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 68 W		SFR	5	68 MOD	68	70	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	2	0	67	3	0
R 4. 69 W		SFR	5	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 70 W		SFR	7	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 71 W,*		SFR	3	59 MOD	61	62	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	60	2	0	59	3	0
R 4. 72 W		SFR	10	68 M,LT20,CAL	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 73 W		SFR	8	67 MOD	67	69	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 74 W		SFR	8	69 MOD	69	70	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	69	1	0	68	2	0
R 4. 75 W,*		SFR	2	60 MOD	62	63	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	62	1	0	60	3	0
R 4. 76 W,*		--	--	60 M,ST35A	62	63	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	62	1	0	60	3	0
R 4. 77 W,*		SFR	1	62 MOD	64	65	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	0	62	3	0
R 4. 78 W		SFR	3	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 79 W,*	--	MH	2	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	1	0	65	2	0
R 4. 80 W		MH	6	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	68	1	0	67	2	0
R 4. 80A W		MH	7	67 MOD	67	68	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	2	0	65	3	0
R 4. 81 W		MH	5	67 M,ST37	67	68	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	1	0	66	2	0
R 4. 82 W,*		MH	3	67 MOD	67	68	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	2	0	65	3	0
R 4. 83 W		MH	3	67 MOD	67	69	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	67	2	0	66	3	0
R 4. 83A W,*	R/W	MH	2	66 MOD	66	67	0	1	B (67)	A/E	66	1	0	66	1	0	66	1	0	64	3	0	63	4	0
R 4. 83B W,*		MH	2	64 MOD	64	65	0	1	B (67)	NONE	64	1	0	64	1	0	64	1	0	63	2	0	62	3	0

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-4 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 4 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 4. 84 W	--	MH	7	58 MOD	60	60	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 85 W		MH	7	60 MOD	62	62	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 86 W,*		MH	5	58 MOD	60	60	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 87 W		MH	12	60 M,LT20B,CAL	62	62	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 88 W,*		MH	7	58 MOD	60	60	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 88A W		MH	3	59 MOD	61	61	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 89 W		MH	4	62 MOD	64	63	2	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 90 W		MH	6	59 MOD	61	60	2	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 91 W		MH	9	58 MOD	60	60	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 92 W	--	MH	7	61 M,ST37A	63	63	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 93 W		MH	3	60 MOD	62	62	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-4 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 4 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 4. 94 W	--	SFR	4	61 MOD	62	62	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 95 W		SFR	5	62 MOD	63	63	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 96 W,*		SFR	2	59 MOD	60	60	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 97 W		SFR	7	62 MOD	63	63	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 98 W		SFR	4	62 M,ST37A	63	63	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 99 W,*		SFR	2	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 100 W,*		SFR	2	58 MOD	59	60	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 101 W		SFR	9	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 102 W		SFR	4	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 103 W		SFR	6	63 M,LT20A,CAL	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 104 W		SFR	7	64 MOD	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 105 W,*		SFR	2	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 106 W		SFR	7	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 107 W,*		SFR	2	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 108 W		SFR	6	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 109 W		SFR	3	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 4. 110 W		SFR	1	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-5 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 5

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 5. 1 W	--	SFR	5	62 MOD	61	62	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 2 W		SFR	5	62 MOD	61	61	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 3 W		SFR	4	62 M,ST39,CAL	61	61	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 4 W		SFR	4	61 MOD	60	61	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 5 W	--	SFR	3	60 MOD	61	62	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 6 W,*		SFR	1	58 MOD	59	60	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 7 W,*		SFR	2	55 MOD	56	57	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 8 W		SFR	3	61 M,ST40	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 9 W		SFR	2	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 10 W		SFR	3	60 MOD	61	61	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-5 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 5 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	10 feet			12 feet			14 feet			16 feet			18 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 5. 11 W,K7	--	SFR	2	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 12 W,K7,*		SFR	4	59 MOD	60	60	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 13 W,K7		SFR	2	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 14 W,K7,*		SFR	4	57 MOD	58	59	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 15 W,K7		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 16 W,K7,*		SFR	4	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 17 W,K7		SFR	2	64 MOD	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 18 W,K7,*		SFR	4	57 MOD	58	59	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 19 W,K7		SFR	2	67 MOD	66	66	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 20 W,K7,*		SFR	4	60 MOD	59	60	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 21 W,K7		SFR	2	65 MOD	64	64	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 22 W,K7,*		SFR	4	59 MOD	58	59	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 23 W,K7		REC	4	68 M,ST41	67	68	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 24 W,K7		SFR	12	61 MOD	60	61	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 25 W,K7		SFR	3	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 18 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
K7 - A calibration factor of +1.8 dB is applied for these receivers.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-5 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 5 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	10 feet			12 feet			14 feet			16 feet			18 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 5. 26 W,K7	--	SFR	2	64 MOD	64	65	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 27 W,K7,*		SFR	4	58 MOD	58	59	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 28 W,K7		SFR	2	66 MOD	66	66	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 29 W,K7,*		SFR	4	58 MOD	58	58	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 30 W,K7		SFR	2	69 MOD	69	68	0	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 31 W,K7,*		SFR	4	59 MOD	59	59	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 32 W,K7		SFR	4	67 MOD	67	67	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 33 W,K7		SFR	2	68 M,ST41A	68	68	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 34 W,K7,*		SFR	4	59 MOD	59	60	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 35 W,K7		SFR	8	69 MOD	68	68	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 36 W,K7,*		SFR	4	60 MOD	59	59	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 37 W,K7		SFR	4	68 M,LT22,CAL	67	68	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 37A W,K7,*		SFR	4	60 MOD	59	60	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 5. 38 W,K7		REC	2	68 MOD	67	68	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 18 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
K7 - A calibration factor of +1.8 dB is applied for these receivers.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-5 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 5 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 5. 39 W,K8	S1162	REC	1	65 MOD	66	66	1	0	B (67)	A/E	--	--	--	64	2	0	62 T	4	0	62	4	0	64 7	2	0
R 5. 40 W,K8,C	Shoulder	REC	1	66 M,ST42	67	68	1	1	B (67)	A/E	--	--	--	66	2	0	**63** R,T	**5**	1	63	5	1	64 7	4	0
R 5. 41 W	--	MFR	3	64 MOD	63	63	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 5. 42 W		MFR	4	63 MOD	62	63	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.

