Appendix E

Noise Modeling Data

Representative Construction Equipment and Levels (LEQ)

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	3,206	55.0	Paver	85	1
Center	100	85.1	Roller	85	1
Staging Area	100	85.1	Concrete Mixer Truck	85	1
			Front End Loader	80	1
			Flat Bed Truck	84	1

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]
Paver	85.0
Roller	85.0
Concrete Mixer Truck	85.0
Front End Loader	80.0
Flat Bed Truck	84.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
91.1

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	Paver	85	0.4
Center	5000	47.2	Roller	85	0.4
Staging Area	3000	51.6	Concrete Mixer Truck	85	0.4
			Front End Loader	80	0.4
			Flat Bed Truck	84	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]
Paver	81.0
Roller	81.0
Concrete Mixer Truck	81.0
Front End Loader	76.0
Flat Bed Truck	80.0

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	11,303	45.0	Man Lift	85	1
Center	5000	52.1	Crane	85	1
Staging Area	3000	56.5	Flat Bed Truck	84	1
			Front End Loader	80	1
			Auger Drill Rig	85	1
			Excavator	85	1

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]
Man Lift	85.0
Crane	85.0
Flat Bed Truck	84.0
Front End Loader	80.0
Auger Drill Rig	85.0
Excavator	85.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
92.1

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	7,149	45.0	Man Lift	85	0.4
Center	5000	48.1	Crane	85	0.4
Staging Area	3000	52.5	Flat Bed Truck	84	0.4
			Front End Loader	80	0.4
			Auger Drill Rig	85	0.4
			Excavator	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]
Man Lift	81.0
Crane	81.0
Flat Bed Truck	80.0
Front End Loader	76.0
Auger Drill Rig	81.0
Excavator	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
88.1

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	3,327	55.0	Dozer	85	1
Center	600	69.9	Grader	85	1
Staging Area	2500	57.5	Dump Truck	84	1
			Excavator	85	1
			Backhoe	80	1
			Front End Loader	80	1

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]
Dozer	85.0
Grader	85.0
Dump Truck	84.0
Excavator	85.0
Backhoe	80.0
Front End Loader	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
91.5

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	2,104	55.0	Dozer	85	0.4
Center	600	65.9	Grader	85	0.4
Staging Area	2500	53.5	Dump Truck	84	0.4
			Excavator	85	0.4
			Backhoe	80	0.4
			Front End Loader	80	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]
Dozer	81.0
Grader	81.0
Dump Truck	80.0
Excavator	81.0
Backhoe	76.0
Front End Loader	76.0

Combined Predicted Noise Level (L$_{eq}$ dBA at 50 feet)
87.5

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$_{eq}$(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	3,134	55.0	Compactor (ground)	80	1
Center	5000	50.9	Generator	82	1
Staging Area	3000	55.4	Crane	85	1
			Dump Truck	84	1
			Front End Loader	80	1
			Man Lift	85	1

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]
Compactor (ground)	80.0
Generator	82.0
Crane	85.0
Dump Truck	84.0
Front End Loader	80.0
Man Lift	85.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
90.9

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	5,769	45.0	**Compactor (ground)**	80	0.4
Center	5000	46.2	**Generator**	82	0.4
Staging Area	3000	50.7	**Crane**	85	0.16
			Dump Truck	84	0.4
			Front End Loader	80	0.4
			Man Lift	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]
Compactor (ground)	76.0
Generator	78.0
Crane	77.0
Dump Truck	80.0
Front End Loader	76.0
Man Lift	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.2

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

ASCENT
ENVIRONMENTAL

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	9,466	45.0	Compactor (ground)	80	0.4
Center	9500	45.0	Generator	82	0.4
Staging Area	3000	55.0	Crane	85	0.16
			Dump Truck	84	0.4
			Compressor (air)	80	0.4
			Front End Loader	80	0.4
			Backhoe	80	0.4
			Man Lift	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 Level [3]	L_{eq} dBA at 50 feet[3]
Compactor (ground)	76.0
Generator	78.0
Crane	77.0
Dump Truck	80.0
Compressor (air)	76.0
Front End Loader	76.0
Backhoe	76.0
Man Lift	81.0
Impact Pile Driver	88.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
90.5

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

Representative Construction Equipment and Levels (LEQ)

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	1,908	65.0	Compactor (ground)	80	1
Center	700	73.7	Generator	82	1
Staging Area	3000	61.1	Crane	85	1
			Dump Truck	84	1
			Compressor (air)	80	1
			Front End Loader	80	1
			Backhoe	80	1
			Man Lift	85	1
			Impact Pile Driver	95	1

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]
Compactor (ground)	80.0
Generator	82.0
Crane	85.0
Dump Truck	84.0
Compressor (air)	80.0
Front End Loader	80.0
Man Lift	85.0
Impact Pile Driver	95.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
96.6

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}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*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.

