

**APPENDIX E:
NOISE MODELING DATA**

Traffic Noise Spreadsheet Calculator



Number	Roadway Segments			Existing		Distance to Directional Centerline, (feet)		Future		Distance to Directional Centerline, (feet)		Lanes per direction		Change in # of Lanes	Existing (dBA) _{5,6,7}	Future (dBA) _{5,6,7}	Change in Noise Level (dBA)	Substantial Noise Level Increase?
												Existing	Future					
1	Big Horn Blvd	Franklin Blvd	Bruceville Rd	18500	45	50	110	19500	45	50	110	2	2	-	69.5	69.7	0.2	No
2		Bruceville Rd	Laguna Blvd	20830	45	50	110	39900	45	50	110	2	2	-	70.0	72.1	2.1	Yes
3		Laguna Blvd	Elk Grove Blvd	15500	40	50	80	38500	40	50	80	2	2	-	67.9	71.9	4.0	Yes
4		Elk Grove Blvd	Lotz Pkwy	11390	45	45	85	34100	45	45	85	2	2	-	68.1	72.8	4.8	Yes
5		Lotz Pkwy	Whitelock Pkwy	6500	45	50	90	31100	45	50	90	2	2	-	65.3	72.1	6.8	Yes
6		Whitelock Pkwy	Bilby Rd	0	0	50	110	28700	45	50	110	2	2	-		71.4		Yes
7		Bilby Rd	Kammerer Rd	0	0	50	110	29800	45	50	110	2	2	-		71.6		Yes
8		Kammerer Rd	Eschinger Rd	0	0	50	110	35300	45	50	110	1	1	-		72.3		Yes
9	Bilby Rd	Franklin Blvd	Willard Pkwy	8220	30	45	56	10600	30	45	56	1	1	-	63.4	64.5	1.1	No
10		Willard Pkwy	Bruceville Rd	6830	55	45	56	13600	55	45	56	1	1	-	68.9	71.9	3.0	Yes
11		Bruceville Rd	Big Horn Blvd	280	55	45	56	6400	55	45	56	2	2	-	55.0	68.6	13.6	Yes
12		Big Horn Blvd	Lotz Pkwy	0	0	0	0	7600	55	50	110			-		68.0		Yes
13		Lotz Pkwy	Promenade Pkwy	0	0	0	0	7400	55	50	110			-		67.9		Yes
14	Bond Rd	SR 99	E Stockton Blvd	31110	45	65	150	44800	45	65	150	3	3	-	70.6	72.1	1.6	Yes
15		E Stockton Blvd	Elk Crest Dr	31000	45	50	95	54100	45	50	95	2	2	-	72.0	74.4	2.4	Yes
16		Elk Crest Dr	Elk Grove Florin Rd	30890	45	25	75	43800	45	25	75	2	2	-	74.4	75.9	1.5	Yes
17		Elk Grove Florin Rd	Waterman Rd	25830	45	40	80	41200	45	40	80	2	2	-	72.1	74.1	2.0	Yes
18		Waterman Rd	Bradshaw Rd	17940	45	40	85	32000	45	40	85	1	1	-	70.4	72.9	2.5	Yes
19		Bradshaw Rd	Bader Rd	12560	45	95	101	16300	45	95	101	1	1	-	66.3	67.4	1.1	No
20		Bader Rd	Grant Line Rd	6390	45	95	101	10200	45	95	101	1	2	1	63.4	65.4	2.0	No
21	Bradshaw Rd	Vintage Park Dr	Calvine Rd	19940	55	50	110	38300	55	40	80	1	2	1	72.2	76.1	3.9	Yes
22		Calvine Rd	Sheldon Rd	10670	55	110	112	37200	55	40	80	1	2	1	67.4	76.0	8.6	Yes
23		Sheldon Rd	Bond Rd	11890	55	100	112	39800	55	40	80	1	2	1	68.0	76.3	8.2	Yes
24		Bond Rd	Elk Grove Blvd	9440	55	100	112	39400	55	40	80	1	2	1	67.0	76.2	9.2	Yes
25		Elk Grove Blvd	Grant Line Rd	6000	55	90	102	37500	55	40	80	2	2	-	65.5	76.0	10.5	Yes
26	Bruceville Rd	Damascus Dr	Sheldon Rd	17500	40	60	126	37800	40	60	126	2	3	1	67.3	70.6	3.3	Yes
27		Sheldon Rd	Big Horn Blvd	26000	45	100	112	60100	45	100	112	2	3	1	69.1	72.8	3.6	Yes
28		Big Horn Blvd	Laguna Blvd	25500	40	60	100	51500	40	100	112	2	2	-	69.2	70.8	1.6	Yes
29		Laguna Blvd	Elk Grove Blvd	23780	40	50	120	38000	40	60	100	2	2	-	69.2	71.0	1.8	Yes
30		Elk Grove Blvd	Whitelock Pkwy	19440	40	50	120	41100	40	60	100	1	2	1	68.3	71.3	3.0	Yes
31		Whitelock Pkwy	Bilby Rd	8170	45	65	76	29800	45	60	100	1	2	1	65.9	71.2	5.3	Yes
32		Bilby Rd	Kammerer Rd	7330	55	55	66	27700	55	60	100	1	2	1	68.4	73.2	4.8	Yes
33		Kammerer Rd	Eschinger Rd	2280	55	55	66	34900	55	60	100	2	3	1	63.3	74.2	10.9	Yes
34	Calvine Rd	Power Inn Rd	Elk Grove Florin Rd	31830	45	50	125	60000	45	50	125	2	3	1	71.7	74.5	2.8	Yes
35		Elk Grove Florin Rd	Waterman Rd	28220	45	60	130	51600	45	50	125	2	2	-	70.6	73.8	3.2	Yes
36		Waterman Rd	Bradshaw Rd	22610	45	70	130	34300	45	70	130	2	2	-	69.2	71.0	1.8	Yes
37		Bradshaw Rd	Vineyard Rd	11110	55	55	110	29300	55	55	110	1	2	1	69.3	73.6	4.2	Yes
38		Vineyard Rd	Excelsior Rd	11110	55	90	101	26500	55	55	110	1	2	1	68.2	73.1	4.9	Yes
39		Excelsior Rd	Grant Line Rd	4830	55	65	76	22500	55	55	110	1	2	1	65.9	72.4	6.5	Yes
40	Center Parkway	Laguna Village	Bruceville Rd	11830	40	60	110	22100	40	60	110	1	2	1	65.8	68.5	2.7	Yes
41	E. Stockton Blvd	Grant Line Rd	Elk Grove Florin Rd	8330	40	90	101	27900	40	55	110	3	3	-	63.3	69.7	6.4	Yes
42	Elk Grove Blvd	I-5	Harbour Point Dr	26440	45	90	150	35400	45	90	150	3	3	-	68.9	70.2	1.3	No
43		Harbour Point Dr	Four Winds Dr	30670	50	100	165	40400	50	100	165	3	3	-	70.3	71.5	1.2	No
44		Four Winds Dr	Franklin Blvd	40890	50	125	185	49200	50	125	185	3	3	-	70.8	71.6	0.8	No
45		Franklin Blvd	Bruceville Rd	33060	50	70	135	42400	50	70	135	3	3	-	72.0	73.0	1.1	No
46		Bruceville Rd	Big Horn Blvd	33330	50	60	125	53500	50	60	125	3	3	-	72.6	74.6	2.1	Yes
47		Big Horn Blvd	Laguna Springs Dr	36780	50	125	190	51800	50	125	190	3	3	-	70.3	71.8	1.5	Yes
48		Laguna Springs Dr	Auto Center Dr	37440	50	50	135	55600	50	50	135	3	3	-	73.5	75.2	1.7	Yes
49		Auto Center Dr	SR 99	39560	50	50	150	59700	50	50	150	3	3	-	73.6	75.4	1.8	Yes
50		SR 99	rald Vista Dr / E Stockton	40440	50	65	130	64700	50	65	130	2	2	-	73.1	75.1	2.0	Yes

