

The District Project

Draft EIR

Appendix, Noise Worksheets

- 1 Ambient Noise Data
- 2 Construction Noise Calculations
- 3 Off-Site Traffic Noise Calculations

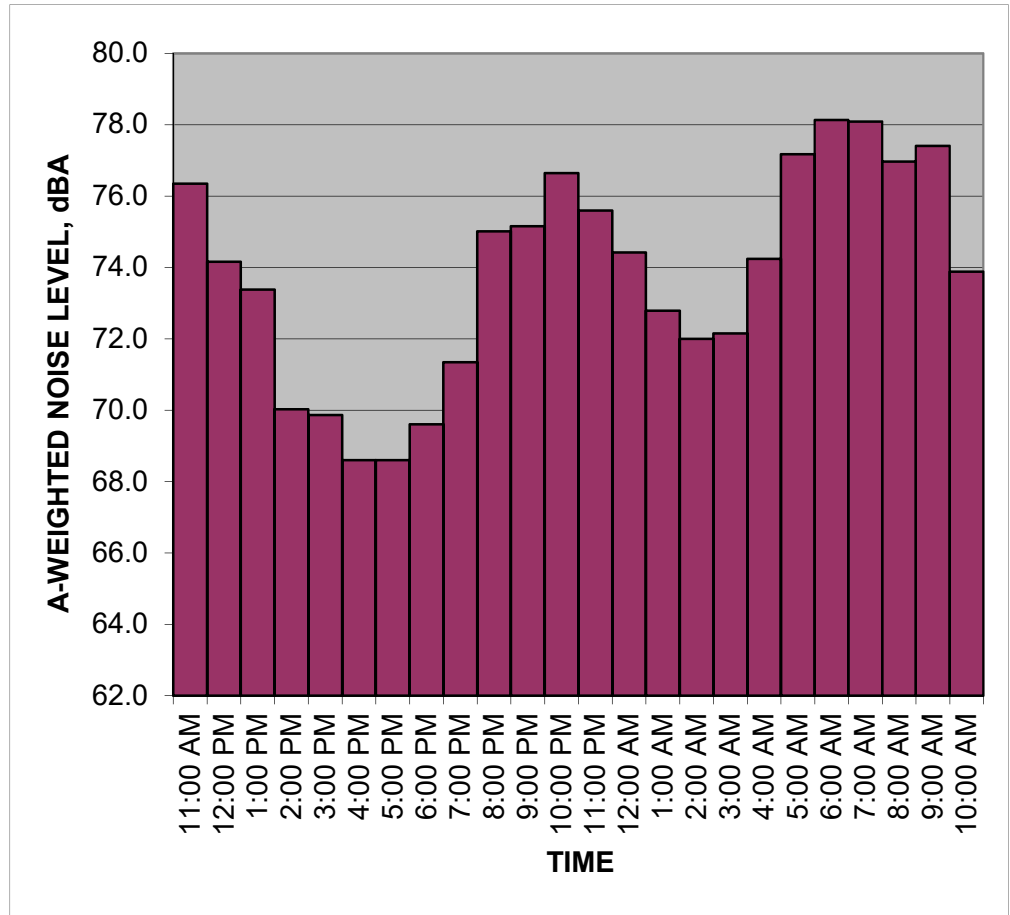
Appendix 1
Ambient Noise Data

Measured Ambient Noise Levels

Project: The District
 Location: R2: Northeast of the Project Site
 Sources: Ambient

Date: August 3-4, 2017

TIME	HNL, dB(A)
11:00 AM	76.3
12:00 PM	74.2
1:00 PM	73.4
2:00 PM	70.0
3:00 PM	69.9
4:00 PM	68.6
5:00 PM	68.6
6:00 PM	69.6
7:00 PM	71.3
8:00 PM	75.0
9:00 PM	75.2
10:00 PM	76.6
11:00 PM	75.6
12:00 AM	74.4
1:00 AM	72.8
2:00 AM	72.0
3:00 AM	72.2
4:00 AM	74.2
5:00 AM	77.2
6:00 AM	78.1
7:00 AM	78.1
8:00 AM	77.0
9:00 AM	77.4
10:00 AM	73.9
CNEL, dB(A):	81.8



NOTES:

Noise Measurement Data

Project: The District **Location:** R2: Northeast of the Project Site

West of I-405

08/03/17 08/04/17 08/05/17 08/06/17

Start Date and Time

12:00:00 AM	74.42
1:00:00 AM	72.79
2:00:00 AM	72.00
3:00:00 AM	72.15
4:00:00 AM	74.24
5:00:00 AM	77.17
6:00:00 AM	78.14
7:00:00 AM	78.09
8:00:00 AM	76.97
9:00:00 AM	77.41
10:00:00 AM	73.88
11:00:00 AM	76.35
12:00:00 PM	74.16
1:00:00 PM	73.38
2:00:00 PM	70.02
3:00:00 PM	69.86
4:00:00 PM	68.60
5:00:00 PM	68.60
6:00:00 PM	69.60
7:00:00 PM	71.34
8:00:00 PM	75.01
9:00:00 PM	75.16
10:00:00 PM	76.64
11:00:00 PM	75.60

8/3/2017	9:00:00 AM	Start
8/4/2017	10:00:00 AM	8/3/17 11:00 AM
8/5/2017	11:00:00 AM	End
8/6/2017	12:00:00 PM	8/4/17 11:00 AM
	1:00:00 PM	
	2:00:00 PM	
	3:00:00 PM	

CNEL	81.8
L _{dn}	81.6
24-hr Max.	78.1
24-hr Min.	68.6
24-hr Nighttime Average ^a	75.3
24-hr Nighttime Max	78.1
24-hr Nighttime Min	72.0
24-hr Daytime Average ^a	74.3
24-hr Daytime Max	78.1
24-hr Daytime Min	68.6
Total Period Average	74.7
Total Period Max	78.1
Total Period Min	68.6
Total Period Daytime Average	74.3
Total Period Daytime Max	78.1
Total Period Daytime Min	68.6
Total Period Nighttime Average	75.3
Total Period Nighttime Max	78.1
Total Period Nighttime Min	71.3

