Appendix D

Noise Supporting Information

D1 Construction Noise Model Output
D2 Traffic Noise Model Output
D3 Calculations of Long-Term Noise Metrics
D4 Sound Level Meter Reports

D1 Construction Noise Model Output

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 06/19/2019
Case Description: Balboa Phase 0

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Westwood Park	Residential	60.0	60.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Mounted Impact Hammer (hoe ram)	Yes	20		90.3	200.0	0.0
Mounted Impact Hammer (hoe ram)	Yes	20		90.3	200.0	0.0

Results

Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
				Calculated (dBA)		Day		Evening	
Night		Day		Evening		Night			
Equipment				Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Mounted Impact Hammer (hoe ram)				78.2	71.2	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Mounted Impact Hammer (hoe ram)				78.2	71.2	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		Total		78.2	74.3	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Riordan	Residential	57.0	50.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Mounted Impact Hammer (hoe ram)	Yes	20	90.3	80.0		0.0
Mounted Impact Hammer (hoe ram)	Yes	20	90.3	80.0		0.0

Results

Noise Limits (dBA)	Noise Limit Exceedance (dBA)							
	Calculated (dBA)							
	Day		Evening		Night			
	Day		Evening		Night			
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Mounted Impact Hammer (hoe ram)	86.2	79.2	N/A	N/A	N/A	N/A	N/A	N/A
Mounted Impact Hammer (hoe ram)	86.2	79.2	N/A	N/A	N/A	N/A	N/A	N/A
Total	86.2	82.2	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night

1100 Ocean Residential 60.0 60.0 50.0

Equipment

Estimated Shielding Description (dBA)	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	
Mounted Impact Hammer (hoe ram)	Yes	20		90.3	50.0	0.0
Mounted Impact Hammer (hoe ram)	Yes	20		90.3	50.0	0.0

Results

Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
				Calculated (dBA)				Day		Evening	
Night		Day		Evening		Night					
Equipment				Lmax	Leq	Lmax	Leq	Lmax	Leq		
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq				
Mounted Impact Hammer (hoe ram)				90.3	83.3	N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Mounted Impact Hammer (hoe ram)				90.3	83.3	N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
		Total		90.3	86.3	N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				

Phase 1 042519
Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/25/2019
Case Description: Balboa Phase 1

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Westwood Park	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Gradall	No	40		83.4	25.0	0.0
Compactor (ground)	No	20		83.2	25.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night	Day	Calculated (dBA) Evening	Night	Day	Evening	Night
Equipment	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq
Gradall	89.4 85.4	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Compactor (ground)	89.3 82.3	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Total	89.4 87.1	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night

Phase 1 042519

Riordan	Residential	55.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Gradall	No	40		83.4	50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA) Day Evening Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Gradall	83.4	79.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.4	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
1100 Ocean	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

Phase 1 042519

Gradall	No	40	83.4	50.0	0.0
Compactor (ground)	No	20	83.2	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA) Day Evening Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Gradall	83.4	79.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.4	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Phase 2 042519
Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/25/2019
Case Description: Balboa Phase 2

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Westwood Park	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Gradall	No	40		83.4	25.0	0.0
Compactor (ground)	No	20		83.2	25.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Gradall	89.4	85.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	89.3	82.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.4	87.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night

Riordan	Residential	55.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Gradall	No	40		83.4	50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)

Equipment	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Gradall	83.4	79.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.4	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
1100 Ocean	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

Phase 2 042519

Gradall	No	40	83.4	80.0	0.0
Compactor (ground)	No	20	83.2	80.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)				Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Gradall	79.3	75.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	79.1	72.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	79.3	77.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

D2 Traffic Noise Model Output

Existing

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25	40	25	40	25	40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	914	97	886.58	2	18.28	1	9.14	25	40	25	40	25	40	59.6	54.4	59.0	63.0	40	58.7	9.4	30.8
Lee	Ocean	Site	167	97	161.99	2	3.34	1	1.67	25	40	25	40	25	40	52.2	47.0	51.6	55.6	40	51.3	1.7	5.6
Lee	Ocean	Holoway	166	97	161.02	2	3.32	1	1.66	25	40	25	40	25	40	52.2	47.0	51.6	55.6	40	51.3	1.7	5.6
Plymouth	Ocean	S.Wood	177	97	171.69	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	323	97	313.31	2	6.46	1	3.23	25	40	25	40	25	40	55.1	49.9	54.5	58.4	40	54.2	3.3	10.9
Judson	F. Kahlo	Genesee	670	97	649.9	2	13.4	1	6.7	25	40	25	40	25	40	58.2	53.0	57.7	61.6	40	57.4	6.9	22.6
Ocean	Plymouth	Miramar	1680	97	1629.6	2	33.6	1	16.8	25	40	25	40	25	40	62.2	57.0	61.7	65.6			17.2	56.6
Ocean	F. Kahlo	I-280	1870	97	1813.7	2	37.4	1	18.7	25	40	25	40	25	40	62.7	57.5	62.1	66.1			19.2	62.9

Assumptions: PM peak hour traffic data from Kittleson

Existing + Developer's Project

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25	40	25	40	25	40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	997	97	967.09	2	19.94	1	9.97	25	40	25	40	25	40	60.0	54.8	59.4	63.3	40	59.1	10.2	33.6
Lee	Ocean	Site	387	97	375.39	2	7.74	1	3.87	25	40	25	40	25	40	55.8	50.6	55.3	59.2	40	55.0	4.0	13.0
Lee	Ocean	Holoway	209	97	202.73	2	4.18	1	2.09	25	40	25	40	25	40	53.2	48.0	52.6	56.6	40	52.3	2.1	7.0
Plymouth	Ocean	S.Wood	177	97	171.69	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	368	97	356.96	2	7.36	1	3.68	25	40	25	40	25	40	55.6	50.4	55.1	59.0	40	54.7	3.8	12.4
Judson	F. Kahlo	Genesee	700	97	679	2	14	1	7	25	40	25	40	25	40	58.4	53.2	57.9	61.8	40	57.5	7.2	23.6