Traffic Noise Spreadsheet Calculator



Number	Roadway Segments			Existing		Distance to Directional Centerline, (feet)		Future		Distance to Directional Centerline, (feet)		Lanes per direction		Change in # of Lanes	Existing (dBA) _{5,6,7}	Future (dBA) _{5,6,7}	Change in Noise Level (dBA)	Substantial Noise Level Increase?
												Existing	Future					
51	Emerald Vista Dr / E Stockton	Elk Grove Florin Rd	29890	35	50	95	48400	35	50	95	1	1	-	69.2	71.3	2.1	Yes	
52		Elk Grove Florin Rd	14280	25	50	75	19700	25	50	75	1	2	1	63.8	65.2	1.4	No	
53		Waterman Rd	10610	35	50	80	16800	35	50	80	1	2	1	64.9	66.9	2.0	No	
54		Bradshaw Rd	4110	40	110	121	8100	40	110	121	2	3	1	59.4	62.4	2.9	No	
55	Elk Grove Florin Rd	Vintage Park Dr	30220	45	70	140	53000	45	70	140	2	3	1	70.3	72.8	2.4	Yes	
56		Calvine Rd	28720	45	50	110	56400	45	50	110	2	2	-	71.4	74.3	2.9	Yes	
57		Sheldon Rd	24720	45	65	120	41200	45	65	120	2	2	-	69.9	72.1	2.2	Yes	
58		Bond Rd	19440	35	40	82	35800	35	40	82	1	2	1	68.2	70.8	2.7	Yes	
59		Elk Grove Blvd	16490	35	40	60	19300	35	40	60			-	67.9	68.6	0.7	No	
60	Eschinger Rd	Willard Pkwy	0	0	60	72	19400	45	40	60			-		71.3		Yes	
61		Bruceville Rd	0	0	60	72	25900	45	40	60			-		72.5		Yes	
62		Big Horn Blvd	0	0	60	72	31900	45	40	60			-		73.4		Yes	
63		Lotz Pkwy	0	0	60	72	33600	45	40	60	1	1	-		73.7		Yes	
64	Excelsior Rd	Gerber Rd	6110	45	110	121	19300	45	110	121	1	1	-	62.5	67.4	5.0	Yes	
65		Calvine Rd	5110	45	75	110	16300	45	75	110	3	3	-	62.8	67.8	5.0	Yes	
66	Franklin Blvd	Sims Rd	30000	45	70	130	41200	45	70	130	2	2	-	70.4	71.8	1.4	No	
67		Big Horn Blvd	28110	45	65	125	35400	45	65	125	2	2	-	70.4	71.4	1.0	No	
68		Laguna Blvd	20670	45	65	125	31900	45	65	125	1	1	-	69.0	70.9	1.9	Yes	
69		Elk Grove Blvd	20780	45	130	175	34200	45	130	175	1	1	-	66.6	68.8	2.2	Yes	
70		Whitelock Pkwy	0	0	65	140	2200	45	65	140	1	1	-		59.1		No	
71		Bilby Rd	0	0	65	125	3900	45	65	125	1	1	-		61.8		Yes	
72		Hood Franklin Rd	0	0	65	125	1800	45	65	125	1	2	1		58.4		No	
73	Grant Line Rd	Sloughhouse Rd	19670	55	70	82	40500	55	65	125	1	2	1	71.7	74.3	2.6	Yes	
74		Calvine Rd	16060	55	100	112	33500	55	50	95	1	2	1	69.4	74.6	5.3	Yes	
75		Sheldon Rd	18830	55	70	85	36600	55	50	95	1	2	1	71.4	75.0	3.6	Yes	
76		Wilton Rd	17220	55	75	86	37600	55	50	95	1	2	1	70.9	75.1	4.3	Yes	
77		Bond Rd	12000	55	90	102	29400	55	50	95	1	4	3	68.5	74.1	5.5	Yes	
78		Elk Grove Blvd	8220	55	110	122	25200	55	110	122	1	4	3	66.1	70.9	4.9	Yes	
79		Bradshaw Rd	13890	55	95	107	63300	55	95	107	1	4	3	68.9	75.5	6.6	Yes	
80		Mosher Rd	14890	55	95	107	66800	55	95	107	2	4	2	69.2	75.8	6.5	Yes	
81		Waterman Rd	19330	55	95	107	100000	55	95	107	3	4	1	70.4	77.5	7.1	Yes	
82		E. Stockton / Survey Rd	23940	55	75	175	110700	55	75	175	2	2	-	71.1	77.8	6.7	Yes	
83	Harbour Point Dr	Elk Grove Blvd	11610	45	65	110	17900	45	65	110	1	2	1	66.7	68.6	1.9	Yes	
84	Hood Franklin Rd	I-5	6900	55	80	92	46800	55	80	92	1	3	2	66.6	74.9	8.3	Yes	
85	Kammerer Rd	Franklin Blvd	0	0	40	52	44500	55	70	150	1	3	2		74.2		Yes	
86		Willard Pkwy	0	0	40	52	50800	55	70	150	1	3	2		74.8		Yes	
87		Bruceville Rd	0	0	40	52	62000	55	70	150	1	3	2		75.7		Yes	
88		Big Horn Blvd	7610	55	50	62	72000	55	70	150	3	3	-	68.9	76.3	7.4	Yes	
89		Lotz Pkwy	7670	55	70	150	68600	55	70	150	3	3	-	66.6	76.1	9.5	Yes	
90		Promenade Pkwy	12890	55	70	150	92300	55	70	150	3	3	-	68.8	77.4	8.5	Yes	
91	Laguna Blvd	SR 99	31500	45	65	130	37600	45	65	125	3	3	-	70.8	71.6	0.8	No	
92		Franklin Blvd	29220	45	65	125	32800	45	65	125	3	3	-	70.5	71.0	0.5	No	
93		Bruceville Rd	29330	45	60	125	28000	45	65	125	3	3	-	70.8	70.4	-0.4	No	
94		Big Horn Blvd	36280	45	65	150	53700	45	65	125	3	3	-	71.2	73.2	2.0	Yes	
95		Laguna Springs Dr	35440	45	65	150	66100	45	65	125	2	2	-	71.1	74.1	3.0	Yes	
96	Laguna Springs Dr	Laguna Blvd	12000	35	55	105	15900	35	55	105	1	1	-	64.8	66.0	1.2	No	
97		Laguna Palms Wy	12000	35	50	75	13200	35	50	75	2	2	-	65.6	66.0	0.4	No	
98		Elk Grove Blvd	4610	35	55	95	26700	35	55	95	2	2	-	60.8	68.4	7.6	Yes	
99	Lent Ranch Pkwy	Kammerer Rd	110	35	50	95	13200	35	50	95	1	1	-	44.8	65.6	20.8	Yes	
100	Lewis Stein Rd	Sheldon Rd	10720	35	45	80	14000	35	45	80	2	2	-	65.3	66.4	1.2	No	

Traffic Noise Spreadsheet Calculator



Number	Roadway Segments			Existing		Distance to Directional Centerline, (feet)		Future		Distance to Directional Centerline, (feet)		Lanes per direction		Change in # of Lanes	Existing	Future	Change in Noise Level	Substantial Noise Level Increase?
												Existing	Future					
Name	From	To	ADT	(mph)	Near	Far	ADT	(mph)	Near	Far			-	(dBA) _{5,6,7}	(dBA) _{5,6,7}	dBA		
101	Lotz Pkwy	Big Horn Blvd	Laguna Springs Dr	3000	35	60	100	15500	35	60	100	2	2	-	58.6	65.7	7.1	Yes
102		Laguna Springs Dr	Whitelock Pkwy	670	35	52	68	17000	35	52	68		3	3	53.1	67.2	14.0	Yes
103		Whitelock Pkwy	Promenade Pkwy	0	0	52	68	44200	35	52	68		2	2		71.3		Yes
104		Promenade Pkwy	Bilby Rd	0	0	52	68	28900	35	52	68		2	2		69.5		Yes
105		Bilby Rd	Kammerer Rd	0	0	52	68	22200	35	52	68		2	2		68.3		Yes
106		Kammerer Rd	Eschinger Rd	0	0	52	68	39000	35	52	68	1	1	-		70.8		Yes
107	Mosher	Grant Line Rd	Waterman Rd	2000	50	50	62	7600	50	50	62	2	2	-	62.0	67.8	5.8	Yes
108	Power Inn Rd	Calvine Rd	Sheldon Rd	13440	35	50	90	19500	35	50	90	2	2	-	65.8	67.4	1.6	Yes
109	Promenade Pkwy	Lotz Pkwy	Bilby Rd	0	0	50	90	17800	45	50	90		3	3		69.6		Yes
110		Bilby Rd	Kammerer Rd	5280	45	45	130	27800	45	65	125	1	1	-	64.2	70.3	6.1	Yes
111		Kammerer Rd	Eschinger Rd	0	0	45	130	16000	45	65	125	0	3	3		67.9		Yes
112	Sheldon Rd	Bruceville Rd	Lewis Stein Rd	18720	45	65	125	37700	45	65	125	2	3	1	68.6	71.7	3.0	Yes
113		Lewis Stein Rd	SR 99	25940	45	50	135	47400	45	65	125	3	3	-	70.7	72.6	1.9	Yes
114		SR 99	E. Stockton Blvd	34170	45	75	130	58900	45	65	125	3	3	-	70.8	73.6	2.8	Yes
115		E. Stockton Blvd	Power Inn Rd	30670	45	60	125	51900	45	65	125	2	2	-	71.0	73.0	2.1	Yes
116		Power Inn Rd	Elk Grove Florin Rd	22500	45	65	115	43900	45	65	115	2	2	-	69.5	72.4	2.9	Yes
117		Elk Grove Florin Rd	Waterman Rd	11780	45	90	102	21700	45	90	102	1	1	-	66.1	68.8	2.7	Yes
118		Waterman Rd	Bradshaw Rd	7110	45	50	62	19400	45	50	62	1	1	-	66.3	70.7	4.4	Yes
119		Bradshaw Rd	Bader Rd	6390	45	50	62	14500	45	50	62	1	1	-	65.8	69.4	3.6	Yes
120		Bader Rd	Dillard Oaks Ct	5610	45	60	72	14500	45	60	72	1	1	-	64.5	68.7	4.1	Yes
121		Excelsior Rd	Grant Line Rd	6670	45	60	72	22900	45	60	72	1	1	-	65.3	70.6	5.4	Yes
122	Waterman Rd	Vintage Park Dr	Calvine Rd	9220	55	50	95	30400	55	50	95	1	1	-	69.0	74.2	5.2	Yes
123		Calvine Rd	Sheldon Rd	10060	55	52	64	17500	55	52	64	1	1	-	70.0	72.4	2.4	Yes
124		Sheldon Rd	Bond Rd	9940	55	130	142	20900	55	130	142	1	1	-	66.2	69.4	3.2	Yes
125		Bond Rd	Elk Grove Blvd	11560	55	50	62	23300	55	50	62	2	2	-	70.7	73.8	3.0	Yes
126		Elk Grove Blvd	Grant Line Rd	7110	55	65	110	25600	55	65	110	2	2	-	66.9	72.5	5.6	Yes
127	Whitelock Pkwy	Franklin Blvd	Bruceville Rd	14000	40	55	100	8800	40	55	100	2	2	-	66.9	64.9	-2.0	No
128		Bruceville Rd	Big Horn Blvd	7440	40	70	125	8900	40	70	125	2	2	-	63.1	63.9	0.8	No
129		Big Horn Blvd	Lotz Pkwy	5190	40	70	82	15400	40	70	82	2	2	-	62.3	67.0	4.7	Yes
130		Lotz Pkwy	SR 99	0	0	65	77	50400	40	65	77	2	2	-		72.5		Yes
131	Willard Pkwy	Whitelock Pkwy	Bilby	6940	50	70	140	31600	50	70	140	2	2	-	65.1	71.7	6.6	Yes
132		Bilby Rd	Kammerer Rd	1280	50	65	125	21100	50	65	125	2	2	-	58.2	70.3	12.2	Yes
133	Wilton Rd	Grant Line Rd	Leisure Oak Ln	9940	55	70	82	14800	55	70	82	2	2	-	68.7	70.5	1.7	Yes
	SR-99	Calvine Rd	Sheldon Rd	104500	65	90	190	202800	65	90	190	2	2	-	78.8	81.7	2.9	Yes
		Sheldon Rd	Bond Rd	96500	65	120	220	196300	65	120	220	2	2	-	77.4	80.5	3.1	Yes
		Bond Rd	Elk Grove Blvd	81300	65	136	210	177700	65	136	210	2	2	-	76.4	79.8	3.4	Yes
		Elk Grove Blvd	Whitelock Pkwy	71500	65	95	175	157900	65	95	175	2	2	-	77.2	80.6	3.4	Yes
		Whitelock Pkwy	Grant Line Rd	71500	65	560	690	132700	65	560	690	2	2	-	70.1	72.8	2.7	Yes
	I-5	Grant Line Rd	Eschinger Rd	76900	65	160	260	131900	65	160	260	2	2	-	75.4	77.7	2.3	Yes
		Cosumnes River Blvd	Laguna Blvd	95600	65	2650	2750	155200	65	2650	2750	2	2	-	65.0	67.1	2.1	Yes
		Laguna Blvd	Elk Grove Blvd	76700	65	170	295	130700	65	170	295	2	2	-	75.0	77.3	2.3	Yes
		Elk Grove Blvd	Hood Franklin Rd	64000	65	190	320	113200	65	190	320	2	2	-	73.8	76.3	2.5	Yes
		Hood Franklin Rd	Twin Cities Rd	53000	65	2626	2750	81600	65	2626	2750	2	2	-	62.5	64.3	1.9	Yes