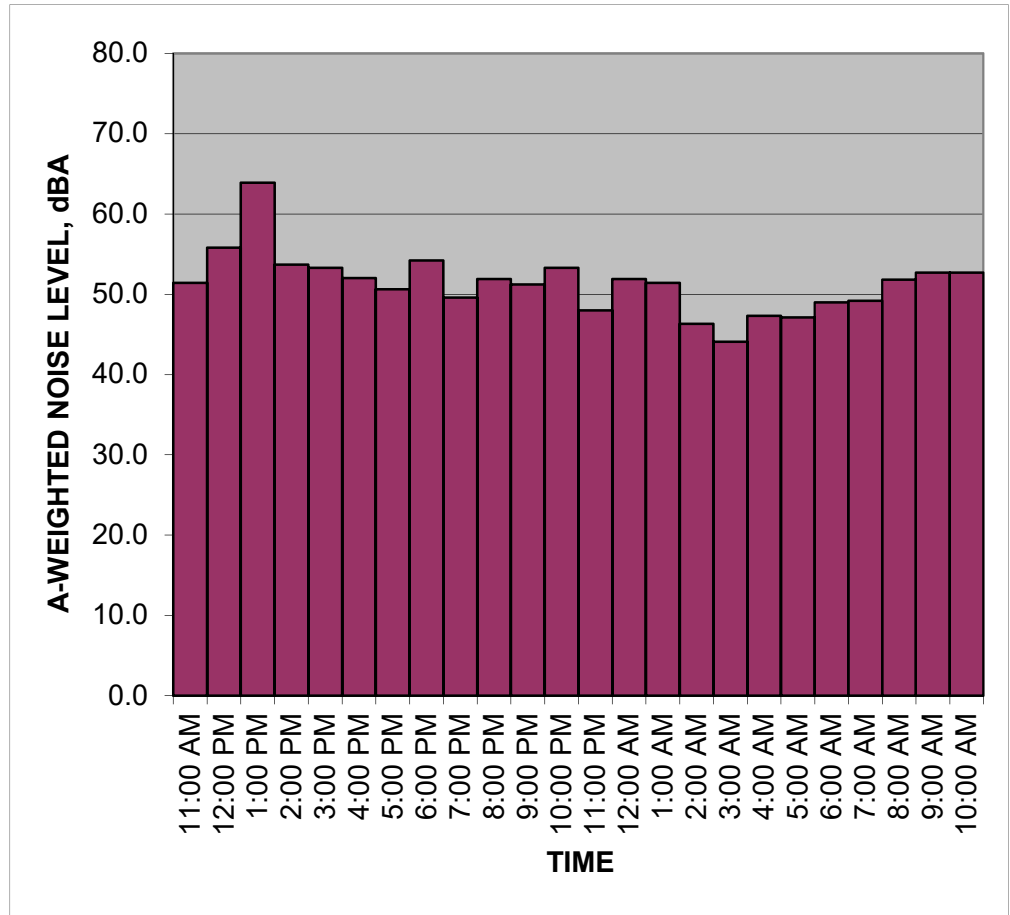
^a Daytime hours are from 7:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 7:00 a.m.

Measured Ambient Noise Levels

Project: SCORE
 Location: R3: Southeast, across from Torrance Channel
 Sources: Ambient

Date: August 3-4, 2016

TIME	HNL, dB(A)
11:00 AM	51.4
12:00 PM	55.8
1:00 PM	63.9
2:00 PM	53.7
3:00 PM	53.3
4:00 PM	52.0
5:00 PM	50.6
6:00 PM	54.2
7:00 PM	49.6
8:00 PM	51.9
9:00 PM	51.2
10:00 PM	53.3
11:00 PM	48.0
12:00 AM	51.9
1:00 AM	51.4
2:00 AM	46.3
3:00 AM	44.1
4:00 AM	47.3
5:00 AM	47.1
6:00 AM	49.0
7:00 AM	49.2
8:00 AM	51.8
9:00 AM	52.7
10:00 AM	52.7
CNEL, dB(A):	57.7



NOTES:

Noise Measurement Data

Project: SCORE **Location:** R3: Southeast, across from Torrance Channel and the mobile homes

08/03/17 08/04/17 08/05/17 08/06/17

Start Date and Time

12:00:00 AM		51.90
1:00:00 AM		51.40
2:00:00 AM		46.30
3:00:00 AM		44.10
4:00:00 AM		47.30
5:00:00 AM		47.10
6:00:00 AM		49.00
7:00:00 AM		49.20
8:00:00 AM		51.80
9:00:00 AM		52.70
10:00:00 AM		52.70
11:00:00 AM	51.40	
12:00:00 PM	55.80	
1:00:00 PM	63.90	
2:00:00 PM	53.70	
3:00:00 PM	53.30	
4:00:00 PM	52.00	
5:00:00 PM	50.60	
6:00:00 PM	54.20	
7:00:00 PM	49.60	
8:00:00 PM	51.90	
9:00:00 PM	51.20	
10:00:00 PM	53.30	
11:00:00 PM	48.00	

8/3/2017	9:00:00 AM	Start
8/4/2017	10:00:00 AM	8/3/17 11:00 AM
8/5/2017	11:00:00 AM	End
8/6/2017	12:00:00 PM	8/4/17 11:00 AM
	1:00:00 PM	
	2:00:00 PM	
	3:00:00 PM	

CNEL	57.7
L _{dn}	57.4
24-hr Max.	63.9
24-hr Min.	44.1
24-hr Nighttime Average ^a	49.6
24-hr Nighttime Max	53.3
24-hr Nighttime Min	44.1
24-hr Daytime Average ^a	55.2
24-hr Daytime Max	63.9
24-hr Daytime Min	49.2
Total Period Average	53.8
Total Period Max	63.9
Total Period Min	44.1
Total Period Daytime Average	55.2
Total Period Daytime Max	63.9
Total Period Daytime Min	49.2
Total Period Nighttime Average	49.6
Total Period Nighttime Max	53.3
Total Period Nighttime Min	44.1

^a Daytime hours are from 7:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 7:00 a.m.