Assumptions: PM peak hour traffic data from Kittleson

Existing + Additional Housing Scenario

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1179	97	1143.6	2	23.58	1	11.79	25	40	25	40	25	40	60.7	55.5	60.1	64.1	40	59.8	12.1	39.7
F. Kahlo	C. Coll N.	Judson	1063	97	1031.1	2	21.26	1	10.63	25	40	25	40	25	40	60.2	55.0	59.7	63.6	40	59.4	10.9	35.8
Lee	Ocean	Site	434	97	420.98	2	8.68	1	4.34	25	40	25	40	25	40	56.3	51.1	55.8	59.7	40	55.5	4.5	14.6
Lee	Ocean	Holoway	226	97	219.22	2	4.52	1	2.26	25	40	25	40	25	40	53.5	48.3	52.9	56.9	40	52.6	2.3	7.6
Plymouth	Ocean	S.Wood	177	97	171.69	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
City Coll N	F. Kahlo	Site	479	97	464.63	2	9.58	1	4.79	25	40	25	40	25	40	56.8	51.6	56.2	60.2	40	55.9	4.9	16.1
Judson	F. Kahlo	Genesee	733	97	711.01	2	14.66	1	7.33	25	40	25	40	25	40	58.6	53.4	58.1	62.0	40	57.7	7.5	24.7

Assumptions: PM peak hour traffic data from Kittleson

Cumulative + Developer's Project

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1644	97	1594.6	2	32.88	1	16.44	25	40	25	40	25	40	62.1	56.9	61.6	65.5	40	61.2	16.9	55.3
F. Kahlo	C. Coll N.	Judson	1756	97	1703.1	2	35.11	1	17.56	25	40	25	40	25	40	62.4	57.2	61.8	65.8	40	61.5	18.0	59.1
Lee	Ocean	Site	359	97	348.41	2	7.184	1	3.592	25	40	25	40	25	40	55.5	50.3	55.0	58.9	40	54.6	3.7	12.1
Lee	Ocean	Holoway	132	97	127.58	2	2.631	1	1.315	25	40	25	40	25	40	51.2	46.0	50.6	54.5	40	50.3	1.3	4.4
Plymouth	Ocean	S.Wood	152	97	146.99	2	3.031	1	1.515	25	40	25	40	25	40	51.8	46.6	51.2	55.2	40	50.9	1.6	5.1
City Coll N	F. Kahlo	Site	509	97	493.48	2	10.17	1	5.087	25	40	25	40	25	40	57.0	51.8	56.5	60.4	40	56.2	5.2	17.1
Judson	F. Kahlo	Genesee	872	97	845.44	2	17.43	1	8.716	25	40	25	40	25	40	59.4	54.2	58.8	62.8	40	58.5	8.9	29.3
Ocean	Plymouth	Miramar	1344	97	1303.5	2	26.88	1	13.44	25	40	25	40	25	40	61.3	56.0	60.7	64.6	40	60.4	13.8	45.2
Ocean	F. Kahlo	I-280	1870	97	1813.7	2	37.4	1	18.7	25	40	25	40	25	40	62.7	57.5	62.1	66.1	40	61.8	19.2	62.9

Assumptions: PM peak hour traffic data from Kittleson

Cumulative + Additional Housing Scenario

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1644	97	1594.6	2	32.88	1	16.44	25	40	25	40	25	40	62.1	56.9	61.6	65.5	40	61.2	16.9	55.3
F. Kahlo	C. Coll N.	Judson	1795	97	1740.9	2	35.89	1	17.95	25	40	25	40	25	40	62.5	57.3	61.9	65.9	40	61.6	18.4	60.4
Lee	Ocean	Site	425	97	412.43	2	8.504	1	4.252	25	40	25	40	25	40	56.3	51.0	55.7	59.6	40	55.4	4.4	14.3
Lee	Ocean	Holoway	148	97	143.1	2	2.951	1	1.475	25	40	25	40	25	40	51.7	46.5	51.1	55.0	40	50.8	1.5	5.0
Plymouth	Ocean	S.Wood	152	97	146.99	2	3.031	1	1.515	25	40	25	40	25	40	51.8	46.6	51.2	55.2	40	50.9	1.6	5.1
City Coll N	F. Kahlo	Site	548	97	531.31	2	10.95	1	5.477	25	40	25	40	25	40	57.4	52.1	56.8	60.7	40	56.5	5.6	18.4
Judson	F. Kahlo	Genesee	888	97	860.96	2	17.75	1	8.876	25	40	25	40	25	40	59.5	54.2	58.9	62.8	40	58.6	9.1	29.9
Ocean	Plymouth	Miramar	1346	97	1305.4	2	26.92	1	13.46	25	40	25	40	25	40	61.3	56.1	60.7	64.6	40	60.4	13.8	45.3
Ocean	F. Kahlo	I-280	1903	97	1845.7	2	38.06	1	19.03	25	40	25	40	25	40	62.8	57.6	62.2	66.1	40	61.9	19.5	64.1

Assumptions: PM peak hour traffic data from Kittleson

Existing + Construction Trucks

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
F. Kahlo	Ocean	Cloud	1201	96	1153	1	12.01	3	36.03	25	40	25	40	25	40	60.7	52.5	65.0	66.5	40	62.3	21.3	70.0
City Coll N	F. Kahlo	Site	345	92	317.4	1	3.45	7	24.15	25	40	25	40	25	40	55.1	47.1	63.2	63.9	40	59.7	11.8	38.6
Trucks Alone			22	0.1	0.022	0	0.022	100	21.96	25	40	25	40	25	40	13.5	25.2	62.8	62.8	30	59.8	9.1	29.8