Traffic Noise Spreadsheet Calculator



Project: Elk Grove GPU_Existing

Noise Level Descriptor: Ldn
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor:

				Input										Output				
Number	Name	Segment Description and Location		ADT	Speed (mph)	Distance to Directional Centerline, (feet) ₄		Traffic Distribution Characteristics					Ldn, (dBA) _{5,6,7}	Distance to Contour, (feet) ₃				
		From	To			Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve		% Night	70 dBA	65 dBA	60 dBA	55 dBA
#REF!																		
1	Big Horn Blvd	Franklin Blvd	Bruceville Rd	18,500	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.5	66	209	662	2093
2		Bruceville Rd	Laguna Blvd	20,830	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.0	75	236	745	2357
3		Laguna Blvd	Elk Grove Blvd	15,500	40	50	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.9	39	124	393	1243
4		Elk Grove Blvd	Lotz Pkwy	11,390	45	45	85	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.1	40	126	397	1256
5		Lotz Pkwy	Whitlock Pkwy	6,500	45	50	90	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.3	23	71	225	712
6		Whitlock Pkwy	Bilby Rd	-	-	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
7		Bilby Rd	Kammerer Rd	-	-	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
8		Kammerer Rd	Eschinger Rd	-	-	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
9	Bilby Rd	Franklin Blvd	Willard Pkwy	8,220	30	45	56	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	63.4	11	35	110	347
10		Willard Pkwy	Bruceville Rd	6,830	55	45	56	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.9	39	123	390	1232
11		Bruceville Rd	Big Horn Blvd	280	55	45	56	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	55.0	2	5	16	51
12		Big Horn Blvd	Lotz Pkwy	-	-			86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
13		Lotz Pkwy	Promenade Pkwy	-	-			86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
14	Bond Rd	SR 99	E Stockton Blvd	31,110	45	65	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.6	112	355	1124	3553
15		E Stockton Blvd	Elk Crest Dr	31,000	45	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.0	108	342	1082	3421
16		Elk Crest Dr	Elk Grove Florin Rd	30,890	45	25	75	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.4	118	374	1183	3742
17		Elk Grove Florin Rd	Waterman Rd	25,830	45	40	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.1	91	287	909	2874
18		Waterman Rd	Bradshaw Rd	17,940	45	40	85	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.4	64	202	638	2017
19		Bradshaw Rd	Bader Rd	12,560	45	95	101	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.3	42	132	417	1318
20		Bader Rd	Grant Line Rd	6,390	45	95	101	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	63.4	21	67	212	671
21	Bradshaw Rd	Vintage Park Dr	Calvine Rd	19,940	55	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.2	122	386	1220	3856
22		Calvine Rd	Sheldon Rd	10,670	55	110	112	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.4	60	191	605	1913
23		Sheldon Rd	Bond Rd	11,890	55	100	112	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.0	68	214	675	2135
24		Bond Rd	Elk Grove Blvd	9,440	55	100	112	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.0	54	170	536	1695
25		Elk Grove Blvd	Grant Line Rd	6,000	55	90	102	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.5	34	108	341	1078
26	Bruceville Rd	Damascus Dr	Sheldon Rd	17,500	40	60	126	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.3	46	146	462	1461
27		Sheldon Rd	Big Horn Blvd	26,000	45	100	112	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.1	86	273	864	2732
28		Big Horn Blvd	Laguna Blvd	25,500	40	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.2	65	206	650	2055
29		Laguna Blvd	Elk Grove Blvd	23,780	40	50	120	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.2	64	204	644	2037
30		Elk Grove Blvd	Whitlock Pkwy	19,440	40	50	120	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.3	53	166	526	1665
31		Whitlock Pkwy	Bilby Rd	8,170	45	65	76	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.9	27	86	272	860
32		Bilby Rd	Kammerer Rd	7,330	55	55	66	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.4	42	132	417	1320
33		Kammerer Rd	Eschinger Rd	2,280	55	55	66	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	63.3	13	41	130	410
34		Power Inn Rd	Elk Grove Florin Rd	31,830	45	50	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.7	117	370	1169	3696
35		Elk Grove Florin Rd	Waterman Rd	28,220	45	60	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.6	101	318	1007	3184
36	Waterman Rd	Bradshaw Rd	22,610	45	70	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.2	79	249	786	2486	
37	Bradshaw Rd	Vineyard Rd	11,110	55	55	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.3	67	211	668	2113	
38	Vineyard Rd	Excelsior Rd	11,110	55	90	101	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.2	63	200	631	1995	
39	Excelsior Rd	Grant Line Rd	4,830	55	65	76	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.9	27	87	275	869	
40	Center Parkway	Laguna Village	Bruceville Rd	11,830	40	60	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.8	31	97	305	966
41	E. Stockton Blvd	Grant Line Rd	Elk Grove Florin Rd	8,330	40	90	101	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	63.3	21	65	206	651
42	Elk Grove Blvd	I-5	Harbour Point Dr	26,440	45	90	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.9	91	286	906	2865
43		Harbour Point Dr	Four Winds Dr	30,670	50	100	165	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.3	138	438	1385	4380
44		Four Winds Dr	Franklin Blvd	40,890	50	125	185	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.8	182	577	1825	5770
45		Franklin Blvd	Bruceville Rd	33,060	50	70	135	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.0	153	483	1526	4826
46		Bruceville Rd	Big Horn Blvd	33,330	50	60	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.6	156	493	1558	4928
47		Big Horn Blvd	Laguna Springs Dr	36,780	50	125	190	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.3	165	520	1646	5204
48		Laguna Springs Dr	Auto Center Dr	37,440	50	50	135	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.5	185	584	1845	5835
49		Auto Center Dr	SR 99	39,560	50	50	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.6	200	632	2000	6324
50		SR 99	Harbour Vista Dr / E Stockton Bl	40,440	50	65	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.1	188	594	1878	5938

Traffic Noise Spreadsheet Calculator



Project: Elk Grove GPU_Existing

Noise Level Descriptor: Ldn
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor:

				Input										Output				
Number	Name	Segment Description and Location		ADT	Speed (mph)	Distance to Directional Centerline, (feet) ₄		Traffic Distribution Characteristics					Ldn, (dBA) _{5,6,7}	Distance to Contour, (feet) ₃				
		From	To			Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve		% Night	70 dBA	65 dBA	60 dBA	55 dBA
#REF!																		
51		ernald Vista Dr / E Stockton Bl	Elk Grove Florin Rd	29,890	35	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.2	57	180	569	1800
52		Elk Grove Florin Rd	Waterman Rd	14,280	25	50	75	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	63.8	15	46	146	462
53		Waterman Rd	Bradshaw Rd	10,610	35	50	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	64.9	20	62	197	624
54		Bradshaw Rd	Grant Line Rd	4,110	40	110	121	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	59.4	10	32	102	321
55	Elk Grove Florin Rd	Vintage Park Dr	Calvine Rd	30,220	45	70	140	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.3	106	336	1063	3362
56		Calvine Rd	Sheldon Rd	28,720	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.4	103	325	1028	3250
57		Sheldon Rd	Bond Rd	24,720	45	65	120	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.9	86	272	859	2716
58		Bond Rd	Elk Grove Blvd	19,440	35	40	82	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.2	37	119	375	1185
59		Elk Grove Blvd	E Stockton Blvd	16,490	35	40	60	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.9	30	96	305	963
60		Willard Pkwy	Bruceville Rd	-	-	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
61	Eschinger Rd	Bruceville Rd	Big Horn Blvd	-	-	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
62		Big Horn Blvd	Lotz Pkwy	-	-	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
63		Lotz Pkwy	Promenade Pkwy	-	-	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
64	Excelsior Rd	Gerber Rd	Calvine Rd	6,110	45	110	121	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	62.5	20	64	203	642
65		Calvine Rd	Sheldon Rd	5,110	45	75	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	62.8	17	55	173	546
66		Sims Rd	Big Horn Blvd	30,000	45	70	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.4	104	330	1043	3299
67	Franklin Blvd	Big Horn Blvd	Laguna Blvd	28,110	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.4	98	311	983	3108
68		Laguna Blvd	Elk Grove Blvd	20,670	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.0	72	229	723	2285
69		Elk Grove Blvd	Whitelock Pkwy	20,780	45	130	175	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.6	70	220	697	2204
70		Whitelock Pkwy	Bilby Rd	-	-	65	140	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
71		Bilby Rd	Hood Franklin Rd	-	-	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
72		Hood Franklin Rd	Lambert Rd	-	-	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
73	Grant Line Rd	Sloughhouse Rd	Calvine Rd	19,670	55	70	82	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.7	112	354	1119	3538
74		Calvine Rd	Sheldon Rd	16,060	55	100	112	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.4	91	288	912	2884
75		Sheldon Rd	Wilton Rd	18,830	55	70	85	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.4	107	339	1073	3392
76		Wilton Rd	Bond Rd	17,220	55	75	86	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.9	98	309	979	3095
77		Bond Rd	Elk Grove Blvd	12,000	55	90	102	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.5	68	216	682	2156
78		Elk Grove Blvd	Bradshaw Rd	8,220	55	110	122	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.1	47	148	467	1476
79		Bradshaw Rd	Mosher Rd	13,890	55	95	107	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.9	79	249	789	2495
80		Mosher Rd	Waterman Rd	14,890	55	95	107	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.2	85	267	846	2674
81		Waterman Rd	E. Stockton / Survey Rd	19,330	55	95	107	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.4	110	347	1098	3472
82		E. Stockton / Survey Rd	SR 99	23,940	55	75	175	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.1	148	468	1481	4683
83	Harbour Point Dr	Elk Grove Blvd	Laguna Blvd	11,610	45	65	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.7	40	126	399	1260
84	Hood Franklin Rd	I-5	Franklin Blvd	6,900	55	80	92	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.6	39	124	392	1240
85	Kammerer Rd	Franklin Blvd	Willard Pkwy	-	-	40	52	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
86		Willard Pkwy	Bruceville Rd	-	-	40	52	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
87		Bruceville Rd	Big Horn Blvd	-	-	40	52	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
88		Big Horn Blvd	Lotz Pkwy	7,610	55	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.9	43	137	434	1372
89		Lotz Pkwy	Promenade Pkwy	7,670	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.6	47	148	467	1476
90		Promenade Pkwy	SR 99	12,890	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.8	78	248	785	2481
91	Laguna Blvd	SR 99	Franklin Blvd	31,500	45	65	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.8	111	350	1108	3505
92		Franklin Blvd	Bruceville Rd	29,220	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.5	102	323	1022	3231
93		Bruceville Rd	Big Horn Blvd	29,330	45	60	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.8	104	329	1039	3286
94		Big Horn Blvd	Laguna Springs Dr	36,280	45	65	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.2	131	414	1310	4143
95		Laguna Springs Dr	SR 99	35,440	45	65	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.1	128	405	1280	4047
96	Laguna Springs Dr	Laguna Blvd	Laguna Palms Wy	12,000	35	55	105	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	64.8	23	72	229	723
97		Laguna Palms Wy	Elk Grove Blvd	12,000	35	50	75	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.6	22	70	222	701
98		Elk Grove Blvd	Lotz Pkwy	4,610	35	55	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	60.8	9	27	87	274
99	Lent Ranch Pkwy	Kammerer Rd	Promenade Pkwy	110	35	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	44.8	1	2	7	
100	Lewis Stein Rd	Sheldon Rd	Big Horn Blvd	10,720	35	45	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.3	20	64	202	639

