APPENDIX C
Noise Data

Site Number: 1			
Recorded By: Jessica Ditto			
Job Number: 161401			
Date: 11/2/2017			
Time: 11:14 a.m.			
Location: Burnett Street, approximately 545 feet east of Redondo			
Source of Peak Noise: Street traffic along Redondo Avenue and Burnett Street and construction activities northeast of the project site.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
55.9	44.5	72.0	92.8

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	3/27/2017	
	Microphone	Brüel & Kjær	4189	3086765	3/27/2017	
	Preamp	Brüel & Kjær	ZC 0032	25380	3/27/2017	
	Calibrator	Brüel & Kjær	4231	2545667	3/27/2017	

Weather Data			
Est.	Duration: 10 minutes	Sky: Cloudy	
	Note: dBA Offset = 0.01	Sensor Height (ft): 5 ft	
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	<5	67	30.04

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.2
Start Time:		11/02/2017 11:13:50
End Time:		11/02/2017 11:23:50
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.04

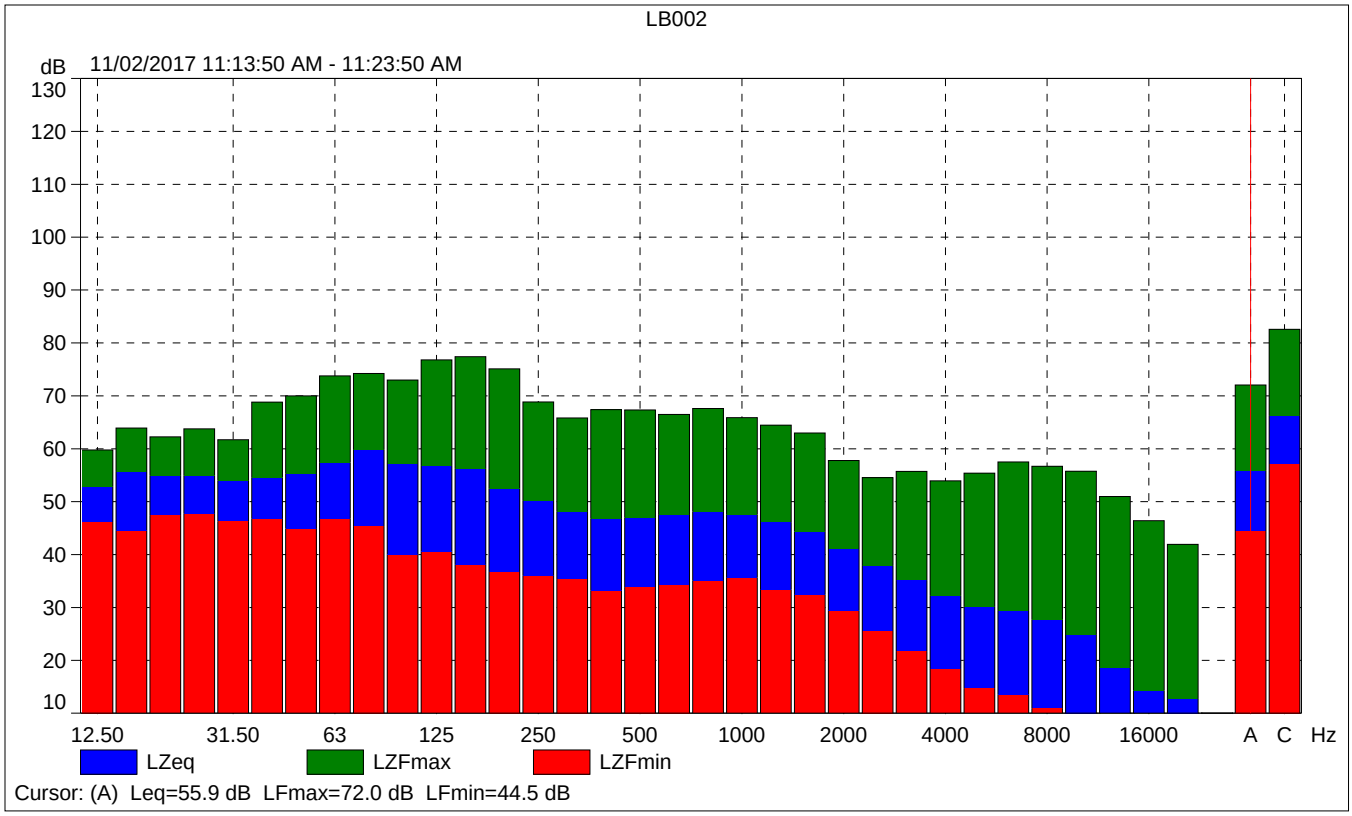
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

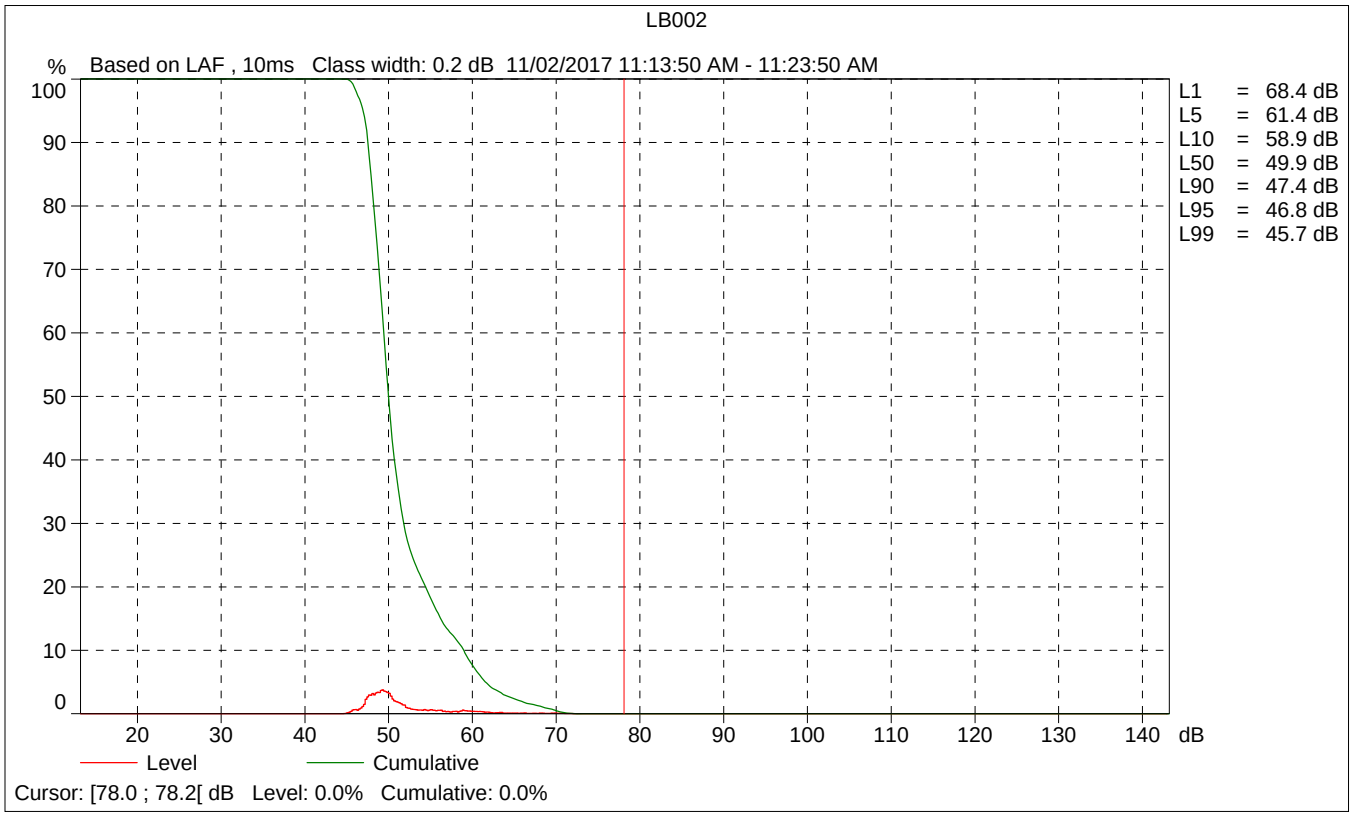
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

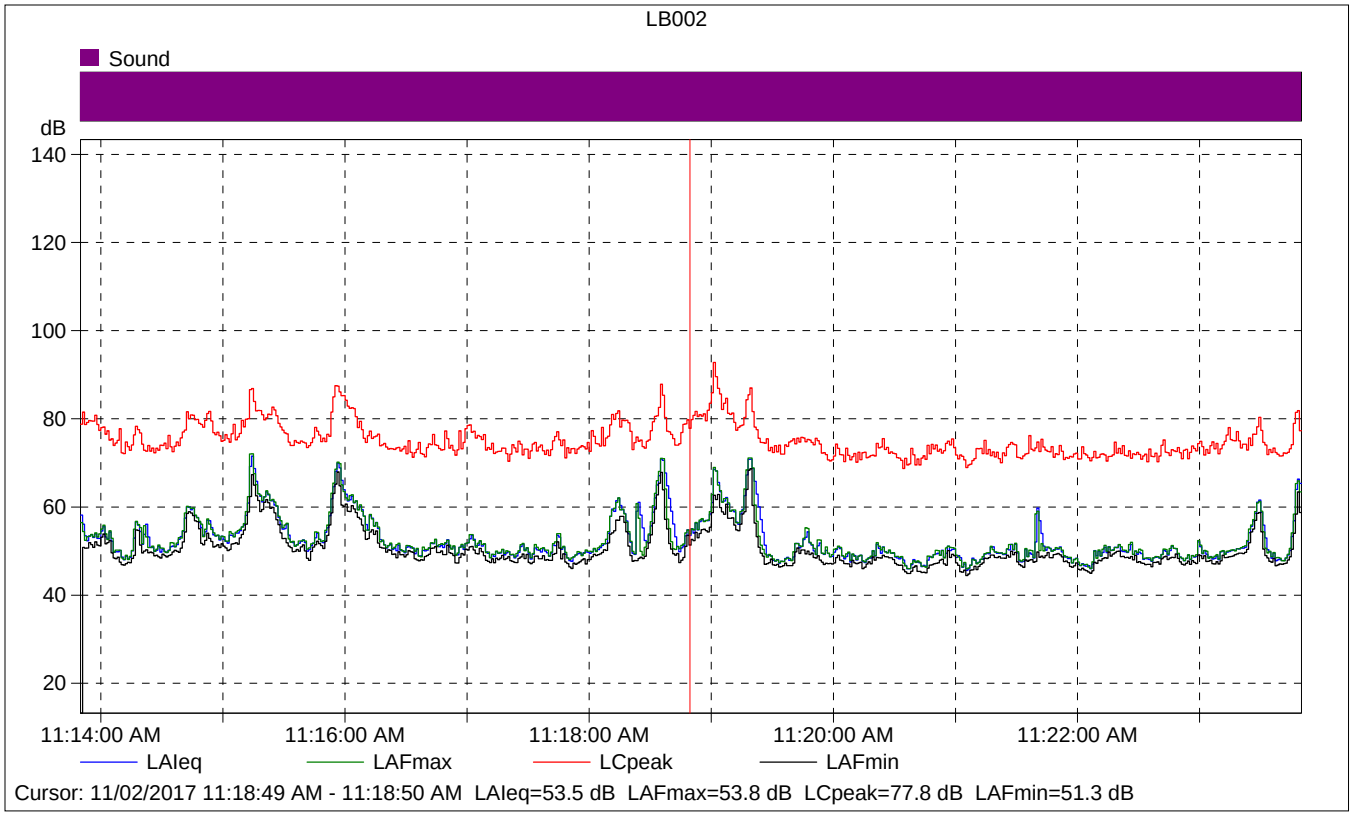
Calibration Time:		11/01/2017 09:41:43
Calibration Type:		External reference
Sensitivity:		44.0149307250977 mV/Pa

LB002

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	55.9	72.0	44.5
Time	11:13:50 AM	11:23:50 AM	0:10:00				
Date	11/02/2017	11/02/2017					

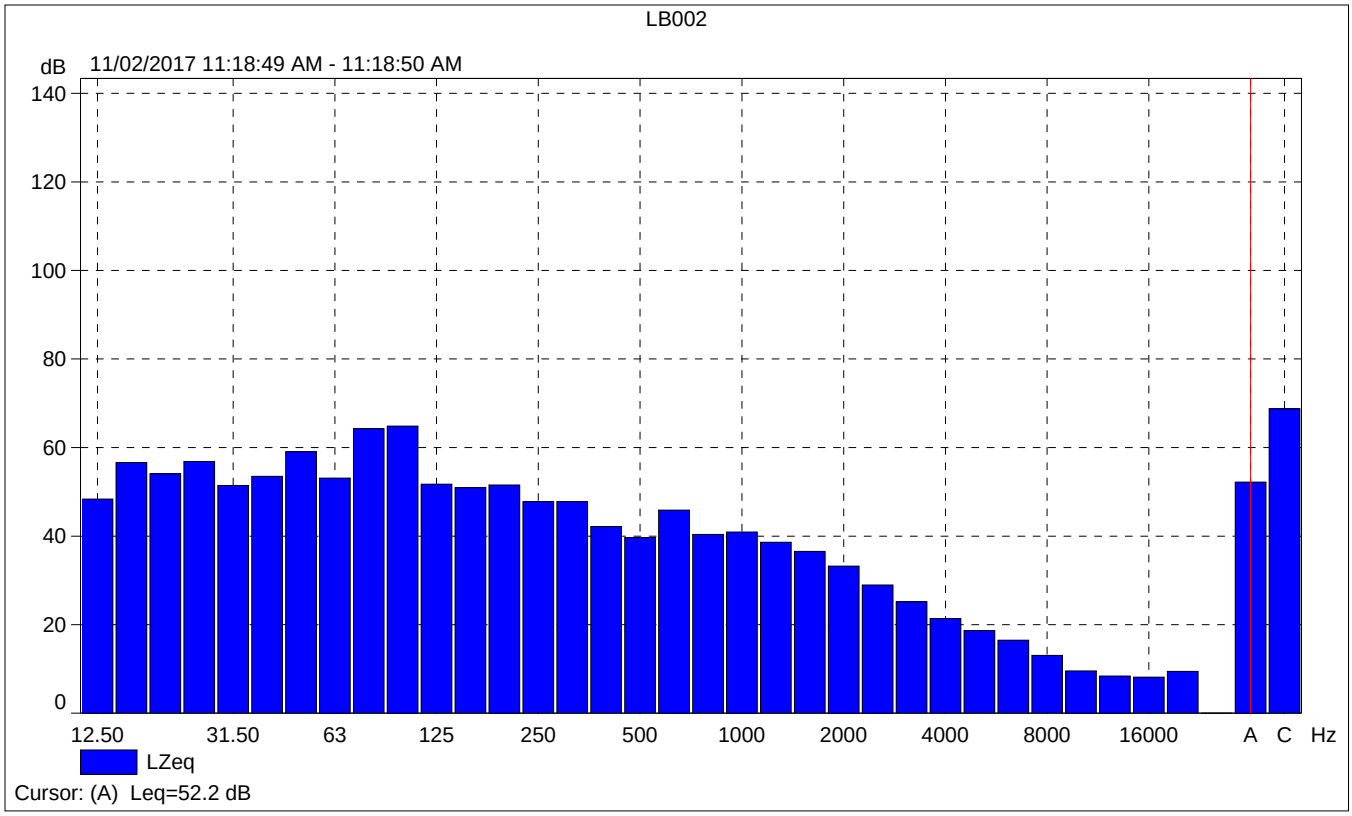

LB002
dB
11/02/2017 11:13:50 AM - 11:23:50 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=55.9 dB LFmax=72.0 dB LFmin=44.5 dB

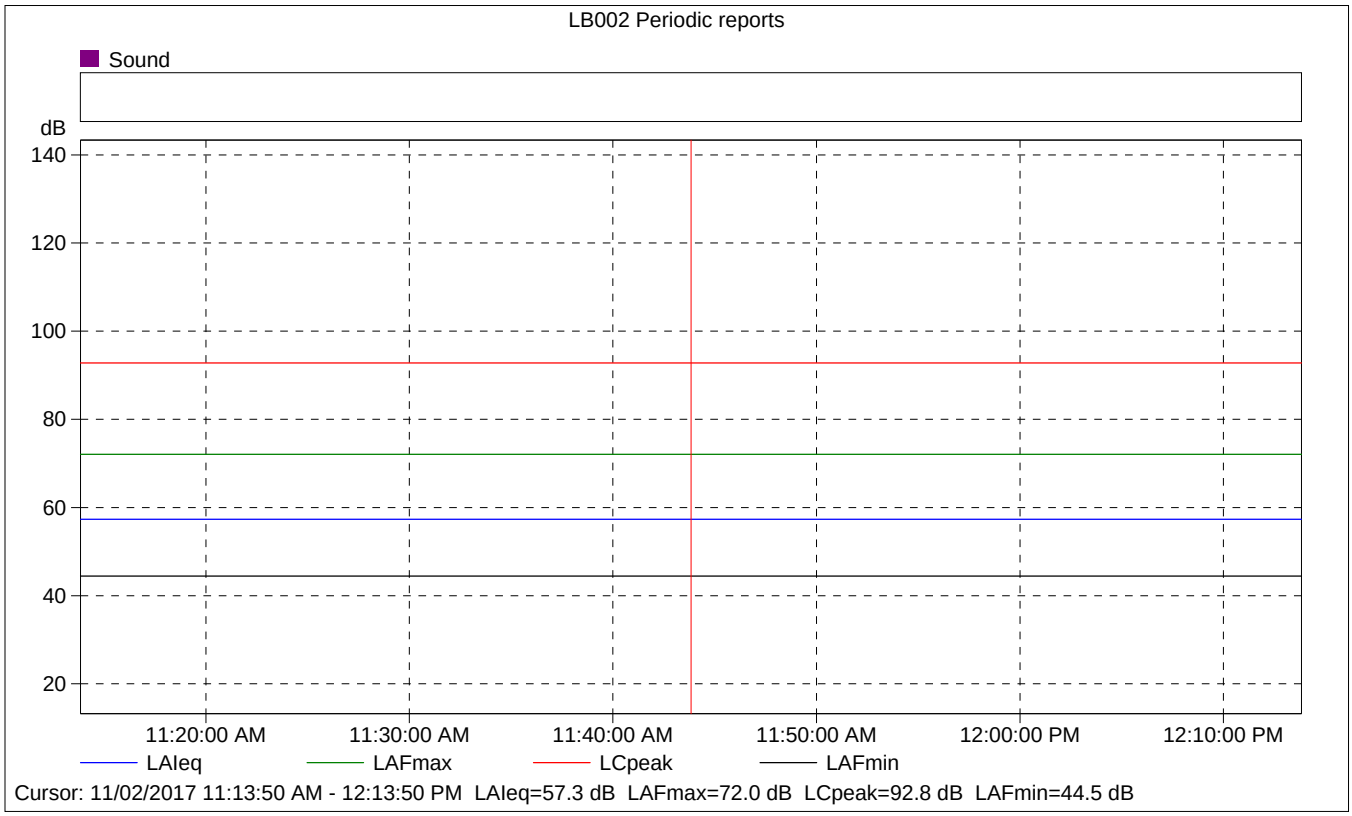

LB002
%
Based on LAF , 10ms Class width: 0.2 dB 11/02/2017 11:13:50 AM - 11:23:50 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 68.4 dB
L5 = 61.4 dB
L10 = 58.9 dB
L50 = 49.9 dB
L90 = 47.4 dB
L95 = 46.8 dB
L99 = 45.7 dB
Level
Cumulative
Cursor: [78.0 ; 78.2[dB Level: 0.0% Cumulative: 0.0%



LB002

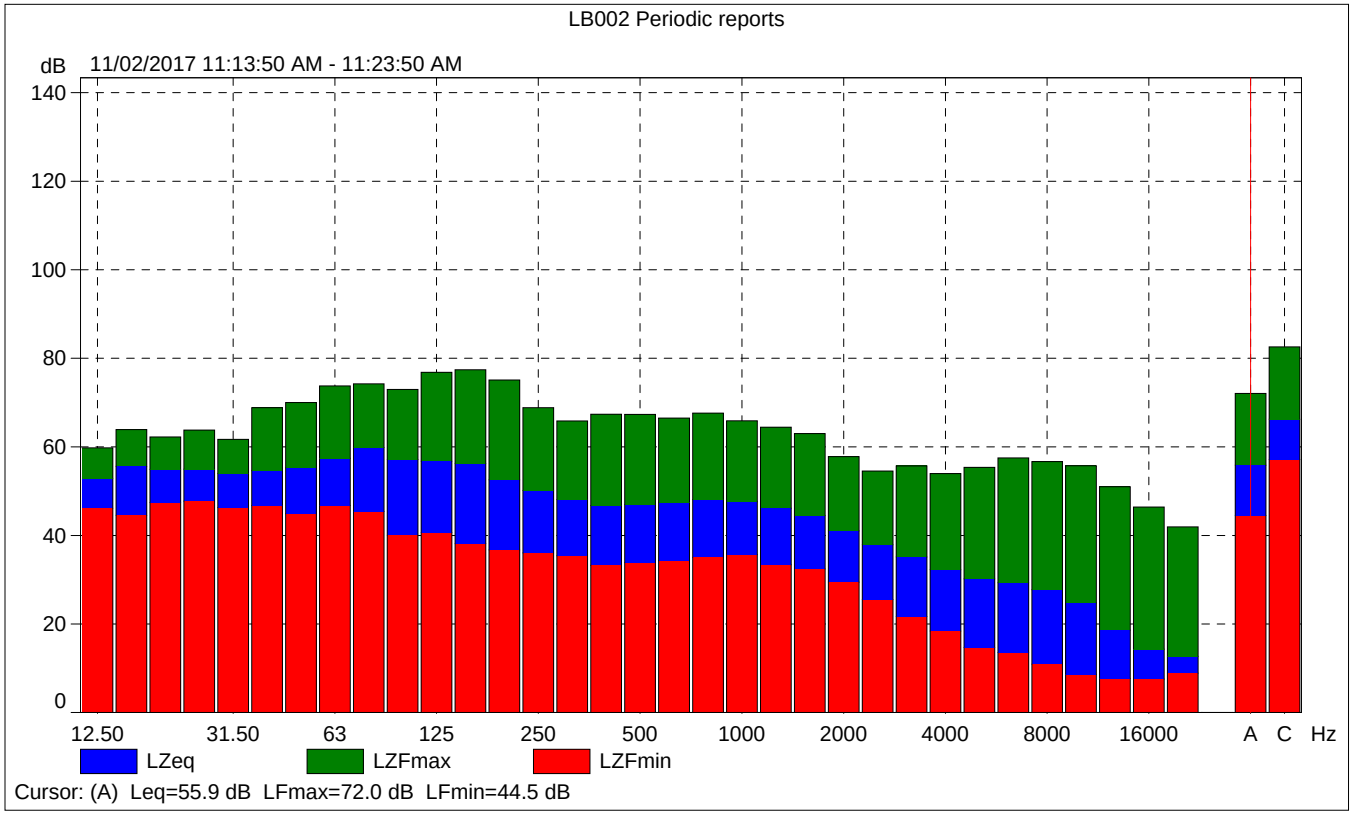
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			53.5	53.8	51.3
Time	11:18:49 AM	0:00:01			
Date	11/02/2017				

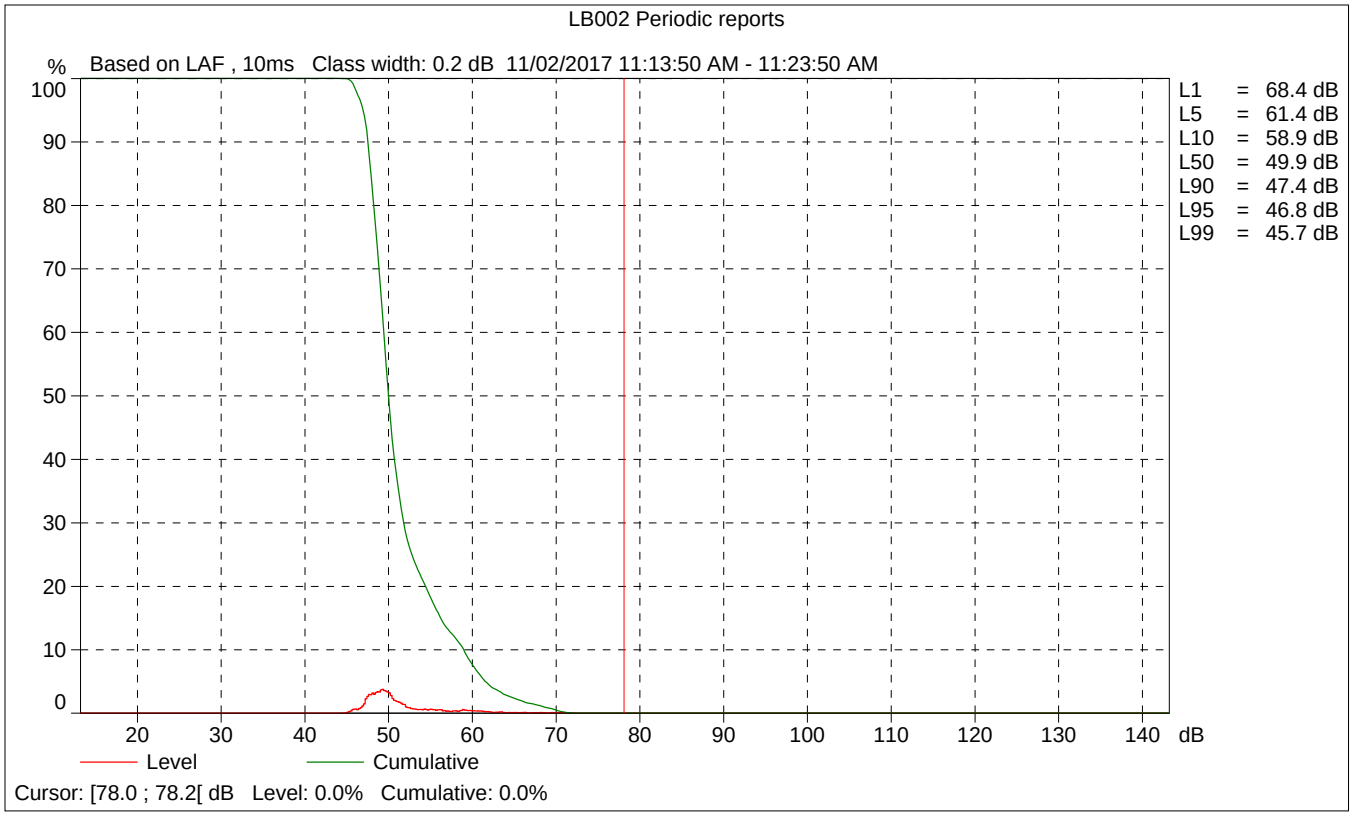

LB002
dB
11/02/2017 11:18:49 AM - 11:18:50 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=52.2 dB


LB002 Periodic reports
Sound
dB
140
120
100
80
60
40
20
11:20:00 AM
11:30:00 AM
11:40:00 AM
11:50:00 AM
12:00:00 PM
12:10:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2017 11:13:50 AM - 12:13:50 PM LAIeq=57.3 dB LAFmax=72.0 dB LCpeak=92.8 dB LAFmin=44.5 dB

LB002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	57.3	72.0	44.5
Time	11:13:50 AM	0:10:00				
Date	11/02/2017					




LB002 Periodic reports
%
Based on LAF , 10ms Class width: 0.2 dB 11/02/2017 11:13:50 AM - 11:23:50 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 68.4 dB
L5 = 61.4 dB
L10 = 58.9 dB
L50 = 49.9 dB
L90 = 47.4 dB
L95 = 46.8 dB
L99 = 45.7 dB
Level
Cumulative
Cursor: [78.0 ; 78.2[dB Level: 0.0% Cumulative: 0.0%

Site Number: 2			
Recorded By: Jessica Ditto			
Job Number: 161401			
Date: 11/2/2017			
Time: 11:41 a.m.			
Location: 23rd Street, approximately 80 feet west of Euclid Avenue			
Source of Peak Noise: On-site generator, street traffic along 23rd Street and alleyway located west of the project site, and air traffic (air plane and helicopter)			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
60.2	56.2	71.5	90.1

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	3/27/2017	
	Microphone	Brüel & Kjær	4189	3086765	3/27/2017	
	Preamp	Brüel & Kjær	ZC 0032	25380	3/27/2017	
	Calibrator	Brüel & Kjær	4231	2545667	3/27/2017	

Weather Data			
Est.	Duration: 10 minutes	Sky: Cloudy	
	Note: dBA Offset = 0.01	Sensor Height (ft): 5 ft	
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	<5	67	30.04

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.2
Start Time:		11/02/2017 11:41:04
End Time:		11/02/2017 11:51:04
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.04

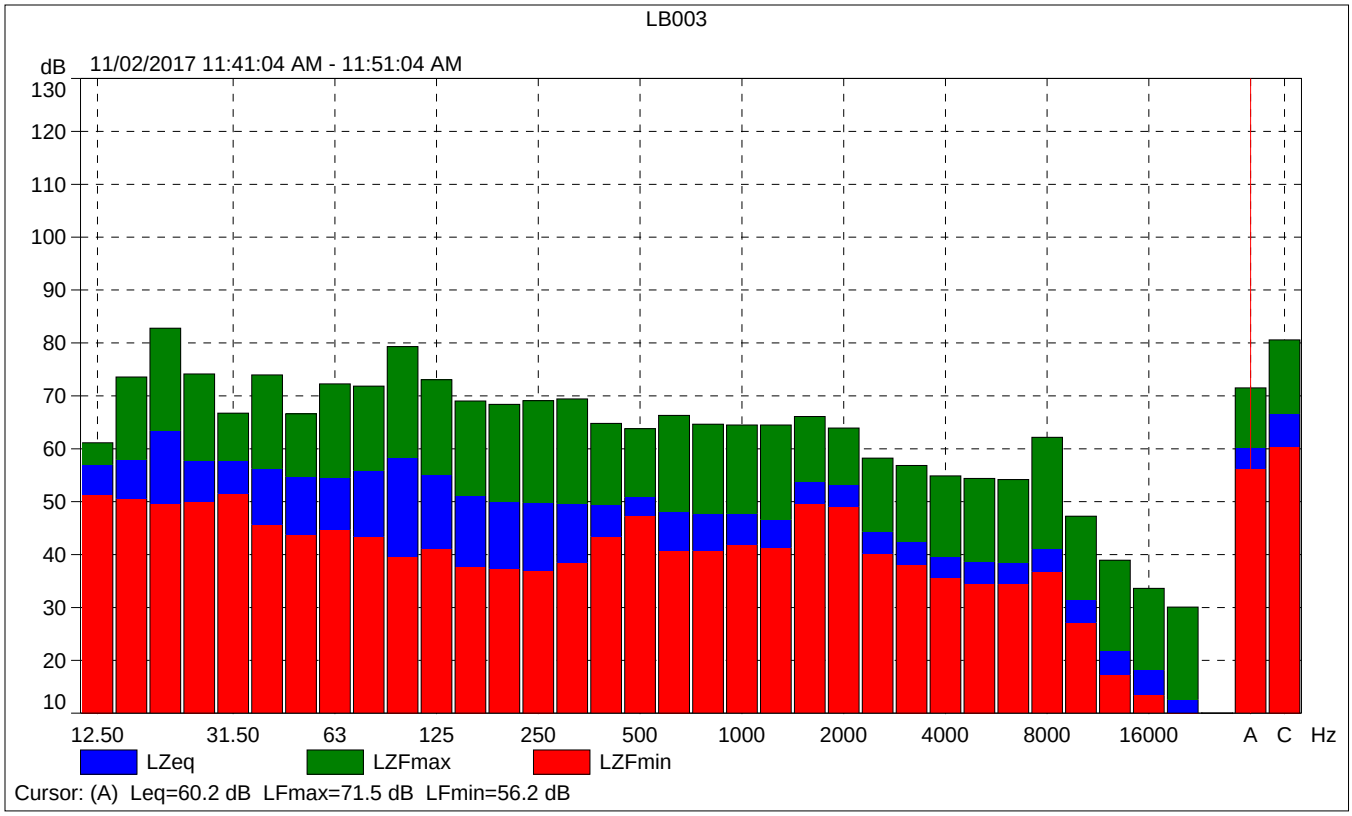
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