Assumptions: PM peak hour traffic data from Kittleson

Existing

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
Plymouth	Ocean	S.Wood	177	97	171.69	2	3.54	1	1.77	25	40	25	40	25	40	52.4	47.2	51.9	55.8	40	51.6	1.8	6.0
Plymouth	San Ramc	Wild wd																					

Assumptions: PM p

Existing + Developer's Project Alternative C

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
Plymouth	San Ramc	Wild wd	222	97	215.34	2	4.44	1	2.22	25	40	25	40	25	40	53.4	48.2	52.9	56.8	40	52.6	2.3	7.5

Assumptions: PM peak hour traffic data from Kittleson

Existing + Additional Housing Alternative C

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE % Auto		MT		HT		VEHICLE SPEED Auto k/h		MT k/h		HT k/h		NOISE LEVEL (dBA) Auto	MT	HT	CALCULATED NOISE LEVEL 15 meters from	Receptor Dist. from Roadway	Adjusted Noise Level	Distance from Roadway to 65 dBA	Distance from Roadway to 65 dBA
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT										roadway center)	Center (m.)	(dBA)	(m.)	(ft)
Plymouth	San Ramc	Wild wd	236	97	228.92	2	4.72	1	2.36	25	40	25	40	25	40	53.7	48.5	53.1	57.1	40	52.8	2.4	7.9

Assumptions: PM peak hour traffic data from Kittleson

D3 Calculations of Long-Term Noise Metrics

Calculated Ldn from long-term noise monitoring data
LT-1 Northwest Project Site

			TIME	dBA	Remove LOG	10 dBA Penalized Values	5 dBA Penalized Values
12/6/2018	Midnight		0 / 24	48.0	63457	634566	200667
	am	1:00	100	46.6	46105	461054	145798
		2:00	200	48.6	72494	724940	229246
		3:00	300	46.7	47008	470077	148651
		4:00	400	50.0	99714	997137	315323
		5:00	500	52.1	162803	1628032	514829
		6:00	600	53.8	238244	2382440	753394
		7:00	700	55.4	347946	3479461	1100302
		8:00	800	56.1	405501	4055011	1282307
		9:00	900	57.2	521395	5213952	1648796
		10:00	1000	55.5	352399	3523993	1114384
1/27/1998		11:00	1100	56.0	399390	3993898	1262982
		12:00	1200	53.3	215828	2158281	682508
	pm	1:00	1300	52.4	175491	1754911	554951
		2:00	1400	52.9	196716	1967157	622070
		3:00	1500	53.2	210515	2105150	665707
		4:00	1600	55.1	319906	3199057	1011631
		5:00	1700	52.7	185612	1856116	586955
		6:00	1800	52.2	165362	1653625	522922
		7:00	1900	50.9	122585	1225852	387648
		8:00	2000	51.7	146689	1466888	463871
		9:00	2100	49.8	96521	965208	305226
		10:00	2200	52.1	162747	1627474	514652
	pm	11:00	2300	51.7	148318	1483180	469023

Leq Morning Peak Hour 7:00-10:00 a.m.
56 dBA

Leq Evening Peak Hour 4:00-8:00 p.m.
53 dBA

Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)
51 dBA

Leq Daytime 7:00 am-10:00 p.m.
54 dBA

Leq 24-Hour
53 dBA

Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.
58 dBA

CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
58 dBA **and 10 dBA penalty for noise between**
10:00 p.m. and 7:00 a.m.

CNEL - Ldn 0.23427183

Calculated Ldn from long-term noise monitoring data
LT-2 Southwest Project Stie

			TIME	dBA	Remove LOG	10 dBA Penalized Values	5 dBA Penalized Values
1/23/2019	Midnight		0 / 24	50.9	123027	1230269	389045
	am	1:00	100	49.4	87096	870964	275423
		2:00	200	49.3	85114	851138	269153
		3:00	300	51.3	134896	1348963	426580
		4:00	400	54.5	281838	2818383	891251
		5:00	500	53.1	204174	2041738	645654
		6:00	600	53.2	208930	2089296	660693
		7:00	700	54.4	275423	2754229	870964
		8:00	800	53.1	204174	2041738	645654
		9:00	900	53.3	213796	2137962	676083
1/22/2019		10:00	1000	50.8	120226	1202264	380189
		11:00	1100	54.4	275423	2754229	870964
		12:00	1200	50.0	100000	1000000	316228
	pm	1:00	1300	55.6	363078	3630781	1148154
		2:00	1400	50.1	102329	1023293	323594
		3:00	1500	53.2	208930	2089296	660693
		4:00	1600	52.3	169824	1698244	537032
		5:00	1700	50.9	123027	1230269	389045
		6:00	1800	50.1	102329	1023293	323594
		7:00	1900	51.7	147911	1479108	467735
		8:00	2000	52.2	165959	1659587	524807
		9:00	2100	52.1	162181	1621810	512861
		10:00	2200	52.3	169824	1698244	537032
	pm	11:00	2300	51.2	131826	1318257	416869

Leq Morning Peak Hour 7:00-10:00 a.m.
54 dBA

Leq Evening Peak Hour 4:00-8:00 p.m.
51 dBA

Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)
52 dBA

Leq Daytime 7:00 am-10:00 p.m.
53 dBA

Leq 24-Hour
52 dBA

Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.
59 dBA

CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
59 dBA **and 10 dBA penalty for noise between**
10:00 p.m. and 7:00 a.m.

CNEL - Ldn 0.25528517

Calculated Ldn from long-term noise monitoring data
LT-3 Plymouth Avenue North of Greenwood Ave.