Traffic Noise Spreadsheet Calculator



Project: Elk Grove GPU_Existing

Noise Level Descriptor: Ldn
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor:

Segment Description and Location				Input										Output				
Number	Name	From	To	ADT	Speed (mph)	Distance to Directional Centerline, (feet) ₄		Traffic Distribution Characteristics					Ldn, (dBA) _{5,6,7}	Distance to Contour, (feet) ₃				
						Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve		% Night	70 dBA	65 dBA	60 dBA	55 dBA
#REF!																		
101	Lotz Pkwy	Big Horn Blvd	Laguna Springs Dr	3,000	35	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	58.6	6	18	56	177
102		Laguna Springs Dr	Whitelock Pkwy	670	35	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	53.1	1	4	12	39
103		Whitelock Pkwy	Promenade Pkwy	-	-	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
104		Promenade Pkwy	Bilby Rd	-	-	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
105		Bilby Rd	Kammerer Rd	-	-	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
106		Kammerer Rd	Eschinger Rd	-	-	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
107	Mosher	Grant Line Rd	Waterman Rd	2,000	50	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	62.0	9	28	88	278
108	Power Inn Rd	Calvine Rd	Sheldon Rd	13,440	35	50	90	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.8	25	80	254	803
109	Promenade Pkwy	Lotz Pkwy	Bilby Rd	-	-	50	90	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
110		Bilby Rd	Kammerer Rd	5,280	45	45	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	64.2	20	63	200	634
111		Kammerer Rd	Eschinger Rd	-	-	45	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
112	Sheldon Rd	Bruceville Rd	Lewis Stein Rd	18,720	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.6	65	207	654	2070
113		Lewis Stein Rd	SR 99	25,940	45	50	135	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.7	97	306	969	3064
114		SR 99	E. Stockton Blvd	34,170	45	75	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.8	118	372	1177	3721
115		E. Stockton Blvd	Power Inn Rd	30,670	45	60	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.0	109	344	1087	3436
116		Power Inn Rd	Elk Grove Florin Rd	22,500	45	65	115	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.5	78	246	777	2457
117		Elk Grove Florin Rd	Waterman Rd	11,780	45	90	102	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.1	39	124	392	1238
118		Waterman Rd	Bradshaw Rd	7,110	45	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.3	24	75	237	750
119		Bradshaw Rd	Bader Rd	6,390	45	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.8	21	67	213	674
120		Bader Rd	Dillard Oaks Ct	5,610	45	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	64.5	19	59	187	591
121		Excelsior Rd	Grant Line Rd	6,670	45	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.3	22	70	222	703
122	Waterman Rd	Vintage Park Dr	Calvine Rd	9,220	55	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.0	55	174	550	1739
123		Calvine Rd	Sheldon Rd	10,060	55	52	64	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.0	57	181	573	1813
124		Sheldon Rd	Bond Rd	9,940	55	130	142	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.2	56	178	564	1784
125		Bond Rd	Elk Grove Blvd	11,560	55	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.7	66	208	659	2085
126		Elk Grove Blvd	Grant Line Rd	7,110	55	65	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.9	42	132	417	1319
127		Franklin Blvd	Bruceville Rd	14,000	40	55	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.9	36	114	361	1142
128	Whitelock Pkwy	Bruceville Rd	Big Horn Blvd	7,440	40	70	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	63.1	19	61	191	605
129		Big Horn Blvd	Lotz Pkwy	5,190	40	70	82	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	62.3	13	41	128	406
130		Lotz Pkwy	SR 99	-	-	65	77	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%					
131	Willard Pkwy	Whitelock Pkwy	Bilby Rd	6,940	50	70	140	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.1	32	102	322	1019
132		Bilby Rd	Kammerer Rd	1,280	50	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	58.2	6	19	59	187
133	Wilton Rd	Grant Line Rd	Leisure Oak Ln	9,940	55	70	82	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.7	57	179	565	1788
134	SR-99	Calvine Rd	Sheldon Rd	104,500	65	90	190	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	78.8	1000	3162	9999	31620
135		Sheldon Rd	Bond Rd	96,500	65	120	220	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	77.4	902	2854	9024	28536
136		Bond Rd	Elk Grove Blvd	81,300	65	136	210	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	76.4	744	2352	7438	23522
137		Elk Grove Blvd	Whitelock Pkwy	71,500	65	95	175	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	77.2	669	2116	6691	21158
138		Whitelock Pkwy	Grant Line Rd	71,500	65	560	690	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	70.1	643	2032	6425	20318
139		Grant Line Rd	Eschinger Rd	76,900	65	160	260	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	75.4	708	2238	7077	22378
140	I-5	Cosumnes River Blvd	Laguna Blvd	95,600	65	2650	2750	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	65.0	855	2702	8546	27024
141		Laguna Blvd	Elk Grove Blvd	76,700	65	170	295	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	75.0	712	2251	7117	22506
142		Elk Grove Blvd	Hood Franklin Rd	64,000	65	190	320	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	73.8	592	1871	5915	18706
143		Hood Franklin Rd	Twin Cities Rd	53,000	65	2626	2750	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	62.5	474	1498	4738	14983

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator



Project: Elk Grove GPU_Future

Noise Level Descriptor: Ldn
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor:

Segment Description and Location				Input										Output						
Number	Name	From	To	ADT	Speed (mph)	Distance to Directional Centerline, (feet) ₄		Traffic Distribution Characteristics					Ldn, (dBA) _{5,6,7}	Distance to Contour, (feet) ₃						
						Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve		% Night	70 dBA	65 dBA	60 dBA	55 dBA		
#REF!																				
1	Big Horn Blvd	Franklin Blvd	Bruceville Rd	19,500	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.7	70	221	698	2207		
2		Bruceville Rd	Laguna Blvd	33,900	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.1	121	384	1213	3836		
3		Laguna Blvd	Elk Grove Blvd	38,500	40	50	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.9	98	309	977	3088		
4		Elk Grove Blvd	Lotz Pkwy	34,100	45	45	85	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.8	119	376	1189	3760		
5		Lotz Pkwy	Whitelock Pkwy	31,100	45	50	90	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.1	108	340	1077	3404		
6		Whitelock Pkwy	Bilby Rd	28,700	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.4	103	325	1027	3248		
7		Bilby Rd	Kammerer Rd	29,800	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.6	107	337	1066	3372		
8		Kammerer Rd	Eschinger Rd	35,300	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.3	126	399	1263	3995		
9	Bilby Rd	Franklin Blvd	Willard Pkwy	10,600	30	45	56	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	64.5	14	45	141	447		
10		Willard Pkwy	Bruceville Rd	13,600	55	45	56	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.9	78	245	776	2453		
11		Bruceville Rd	Big Horn Blvd	6,400	55	45	56	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.6	37	115	365	1154		
12		Big Horn Blvd	Lotz Pkwy	7,600	55	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.0	46	147	465	1470		
13		Lotz Pkwy	Promenade Pkwy	7,400	55	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.9	45	143	453	1431		
14	Bond Rd	SR 99	E Stockton Blvd	44,800	45	65	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.1	162	512	1618	5116		
15		E Stockton Blvd	Elk Crest Dr	54,100	45	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.4	189	597	1888	5970		
16		Elk Crest Dr	Elk Grove Florin Rd	43,800	45	25	75	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.9	168	531	1678	5305		
17		Elk Grove Florin Rd	Waterman Rd	41,200	45	40	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.1	145	458	1450	4584		
18		Waterman Rd	Bradshaw Rd	32,000	45	40	85	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.9	114	360	1138	3598		
19		Bradshaw Rd	Bader Rd	16,300	45	95	101	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.4	54	171	541	1711		
20		Bader Rd	Grant Line Rd	10,200	45	95	101	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.4	34	107	339	1070		
21	Bradshaw Rd	Vintage Park Dr	Calvine Rd	38,300	55	40	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	76.1	230	728	2303	7283		
22		Calvine Rd	Sheldon Rd	37,200	55	40	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	76.0	224	707	2237	7074		
23		Sheldon Rd	Bond Rd	39,800	55	40	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	76.3	239	757	2393	7569		
24		Bond Rd	Elk Grove Blvd	39,400	55	40	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	76.2	237	749	2369	7492		
25		Elk Grove Blvd	Grant Line Rd	37,500	55	40	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	76.0	226	713	2255	7131		
26	Bruceville Rd	Damascus Dr	Sheldon Rd	37,800	40	60	126	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.6	100	316	998	3155		
27		Sheldon Rd	Big Horn Blvd	60,100	45	100	112	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.8	200	631	1997	6315		
28		Big Horn Blvd	Laguna Blvd	51,500	40	100	112	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.8	127	403	1273	4026		
29		Laguna Blvd	Elk Grove Blvd	38,000	40	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.0	97	306	969	3063		
30		Elk Grove Blvd	Whitelock Pkwy	41,100	40	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.3	105	331	1048	3313		
31		Whitelock Pkwy	Bilby Rd	29,800	45	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.2	102	323	1021	3229		
32		Bilby Rd	Kammerer Rd	27,700	55	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.2	162	513	1622	5129		
33		Kammerer Rd	Eschinger Rd	34,900	55	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.2	204	646	2044	6462		
34		Power Inn Rd	Elk Grove Florin Rd	60,000	45	50	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.5	220	697	2203	6966		
35		Elk Grove Florin Rd	Waterman Rd	51,600	45	50	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.8	189	599	1895	5991		
36	Calvine Rd	Waterman Rd	Bradshaw Rd	34,300	45	70	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.0	119	377	1193	3772		
37		Bradshaw Rd	Vineyard Rd	29,300	55	55	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.6	176	557	1762	5572		
38		Vineyard Rd	Excelsior Rd	26,500	55	55	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.1	159	504	1594	5039		
39		Excelsior Rd	Grant Line Rd	22,500	55	55	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.4	135	428	1353	4279		
40	Center Parkway	Laguna Village	Bruceville Rd	22,100	40	60	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.5	57	180	571	1805		
41	E. Stockton Blvd	Grant Line Rd	Elk Grove Florin Rd	27,900	40	55	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.7	73	231	730	2310		
42		I-5	Harbour Point Dr	35,400	45	90	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.2	121	384	1213	3835		
43		Harbour Point Dr	Four Winds Dr	40,400	50	100	165	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.5	182	577	1824	5769		
44		Four Winds Dr	Franklin Blvd	49,200	50	125	185	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.6	220	694	2195	6942		
45		Franklin Blvd	Bruceville Rd	42,400	50	70	135	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.0	196	619	1957	6189		
46		Bruceville Rd	Big Horn Blvd	53,500	50	60	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.6	250	791	2502	7910		
47		Big Horn Blvd	Laguna Springs Dr	51,800	50	125	190	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.8	232	733	2317	7329		
48		Laguna Springs Dr	Auto Center Dr	55,600	50	50	135	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.2	274	867	2740	8666		
49		Auto Center Dr	SR 99	59,700	50	50	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.4	302	954	3018	9543		
50		SR 99	Harold Vista Dr / E Stockton Bl	64,700	50	65	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.1	300	950	3004	9500		