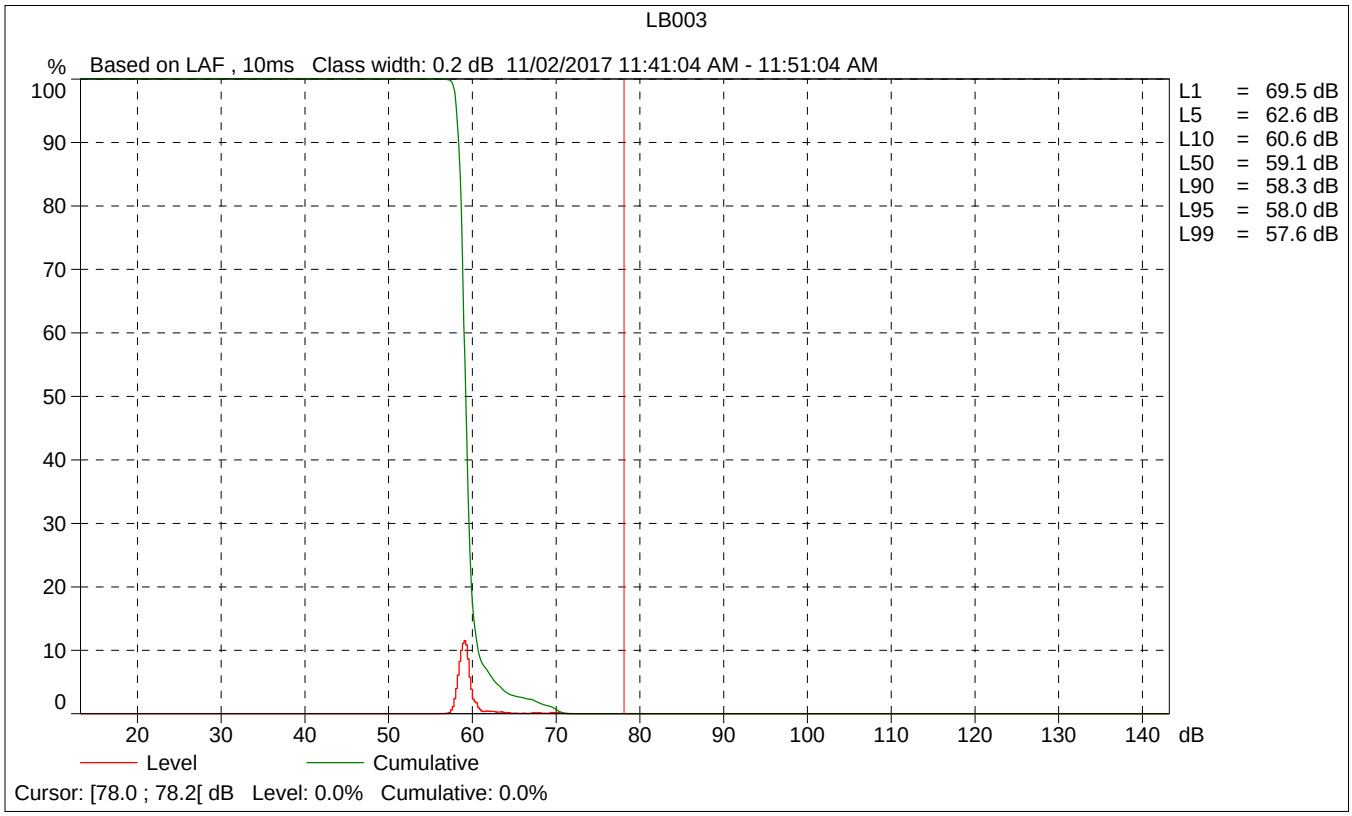
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

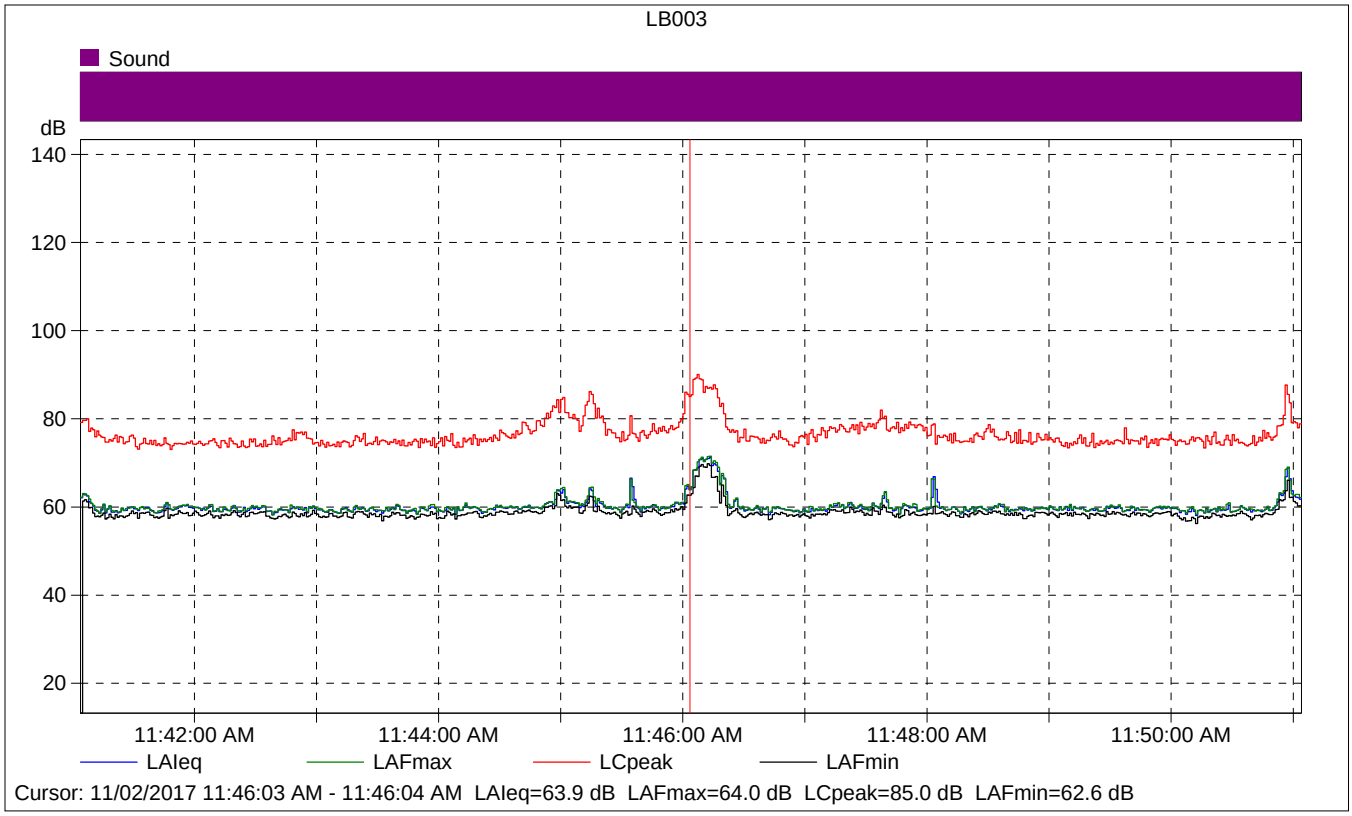
Calibration Time:		11/01/2017 09:41:43
Calibration Type:		External reference
Sensitivity:		44.0149307250977 mV/Pa

LB003

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	60.2	71.5	56.2
Time	11:41:04 AM	11:51:04 AM	0:10:00				
Date	11/02/2017	11/02/2017					

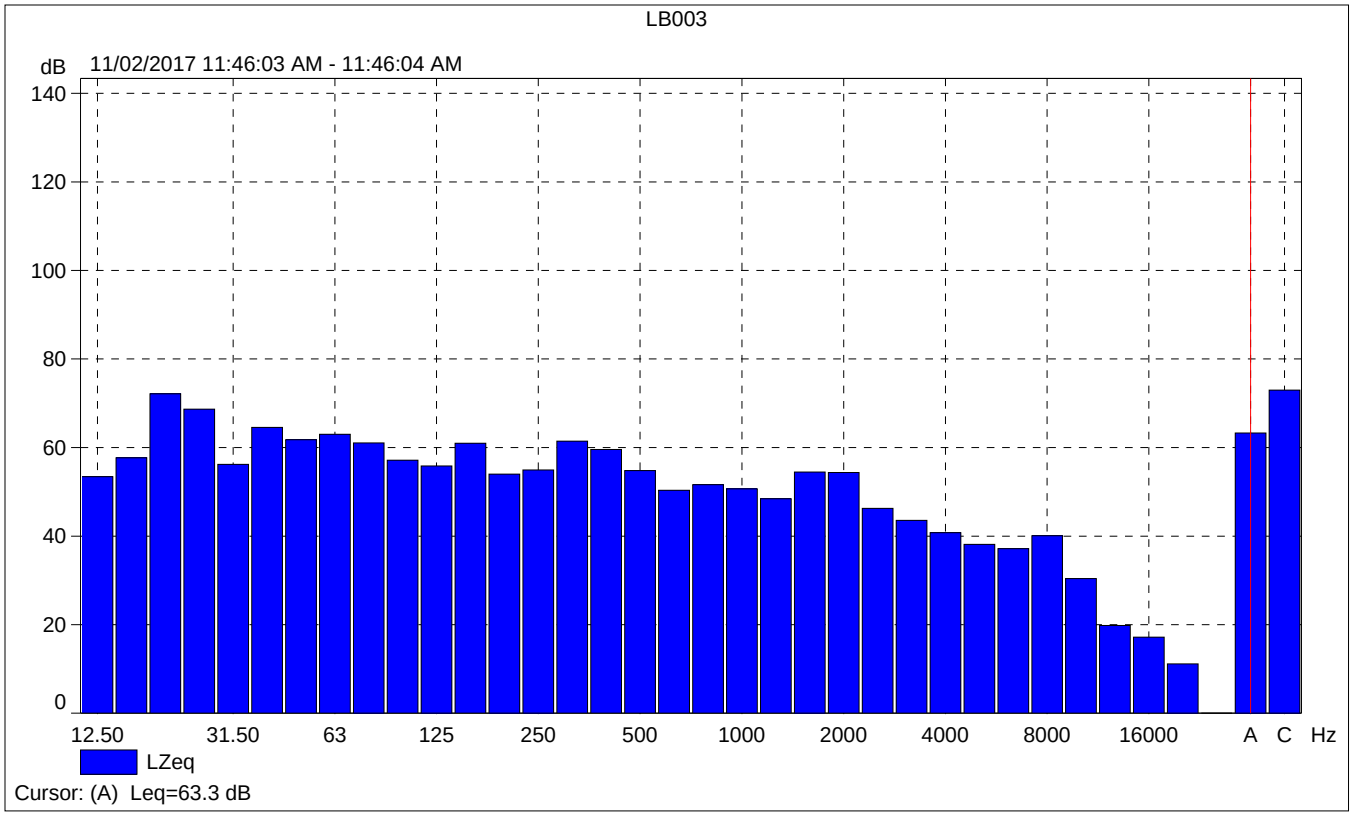

LB003
dB
11/02/2017 11:41:04 AM - 11:51:04 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=60.2 dB LFmax=71.5 dB LFmin=56.2 dB

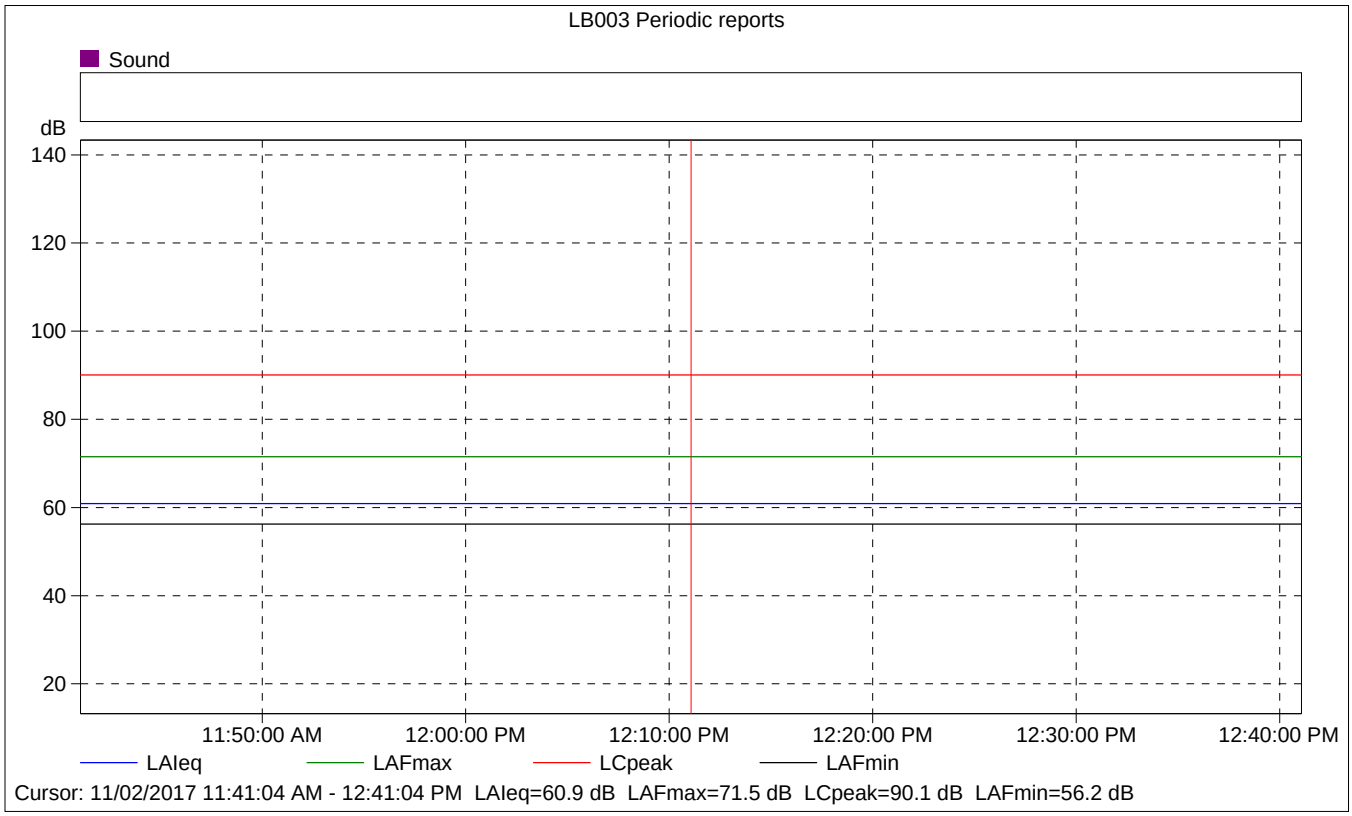

LB003
%
Based on LAF , 10ms Class width: 0.2 dB 11/02/2017 11:41:04 AM - 11:51:04 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 69.5 dB
L5 = 62.6 dB
L10 = 60.6 dB
L50 = 59.1 dB
L90 = 58.3 dB
L95 = 58.0 dB
L99 = 57.6 dB
Level
Cumulative
Cursor: [78.0 ; 78.2[dB Level: 0.0% Cumulative: 0.0%



LB003

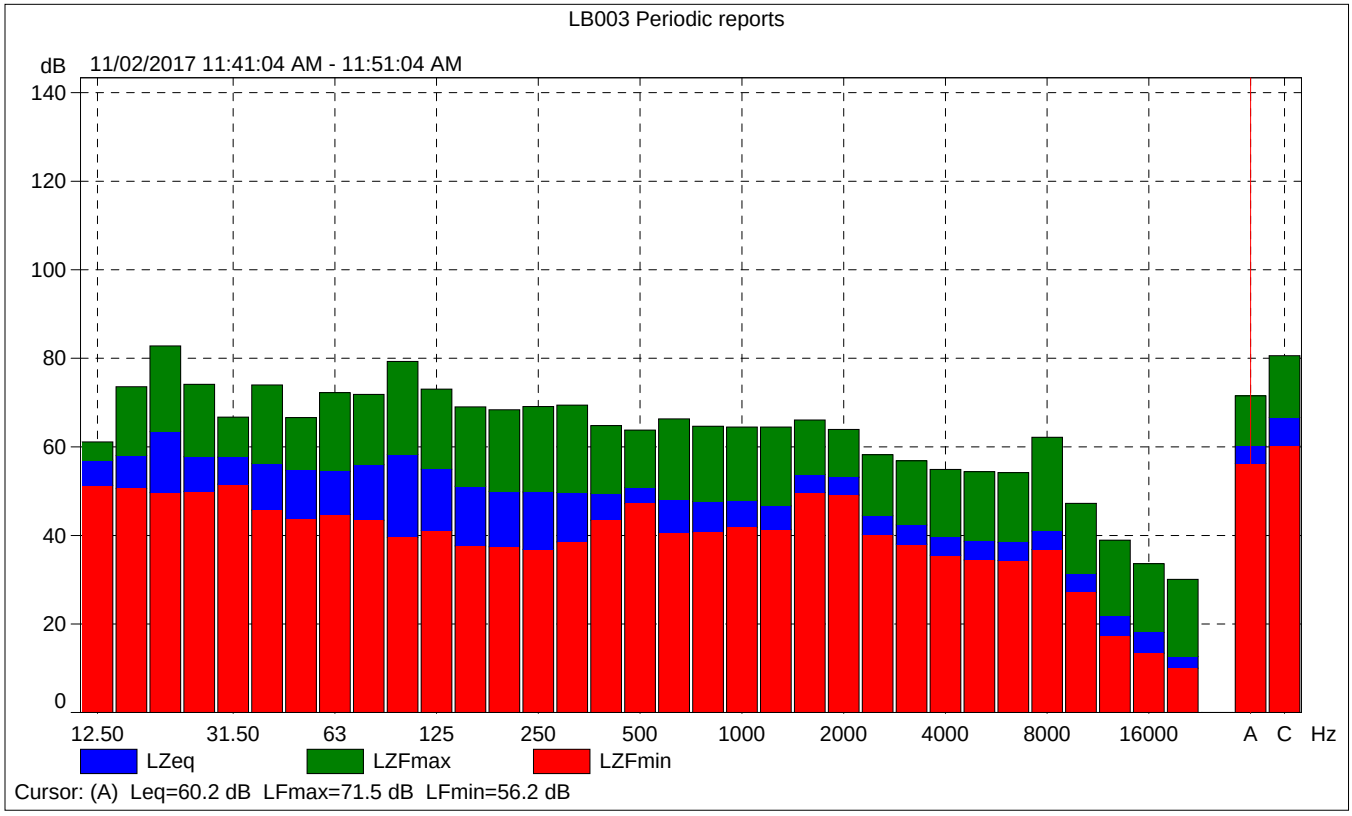
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			63.9	64.0	62.6
Time	11:46:03 AM	0:00:01			
Date	11/02/2017				


LB003
dB
11/02/2017 11:46:03 AM - 11:46:04 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=63.3 dB

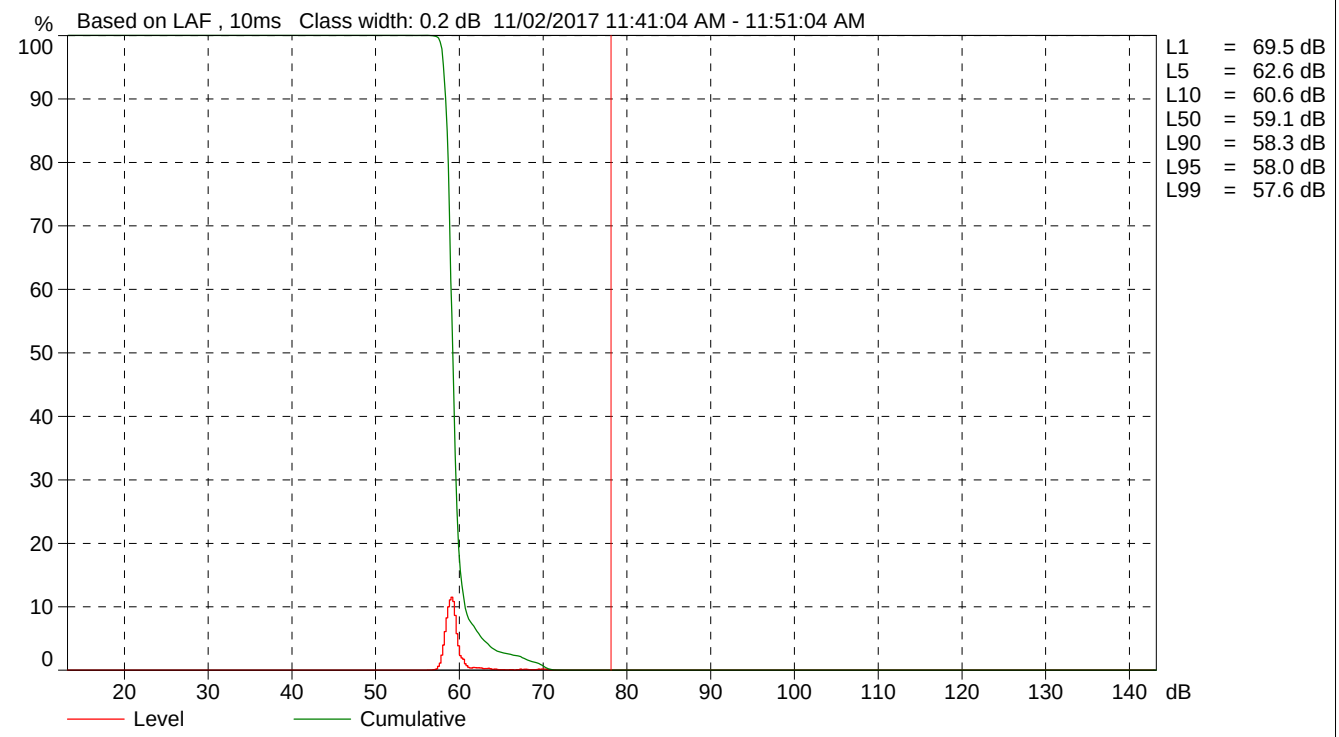

LB003 Periodic reports
Sound
dB
140
120
100
80
60
40
20
11:50:00 AM
12:00:00 PM
12:10:00 PM
12:20:00 PM
12:30:00 PM
12:40:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2017 11:41:04 AM - 12:41:04 PM LAIeq=60.9 dB LAFmax=71.5 dB LCpeak=90.1 dB LAFmin=56.2 dB

LB003 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	60.9	71.5	56.2
Time	11:41:04 AM	0:10:00				
Date	11/02/2017					



LB003 Periodic reports



Cursor: [78.0 ; 78.2[dB Level: 0.0% Cumulative: 0.0%

Site Number: 3			
Recorded By: Jessica Ditto			
Job Number: 161401			
Date: 11/2/2017			
Time: 12:00 p.m.			
Location: Redondo Avenue, approximately 200 feet north of Industry Drive			
Source of Peak Noise: Street traffic along Redondo Avenue, electrical noise from nearby electrical pole, Rossmoor Pastries parking lot noise			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
69.1	53.9	77.5	88.3

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	3/27/2017	
	Microphone	Brüel & Kjær	4189	3086765	3/27/2017	
	Preamp	Brüel & Kjær	ZC 0032	25380	3/27/2017	
	Calibrator	Brüel & Kjær	4231	2545667	3/27/2017	

Weather Data			
Est.	Duration: 10 minutes	Sky: Cloudy	
	Note: dBA Offset = 0.01	Sensor Height (ft): 5 ft	
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	<5	67	30.04

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.2
Start Time:		11/02/2017 11:59:43
End Time:		11/02/2017 12:09:43
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.04

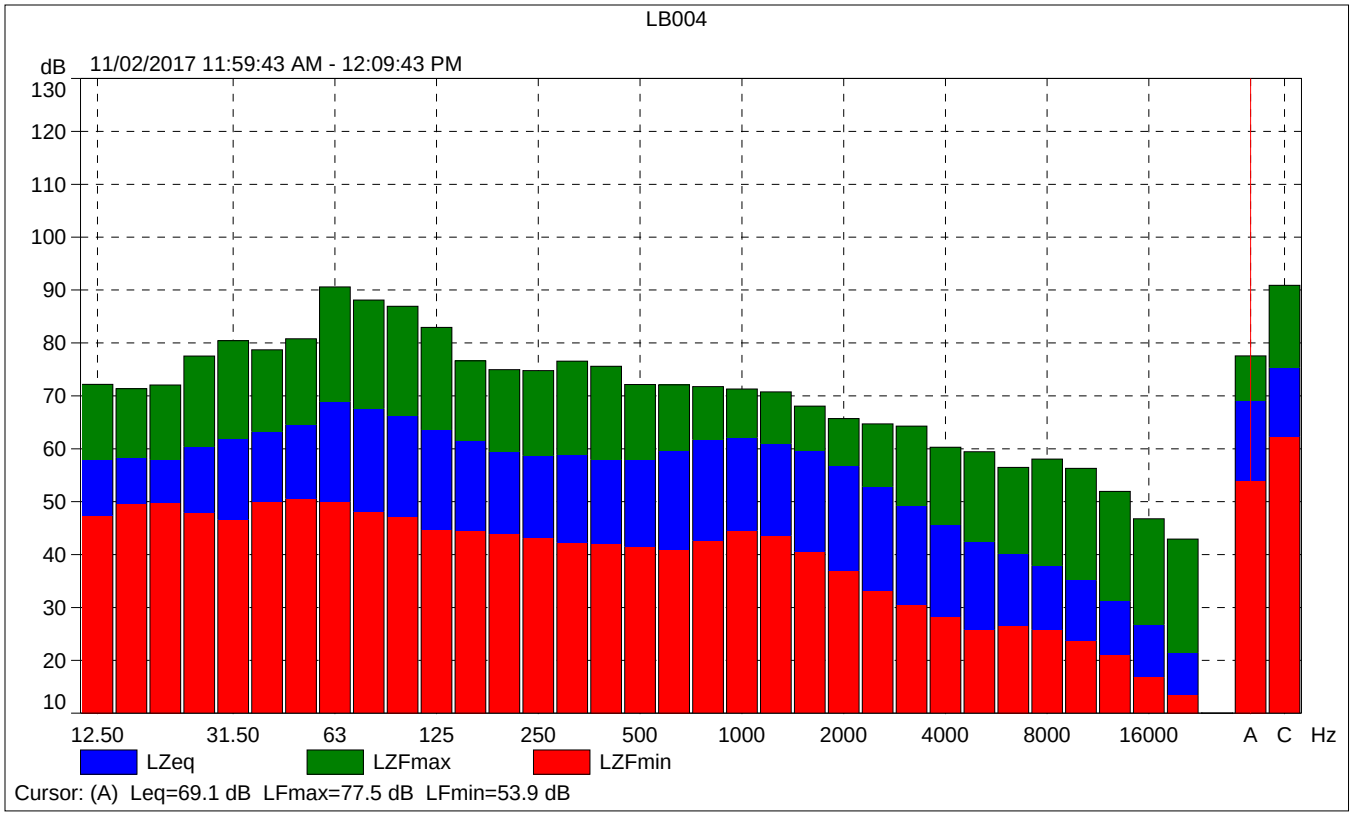
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

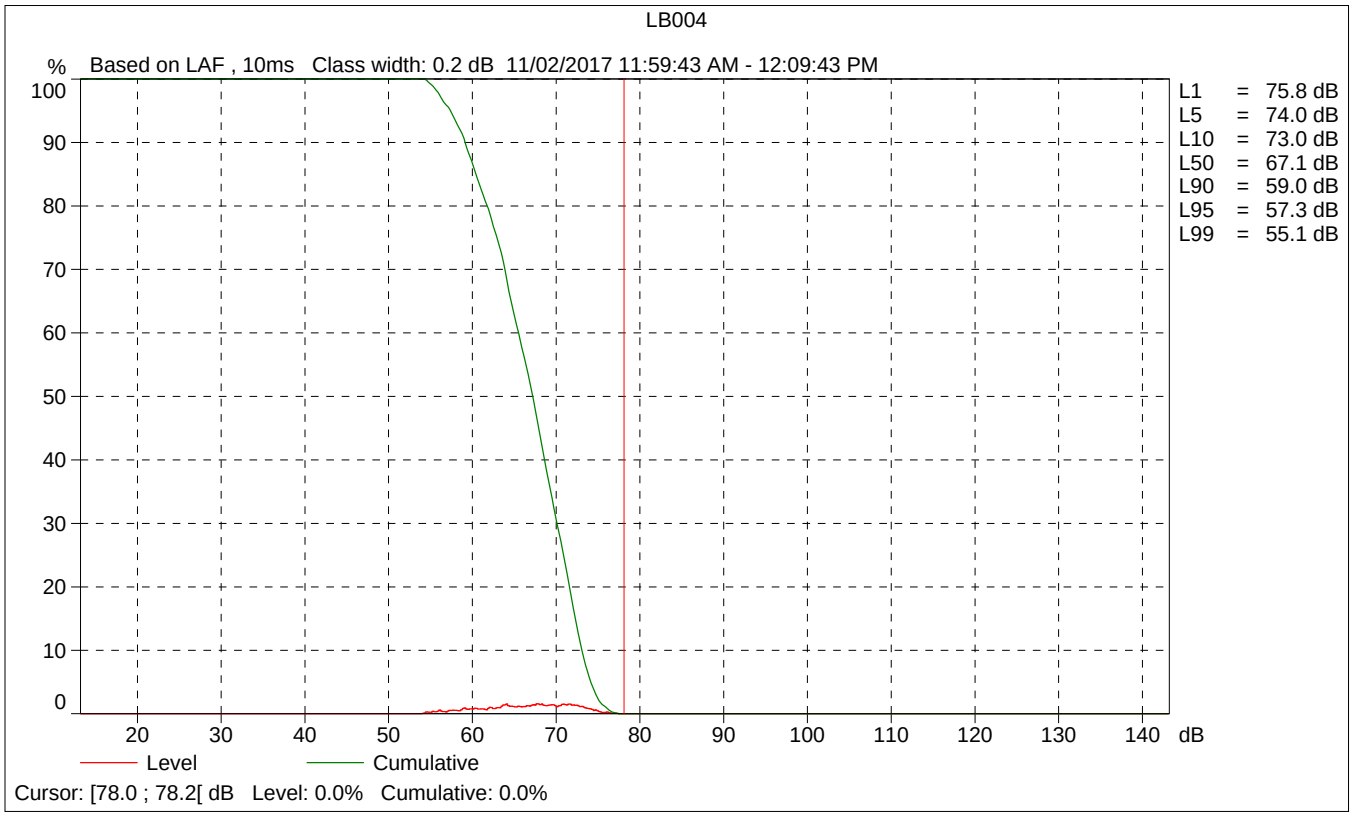
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

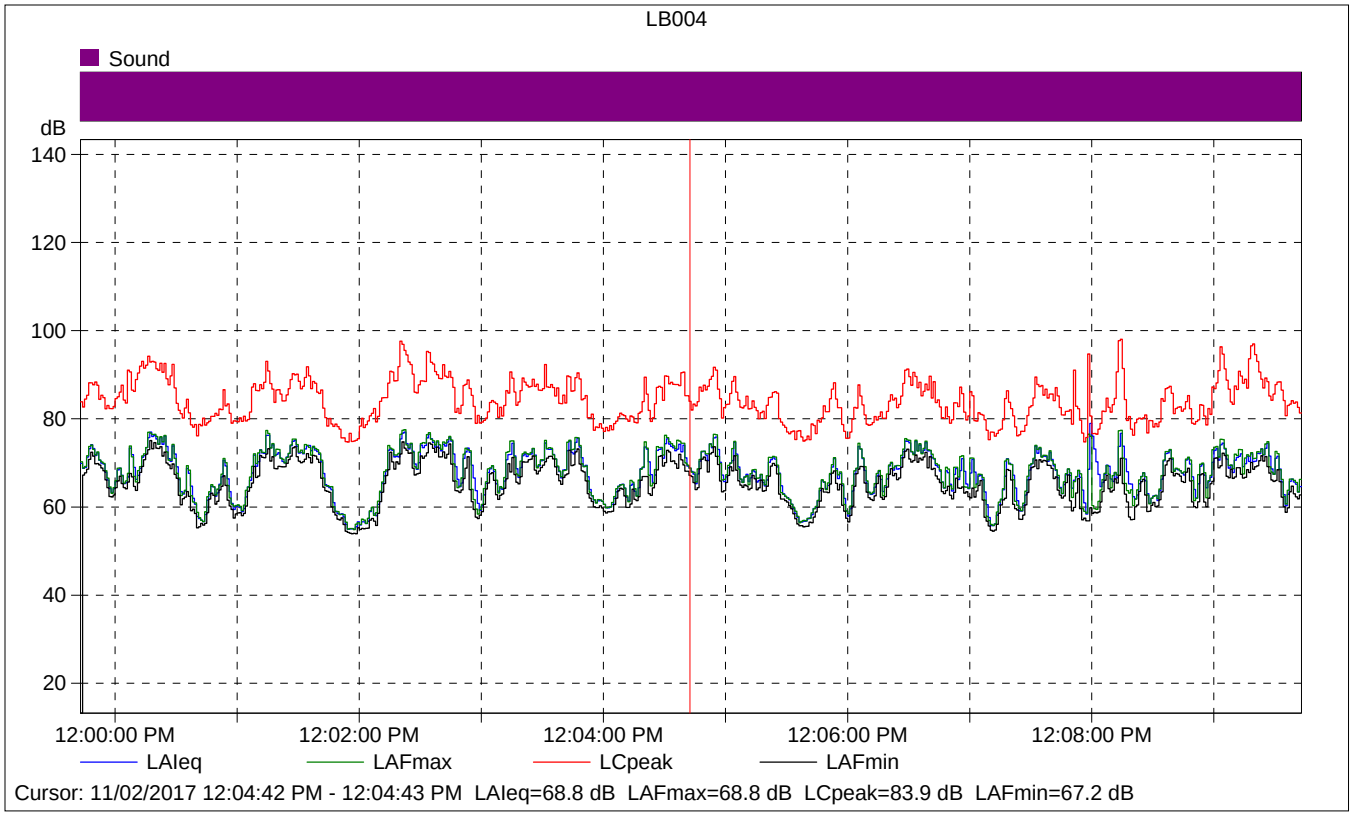
Calibration Time:		11/01/2017 09:41:43
Calibration Type:		External reference
Sensitivity:		44.0149307250977 mV/Pa