C:\PROGRA~1\SLMUTIL\DISTRICT.bin Interval Data

Wind Meas	Wind Avg	Wind Max	RMS Dir	Excd	Duration	Leq	SEL	Lmax	Lmin	Peak	Uwpk	L(1)	L(10)	L(25)	L(50)	L(90)	L(99)	Hz	Hz	@ Max	Count		
0	R1		0	03Aug 17	8:16:47	900	72.7	102.4	86.3	62.6	104	108.6	81.7	75.5	73.3	70.8	65.9	63.9	0	N	6	0	
0	R4		0	03Aug 17	8:45:23	900	58.9	94.3	80.2	45.4	92	96.4	71	58.1	53	50.7	48.1	46.2	0		0	N	0

C:\PROGRA~1\SLMUTIL\DISTRICT.bin Calibration Data

Appendix 2
Construction Noise Calculations

Project: The District

Construction Noise Impact on Sensitive Receptors

Deep Dynamic Compaction - 1 Rig (No Mitigation)

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3 and R4				
<i>Construction Phase</i> Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)				Estimated Noise Shielding, dBA
					Lmax	Leq	L10	
					77	78		
Deep Dynamic Compactor	1	85	100%	120	77	77	80	0
Dozer	1	82	40%	120	74	70	73	0

				R1				
				79	80			
Deep Dynamic Compactor	1	85	100%	100	79	79	82	0
Dozer	1	82	40%	100	76	72	75	0
	1							
	1							
	1							
	1							

Source for Ref. Noise Levels: Page 436 of FEIR

Project: The District

Construction Noise Impact on Sensitive Receptors

Deep Dynamic Compaction - 1 Rig (partially mitigated)

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3 and R4				
<i>Construction Phase</i> Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Estimated Noise Shielding, dBA			
					Lmax	Leq	L10	
					77	77		
Deep Dynamic Compactor	1	85	100%	120	77	77	80	0
Dozer	1	82	40%	120	64	60	63	10

				R1				
				79	79			
Deep Dynamic Compactor	1	85	100%	100	79	79	82	0
Dozer	1	82	40%	100	66	62	65	10
	1							
	1							
	1							
	1							

Source for Ref. Noise Levels: Page 436 of FEIR

Pursuant to Mitigation Measure H-1 Part 1, dozers would be equipped with noise control devices achieving 10 dBA reduction.

Project: The District

Construction Noise Impact on Sensitive Receptors

Deep Dynamic Compaction - 3 Rigs (No Mitigation)

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3 and R4				
<i>Construction Phase Equipment Type</i>	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)				Estimated Noise Shielding, dBA
					Lmax	Leq	L10	
					77	81		
Deep Dynamic Compactor	1	85	100%	120	77	77	80	0
Deep Dynamic Compactor	1	85	100%	170	74	74	77	0
Deep Dynamic Compactor	1	85	100%	220	72	72	75	0
Dozer	1	82	40%	120	74	70	73	0
Dozer	1	82	40%	170	71	67	70	0
Dozer	1	82	40%	220	69	65	68	0

				R1				
<i>Construction Phase Equipment Type</i>	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)				Estimated Noise Shielding, dBA
					Lmax	Leq	L10	
					79	82		
Deep Dynamic Compactor	1	85	100%	100	79	79	82	0
Deep Dynamic Compactor	1	85	100%	150	75	75	78	0
Deep Dynamic Compactor	1	85	100%	200	73	73	76	0
Dozer	1	82	40%	100	76	72	75	0
Dozer	1	82	40%	150	72	68	71	0
Dozer	1	82	40%	200	70	66	69	0

Source for Ref. Noise Levels: Page 436 of FEIR

Project: The District

Construction Noise Impact on Sensitive Receptors

Deep Dynamic Compaction - 3 Rigs (Partially Mitigated)

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3 and R4				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)				Estimated Noise Shielding, dBA
					Lmax	Leq	L10	
					77	80		
Deep Dynamic Compactor	1	85	100%	120	77	77	80	0
Deep Dynamic Compactor	1	85	100%	170	74	74	77	0
Deep Dynamic Compactor	1	85	100%	220	72	72	75	0
Dozer	1	82	40%	120	64	60	63	10
Dozer	1	82	40%	170	61	57	60	10
Dozer	1	82	40%	220	59	55	58	10

				R1				
					Lmax	Leq	L10	
					79	81		
Deep Dynamic Compactor	1	85	100%	100	79	79	82	0
Deep Dynamic Compactor	1	85	100%	150	75	75	78	0
Deep Dynamic Compactor	1	85	100%	200	73	73	76	0
Dozer	1	82	40%	100	66	62	65	10
Dozer	1	82	40%	150	62	58	61	10
Dozer	1	82	40%	200	60	56	59	10

Source for Ref. Noise Levels: Page 436 of FEIR

Pursuant to Mitigation Measure H-1 Part 1, dozers would be equipped with noise control devices achieving 10 dBA reduction.

Project: The District

Construction Noise Impact on Sensitive Receptors

Pile Driving

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3 and R4				
<i>Construction Phase</i> Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
					91	95		
Pile Driver	1	99	100%	120	91	91	94	0
Pile Driver	1	99	100%	170	88	88	91	0
Pile Driver	1	99	100%	220	86	86	89	0
Pile Driver	1	99	100%	270	84	84	87	0
Pile Driver	1	99	100%	320	83	83	86	0
Pile Driver	1	99	100%	370	82	82	85	0
Pile Driver	1	99	100%	420	81	81	84	0

				R1				
<i>Construction Phase</i> Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
					93	96		
Pile Driver	1	99	100%	100	93	93	96	0
Pile Driver	1	99	100%	150	89	89	92	0
Pile Driver	1	99	100%	200	87	87	90	0
Pile Driver	1	99	100%	250	85	85	88	0
Pile Driver	1	99	100%	300	83	83	86	0
Pile Driver	1	99	100%	350	82	82	85	0
Pile Driver	1	99	100%	400	81	81	84	0

Source for Ref. Noise Levels: Table 53 Page 438 of FEIR

Project: The District

Construction Noise Impact on Sensitive Receptors

DDC and Pile Driving (No Mitigation)

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3 and R4				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
					91	94		
Deep Dynamic Compactor	1	85	100%	120	77	77	80	0
Deep Dynamic Compactor	1	85	100%	170	74	74	77	0
Deep Dynamic Compactor	1	85	100%	220	72	72	75	0
Dozer	1	82	40%	120	74	70	73	0
Dozer	1	82	40%	170	71	67	70	0
Dozer	1	82	40%	220	69	65	68	0
Pile Driver	1	99	100%	120	91	91	94	0
Pile Driver	1	99	100%	170	88	88	91	0
Pile Driver	1	99	100%	220	86	86	89	0