Traffic Noise Spreadsheet Calculator



Project: Elk Grove GPU_Future
 Noise Level Descriptor: Ldn
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor:

				Input									Output					
Number	Name	Segment Description and Location		ADT	Speed (mph)	Distance to Directional Centerline, (feet) ₄		Traffic Distribution Characteristics					Ldn, (dBA) _{5,6,7}	Distance to Contour, (feet) ₃				
		From	To			Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve		% Night	70 dBA	65 dBA	60 dBA	55 dBA
#REF!																		
51		erald Vista Dr / E Stockton Bl	Elk Grove Florin Rd	48,400	35	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.3	92	291	922	2915
52		Elk Grove Florin Rd	Waterman Rd	19,700	25	50	75	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.2	20	64	202	637
53		Waterman Rd	Bradshaw Rd	16,800	35	50	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.9	31	99	313	988
54		Bradshaw Rd	Grant Line Rd	8,100	40	110	121	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	62.4	20	63	200	633
55		Vintage Park Dr	Calvine Rd	53,000	45	70	140	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.8	186	590	1865	5897
56		Calvine Rd	Sheldon Rd	56,400	45	50	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.3	202	638	2018	6382
57	Elk Grove Florin Rd	Sheldon Rd	Bond Rd	41,200	45	65	120	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.1	143	453	1431	4527
58		Bond Rd	Elk Grove Blvd	35,800	35	40	82	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.8	69	218	690	2183
59		Elk Grove Blvd	E Stockton Blvd	19,300	35	40	60	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.6	36	113	357	1128
60		Willard Pkwy	Bruceville Rd	19,400	45	40	60	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.3	66	208	657	2077
61		Bruceville Rd	Big Horn Blvd	25,900	45	40	60	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.5	88	277	877	2773
62	Eschinger Rd	Big Horn Blvd	Lotz Pkwy	31,900	45	40	60	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.4	108	342	1080	3415
63		Lotz Pkwy	Promenade Pkwy	33,600	45	40	60	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.7	114	360	1138	3597
64		Gerber Rd	Calvine Rd	19,300	45	110	121	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.4	64	203	641	2027
65	Excelsior Rd	Calvine Rd	Sheldon Rd	16,300	45	75	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.8	55	174	551	1741
66		Sims Rd	Big Horn Blvd	41,200	45	70	130	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.8	143	453	1433	4531
67		Big Horn Blvd	Laguna Blvd	35,400	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.4	124	391	1238	3914
68		Laguna Blvd	Elk Grove Blvd	31,900	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.9	112	353	1115	3527
69	Franklin Blvd	Elk Grove Blvd	Whitelock Pkwy	34,200	45	130	175	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.8	115	363	1147	3627
70		Whitelock Pkwy	Bilby Rd	2,200	45	65	140	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	59.1	8	25	78	248
71		Bilby Rd	Hood Franklin Rd	3,900	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	61.8	14	43	136	431
72		Hood Franklin Rd	Lambert Rd	1,800	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	58.4	6	20	63	199
73		Sloughhouse Rd	Calvine Rd	40,500	55	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.3	242	765	2420	7653
74		Calvine Rd	Sheldon Rd	33,500	55	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.6	200	632	1998	6318
75		Sheldon Rd	Wilton Rd	36,600	55	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.0	218	690	2183	6903
76		Wilton Rd	Bond Rd	37,600	55	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.1	224	709	2242	7091
77		Bond Rd	Elk Grove Blvd	29,400	55	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.1	175	554	1753	5545
78	Grant Line Rd	Elk Grove Blvd	Bradshaw Rd	25,200	55	110	122	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.9	143	452	1431	4524
79		Bradshaw Rd	Mosher Rd	63,300	55	95	107	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.5	360	1137	3595	11369
80		Mosher Rd	Waterman Rd	66,800	55	95	107	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.8	379	1200	3794	11998
81		Waterman Rd	E. Stockton / Survey Rd	100,000	55	95	107	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	77.5	568	1796	5680	17961
82		E. Stockton / Survey Rd	SR 99	110,700	55	75	175	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	77.8	685	2166	6848	21655
83	Harbour Point Dr	Elk Grove Blvd	Laguna Blvd	17,900	45	65	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.6	61	194	614	1943
84	Hood Franklin Rd	I-5	Franklin Blvd	46,800	55	80	92	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.9	266	841	2660	8411
85		Franklin Blvd	Willard Pkwy	44,500	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.2	271	856	2708	8565
86		Willard Pkwy	Bruceville Rd	50,800	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.8	309	978	3092	9777
87	Kammerer Rd	Bruceville Rd	Big Horn Blvd	62,000	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	75.7	377	1193	3773	11933
88		Big Horn Blvd	Lotz Pkwy	72,000	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	76.3	438	1386	4382	13857
89		Lotz Pkwy	Promenade Pkwy	68,600	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	76.1	418	1320	4175	13203
90		Promenade Pkwy	SR 99	92,300	55	70	150	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	77.4	562	1776	5618	17764
91		SR 99	Franklin Blvd	37,600	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.6	131	416	1315	4157
92		Franklin Blvd	Bruceville Rd	32,800	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.0	115	363	1147	3626
93	Laguna Blvd	Bruceville Rd	Big Horn Blvd	28,000	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.4	98	310	979	3096
94		Big Horn Blvd	Laguna Springs Dr	53,700	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.2	188	594	1877	5937
95		Laguna Springs Dr	SR 99	66,100	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.1	231	731	2311	7308
96		Laguna Blvd	Laguna Palms Wy	15,900	35	55	105	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.0	30	96	303	958
97	Laguna Springs Dr	Laguna Palms Wy	Elk Grove Blvd	13,200	35	50	75	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.0	24	77	244	771
98		Elk Grove Blvd	Lotz Pkwy	26,700	35	55	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.4	50	159	502	1586
99	Lent Ranch Pkwy	Kammerer Rd	Promenade Pkwy	13,200	35	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.6	25	79	251	795
100	Lewis Stein Rd	Sheldon Rd	Big Horn Blvd	14,000	35	45	80	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	66.4	26	83	264	835

Traffic Noise Spreadsheet Calculator



Project: Elk Grove GPU_Future

Noise Level Descriptor: Ldn
 Site Conditions: Hard
 Traffic Input: ADT
 Traffic K-Factor:

Segment Description and Location				Input									Output					
Number	Name	From	To	ADT	Speed (mph)	Distance to Directional Centerline, (feet) ₄		Traffic Distribution Characteristics					Ldn, Distance to Contour, (feet) ₃					
						Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA) _{5,6,7}	70 dBA	65 dBA	60 dBA	55 dBA
#REF!																		
101	Lutz Pkwy	Big Horn Blvd	Laguna Springs Dr	15,500	35	60	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	65.7	29	92	290	916
102		Laguna Springs Dr	Whitelock Pkwy	17,000	35	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.2	31	98	311	982
103		Whitelock Pkwy	Promenade Pkwy	44,200	35	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.3	81	255	807	2553
104		Promenade Pkwy	Bilby Rd	28,900	35	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.5	53	167	528	1669
105		Bilby Rd	Kammerer Rd	22,200	35	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.3	41	128	406	1282
106		Kammerer Rd	Eschinger Rd	39,000	35	52	68	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.8	71	225	712	2253
107	Mosher	Grant Line Rd	Waterman Rd	7,600	50	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.8	33	106	335	1058
108	Power Inn Rd	Calvine Rd	Sheldon Rd	19,500	35	50	90	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.4	37	116	368	1165
109	Promenade Pkwy	Lutz Pkwy	Bilby Rd	17,800	45	50	90	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.6	62	195	616	1948
110		Bilby Rd	Kammerer Rd	27,800	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.3	97	307	972	3074
111		Kammerer Rd	Eschinger Rd	16,000	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.9	56	177	559	1769
112	Sheldon Rd	Bruceville Rd	Lewis Stein Rd	37,700	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.7	132	417	1318	4168
113		Lewis Stein Rd	SR 99	47,400	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.6	166	524	1657	5240
114		SR 99	E. Stockton Blvd	58,900	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.6	206	651	2059	6512
115		E. Stockton Blvd	Power Inn Rd	51,900	45	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.0	181	574	1815	5738
116		Power Inn Rd	Elk Grove Florin Rd	43,900	45	65	115	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.4	152	479	1516	4794
117		Elk Grove Florin Rd	Waterman Rd	21,700	45	90	102	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.8	72	228	721	2281
118		Waterman Rd	Bradshaw Rd	19,400	45	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.7	65	205	647	2047
119		Bradshaw Rd	Bader Rd	14,500	45	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.4	48	153	484	1530
120		Bader Rd	Dillard Oaks Ct	14,500	45	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	68.7	48	153	483	1527
121		Excelsior Rd	Grant Line Rd	22,900	45	60	72	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.6	76	241	763	2412
122	Waterman Rd	Vintage Park Dr	Calvine Rd	30,400	55	50	95	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	74.2	181	573	1813	5733
123		Calvine Rd	Sheldon Rd	17,500	55	52	64	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.4	100	315	998	3154
124		Sheldon Rd	Bond Rd	20,900	55	130	142	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	69.4	119	375	1186	3751
125		Bond Rd	Elk Grove Blvd	23,300	55	50	62	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	73.8	133	420	1329	4202
126		Elk Grove Blvd	Grant Line Rd	25,600	55	65	110	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.5	150	475	1502	4749
127		Whitelock Pkwy	Franklin Blvd	Bruceville Rd	8,800	40	55	100	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	64.9	23	72	227
128	Bruceville Rd		Big Horn Blvd	8,900	40	70	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	63.9	23	72	229	724
129	Big Horn Blvd		Lutz Pkwy	15,400	40	70	82	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	67.0	38	121	381	1206
130	Lutz Pkwy		SR 99	50,400	40	65	77	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	72.5	125	395	1248	3948
131	Willard Pkwy	Whitelock Pkwy	Bilby Rd	31,600	50	70	140	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	71.7	147	464	1467	4640
132		Bilby Rd	Kammerer Rd	21,100	50	65	125	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.3	97	308	973	3078
133	Wilton Rd	Grant Line Rd	Leisure Oak Ln	14,800	55	70	82	86.2%	12.8%	1.0%	73.0%	22.0%	5.0%	70.5	84	266	842	2662
134	SR-99	Calvine Rd	Sheldon Rd	202,800	65	90	190	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	81.7	1941	6136	19405	61365
		Sheldon Rd	Bond Rd	196,300	65	120	220	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	80.5	1836	5805	18356	58048
		Bond Rd	Elk Grove Blvd	177,700	65	136	210	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	79.8	1626	5141	16258	51413
		Elk Grove Blvd	Whitelock Pkwy	157,900	65	95	175	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	80.6	1478	4673	14776	46726
		Whitelock Pkwy	Grant Line Rd	132,700	65	560	690	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	72.8	1192	3771	11925	37710
		Grant Line Rd	Eschinger Rd	131,900	65	160	260	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	77.7	1214	3838	12138	38383
	I-5	Cosumnes River Blvd	Laguna Blvd	155,200	65	2650	2750	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	67.1	1387	4387	13874	43872
		Laguna Blvd	Elk Grove Blvd	130,700	65	170	295	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	77.3	1213	3835	12128	38352
		Elk Grove Blvd	Hood Franklin Rd	113,200	65	190	320	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	76.3	1046	3309	10463	33087
		Hood Franklin Rd	Twin Cities Rd	81,600	65	2626	2750	86.8%	12.2%	1.0%	73.0%	22.0%	5.0%	64.3	730	2307	7295	23069

* All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Citation # Citations

1	Caltrans Technical Noise Supplement. 2009 (November). Table (5-11), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Table (4-2), Pg 4-17.
2	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-26), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Equation (4-5), Pg 4-17.
3	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-16), Pg 2-32.	FHWA 2004 TNM Version 2.5
4	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-11), Pg 5-47, 48.	FHWA 2004 TNM Version 2.5
5	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-26), Pg 2-55, 56.	Caltrans Technical Noise Supplement. 2013 (September). Equation (2-23), Pg 2-51, 52.
6	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-27), Pg 2-57.	Caltrans Technical Noise Supplement. 2013 (September). Equation (2-24), Pg 2-53.
7	Caltrans Technical Noise Supplement. 2009 (November). Pg 2-53.	Caltrans Technical Noise Supplement. 2013 (September). Pg 2-57.
8	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-7), Pg 5-45.	FHWA 2004 TNM Version 2.5
9	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-8), Pg 5-45.	FHWA 2004 TNM Version 2.5
10	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-9), Pg 5-45.	FHWA 2004 TNM Version 2.5
11	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-13), Pg 5-49.	FHWA 2004 TNM Version 2.5
12	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-14), Pg 5-49.	FHWA 2004 TNM Version 2.5
13	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (16), Pg 67	
14	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (20), Pg 69	
15	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (18), Pg 69	

References

California Department of Transportation (Caltrans). 2009 (November). Technical Noise Supplement. Available: http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf. Accessed August 17, 2017.

California Department of Transportation (Caltrans). 2013 (September). Technical Noise Supplement. Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf. Accessed August 17, 2017.

Federal Highway Administration. 2004. Traffic Noise Model Version 2.5. Available: https://www.fhwa.dot.gov/environment/noise/traffic_noise_model/tnm_v25/. Accessed August 17, 2017.

Project:	FTA Example 5-1, Part 1
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Receiver Parameters	
Receiver:	Receiver 1
Land Use Category:	2. Residential
Existing Noise (Measured or Generic Value):	70 dBA

Noise Source Parameters	
Number of Noise Sources:	4

Noise Source Parameters		Source 1
	Source Type:	Fixed Guideway
	Specific Source:	Diesel Electric Locomotive
Daytime hrs	Avg. Number of Locos/train	1
	Speed (mph)	50
	Avg. Number of Events/hr	1.06
Nighttime hrs	Avg. Number of Locos/train	1
	Speed (mph)	50
	Avg. Number of Events/hr	1.78
Distance	Distance from Source to Receiver (ft)	75
	Number of Intervening Rows of Buildings	
Adjustments		

Noise Source Parameters		Source 2
	Source Type:	Fixed Guideway
	Specific Source:	Rail Car
Daytime hrs	Avg. Number of Rail Cars/train	80
	Speed (mph)	50
	Avg. Number of Events/hr	0.5
Nighttime hrs	Avg. Number of Rail Cars/train	80
	Speed (mph)	50
	Avg. Number of Events/hr	1.4
Distance	Distance from Source to Receiver (ft)	75
	Number of Intervening Rows of Buildings	
Adjustments	Noise Barrier?	Yes
	Jointed Track?	No
	Embedded Track?	No
	Aerial Structure?	No

Project Results Summary

Existing Ldn:	70 dBA
Total Project Ldn:	67 dBA
Total Noise Exposure:	72 dBA
Increase:	2 dB
Impact?:	Moderate

Distance to Impact Contours

Dist to Mod. Impact Contour:	---
Dist to Sev. Impact Contour:	---

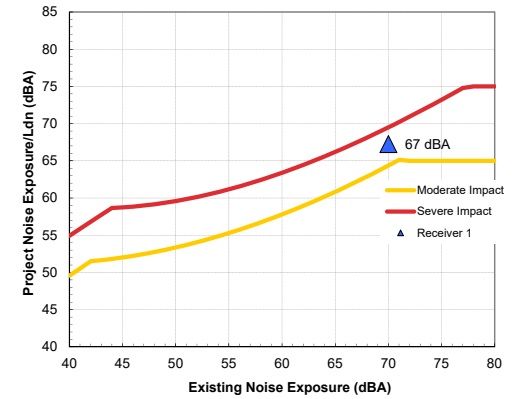
Source 1 Results

Leq(day):	54.0 dBA
Leq(night):	56.3 dBA
Ldn:	62.4 dBA

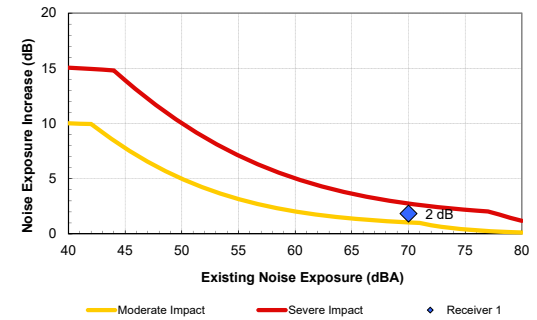
Source 2 Results

Leq(day):	54.8 dBA
Leq(night):	59.3 dBA
Ldn:	65.2 dBA
Incremental Ldn (Src 1-2):	67.1 dBA

Noise Impact Criteria
 (FTA Manual, Fig 3-1)



Increase in Cumulative Noise Levels Allowed
 (FTA Manual, Fig 3-2)



Noise Source Parameters		Source 3
	Source Type:	Fixed Guideway
	Specific Source:	Diesel Electric Locomotive
Daytime hrs	Avg. Number of Locos/train	1
	Speed	45
	Avg. Number of Events/hr	0.8
Nighttime hrs	Avg. Number of Locos/train	
	Speed	
	Avg. Number of Events/hr	
Distance	Distance from Source to Receiver (ft)	75
	Number of Intervening Rows of Buildings	
Adjustments		

Source 3 Results

Leq(day): 53.2 dBA
 Leq(night): 0.0 dBA
 Ldn: 51.2 dBA
 Incremental Ldn (Src 1-3): 67.2 dBA

Noise Source Parameters		Source 4
	Source Type:	Fixed Guideway
	Specific Source:	Rail Transit Vehicle
Daytime hrs	Avg. Number of Transit Vehicles/train	8
	Speed (mph)	45
	Avg. Number of Events/hr	0.8
Nighttime hrs	Avg. Number of Transit Vehicles/train	
	Speed (mph)	
	Avg. Number of Events/hr	
Distance	Distance from Source to Receiver (ft)	75
	Number of Intervening Rows of Buildings	
Adjustments	Noise Barrier?	No
	Jointed Track?	No
	Embedded Track?	No
	Aerial Structure?	No

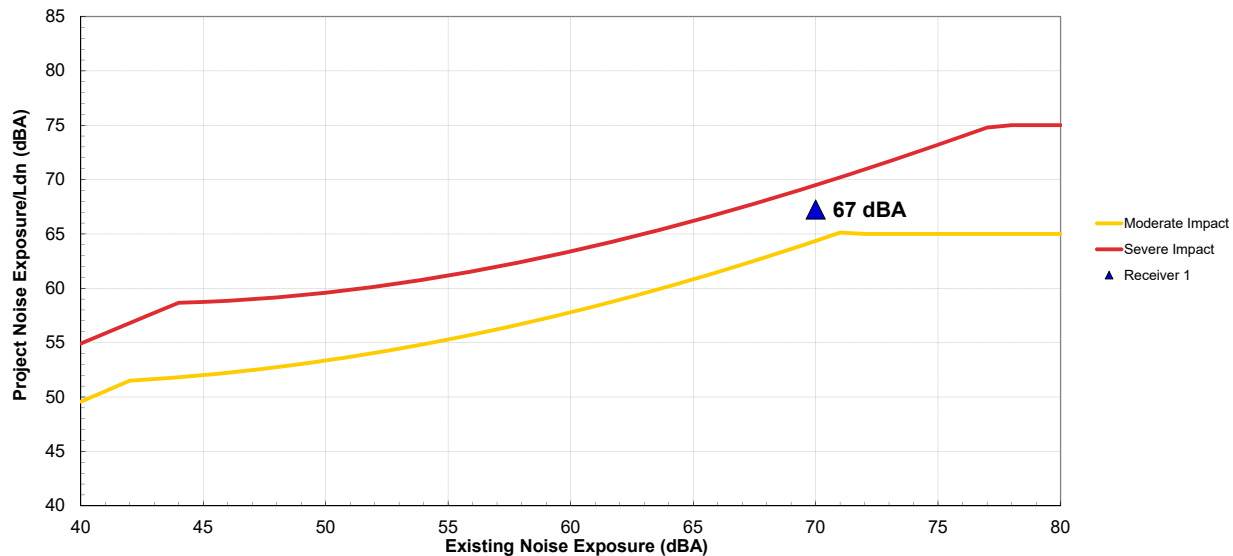
Source 4 Results

Leq(day): 50.9 dBA
 Leq(night): 0.0 dBA
 Ldn: 48.9 dBA
 Incremental Ldn (Src 1-4): 67.2 dBA