LB004

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	69.1	77.5	53.9
Time	11:59:43 AM	12:09:43 PM	0:10:00				
Date	11/02/2017	11/02/2017					

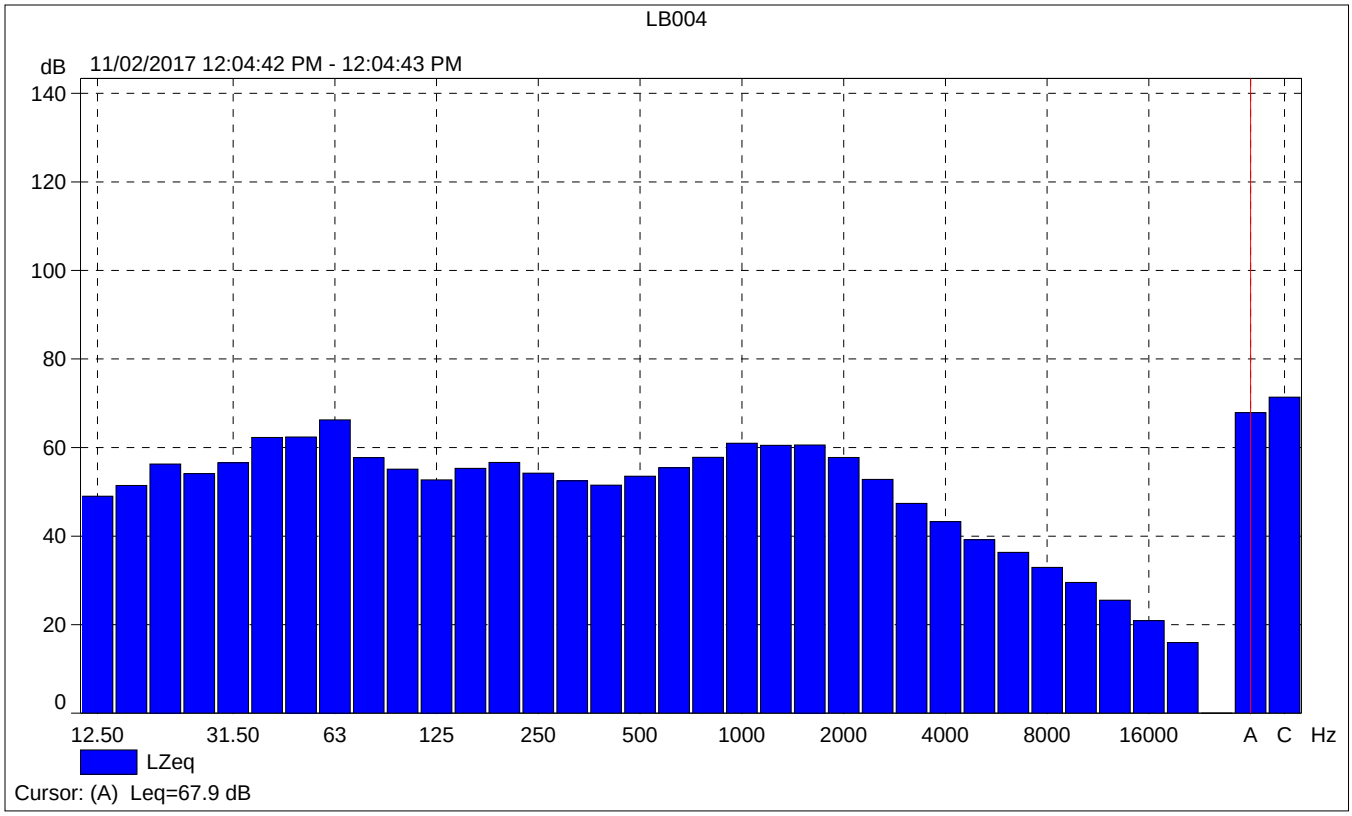

LB004
dB
11/02/2017 11:59:43 AM - 12:09:43 PM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=69.1 dB LFmax=77.5 dB LFmin=53.9 dB

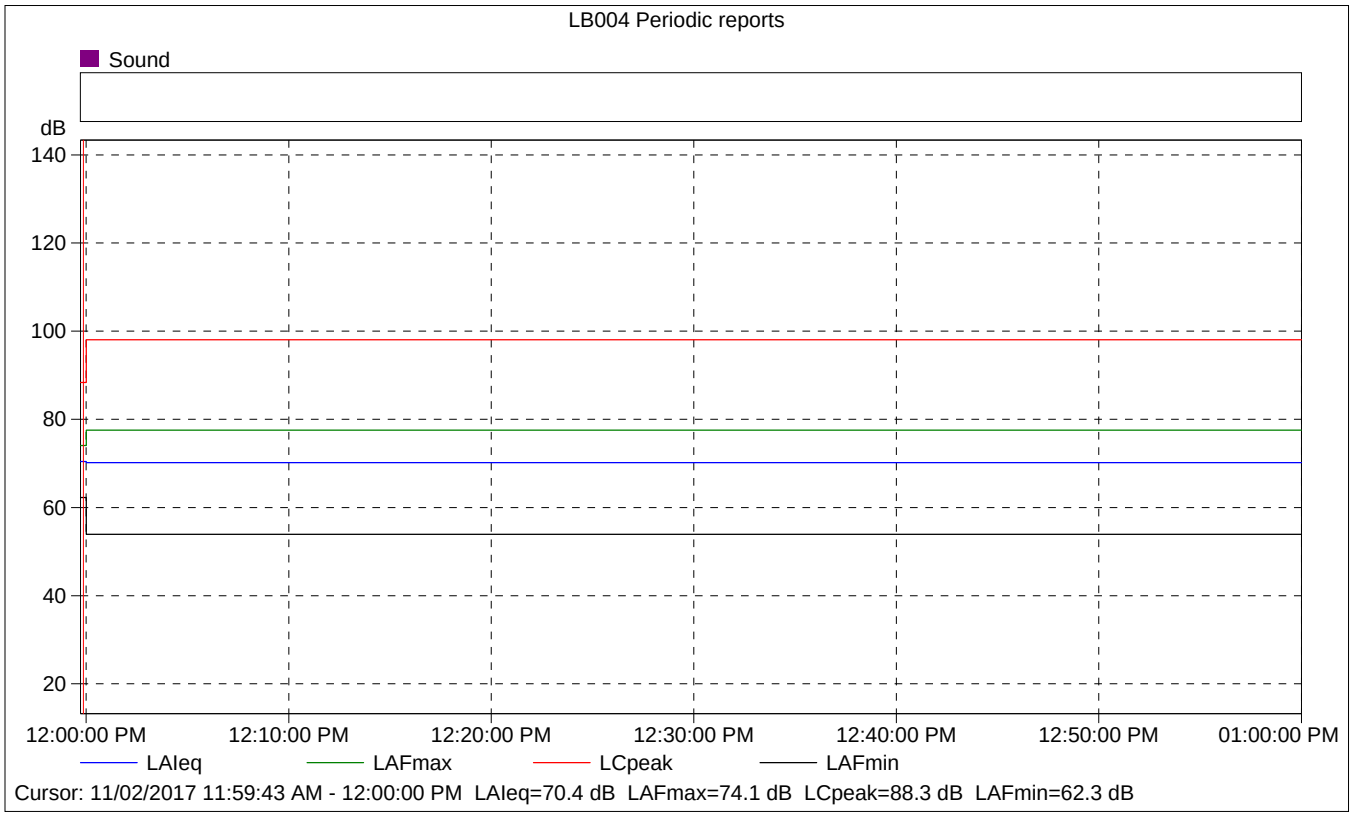

LB004
%
Based on LAF , 10ms Class width: 0.2 dB 11/02/2017 11:59:43 AM - 12:09:43 PM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 75.8 dB
L5 = 74.0 dB
L10 = 73.0 dB
L50 = 67.1 dB
L90 = 59.0 dB
L95 = 57.3 dB
L99 = 55.1 dB
Level
Cumulative
Cursor: [78.0 ; 78.2[dB Level: 0.0% Cumulative: 0.0%



LB004

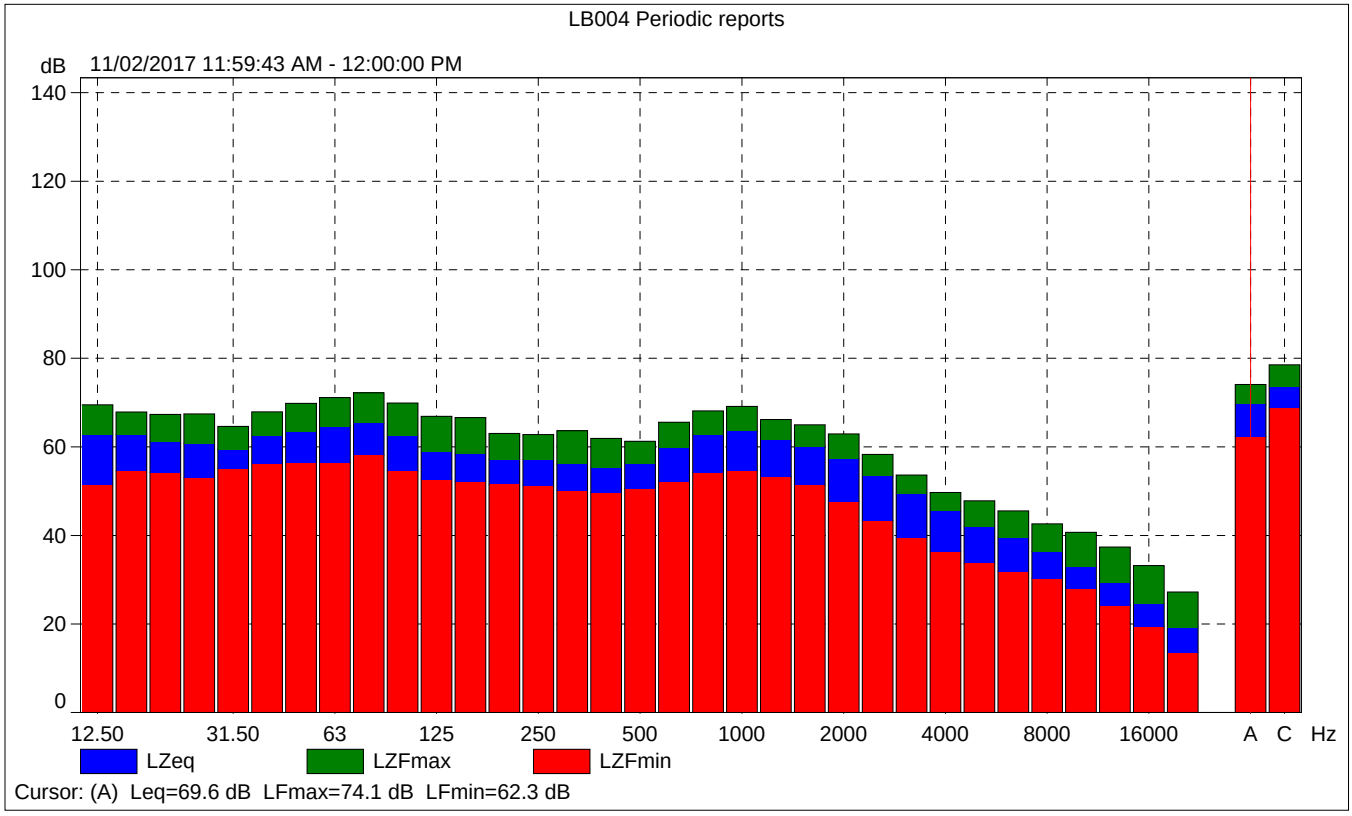
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			68.8	68.8	67.2
Time	12:04:42 PM	0:00:01			
Date	11/02/2017				


LB004
dB
11/02/2017 12:04:42 PM - 12:04:43 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=67.9 dB

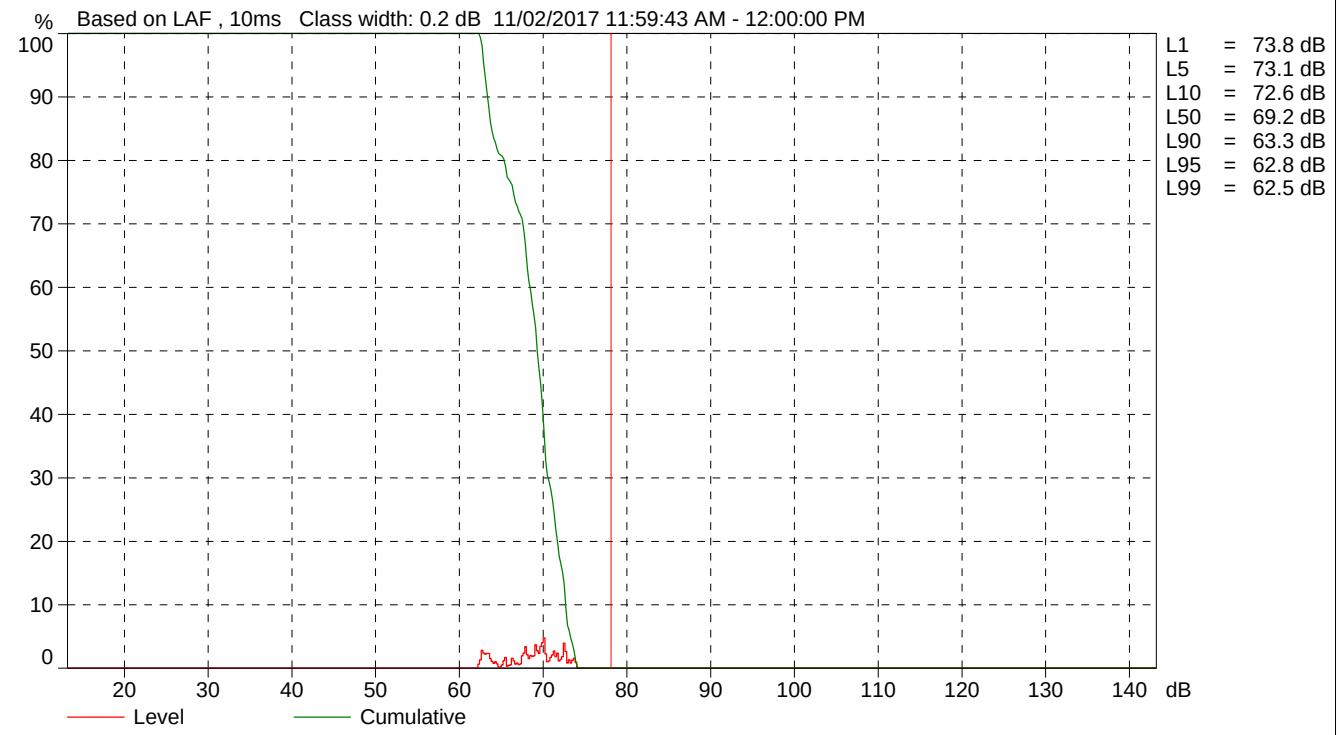

LB004 Periodic reports
Sound
dB
140
120
100
80
60
40
20
12:00:00 PM
12:10:00 PM
12:20:00 PM
12:30:00 PM
12:40:00 PM
12:50:00 PM
01:00:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2017 11:59:43 AM - 12:00:00 PM LAIeq=70.4 dB LAFmax=74.1 dB LCpeak=88.3 dB LAFmin=62.3 dB

LB004 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	70.4	74.1	62.3
Time	11:59:43 AM	0:00:17				
Date	11/02/2017					



LB004 Periodic reports



Cursor: [78.0 ; 78.2[dB Level: 0.0% Cumulative: 0.0%

Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	North of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	26,315
Peak Hour Traffic:	**2631.5**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

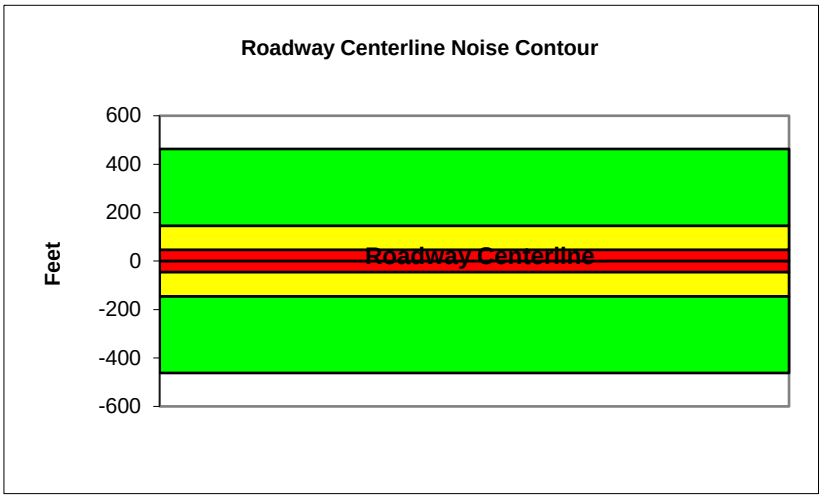
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.1	62.8	56.7	65.2	65.8
Medium Trucks:	64.5	36.7	29.2	37.9	44.1	44.1
Heavy Trucks:	69.3	33.5	30.0	34.7	42.2	42.3
Vehicle Noise:	**71.7**	**64.1**	**62.8**	**56.8**	**65.2**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	463
65 dBA	146
70 dBA	46
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	South of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	25,460
Peak Hour Traffic:	**2546**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

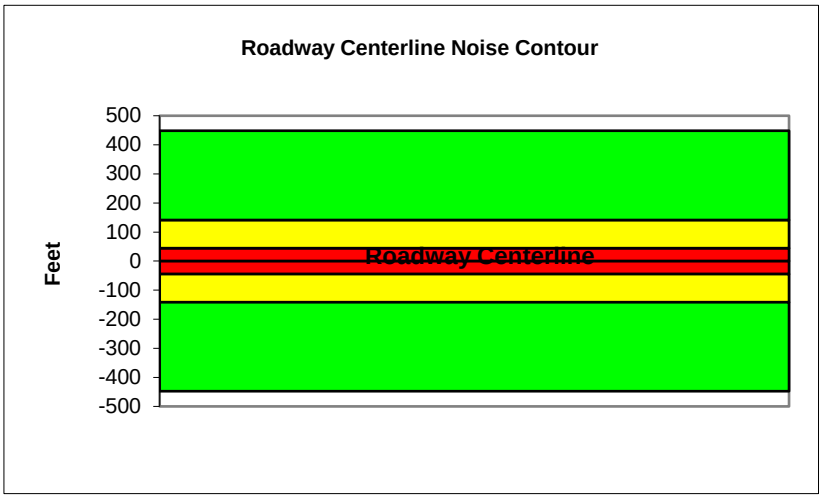
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	63.9	62.6	56.6	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	44.0
Heavy Trucks:	69.2	33.3	29.9	34.5	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.6**	**56.7**	**65.1**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	448
65 dBA	142
70 dBA	45
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	East of I-405		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	31,250
Peak Hour Traffic:	**3125**
Vehicle Speed:	40
Centerline Separation:	43

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

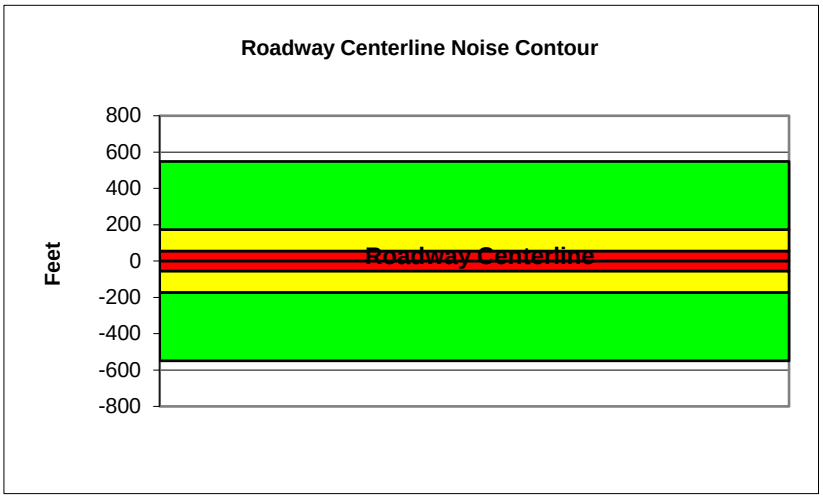
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.3	64.9	63.5	57.5	66.0	66.6
Medium Trucks:	65.3	37.5	29.9	38.7	44.9	44.9
Heavy Trucks:	70.1	34.3	30.8	35.5	43.0	43.1
Vehicle Noise:	**72.5**	**64.9**	**63.6**	**57.6**	**66.0**	**66.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	549
65 dBA	174
70 dBA	55
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	I-405 to Temple Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	32,853
Peak Hour Traffic:	**3285.3**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

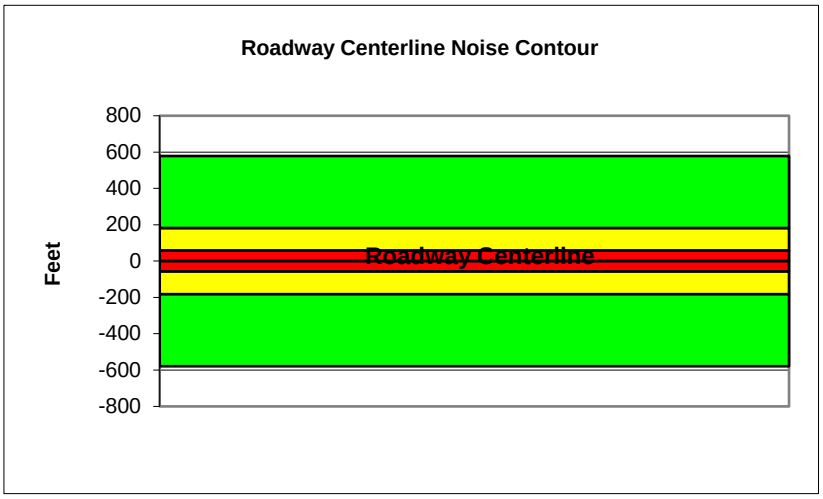
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.5	65.1	63.7	57.7	66.1	66.8
Medium Trucks:	65.5	37.6	30.1	38.8	45.0	45.1
Heavy Trucks:	70.3	34.4	31.0	35.6	43.2	43.3
Vehicle Noise:	**72.7**	**65.1**	**63.7**	**57.8**	**66.2**	**66.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	578
65 dBA	183
70 dBA	58
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	29,485
Peak Hour Traffic:	**2948.5**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

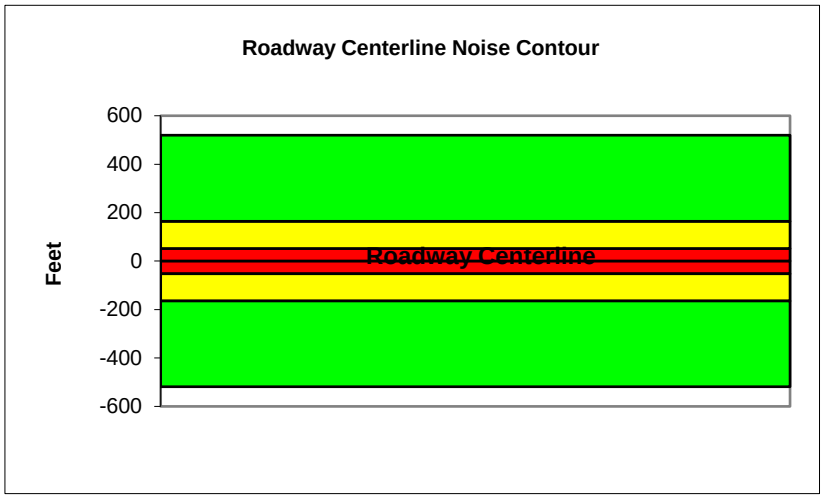
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.0	64.6	63.2	57.2	65.7	66.3
Medium Trucks:	65.0	37.2	29.7	38.4	44.6	44.6
Heavy Trucks:	69.8	34.0	30.5	35.2	42.7	42.8
Vehicle Noise:	**72.2**	**64.6**	**63.3**	**57.3**	**65.7**	**66.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	519
65 dBA	164
70 dBA	52
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	Spring Street to I-405		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8,660
Peak Hour Traffic:	**866**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

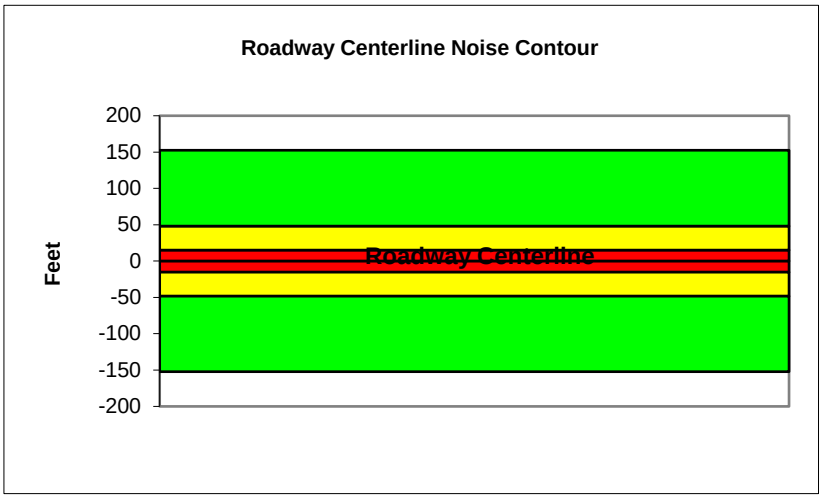
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.9	59.4	58.1	52.0	60.5	61.1
Medium Trucks:	59.8	32.0	24.5	33.2	39.4	39.4
Heavy Trucks:	64.7	28.8	25.4	30.0	37.5	37.6
Vehicle Noise:	**67.0**	**59.4**	**58.1**	**52.1**	**60.5**	**61.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	152
65 dBA	48
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	I-405 to Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	10,183
Peak Hour Traffic:	**1018.3**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

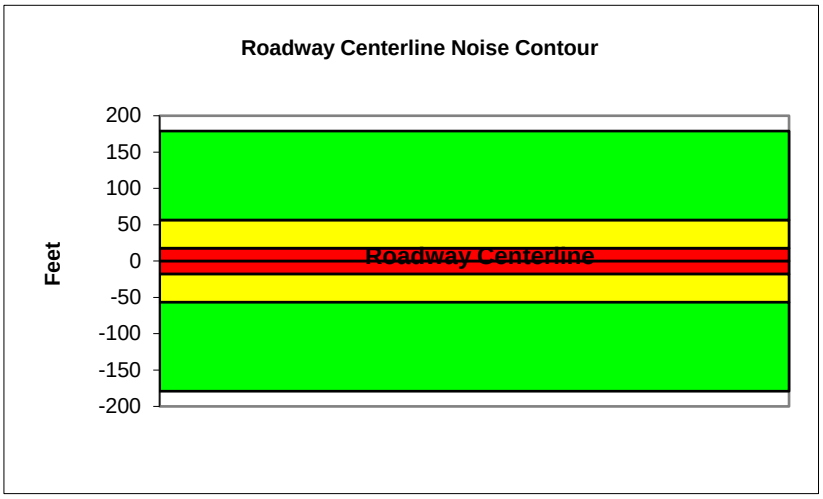
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.6	60.1	58.8	52.7	61.2	61.8
Medium Trucks:	60.5	32.7	25.2	33.9	40.1	40.1
Heavy Trucks:	65.4	29.5	26.1	30.7	38.2	38.3
Vehicle Noise:	**67.7**	**60.1**	**58.8**	**52.8**	**61.2**	**61.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	179
65 dBA	57
70 dBA	18
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Spring Street to Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	16,710
Peak Hour Traffic:	**1671**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

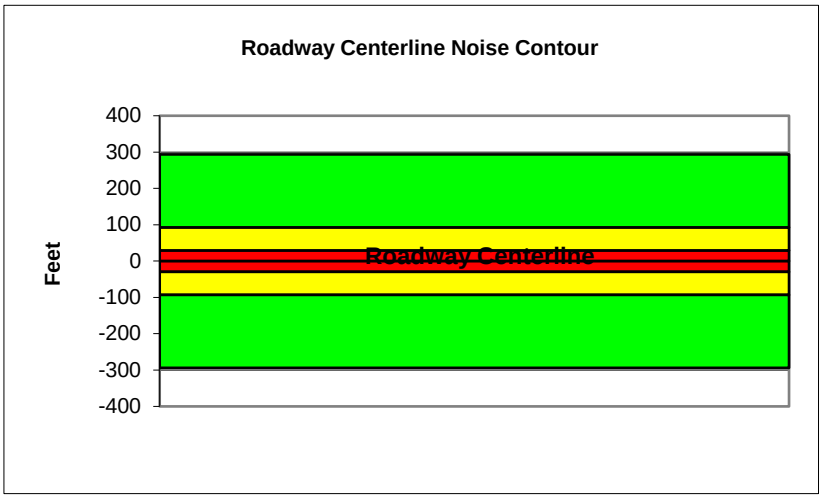
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.7	62.3	61.0	54.9	63.4	64.0
Medium Trucks:	62.7	34.9	27.4	36.1	42.3	42.3
Heavy Trucks:	67.5	31.7	28.2	32.9	40.4	40.5
Vehicle Noise:	**69.9**	**62.3**	**61.0**	**55.0**	**63.4**	**64.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	294
65 dBA	93
70 dBA	29
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	23,758
Peak Hour Traffic:	**2375.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

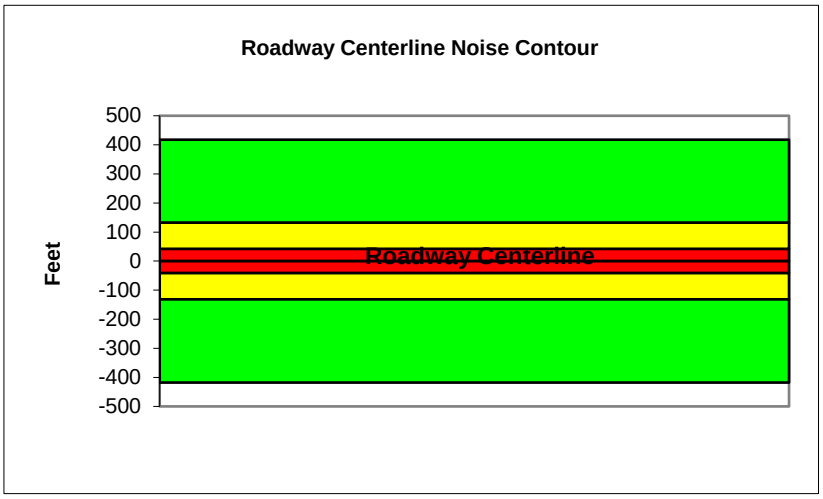
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.3	63.8	62.5	56.4	64.9	65.5
Medium Trucks:	64.2	36.4	28.9	37.6	43.8	43.8
Heavy Trucks:	69.1	33.2	29.8	34.4	41.9	42.0
Vehicle Noise:	**71.4**	**63.8**	**62.5**	**56.5**	**64.9**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	418
65 dBA	132
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Burnett Street to Project Driveway		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,485
Peak Hour Traffic:	**2448.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

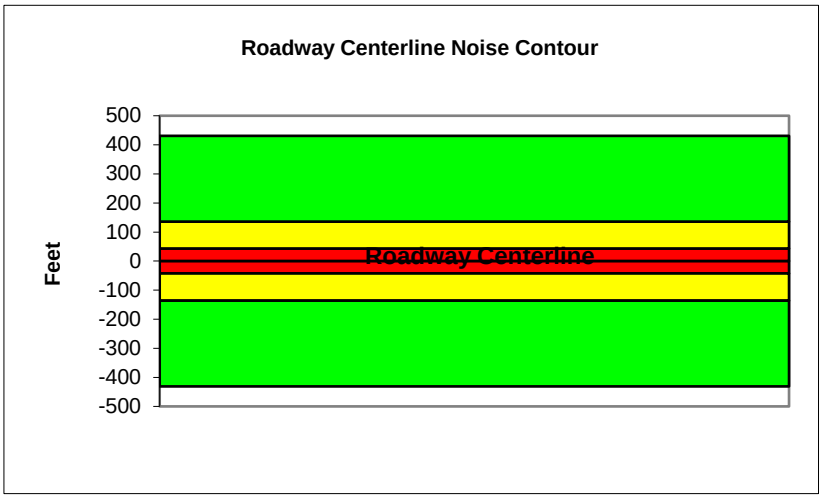
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	63.9	62.6	56.6	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	44.0
Heavy Trucks:	69.2	33.3	29.9	34.5	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.6**	**56.7**	**65.1**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	431
65 dBA	136
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Project Driveway to Industry Drive/Project Driveway		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,163
Peak Hour Traffic:	**2416.3**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

