

APPENDIX J

Noise Technical Appendix

MEMORANDUM

APPENDIX J NOISE TECHNICAL APPENDIX

Introduction

This memorandum serves as a supplement to Appendix J, Noise Technical Appendix of the *Draft Environmental Impact Report for the Buena Vista Lagoon Enhancement Project* dated December 2014 and prepared by AECOM, Inc. This memorandum has been prepared to identify and summarize the noise data outputs contained within Appendix J, as referenced in Section 3.13 Noise of the project EIR. Appendix J contains 1) project construction traffic noise modeling output sheets using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (RD-77-108) and 2) field noise monitoring data sheets.

FHWA Highway Traffic Noise Prediction Model Output Sheets

On-Road Project Construction Vehicle Traffic Noise

Existing and existing plus project traffic noise levels were modeled using the FHWA Highway Traffic Noise Prediction Model (RD-77-108). Output data sheets are provided in Appendix J for Carlsbad Boulevard/Coast Highway for Existing and Existing Plus Project Ldn.

Field Noise Monitoring Data Sheets

For each noise monitoring location, data sheets were completed in the field to include date, time, location, and measurement observations including noise sources. These field monitoring data sheets are included in Appendix J.

Traffic Noise Prediction Model, (FHWA RD-77-108)
Model Input Sheet



Project Name : BVLEP
Project Number : 60288954
Modeling Condition : Construction Traffic Noise
Ground Type : soft
Metric (L_{eq}, L_{dn}, CNEL) : Ldn

K Factor : N/A
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	From	Segment To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	A	B	C	500	35	100	80	5	15	87	0	13	

Traffic Noise Prediction Model, (FHWA RD-77-108)
Predicted Noise Levels



Project Name : BVLEP
Project Number : 60288954
Modeling Condition : Construction Traffic Noise
Metric (Leq, Ldn, CNEL) : Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	A	B	C	44.1	41.8	51.8	52.8	7	15	33	71	154

PROJECT: WLEP PROJECT #: _____
 DATE: 8/22/2014 ENGINEER/ANALYST: Keoni Calantas
 SLM Model: B20 (SN: 1671) Calibrator Model: 200 (SN: 6203) Cal: 113.6 dBA -0.4

MEASUREMENT LOCATION ID#: LT-02 METEOROLOGY
 Description: southside of inlet, on beach, pedestrians may use this area to access beach Temperature: 79.9
 Distance from edge of roadway: 100m roadway width col de sac lane width _____ Humidity: 68.1
 Distance from barriers: 15' type shrub height 8' Wind Speed (gusts?): 2/6.4
 Comments: col de sac is low-traffic b/c private property, roadway is residential private community is ~100m N of recording loc. Wind Direction: WG-E

*Sketch monitoring site with roadways, receptors, barriers, and SLM location (on back) _____ and/or take photos _____

MEASUREMENT DATA
 Start Time: 3:42 Principal Noise Source: construction in residential areas on both sides of
 Stop Time: 4:02 Other Sources: inlet

Maximum Noise Levels/Source(s): 61 garbage truck
 Minimum Noise Level: 47.2
 Average Noise Level: _____

Comments: ambient noise of breeze and crashing waves @ 49-52 dBA
garbage truck in private community is 57 dBA, up to 61 dBA
lawn mower in private comm @ 55-57 dBA, back on after garbage truck
50-52 lawn mower is far away, waves are ambient noise and beach goes
flyby ducks @ 58 dBA
57 monitor sneezed (oops!) lawn mower back on @ 54-58 dBA

TRAFFIC COUNT DATA Sketch Area (include distances from buildings, roadways, walls, etc.)

Start Time: 3:42 Stop Time: _____
 (Should be same start/stop as noise measurement start/stop)