2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.

3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.

4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.

5 - Barrier height needed to meet requirements at adjacent receptor(s).

6 - Traffic noise from the freeway only; other local noise sources are not included.

7 - These noise levels are not reliable due to issues with procedures used in TNM to calculate noise levels when two parallel walls intervene between source and receiver.

R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.

T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.

W - Reciever protected by existing private property wall or soundwall.

C - Critical design receiver.

* - Non first row residences.

K8 - An adjustment factor of -1 dB is applied for these receivers to account for the transmission loss from an intervening tarp-covered fence.

Table G-6 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 6

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 6. 1 W,*	S431 Shoulder	MFR	2	60 MOD	60	61	0	1	B (67)	NONE	--	--	--	--	--	--	60	1	0	59	2	0	58	3	0
R 6. 2 W		MFR	2	65 MOD	65	66	0	1	B (67)	A/E	--	--	--	--	--	--	65	1	0	64	2	0	63	3	0
R 6. 3 W		MFR	2	68 MOD	68	69	0	1	B (67)	A/E	--	--	--	--	--	--	68	1	0	68	1	0	67	2	0
R 6. 4 W		MFR	2	64 M,LT24	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	63	1	0
R 6. 5 W		MFR	2	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	64	1	0
R 6. 6 W		MFR	2	67 MOD	67	66	0	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 6. 7 W,*		MFR	2	60 MOD	60	60	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	59	1	0
R 6. 8 W		MFR	4	67 MOD	67	67	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 6. 9 W		MFR	2	67 MOD	67	66	0	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 6. 10 W		MFR	4	68 MOD	68	67	0	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 6. 11 W		MFR	4	66 MOD	66	66	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 6. 12 W	S445 Shoulder	MFR	3	62 MOD	62	62	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	61	1	0
R 6. 13 W		MFR	4	64 M,ST43	64	65	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	64	1	0
R 6. 14 W		MFR	3	63 MOD	63	63	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	63	0	0
R 6. 15 W		MFR	4	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	64	0	0
R 6. 16 W,*		MFR	6	62 MOD	62	63	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	62	1	0
R 6. 17 W		MFR	6	63 MOD	63	63	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	62	1	0
R 6. 18 W		REL	1	62 MOD	62	62	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	62	0	0
R 6. 19 W	--	LIB	--	65 MOD	65	65	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 19 W,Int		LIB	1	45 MOD	45	45	0	0	E (52)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution; LIB - library.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 16 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-6 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 6 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 6. 20 W	--	SFR	4	58 MOD	58	59	0	1	B (67)	NONE	--	--	--	--	--	--	59	0	0	58	1	0	56	3	0
R 6. 21 W,*		SFR	1	58 MOD	58	58	0	0	B (67)	NONE	--	--	--	--	--	--	58	0	0	57	1	0	57	1	0
R 6. 22 W		SFR	5	60 MOD	60	61	0	1	B (67)	NONE	--	--	--	--	--	--	60	1	0	59	2	0	59	2	0
R 6. 23 W		SFR	4	63 MOD	63	64	0	1	B (67)	NONE	--	--	--	--	--	--	63	1	0	62	2	0	62	2	0
R 6. 24 W	--	SFR	3	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	66	1	0	66	1	0	65	2	0
R 6. 25 W,*		SFR	13	60 MOD	60	61	0	1	B (67)	NONE	--	--	--	--	--	--	60	1	0	59	2	0	59	2	0
R 6. 26 W	S434 Shoulder	SFR	3	67 MOD	67	67	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	2	0
R 6. 27 W		SFR	2	67 M,LT23	67	66	0	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 6. 28 W		SFR	2	67 MOD	67	67	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	0	0
R 6. 29 W		SFR	2	67 MOD	67	67	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 6. 30 W,*	--	SFR	1	60 MOD	60	61	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	60	1	0
R 6. 31 W		SFR	3	65 MOD	65	66	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	65	1	0
R 6. 32 W		SFR	3	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	64	0	0
R 6. 33 W		SFR	3	64 MOD	64	65	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	64	1	0
R 6. 34 W,*		SFR	2	62 MOD	62	63	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	61	2	0
R 6. 34A W		SFR	2	66 MOD	66	67	0	1	B (67)	A/E	67	0	0	66 T	1	0	65	2	0	64	3	0	64	3	0
R 6. 35	S1226 R/W	SFR	1	64 MOD	68	70	4	2	B (67)	A/E	69	1	0	67 T	3	0	66	4	0	66	4	0	66	4	0
R 6. 35A		SFR	1	64 MOD	68	70	4	2	B (67)	A/E	70	0	0	68 T	2	0	67	3	0	66	4	0	**65 R**	**5**	***1***
R 6. 36		SFR	1	65 MOD	69	70	4	1	B (67)	A/E	70	0	0	68 T	2	0	67	3	0	66	4	0	**65 R**	**5**	***1***
R 6. 36A C		SFR	2	66 MOD	70	71	4	1	B (67)	A/E	70	1	0	68 T	3	0	67	4	0	67	4	0	**66 R**	**5**	***2***
R 6. 37	--	SFR	2	63 M,ST44	67	68	4	1	B (67)	A/E	68	0	0	67	1	0	67 T	1	0	67	1	0	66	2	0

Notes:

1 - $L_{eq(h)}$ are A-weighted, peak hour noise levels in decibels.

