



Appendix F

Noise Modeling

C:\LARDAV\SLMUTIL\ATHEN929.bin Interval Data

Meas								
Site	Location	Number	Date	Time	Duration	Leq	SEL	Lmax
----	-----	-----	-----	-----	-----	-----	-----	-----
	0	0	29Sep 09	12:00:37	1200	66.5	97.3	84
	0	0	29Sep 09	12:29:01	1200	60	90.8	77.1
	0	0	29Sep 09	12:51:24	1200	67.8	98.6	86.3

Lmin	Peak	Uwpk
50.7	100.2	108.5
51.7	91.8	107.6
51.2	99.4	110.7

RAILROAD NOISE CALCULATION

Project: Lemoore Wal-Mart - Match Mestre-Greve Calculation

INPUT DATA

		CORRECTION FACTORS	Assumed dBA
<i>Passenger Trains</i>			
Number of locomotives (Default=1)	0	Grade-crossing with bells?	yes 90
Number of cars (Default=8)	8	Horns?	yes 96
Train speed in mph (Default=35)	10	Maximum of following adds to train car SENEL	
Distance to tracks, feet	25	Rough welded rail?	no
Number of trains during day (7am-7pm)	6	Rough wheels?	no
Number of trains during evening (7pm-10pm)	1	Old, corrugated rail?	no
Number of trains during night (10pm-7am)	1	Wheels with flats?	no
		Jointed rail?	no
		Switch?	no
		dBA added to car SENEL:	+ 0
		Barrier adjustment for locomotive:	0.0 dBA
		Barrier adjustment for cars:	0.0 dBA
		CORRECTION FACTORS	Assumed dBA
<i>Freight Trains</i>			
Number of locomotives (Default=2)	0	Grade-crossing with bells?	yes 90
Number of cars (Default=50)	0	Horns?	yes 100
Train speed in mph (Default=35)	0	Maximum of following adds to train car SENEL	
Distance to tracks, feet	0	Rough welded rail?	no
Number of trains during day (7am-7pm)	0	Rough wheels?	no
Number of trains during evening (7pm-10pm)	0	Old, corrugated rail?	no
Number of trains during night (10pm-7am)	0	Wheels with flats?	no
		Jointed rail?	no
		Switch?	no
		dBA added to car SENEL:	+ 0
		Barrier adjustment for locomotive:	0.0 dBA
		Barrier adjustment for cars:	0.0 dBA

CALCULATION RESULTS

Passenger Train CNEL value:	72.4 dBA
Freight Train CNEL value:	Not Applicable
Combined CNEL value:	72.4 dBA
Distance to contour lines:	
80 dBA CNEL	Not Applicable
75 dBA CNEL	Not Applicable
70 dBA CNEL	Not Applicable
65 dBA CNEL	58 feet
60 dBA CNEL	104 feet
55 dBA CNEL	186 feet
50 dBA CNEL	333 feet

Note: Sound level calculations do not account for terrain, reflective conditions, or barrier features unless otherwise noted.

Reference: Harris, C.M. (1979), *Handbook of Noise Control*, 2nd. Ed

Existing1stbtwAlameda&Vignes
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Existing1stbtwAlameda&Vignes

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	823.7
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	17.2
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	17.2
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Existing1stbtwAlameda&Vignes

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	64.7

CumBase1stbtwAlameda&Vignes
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Cum+ProjFirstbtwAlameda&Vignes

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2209.9
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	46.0
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	46.0
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Cum+ProjFirstbtwAlameda&Vignes

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.0

Cum+Proj1stbtwAlameda&Vignes
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Cum+Project1stbtwAlameda&Vignes

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2209.9
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	46.0
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	46.0
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Cum+Project1stbtwAlameda&Vignes

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.0

ExistingAlamedabtw Aliso&Temple
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

ExistingAlamedabtw Aliso&Temple

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2512.3
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	52.3
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	52.3
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

ExistingAlamedabtw Aliso&Temple

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.6

BaseAlamedabtw Aliso&Temple
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

BaseAlamedabtw Aliso&Temple

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2818.6
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	58.7
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	58.7
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

BaseAlamedabtw Aliso&Temple

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.1

Cum+ProjAlamedabtw Aliso&Temple
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Cum+ProjAlamedabtwAliso&Temple

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	3073.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	64.0
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	64.0
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Cum+ProjAlamedabtwAliso&Temple

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.5

ExistingAlamedabtw1st&2nd
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

ExistingAlamedabtw1st&2nd

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1841.3
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	38.4
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	38.4
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

ExistingAlamedabtw1st&2nd

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	68.2

CumBaseAlamedabtw1st&2nd
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

CumBaseAlamedabtw1st&2nd

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2065.9
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	43.0
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	43.0
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

CumBaseAlamedabtw1st&2nd

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	68.7

Cum+ProjAlamedabtw1st&2nd
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Cum+ProjAlamedabtwFirst&Second

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2125.4
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	44.3
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	44.3
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Cum+ProjAlamedabtwFirst&Second

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	68.9

ExistingAlamedabtwTemple&First
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

ExistingAlamedabtwTemple&First

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2113.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	44.0
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	44.0
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

ExistingAlamedabtwTemple&First

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	68.8

CumBaseAlamedabtwTemple&First
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

CumBaseAlamedabtwTemple&First

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2333.8
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	48.6
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	48.6
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

CumBaseAlamedabtwTemple&First

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.3

Cum+ProjAlamedabtwTemple&First
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Cum+ProjAlamedabtwTemple&First

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	2333.8
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	48.6
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	48.6
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Cum+ProjAlamedabtwTemple&First

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.3

ExistingTemplebtw LA&Alameda
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

ExistingTemplebtw LA&Alameda

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1345.9
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	28.0
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	28.0
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

ExistingTemplebtw LA&Alameda

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	66.9

Cum+ProjTemplebtwLA&Alameda
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Cum+ProjTemplebtwLA&Alameda

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1607.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	33.5
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	33.5
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Cum+ProjTemplebtwLA&Alameda

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	67.6

CumBaseTemplebtw LA&Alameda
* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

CumBaseTemplebtw LA&Alameda

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1479.4
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	30.8
Average medium truck speed (mph):	30.0
Heavy truck volume (v/h):	30.8
Average heavy truck speed (mph):	30.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

CumBaseTemplebtw LA&Alameda

Distance from center of 12-ft wide, single lane roadway (ft):	50.0
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	67.3