Direction: _____ Autos _____

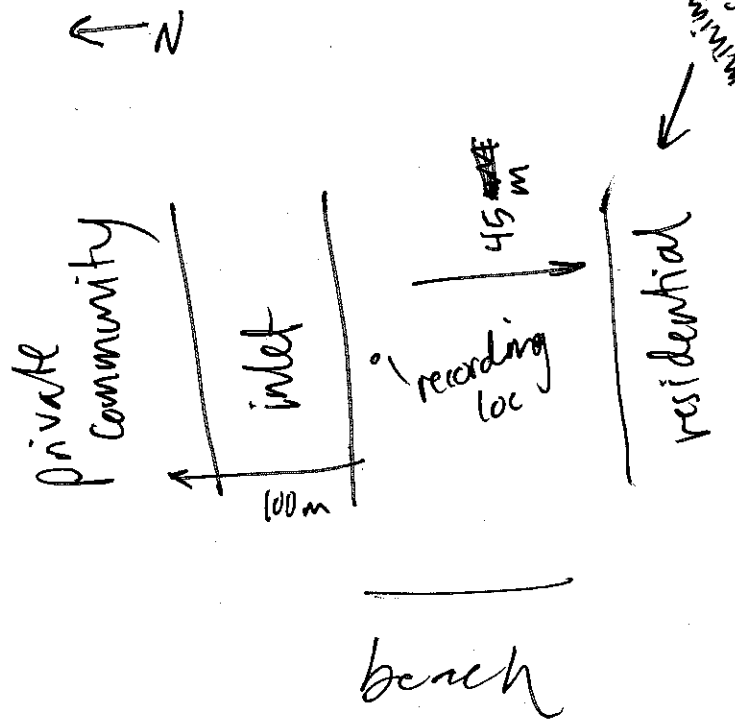
Speed (mph): _____
 Med. Trucks _____

Heavy Trucks _____

Direction: _____ Autos _____

Speed (mph): _____
 Med. Trucks _____

Heavy Trucks _____



PROJECT: BVLEP PROJECT #: _____
 DATE: 8/20-22/2014 ENGINEER/ANALYST: Keoni Calantog
 SLM Model: 820 (SN: 671) Calibrator Model: 200 (SN: 6203) Cal: 113.6 dB -0.46

MEASUREMENT LOCATION ID#: ST-05 METEOROLOGY
 Description: location changed to NE side of railroad so publicly accessible. Adjacent to train tracks, on lagoon Temperature: 84.7
 Distance from edge of roadway: _____ roadway width _____ lane width train Humidity: 60.2 1.6
 Distance from barriers: 8 type vegeta tree height 16' Wind Speed (gusts?): 10/3
 Wind Direction: NE
 Comments: _____

*Sketch monitoring site with roadways, receptors, barriers, and SLM location (on back) _____ and/or take photos _____

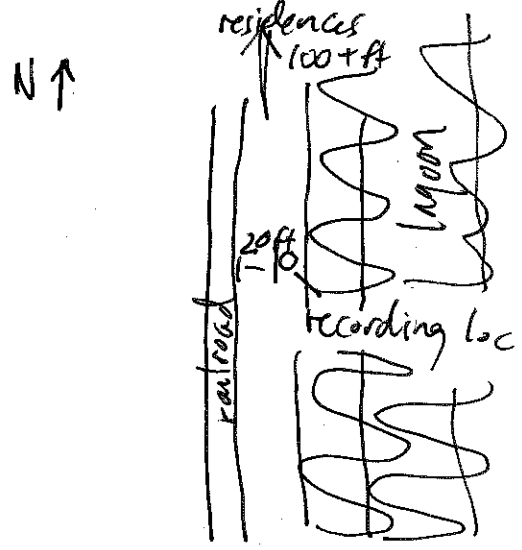
MEASUREMENT DATA
 Start Time: 2:30 PM Principal Noise Source: train passing thru, some background noise from
 Stop Time: 2:50 PM Other Sources: closest residences (lawn mowing), some helicopters

Maximum Noise Levels/Source(s): 87.5 dB train passing
 Minimum Noise Level: 31.9
 Average Noise Level: 42-44

Comments: when wind gusts leaves, SLM reads ~46 dB, ~55-57 is train
horns from distance. 45-48 is nearby bird chirping
48-50 is plane flying overhead. some ambient noise from 101 traffic, not
too loud, only reads to 46ish. approaching plane over above flying
over reading at 60 dB

TRAFFIC COUNT DATA Sketch Area (include distances from buildings, roadways, walls, etc.)