2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution; LIB - library.

3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.

4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.

5 - Barrier height needed to meet requirements at adjacent receptor(s).

6 - Traffic noise from the freeway only; other local noise sources are not included.

7 - Existing soundwall is at a height of 16 feet.

R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.

T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.

C - Critical design receiver.

Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.

W - Reciever protected by existing private property wall or soundwall.

* - Non first row residences.

Table G-6 – Predicted Future Noise Levels and Barrier Analysis – Alternative 1 – Segment 6 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 1 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 6. 38 W	--	SFR	2	68 MOD	68	68	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 39 W		SFR	2	68 MOD	68	68	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 40 W,*		SFR	2	62 MOD	62	63	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 41 W		SFR	3	65 MOD	65	66	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 42 W		SFR	5	65 MOD	65	66	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 43 W		SFR	4	65 MOD	65	66	0	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 44 W,*		SFR	2	63 MOD	63	64	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 45 W	S464	SFR	1	67 MOD	67	67	0	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 46 W	R/W	SFR	1	67 MOD	67	66	0	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 6. 47 W	--	SFR	2	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 48 W,*		SFR	2	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 49 W		SFR	3	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 50 W		SFR	3	64 M,LT25	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 51 W		SFR	4	63 MOD	63	63	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 52 W		SFR	3	68 MOD,F	64	64	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 53 W,*		SFR	2	66 MOD,F	62	62	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 54 W		SFR	4	67 MOD,F	63	63	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 55 W		SFR	3	67 MOD,F	63	63	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 56 W		SFR	3	66 MOD,F	62	62	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 57 W		SFR	3	64 MOD,F	60	60	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 58 W		SFR	3	63 M,ST45,F	59	59	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 59 W		SFR	3	65 MOD,F	61	61	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 60 W,*		SFR	5	64 MOD,F	60	60	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 6. 61 W		SFR	2	65 MOD,F	61	61	-4	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution; LIB - library.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 16 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
F - At these receivers, the existing noise measurements were conducted before the construction of a soundwall that is part of the WCC project but is included in all future alternatives; therefore, there is a 4 dB reduction in future traffic noise levels.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-7 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 1

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 2 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 1.88 W	--	SFR	4	67 MOD	66	66	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	0	0
R 1.89 W		SFR	3	69 MOD	68	68	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	0
R 1.90 W	--	SFR	4	68 MOD	67	67	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.91 W*		SFR	3	63 MOD	62	62	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.92 W		SFR	5	68 M,LT5,CAL	67	67	-1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.93 W		SFR	4	67 MOD	66	67	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.94 W*		SFR	2	58 M,ST9A,CAL	57	57	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- [7]	--	--
R 1.95 W	S649 Shoulder	SFR	5	67 MOD	68	67	1	-1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	1	0	65	2	0
R 1.96 W*		SFR	2	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.97 W		SFR	4	64 M,ST9	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.98 W		SFR	4	64 MOD	65	64	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.99 W		SFR	2	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.100 W*		SFR	2	62 MOD	63	63	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.101 W		REC	3	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.102 W		REC	2	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 1.103 W		REC	1	63 MOD	64	63	1	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution; LIB - library.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 16 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-8 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 2