		TIME	dBA	Remove LOG	10 dBA Penalized Values	5 dBA Penalized Values
1/23/2019	Midnight	0 / 24	49.4	87023	870226	275190
	am 1:00	100	44.4	27549	275486	87116
	2:00	200	43.3	21148	211480	66876
	3:00	300	40.2	10453	104529	33055
	4:00	400	50.2	105080	1050800	332292
	5:00	500	60.2	1049008	10490085	3317256
	6:00	600	56.9	486725	4867254	1539161
	7:00	700	62.8	1899818	18998180	6007752
	8:00	800	60.0	999450	9994498	3160538
	9:00	900	59.0	795337	7953367	2515075
1/22/2019	10:00	1000	54.8	304997	3049966	964484
	11:00	1100	54.9	305868	3058680	967239
	12:00	1200	61.9	1547729	15477293	4894350
	pm 1:00	1300	56.8	480873	4808726	1520653
	2:00	1400	57.0	495704	4957035	1567552
	3:00	1500	56.7	470538	4705383	1487973
	4:00	1600	59.8	946963	9469630	2994560
	5:00	1700	57.7	592254	5922540	1872872
	6:00	1800	57.1	509537	5095373	1611298
	7:00	1900	56.2	420534	4205339	1329845
	8:00	2000	54.0	250087	2500869	790844
	9:00	2100	52.9	196070	1960699	620028
	10:00	2200	47.7	59537	595366	188271
	pm 11:00	2300	47.3	53495	534949	169166

Leq Morning Peak Hour 7:00-10:00 a.m.
61 dBA

Leq Evening Peak Hour 4:00-8:00 p.m.
58 dBA

Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)
53 dBA

Leq Daytime 7:00 am-10:00 p.m.
58 dBA

Leq 24-Hour
57 dBA

Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.
61 dBA

CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
61 dBA **and 10 dBA penalty for noise between**
10:00 p.m. and 7:00 a.m.

CNEL - Ldn 0.27000391

D4 Sound Level Meter Reports

Summary

File Name on Meter	LxT_Data.050
File Name on PC	SLM_0004337_LxT_Data_050.00.ldbin
Serial Number	0004337
Model	SoundTrack LxT®
Firmware Version	2.302
User	C Sanchez
Location	Balboa Reservoir Location LT-1
Job Description	Balboa Reservoir
Note	

Measurement

Description	
Start	2018-12-05 15:36:06
Stop	2018-12-07 09:37:19
Duration	42:01:12.297
Run Time	42:01:12.297
Pause	00:00:00.0
Pre Calibration	2018-12-05 13:53:05
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamp	PRMLxT2B			
Microphone Correction	Off			
Integration Method	Exponential			
Overload	142.5 dB			
	A	**C**	**Z**	
Under Range Peak	98.8	95.8	**100.8**	dB
Under Range Limit	**47.8**	45.8	53.8	dB
Noise Floor	34.7	35.3	42.9	dB

Results

LA_{Seq}	53.3		dB
LASE	105.1		dB
EAS	3.562		mPa^2h
EAS8	678.206		μPa^2h
EAS40	3.391		mPa^2h
$LZ_{Speak\ (max)}$	2018-12-07 09:37:10	110.0	dB
LAS_{max}	2018-12-07 08:04:08	80.8	dB
LAS_{min}	2018-12-06 01:30:43	40.4	dB
SEA	-99.9		dB
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0	s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
LC_{Seq}	63.1		dB
LA_{Seq}	53.3		dB
LCS_{eq} - LAS_{eq}	9.8		dB
LAI_{eq}	56.0		dB
LA_{eq}	53.3		dB
LAI_{eq} - LA_{eq}	2.7		dB

Record #	Record Type	Date	Time	LASeq	LZpeak	LASmax	LASmin	OVLD	OBA OVLD	Marker
1	Run	2018-12-05	15:36:06							
2		2018-12-05	15:36:06	55.8	108.7	76.4	49.6	No	No	
3		2018-12-05	16:36:06	53.6	100.3	62.9	49.7	No	No	
4		2018-12-05	17:36:06	54.8	101.8	69.2	48.9	No	No	
5		2018-12-05	18:36:06	54.0	102.0	65.9	49.5	No	No	
6		2018-12-05	19:36:06	53.9	100.4	65.9	50.4	No	No	
7		2018-12-05	20:36:06	53.2	97.5	60.8	50.2	No	No	
8		2018-12-05	21:36:06	53.0	100.2	65.6	49.3	No	No	
9		2018-12-05	22:36:06	51.0	95.8	62.7	45.4	No	No	
10		2018-12-05	23:36:06	51.3	97.3	66.4	45.5	No	No	
11		2018-12-06	0:36:06	48.0	95.0	63.7	40.4	No	No	
12		2018-12-06	1:36:06	46.6	94.7	60.8	41.5	No	No	
13		2018-12-06	2:36:06	48.6	96.4	67.2	41.7	No	No	
14		2018-12-06	3:36:06	46.7	99.5	56.6	42.9	No	No	
15		2018-12-06	4:36:06	50.0	97.8	59.8	45.7	No	No	
16		2018-12-06	5:36:06	52.1	89.4	68.1	46.5	No	No	
17		2018-12-06	6:36:06	53.8	97.1	63.2	49.1	No	No	
18		2018-12-06	7:36:06	55.4	96.2	76.7	48.1	No	No	
19		2018-12-06	8:36:06	56.1	102.9	67.6	48.3	No	No	
20		2018-12-06	9:36:06	57.2	107.4	70.4	49.8	No	No	
21		2018-12-06	10:36:06	55.5	105.2	70.9	45.3	No	No	
22		2018-12-06	11:36:06	56.0	104.0	72.1	45.5	No	No	
23		2018-12-06	12:36:06	53.3	99.9	70.1	44.6	No	No	
24		2018-12-06	13:36:06	52.4	97.8	67.6	43.3	No	No	
25		2018-12-06	14:36:06	52.9	94.0	69.6	44.1	No	No	
26		2018-12-06	15:36:06	53.2	95.6	72.8	43.1	No	No	
27		2018-12-06	16:36:06	55.1	92.8	76.8	44.3	No	No	
28		2018-12-06	17:36:06	52.7	86.7	66.6	46.8	No	No	
29		2018-12-06	18:36:06	52.2	89.9	65.8	47.5	No	No	
30		2018-12-06	19:36:06	50.9	86.5	65.3	46.4	No	No	
31		2018-12-06	20:36:06	51.7	88.2	65.8	45.8	No	No	
32		2018-12-06	21:36:06	49.8	89.8	66.2	43.7	No	No	
33		2018-12-06	22:36:06	52.1	87.5	68.3	45.3	No	No	
34		2018-12-06	23:36:06	51.7	93.2	62.9	46.7	No	No	
35		2018-12-07	0:36:06	48.3	94.9	59.1	43.4	No	No	
36		2018-12-07	1:36:06	51.1	91.7	74.7	41.8	No	No	
37		2018-12-07	2:36:06	48.0	93.0	64.9	40.9	No	No	
38		2018-12-07	3:36:06	47.5	92.6	64.8	42.2	No	No	
39		2018-12-07	4:36:06	50.6	93.6	61.2	45.2	No	No	
40		2018-12-07	5:36:06	52.8	86.1	62.5	48.6	No	No	
41		2018-12-07	6:36:06	54.8	90.7	66.6	51.4	No	No	
42		2018-12-07	7:36:06	57.5	95.5	80.8	48.6	No	No	
43		2018-12-07	8:36:06	55.4	95.7	74.2	47.7	No	No	
44		2018-12-07	9:36:06	66.4	110.0	79.6	50.7	No	No	
45	Stop	2018-12-07	9:37:19							