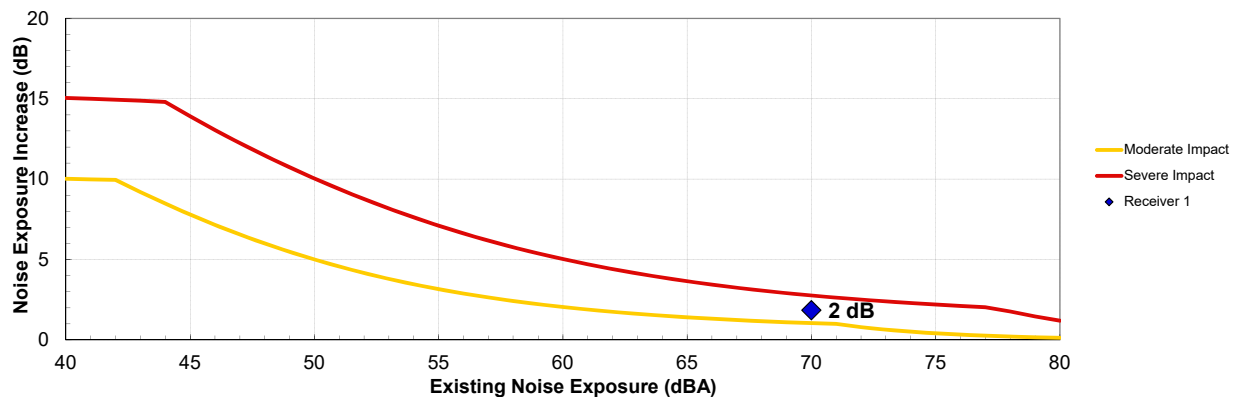
Project: FTA Example 5-1, Part 1
Receiver: Receiver 1

Source	Distance	Project Ldn	Existing Ldn	Noise Criteria		Impact?
				Mod. Impact	Sev. Impact	
1 Diesel Electric Locomotive	75 ft	62.4 dBA	70 dBA	64 dBA	69 dBA	None
2 Rail Car	75 ft	65.2 dBA	70 dBA	64 dBA	69 dBA	Moderate Impact
3 Diesel Electric Locomotive	75 ft	51.2 dBA	70 dBA	64 dBA	69 dBA	None
4 Rail Transit Vehicle	75 ft	48.9 dBA	70 dBA	64 dBA	69 dBA	None
5 --	ft		70 dBA	64 dBA	69 dBA	
6 --	ft		70 dBA	64 dBA	69 dBA	
Combined Sources		67 dBA	70 dBA	64 dBA	69 dBA	Moderate Impact

Noise Impact Criteria
(FTA Manual, Fig 3-1)



Increase in Cumulative Noise Levels Allowed
(FTA Manual, Fig 3-2)



Project:	FTA Example 5-1, Part 1
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Receiver Parameters	
Receiver:	Receiver 1
Land Use Category:	2. Residential
Existing Noise (Measured or Generic Value):	60 dBA

Noise Source Parameters	
Number of Noise Sources:	2

Noise Source Parameters		Source 1
	Source Type:	Fixed Guideway
	Specific Source:	Diesel Electric Locomotive
Daytime hrs	Avg. Number of Locos/train	2
	Speed (mph)	45
	Avg. Number of Events/hr	0.5
Nighttime hrs	Avg. Number of Locos/train	1
	Speed (mph)	50
	Avg. Number of Events/hr	1.4
Distance	Distance from Source to Receiver (ft)	175
	Number of Intervening Rows of Buildings	
Adjustments		

Noise Source Parameters		Source 2
	Source Type:	Fixed Guideway
	Specific Source:	Rail Car
Daytime hrs	Avg. Number of Rail Cars/train	80
	Speed (mph)	45
	Avg. Number of Events/hr	0.5
Nighttime hrs	Avg. Number of Rail Cars/train	80
	Speed (mph)	50
	Avg. Number of Events/hr	1.4
Distance	Distance from Source to Receiver (ft)	175
	Number of Intervening Rows of Buildings	1
Adjustments	Noise Barrier?	Yes
	Jointed Track?	No
	Embedded Track?	No
	Aerial Structure?	No

Project Results Summary

Existing Ldn:	60 dBA
Total Project Ldn:	59 dBA
Total Noise Exposure:	62 dBA
Increase:	2 dB
Impact?:	Moderate

Distance to Impact Contours

Dist to Mod. Impact Contour (Sources 1+2):	296 ft
Dist to Sev. Impact Contour (Sources 1+2):	125 ft

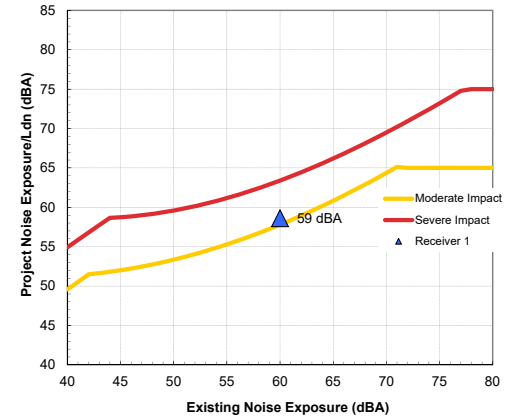
Source 1 Results

Leq(day):	48.7 dBA
Leq(night):	49.7 dBA
Ldn:	56.0 dBA

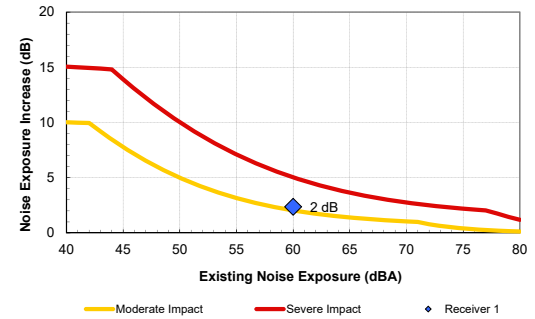
Source 2 Results

Leq(day):	43.8 dBA
Leq(night):	49.2 dBA
Ldn:	55.2 dBA
Incremental Ldn (Src 1-2):	58.6 dBA

Noise Impact Criteria
 (FTA Manual, Fig 3-1)



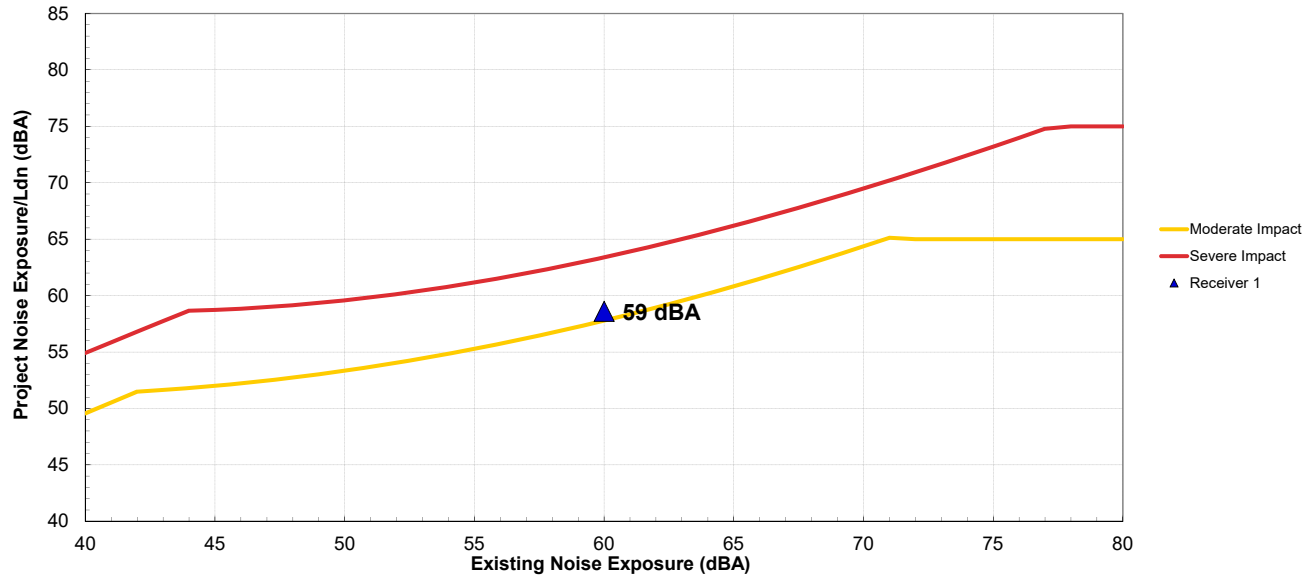
Increase in Cumulative Noise Levels Allowed
 (FTA Manual, Fig 3-2)



