

Appendix C

Noise Information



Project: OCSD Project No. P1-105
Construction Noise Impact on Sensitive Receptors

Project Number: D140937.00

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

				R1					R2				
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
Rehabilitation				53 38					54 37				
Concrete Mixer Trucks	1	79	40%	500	34	30	33	25	1900	32	28	31	15
Cranes	1	81	40%	500	36	32	35	25	1900	34	30	33	15
Telehandler	1	75	10%	600	28	18	21	25	2000	28	18	21	15
Forklift	1	75	10%	600	28	18	21	25	2000	28	18	21	15
Paver	1	77	50%	700	29	26	29	25	2100	30	27	30	15
Backhoe Loader	1	79	40%	700	31	27	30	25	2100	32	28	31	15
Elevated work platform	1	75	20%	700	27	20	23	25	2100	28	21	24	15
Demolition				53 41					54 41				
Skid Steer Loaders	2	80	40%	500	38	34	37	25	1900	36	32	35	15
Wheel Loaders	1	80	40%	500	35	31	34	25	1900	33	29	32	15
Backhoe Loader	3	79	40%	600	37	33	36	25	2000	37	33	36	15
Dozer	2	82	40%	600	38	34	37	25	2000	38	34	37	15
Trackhoe	2	80	40%	700	35	31	34	25	2100	36	32	35	15
Water Trucks	1	80	10%	700	32	22	25	25	2100	33	23	26	15
Debris Truck	1	76	20%	700	28	21	24	25	2100	29	22	25	15
Trackhoe with hammer attachment	1	85	50%	700	37	34	37	25	2100	38	35	38	15
New Structures				53 47					54 48				
Debris Truck	1	76	20%	500	31	24	27	25	1900	29	22	25	15
Concrete Mixer Trucks	2	79	40%	500	37	33	36	25	1900	35	31	34	15
Cranes	2	81	40%	600	37	33	36	25	2000	37	33	36	15
Forklift	2	75	10%	600	31	21	24	25	2000	31	21	24	15
Pile Driver (Impact)	1	101	20%	700	53	46	49	25	2100	54	47	50	15
Elevated work platform	1	75	20%	700	27	20	23	25	2100	28	21	24	15
Compactor (Ground)	1	83	20%	700	35	28	31	25	2100	36	29	32	15
Dozer	2	82	40%	800	36	32	35	25	2200	37	33	36	15
Backhoe Loader	3	79	40%	800	35	31	34	25	2200	36	32	35	15
Wheel Loaders	1	80	40%	800	31	27	30	25	2200	32	28	31	15
Skid Steer Loaders	2	80	40%	800	34	30	33	25	2200	35	31	34	15
Generator Sets	1	81	50%	800	32	29	32	25	2200	33	30	33	15
Water Trucks	1	80	10%	800	31	21	24	25	2200	32	22	25	15
Trackhoe	2	80	40%	800	34	30	33	25	2200	35	31	34	15
Paver	1	77	50%	800	28	25	28	25	2200	29	26	29	15
Groundwater Pumps	1	81	50%	800	32	29	32	25	2200	33	30	33	15
Telehandler	1	75	10%	800	26	16	19	25	2200	27	17	20	15

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

TRAFFIC NOISE ANALYSIS TOOL

Project Name: OCSD Project No. P1-105
Project Number: D140937.00
Analysis Scenario: Construction Traffic
Source of Traffic Volumes: Construction Assumptions

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (dBA Leq(h))	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Euclid Street	Hard	40	35	35	35	120	0	13	60.0	60.5
Ellis Avenue	Hard	40	35	35	35	120	0	13	60.1	60.6
Ward Street	Hard	40	35	35	35	120	0	13	60.1	60.6

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.