				R1				
					93	95		
Deep Dynamic Compactor	1	85	100%	100	79	79	82	0
Deep Dynamic Compactor	1	85	100%	150	75	75	78	0
Deep Dynamic Compactor	1	85	100%	200	73	73	76	0
Dozer	1	82	40%	100	76	72	75	0
Dozer	1	82	40%	150	72	68	71	0
Dozer	1	82	40%	200	70	66	69	0
Pile Driver	1	99	100%	100	93	93	96	0
Pile Driver	1	99	100%	150	89	89	92	0
Pile Driver	1	99	100%	200	87	87	90	0

Source for Ref. Noise Levels: Table 53 Page 438 of FEIR (pile driver); Page 436 of FEIR (DDC)

Project: The District

Construction Noise Impact on Sensitive Receptors

DDC and Pile Driving (Partially Mitigated)

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R3 and R4				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)				Estimated Noise Shielding, dBA
					Lmax	Leq	L10	
					81	85		
Deep Dynamic Compactor	1	85	100%	120	77	77	80	0
Deep Dynamic Compactor	1	85	100%	170	74	74	77	0
Deep Dynamic Compactor	1	85	100%	220	72	72	75	0
Dozer	1	82	40%	120	64	60	63	10
Dozer	1	82	40%	170	61	57	60	10
Dozer	1	82	40%	220	59	55	58	10
Pile Driver	1	99	100%	120	81	81	84	10
Pile Driver	1	99	100%	170	78	78	81	10
Pile Driver	1	99	100%	220	76	76	79	10

				R1				
					Lmax	Leq	L10	
					83	87		
Deep Dynamic Compactor	1	85	100%	100	79	79	82	0
Deep Dynamic Compactor	1	85	100%	150	75	75	78	0
Deep Dynamic Compactor	1	85	100%	200	73	73	76	0
Dozer	1	82	40%	100	66	62	65	10
Dozer	1	82	40%	150	62	58	61	10
Dozer	1	82	40%	200	60	56	59	10
Pile Driver	1	99	100%	100	83	83	86	10
Pile Driver	1	99	100%	150	79	79	82	10
Pile Driver	1	99	100%	200	77	77	80	10

Source for Ref. Noise Levels: Table 53 Page 438 of FEIR (pile driver); Page 436 of FEIR (DDC)

Pursuant to Mitigation Measure H-1 Part 1, dozers would be equipped with noise control devices achieving 10 dBA reduction.

Pursuant to Mitigation Measure H-1 Part 2, pile drivers would be equipped with noise control devices achieving 10 dBA reduction.

Project: The District

Construction Noise Impact on Sensitive Receptors

PA-1

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm) 0 Evening hours (7 pm to 10 pm) 0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				South of the Project Site					West of the Project Site					
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Estimated Noise					Estimated Noise					
				Distance (ft)	Lmax	Leq	L10	Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Shielding, dBA	
PA-1 Remedial Construction					58	57					74	74		
Excavator	2	81	40%	2000	52	48	51	0	150	74	70	73	0	
Loader	2	79	40%	2150	49	45	48	0	300	66	62	65	0	
Scraper	2	84	40%	2150	54	50	53	0	300	71	67	70	0	
Dozer	2	82	40%	2300	52	48	51	0	450	66	62	65	0	
Grader	4	85	40%	2300	58	54	57	0	450	72	68	71	0	
Water Truck	4	80	10%	2300	53	43	46	0	450	67	57	60	0	
Rollers	2	80	20%	2300	50	43	46	0	450	64	57	60	0	
PA-1 - Horizontal Construction					66	63				80	78			
Excavator	2	81	40%	2000	52	48	51	0	150	74	70	73	0	
Loader	2	79	40%	2150	49	45	48	0	300	66	62	65	0	
Excavator	6	81	40%	2150	56	52	55	0	300	73	69	72	0	
Loader	6	79	40%	2300	54	50	53	0	450	68	64	67	0	
Skid Steer Loaders	1	80	40%	2300	47	43	46	0	450	61	57	60	0	
Water Truck	3	80	10%	2300	52	42	45	0	450	66	56	59	0	
Concrete Mixer Trucks	36	79	40%	2300	61	57	60	0	450	75	71	74	0	
Tractor Trailers	18	76	20%	2300	55	48	51	0	450	69	62	65	0	
Roller	2	80	20%	2300	50	43	46	0	450	64	57	60	0	
Trencher	1	80	30%	2300	47	42	45	0	450	61	56	59	0	
Compactor (Ground)	9	83	20%	2300	59	52	55	0	450	73	66	69	0	
Air Compressor	4	78	50%	2300	51	48	51	0	450	65	62	65	0	
Concrete Saw	8	90	20%	2300	66	59	62	0	450	80	73	76	0	
Forklift	11	75	10%	2300	52	42	45	0	450	66	56	59	0	
Cranes	3	81	40%	2300	53	49	52	0	450	67	63	66	0	
PA-1 Vertical Construction - Building/Paving/Architectural Coating					60	58				75	75			
Rubber Tired Loader	4	79	50%	2000	53	50	53	0	150	75	72	75	0	
Tractor Trailers	2	76	20%	2150	46	39	42	0	300	63	56	59	0	
Forklift	4	75	10%	2150	48	38	41	0	300	65	55	58	0	
Water Truck	2	80	10%	2300	50	40	43	0	450	64	54	57	0	
Welders	2	74	40%	2300	44	40	43	0	450	58	54	57	0	
Tractor Trailers	50	76	20%	2300	60	53	56	0	450	74	67	70	0	
Pavement Scarifier	2	90	20%	2300	60	53	56	0	450	74	67	70	0	
Paver	2	77	50%	2300	47	44	47	0	450	61	58	61	0	
Roller	2	80	20%	2300	50	43	46	0	450	64	57	60	0	
Air Compressor	1	78	50%	2300	45	42	45	0	450	59	56	59	0	