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 2 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 2.1 W	S699 R/W	MFR	3	65 MOD	62	62	-3	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.2 W		MFR	3	63 MOD	60	62	-3	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.2A W		MFR	1	65 MOD	62	63	-3	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.3 W		MFR	6	68 M,LT6,CAL	65	64	-3	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.4 W		MFR	3	62 MOD	59	58	-3	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.4A W		MFR	2	65 MOD	62	61	-3	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.5 W	S705 Shoulder	MFR	3	67 MOD	64	64	-3	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 2.6 W		MFR	6	67 MOD	64	64	-3	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 2.7 W		MFR	6	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	0	*0*	63	1	*0*
R 2.8 W		MFR	3	62 MOD	63	64	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 2.8A W		MFR	2	58 MOD	59	60	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	57	3	*0*	56	4	*0*
R 2.9 W		MFR	4	62 M,ST11	63	64	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	61	3	*0*	60	4	*0*
R 2.10 W	--	MFR	6	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.11 W		MFR	8	57 MOD	58	58	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.12 W	--	SFR	3	62 MOD	63	65	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.13 W	S708, S710, & S718 Shoulder & R/W	SFR	2	57 M,ST12,CAL	58	63	1	5	B (67)	NONE	62	1	*0*	62	1	*0*	62	1	*0*	61	2	*0*	60	3	*0*
R 2.14 W,K3		SFR	2	67 MOD	68	71	1	3	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	69	2	*0*	68	3	*0*
R 2.15 W,K3		REC	2	68 MOD	69	71	1	2	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	69	2	*0*	68	3	*0*
R 2.16 W,K3		REC	0	63 MOD	64	65	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	2	*0*	63	2	*0*
R 2.17 W,K3		SFR	1	66 MOD	66	68	0	2	B (67)	A/E	68	0	*0*	67	1	*0*	67 T	1	*0*	65	3	*0*	64	4	*0*
R 2.18 W,K3		SFR	3	67 MOD	67	68	0	1	B (67)	A/E	68	0	*0*	66	2	*0*	64 T	4	*0*	**63 R**	**5**	*3*	62	6	*3*
R 2.19 W,K3		SFR	4	67 M,LT7,CAL	67	68	0	1	B (67)	A/E	68	0	*0*	66	2	*0*	64 T	4	*0*	**62 R**	**6**	*4*	61	7	*4*
R 2.20 W,K3		SFR	4	67 MOD	67	68	0	1	B (67)	A/E	68	0	*0*	67	1	*0*	64 T	4	*4*	**62 R**	**6**	*4*	61	7	*4*
R 2.21 W*		SFR	2	61 MOD	62	63	1	1	B (67)	NONE	63	0	*0*	63	0	*0*	60	3	*0*	60	3	*0*	59	4	*0*
R 2.21A W*		--	--	60 M,ST12A	61	62	1	1	--	--	63	-1	*0*	63	-1	*0*	60	2	*0*	60	2	*0*	59	3	*0*
R 2.22 W,K3		SFR	3	67 MOD	67	68	0	1	B (67)	A/E	68	0	*0*	67	1	*0*	64	4	*0*	**62 T,R**	**6**	*3*	61	7	*3*
R 2.23 W*		SFR	2	61 MOD	62	63	1	1	B (67)	NONE	63	0	*0*	63	0	*0*	62	1	*0*	60	3	*0*	59	4	*0*
R 2.24 W,K3,C		SFR	3	67 MOD	67	68	0	1	B (67)	A/E	68	0	*0*	67	1	*0*	64	4	*0*	62 T	6	*3*	**62 R,5**	**6**	*3*

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
K3 - A calibration factor of +1.5 dB is applied for this receptor and adjacent receptors with similar geographic features.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-8 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 2 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 2 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 2.25 W,K3	S718 Shoulder	SFR	2	66 MOD	67	69	1	2	B (67)	A/E	67	2	0	67	2	0	66	3	0	65 T	4	0	**64** R	**5**	2
R 2.26 W*		SFR	2	60 MOD	61	62	1	1	B (67)	NONE	62	0	0	62	0	0	61	1	0	59	3	0	59	3	0
R 2.27 W,K3		SFR	2	66 MOD	67	67	1	0	B (67)	A/E	65	2	0	64	3	0	64	3	0	63 T	4	0	**62** R	**5**	2
R 2.28 W,K4		SFR	3	58 M,ST13,CAL	59	58	1	-1	B (67)	NONE	54	4	0	54	4	0	**53** R	**5**	3	53	5	3	52	6	3
R 2.29 W,K4		SFR	3	58 MOD	59	56	1	-3	B (67)	NONE	53	3	0	53	3	0	53	3	0	52	4	0	52	4	0
R 2.30 W,K4		SFR	1	56 MOD	57	54	1	-3	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.31 W	--	SFR	3	59 MOD	61	56	2	-5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.32 W		SFR	3	60 MOD	62	57	2	-5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.33 W		SFR	3	62 MOD	64	59	2	-5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.33A W		--	--	63 MOD	65	62	2	-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.34 W,C	S733 Shoulder	SFR	1	66 MOD	68	68	2	0	B (67)	A/E	64	4	0	63	5	1	**63** T,R	**5**	1	62	6	1	61	7	1
R 2.35 W	--	SFR	3	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65 T	1	0	64	2	0
R 2.36 W*		SFR	2	62 MOD	64	65	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	2	0	62	3	0
R 2.37 W		SFR	2	64 M,LT8	66	68	2	2	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	67	1	0	66	2	0
R 2.38 W*		SFR	2	64 MOD	66	67	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	67 T	0	0	66	1	0
R 2.39 W		SFR	2	64 MOD	66	67	2	1	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	66	1	0	65	2	0
R 2.40 W	S745 R/W	SFR	2	67 MOD	69	72	2	3	B (67)	A/E	--	--	--	--	--	--	68	4	0	**67** T,R	**5**	2	66	6	2
R 2.41 W,C,P		SCH	1	63 M,ST15	69	72	6	3	B (67)	A/E	--	--	--	--	--	--	67	5	1	**66** T,R	**6**	1	65	7	1
R 2.42 W,P		SCH	1	58 MOD	64	66	6	2	B (67)	A/E	63	3	0	63	3	0	62	4	0	**61** T,R	**5**	1	61	5	1
R 2.43	--	MOT	1	51 MOD	53	53	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.44		MOT	1	55 MOD	57	58	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
P - Design Year No Build and Build noise levels do not account for the privacy screen that was present at the time of measurement
K3 - A calibration factor of +1.5 dB is applied for this receptor and adjacent receptors with similar geographic features.
K4 - A calibration factor of -3 dB is applied for this receptor and adjacent receptors with similar geographic features.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-8 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 2 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 2 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 2.45 W	S746 R/W	SFR	1	59 MOD	61	65	2	4	B (67)	NONE	62	3	*0*	61	4	*0*	61	4	*0*	60	5	*1*	60	5	*1*
R 2.45A W		SFR	1	57 MOD	59	61	2	2	B (67)	NONE	60	1	*0*	59	2	*0*	59	2	*0*	59	2	*0*	59	2	*0*
R 2.46 W,C		SCH	1	68 M,ST16	70	75	2	5	B (67)	A/E	69	6	*1*	68	7	*1*	**68** T,R	**7**	*1*	68	7	*1*	67	8	*1*
R 2.47 W	--	SFR	2	63 MOD	65	67	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	*0*
R 2.48 W		SFR	1	63 MOD	65	67	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	*0*
R 2.49 W		SFR	3	66 MOD	66	68	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	*0*
R 2.50 W*		SFR	1	59 MOD	59	60	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	60	0	*0*
R 2.51 W		SFR	3	66 MOD	66	68	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	*0*
R 2.52 W		SFR	4	66 MOD	66	68	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	*0*
R 2.53 W		SFR	4	66 MOD	66	68	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	*0*
R 2.54 W*		SFR	1	59 MOD	59	60	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	58	2	*0*
R 2.55 W		SFR	3	66 MOD	66	68	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	1	*0*
R 2.56 W		SFR	3	65 M,LT9,CAL	65	67	0	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	0	*0*
R 2.57 W*	S766 R/W	SFR	2	58 MOD	58	60	0	2	B (67)	NONE	59	1	*0*	59	1	*0*	59 T	1	*0*	59	1	*0*	59	1	*0*
R 2.58 W		SFR	2	65 MOD	65	69	0	4	B (67)	A/E	68	1	*0*	68 T	1	*0*	68	1	*0*	68	1	*0*	68	1	*0*
R 2.59 W		SFR	2	61 MOD	61	67	0	6	B (67)	A/E	65	2	*0*	65 T	2	*0*	64	3	*0*	64	3	*0*	64	3	*0*
R 2.60 W	--	MFR	1	60 MOD	57	58	-3	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.61 W		MFR	2	60 M,ST17	57	58	-3	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.61A W		--	--	66 M,ST17A	64	66	-2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.62 W		MFR	1	60 MOD	57	58	-3	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.63 W	S765 R/W	SFR	1	62 MOD	61	67	-1	6	B (67)	A/E	66	1	*0*	65	2	*0*	65	2	*0*	64 T	3	*0*	63	4	*0*
R 2.64 W		SFR	2	64 MOD	63	69	-1	6	B (67)	A/E	68	1	*0*	67	2	*0*	66	3	*0*	65 T	4	*0*	65	4	*0*
R 2.65 W		SFR	1	67 M,LT10,CAL	66	70	-1	4	B (67)	A/E	69	1	*0*	69	1	*0*	68 T	2	*0*	68	2	*0*	68	2	*0*