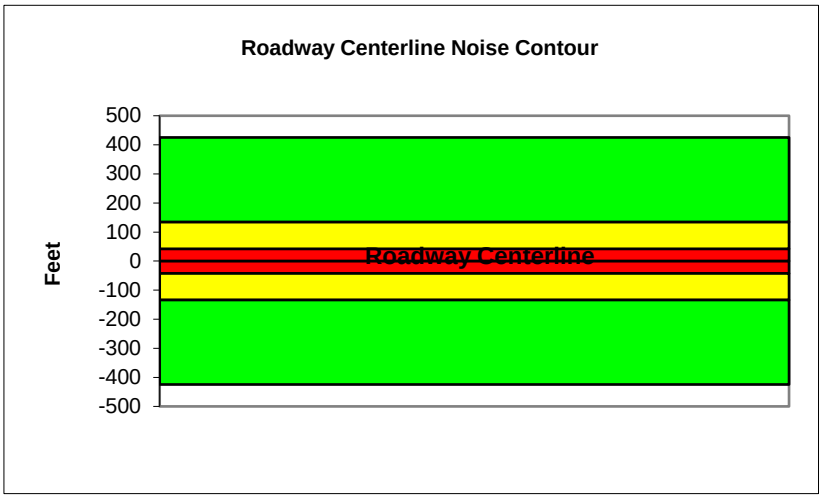
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.3	63.9	62.6	56.5	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	43.9
Heavy Trucks:	69.1	33.3	29.8	34.5	42.0	42.1
Vehicle Noise:	**71.5**	**63.9**	**62.6**	**56.6**	**65.0**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	425
65 dBA	134
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Industry Drive/Project Driveway to Hill Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,095
Peak Hour Traffic:	**2409.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

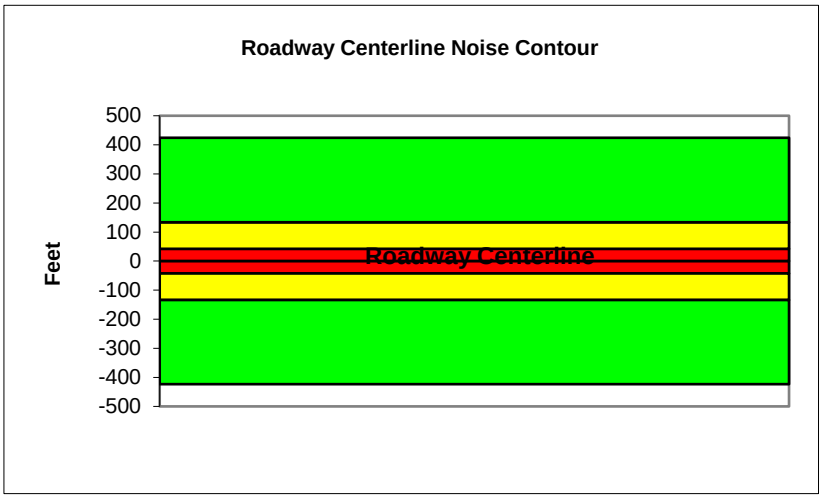
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.3	63.9	62.5	56.5	64.9	65.6
Medium Trucks:	64.3	36.5	28.9	37.7	43.8	43.9
Heavy Trucks:	69.1	33.3	29.8	34.5	42.0	42.1
Vehicle Noise:	**71.5**	**63.9**	**62.5**	**56.6**	**65.0**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	424
65 dBA	134
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Hill Street to Stearns Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,158
Peak Hour Traffic:	**2415.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

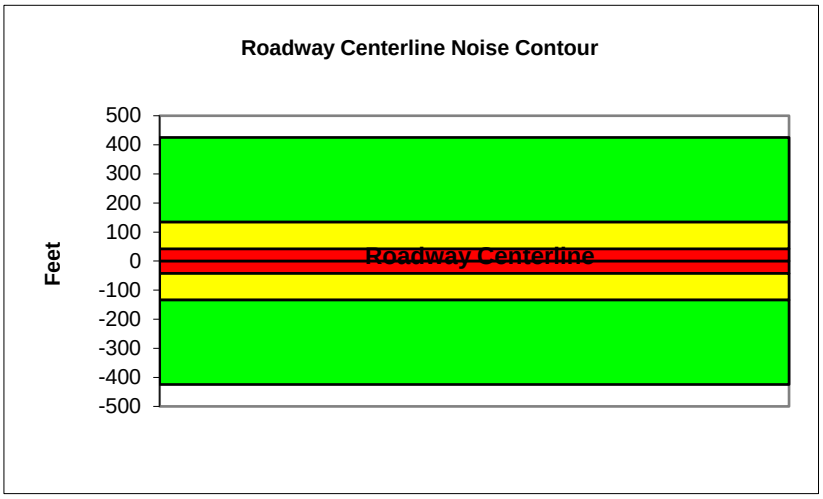
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.3	63.9	62.6	56.5	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	43.9
Heavy Trucks:	69.1	33.3	29.8	34.5	42.0	42.1
Vehicle Noise:	**71.5**	**63.9**	**62.6**	**56.6**	**65.0**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	425
65 dBA	134
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Stearns Street to Pacific Coast Highway (SR-1)		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	22,375
Peak Hour Traffic:	**2237.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

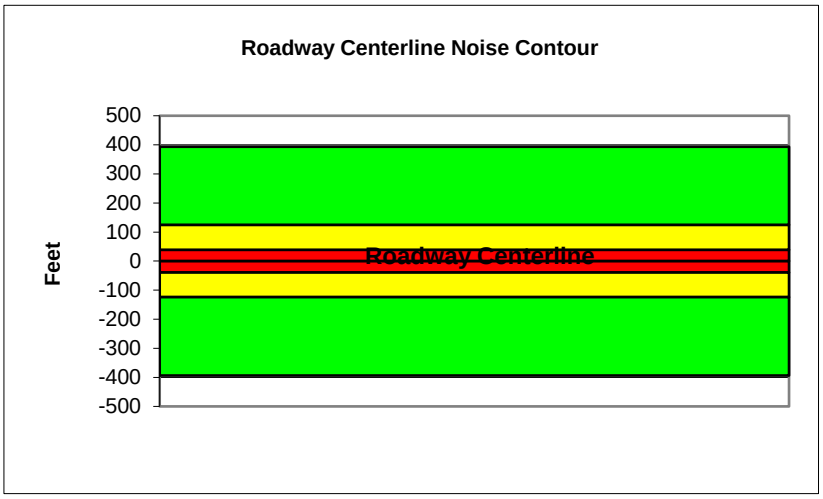
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.0	63.6	62.2	56.2	64.6	65.3
Medium Trucks:	64.0	36.1	28.6	37.3	43.5	43.6
Heavy Trucks:	68.8	32.9	29.5	34.1	41.7	41.8
Vehicle Noise:	**71.2**	**63.6**	**62.2**	**56.3**	**64.7**	**65.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	394
65 dBA	125
70 dBA	39
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Grand Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	2,405
Peak Hour Traffic:	**240.5**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

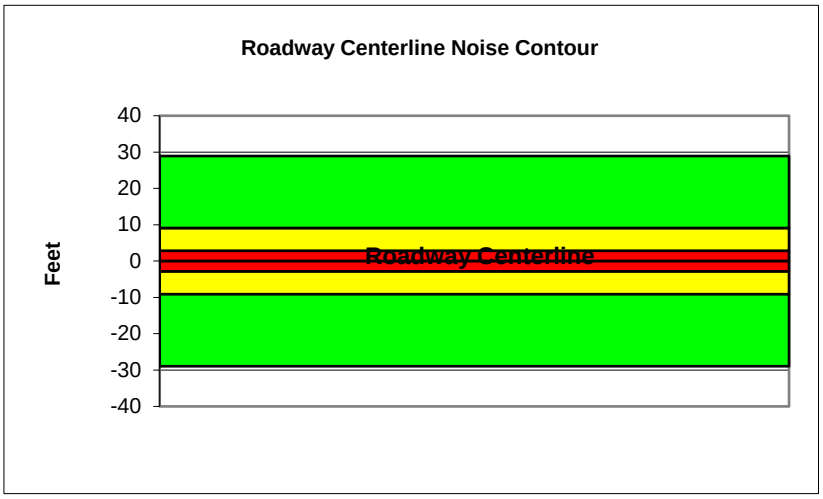
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.8	52.4	51.0	45.0	53.5	54.1
Medium Trucks:	53.5	25.7	18.2	26.9	33.1	33.2
Heavy Trucks:	58.8	22.9	19.5	24.1	31.8	31.9
Vehicle Noise:	**61.2**	**52.4**	**51.1**	**45.1**	**53.5**	**54.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	29
65 dBA	9
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	North of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	38,975
Peak Hour Traffic:	**3897.5**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

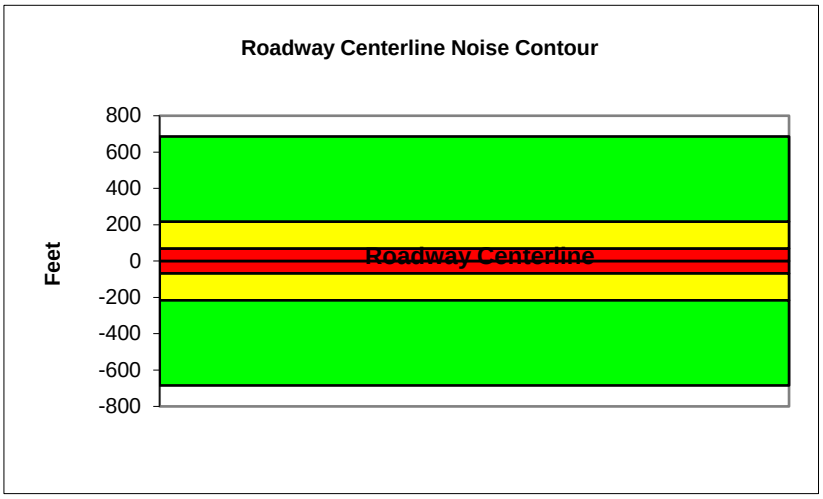
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.2	65.7	64.4	58.3	66.8	67.4
Medium Trucks:	66.1	38.3	30.8	39.5	45.7	45.7
Heavy Trucks:	71.0	35.1	31.7	36.3	43.8	43.9
Vehicle Noise:	**73.3**	**65.7**	**64.4**	**58.4**	**66.8**	**67.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	685
65 dBA	217
70 dBA	69
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	South of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	32,495
Peak Hour Traffic:	**3249.5**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

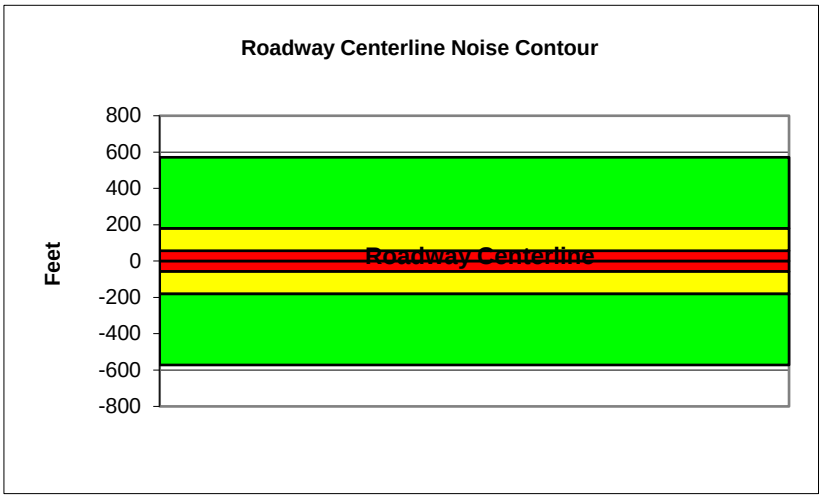
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.4	64.9	63.6	57.5	66.0	66.6
Medium Trucks:	65.3	37.5	30.0	38.7	44.9	44.9
Heavy Trucks:	70.2	34.3	30.9	35.5	43.0	43.1
Vehicle Noise:	**72.5**	**64.9**	**63.6**	**57.6**	**66.0**	**66.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	571
65 dBA	181
70 dBA	57
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Cherry Avenue to Temple Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	31,623
Peak Hour Traffic:	**3162.3**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

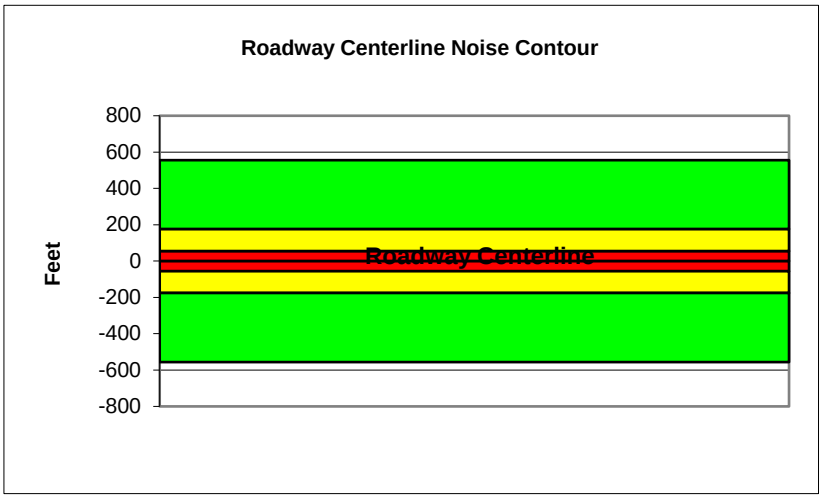
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.3	64.9	63.5	57.5	65.9	66.6
Medium Trucks:	65.3	37.4	29.9	38.6	44.8	44.9
Heavy Trucks:	70.1	34.2	30.8	35.4	43.0	43.1
Vehicle Noise:	**72.5**	**64.9**	**63.5**	**57.6**	**66.0**	**66.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	556
65 dBA	176
70 dBA	56
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,795
Peak Hour Traffic:	**2479.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

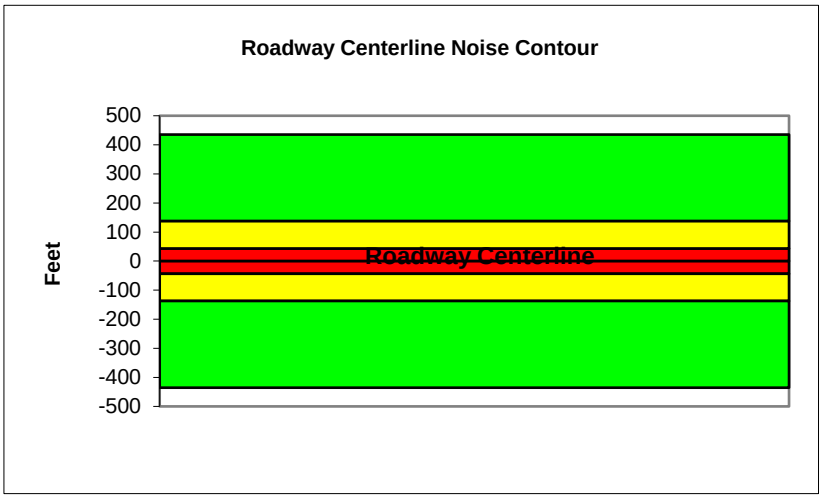
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.2	63.8	62.5	56.4	64.9	65.5
Medium Trucks:	64.2	36.4	28.9	37.6	43.8	43.8
Heavy Trucks:	69.0	33.2	29.8	34.4	41.9	42.0
Vehicle Noise:	**71.4**	**63.8**	**62.5**	**56.5**	**64.9**	**65.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	436
65 dBA	138
70 dBA	44
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	34,630
Peak Hour Traffic:	**3463**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

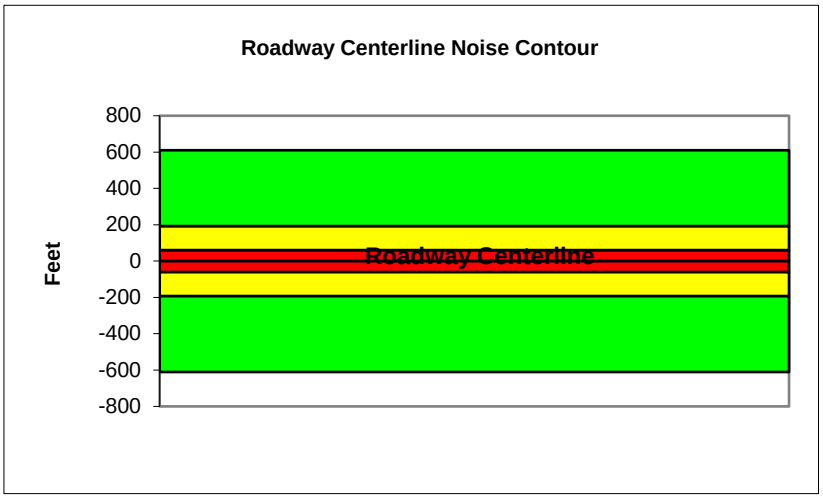
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.7	65.3	63.9	57.9	66.3	67.0
Medium Trucks:	65.7	37.8	30.3	39.0	45.2	45.3
Heavy Trucks:	70.5	34.6	31.2	35.8	43.4	43.5
Vehicle Noise:	**72.9**	**65.3**	**63.9**	**58.0**	**66.4**	**67.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	610
65 dBA	193
70 dBA	61
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Grand Avenue to Lakewood Boulevard		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	36,535
Peak Hour Traffic:	**3653.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

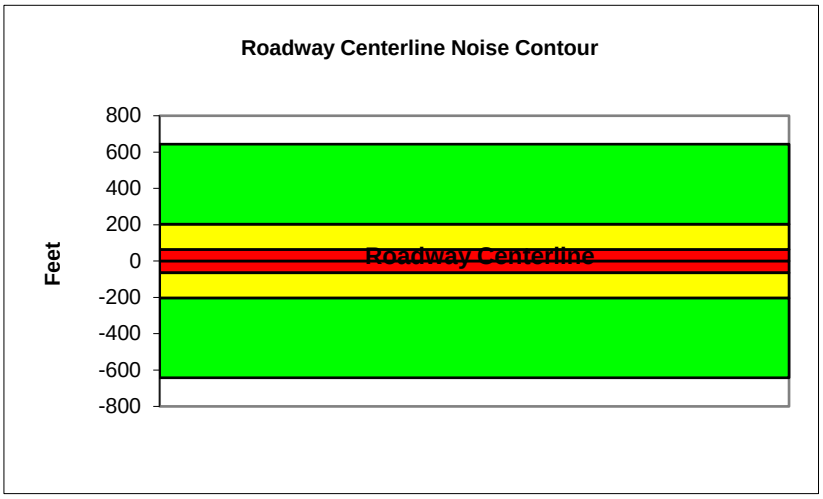
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.9	65.5	64.2	58.1	66.6	67.2
Medium Trucks:	65.9	38.1	30.6	39.3	45.5	45.5
Heavy Trucks:	70.7	34.9	31.4	36.1	43.6	43.7
Vehicle Noise:	**73.1**	**65.5**	**64.2**	**58.2**	**66.6**	**67.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	643
65 dBA	203
70 dBA	64
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Burnett Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	1,665
Peak Hour Traffic:	**166.5**
Vehicle Speed:	35
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

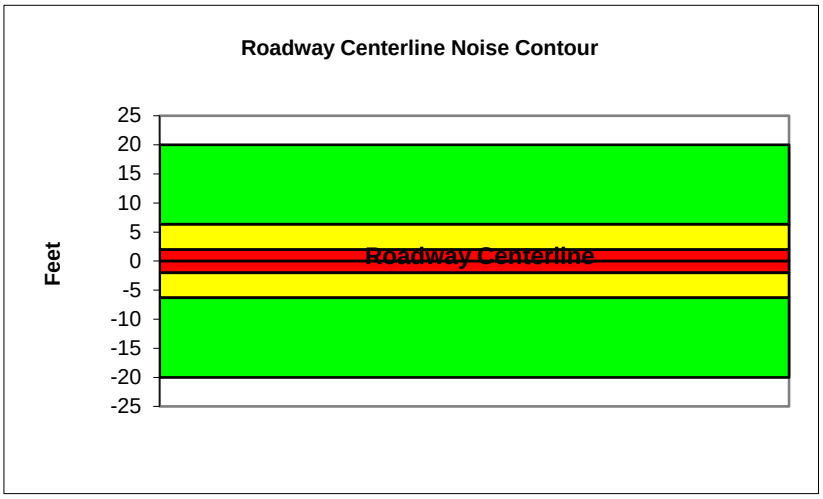
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	42.2	50.8	49.4	43.4	51.8	52.5
Medium Trucks:	51.9	24.1	16.6	25.3	31.5	31.5
Heavy Trucks:	57.1	21.3	17.8	22.5	30.2	30.3
Vehicle Noise:	**59.6**	**50.8**	**49.4**	**43.5**	**51.9**	**52.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	20
65 dBA	6
70 dBA	2
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Hill Street		
Road Segment:	West of Redondo Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	6,325
Peak Hour Traffic:	**632.5**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

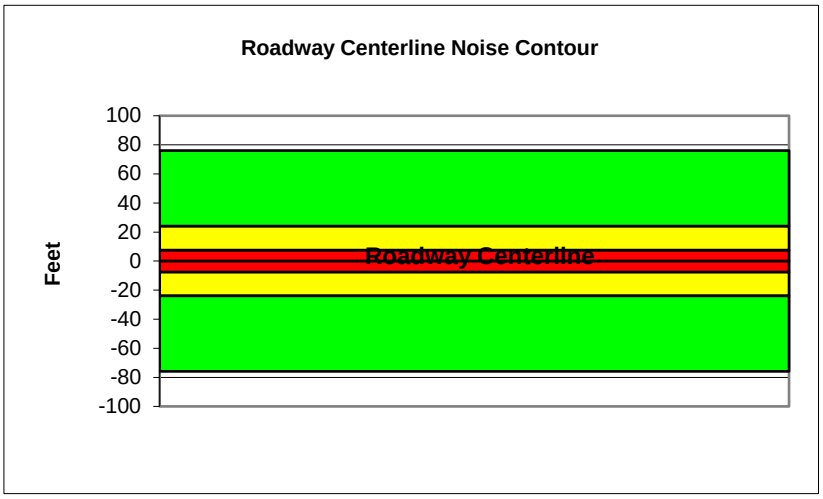
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.0	56.6	55.2	49.2	57.7	58.3
Medium Trucks:	57.7	29.9	22.4	31.1	37.3	37.4
Heavy Trucks:	63.0	27.1	23.7	28.3	36.0	36.1
Vehicle Noise:	**65.4**	**56.6**	**55.3**	**49.3**	**57.7**	**58.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	76
65 dBA	24
70 dBA	8
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Stearns Street		
Road Segment:	East of Redondo Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	7,270
Peak Hour Traffic:	**727**
Vehicle Speed:	30
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

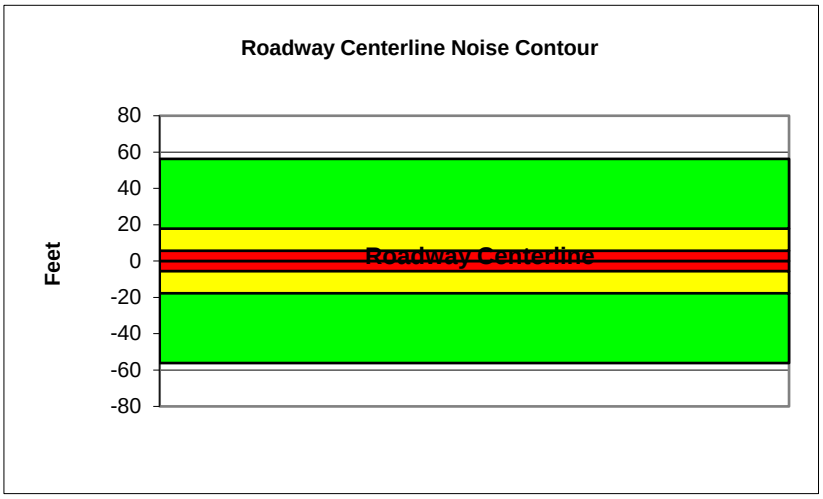
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.8	55.3	54.0	48.0	56.4	57.0
Medium Trucks:	57.4	29.6	22.0	30.8	36.9	37.0
Heavy Trucks:	63.0	27.2	23.7	28.4	36.3	36.4
Vehicle Noise:	**65.6**	**55.4**	**54.0**	**48.1**	**56.5**	**57.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	56
65 dBA	18
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	East of Redondo Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	30,895
Peak Hour Traffic:	**3089.5**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

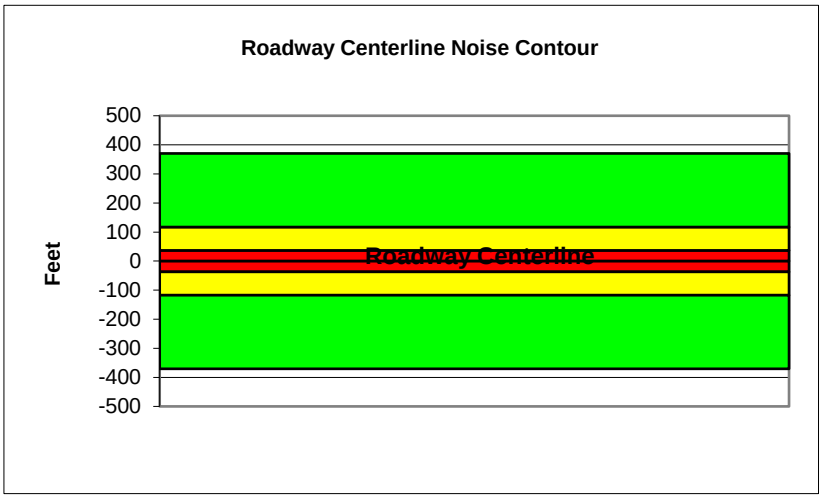
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.7	63.2	61.9	55.8	64.3	64.9
Medium Trucks:	64.4	36.6	29.0	37.8	43.9	44.0
Heavy Trucks:	69.6	33.7	30.3	34.9	42.7	42.7
Vehicle Noise:	**72.0**	**63.2**	**61.9**	**55.9**	**64.3**	**65.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	371
65 dBA	117
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	West of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	29,250
Peak Hour Traffic:	**2925**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

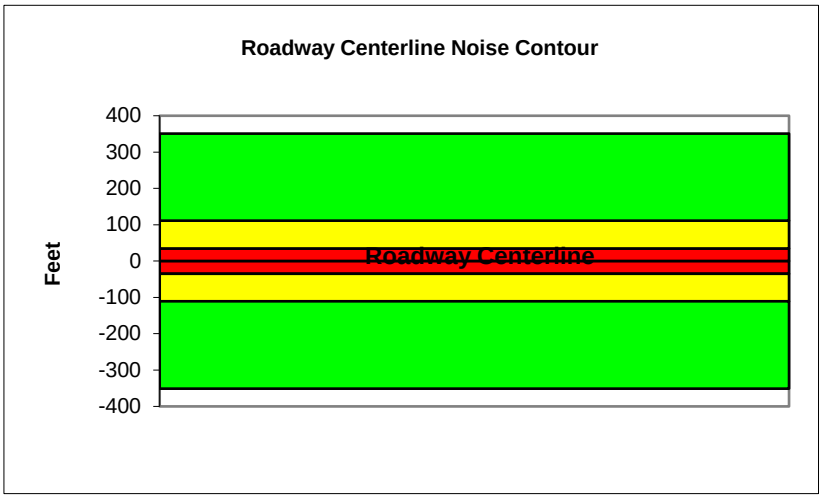
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.4	63.0	61.6	55.6	64.0	64.7
Medium Trucks:	64.1	36.3	28.8	37.5	43.7	43.7
Heavy Trucks:	69.4	33.5	30.1	34.7	42.4	42.5
Vehicle Noise:	**71.8**	**63.0**	**61.6**	**55.7**	**64.1**	**64.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	351
65 dBA	111
70 dBA	35
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	North of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	0		
Barrier (0=wall, 1= berm):	0		
Receiver Barrier Dist:	0		
Centerline Dist. To Observer:	100		
Barrier Near Lane CL Dist:	0		
Barrier Far lane CL Dist:	0		
Pad Elevation:	0.5		
Road Elevation:	0		
Observer Height (above grade):	0		
Barrier Height:	0		
Rt View:	90	Lft View:	-90

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	0
Medium Trucks:	2.3
Heavy Trucks:	8

SITE DATA	
Road Grade:	0
Average Daily Traffic:	26,630
Peak Hour Traffic:	**2663**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

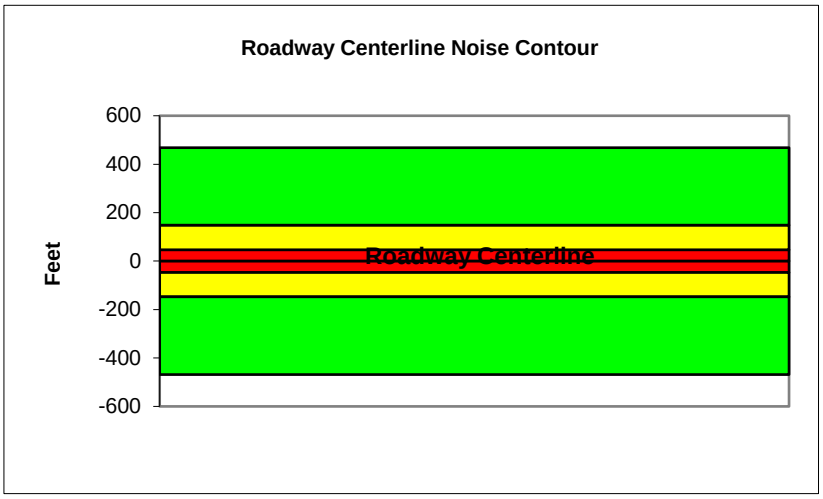
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.6	64.1	62.8	56.8	65.2	65.8
Medium Trucks:	64.5	36.7	29.2	37.9	44.1	44.1
Heavy Trucks:	69.4	33.5	30.1	34.7	42.3	42.4
Vehicle Noise:	**71.8**	**64.2**	**62.8**	**56.9**	**65.3**	**65.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	468
65 dBA	148
70 dBA	47
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	South of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	25,460
Peak Hour Traffic:	**2546**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

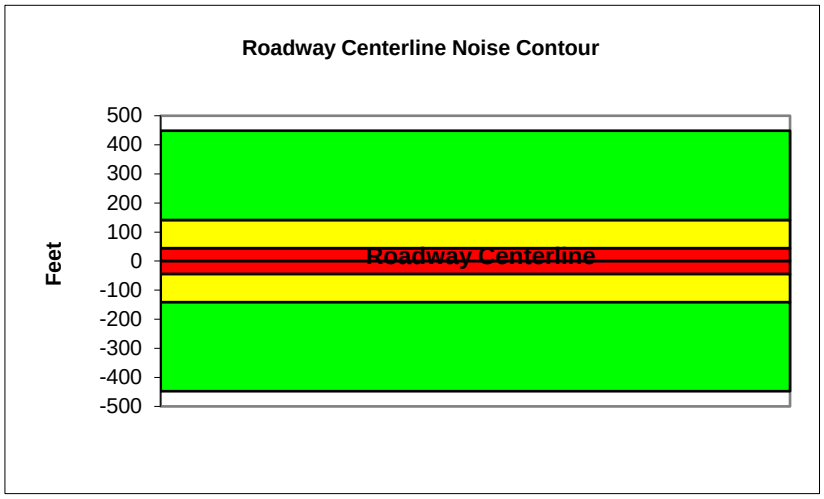
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	63.9	62.6	56.6	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	44.0
Heavy Trucks:	69.2	33.3	29.9	34.5	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.6**	**56.7**	**65.1**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	448
65 dBA	142
70 dBA	45
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	East of I-405		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	31,580
Peak Hour Traffic:	**3158**
Vehicle Speed:	40
Centerline Separation:	43

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

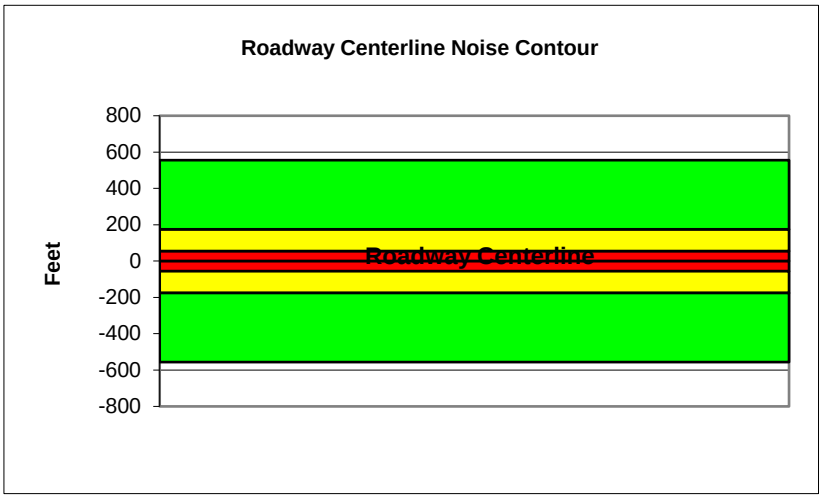
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.4	64.9	63.6	57.6	66.0	66.6
Medium Trucks:	65.3	37.5	30.0	38.7	44.9	44.9
Heavy Trucks:	70.2	34.3	30.9	35.5	43.0	43.1
Vehicle Noise:	**72.5**	**64.9**	**63.6**	**57.6**	**66.1**	**66.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	556
65 dBA	176
70 dBA	56
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	I-405 to Temple Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	33,395
Peak Hour Traffic:	**3339.5**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

