

Appendix I

Noise Measurement Data and Calculations

Appendix - Noise

Noise Measurement Data

LT-1 Noise Data

Number	Start Date	Start Time	End Time	Duration	LAeq	LASmax	LASmin
1	2/13/2024	12:00:00 PM	1:00 PM	1:00:00	70.6	91	63.6
2	2/13/2024	1:00:00 PM	2:00 PM	1:00:00	69.9	86.6	63.1
3	2/13/2024	2:00:00 PM	3:00 PM	1:00:00	69.3	85.2	62.6
4	2/13/2024	3:00:00 PM	4:00 PM	1:00:00	69.2	84.2	59.5
5	2/13/2024	4:00:00 PM	5:00 PM	1:00:00	69.4	85.9	61.6
6	2/13/2024	5:00:00 PM	6:00 PM	1:00:00	69.2	83.9	63.7
7	2/13/2024	6:00:00 PM	7:00 PM	1:00:00	69.6	87.4	63.6
8	2/13/2024	7:00:00 PM	8:00 PM	1:00:00	69.7	88.9	64.1
9	2/13/2024	8:00:00 PM	9:00 PM	1:00:00	67.9	79.2	55.6
10	2/13/2024	9:00:00 PM	10:00 PM	1:00:00	67.8	87.6	53
11	2/13/2024	10:00:00 PM	11:00 PM	1:00:00	69.7	94.1	53.3
12	2/13/2024	11:00:00 PM	12:00 AM	1:00:00	66.8	84.6	51.1
13	2/14/2024	12:00:00 AM	1:00 AM	1:00:00	68.2	91.4	50.6
14	2/14/2024	1:00:00 AM	2:00 AM	1:00:00	68.5	98.4	47.1
15	2/14/2024	2:00:00 AM	3:00 AM	1:00:00	63.4	89.7	44.7
16	2/14/2024	3:00:00 AM	4:00 AM	1:00:00	67.6	84.4	45.2
17	2/14/2024	4:00:00 AM	5:00 AM	1:00:00	64.9	87	45.8
18	2/14/2024	5:00:00 AM	6:00 AM	1:00:00	70.5	97.5	59.6
19	2/14/2024	6:00:00 AM	7:00 AM	1:00:00	69.5	82	60.7
20	2/14/2024	7:00:00 AM	8:00 AM	1:00:00	72.9	86.3	67.5
21	2/14/2024	8:00:00 AM	9:00 AM	1:00:00	71.6	84.2	66.9
22	2/14/2024	9:00:00 AM	10:00 AM	1:00:00	72	90.5	65.7
23	2/14/2024	10:00:00 AM	11:00 AM	1:00:00	72.1	91.2	65.7
24	2/14/2024	11:00:00 AM	12:00 PM	1:00:00	70.5	84.4	65.7
25	2/14/2024	12:00:00 PM	1:00 PM	1:00:00	69.3	80.4	63.7