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-8 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 2 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 2 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 2.66 W	--	SFR	3	66 MOD	65	66	-1	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.67 W*	--	SFR	1	60 MOD	59	61	-1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.68 W	--	SFR	2	55 MOD	54	54	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.69 W	--	SFR	3	65 MOD	64	66	-1	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.70 W*	--	SFR	1	58 MOD	57	58	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.71 W	--	SFR	3	64 MOD	63	64	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.72 W*	--	SFR	2	59 MOD	58	59	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.73 W*	--	SFR	2	54 MOD	53	54	-1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	-- 7	--	--
R 2.74 W	--	SFR	3	64 MOD	63	63	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.75 W	--	SFR	3	64 MOD	63	61	-1	-2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.76 W	--	SFR	4	64 MOD	63	58	-1	-5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.77 W	--	MFR	2	60 MOD	61	61	1	0	B (67)	NONE	59	2	*0*	58	3	*0*	58	3	*0*	58	3	*0*	58	3	*0*
R 2.78 W	--	MFR	4	61 M,ST19	62	61	1	-1	B (67)	NONE	58	3	*0*	58	3	*0*	57	4	*0*	57	4	*0*	57	4	*0*
R 2.79 W	--	MFR	4	65 MOD	66	62	1	-4	B (67)	NONE	59	3	*0*	59	3	*0*	58	4	*0*	58	4	*0*	58	4	*0*
R 2.80 W	S786, S788, & S792 Shoulder	SFR	3	64 MOD	65	64	1	-1	B (67)	NONE	61	3	*0*	61	3	*0*	61	3	*0*	60	4	*0*	60	4	*0*
R 2.81 W,C	S786, S788, & S792 Shoulder	SFR	3	68 MOD	69	67	1	-2	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	63	4	*0*	**62** R	**5**	*3*
R 2.82 W	S786, S788, & S792 Shoulder	SFR	2	67 MOD	68	68	1	0	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	65	3	*0*	64	4	*0*
R 2.83 W	S786, S788, & S792 Shoulder	SFR	3	66 MOD	66	65	0	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	*0*	63	2	*0*
R 2.84 W	S786, S788, & S792 Shoulder	SFR	4	66 M,LT11,CAL	66	66	0	0	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	65	1	*0*	64	2	*0*
R 2.85 W	S786, S788, & S792 Shoulder	SFR	4	66 MOD	66	67	0	1	B (67)	A/E	--	--	--	--	--	--	-- T	--	--	66	1	*0*	65	2	*0*
R 2.86 W	--	SFR	3	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	*0*	63	2	*0*
R 2.87 W	--	SFR	4	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 2.88 W	--	SFR	4	62 MOD	62	62	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.89 W	--	SFR	3	63 MOD	63	60	0	-3	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.90 W	--	SFR	3	62 MOD	62	59	0	-3	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.91 W	--	SFR	2	63 MOD	63	62	0	-1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 2.92 W	--	SFR	1	61 MOD	61	61	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution; LIB - library.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
7 - Existing soundwall is at a height of 16 feet.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T - Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-9 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 3