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: The District

Construction Noise Impact on Sensitive Receptors

PA-2

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				South of the Project Site					West of the Project Site					
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Estimated Noise					Estimated Noise					
				Distance (ft)	Lmax	Leq	L10	Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Shielding, dBA	
PA-2 Remedial Construction					72	73					65	65		
Excavator	2	81	40%	200	72	68	71	0		750	60	57	60	0
Loader	2	79	40%	350	65	61	64	0		900	57	53	56	0
Scraper	2	84	40%	350	70	66	69	0		900	62	58	61	0
Dozer	2	82	40%	500	65	61	64	0		1050	59	55	58	0
Grader	4	85	40%	500	71	67	70	0		1050	65	61	64	0
Water Truck	4	80	10%	500	66	56	59	0		1050	60	50	53	0
Rollers	2	80	20%	500	63	56	59	0		1050	57	50	53	0
PA-2 - Horizontal Construction					78	76					71	69		
Excavator	2	81	40%	200	72	68	71	0		750	60	57	60	0
Loader	2	79	40%	350	65	61	64	0		900	57	53	56	0
Excavator	4	81	40%	350	70	66	69	0		900	62	58	61	0
Loader	4	79	40%	500	65	61	64	0		1050	59	55	58	0
Water Truck	2	80	10%	500	63	53	56	0		1050	57	47	50	0
Concrete Mixer Trucks	36	79	40%	500	75	71	74	0		1050	68	64	67	0
Tractor Trailers	15	76	20%	500	68	61	64	0		1050	61	54	57	0
Compactor (Ground)	9	83	20%	500	73	66	69	0		1050	66	59	62	0
Air Compressor	3	78	50%	500	63	60	63	0		1050	56	53	56	0
Concrete Saw	6	90	20%	500	78	71	74	0		1050	71	64	67	0
Forklift	9	75	10%	500	65	55	58	0		1050	58	48	51	0
Cranes	3	81	40%	500	66	62	65	0		1050	59	55	58	0
PA-2 Vertical Construction - Building/Paving/Architectural Coating					68	68					59	60		
Water Truck	1	80	10%	200	68	58	61	0		750	56	46	49	0
Trencher	1	80	30%	350	63	58	61	0		900	55	50	53	0
Air Compressor	3	78	50%	350	66	63	66	0		900	58	55	58	0
Forklift	1	75	10%	500	55	45	48	0		1050	49	39	42	0
Cranes	1	81	40%	500	61	57	60	0		1050	55	51	54	0
Bobcat	1	75	40%	500	55	51	54	0		1050	49	45	48	0
Welders	2	74	40%	500	57	53	56	0		1050	51	47	50	0
Paver	1	77	50%	500	57	54	57	0		1050	51	48	51	0
Air Compressor	5	78	50%	500	65	62	65	0		1050	59	56	59	0

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: The District

Construction Noise Impact on Sensitive Receptors

PA-3

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm)
	0 Evening hours (7 pm to 10 pm)
	0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				South of the Project Site					West of the Project Site				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Estimated Noise					Estimated Noise				
				Distance (ft)	Lmax	Leq	L10	Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Shielding, dBA
PA-3 Remedial Construction				73	73				74	74			
Excavator	2	81	40%	175	73	69	72	0	150	74	70	73	0
Loader	2	79	40%	325	66	62	65	0	300	66	62	65	0
Scraper	2	84	40%	325	71	67	70	0	300	71	67	70	0
Dozer	2	82	40%	475	65	61	64	0	450	66	62	65	0
Grader	4	85	40%	475	71	67	70	0	450	72	68	71	0
Water Truck	4	80	10%	475	66	56	59	0	450	67	57	60	0
Rollers	2	80	20%	475	63	56	59	0	450	64	57	60	0
PA-3 - Horizontal Construction				78	77				79	78			
Excavator	2	81	40%	175	73	69	72	0	150	74	70	73	0
Loader	2	79	40%	325	66	62	65	0	300	66	62	65	0
Excavator	4	81	40%	325	71	67	70	0	300	71	67	70	0
Loader	4	79	40%	475	65	61	64	0	450	66	62	65	0
Water Truck	2	80	10%	475	63	53	56	0	450	64	54	57	0
Concrete Mixer Trucks	36	79	40%	475	75	71	74	0	450	75	71	74	0
Tractor Trailers	15	76	20%	475	68	61	64	0	450	69	62	65	0
Compactor (Ground)	9	83	20%	475	73	66	69	0	450	73	66	69	0
Air Compressor	3	78	50%	475	63	60	63	0	450	64	61	64	0
Concrete Saw	6	90	20%	475	78	71	74	0	450	79	72	75	0
Forklift	9	75	10%	475	65	55	58	0	450	65	55	58	0
Cranes	3	81	40%	475	66	62	65	0	450	67	63	66	0
PA-3 Vertical Construction - Building/Paving/Architectural Coating				78	74				79	74			
Rubber Tired Loader	2	79	50%	175	71	68	71	0	150	72	69	72	0
Tractor Trailers	2	76	20%	325	63	56	59	0	300	63	56	59	0
Rubber Tired Loader	10	75	10%	325	69	59	62	0	300	69	59	62	0
Tractor Trailers	60	80	10%	475	78	68	71	0	450	79	69	72	0
Forklift	12	75	10%	475	66	56	59	0	450	67	57	60	0
Cranes	4	81	40%	475	67	63	66	0	450	68	64	67	0
Welders	4	74	40%	475	60	56	59	0	450	61	57	60	0
Pavement Scarifier	2	90	20%	475	73	66	69	0	450	74	67	70	0
Paver	2	77	50%	475	60	57	60	0	450	61	58	61	0
Roller	2	80	20%	475	63	56	59	0	450	64	57	60	0
Air Compressor	1	78	50%	475	58	55	58	0	450	59	56	59	0

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Maximum Construction Noise Levels during Overlapped Construction Periods

	South (R3)	West (R4)	Development District 3 (R1)
PA-1 Remedical Construction	57	74	77
PA-2 Remedical Construction	73	65	77
PA-3 Remedical Construction	73	74	66
PA-2 Horizontal Construction	76	69	79
PA-3 Horizontal Construction	77	78	70
Combined Noise Levels	81	81	83