METROSONICS db-308 SN 3402 V3.0 4/88
REPORT PRINTED 1/23/19 @ 11:28:14

DOUBLING RATE: 3dB   FILTER: A WGHT
DOSE CRITERION: 90dB   RESPONSE: SLOW
PRE-CALIBRATION TIME: 1/22/19 @ 7:29:34
PRE-CALIBRATION RANGE: 40.4dB TO 140.4dB
NO POST-CALIBRATION

CALIBRATOR TYPE & SERIAL # : _____

CALIBRATOR CALIBRATION DATE: _____

TEST BEGAN   1/22/19 @ 10:00:03
TEST LENGTH: 1DAYS 0:15:42
TEST ENDED   1/23/19 @ 10:15:45
TEST INTERRUPTIONS: 1

Lav = 52.5dB   Lav (80)= 41.2dB
SEL =101.8dB   Lav (90)= 40.4dB
Lmax = 81.2dB ON 1/22/19 @ 15:37:49
 Lpk =136.6dB ON 1/22/19 @ 11:11:10
TIME OVER 115dB 0D 0:00:00.00

 8 HR DOSE (80dB CUTOFF)= 0.00%
 8 HR DOSE (90dB CUTOFF)= 0.00%

"TIME HISTORY REPORT

"# OF PERIODS: 25   MODE: CONTINUOUS
"PERIOD LENGTH: 1:00:00
"TIME HISTORY CUTOFF: NONE
"Ln(1): 10.0% Ln(2): 90.0%

"DATE: 1/22/19 TAG #:   0

"INT"	"TIME"	"Lav"	"Lmx"	"Lpk"	"L1"	"L2"
1	"10:00:03"	50.8	73.8	"UNR"	53	42
2	"11:00:03"	54.4	75.6	136.6	58	44
3	"12:00:03"	50.0	72.1	"UNR"	52	42
4	"13:00:03"	55.6	80.7	"UNR"	53	42
5	"14:00:03"	50.1	71.5	"UNR"	52	41
6	"15:00:03"	53.2	81.2	"UNR"	53	42
7	"16:00:03"	52.3	78.8	"UNR"	52	43
8	"17:00:03"	50.9	73.2	"UNR"	52	43
9	"18:00:03"	50.1	70.6	"UNR"	52	43
10	"19:00:03"	51.7	74.0	"UNR"	54	42
11	"20:00:03"	52.2	73.0	126.9	54	45

12	"21:00:03"	52.1	66.8	119.8	54	47
13	"22:00:03"	52.3	68.8	122.6	54	47
14	"23:00:03"	51.2	65.2	130.0	53	46
15	" 0:00:03"	50.9	64.7	125.4	52	47
16	" 1:00:03"	49.4	66.2	121.8	50	45
17	" 2:00:03"	49.3	67.1	120.9	50	44
18	" 3:00:03"	51.3	68.5	121.4	53	45
19	" 4:00:03"	54.5	67.6	127.8	58	46
20	" 5:00:03"	53.1	68.5	128.4	56	47
21	" 6:00:03"	53.2	73.3	128.1	54	49
22	" 7:00:03"	54.4	66.7	128.8	56	50
23	" 8:00:03"	53.1	66.9	128.1	55	50
24	" 9:00:03"	53.3	68.6	131.2	55	49
25	"10:00:03"	58.2	80.7	131.2	54	49

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 1397487

dB	SAMPLES		% OF TOTAL
40	13693	*	.98
41	21344	**	1.53
42	31940	**	2.29
43	47932	***	3.43
44	61644	****	4.41
45	86145	******	6.16
46	112904	********	8.08
47	131603	*********	9.42
48	144856	**********	10.37
49	145062	**********	10.38
50	139428	**********	9.98
51	123145	*********	8.81
52	93866	*******	6.72
53	73173	*****	5.24
54	49383	****	3.53
55	32914	**	2.36
56	22871	**	1.64
57	17581	*	1.26
58	13551	*	.97
59	10145	*	.73
60	7251	*	.52
61	5513	+	.39
62	3665	+	.26
63	2538	+	.18
64	1591	+	.11
65	960	.	.07
66	742	.	.05

67	396	.	.03
68	267	.	.02
69	201	.	.01
70	203	.	.01
71	180	.	.01
72	189	.	.01
73	133	.	.01
74	134	.	.01
75	104	.	.01
76	74	.	.01
77	70	.	.01
78	44		.00
79	25		.00
80	22		.00
81	5		.00