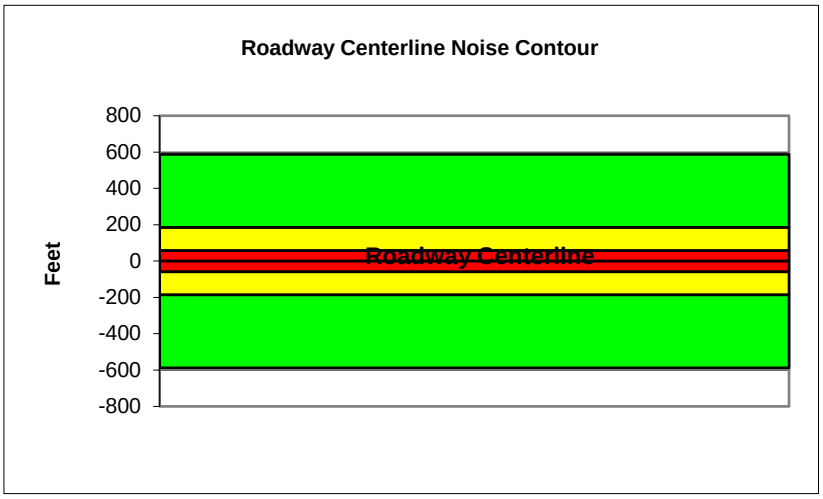
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.6	65.1	63.8	57.7	66.2	66.8
Medium Trucks:	65.5	37.7	30.2	38.9	45.1	45.1
Heavy Trucks:	70.4	34.5	31.1	35.7	43.2	43.3
Vehicle Noise:	**72.7**	**65.1**	**63.8**	**57.8**	**66.3**	**66.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	588
65 dBA	186
70 dBA	59
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	30,058
Peak Hour Traffic:	**3005.8**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

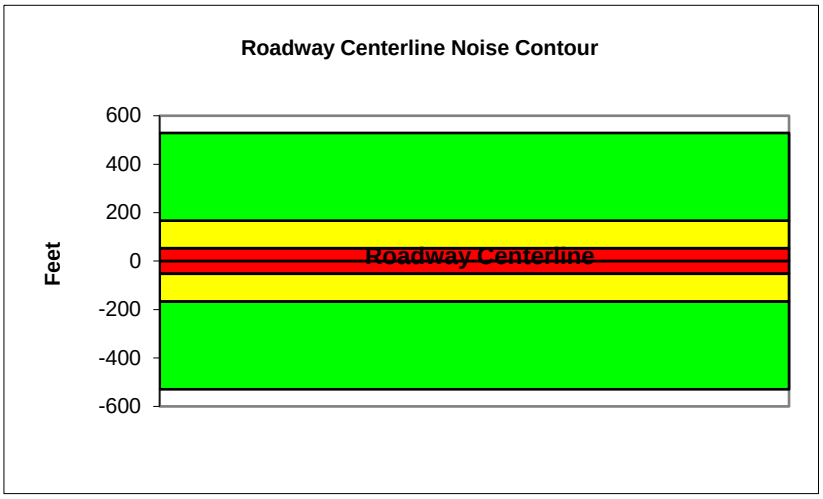
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.1	64.7	63.3	57.3	65.7	66.4
Medium Trucks:	65.1	37.3	29.7	38.5	44.6	44.7
Heavy Trucks:	69.9	34.0	30.6	35.2	42.8	42.9
Vehicle Noise:	**72.3**	**64.7**	**63.3**	**57.4**	**65.8**	**66.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	529
65 dBA	167
70 dBA	53
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	Spring Street to I-405		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8,970
Peak Hour Traffic:	**897**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

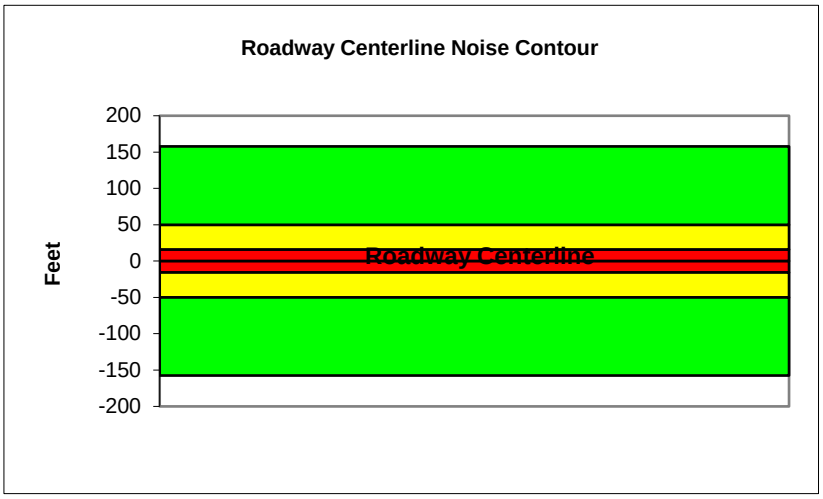
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.0	59.6	58.2	52.2	60.6	61.3
Medium Trucks:	60.0	32.2	24.6	33.4	39.5	39.6
Heavy Trucks:	64.8	28.9	25.5	30.1	37.7	37.8
Vehicle Noise:	**67.2**	**59.6**	**58.2**	**52.3**	**60.7**	**61.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	158
65 dBA	50
70 dBA	16
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	I-405 to Willow Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	10,570
Peak Hour Traffic:	**1057**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

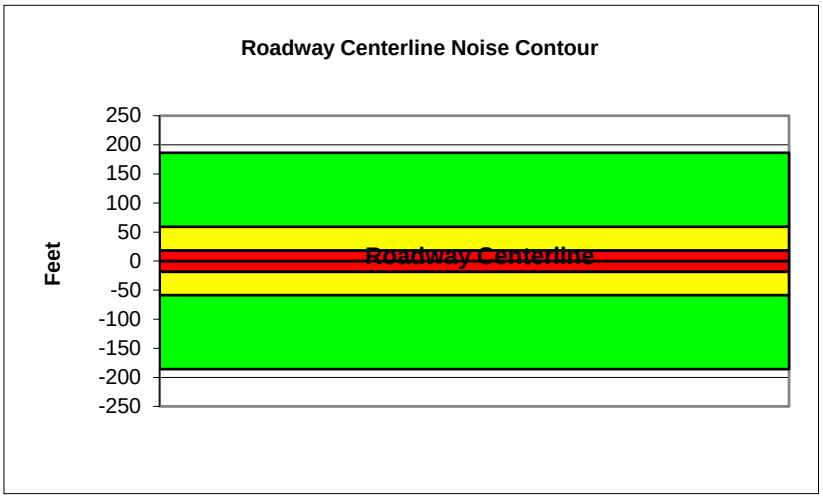
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.7	60.3	58.9	52.9	61.4	62.0
Medium Trucks:	60.7	32.9	25.3	34.1	40.3	40.3
Heavy Trucks:	65.5	29.7	26.2	30.9	38.4	38.5
Vehicle Noise:	**67.9**	**60.3**	**59.0**	**53.0**	**61.4**	**62.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	186
65 dBA	59
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Spring Street to Willow Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	17,400
Peak Hour Traffic:	**1740**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

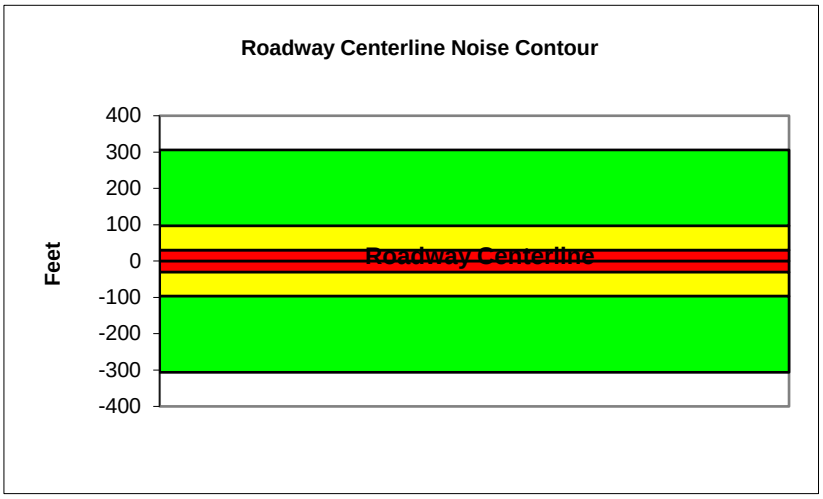
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.9	62.5	61.1	55.1	63.5	64.2
Medium Trucks:	62.9	35.1	27.5	36.3	42.4	42.5
Heavy Trucks:	67.7	31.8	28.4	33.0	40.6	40.7
Vehicle Noise:	**70.1**	**62.5**	**61.1**	**55.2**	**63.6**	**64.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	306
65 dBA	97
70 dBA	31
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	26,588
Peak Hour Traffic:	**2658.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

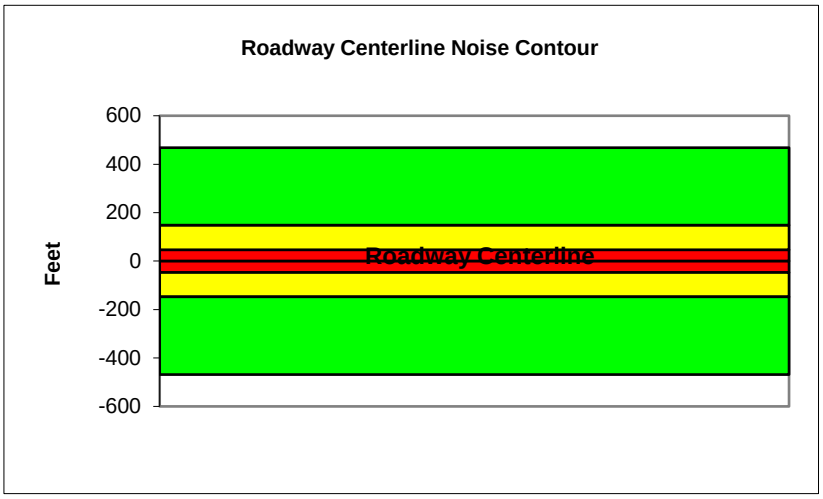
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.7	64.3	63.0	56.9	65.4	66.0
Medium Trucks:	64.7	36.9	29.4	38.1	44.3	44.3
Heavy Trucks:	69.5	33.7	30.3	34.9	42.4	42.5
Vehicle Noise:	**71.9**	**64.3**	**63.0**	**57.0**	**65.4**	**66.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	468
65 dBA	148
70 dBA	47
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Burnett Street to Project Driveway		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	26,655
Peak Hour Traffic:	**2665.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

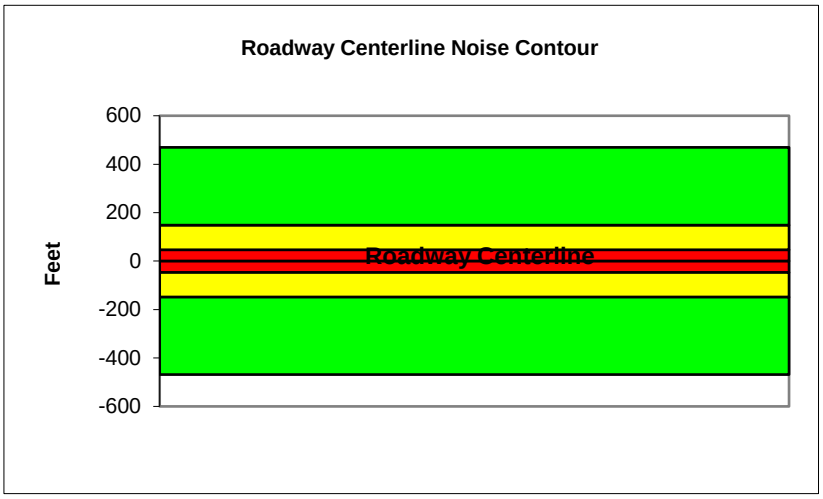
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.8	64.3	63.0	56.9	65.4	66.0
Medium Trucks:	64.7	36.9	29.4	38.1	44.3	44.3
Heavy Trucks:	69.6	33.7	30.3	34.9	42.4	42.5
Vehicle Noise:	**71.9**	**64.3**	**63.0**	**57.0**	**65.4**	**66.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	469
65 dBA	148
70 dBA	47
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Project Driveway to Industry Drive/Project Driveway		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25,610
Peak Hour Traffic:	**2561**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

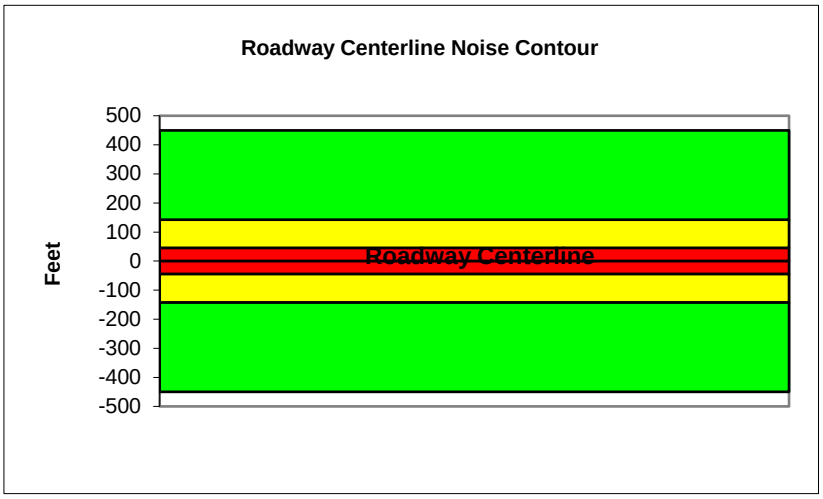
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.6	64.1	62.8	56.8	65.2	65.8
Medium Trucks:	64.5	36.7	29.2	37.9	44.1	44.1
Heavy Trucks:	69.4	33.5	30.1	34.7	42.3	42.4
Vehicle Noise:	**71.8**	**64.2**	**62.8**	**56.9**	**65.3**	**65.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	450
65 dBA	142
70 dBA	45
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Industry Drive/Project Driveway to Hill Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	24,815
Peak Hour Traffic:	**2481.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

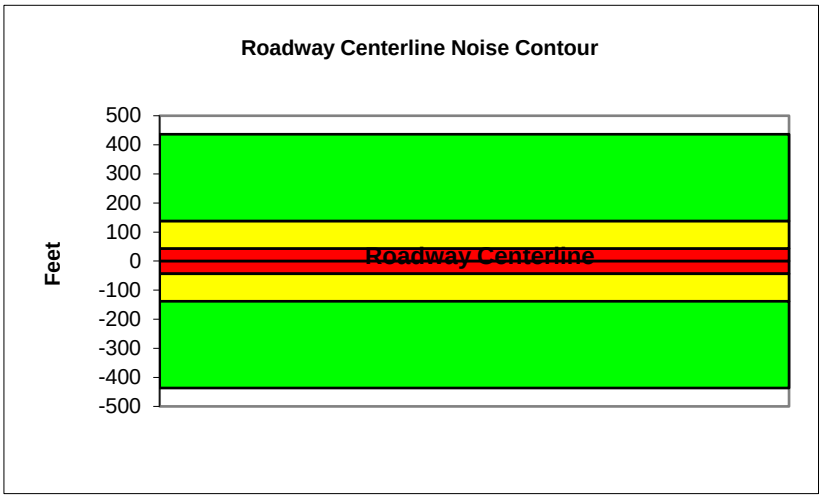
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.0	62.7	56.6	65.1	65.7
Medium Trucks:	64.4	36.6	29.1	37.8	44.0	44.0
Heavy Trucks:	69.2	33.4	30.0	34.6	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.7**	**56.7**	**65.1**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	437
65 dBA	138
70 dBA	44
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Hill Street to Stearns Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	24,878
Peak Hour Traffic:	**2487.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

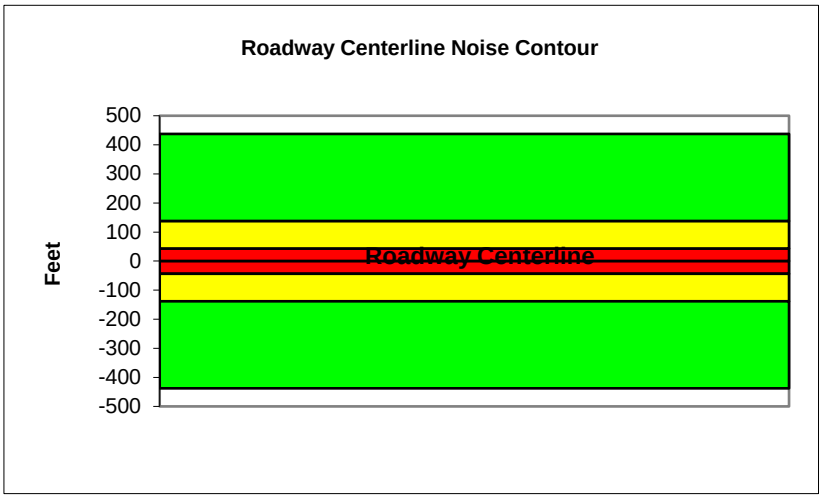
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.0	62.7	56.6	65.1	65.7
Medium Trucks:	64.4	36.6	29.1	37.8	44.0	44.0
Heavy Trucks:	69.3	33.4	30.0	34.6	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.7**	**56.7**	**65.1**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	438
65 dBA	138
70 dBA	44
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Stearns Street to Pacific Coast Highway (SR-1)		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	22,975
Peak Hour Traffic:	**2297.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

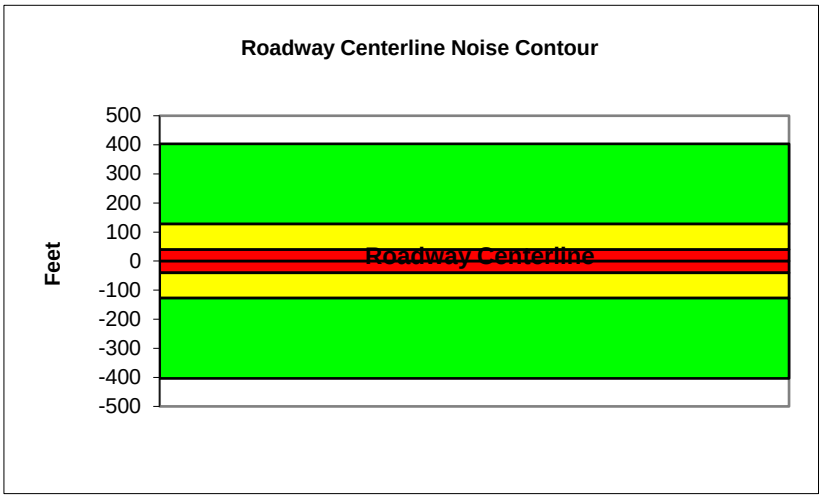
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.7	62.3	56.3	64.7	65.4
Medium Trucks:	64.1	36.3	28.7	37.5	43.6	43.7
Heavy Trucks:	68.9	33.0	29.6	34.2	41.8	41.9
Vehicle Noise:	**71.3**	**63.7**	**62.3**	**56.4**	**64.8**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	404
65 dBA	128
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Grand Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2,635
Peak Hour Traffic:	**263.5**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

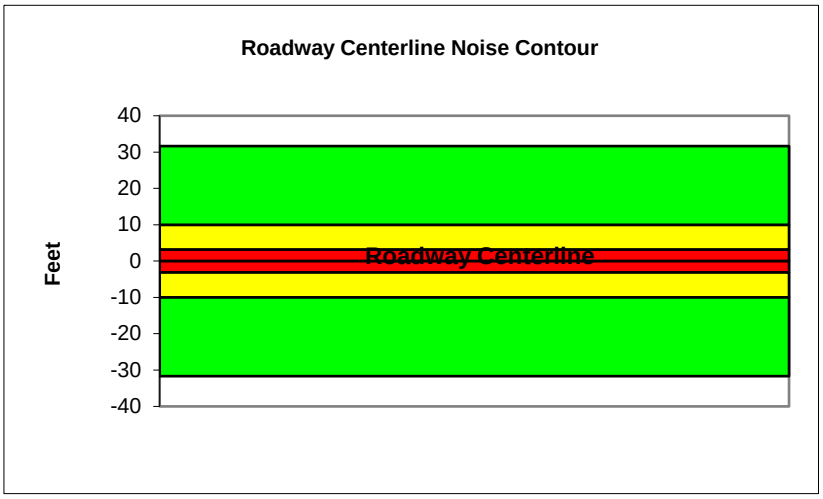
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.2	52.8	51.4	45.4	53.9	54.5
Medium Trucks:	53.9	26.1	18.6	27.3	33.5	33.6
Heavy Trucks:	59.2	23.3	19.9	24.5	32.2	32.3
Vehicle Noise:	**61.6**	**52.8**	**51.5**	**45.5**	**53.9**	**54.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	32
65 dBA	10
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	North of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	39,700
Peak Hour Traffic:	**3970**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

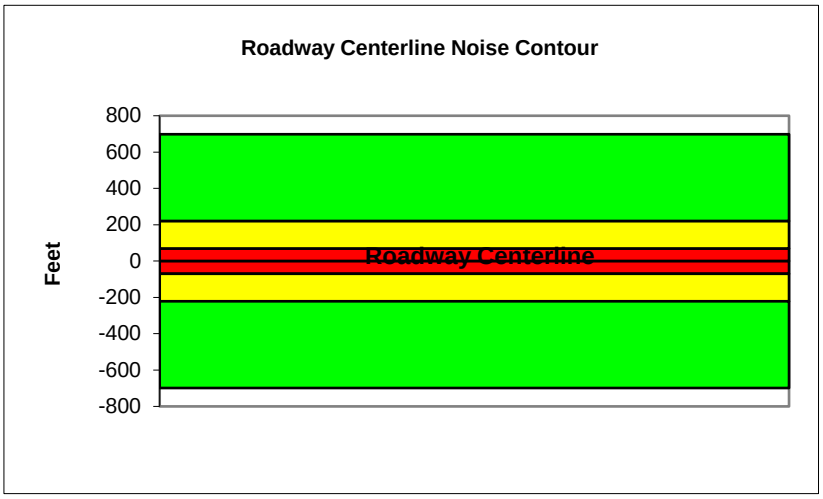
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.2	65.8	64.5	58.4	66.9	67.5
Medium Trucks:	66.2	38.4	30.9	39.6	45.8	45.8
Heavy Trucks:	71.0	35.2	31.7	36.4	43.9	44.0
Vehicle Noise:	**73.4**	**65.8**	**64.5**	**58.5**	**66.9**	**67.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	698
65 dBA	221
70 dBA	70
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	South of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	32,495
Peak Hour Traffic:	**3249.5**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

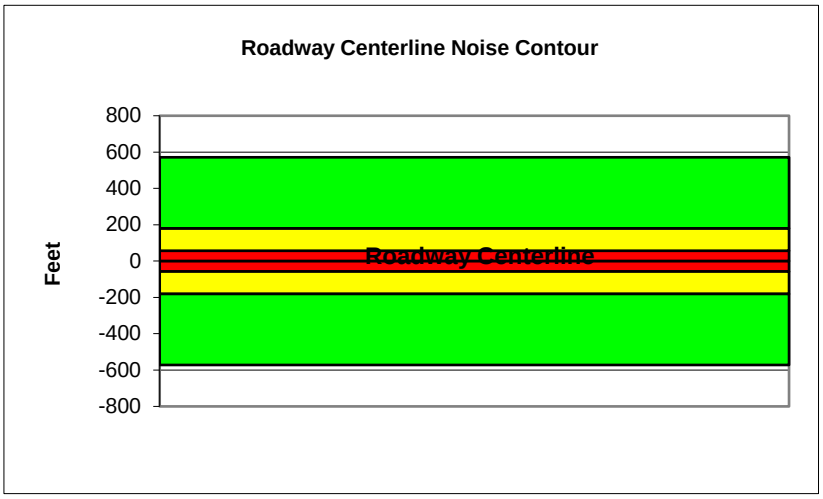
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.4	64.9	63.6	57.5	66.0	66.6
Medium Trucks:	65.3	37.5	30.0	38.7	44.9	44.9
Heavy Trucks:	70.2	34.3	30.9	35.5	43.0	43.1
Vehicle Noise:	**72.5**	**64.9**	**63.6**	**57.6**	**66.0**	**66.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	571
65 dBA	181
70 dBA	57
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Cherry Avenue to Temple Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	32,323
Peak Hour Traffic:	**3232.3**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

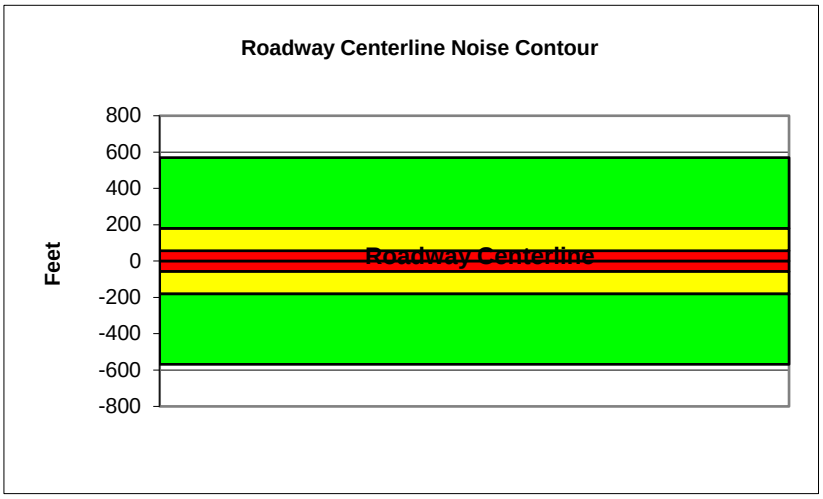
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.4	65.0	63.6	57.6	66.0	66.7
Medium Trucks:	65.4	37.5	30.0	38.7	44.9	45.0
Heavy Trucks:	70.2	34.3	30.9	35.5	43.1	43.2
Vehicle Noise:	**72.6**	**65.0**	**63.6**	**57.7**	**66.1**	**66.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	569
65 dBA	180
70 dBA	57
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25,595
Peak Hour Traffic:	**2559.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

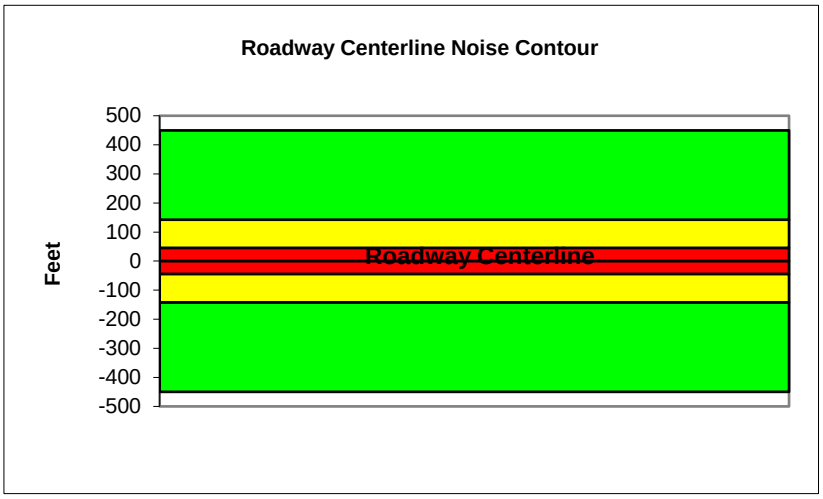
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	63.9	62.6	56.6	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	43.9
Heavy Trucks:	69.2	33.3	29.9	34.5	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.6**	**56.7**	**65.1**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	450
65 dBA	142
70 dBA	45
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	35,685
Peak Hour Traffic:	**3568.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

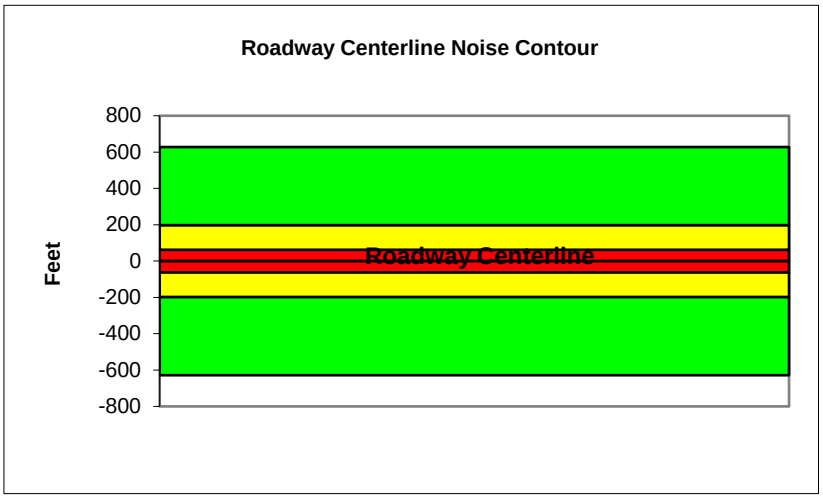
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.8	65.4	64.0	58.0	66.5	67.1
Medium Trucks:	65.8	38.0	30.4	39.2	45.4	45.4
Heavy Trucks:	70.6	34.8	31.3	36.0	43.5	43.6
Vehicle Noise:	**73.0**	**65.4**	**64.1**	**58.1**	**66.5**	**67.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	628
65 dBA	199
70 dBA	63
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Grand Avenue to Lakewood Boulevard		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	37,813
Peak Hour Traffic:	**3781.3**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

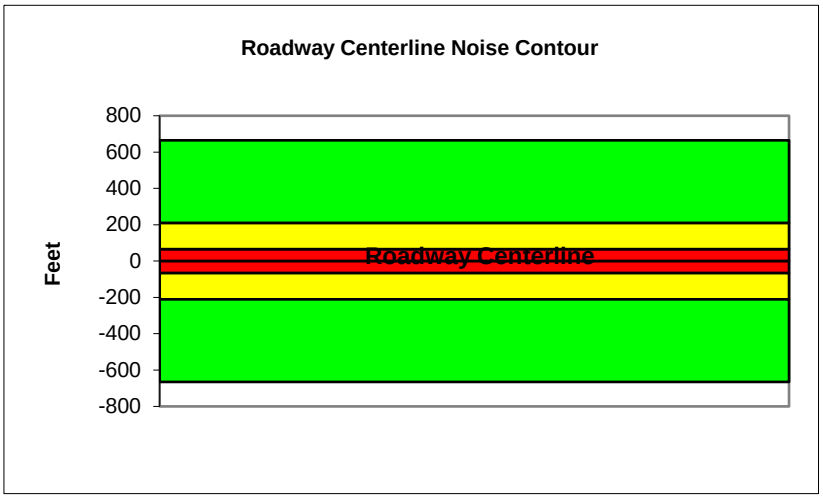
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.1	65.6	64.3	58.3	66.7	67.3
Medium Trucks:	66.0	38.2	30.7	39.4	45.6	45.6
Heavy Trucks:	70.9	35.0	31.6	36.2	43.8	43.8
Vehicle Noise:	**73.3**	**65.6**	**64.3**	**58.4**	**66.8**	**67.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	666
65 dBA	210
70 dBA	67
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Burnett Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2,350
Peak Hour Traffic:	**235**
Vehicle Speed:	35
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

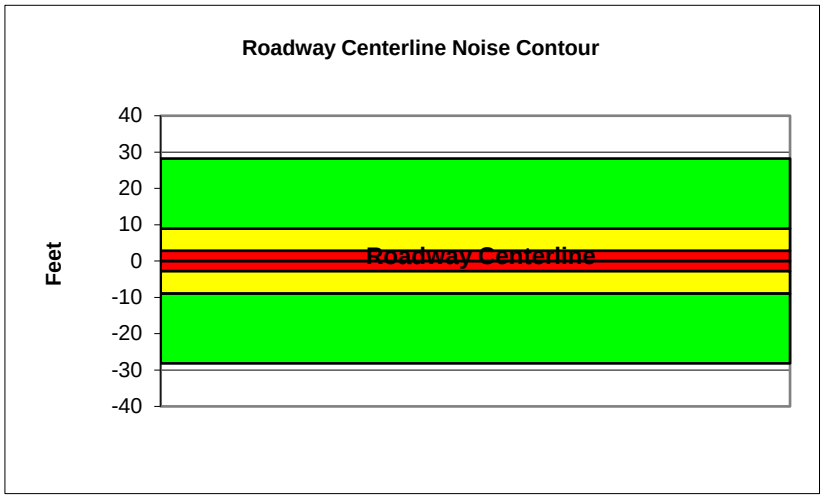
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.7	52.2	50.9	44.9	53.3	53.9
Medium Trucks:	53.4	25.6	18.1	26.8	33.0	33.0
Heavy Trucks:	58.6	22.8	19.3	24.0	31.7	31.8
Vehicle Noise:	**61.1**	**52.3**	**50.9**	**45.0**	**53.4**	**54.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	28
65 dBA	9
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Hill Street		
Road Segment:	West of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	6,325
Peak Hour Traffic:	**632.5**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