Appendix 3

Off-Site Traffic Noise Calculations

Roadway Traffic Noise Calculations



Project: The District

Existing										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Del Amo Boulevard, e/o Stamps Dr	40	2192	2612	0	72.5	68.2	66.1	73.7	69.5	67.4
Del Amo Boulevard between Stamps Dr and Main St	40	2192	2612	0	72.5	68.2	66.1	73.7	69.5	67.4
Del Amo Boulevard between Main St and Figueroa St	40	1984	2367	0	72.1	67.8	65.7	73.3	69.0	66.9
South Main Street n/o Del Amo Blvd	40	1370	1660	0	69.7	65.9	64.0	70.9	67.2	65.2
South Main Street between Del Amo Blvd and Lenardo Dr	40	1564	1853	0	70.2	66.4	64.4	71.4	67.6	65.6
Future No Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Del Amo Boulevard, e/o Stamps Dr	40	2295	2737	0	72.7	68.5	66.3	73.9	69.7	67.6
Del Amo Boulevard between Stamps Dr and Main St	40	2348	2784	0	72.8	68.5	66.4	74.0	69.7	67.6
Del Amo Boulevard between Main St and Figueroa St	40	2122	2522	0	72.4	68.1	66.0	73.6	69.3	67.2
South Main Street n/o Del Amo Blvd	40	1420	1729	0	69.9	66.1	64.1	71.1	67.3	65.3
South Main Street between Del Amo Blvd and Lenardo Dr	40	1627	1925	0	70.3	66.6	64.6	71.6	67.8	65.8
Future With Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Del Amo Boulevard, e/o Stamps Dr	40	2679	3288	0	73.5	69.2	67.1	74.7	70.5	68.4
Del Amo Boulevard between Stamps Dr and Main St	40	3375	4271	0	74.7	70.4	68.3	75.9	71.6	69.5
Del Amo Boulevard between Main St and Figueroa St	40	3125	4006	0	74.4	70.1	68.0	75.6	71.3	69.2
South Main Street n/o Del Amo Blvd	40	1611	1994	0	70.5	66.7	64.8	71.7	68.0	66.0
South Main Street between Del Amo Blvd and Lenardo Dr	40	1860	2208	0	70.9	67.2	65.2	72.2	68.4	66.4

CNEL

Summary	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Roadway/Segment				
Del Amo Boulevard, e/o Stamps Dr	0.8	1.0	0.8	1.0
Del Amo Boulevard between Stamps Dr and Main St	1.9	2.1	1.9	2.2
Del Amo Boulevard between Main St and Figueroa St	2.0	2.3	2.0	2.3
South Main Street n/o Del Amo Blvd	0.7	0.8	0.6	0.8
South Main Street between Del Amo Blvd and Lenardo Dr	0.6	0.8	0.6	0.8

Vehicle Type	% of ADT			Sub total
	Day	Eve	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations



Project: The District

Existing										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
South Main Street between Lenardo Dr and Torrance Blvd	40	1582	1850	0	69.8	66.3	64.3	71.0	67.5	65.5
South Main Street between Torrance Blvd and 213th St	40	1643	1946	0	70.0	66.5	64.6	71.3	67.7	65.8
South Main Street between 213th St and Carson St	40	1591	1801	0	69.7	66.1	64.2	70.9	67.4	65.4
Leonardo Drive e/o S. Main St.	40			0	-	-	-	-	-	-
Torrance Boulevard, between S Figueroa St and S. Main St	40	1210	1448	0	69.1	65.3	63.4	70.3	66.6	64.6
Future No Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
South Main Street between Lenardo Dr and Torrance Blvd	40	1646	1922	0	70.0	66.4	64.5	71.2	67.6	65.7
South Main Street between Torrance Blvd and 213th St	40	1709	2020	0	70.2	66.6	64.7	71.4	67.9	65.9
South Main Street between 213th St and Carson St	40	1651	1865	0	69.9	66.3	64.4	71.1	67.5	65.6
Leonardo Drive e/o S. Main St.	40			0	-	-	-	-	-	-
Torrance Boulevard, between S Figueroa St and S. Main St	40	1262	1506	0	69.3	65.5	63.5	70.5	66.7	64.7
Future With Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
South Main Street between Lenardo Dr and Torrance Blvd	40	2029	2530	0	71.2	67.6	65.7	72.4	68.8	66.9
South Main Street between Torrance Blvd and 213th St	40	1909	2332	0	70.8	67.3	65.3	72.0	68.5	66.6
South Main Street between 213th St and Carson St	40	1851	2177	0	70.5	67.0	65.0	71.7	68.2	66.3
Leonardo Drive e/o S. Main St.	40	621	940	0	67.6	63.6	61.6	68.8	64.9	62.8
Torrance Boulevard, between S Figueroa St and S. Main St	40	1429	1772	0	70.0	66.2	64.2	71.2	67.4	65.5

Summary	CNEL			
	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Roadway/Segment				
South Main Street between Lenardo Dr and Torrance Blvd	1.2	1.3	1.2	1.4
South Main Street between Torrance Blvd and 213th St	0.6	0.8	0.6	0.7
South Main Street between 213th St and Carson St	0.7	0.8	0.6	0.8
Leonardo Drive e/o S. Main St.	-	-	-	-
Torrance Boulevard, between S Figueroa St and S. Main St	0.7	0.8	0.7	0.9

Vehicle Type	% of ADT			Sub total
	Day	Eve	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations



Project: The District

Existing										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Torrance Boulevard, e/o S. Main St	35	164	203	0	60.8	56.0	53.8	62.0	57.3	55.1
213th Street, between S. Main St. and Avalon Blvd	40	956	1104	0	69.5	64.8	62.5	70.7	66.0	63.8
213th Street, w/o Avalon Blvd	40	818	910	0	68.6	63.9	61.7	69.9	65.1	62.9
Carson Street, between Figueroa St and S. Main St	40	1024	1229	0	68.1	64.5	62.6	69.3	65.7	63.8
Carson Street, between S. Main St and Avalon Blvd	40	990	1300	0	68.0	64.6	62.7	69.2	65.8	63.9
Future No Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Torrance Boulevard, e/o S. Main St	35	168	208	0	60.9	56.2	53.9	62.1	57.4	55.2
213th Street, between S. Main St. and Avalon Blvd	40	986	1139	0	69.6	64.9	62.7	70.8	66.1	63.9
213th Street, w/o Avalon Blvd	40	845	940	0	68.8	64.1	61.9	70.0	65.3	63.1
Carson Street, between Figueroa St and S. Main St	40	1104	1334	0	68.4	64.8	62.9	69.6	66.1	64.1
Carson Street, between S. Main St and Avalon Blvd	40	1072	1425	0	68.4	65.0	63.1	69.6	66.2	64.3
Future With Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Torrance Boulevard, e/o S. Main St	35	168	208	0	60.9	56.2	53.9	62.1	57.4	55.2
213th Street, between S. Main St. and Avalon Blvd	40	986	1139	0	69.6	64.9	62.7	70.8	66.1	63.9
213th Street, w/o Avalon Blvd	40	900	1009	0	69.1	64.4	62.2	70.3	65.6	63.4
Carson Street, between Figueroa St and S. Main St	40	1227	1570	0	69.1	65.6	63.6	70.3	66.8	64.8
Carson Street, between S. Main St and Avalon Blvd	40	1139	1583	0	68.9	65.5	63.6	70.1	66.7	64.8