Start Time: _____ Stop Time: _____
 (Should be same start/stop as noise measurement start/stop)
 Direction: _____ Autos
 Speed (mph): _____
 Med. Trucks train passings 1
 Heavy Trucks _____
 Direction: _____ Autos
 Speed (mph): _____
 Med. Trucks _____
 Heavy Trucks _____



PROJECT: _____ PROJECT #: _____
 DATE: 8/21/2014 ENGINEER/ANALYST: Keoni Calantog
 SLM Model: 820 (SN: 6671) Calibrator Model: 200 (SN: 6203) Cal: 100113.5 -0.5

MEASUREMENT LOCATION ID#: ST-04 METEOROLOGY
 Description: recording in parking lot of closed BV Audubon Nature Center Temperature: 79.5 F
 Humidity: 81.3%
 Distance from edge of roadway: 45' roadway width 26 lane width 7 Wind Speed (gusts?): 4.6/7.8 mph
 Distance from barriers: 25' type building height 20+ Wind Direction: E
 Comments: three lane road, even amount of traffic going North and South bound, motorcyclists are loudest noise disturbance,

*Sketch monitoring site with roadways, receptors, barriers, and SLM location (on back) _____ and/or take photos _____

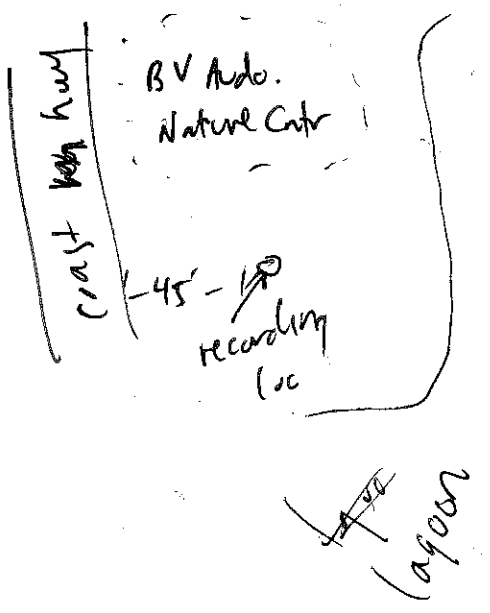
MEASUREMENT DATA
 Start Time: 4:04 PM Principal Noise Source: traffic from coast hwy
 Stop Time: 4:24 Other Sources: _____
 Maximum Noise Levels/Source(s): 64+ 76.3 sub-band motorcyclist
 Minimum Noise Level: st. v 44.4
 Average Noise Level: 58 w/o traffic 63 w/ traffic
 Comments: heli flying overhead - 58 LPA w/o traffic, no other real noise disturbances besides traffic. No noise from BV Audubon Nature Center (closed), no human/pedestrian noise. loud trucks 2nd cars @ 69 dBA avg. noticeable

TRAFFIC COUNT DATA _____ Sketch Area (include distances from buildings, roadways, walls, etc.)

Start Time: 4:04 Stop Time: 4:24
 (Should be same start/stop as noise measurement start/stop)
 Direction: _____ Autos
 Speed (mph): 40 mph

Med. Trucks	III	III	III	III	III	III	III
	+35	+20	+30	+35	+30	+30	
Heavy Trucks	III	II					
	+30	+50	+50	+50	+50	+23	(473)

 Direction: _____ Autos
 Speed (mph): _____
 Med. Trucks
 Heavy Trucks



↑
 can't see BOTH N and S-bound traffic

PROJECT: BVLEP PROJECT #: _____
 DATE: 8/15/2014 ENGINEER/ANALYST: Keoni Calantog
 SLM Model: 820 (SN: 1671) Calibrator Model: 200 (SN: 6203) Cal: 113.25 -0.5

MEASUREMENT LOCATION ID#: ST-03 METEOROLOGY
 Description: in parking lot of apartment complex Temperature: 77
 Distance from edge of roadway: IN roadway roadway width 20 lane width 10 Humidity: 62
 Distance from barriers: 9' type balcony wall height 10 Wind Speed (gusts?): 2.2/9.6
 Comments: _____ Wind Direction: N/A

*Sketch monitoring site with roadways, receptors, barriers, and SLM location (on back) _____ and/or take photos _____

MEASUREMENT DATA

Start Time: 5:05 Principal Noise Source: non ambient noise from residences

Stop Time: 5:05 Other Sources: _____

Maximum Noise Levels/Source(s): 58.5 ~~59.6~~ 56.0 helicopter + train noise from residents, cleaning, bottles banging, residential

Minimum Noise Level: 40.7 40.4 - disregard 59.6 - monitor stepped on leaf

Average Noise Level: 43

Comments: no noise from traffic

47 dBA w/ wind, pretty quiet except for sporadic banging from residents down the alley
 wind seems to have more of a noticeable difference in sound when ~~not~~ near active roadway.