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 3 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 3.1 W	--	MFR	4	59 MOD	59	59	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.2 W	--	MFR	5	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.3 W	--	MFR	7	65 M,ST22	65	65	0	0	B (67)	NONE	--	--	--	--	--	--	65	0	*0*	64	1	*0*	63 T	2	*0*
R 3.4 W	--	MFR	2	66 MOD	66	68	0	2	B (67)	A/E	--	--	--	--	--	--	67	1	*0*	66 T	2	*0*	65	3	*0*
R 3.5 W*	--	SFR	3	65 MOD	65	66	0	1	B (67)	A/E	--	--	--	--	--	--	66	0	*0*	65	1	*0*	63 T	3	*0*
R 3.6 W	--	SFR	2	67 MOD	67	69	0	2	B (67)	A/E	--	--	--	--	--	--	68	1	*0*	66 T	3	*0*	66	3	*0*
R 3.7 W	--	SFR	4	65 MOD	65	69	0	4	B (67)	A/E	--	--	--	--	--	--	67	2	*0*	67 T	2	*0*	65	4	*0*
R 3.8 W	--	SFR	4	68 MOD	68	70	0	2	B (67)	A/E	--	--	--	--	--	--	69	1	*0*	68 T	2	*0*	67	3	*0*
R 3.9 W	--	SFR	2	68 M,LT13,CAL	68	70	0	2	B (67)	A/E	--	--	--	--	--	--	69 T	1	*0*	68	2	*0*	67	3	*0*
R 3.10 W	--	SFR	2	68 MOD	68	70	0	2	B (67)	A/E	--	--	--	--	--	--	69 T	1	*0*	68	2	*0*	67	3	*0*
R 3.11 W*	--	SFR	5	64 MOD	64	65	0	1	B (67)	NONE	--	--	--	--	--	--	65	0	*0*	64	1	*0*	64	1	*0*
R 3.12 W	--	SFR	1	69 MOD	69	71	0	2	B (67)	A/E	--	--	--	--	--	--	69 T	2	*0*	68	3	*0*	67	4	*0*
R 3.13 W*	S834 Shoulder	SFR	3	67 MOD	67	69	0	2	B (67)	A/E	--	--	--	--	--	--	66 T	3	*0*	65	4	*0*	**64 R**	**5**	*2*
R 3.14 W	S834 Shoulder	SFR	2	68 MOD	68	71	0	3	B (67)	A/E	--	--	--	--	--	--	68	3	*0*	67	4	*0*	**66 R**	**5**	*2*
R 3.15 W*	S834 Shoulder	SFR	4	62 MOD	62	64	0	2	B (67)	NONE	62	2	*0*	61	3	*0*	60	4	*0*	59	5	*3*	59	5	*3*
R 3.16 W,C	S834 Shoulder	SFR	1	70 MOD	70	72	0	2	B (67)	A/E	--	--	--	--	--	--	69	3	*0*	68	4	*0*	**67 R**	**5**	*1*
R 3.17 W	S834 Shoulder	SFR	2	69 MOD	69	71	0	2	B (67)	A/E	--	--	--	--	--	--	69	2	*0*	68	3	*0*	67	4	*0*
R 3.17A W	S834 Shoulder	--	--	68 M,ST23	68	70	0	2	B (67)	A/E	--	--	--	--	--	--	67	3	--	66	4	--	65	5	--
R 3.18 W	S834 Shoulder	SFR	1	68 MOD	68	70	0	2	B (67)	A/E	--	--	--	--	--	--	68	2	*0*	67	3	*0*	66	4	*0*
R 3.19 W*	S834 Shoulder	SFR	2	60 MOD	60	62	0	2	B (67)	NONE	60	2	*0*	60	2	*0*	59	3	*0*	59	3	*0*	58	4	*0*
R 3.19A W*	S834 Shoulder	SFR	1	63 MOD	63	65	0	2	B (67)	NONE	62	3	*0*	62	3	*0*	61	4	*0*	60	5	*1*	60	5	*1*
R 3.20 W	S834 Shoulder	SFR	2	65 MOD	65	67	0	2	B (67)	A/E	64	3	*0*	63	4	*0*	63 T	4	*0*	63	4	*0*	**62 R**	**5**	*2*
R 3.21 W*	S834 Shoulder	SFR	2	60 MOD	60	62	0	2	B (67)	NONE	60	2	*0*	60	2	*0*	59	3	*0*	59	3	*0*	58	4	*0*
R 3.22 W*	--	MFR	8	55 MOD	56	56	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.22A W	--	MFR	2	54 M,ST20	55	56	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.23 W*	--	MFR	9	51 MOD	52	52	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-9 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 3 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 3 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 3.23A	S807 Shoulder & S811 R/W	REC	--	62 MOD	63	64	1	1	B (67)	NONE	61	3	--	61	3	--	60	4	--	59	5	--	59	5	--
R 3.23B C		REC	7	65 MOD	66	69	1	3	B (67)	A/E	65	4	*0*	65	4	*0*	**63** T,R	**6**	*7*	62	7	*7*	62	7	*7*
R 3.24 K1,W		SFR	2	64 MOD	65	67	1	2	B (67)	A/E	--	--	--	--	--	--	65 T	2	*0*	63	4	*0*	**62** R	**5**	*2*
R 3.25 K1,W*		SFR	2	59 MOD	60	63	1	3	B (67)	NONE	--	--	--	--	--	--	60	3	*0*	59	4	*0*	59	4	*0*
R 3.26 K1,W	S827 Shoulder	SFR	3	64 MOD	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	63	3	*0*	63	3	*0*	63	3	*0*
R 3.27 K1,W*		SFR	2	64 MOD	65	66	1	1	B (67)	A/E	--	--	--	--	--	--	62	4	*0*	62	4	*0*	62	4	*0*
R 3.28 K1,W		SFR	3	65 MOD	66	66	1	0	B (67)	A/E	--	--	--	--	--	--	63	3	*0*	63	3	*0*	63	3	*0*
R 3.28A K1,W		--	--	64 M,CAL	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	64	1	--	63	2	--	62	3	--
R 3.29 K1,W*		SFR	2	60 MOD	61	60	1	-1	B (67)	NONE	--	--	--	--	--	--	59	1	*0*	58	2	*0*	57	3	*0*
R 3.30 K,1W	S827 Shoulder	SFR	3	60 MOD	61	61	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	58	3	*0*	58	3	*0*
R 3.31 K1,W		SFR	2	62 MOD	63	63	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	0	*0*	62	1	*0*
R 3.32 K1,W		SFR	4	64 M,LT12	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	*0*	63	2	*0*
R 3.33 K1,W		SFR	2	63 MOD	64	64	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	63	1	*0*	62	2	*0*
R 3.34 K1,W*		SFR	2	63 MOD	64	62	1	-2	B (67)	NONE	--	--	--	--	--	--	--	--	--	61	1	*0*	61	1	*0*
R 3.35 K1,W		SFR	1	66 M,ST21	65	65	-1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	*0*	63	2	*0*
R 3.36 K1,W*		SFR	3	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	58	1	*0*	57	2	*0*