LT-1 CNEL

LT-1								CNEL	
Day	Date	Time	Duration	Leq	Energy	Leq (hr)	Energy+Penalty		
								24-Hr CNEL	75
								Min =>	63
								Max =>	73
Tuesday	2024-02-13	12:00:00	01:00:00.0	70.6	11481536	70.6	11481536.21		
Tuesday	2024-02-13	13:00:00	01:00:00.0	69.9	9772372	69.9	9772372.21		
Tuesday	2024-02-13	14:00:00	01:00:00.0	69.3	8511380	69.3	8511380.382		
Tuesday	2024-02-13	15:00:00	01:00:00.0	69.2	8317638	69.2	8317637.711		
Tuesday	2024-02-13	16:00:00	01:00:00.0	69.4	8709636	69.4	8709635.9		
Tuesday	2024-02-13	17:00:00	01:00:00.0	69.2	8317638	69.2	8317637.711		
Tuesday	2024-02-13	18:00:00	01:00:00.0	69.6	9120108	69.6	9120108.394		
Tuesday	2024-02-13	19:00:00	01:00:00.0	69.7	9332543	69.7	29512092.27		
Tuesday	2024-02-13	20:00:00	01:00:00.0	67.9	6165950	67.9	19498446		
Tuesday	2024-02-13	21:00:00	01:00:00.0	67.8	6025596	67.8	19054607.18		
Tuesday	2024-02-13	22:00:00	01:00:00.0	69.7	9332543	69.7	93325430.08		
Tuesday	2024-02-13	23:00:00	01:00:00.0	66.8	4786301	66.8	47863009.23		
Wednesday	2024-02-14	00:00:00	01:00:00.0	68.2	6606934	68.2	66069344.8		
Wednesday	2022-02-14	01:00:00	01:00:00.0	68.5	7079458	68.5	70794578.44		
Wednesday	2022-02-14	02:00:00	01:00:00.0	63.4	2187762	63.4	21877616.24		
Wednesday	2022-02-14	03:00:00	01:00:00.0	67.6	5754399	67.6	57543993.73		
Wednesday	2022-02-14	04:00:00	01:00:00.0	64.9	3090295	64.9	30902954.33		
Wednesday	2022-02-14	05:00:00	01:00:00.0	70.5	11220185	70.5	112201845.4		
Wednesday	2022-02-14	06:00:00	01:00:00.0	69.5	8912509	69.5	89125093.81		
Wednesday	2022-02-14	07:00:00	01:00:00.0	72.9	19498446	72.9	19498446		
Wednesday	2022-02-14	08:00:00	01:00:00.0	71.6	14454398	71.6	14454397.71		
Wednesday	2022-02-14	09:00:00	01:00:00.0	72	15848932	72	15848931.92		
Wednesday	2022-02-14	10:00:00	01:00:00.0	72.1	16218101	72.1	16218100.97		
Wednesday	2022-02-14	11:00:00	01:00:00.0	70.5	11220185	70.5	11220184.54		

Appendix - Noise

Roadway Construction Noise Model (RCNM) Results

Construction Noise

Distance	Noise Level @ 50 ft	Multi Family Res to the S (7707 Willoughby Ave)	Multi Family Res to the S
		460	300
Demolition	82	62.724	66.437
Site Preparation	77	57.724	61.437
Grading	82	62.724	66.437
Building Construction	79	59.724	63.437
Paving	78	58.724	62.437
Architectural Coating	77	57.724	61.437

Construction Vibration

Distance	Vibration @ 25 ft	Commercial to N & E	Historical Resource to the South
		10	80
Large Bulldozer	0.089	0.352	0.016
Loaded Trucks	0.076	0.300	0.013
Static Roller	0.05	0.198	0.009
Small Bulldozer	0.003	0.012	0.001

Distance	Vibration @ 25 ft	Single Family Res to the NW	Single Family Res to the NE
		26	26
Vibratory Roller	0.21	0.198	0.198

Vibration Annoyance

Distance	Vibration @ 25 ft VdB	Commercial to east	Historic resource across Romaine
		70	460
Large Bulldozer	87	73.585	49.055
Caisson Drilling	87	73.585	49.055
Loaded Trucks	86	72.585	48.055
Jackhammer	79	65.585	41.055
Small Bulldozer	58	44.585	20.055

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 02/02/2024
 Case Description: Paving

**** Receptor #1 ****

Description	Land Use	Daytime	Baselines (dBA)	
			Evening	Night
Paving	Commercial	65.0	55.0	50.0

Description	Equipment		Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
	Impact Device	Usage (%)				
Roller	No	20		80.0	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0
Vibratory Concrete Mixer	No	20		80.0	50.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Night	Day		Calculated (dBA)		Day Night		Evening		Lmax
	Leq	Lmax	Lmax	Leq	Lmax	Leq	Lmax	Leq	
Roller	N/A	N/A	80.0	73.0	N/A	N/A	N/A	N/A	N/A
Backhoe	N/A	N/A	77.6	73.6	N/A	N/A	N/A	N/A	N/A
Vibratory Concrete Mixer	N/A	N/A	80.0	73.0	N/A	N/A	N/A	N/A	N/A
			Total	78.0	N/A	N/A	N/A	N/A	N/A

Appendix - Noise

Operational Equipment Specifications



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