TRAFFIC COUNT DATA Sketch Area (include distances from buildings, roadways, walls, etc.)

Start Time: _____ Stop Time: _____
 (Should be same start/stop as noise measurement start/stop)

Direction: _____ Autos

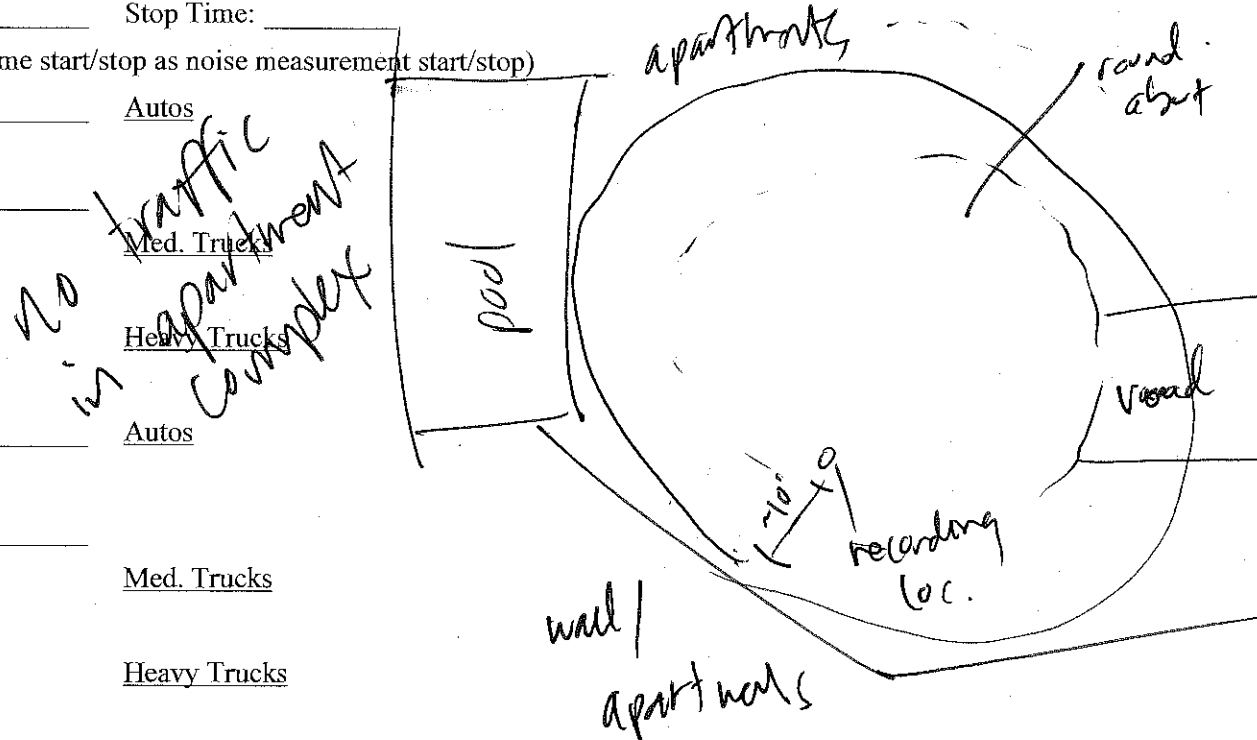
Speed (mph): _____
 Med. Trucks

Direction: _____ Autos

Speed (mph): _____
 Med. Trucks

Direction: _____ Autos

Speed (mph): _____
 Heavy Trucks



PROJECT: BVLEP PROJECT #: _____
 DATE: 8/21/2014 ENGINEER/ANALYST: Keoni Calantog
 SLM Model: 820 (SN: 1671) Calibrator Model: 200 (SN: 6203) Cal: 113.5 -0.5