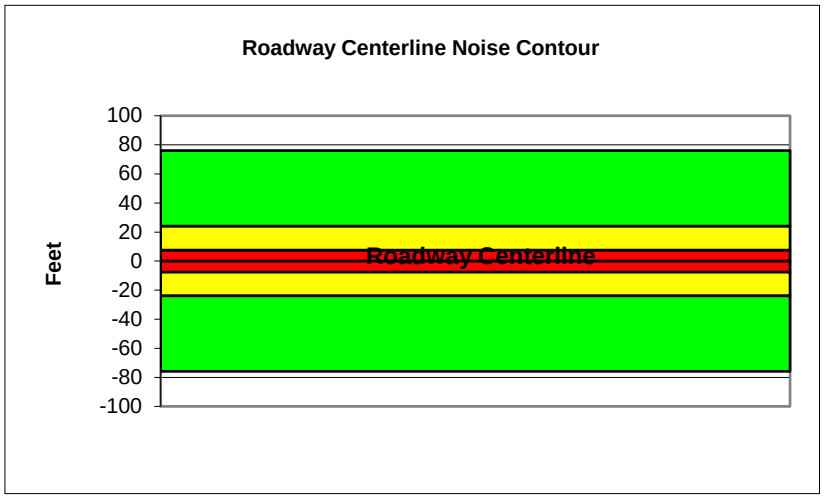
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.0	56.6	55.2	49.2	57.7	58.3
Medium Trucks:	57.7	29.9	22.4	31.1	37.3	37.4
Heavy Trucks:	63.0	27.1	23.7	28.3	36.0	36.1
Vehicle Noise:	**65.4**	**56.6**	**55.3**	**49.3**	**57.7**	**58.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	76
65 dBA	24
70 dBA	8
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Stearns Street		
Road Segment:	East of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	7,390
Peak Hour Traffic:	**739**
Vehicle Speed:	30
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

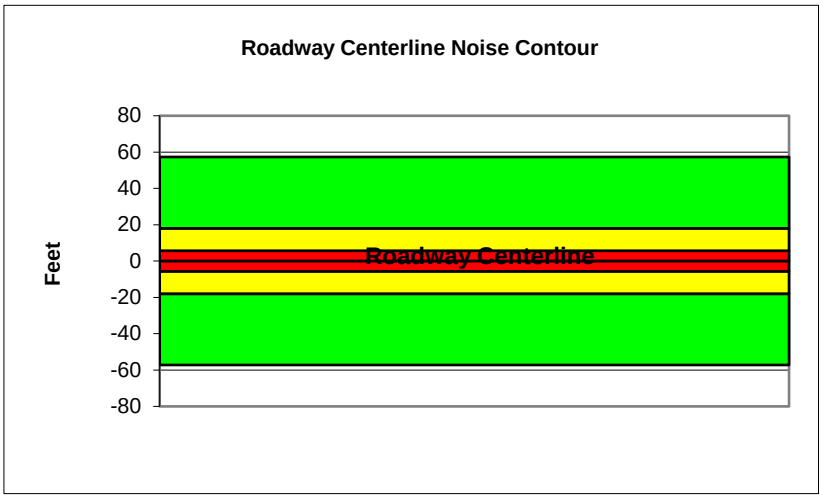
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.8	55.4	54.1	48.0	56.5	57.1
Medium Trucks:	57.4	29.6	22.1	30.8	37.0	37.1
Heavy Trucks:	63.1	27.2	23.8	28.4	36.4	36.5
Vehicle Noise:	**65.6**	**55.4**	**54.1**	**48.2**	**56.6**	**57.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	57
65 dBA	18
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	East of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	31,135
Peak Hour Traffic:	**3113.5**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

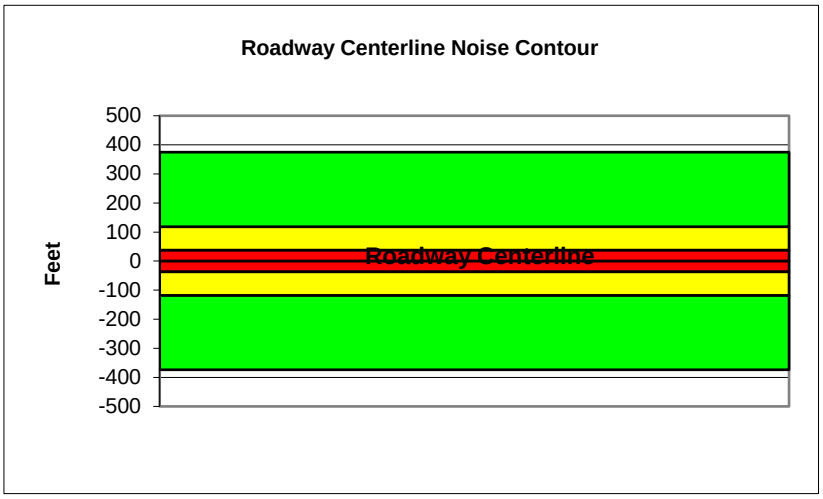
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.7	63.2	61.9	55.9	64.3	64.9
Medium Trucks:	64.4	36.6	29.1	37.8	44.0	44.0
Heavy Trucks:	69.6	33.8	30.3	35.0	42.7	42.8
Vehicle Noise:	**72.1**	**63.3**	**61.9**	**56.0**	**64.4**	**65.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	374
65 dBA	118
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Existing Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	West of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	29,490
Peak Hour Traffic:	**2949**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

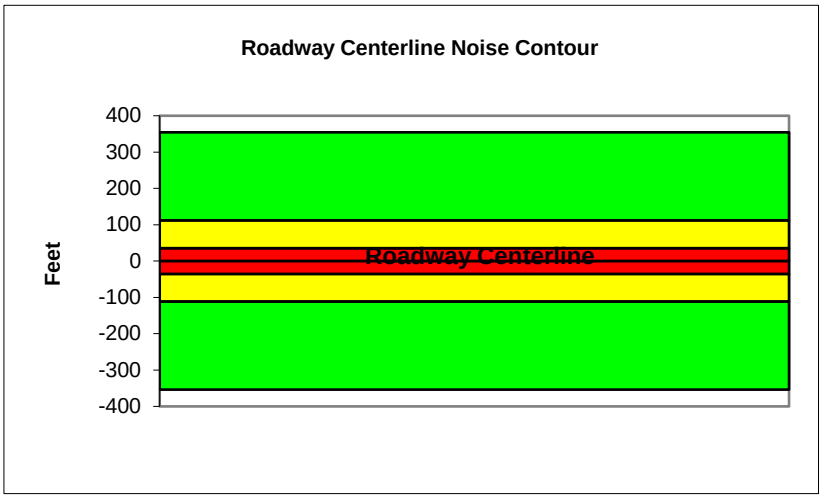
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	63.0	61.7	55.6	64.1	64.7
Medium Trucks:	64.2	36.4	28.8	37.6	43.7	43.8
Heavy Trucks:	69.4	33.5	30.1	34.7	42.5	42.5
Vehicle Noise:	**71.8**	**63.0**	**61.7**	**55.7**	**64.1**	**64.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	354
65 dBA	112
70 dBA	35
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	North of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	26,845
Peak Hour Traffic:	**2684.5**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

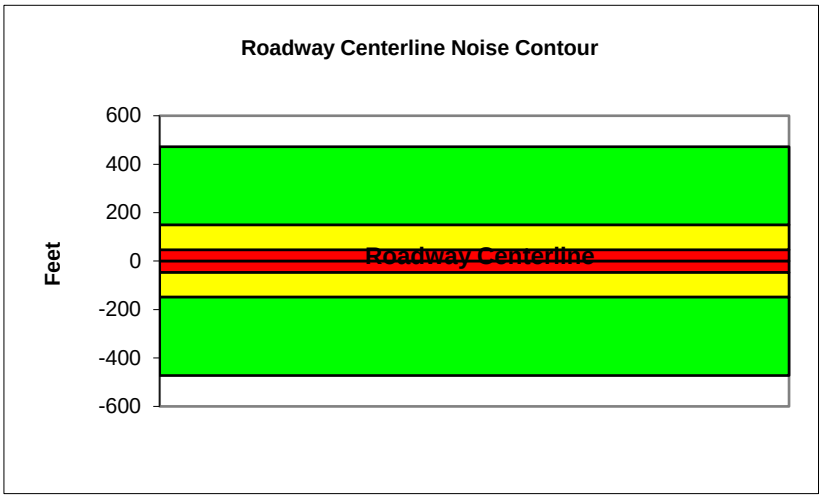
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.6	64.2	62.8	56.8	65.2	65.9
Medium Trucks:	64.6	36.8	29.2	38.0	44.1	44.2
Heavy Trucks:	69.4	33.6	30.1	34.8	42.3	42.4
Vehicle Noise:	**71.8**	**64.2**	**62.8**	**56.9**	**65.3**	**65.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	472
65 dBA	149
70 dBA	47
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	South of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	25,965
Peak Hour Traffic:	**2596.5**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

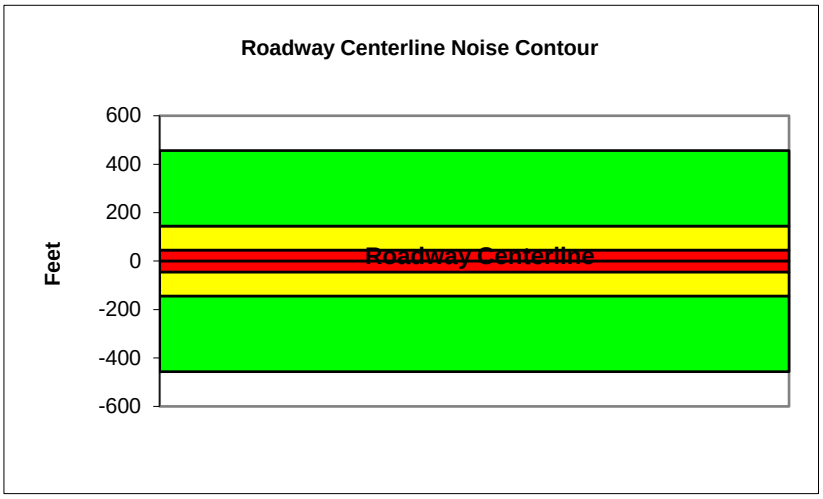
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.0	62.7	56.7	65.1	65.7
Medium Trucks:	64.4	36.6	29.1	37.8	44.0	44.0
Heavy Trucks:	69.3	33.4	30.0	34.6	42.1	42.2
Vehicle Noise:	**71.7**	**64.0**	**62.7**	**56.7**	**65.2**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	456
65 dBA	144
70 dBA	46
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	East of I-405		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	31,875
Peak Hour Traffic:	**3187.5**
Vehicle Speed:	40
Centerline Separation:	43

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

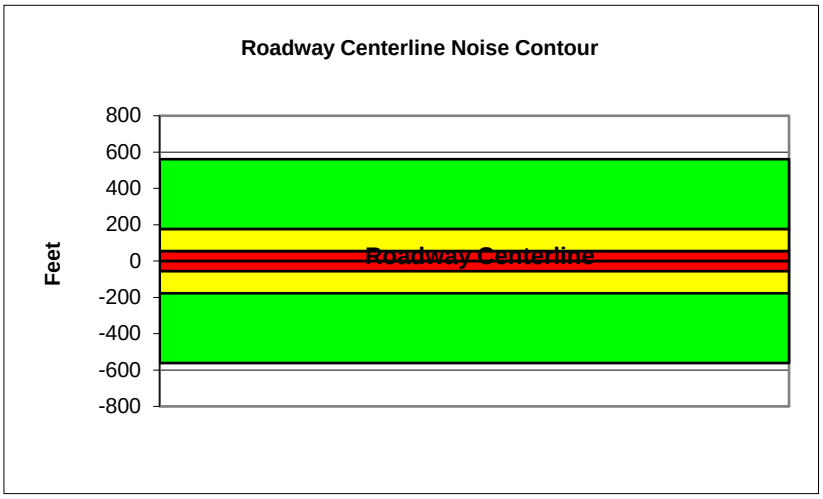
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.4	65.0	63.6	57.6	66.0	66.7
Medium Trucks:	65.4	37.6	30.0	38.8	44.9	45.0
Heavy Trucks:	70.2	34.3	30.9	35.5	43.1	43.2
Vehicle Noise:	**72.6**	**65.0**	**63.6**	**57.7**	**66.1**	**66.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	561
65 dBA	177
70 dBA	56
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	I-405 to Temple Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	33,510
Peak Hour Traffic:	**3351**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

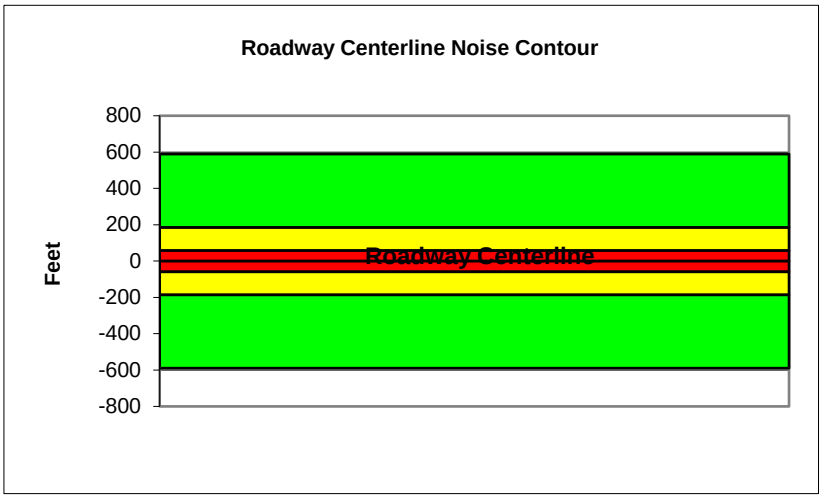
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.6	65.1	63.8	57.8	66.2	66.8
Medium Trucks:	65.5	37.7	30.2	38.9	45.1	45.1
Heavy Trucks:	70.4	34.5	31.1	35.7	43.3	43.4
Vehicle Noise:	**72.8**	**65.2**	**63.8**	**57.9**	**66.3**	**66.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	589
65 dBA	186
70 dBA	59
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	30,078
Peak Hour Traffic:	**3007.8**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

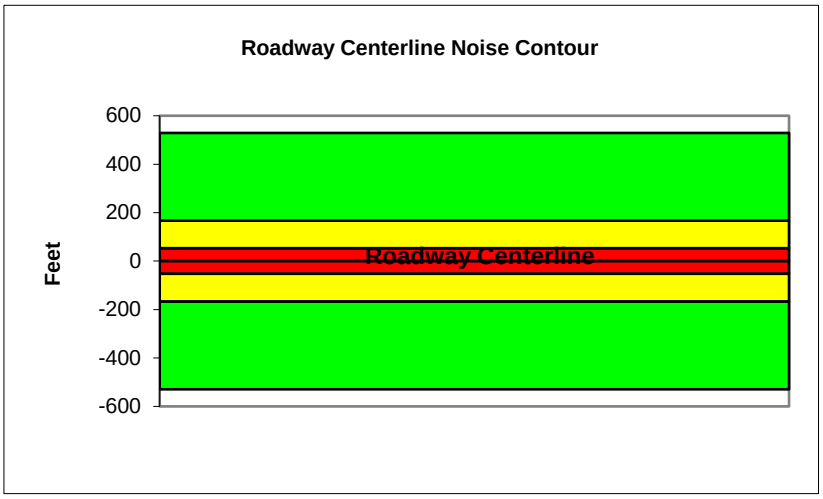
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.1	64.7	63.3	57.3	65.7	66.4
Medium Trucks:	65.1	37.3	29.7	38.5	44.6	44.7
Heavy Trucks:	69.9	34.0	30.6	35.2	42.8	42.9
Vehicle Noise:	**72.3**	**64.7**	**63.3**	**57.4**	**65.8**	**66.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	529
65 dBA	167
70 dBA	53
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	Spring Street to I-405		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8,833
Peak Hour Traffic:	**883.3**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

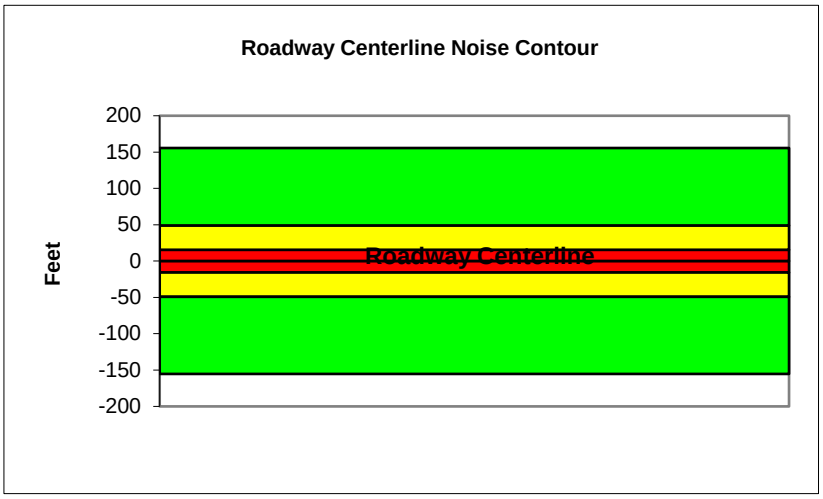
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.9	59.5	58.2	52.1	60.6	61.2
Medium Trucks:	59.9	32.1	24.6	33.3	39.5	39.5
Heavy Trucks:	64.7	28.9	25.5	30.1	37.6	37.7
Vehicle Noise:	**67.1**	**59.5**	**58.2**	**52.2**	**60.6**	**61.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	156
65 dBA	49
70 dBA	16
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	I-405 to Willow Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	10,388
Peak Hour Traffic:	**1038.8**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

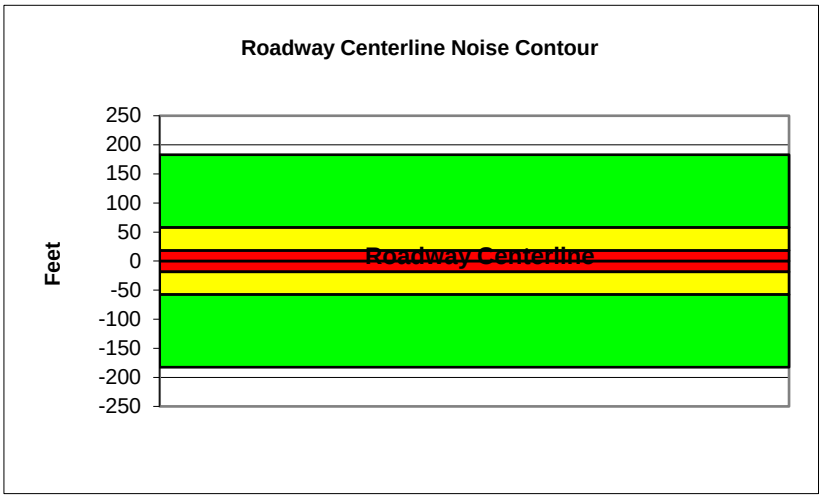
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.7	60.2	58.9	52.8	61.3	61.9
Medium Trucks:	60.6	32.8	25.3	34.0	40.2	40.2
Heavy Trucks:	65.5	29.6	26.2	30.8	38.3	38.4
Vehicle Noise:	**67.8**	**60.2**	**58.9**	**52.9**	**61.3**	**62.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	183
65 dBA	58
70 dBA	18
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Spring Street to Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	17,045
Peak Hour Traffic:	**1704.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

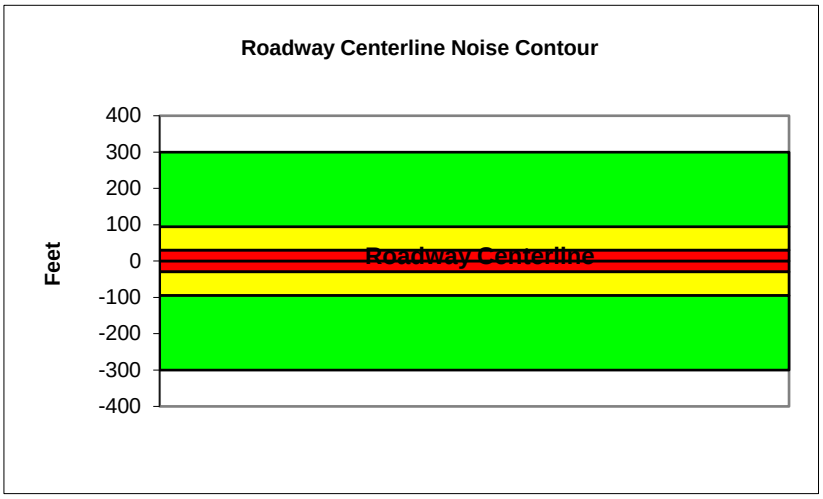
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.8	62.4	61.0	55.0	63.4	64.1
Medium Trucks:	62.8	35.0	27.4	36.2	42.3	42.4
Heavy Trucks:	67.6	31.8	28.3	33.0	40.5	40.6
Vehicle Noise:	**70.0**	**62.4**	**61.0**	**55.1**	**63.5**	**64.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	300
65 dBA	95
70 dBA	30
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,233
Peak Hour Traffic:	**2423.3**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

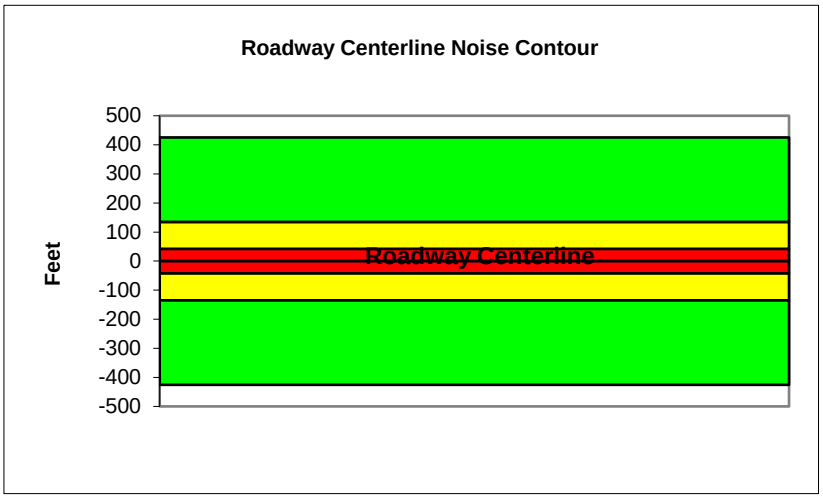
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.3	63.9	62.6	56.5	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	43.9
Heavy Trucks:	69.1	33.3	29.9	34.5	42.0	42.1
Vehicle Noise:	**71.5**	**63.9**	**62.6**	**56.6**	**65.0**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	426
65 dBA	135
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Burnett Street to Project Driveway		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,978
Peak Hour Traffic:	**2497.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

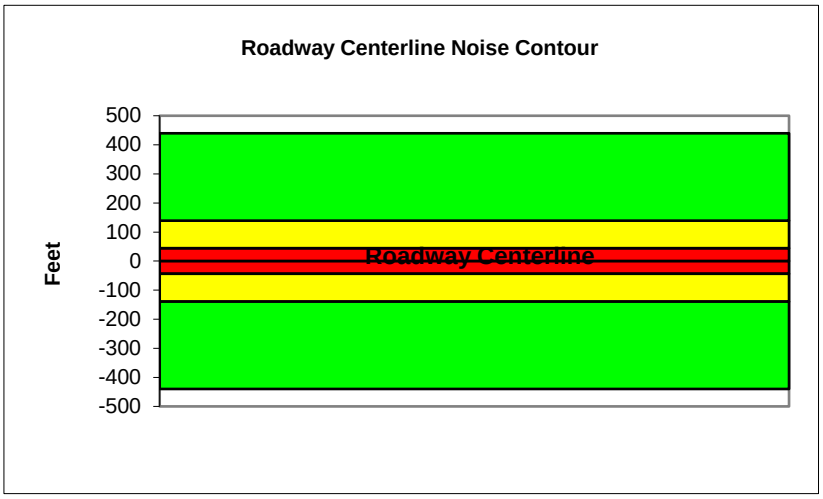
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.0	62.7	56.7	65.1	65.7
Medium Trucks:	64.4	36.6	29.1	37.8	44.0	44.0
Heavy Trucks:	69.3	33.4	30.0	34.6	42.2	42.2
Vehicle Noise:	**71.7**	**64.0**	**62.7**	**56.8**	**65.2**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	440
65 dBA	139
70 dBA	44
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Project Driveway to Industry Drive/Project Driveway		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	24,645
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**2464.5**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	40
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	35
Barrier Far lane CL Dist:	**0**	**NOISE INPUTS**	
Pad Elevation:	**0.5**	Site conditions **HARD SITE**	
Road Elevation:	**0**	**FLEET MIX**	
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		
NOISE SOURCE ELEVATIONS (Feet)			
Autos:	**0**		
Medium Trucks:	**2.3**		
Heavy Trucks:	**8**		

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

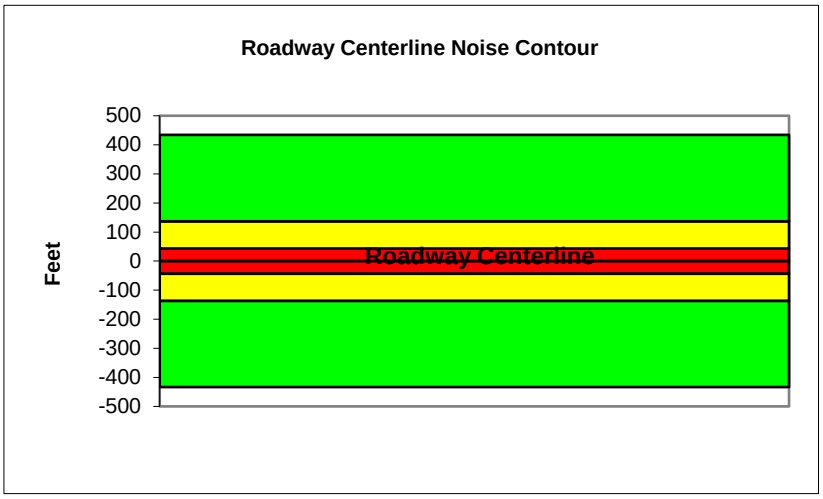
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	64.0	62.6	56.6	65.0	65.7
Medium Trucks:	64.4	36.6	29.0	37.8	43.9	44.0
Heavy Trucks:	69.2	33.4	29.9	34.6	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.6**	**56.7**	**65.1**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	434
65 dBA	137
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Industry Drive/Project Driveway to Hill Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	24,578
Peak Hour Traffic:	**2457.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

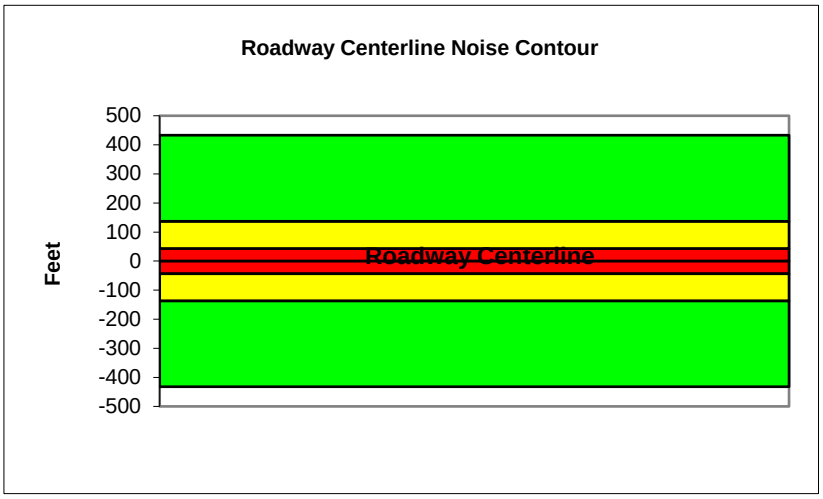
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	64.0	62.6	56.6	65.0	65.7
Medium Trucks:	64.4	36.6	29.0	37.8	43.9	44.0
Heavy Trucks:	69.2	33.3	29.9	34.5	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.6**	**56.7**	**65.1**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	433
65 dBA	137
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Hill Street to Stearns Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	24,640
Peak Hour Traffic:	**2464**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

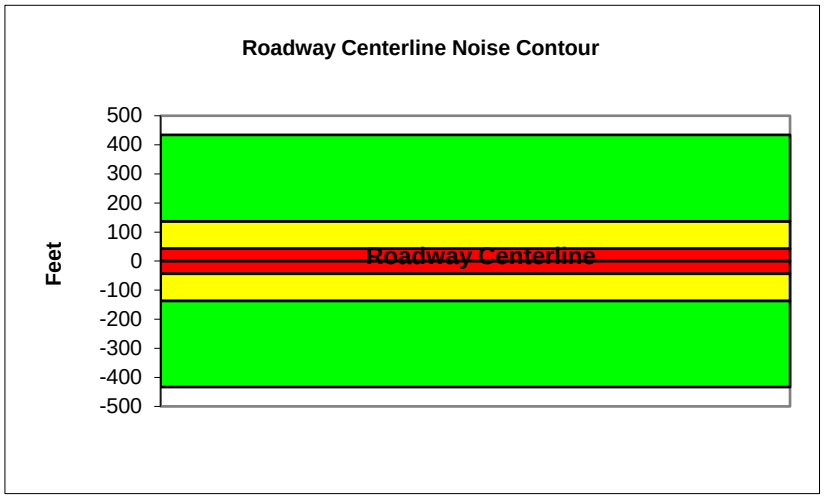
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	64.0	62.6	56.6	65.0	65.7
Medium Trucks:	64.4	36.6	29.0	37.8	43.9	44.0
Heavy Trucks:	69.2	33.4	29.9	34.6	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.6**	**56.7**	**65.1**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	434
65 dBA	137
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Stearns Street to Pacific Coast Highway (SR-1)		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	22,818
Peak Hour Traffic:	**2281.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

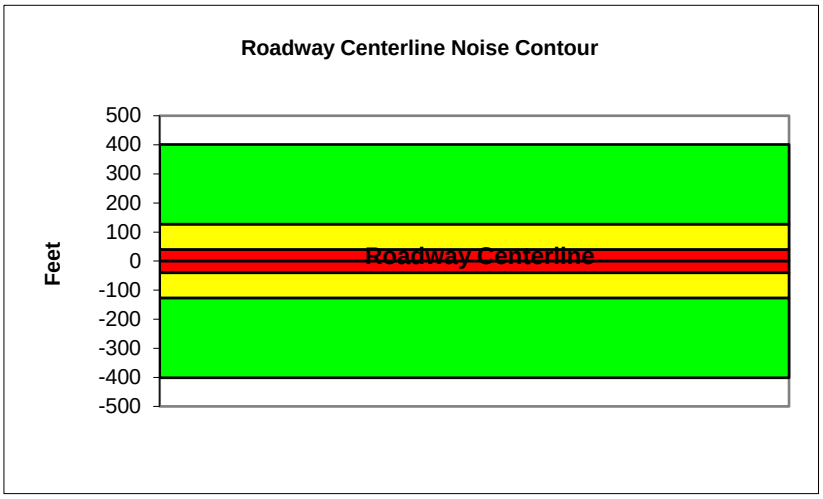
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.6	62.3	56.3	64.7	65.3
Medium Trucks:	64.0	36.2	28.7	37.4	43.6	43.6
Heavy Trucks:	68.9	33.0	29.6	34.2	41.8	41.9
Vehicle Noise:	**71.3**	**63.7**	**62.3**	**56.4**	**64.8**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	401
65 dBA	127
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Grand Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2,450
Peak Hour Traffic:	**245**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

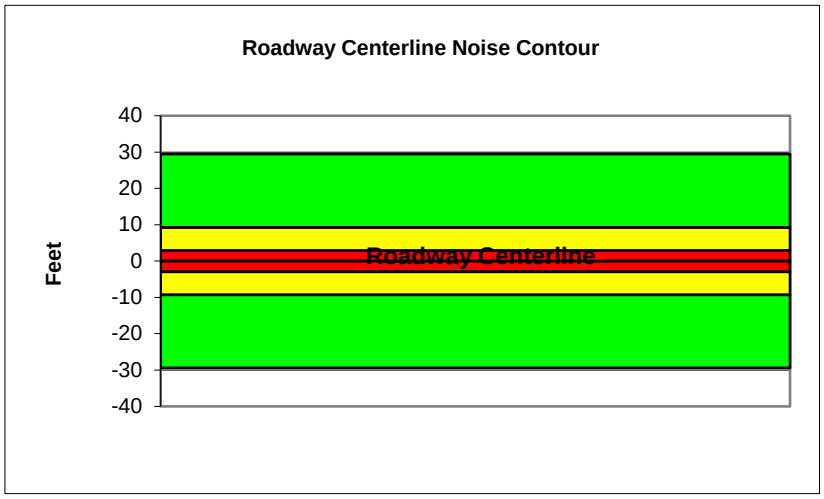
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.9	52.5	51.1	45.1	53.5	54.2
Medium Trucks:	53.6	25.8	18.3	27.0	33.2	33.2
Heavy Trucks:	58.8	23.0	19.6	24.2	31.9	32.0
Vehicle Noise:	**61.3**	**52.5**	**51.1**	**45.2**	**53.6**	**54.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	29
65 dBA	9
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	North of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	39,760
Peak Hour Traffic:	**3976**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