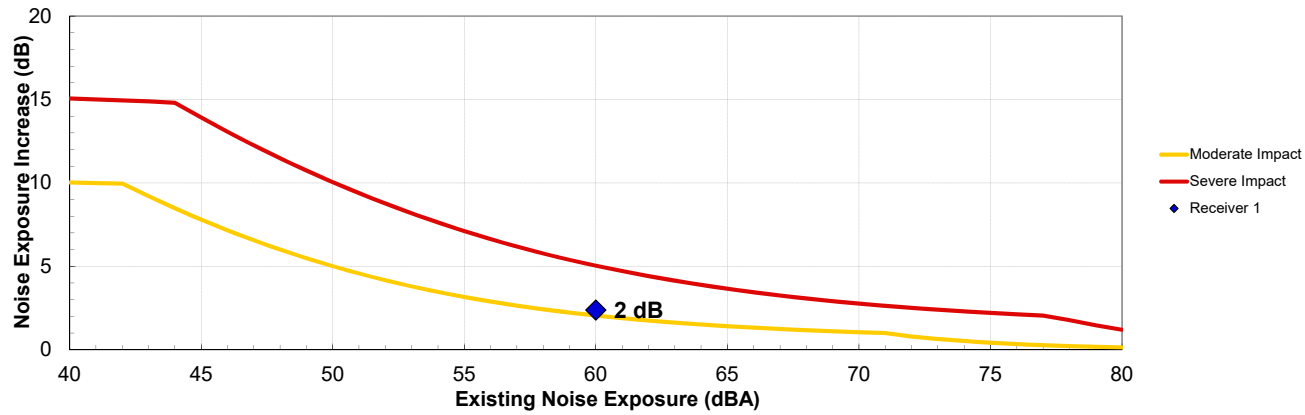
Project: FTA Example 5-1, Part 1
Receiver: Receiver 1

Source	Distance	Project Ldn	Existing Ldn	Noise Criteria		Impact?
				Mod. Impact	Sev. Impact	
1 Diesel Electric Locomotive	175 ft	56.0 dBA	60 dBA	58 dBA	63 dBA	None
2 Rail Car	175 ft	55.2 dBA	60 dBA	58 dBA	63 dBA	None
3 --	175 ft		60 dBA	58 dBA	63 dBA	
4 --	ft		60 dBA	58 dBA	63 dBA	
5 --	ft		60 dBA	58 dBA	63 dBA	
6 --	ft		60 dBA	58 dBA	63 dBA	
Combined Sources		59 dBA	60 dBA	58 dBA	63 dBA	Moderate Impact

Noise Impact Criteria
(FTA Manual, Fig 3-1)



Increase in Cumulative Noise Levels Allowed
(FTA Manual, Fig 3-2)





Construction Source Noise Prediction Model

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L _{eq} dBA)	Equipment	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Threshold	2,027	55.0	Excavator	85	0.4
Residence 1	25	93.2	Dozer	85	0.4
Residence 2	100	81.1	Dump Truck	84	0.4
			Front End Loader	80	0.4
			Grader	85	0.4

Ground Type	HARD
Source Height	8
Receiver Height	5
Ground Factor ²	0.00

Predicted Noise Level ³	L _{eq} dBA at 50 feet ³
Excavator	81.0
Dozer	81.0
Dump Truck	80.0
Front End Loader	76.0
Grader	81.0
Combined Predicted Noise Level (L_{eq} dBA at 50 feet)	
87.2	

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

² Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

³ Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$$L_{eq}(\text{equip}) = E.L. + 10 \cdot \log(U.F.) - 20 \cdot \log(D/50) - 10 \cdot G \cdot \log(D/50)$$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.



Construction Source Noise Prediction Model

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L _{eq} dBA)	Equipment	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Threshold	3,018	55.0	Excavator	85	0.4
Residence 1	25	96.6	Dozer	85	0.4
Residence 2	100	84.6	Dump Truck	84	0.4
			Front End Loader	80	0.4
			Grader	85	0.4
			Impact Pile Driver	95	0.2
			Ground Type	HARD	
			Source Height	8	
			Receiver Height	5	
			Ground Factor ²	0.00	
			Predicted Noise Level³	L_{eq} dBA at 50 feet³	
			Excavator	81.0	
			Dozer	81.0	
			Dump Truck	80.0	
			Front End Loader	76.0	
			Grader	81.0	
			Impact Pile Driver	88.0	
			Combined Predicted Noise Level (L_{eq} dBA at 50 feet)	90.6	

Sources:

¹ Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

² Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

³ Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$$L_{eq}(\text{equip}) = E.L. + 10 \cdot \log(U.F.) - 20 \cdot \log(D/50) - 10 \cdot G \cdot \log(D/50)$$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Auger Drill Rig	20	85	84	36	79.0	72.0	100	78.0	71.0
Backhoe	40	80	78	372	74.0	70.0	100	72.0	68.0
Bar Bender	20	80	na	0	74.0	67.0	100		
Blasting	na	94	na	0	88.0		100		
Boring Jack Power Unit	50	80	83	1	74.0	71.0	100	77.0	74.0
Chain Saw	20	85	84	46	79.0	72.0	100	78.0	71.0
Clam Shovel (dropping)	20	93	87	4	87.0	80.0	100	81.0	74.0
Compactor (ground)	20	80	83	57	74.0	67.0	100	77.0	70.0
Compressor (air)	40	80	78	18	74.0	70.0	100	72.0	68.0
Concrete Batch Plant	15	83	na	0	77.0	68.7	100		
Concrete Mixer Truck	40	85	79	40	79.0	75.0	100	73.0	69.0
Concrete Pump Truck	20	82	81	30	76.0	69.0	100	75.0	68.0
Concrete Saw	20	90	90	55	84.0	77.0	100	84.0	77.0
Crane	16	85	81	405	79.0	71.0	100	75.0	67.0
Dozer	40	85	82	55	79.0	75.0	100	76.0	72.0
Drill Rig Truck	20	84	79	22	78.0	71.0	100	73.0	66.0
Drum Mixer	50	80	80	1	74.0	71.0	100	74.0	71.0
Dump Truck	40	84	76	31	78.0	74.0	100	70.0	66.0
Excavator	40	85	81	170	79.0	75.0	100	75.0	71.0
Flat Bed Truck	40	84	74	4	78.0	74.0	100	68.0	64.0
Front End Loader	40	80	79	96	74.0	70.0	100	73.0	69.0
Generator	50	82	81	19	76.0	73.0	100	75.0	72.0
Generator (<25KVA, VMS si	50	70	73	74	64.0	61.0	100	67.0	64.0
Gradall	40	85	83	70	79.0	75.0	100	77.0	73.0
Grader	40	85	na	0	79.0	75.0	100		
Grapple (on Backhoe)	40	85	87	1	79.0	75.0	100	81.0	77.0
Horizontal Boring Hydr. Jac	25	80	82	6	74.0	68.0	100	76.0	70.0
Hydra Break Ram	10	90	na	0	84.0	74.0	100		
Impact Pile Driver	20	95	101	11	89.0	82.0	100	95.0	88.0
Jackhammer	20	85	89	133	79.0	72.0	100	83.0	76.0
Man Lift	20	85	75	23	79.0	72.0	100	69.0	62.0
Mounted Impact Hammer (20	90	90	212	84.0	77.0	100	84.0	77.0

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Pavement Scarafier	20	85	90	2	79.0	72.0	100	84.0	77.0
Paver	50	85	77	9	79.0	76.0	100	71.0	68.0
Pickup Truck	40	55	75	1	49.0	45.0	100	69.0	65.0
Pneumatic Tools	50	85	85	90	79.0	76.0	100	79.0	76.0
Pumps	50	77	81	17	71.0	68.0	100	75.0	72.0
Refrigerator Unit	100	82	73	3	76.0	76.0	100	67.0	67.0
Rivit Buster/chipping gun	20	85	79	19	79.0	72.0	100	73.0	66.0
Rock Drill	20	85	81	3	79.0	72.0	100	75.0	68.0
Roller	20	85	80	16	79.0	72.0	100	74.0	67.0
Sand Blasting (Single Nozzle)	20	85	96	9	79.0	72.0	100	90.0	83.0
Scraper	40	85	84	12	79.0	75.0	100	78.0	74.0
Shears (on backhoe)	40	85	96	5	79.0	75.0	100	90.0	86.0
Slurry Plant	100	78	78	1	72.0	72.0	100	72.0	72.0
Slurry Trenching Machine	50	82	80	75	76.0	73.0	100	74.0	71.0
Soil Mix Drill Rig	50	80	na	0	74.0	71.0	100		
Tractor	40	84	na	0	78.0	74.0	100		
Vacuum Excavator (Vac-tru)	40	85	85	149	79.0	75.0	100	79.0	75.0
Vacuum Street Sweeper	10	80	82	19	74.0	64.0	100	76.0	66.0
Ventilation Fan	100	85	79	13	79.0	79.0	100	73.0	73.0
Vibrating Hopper	50	85	87	1	79.0	76.0	100	81.0	78.0
Vibratory Concrete Mixer	20	80	80	1	74.0	67.0	100	74.0	67.0
Vibratory Pile Driver	20	95	101	44	89.0	82.0	100	95.0	88.0
Warning Horn	5	85	83	12	79.0	66.0	100	77.0	64.0
Welder / Torch	40	73	74	5	67.0	63.0	100	68.0	64.0

Source:

FHWA Roadway Construction Noise Model, January 2006. Table 9.1

U.S. Department of Transportation

CA/T Construction Spec. 721.560

Distance Propagation Calculations for Stationary Sources of Ground Vibration



- KEY:** Orange cells are for input.
 Grey cells are intermediate calculations performed by the model.
 Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

- If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.
- If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level		
	vibration level (VdB)	@	distance (ft)
Impact pile driver	112	@	25
sonic pile driving	104	@	25

STEP 3A: Select the distance to the receiver.

Attenuated Noise Level at Receptor		
vibration level (VdB)	@	distance (ft)
79.6	@	300
78.6	@	175

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level		
	vibration level (PPV)	@	distance (ft)
Impact pile driver	1.518	@	25
sonic pile driving	0.734	@	25

STEP 3B: Select the distance to the receiver.

Attenuated Noise Level at Receptor		
vibration level (PPV)	@	distance (ft)
0.190	@	100
0.197	@	60

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 12-11 of FTA 2006. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Sources:

Federal Transit Association (FTA). 2006 (May). Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. Washington, D.C. Available: <http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf>. Accessed: September 24, 2010.

Distance Propagation Calculations for Stationary Sources of Ground Vibration



- KEY:** Orange cells are for input.
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STEP 1: Determine units in which to perform calculation.

- If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.
- If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level		
	vibration level (VdB)	@	distance (ft)
Impact pile driver	112	@	25
sonic pile driving	104	@	25

STEP 3A: Select the distance to the receiver.

Attenuated Noise Level at Receptor		
vibration level (VdB)	@	distance (ft)
79.6	@	300
78.6	@	175

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level		
	vibration level (PPV)	@	distance (ft)
Impact pile driver	1.518	@	25
sonic pile driving	0.734	@	25

STEP 3B: Select the distance to the receiver.

Attenuated Noise Level at Receptor		
vibration level (PPV)	@	distance (ft)
0.190	@	100
0.197	@	60

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 12-11 of FTA 2006. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

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