CNEL

Roadway/Segment	CNEL			
	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Torrance Boulevard, e/o S. Main St	0.0	0.1	0.0	0.1
213th Street, between S. Main St. and Avalon Blvd	0.0	0.1	0.0	0.1
213th Street, w/o Avalon Blvd	0.3	0.5	0.3	0.4
Carson Street, between Figueroa St and S. Main St	0.7	1.1	0.7	1.0
Carson Street, between S. Main St and Avalon Blvd	0.5	0.9	0.5	0.9

Vehicle Type	% of ADT			Sub total
	Day	Even	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations



Project: The District

Existing										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Carson Street, between Avalon Blvd and SR 405 SB Ramps	40	2109	2482	0	72.3	68.0	65.9	73.5	69.2	67.1
Avalon Boulevard between Del Amo Blvd and I-405 NB Ramps	40	2417	2874	0	72.9	68.7	66.6	74.2	69.9	67.8
Avalon Boulevard between I-405 SB Ramps and 213th St	40	2136	2498	0	72.3	68.1	65.9	73.5	69.3	67.2
Avalon Boulevard between 213th St and Carson St	40	1777	1903	0	71.1	66.9	64.8	72.4	68.1	66.0
Avalon Boulevard s/o Carson St	40	2471	2524	0	70.9	67.5	65.6	72.1	68.7	66.8
Future No Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Carson Street, between Avalon Blvd and SR 405 SB Ramps	40	2310	2683	0	72.6	68.4	66.3	73.9	69.6	67.5
Avalon Boulevard between Del Amo Blvd and I-405 NB Ramps	40	2554	3040	0	73.2	68.9	66.8	74.4	70.1	68.0
Avalon Boulevard between I-405 SB Ramps and 213th St	40	2249	2642	0	72.6	68.3	66.2	73.8	69.5	67.4
Avalon Boulevard between 213th St and Carson St	40	1897	2035	0	71.4	67.2	65.1	72.7	68.4	66.3
Avalon Boulevard s/o Carson St	40	2573	2643	0	71.1	67.7	65.8	72.3	68.9	67.0
Future With Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Carson Street, between Avalon Blvd and SR 405 SB Ramps	40	2424	2864	0	72.9	68.7	66.5	74.1	69.9	67.8
Avalon Boulevard between Del Amo Blvd and I-405 NB Ramps	40	2663	3157	0	73.3	69.1	67.0	74.6	70.3	68.2
Avalon Boulevard between I-405 SB Ramps and 213th St	40	2533	3056	0	73.2	68.9	66.8	74.4	70.1	68.0
Avalon Boulevard between 213th St and Carson St	40	2282	2635	0	72.6	68.3	66.2	73.8	69.5	67.4
Avalon Boulevard s/o Carson St	40	2634	2718	0	71.2	67.8	65.9	72.4	69.0	67.1

Summary	CNEL			
	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Roadway/Segment				
Carson Street, between Avalon Blvd and SR 405 SB Ramps	0.3	0.7	0.2	0.6
Avalon Boulevard between Del Amo Blvd and I-405 NB Ramps	0.2	0.4	0.2	0.4
Avalon Boulevard between I-405 SB Ramps and 213th St	0.6	0.8	0.6	0.9
Avalon Boulevard between 213th St and Carson St	1.1	1.4	1.1	1.4
Avalon Boulevard s/o Carson St	0.1	0.3	0.1	0.3

Vehicle Type	% of ADT			Sub total
	Day	Eve	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations



Project: The District

Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
Existing										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Del Amo Boulevard, e/o Stamps Dr	40	2192	2612	0	72.5	68.2	66.1	73.7	69.5	67.4
Del Amo Boulevard between Stamps Dr and Main St	40	2192	2612	0	72.5	68.2	66.1	73.7	69.5	67.4
Del Amo Boulevard between Main St and Figueroa St	40	1984	2367	0	72.1	67.8	65.7	73.3	69.0	66.9
South Main Street n/o Del Amo Blvd	40	1370	1660	0	69.7	65.9	64.0	70.9	67.2	65.2
South Main Street between Del Amo Blvd and Lenardo Dr	40	1564	1853	0	70.2	66.4	64.4	71.4	67.6	65.6
Existing With Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Del Amo Boulevard, e/o Stamps Dr	40	2576	3163	0	73.4	69.1	67.0	74.6	70.3	68.2
Del Amo Boulevard between Stamps Dr and Main St	40	3218	4098	0	74.5	70.2	68.1	75.7	71.4	69.3
Del Amo Boulevard between Main St and Figueroa St	40	2988	3851	0	74.2	69.9	67.8	75.4	71.2	69.0
South Main Street n/o Del Amo Blvd	40	1561	1925	0	70.3	66.6	64.6	71.6	67.8	65.8
South Main Street between Del Amo Blvd and Lenardo Dr	40	1797	2135	0	70.8	67.0	65.1	72.0	68.2	66.3

Summary	CNEL			
	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Roadway/Segment				
Del Amo Boulevard, e/o Stamps Dr	0.8	-	0.9	-
Del Amo Boulevard between Stamps Dr and Main St	1.9	-	2.0	-
Del Amo Boulevard between Main St and Figueroa St	2.2	-	2.1	-
South Main Street n/o Del Amo Blvd	0.6	-	0.7	-
South Main Street between Del Amo Blvd and Lenardo Dr	0.6	-	0.6	-

Vehicle Type	% of ADT			Sub total
	Day	Eve	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations



Project: The District

Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
				0	-	-	-	-	-	-
Existing										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
South Main Street between Lenardo Dr and Torrance Blvd	40	1582	1850	0	69.8	66.3	64.3	71.0	67.5	65.5
South Main Street between Torrance Blvd and 213th St	40	1643	1946	0	70.0	66.5	64.6	71.3	67.7	65.8
South Main Street between 213th St and Carson St	40	1591	1801	0	69.7	66.1	64.2	70.9	67.4	65.4
Leonardo Drive e/o S. Main St.	40			0	-	-	-	-	-	-
Torrance Boulevard, between S Figueroa St and S. Main St	40	1210	1448	0	69.1	65.3	63.4	70.3	66.6	64.6
Existing With Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
South Main Street between Lenardo Dr and Torrance Blvd	40	1965	2458	0	71.1	67.5	65.6	72.3	68.7	66.8
South Main Street between Torrance Blvd and 213th St	40	1843	2258	0	70.7	67.1	65.2	71.9	68.3	66.4
South Main Street between 213th St and Carson St	40	1791	2113	0	70.4	66.8	64.9	71.6	68.1	66.1
Leonardo Drive e/o S. Main St.	40	621	940	0	67.6	63.6	61.6	68.8	64.9	62.8
Torrance Boulevard, between S Figueroa St and S. Main St	40	1377	1714	0	69.8	66.1	64.1	71.0	67.3	65.3

Summary	CNEL			
	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Roadway/Segment				
South Main Street between Lenardo Dr and Torrance Blvd	1.2	-	1.3	-
South Main Street between Torrance Blvd and 213th St	0.6	-	0.6	-
South Main Street between 213th St and Carson St	0.7	-	0.7	-
Leonardo Drive e/o S. Main St.	-	-	-	-
Torrance Boulevard, between S Figueroa St and S. Main St	0.7	-	0.7	-

Vehicle Type	% of ADT			Sub total
	Day	Eve	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations



Project: The District

Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
					-	-	-	-	-	-
					-	-	-	-	-	-
					-	-	-	-	-	-
Existing										
Roadway/Segment	Speed MPH	AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Torrance Boulevard, e/o S. Main St	35	164	203	0	60.8	56.0	53.8	62.0	57.3	55.1
213th Street, between S. Main St. and Avalon Blvd	40	956	1104	0	69.5	64.8	62.5	70.7	66.0	63.8
213th Street, w/o Avalon Blvd	40	818	910	0	68.6	63.9	61.7	69.9	65.1	62.9
Carson Street, between Figueroa St and S. Main St	40	1024	1229	0	68.1	64.5	62.6	69.3	65.7	63.8
Carson Street, between S. Main St and Avalon Blvd	40	990	1300	0	68.0	64.6	62.7	69.2	65.8	63.9
Existing With Project										
Roadway/Segment	Speed MPH	AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Torrance Boulevard, e/o S. Main St	35	164	203	0	60.8	56.0	53.8	62.0	57.3	55.1
213th Street, between S. Main St. and Avalon Blvd	40	956	1104	0	69.5	64.8	62.5	70.7	66.0	63.8
213th Street, w/o Avalon Blvd	40	873	979	0	69.0	64.2	62.0	70.2	65.5	63.2
Carson Street, between Figueroa St and S. Main St	40	1146	1466	0	68.8	65.3	63.3	70.0	66.5	64.5
Carson Street, between S. Main St and Avalon Blvd	40	1058	1458	0	68.5	65.1	63.2	69.7	66.3	64.4

Summary	CNEL			
	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Roadway/Segment				
Torrance Boulevard, e/o S. Main St	0.0	-	0.0	-
213th Street, between S. Main St. and Avalon Blvd	0.0	-	0.0	-
213th Street, w/o Avalon Blvd	0.4	-	0.3	-
Carson Street, between Figueroa St and S. Main St	0.8	-	0.7	-
Carson Street, between S. Main St and Avalon Blvd	0.5	-	0.5	-

Vehicle Type	% of ADT			Sub total
	Day	Eve	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations



Project: The District

Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
					-	-	-	-	-	-
					-	-	-	-	-	-
					-	-	-	-	-	-
					-	-	-	-	-	-
Existing										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Carson Street, between Avalon Blvd and SR 405 SB Ramps	40	2150	2482	0	72.3	68.0	65.9	73.5	69.2	67.1
Avalon Boulevard between Del Amo Blvd and I-405 NB Ramps	40	2417	2874	0	72.9	68.7	66.6	74.2	69.9	67.8
Avalon Boulevard between I-405 SB Ramps and 213th St	40	2136	2498	0	72.3	68.1	65.9	73.5	69.3	67.2
Avalon Boulevard between 213th St and Carson St	40	1777	1903	0	71.1	66.9	64.8	72.4	68.1	66.0
Avalon Boulevard s/o Carson St	40	2471	2524	0	70.9	67.5	65.6	72.1	68.7	66.8
Existing With Project										
Roadway/Segment	Speed MPH	Traffic Volumes			Leq			CNEL		
		AM	PM	ADT	ROW	50 Feet	100 Feet	ROW	50 Feet	100 Feet
Carson Street, between Avalon Blvd and SR 405 SB Ramps	40	2264	2663	0	72.6	68.3	66.2	73.8	69.5	67.4
Avalon Boulevard between Del Amo Blvd and I-405 NB Ramps	40	2526	2991	0	73.1	68.8	66.7	74.3	70.1	67.9
Avalon Boulevard between I-405 SB Ramps and 213th St	40	2420	2913	0	73.0	68.7	66.6	74.2	69.9	67.8
Avalon Boulevard between 213th St and Carson St	40	2163	2503	0	72.3	68.1	66.0	73.6	69.3	67.2
Avalon Boulevard s/o Carson St	40	2532	2599	0	71.0	67.6	65.7	72.2	68.8	66.9

Summary	CNEL			
	50 ft. from ROW		At ROW	
	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Roadway/Segment				
Carson Street, between Avalon Blvd and SR 405 SB Ramps	0.3	-	0.3	-
Avalon Boulevard between Del Amo Blvd and I-405 NB Ramps	0.2	-	0.1	-
Avalon Boulevard between I-405 SB Ramps and 213th St	0.6	-	0.7	-
Avalon Boulevard between 213th St and Carson St	1.2	-	1.2	-
Avalon Boulevard s/o Carson St	0.1	-	0.1	-

Vehicle Type	% of ADT			Sub total
	Day	Eve	Night	
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%