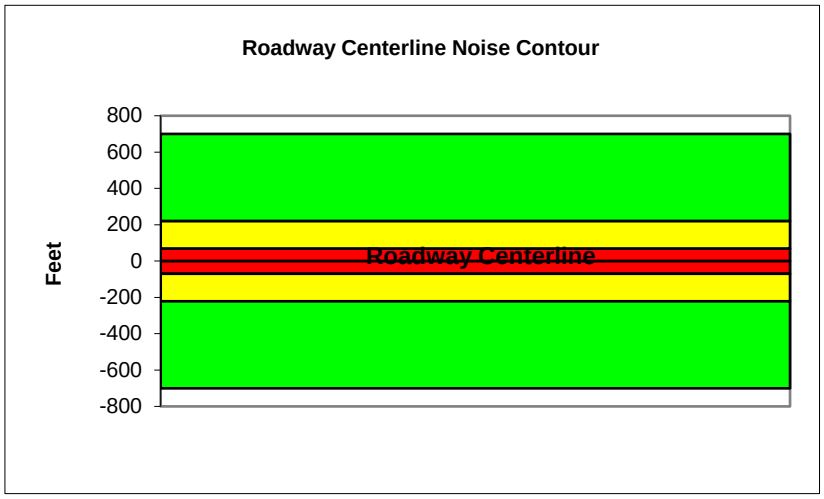
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.2	65.8	64.5	58.4	66.9	67.5
Medium Trucks:	66.2	38.4	30.9	39.6	45.8	45.8
Heavy Trucks:	71.0	35.2	31.8	36.4	43.9	44.0
Vehicle Noise:	**73.4**	**65.8**	**64.5**	**58.5**	**66.9**	**67.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	700
65 dBA	221
70 dBA	70
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	South of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	33,150
Peak Hour Traffic:	**3315**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

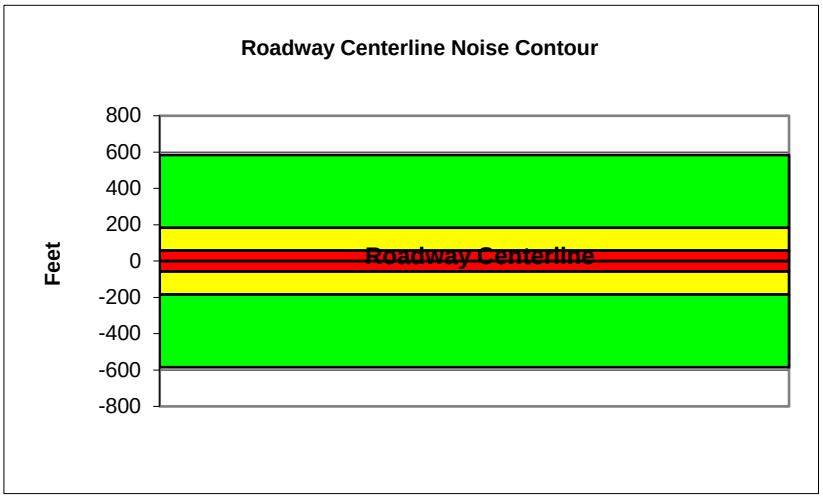
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.5	65.0	63.7	57.6	66.1	66.7
Medium Trucks:	65.4	37.6	30.1	38.8	45.0	45.0
Heavy Trucks:	70.2	34.4	31.0	35.6	43.1	43.2
Vehicle Noise:	**72.6**	**65.0**	**63.7**	**57.7**	**66.1**	**66.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	583
65 dBA	184
70 dBA	58
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Cherry Avenue to Temple Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	33,255
Peak Hour Traffic:	**3325.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

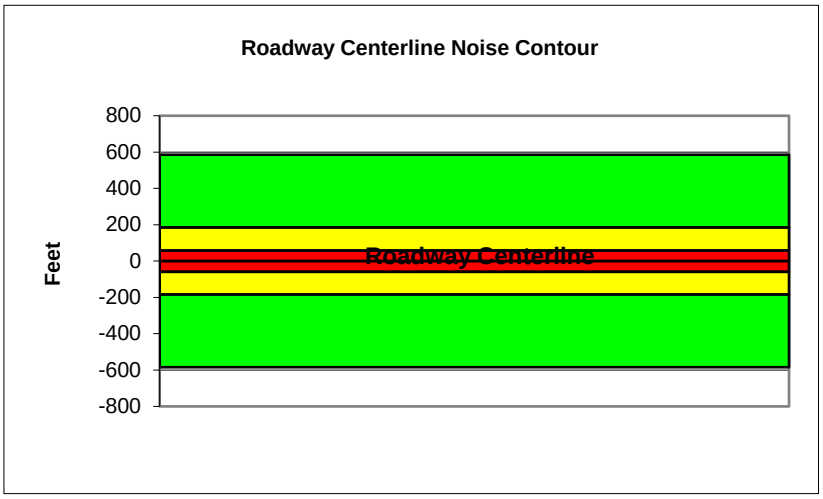
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.5	65.1	63.7	57.7	66.1	66.8
Medium Trucks:	65.5	37.7	30.1	38.9	45.0	45.1
Heavy Trucks:	70.3	34.5	31.0	35.7	43.2	43.3
Vehicle Noise:	**72.7**	**65.1**	**63.7**	**57.8**	**66.2**	**66.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	585
65 dBA	185
70 dBA	59
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25,285
Peak Hour Traffic:	**2528.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

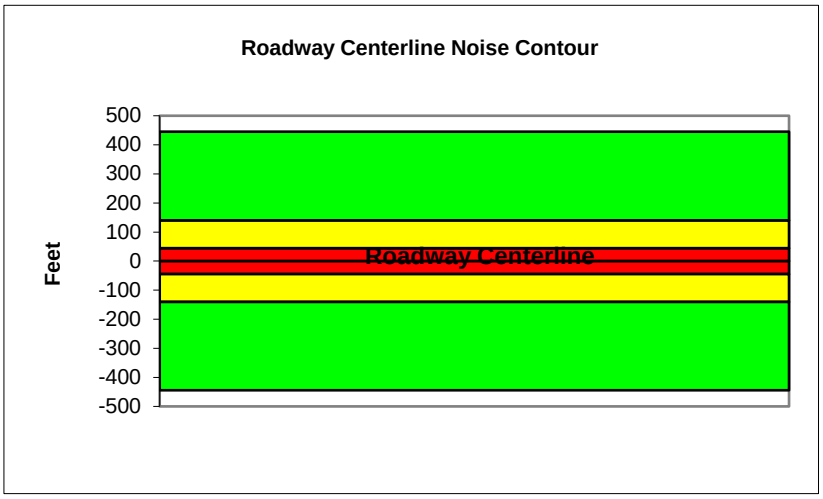
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.3	63.9	62.6	56.5	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	43.9
Heavy Trucks:	69.1	33.3	29.8	34.5	42.0	42.1
Vehicle Noise:	**71.5**	**63.9**	**62.6**	**56.6**	**65.0**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	445
65 dBA	141
70 dBA	44
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	35,318
Peak Hour Traffic:	**3531.8**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

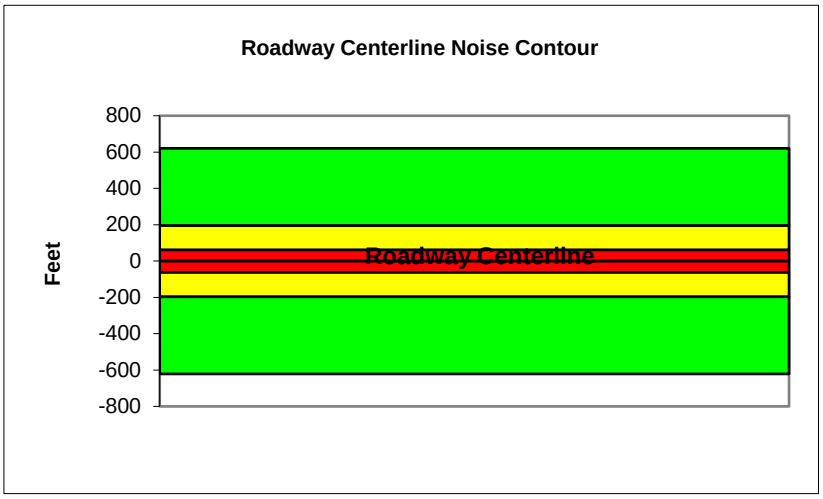
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.8	65.3	64.0	58.0	66.4	67.0
Medium Trucks:	65.7	37.9	30.4	39.1	45.3	45.3
Heavy Trucks:	70.6	34.7	31.3	35.9	43.5	43.6
Vehicle Noise:	**73.0**	**65.4**	**64.0**	**58.1**	**66.5**	**67.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	621
65 dBA	196
70 dBA	62
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Grand Avenue to Lakewood Boulevard		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	37,270
Peak Hour Traffic:	**3727**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

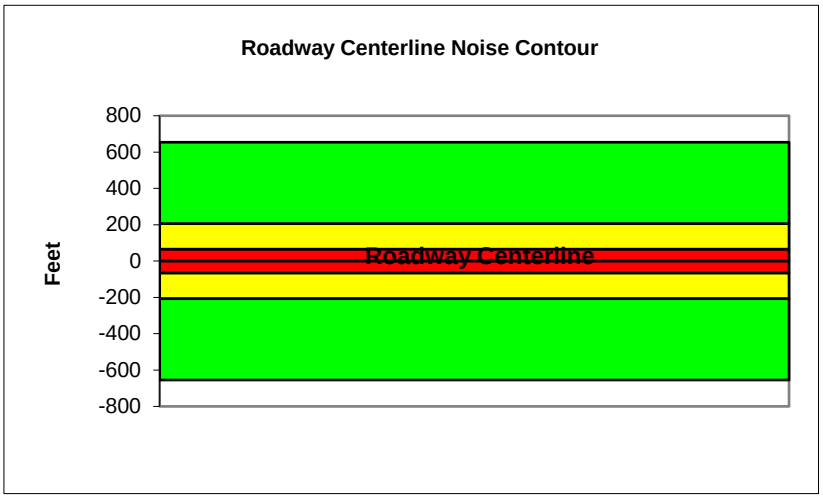
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.0	65.6	64.2	58.2	66.6	67.3
Medium Trucks:	66.0	38.2	30.6	39.4	45.5	45.6
Heavy Trucks:	70.8	34.9	31.5	36.1	43.7	43.8
Vehicle Noise:	**73.2**	**65.6**	**64.2**	**58.3**	**66.7**	**67.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	655
65 dBA	207
70 dBA	65
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Burnett Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	1,698
Peak Hour Traffic:	**169.8**
Vehicle Speed:	35
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

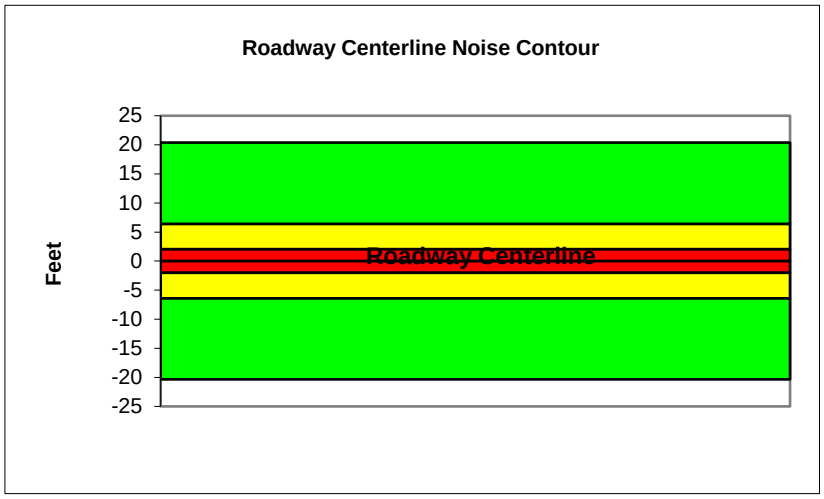
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	42.3	50.8	49.5	43.5	51.9	52.5
Medium Trucks:	52.0	24.2	16.7	25.4	31.6	31.6
Heavy Trucks:	57.2	21.4	17.9	22.6	30.3	30.4
Vehicle Noise:	**59.7**	**50.9**	**49.5**	**43.6**	**52.0**	**52.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	20
65 dBA	6
70 dBA	2
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Hill Street		
Road Segment:	West of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	6,455
Peak Hour Traffic:	**645.5**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

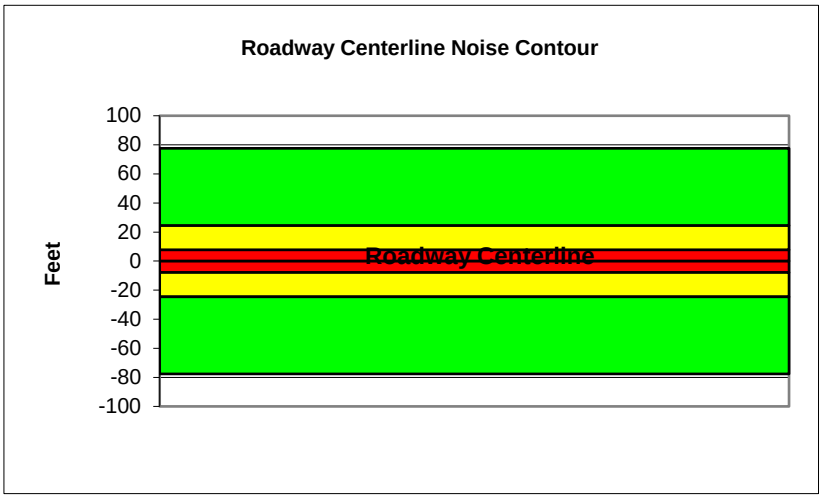
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.1	56.7	55.3	49.3	57.7	58.4
Medium Trucks:	57.8	30.0	22.5	31.2	37.4	37.4
Heavy Trucks:	63.1	27.2	23.8	28.4	36.1	36.2
Vehicle Noise:	**65.5**	**56.7**	**55.3**	**49.4**	**57.8**	**58.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	78
65 dBA	25
70 dBA	8
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Stearns Street		
Road Segment:	East of Redondo Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	7,415
Peak Hour Traffic:	**741.5**
Vehicle Speed:	30
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

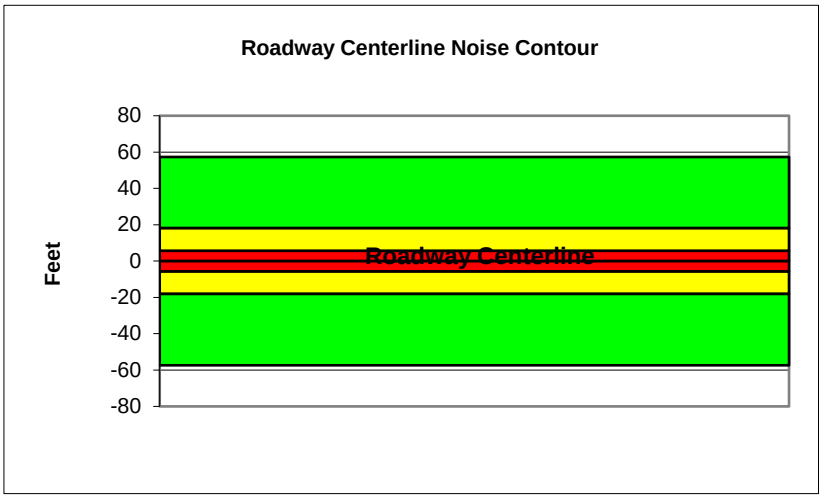
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.9	55.4	54.1	48.0	56.5	57.1
Medium Trucks:	57.5	29.7	22.1	30.9	37.0	37.1
Heavy Trucks:	63.1	27.2	23.8	28.4	36.4	36.5
Vehicle Noise:	**65.6**	**55.4**	**54.1**	**48.2**	**56.6**	**57.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	57
65 dBA	18
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	East of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	31,520
Peak Hour Traffic:	**3152**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

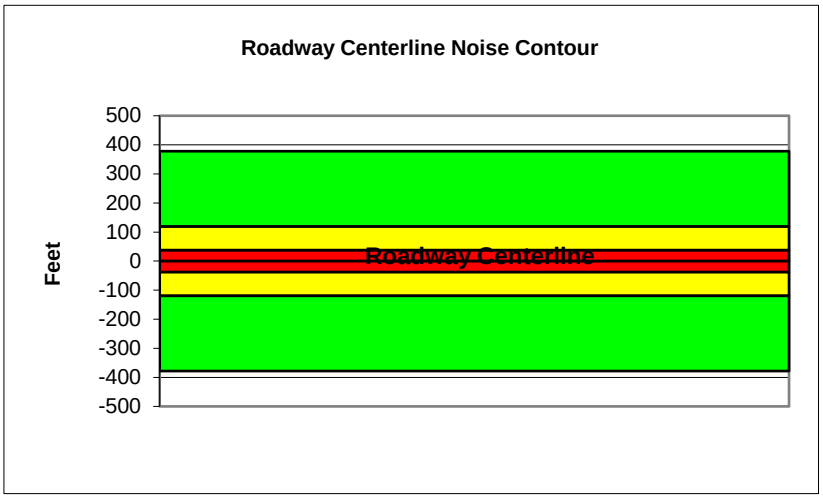
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.7	63.3	62.0	55.9	64.4	65.0
Medium Trucks:	64.5	36.6	29.1	37.8	44.0	44.1
Heavy Trucks:	69.7	33.8	30.4	35.0	42.7	42.8
Vehicle Noise:	**72.1**	**63.3**	**62.0**	**56.0**	**64.4**	**65.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	379
65 dBA	120
70 dBA	38
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	West of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	29,835
Peak Hour Traffic:	**2983.5**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

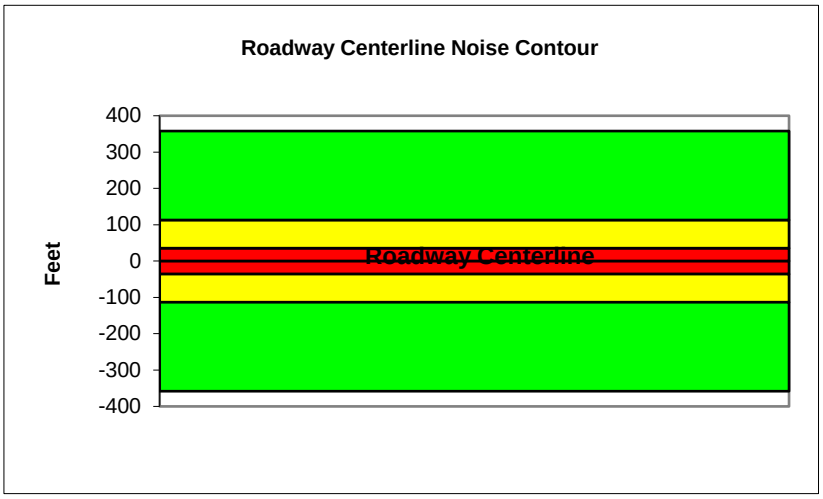
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	63.1	61.7	55.7	64.1	64.8
Medium Trucks:	64.2	36.4	28.9	37.6	43.8	43.8
Heavy Trucks:	69.4	33.6	30.2	34.8	42.5	42.6
Vehicle Noise:	**71.9**	**63.1**	**61.7**	**55.8**	**64.2**	**64.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	358
65 dBA	113
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	North of Willow Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	27,160
Peak Hour Traffic:	**2716**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

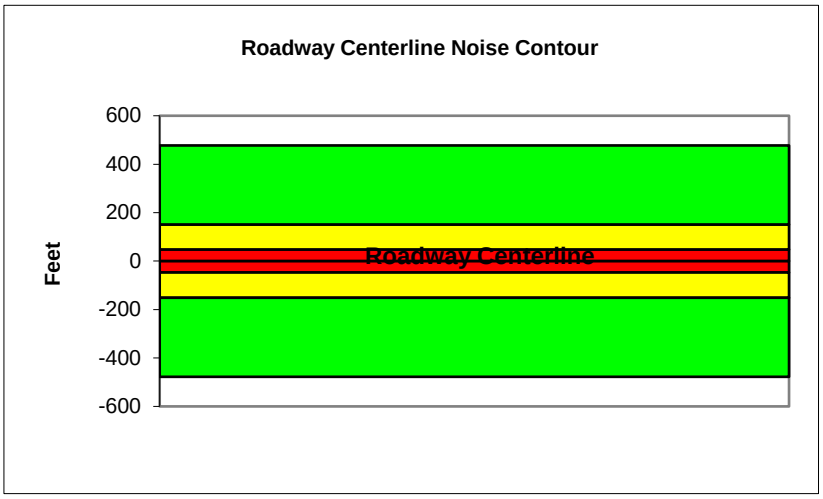
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.7	64.2	62.9	56.9	65.3	65.9
Medium Trucks:	64.6	36.8	29.3	38.0	44.2	44.2
Heavy Trucks:	69.5	33.6	30.2	34.8	42.3	42.4
Vehicle Noise:	**71.8**	**64.2**	**62.9**	**56.9**	**65.4**	**66.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	478
65 dBA	151
70 dBA	48
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Cherry Avenue		
Road Segment:	South of Willow Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25,965
Peak Hour Traffic:	**2596.5**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

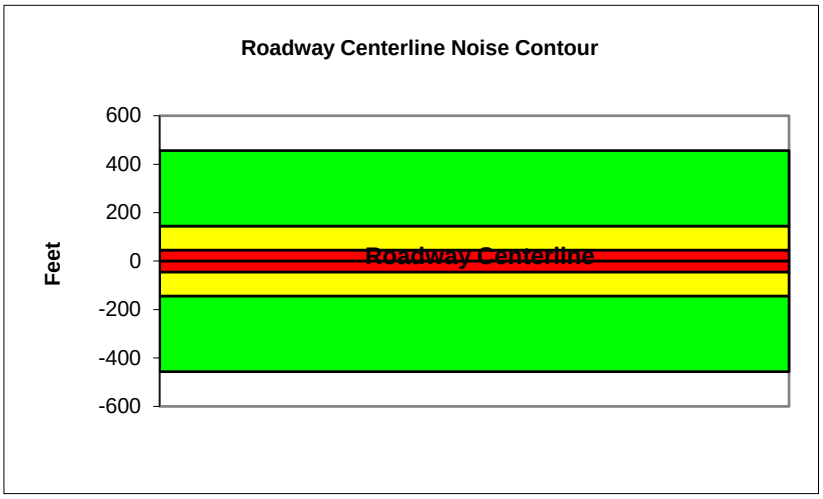
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.0	62.7	56.7	65.1	65.7
Medium Trucks:	64.4	36.6	29.1	37.8	44.0	44.0
Heavy Trucks:	69.3	33.4	30.0	34.6	42.1	42.2
Vehicle Noise:	**71.7**	**64.0**	**62.7**	**56.7**	**65.2**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	456
65 dBA	144
70 dBA	46
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	East of I-405		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	32,205
Peak Hour Traffic:	**3220.5**
Vehicle Speed:	40
Centerline Separation:	43

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

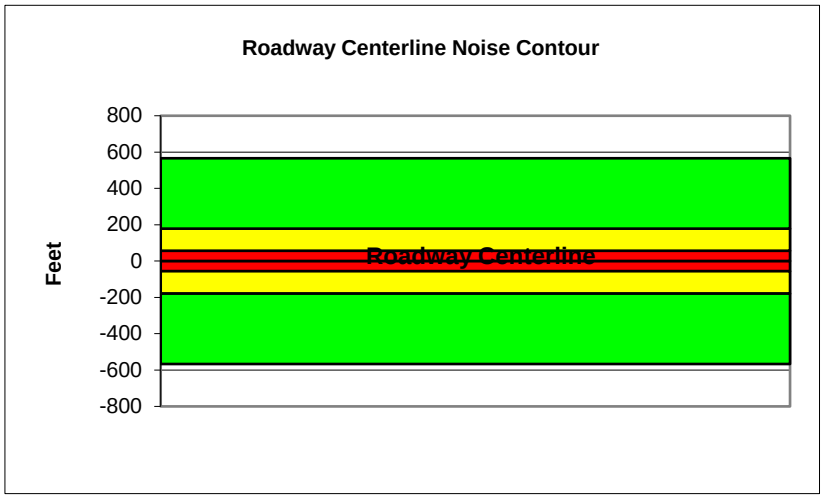
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.5	65.0	63.7	57.6	66.1	66.7
Medium Trucks:	65.4	37.6	30.1	38.8	45.0	45.0
Heavy Trucks:	70.3	34.4	31.0	35.6	43.1	43.2
Vehicle Noise:	**72.6**	**65.0**	**63.7**	**57.7**	**66.1**	**66.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	566
65 dBA	179
70 dBA	57
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	I-405 to Temple Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	34,053
Peak Hour Traffic:	**3405.3**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

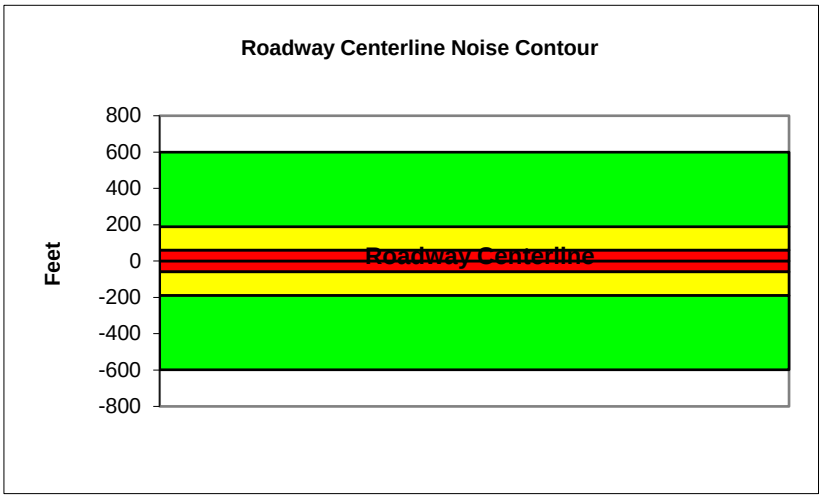
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.7	65.2	63.9	57.8	66.3	66.9
Medium Trucks:	65.6	37.8	30.3	39.0	45.2	45.2
Heavy Trucks:	70.5	34.6	31.2	35.8	43.3	43.4
Vehicle Noise:	**72.8**	**65.2**	**63.9**	**57.9**	**66.3**	**67.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	599
65 dBA	189
70 dBA	60
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Spring Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	30,650
Peak Hour Traffic:	**3065**
Vehicle Speed:	40
Centerline Separation:	46

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

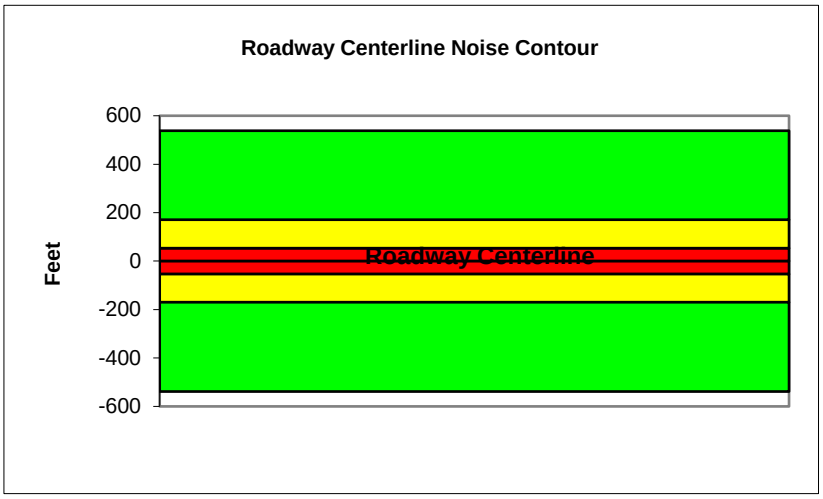
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.2	64.8	63.4	57.4	65.8	66.5
Medium Trucks:	65.1	37.3	29.8	38.5	44.7	44.8
Heavy Trucks:	70.0	34.1	30.7	35.3	42.9	43.0
Vehicle Noise:	**72.4**	**64.8**	**63.4**	**57.5**	**65.9**	**66.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	539
65 dBA	170
70 dBA	54
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	Spring Street to I-405		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	9,143
Peak Hour Traffic:	**914.3**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

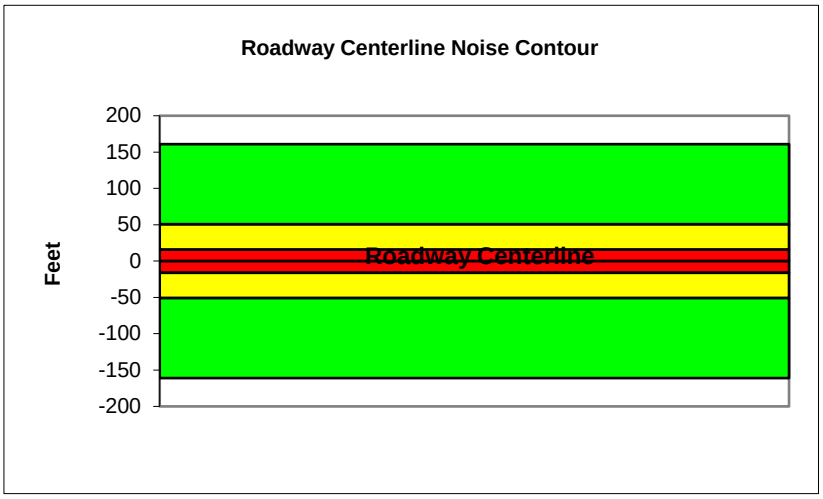
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.1	59.7	58.3	52.3	60.7	61.4
Medium Trucks:	60.1	32.2	24.7	33.4	39.6	39.7
Heavy Trucks:	64.9	29.0	25.6	30.2	37.8	37.9
Vehicle Noise:	**67.3**	**59.7**	**58.3**	**52.4**	**60.8**	**61.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	161
65 dBA	51
70 dBA	16
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Temple Avenue		
Road Segment:	I-405 to Willow Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	10,775
Peak Hour Traffic:	**1077.5**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

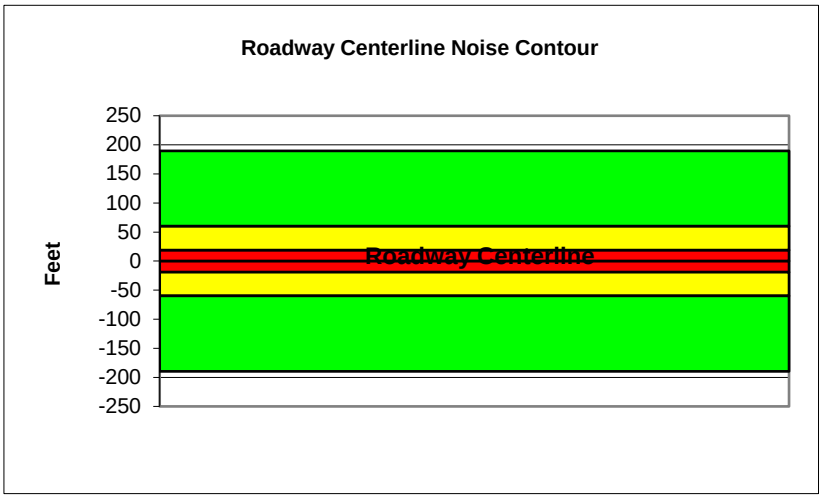
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.8	60.4	59.0	53.0	61.4	62.1
Medium Trucks:	60.8	33.0	25.4	34.2	40.3	40.4
Heavy Trucks:	65.6	29.7	26.3	30.9	38.5	38.6
Vehicle Noise:	**68.0**	**60.4**	**59.0**	**53.1**	**61.5**	**62.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	190
65 dBA	60
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Spring Street to Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	17,735
Peak Hour Traffic:	**1773.5**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

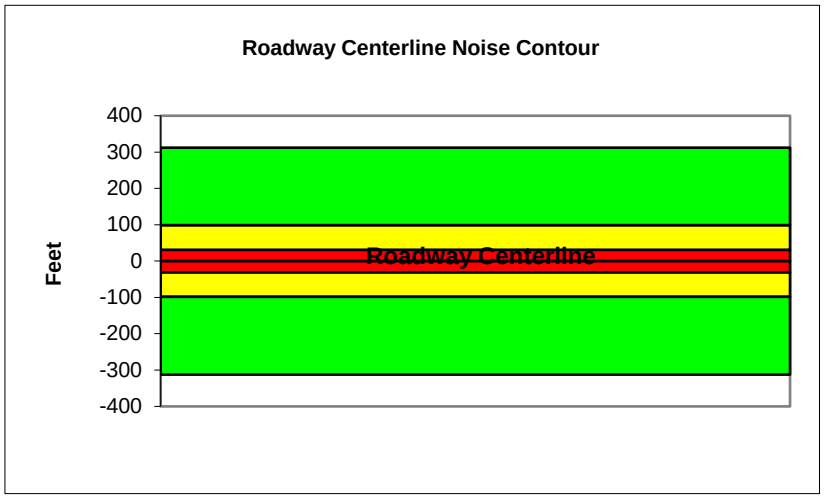
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.5	61.2	55.2	63.6	64.2
Medium Trucks:	62.9	35.1	27.6	36.3	42.5	42.6
Heavy Trucks:	67.8	31.9	28.5	33.1	40.7	40.8
Vehicle Noise:	**70.2**	**62.6**	**61.2**	**55.3**	**63.7**	**64.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	312
65 dBA	99
70 dBA	31
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	27,063
Peak Hour Traffic:	**2706.3**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