R 3.37 K1,W*		SFR	2	60 MOD	61	61	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	61	0	*0*	60	1	*0*
R 3.38 K1,W		SFR	2	64 MOD	65	65	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	*0*	63	2	*0*
R 3.39 K1,W*		SFR	3	58 MOD	59	59	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	58	1	*0*	56	3	*0*
R 3.40 K1,W		SFR	5	62 MOD	63	65	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	*0*	63	2	*0*
R 3.41 K1,W*		SFR	3	57 MOD	58	59	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	58	1	*0*	56	3	*0*
R 3.42 K1,W		SFR	3	62 MOD	63	68	1	5	B (67)	A/E	--	--	--	--	--	--	64	4	*0*	65	3	*0*	64	4	*0*
R 3.43 W	--	MFR	8	58 MOD	58	59	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.44 W*		MFR	7	59 MOD	59	61	0	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.45 W		MFR	10	58 MOD	58	59	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.46 W		MFR	8	56 MOD	56	57	0	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
K1 - A calibration factor of -2.5 dB is applied for this receptor and adjacent receptors with similar geographic features.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-9 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 3 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 3 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
											8 feet			10 feet			12 feet			14 feet			16 feet		
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 3.47 W	S841 Shoulder	SFR	2	62 MOD	63	68	1	5	B (67)	A/E	64	4	0	63	5	1	**62 T,R**	**6**	2	62	6	2	61	7	2
R 3.48 C		SFR	1	69 MOD	70	76	1	6	B (67)	A/E	69	7	1	68	8	1	**66 T,R**	**10**	1	66	10	1	65	11	1
R 3.49 W		SFR	2	60 MOD	61	63	1	2	B (67)	NONE	61	2	0	61	2	0	60	3	0	59	4	0	59	4	0
R 3.50 W		SFR	1	70 M,LT14	71	76	1	5	B (67)	A/E	70	6	1	69	7	1	68 T	8	1	**67 R,5**	**9**	1	66	10	1
R 3.51 W*		SFR	2	62 MOD	63	65	1	2	B (67)	NONE	63	2	0	62	3	0	61	4	0	60	5	2	59	6	2
R 3.52 W		REC	1	68 MOD	69	71	1	2	B (67)	A/E	68	3	0	67	4	0	67 T	4	0	**66 R**	**5**	1	66	5	1
R 3.53 W	--	MFR	6	63 MOD	65	67	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	2	0	64	3	0
R 3.53A W*		REC	5	54 MOD	56	58	2	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	55	3	0	55	3	0
R 3.54 W		MFR	4	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	1	0	65	1	0
R 3.54A W		MFR	3	62 M,ST24	64	65	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	64	1	0	63	2	0
R 3.55 W		MFR	4	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	66	0	0	65	1	0
R 3.55A W		MFR	4	63 MOD	65	66	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	65	1	0	64	2	0
R 3.56 W,C	S857 Shoulder	MFR	7	67 MOD	69	71	2	2	B (67)	A/E	68	3	0	67	4	0	**66 T,R**	**5**	7	65	6	7	65	6	7
R 3.57 W	--	SFR	2	61 MOD	62	65	1	3	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.58 W		SFR	3	60 MOD	61	63	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.59 W		SFR	4	61 MOD	62	64	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.60 W		SFR	2	61 M,ST25A,CAL	62	64	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.60A W		SFR	--	63 M,ST25	62	64	-1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.61 W*		SFR	7	59 MOD	60	61	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.62 W*		SFR	4	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.63 W,C	S868 R/W	SFR	1	65 MOD	66	67	1	1	B (67)	A/E	65	2	0	64	3	0	63	4	0	63 T	4	0	**60 R**	**7**	1
R 3.64 W	--	SFR	3	61 MOD	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	63	0	0	63	0	0	62	1	0
R 3.65 W		SFR	2	59 MOD	60	62	1	2	B (67)	NONE	--	--	--	--	--	--	62	0	0	62	0	0	60	2	0
R 3.66 W		MFR	5	60 M,ST26	58	60	-2	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.66A W		MFR	8	56 MOD	54	55	-2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R 3.66B W		MFR	4	56 MOD	54	55	-2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
5 - Barrier height needed to meet requirements at adjacent receptor(s).
6 - Traffic noise from the freeway only; other local noise sources are not included.
R - The minimum height to meet feasibility requirements of Caltrans' Noise Abatement Criteria.
T- Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
C - Critical design receiver.
Int - The modeled exterior noise levels have been reduced based on window types and the interior noise criteria has been used for this receiver because there is no outdoor use.
W - Reciever protected by existing private property wall or soundwall.
* - Non first row residences.