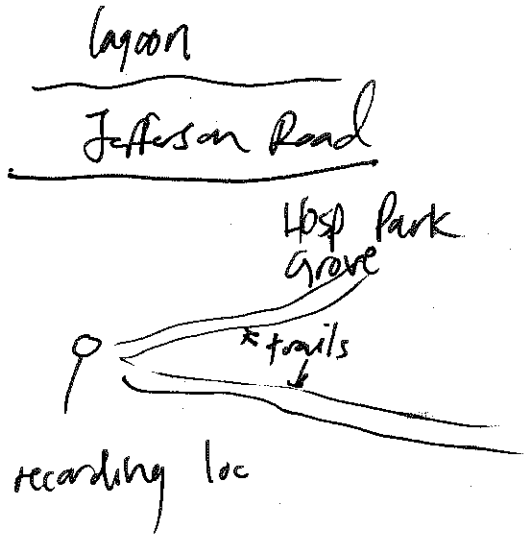
MEASUREMENT LOCATION ID#: ST-02 METEOROLOGY
 Description: w. end of public park, in hiking area of euk trees, on hillside facing lagoon Temperature: 74.9F
 Distance from edge of roadway: ~120ft roadway width 22 lane width 7 Humidity: 72
 Distance from barriers: N/A type _____ height _____ Wind Speed (gusts?): 4.4 mph / 7.6
 Wind Direction: E
 Comments: no walls, on hillside facing lagoon. not totally open b/c tall euks spread in trails

*Sketch monitoring site with roadways, receptors, barriers, and SLM location (on back) _____ and/or take photos _____

MEASUREMENT DATA
 Start Time: 3:11 PM Principal Noise Source: w-bound Jefferson Road traffic
 Stop Time: 3:31 Other Sources: _____
 Maximum Noise Levels/Source(s): 74.1 Jefferson Road traffic (w-bound) - motorcyclist
 Minimum Noise Level: 58.1 57.6
 Average Noise Level: 63 w traffic, 58 w/o traffic
 Comments: principal noise is traffic - ambient background noise is rustling leaves, no bystanders. minimal (4 people) pedestrian (on shoulder of road) presence. loudest noises came from multiple motorcyclists

TRAFFIC COUNT DATA Sketch Area (include distances from buildings, roadways, walls, etc.)

Start Time: 3:11 Stop Time: 3:31
 (Should be same start/stop as noise measurement start/stop)
 Direction: W Autos
 Speed (mph): 35 5 5 10 10 10 10 10 103
 Med. Trucks _____
 Heavy Trucks _____
 Direction: _____ Autos _____
 Speed (mph): _____
 Med. Trucks _____
 Heavy Trucks _____



PROJECT: BVLEP

PROJECT #:

DATE: 8/21/2014

ENGINEER/ANALYST: Keoni Calantas

SLM Model: 820 (SN: 1671) Calibrator Model: 200 (SN: 6203) Cal: 113.8 -0.2

MEASUREMENT LOCATION ID#: ST-01

METEOROLOGY

Description: outlook, behind restaurant - part of plaza, overlooks

Temperature: 75°F

78

Humidity: 68.6

Distance from edge of roadway: ~25' roadway width 28' lane width 7'

Wind Speed (gusts?): 6.6 mph / 10 mph gust

Distance from barriers: 50' type restaurant height 20'

Wind Direction: E

Comments: closest roadway is not making most noise, principal noise source is freeway (farther)

*Sketch monitoring site with roadways, receptors, barriers, and SLM location (on back) and/or take photos

MEASUREMENT DATA

Start Time: 2:15 PM Principal Noise Source: traffic on 78

Stop Time: 2:35 PM Other Sources:

Maximum Noise Levels/Source(s): 69.2 70.2 71.4 eastbound traffic on 78

Minimum Noise Level: 63.2 62.1 60.5

Average Noise Level: ~64

Comments: most audible is traffic, secondary would be leaves of vegetation rustling in wind, minimal noise from restaurant (behind location), @ 2:21 - bird chirping @ adj tree: 67.2 dBA. @ 2:31 - monitor sneezed (67 dBA?)

TRAFFIC COUNT DATA

Sketch Area (include distances from buildings, roadways, walls, etc.)

Start Time: Stop Time:

(Should be same start/stop as noise measurement start/stop)

Direction: W Autos

Speed (mph): 20 mph ~130

Med. Trucks

7 ||| | larger
Heavy Trucks

7 |||

Direction: Autos

~~7 |||~~

Speed (mph):

Med. Trucks

Heavy Trucks