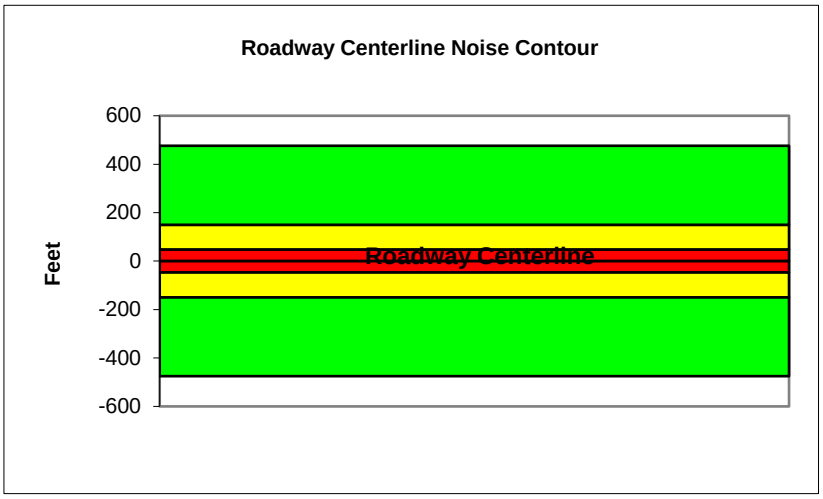
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.8	64.4	63.0	57.0	65.5	66.1
Medium Trucks:	64.8	37.0	29.4	38.2	44.4	44.4
Heavy Trucks:	69.6	33.8	30.3	35.0	42.5	42.6
Vehicle Noise:	**72.0**	**64.4**	**63.1**	**57.1**	**65.5**	**66.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	476
65 dBA	150
70 dBA	48
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Burnett Street to Project Driveway		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	27,148
Peak Hour Traffic:	**2714.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

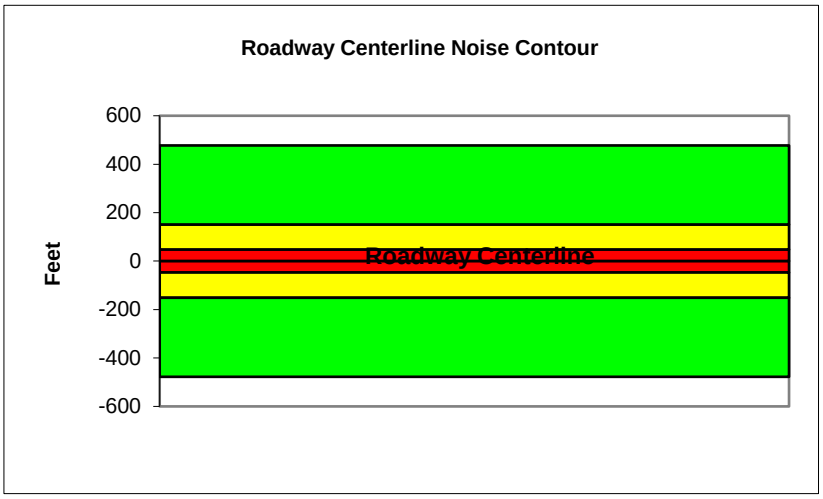
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.8	64.4	63.1	57.0	65.5	66.1
Medium Trucks:	64.8	37.0	29.5	38.2	44.4	44.4
Heavy Trucks:	69.6	33.8	30.4	35.0	42.5	42.6
Vehicle Noise:	**72.0**	**64.4**	**63.1**	**57.1**	**65.5**	**66.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	478
65 dBA	151
70 dBA	48
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Project Driveway to Industry Drive/Project Driveway		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	26,093
Peak Hour Traffic:	**2609.3**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

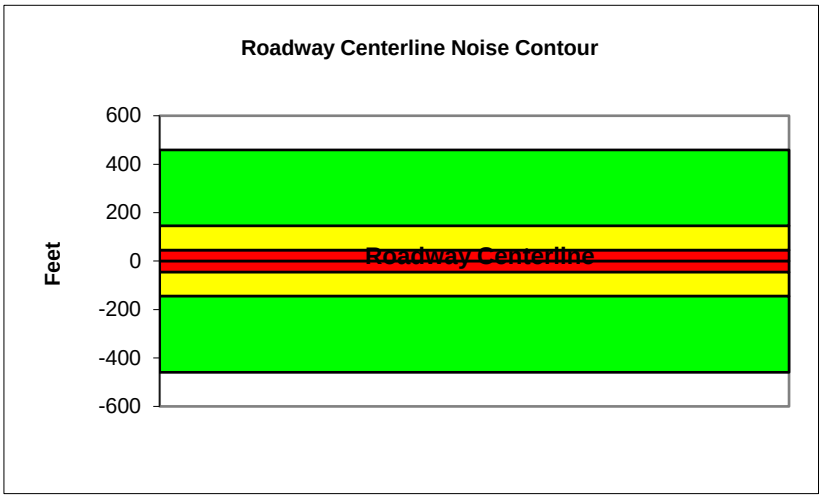
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.7	64.2	62.9	56.8	65.3	65.9
Medium Trucks:	64.6	36.8	29.3	38.0	44.2	44.2
Heavy Trucks:	69.5	33.6	30.2	34.8	42.3	42.4
Vehicle Noise:	**71.8**	**64.2**	**62.9**	**56.9**	**65.3**	**66.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	459
65 dBA	145
70 dBA	46
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Industry Drive/Project Driveway to Hill Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	24,298
Peak Hour Traffic:	**2429.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

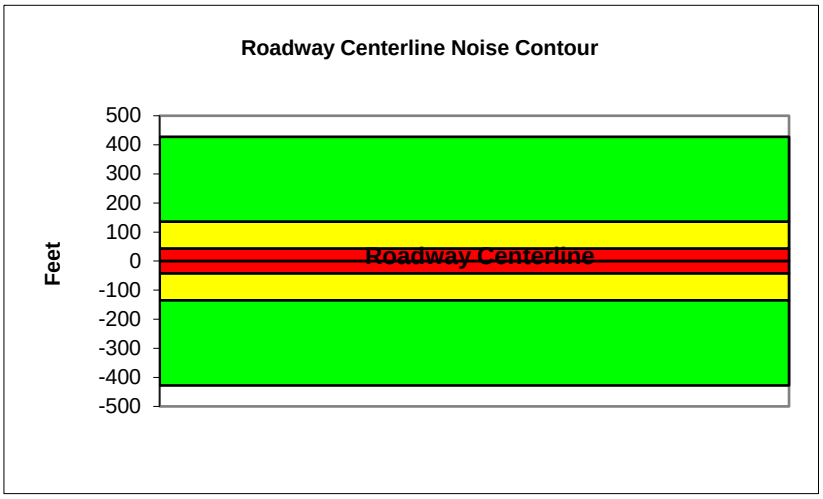
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.4	63.9	62.6	56.5	65.0	65.6
Medium Trucks:	64.3	36.5	29.0	37.7	43.9	43.9
Heavy Trucks:	69.2	33.3	29.9	34.5	42.0	42.1
Vehicle Noise:	**71.5**	**63.9**	**62.6**	**56.6**	**65.0**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	428
65 dBA	135
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Hill Street to Stearns Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25,360
Peak Hour Traffic:	**2536**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

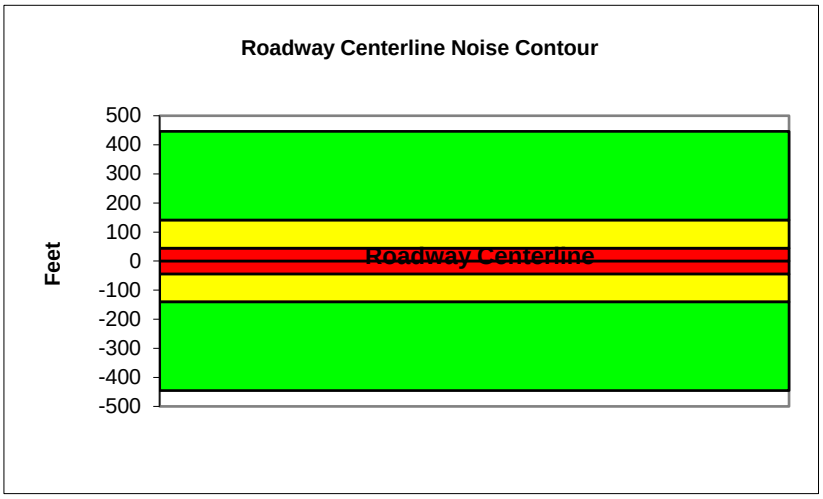
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.1	62.8	56.7	65.2	65.8
Medium Trucks:	64.5	36.7	29.2	37.9	44.1	44.1
Heavy Trucks:	69.3	33.5	30.1	34.7	42.2	42.3
Vehicle Noise:	**71.7**	**64.1**	**62.8**	**56.8**	**65.2**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	446
65 dBA	141
70 dBA	45
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Redondo Avenue		
Road Segment:	Stearns Street to Pacific Coast Highway (SR-1)		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	23,418
Peak Hour Traffic:	**2341.8**
Vehicle Speed:	40
Centerline Separation:	35

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

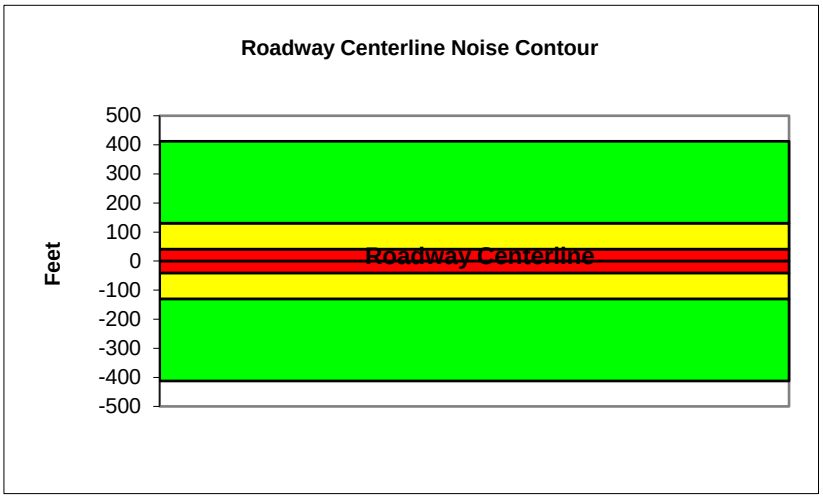
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.2	63.8	62.4	56.4	64.8	65.5
Medium Trucks:	64.2	36.3	28.8	37.5	43.7	43.8
Heavy Trucks:	69.0	33.1	29.7	34.3	41.9	42.0
Vehicle Noise:	**71.4**	**63.8**	**62.4**	**56.5**	**64.9**	**65.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	412
65 dBA	130
70 dBA	41
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Grand Avenue		
Road Segment:	Willow Street to Burnett Street		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2,680
Peak Hour Traffic:	**268**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

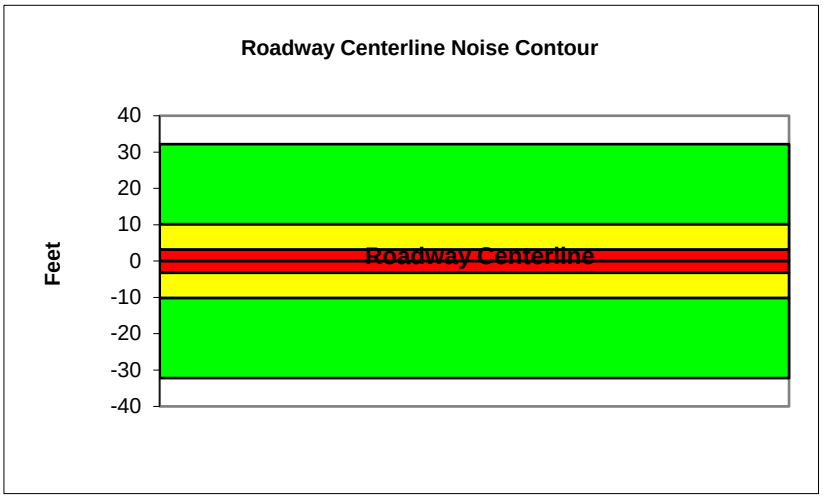
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.3	52.9	51.5	45.5	53.9	54.6
Medium Trucks:	54.0	26.2	18.7	27.4	33.6	33.6
Heavy Trucks:	59.2	23.4	19.9	24.6	32.3	32.4
Vehicle Noise:	**61.7**	**52.9**	**51.5**	**45.6**	**54.0**	**54.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	32
65 dBA	10
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	North of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	40,485
Peak Hour Traffic:	**4048.5**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

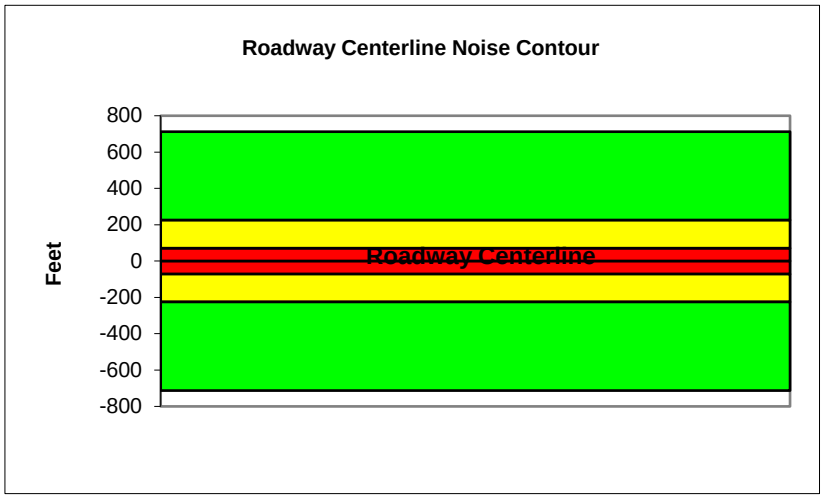
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.3	65.9	64.5	58.5	66.9	67.6
Medium Trucks:	66.3	38.5	30.9	39.7	45.8	45.9
Heavy Trucks:	71.1	35.3	31.8	36.5	44.0	44.1
Vehicle Noise:	**73.5**	**65.9**	**64.5**	**58.6**	**67.0**	**67.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	713
65 dBA	225
70 dBA	71
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Lakewood Boulevard		
Road Segment:	South of Willow Street		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	33,150
Peak Hour Traffic:	**3315**
Vehicle Speed:	40
Centerline Separation:	52

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

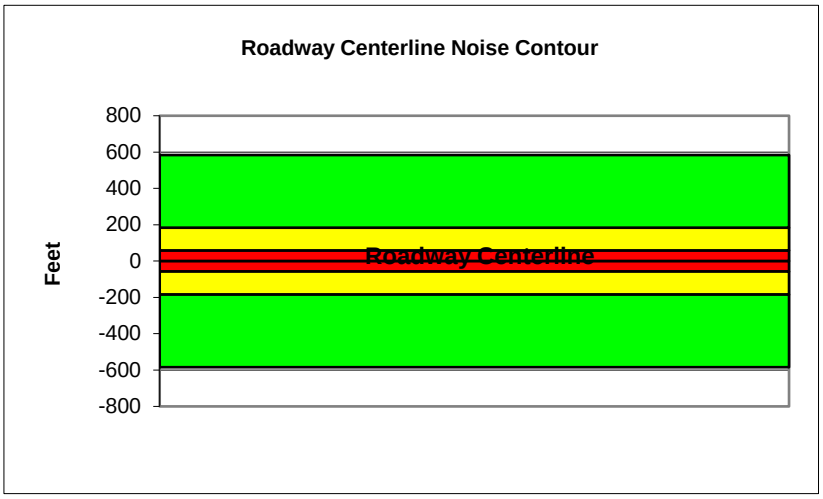
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.5	65.0	63.7	57.6	66.1	66.7
Medium Trucks:	65.4	37.6	30.1	38.8	45.0	45.0
Heavy Trucks:	70.2	34.4	31.0	35.6	43.1	43.2
Vehicle Noise:	**72.6**	**65.0**	**63.7**	**57.7**	**66.1**	**66.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	583
65 dBA	184
70 dBA	58
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Cherry Avenue to Temple Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	32,955
Peak Hour Traffic:	**3295.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

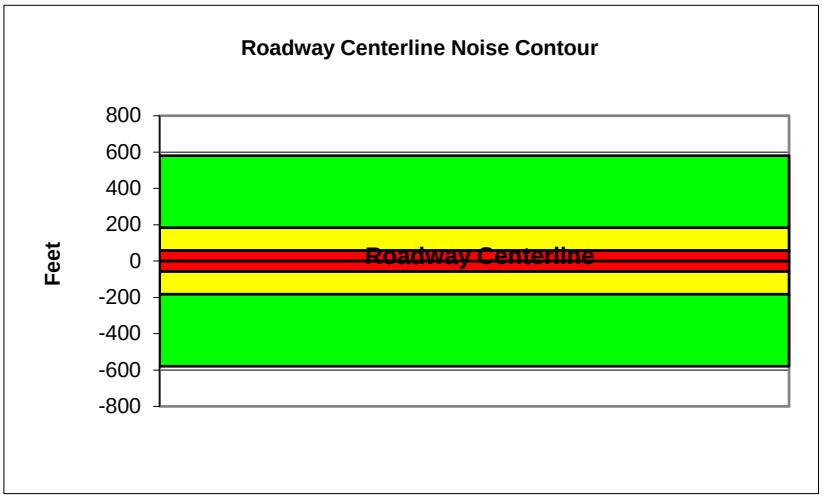
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.5	65.0	63.7	57.7	66.1	66.7
Medium Trucks:	65.4	37.6	30.1	38.8	45.0	45.0
Heavy Trucks:	70.3	34.4	31.0	35.6	43.2	43.3
Vehicle Noise:	**72.7**	**65.0**	**63.7**	**57.8**	**66.2**	**66.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	580
65 dBA	183
70 dBA	58
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Temple Avenue to Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	26,085
Peak Hour Traffic:	**2608.5**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

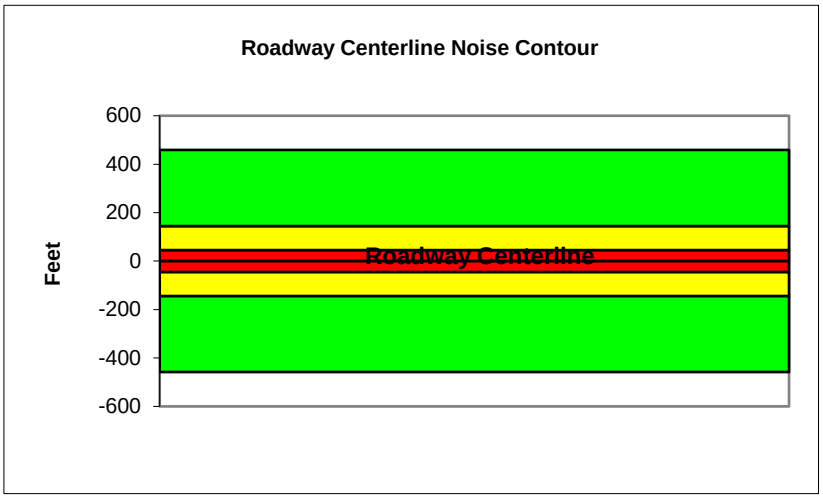
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.0	62.7	56.6	65.1	65.7
Medium Trucks:	64.4	36.6	29.1	37.8	44.0	44.0
Heavy Trucks:	69.3	33.4	30.0	34.6	42.1	42.2
Vehicle Noise:	**71.6**	**64.0**	**62.7**	**56.7**	**65.1**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	458
65 dBA	145
70 dBA	46
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	36,373
Peak Hour Traffic:	**3637.3**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

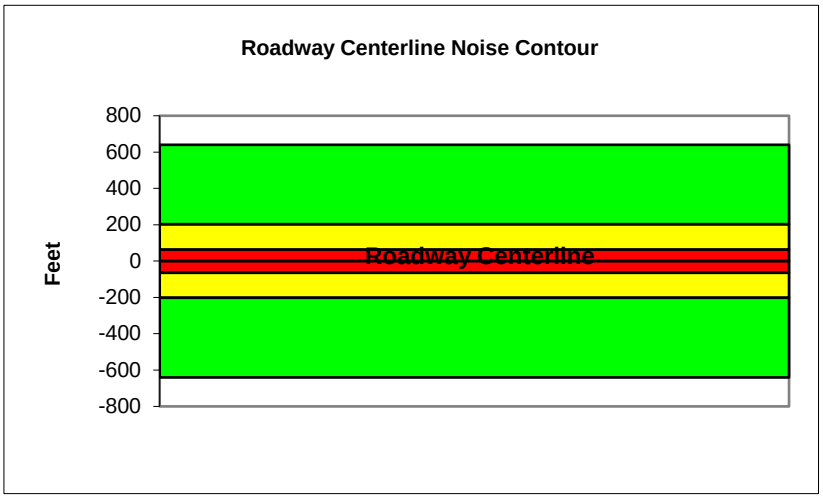
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.9	65.5	64.1	58.1	66.5	67.2
Medium Trucks:	65.9	38.1	30.5	39.3	45.4	45.5
Heavy Trucks:	70.7	34.8	31.4	36.0	43.6	43.7
Vehicle Noise:	**73.1**	**65.5**	**64.1**	**58.2**	**66.6**	**67.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	640
65 dBA	202
70 dBA	64
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Willow Street		
Road Segment:	Grand Avenue to Lakewood Boulevard		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	38,548
Peak Hour Traffic:	**3854.8**
Vehicle Speed:	40
Centerline Separation:	48

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

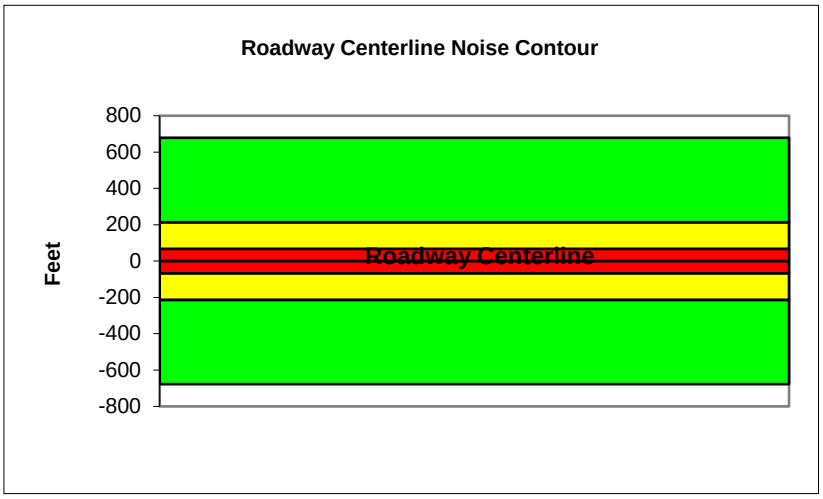
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.2	65.7	64.4	58.3	66.8	67.4
Medium Trucks:	66.1	38.3	30.8	39.5	45.7	45.7
Heavy Trucks:	71.0	35.1	31.7	36.3	43.8	43.9
Vehicle Noise:	**73.3**	**65.7**	**64.4**	**58.4**	**66.8**	**67.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	678
65 dBA	214
70 dBA	68
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Burnett Street		
Road Segment:	Redondo Avenue to Grand Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2,383
Peak Hour Traffic:	**238.3**
Vehicle Speed:	35
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

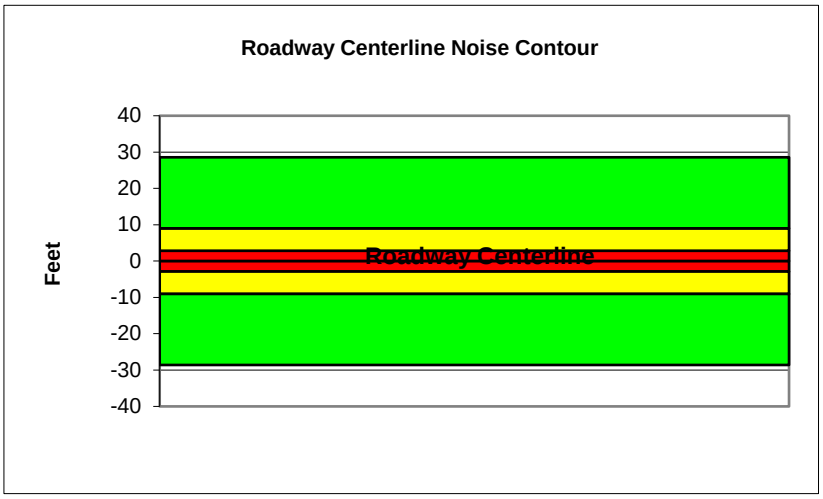
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.8	52.3	51.0	44.9	53.4	54.0
Medium Trucks:	53.5	25.7	18.1	26.9	33.0	33.1
Heavy Trucks:	58.7	22.8	19.4	24.0	31.8	31.9
Vehicle Noise:	**61.1**	**52.3**	**51.0**	**45.1**	**53.4**	**54.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	29
65 dBA	9
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Hill Street		
Road Segment:	West of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	6,455
Peak Hour Traffic:	**645.5**
Vehicle Speed:	35
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

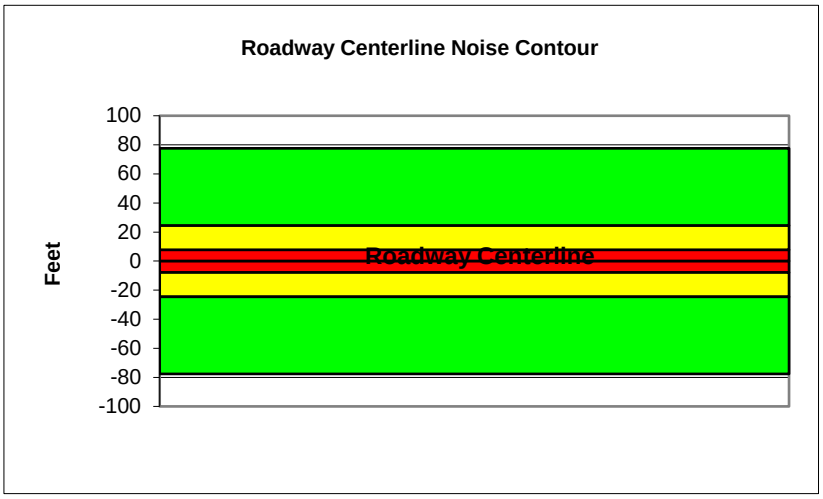
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.1	56.7	55.3	49.3	57.7	58.4
Medium Trucks:	57.8	30.0	22.5	31.2	37.4	37.4
Heavy Trucks:	63.1	27.2	23.8	28.4	36.1	36.2
Vehicle Noise:	**65.5**	**56.7**	**55.3**	**49.4**	**57.8**	**58.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	78
65 dBA	25
70 dBA	8
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Stearns Street		
Road Segment:	East of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	7,535
Peak Hour Traffic:	**753.5**
Vehicle Speed:	30
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

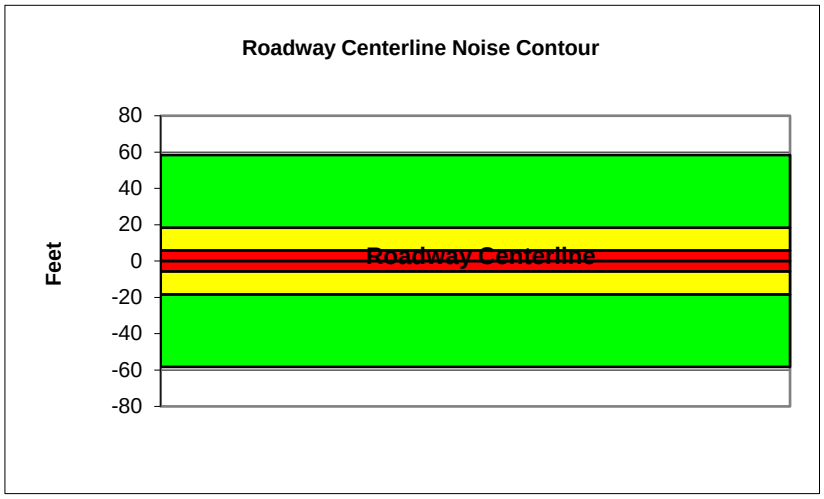
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.9	55.5	54.2	48.1	56.6	57.2
Medium Trucks:	57.5	29.7	22.2	30.9	37.1	37.1
Heavy Trucks:	63.2	27.3	23.9	28.5	36.5	36.6
Vehicle Noise:	**65.7**	**55.5**	**54.2**	**48.3**	**56.6**	**57.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	58
65 dBA	18
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	East of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	31,760
Peak Hour Traffic:	**3176**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

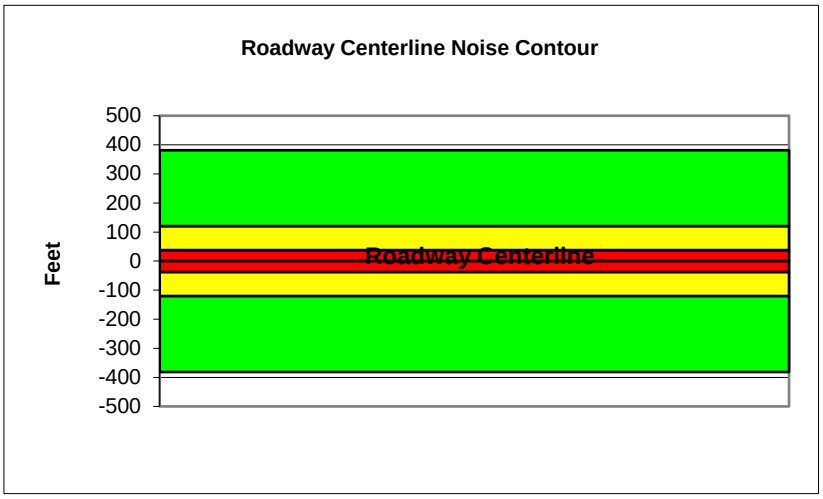
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.3	62.0	56.0	64.4	65.0
Medium Trucks:	64.5	36.7	29.2	37.9	44.1	44.1
Heavy Trucks:	69.7	33.8	30.4	35.0	42.8	42.9
Vehicle Noise:	**72.1**	**63.3**	**62.0**	**56.1**	**64.5**	**65.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	381
65 dBA	121
70 dBA	38
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	2300 Redondo	Scenario:	Future Plus Project
Analyst:	Jessica Ditto	Job #:	161401
Roadway:	Pacific Coast Highway (SR-1)		
Road Segment:	West of Redondo Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	30,075
Peak Hour Traffic:	**3007.5**
Vehicle Speed:	35
Centerline Separation:	40

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.736	0.136	0.1022	0.974
Med. Truck	0.009	0.0004	0.009	0.0184
Heavy Truck	0.0035	0.0004	0.0035	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

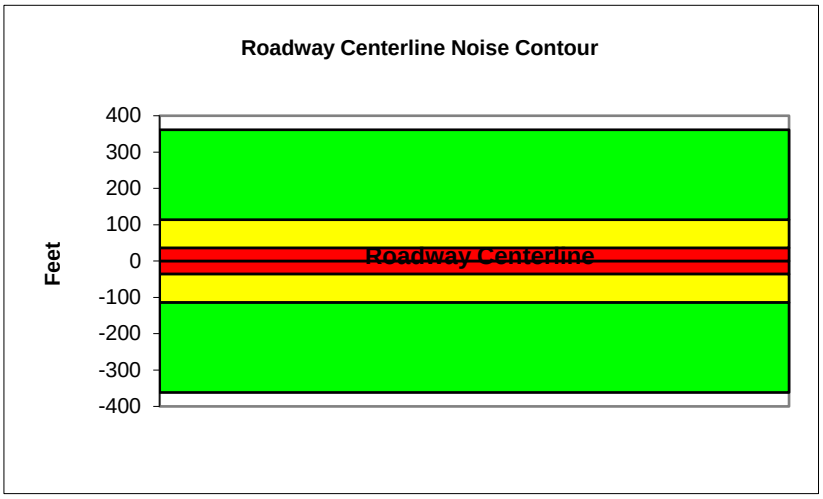
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	63.1	61.8	55.7	64.2	64.8
Medium Trucks:	64.3	36.4	28.9	37.6	43.8	43.9
Heavy Trucks:	69.5	33.6	30.2	34.8	42.5	42.6
Vehicle Noise:	**71.9**	**63.1**	**61.8**	**55.8**	**64.2**	**64.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	362
65 dBA	114
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



2300 Redondo

Operational Noise Levels

Signs and symbols

Wall

Receiver

Calculation area

0 15 30 60 90 120 m