Ln(0.0) = 81dB
Ln(10.0) = 54dB
Ln(50.0) = 49dB
Ln(99.9) = 40dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	51.0dB	40.1dB	40.0dB
Losha	50.5dB	40.0dB	40.0dB
Leq(6)	50.2dB	40.0dB	40.0dB

Summary

File Name on Meter	LxT_Data.057
File Name on PC	SLM_0004337_LxT_Data_057.00.ldbin
Serial Number	0004337
Model	SoundTrack LxT®
Firmware Version	2.302
User	Sanchez
Location	LT-3 Plymouth and Montecito
Job Description	Balboa Reservoir
Note	

Measurement

Description	
Start	2019-01-22 09:07:01
Stop	2019-01-23 09:59:38
Duration	24:52:36.500
Run Time	24:52:12.500
Pause	00:00:24.0
Pre Calibration	2019-01-22 09:02:23
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	142.5 dB

	A	**C**	**Z**	
Under Range Peak	98.8	95.8	**100.8**	dB
Under Range Limit	**47.8**	45.8	53.8	dB
Noise Floor	34.6	35.3	42.9	dB

Results

LA_{Seq}	57.1 dB		
LASE	106.6 dB		
EAS	5.108 mPa^2h		
EAS8	1.643 mPa^2h		
EAS40	8.216 mPa^2h		
$LZ_{Speak\ (max)}$	2019-01-22 09:07:43	125.1	dB
LAS_{max}	2019-01-22 12:19:04	93.0	dB
LAS_{min}	2019-01-23 03:29:24	33.9	dB
SEA	135.1 dB		
LAS > 85.0 dB (Exceedance Counts / Duration)	5	13.8	s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
LC_{Seq}	68.8 dB		
LA_{Seq}	57.1 dB		
LC_{Seq} - LA_{Seq}	11.7 dB		
LA_{leq}	61.7 dB		
LA_{eq}	57.1 dB		
LA_{leq} - LA_{eq}	4.6 dB		

Record #	Record Type	Date	Time	LASeq	LZpeak	LASmax	LASmin	OVLD	OBA OVLD	Marker
1	alibration Chang	2019-01-22	9:02:23							
2	Run	2019-01-22	9:07:01							
3		2019-01-22	9:07:01	63.4	125.1	79.3	38.8	No	No	
4	Pause	2019-01-22	9:14:09							
5	Resume	2019-01-22	9:14:33							
6		2019-01-22	9:14:33	57.7	115.0	81.0	35.8	No	No	
7		2019-01-22	10:14:33	54.8	98.3	75.3	36.1	No	No	
8		2019-01-22	11:14:33	54.9	100.6	75.0	37.0	No	No	
9		2019-01-22	12:14:33	61.9	114.7	93.0	35.7	No	No	
10		2019-01-22	13:14:33	56.8	99.6	80.8	35.7	No	No	
11		2019-01-22	14:14:33	57.0	107.5	82.7	36.4	No	No	
12		2019-01-22	15:14:33	56.7	102.8	76.4	36.5	No	No	
13		2019-01-22	16:14:33	59.8	112.8	88.6	39.0	No	No	
14		2019-01-22	17:14:33	57.7	105.3	78.5	39.3	No	No	
15		2019-01-22	18:14:33	57.1	101.2	82.8	39.7	No	No	
16		2019-01-22	19:14:33	56.2	108.5	84.3	40.6	No	No	
17		2019-01-22	20:14:33	54.0	102.9	78.2	41.0	No	No	
18		2019-01-22	21:14:33	52.9	103.9	77.1	40.9	No	No	
19		2019-01-22	22:14:33	47.7	87.5	65.1	38.2	No	No	
20		2019-01-22	23:14:33	47.3	90.9	65.6	37.6	No	No	
21		2019-01-23	0:14:33	49.4	103.9	79.7	35.3	No	No	
22		2019-01-23	1:14:33	44.4	88.5	65.7	35.0	No	No	
23		2019-01-23	2:14:33	43.3	86.8	70.6	34.0	No	No	
24		2019-01-23	3:14:33	40.2	86.4	58.8	33.9	No	No	
25		2019-01-23	4:14:33	50.2	94.7	76.4	37.6	No	No	
26		2019-01-23	5:14:33	60.2	107.4	87.6	41.7	No	No	
27		2019-01-23	6:14:33	56.9	100.2	79.8	44.1	No	No	
28		2019-01-23	7:14:33	62.8	108.7	88.7	45.6	No	No	
29		2019-01-23	8:14:33	60.0	103.8	81.7	44.0	No	No	
30		2019-01-23	9:14:33	59.0	108.5	79.4	40.8	No	No	
31	Stop	2019-01-23	9:59:38							

Summary

File Name on Meter	LxT_Data.022
File Name on PC	SLM_0004435_LxT_Data_022.00.ldbin
Serial Number	0004435
Model	SoundTrack LxT®
Firmware Version	2.302
User	Sanchez
Location	ST-1 Rirodan High Boundary
Job Description	Balboa Reservoir
Note	Time set for PDT not PST. Monitoring started at 9:11, not 10:11

Measurement

Description	
Start	2019-01-23 10:11:35
Stop	2019-01-23 10:26:35
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2019-01-23 09:24:18
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	143.0 dB

	A	**C**	**Z**	
Under Range Peak	99.2	96.2	**101.2**	dB
Under Range Limit	**48.2**	46.2	54.2	dB
Noise Floor	35.1	35.7	43.3	dB