Table G-9 – Predicted Future Noise Levels and Barrier Analysis – Alternative 2 – Segment 3 (Cont'd)

Receiver I.D.	Barrier I.D. and Location	Land Use[2]	Number of Dwelling Units	Existing Noise Level Leq(h), dBA[1,3]	I-405 PA-ED Alternative 3 Future Worst Hour Noise Levels - Leq(h), dBA[1,6]						Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receivers (NBR)														
					Design Year No Build Noise Level Leq(h), dBA[1]	Design Year Build Noise Level Leq(h), dBA[1]	Design Year No Build Noise Level Minus Existing Conditions Leq(h), dBA	Design Year Build Noise Level Minus No Build Conditions Leq(h), dBA	Activity Category (NAC)	Impact Type[4]	8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R 3.67 W	--	MH	4	58 MOD	60	61	2	1	B (67)	NONE	--	--	--	--	--	--	60	1	0	60	1	0	59	2	0
R 3.68 W*		REC	1	52 MOD	54	56	2	2	B (67)	NONE	--	--	--	--	--	--	55	1	0	55	1	0	54	2	0
R 3.69 W		MH	4	62 MOD	64	66	2	2	B (67)	A/E	--	--	--	--	--	--	64	2	0	64	2	0	62	4	0
R 3.70 W		MH	4	64 MOD	66	68	2	2	B (67)	A/E	--	--	--	--	--	--	67 T	1	0	66	2	0	65	3	0
R 3.71 W*		MH	7	65 MOD	67	69	2	2	B (67)	A/E	--	--	--	--	--	--	68	1	0	67 T	2	0	66	3	0
R 3.72 W		MH	2	63 MOD	65	67	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 3.72A W		MH	2	63 M,ST27	65	67	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 3.73 W		MH	5	63 MOD	65	67	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 3.74 W*		MH	11	64 MOD	66	67	2	1	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	66	1	0
R 3.74A W		MH	2	65 MOD	67	69	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	68	1	0
R 3.75 W		MH	4	65 MOD	67	69	2	2	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	67	2	0
R 3.76 W*	S896 R/W	MH	2	63 MOD	65	67	2	2	B (67)	A/E	67	0	0	67	0	0	67	0	0	67 T	0	0	67	0	0
R 3.77 W		MH	3	62 MOD	64	68	2	4	B (67)	A/E	68	0	0	68 T	0	0	67	1	0	67	1	0	67	1	0
R 3.78 W*	S902 Shoulder	SFR	2	63 MOD	63	65	0	2	B (67)	NONE	--	--	--	65	0	0	64	1	0	63	2	0	63	2	0
R 3.79 W		REC	1	62 MOD	62	65	0	3	B (67)	NONE	--	--	--	65	0	0	63	2	0	61	4	0	60	5	1
R 3.80 W		SFR	3	64 MOD	64	64	0	0	B (67)	NONE	--	--	--	63	1	0	62	2	0	61	3	0	60	4	0
R 3.81 W		SFR	2	67 MOD	67	68	0	1	B (67)	A/E	--	--	--	67	1	0	66	2	0	66	2	0	65	3	0
R 3.81A W		SFR	3	66 M,LT15,CAL	66	66	0	0	B (67)	A/E	--	--	--	66	0	0	65	1	0	64	2	0	64	2	0
R 3.82 W		SFR	3	65 MOD	65	65	0	0	B (67)	NONE	--	--	--	65	0	0	64	1	0	63	2	0	63	2	0
R 3.83 W		SFR	5	64 MOD	64	65	0	1	B (67)	NONE	--	--	--	64	1	0	63	2	0	63	2	0	62	3	0
R 3.84 W	S910 & S916 Shoulder	SFR	3	64 MOD	64	65	0	1	B (67)	NONE	--	--	--	64	1	0	63	2	0	62	3	0	62	3	0
R 3.85 W		SFR	2	66 MOD	66	67	0	1	B (67)	A/E	64	3	0	63 T	4	0	**62 R**	**5**	2	62	5	2	61	6	2
R 3.86 W,C		SFR	3	66 MOD	66	67	0	1	B (67)	A/E	65	2	0	63 T	4	0	**62 R**	**5**	3	61	6	3	60	7	3
R 3.86A W		SFR	2	65 MOD	65	67	0	2	B (67)	A/E	64	3	0	62	5	2	**62 T,R**	**5**	2	60	7	2	60	7	2

Notes:

1 - Leq(h) are A-weighted, peak hour noise levels in decibels.
2 - Land Use: SFR - single-family residence; MFR - multi-family residence; MH - mobile Home; MOT - motel/hotel; SCH - school; REC - recreational/park; REL - religious institution.
3 - M - Measured noise level; STxx or LTxx - measurement site number; CAL - noise model calibration site; MOD - Estimated from No-Build Alternative and measurement sites.
4 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
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