Results

LA_{Seq}	56.6	dB	
LASE	86.1	dB	
EAS	45.349	μPa^2h	
EAS8	1.451	mPa^2h	
EAS40	7.256	mPa^2h	
$LZ_{Speak\ (max)}$	2019-01-23 10:16:04	94.3	dB
LAS_{max}	2019-01-23 10:19:35	69.0	dB
LAS_{min}	2019-01-23 10:24:42	49.0	dB
SEA	-99.9	dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0	s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
LC_{Seq}	68.9	dB	
LA_{Seq}	56.6	dB	
LC_{Seq} - LA_{Seq}	12.4	dB	
LAI_{eq}	58.9	dB	
LA_{eq}	56.6	dB	
LAI_{eq} - LA_{eq}	2.4	dB	

Record #	Record Type	Date	Time	LASeq	LZpeak	LASmax	LASmin	OVLD	OBA OVLD	Marker
1	Run	2019-01-23	10:11:35							
2		2019-01-23	10:11:35	55.7	91.1	63.5	51.2	No	No	
3		2019-01-23	10:12:35	56.5	90.3	65.5	50.5	No	No	
4		2019-01-23	10:13:35	58.1	91.0	64.6	53.1	No	No	
5		2019-01-23	10:14:35	56.2	92.5	62.4	50.6	No	No	
6		2019-01-23	10:15:35	55.8	94.3	62.3	50.7	No	No	
7		2019-01-23	10:16:35	57.7	89.8	61.7	52.9	No	No	
8		2019-01-23	10:17:35	55.4	92.2	61.0	50.7	No	No	
9		2019-01-23	10:18:35	57.0	88.1	69.0	51.8	No	No	
10		2019-01-23	10:19:35	59.3	89.2	68.6	52.0	No	No	
11		2019-01-23	10:20:35	55.1	94.1	59.9	50.4	No	No	
12		2019-01-23	10:21:35	55.7	89.5	61.9	51.3	No	No	
13		2019-01-23	10:22:35	58.0	89.2	62.7	51.5	No	No	
14		2019-01-23	10:23:35	55.0	92.4	59.4	50.2	No	No	
15		2019-01-23	10:24:35	55.4	90.0	65.1	49.0	No	No	
16		2019-01-23	10:25:35	54.0	87.8	59.9	49.9	No	No	
17	Stop	2019-01-23	10:26:35							

Summary

File Name on Meter	LxT_Data.023
File Name on PC	SLM_0004435_LxT_Data_023.00.ldbin
Serial Number	0004435
Model	SoundTrack LxT®
Firmware Version	2.302
User	Sanchez
Location	ST-2 Terminus of Lee Avenue
Job Description	Balboa Reservoir
Note	Time et for PDT not PST. Monitoring started at 9:33, not 10:33.

Measurement

Description	
Start	2019-01-23 10:33:28
Stop	2019-01-23 10:48:28
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2019-01-23 09:24:18
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	143.0 dB

	A	**C**	**Z**	
Under Range Peak	99.2	96.2	**101.2**	dB
Under Range Limit	**48.2**	46.2	54.2	dB
Noise Floor	35.1	35.7	43.3	dB

Results

LA_{Seq}	61.2	dB	
LASE	90.8	dB	
EAS	132.607	µPa²h	
EAS8	4.243	mPa²h	
EAS40	21.217	mPa²h	
$LZ_{Speak\ (max)}$	2019-01-23 10:47:30	98.4	dB
LAS_{max}	2019-01-23 10:37:45	77.0	dB
LAS_{min}	2019-01-23 10:45:56	49.9	dB
SEA	-99.9	dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0	s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
LC_{Seq}	70.6	dB	
LA_{Seq}	61.2	dB	
LC_{Seq} - LA_{Seq}	9.4	dB	
LA_{leq}	65.9	dB	
LA_{eq}	61.2	dB	
LA_{leq} - LA_{eq}	4.7	dB	

Record #	Record Type	Date	Time	LASeq	LZpeak	LASmax	LASmin	OVLD	OBA OVLD	Marker
1	Run	2019-01-23	10:33:28							
2		2019-01-23	10:33:28	60.9	90.0	68.0	52.8	No	No	
3		2019-01-23	10:34:28	58.9	94.0	66.8	50.1	No	No	
4		2019-01-23	10:35:28	62.2	88.9	71.5	50.8	No	No	
5		2019-01-23	10:36:28	62.4	90.3	70.1	52.7	No	No	
6		2019-01-23	10:37:28	66.2	91.2	77.0	53.2	No	No	
7		2019-01-23	10:38:28	58.3	87.2	65.3	52.0	No	No	
8		2019-01-23	10:39:28	57.0	86.3	65.9	50.3	No	No	
9		2019-01-23	10:40:28	61.1	84.8	67.3	50.8	No	No	
10		2019-01-23	10:41:28	57.3	89.1	64.2	51.2	No	No	
11		2019-01-23	10:42:28	57.7	92.6	64.5	50.6	No	No	
12		2019-01-23	10:43:28	61.6	92.4	69.0	52.6	No	No	
13		2019-01-23	10:44:28	59.2	92.6	69.2	50.8	No	No	
14		2019-01-23	10:45:28	62.0	86.6	70.4	49.9	No	No	
15		2019-01-23	10:46:28	61.3	95.1	67.5	54.4	No	No	
16		2019-01-23	10:47:28	62.0	98.4	68.9	51.1	No	No	
17	Stop	2019-01-23	10:48:28							

Summary

File Name on Meter	LxT_Data.021
File Name on PC	SLM_0004435_LxT_Data_021.00.ldbin
Serial Number	0004435
Model	SoundTrack LxT®
Firmware Version	2.302
User	Sanchez
Location	ST-3 SFCC MUD
Job Description	Balboa Reservoir
Note	Time set for PDT not PSD. Monitoring started at 8:50, not 9:50

Measurement

Description	
Start	2019-01-23 09:50:29
Stop	2019-01-23 10:05:29
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2019-01-23 09:24:18
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting		
Peak Weight	Z Weighting		
Detector	Slow		
Preamp	PRMLxT2B		
Microphone Correction	Off		
Integration Method	Exponential		
Overload	143.0 dB		
	A	**C**	**Z**
Under Range Peak	99.2	96.2	**101.2** dB
Under Range Limit	**48.2**	46.2	54.2 dB
Noise Floor	35.1	35.7	43.3 dB

Results

LA_{Seq}	55.1 dB	
LASE	84.7 dB	
EAS	32.464 µPa²h	
EAS8	1.039 mPa²h	
EAS40	5.194 mPa²h	
$LZ_{Speak\ (max)}$	2019-01-23 09:58:22	93.6 dB
LAS_{max}	2019-01-23 09:54:43	66.5 dB
LAS_{min}	2019-01-23 09:59:49	50.7 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZ_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZ_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZ_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LC_{Seq}	66.9 dB	
LA_{Seq}	55.1 dB	
LC_{Seq} - LA_{Seq}	11.8 dB	
LAI_{eq}	56.9 dB	
LA_{eq}	55.1 dB	
LAI_{eq} - LA_{eq}	1.8 dB	

Record #	Record Type	Date	Time	LASeq	LZpeak	LASmax	LASmin	OVLD	OBA OVLD	Marker
1	Run	2019-01-23	9:50:29							
2		2019-01-23	9:50:29	54.2	89.2	56.7	51.2	No	No	
3		2019-01-23	9:51:29	54.1	89.9	58.1	51.8	No	No	
4		2019-01-23	9:52:29	54.9	90.2	57.6	53.0	No	No	
5		2019-01-23	9:53:29	54.4	87.7	60.7	52.4	No	No	
6		2019-01-23	9:54:29	59.3	88.5	66.5	52.5	No	No	
7		2019-01-23	9:55:29	54.8	89.8	61.5	52.5	No	No	
8		2019-01-23	9:56:29	56.9	88.1	63.2	53.3	No	No	
9		2019-01-23	9:57:29	54.2	93.6	58.2	51.8	No	No	
10		2019-01-23	9:58:29	54.3	86.0	55.7	51.9	No	No	
11		2019-01-23	9:59:29	54.4	88.3	58.3	50.7	No	No	
12		2019-01-23	10:00:29	54.2	92.2	57.1	52.6	No	No	
13		2019-01-23	10:01:29	53.9	84.5	56.5	52.2	No	No	
14		2019-01-23	10:02:29	54.7	88.3	59.2	52.1	No	No	
15		2019-01-23	10:03:29	54.5	89.3	56.3	52.7	No	No	
16		2019-01-23	10:04:29	53.5	84.2	58.0	51.7	No	No	
17	Stop	2019-01-23	10:05:29							

Summary

File Name on Meter	LxT_Data.020
File Name on PC	SLM_0004435_LxT_Data_020.00.ldbin
Serial Number	0004435
Model	SoundTrack LxT®
Firmware Version	2.302
User	Sanchez
Location	ST-4 Plymouth and San Ramon
Job Description	Balboa Reservoir
Note	Time was set for PDT instead of PST. Monitoring started at 8:27, not 9:27

Measurement

Description	
Start	2019-01-23 09:27:06
Stop	2019-01-23 09:42:06
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2019-01-23 09:24:20
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamp	PRMLxT2B			
Microphone Correction	Off			
Integration Method	Exponential			
Overload	143.0 dB			
	A	**C**	**Z**	
Under Range Peak	99.2	96.2	**101.2**	dB
Under Range Limit	**48.2**	46.2	54.2	dB
Noise Floor	35.1	35.7	43.3	dB

Results

LA_{Seq}	60.0		dB
LASE	89.6		dB
EAS	100.786		μPa^2h
EAS8	3.225		mPa^2h
EAS40	16.126		mPa^2h
$LZ_{Speak\ (max)}$	2019-01-23 09:35:55	105.0	dB
LAS_{max}	2019-01-23 09:35:58	76.0	dB
LAS_{min}	2019-01-23 09:30:29	43.6	dB
SEA	-99.9		dB
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0	s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
LZ_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
LC_{Seq}	71.6		dB
LA_{Seq}	60.0		dB
LC_{Seq} - LA_{Seq}	11.5		dB
LA_{leq}	62.7		dB
LA_{eq}	60.0		dB
LA_{leq} - LA_{eq}	2.7		dB

Record #	Record Type	Date	Time	LASeq	LZpeak	LASmax	LASmin	OVLD	OBA OVLD	Marker
1	alibration Chang	2019-01-23	9:24:20							
2	Run	2019-01-23	9:27:06							
3		2019-01-23	9:27:06	54.7	101.0	61.9	44.9	No	No	
4		2019-01-23	9:28:06	54.0	93.7	59.6	47.9	No	No	
5		2019-01-23	9:29:06	58.9	95.2	69.3	48.1	No	No	
6		2019-01-23	9:30:06	58.5	96.7	70.7	43.6	No	No	
7		2019-01-23	9:31:06	56.1	89.8	62.3	49.0	No	No	
8		2019-01-23	9:32:06	60.4	97.8	71.8	45.4	No	No	
9		2019-01-23	9:33:06	55.1	86.4	61.9	45.8	No	No	
10		2019-01-23	9:34:06	55.5	92.5	63.1	43.8	No	No	
11		2019-01-23	9:35:06	65.5	105.0	76.0	43.9	No	No	
12		2019-01-23	9:36:06	56.2	88.3	62.6	45.3	No	No	
13		2019-01-23	9:37:06	59.3	91.4	66.9	46.2	No	No	
14		2019-01-23	9:38:06	52.6	85.4	60.1	44.7	No	No	
15		2019-01-23	9:39:06	65.5	93.6	75.9	51.7	No	No	
16		2019-01-23	9:40:06	62.7	98.0	73.5	50.6	No	No	
17		2019-01-23	9:41:06	57.5	91.8	65.0	48.8	No	No	
18	Stop	2019-01-23	9:42:06							