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.

STEP 3A: Select the distance to the receiver.

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

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level		distance	vibration level		distance
	(VdB)	@	(ft)	(VdB)	@	(ft)
Impact pile driver	104	@	25	65.0	@	500
blasting	109	@	25	65.0	@	730

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

STEP 3B: Select the distance to the receiver.

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

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level		distance	vibration level		distance
	(PPV)	@	(ft)	(PPV)	@	(ft)
Impact pile driver	0.644	@	25	0.197	@	55
blasting	1.130	@	26	0.191	@	85

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.

Traffic Noise Spreadsheet Calculator
Existing + Project

Project: Tuolumne County General Plan Update (existing)
Noise Level Descriptor: CNEL
Site Conditions: Soft
Traffic K-Factor:

Number	Name	From	(dBA)$_{5,6,7}$	70 dBA	65 dBA	60 dBA	55 dBA
1	Existing + Project	w/o Tulloch rd	70.1	92	198	427	920
2	0	b/w O'Byrnes Ferry Rd & La Grange Rd	71.8	63	135	291	627
3	State Route 108	b/w La Grange Rd & SR 120 (Yosemite Junction)	72.5	70	151	324	699
4	State Route 108	b/w SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)	72.4	69	148	319	688
5	State Route 108	b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	72.9	75	161	347	747
6	State Route 108	w/o Mono Way	73.1	76	164	354	762
7	State Route 108	b/w Mono Way and Hess Ave	73.1	77	166	357	769
8	State Route 108	b/w Hess Ave and Peaceful Oak Rd	71.9	64	137	296	638
9	State Route 108	b/w Peaceful Oak Rd and Mono Way	71.5	60	129	277	596
10	State Route 108	b/w Mono Way and Soulsbyville Rd	71.6	77	166	359	773
11	State Route 108	b/w Soulsbyville Rd and W Conn. Twain Harte Dr	69.1	52	112	242	522
12	State Route 108	b/w W & E Conn Twain Harte Dr	69.0	52	111	240	517
13	State Route 108	e/o East Conn. Twain Hart Rd	69.1	52	112	242	522
14	State Route 108	w/o Chief Fuller Rd	68.3	37	79	171	369
15	State Route 108	e/o Chief Fuller Rd	66.4	28	59	128	275
16	State Route 108	w/o West Long Barn Conn.	66.2	26	57	123	265
17	State Route 108	b/w West Long Barn Conn. and East Long Barn Conn.	67.1	38	83	178	383
18	State Route 108	b/w Kennedy Meadows Rd and Tuolumne/Mono Countyline	58.9	9	19	40	87
20	State Route 49	s/o South Jct SR 120	59.1	9	19	41	89
21	State Route 49	n/o North SR 120 Jct	61.8	14	29	63	136
22	State Route 49	b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	72.6	71	154	331	714
23	State Route 49	b/w Bell Mooney Rd and South Jct Main St	72.8	73	158	340	732
24	State Route 49	b/w South Jct Main St and Rawhide Rd	72.8	73	158	340	732
25	State Route 49	b/w Rawhide Rd and Fifth Ave	72.9	74	160	344	742
26	State Route 49	b/w Fifth Ave and Stockton Rd/SR 108	73.6	83	180	387	835
27	State Route 49	btn SR 108 and Fairview Lane (Ponderosa)	70.7	53	114	246	530
28	State Route 49	b/w Fairview Lane and Southgate Dr	70.2	49	106	229	494
29	State Route 49	b/w Southgate Dr and Washington St	70.3	50	108	232	500
30	State Route 49	b/w Stockton Rd and Dodge St	72.6	71	153	330	712
31	State Route 49	n/o Dodge St	72.8	73	158	341	734
32	State Route 49	s/o N Washington St / Columbia Way	72.0	65	140	301	649
33	State Route 49	n/o N Washington St / Columbia Way	71.8	63	136	292	630
34	State Route 49	e/o Parrotts Ferry Rd (Columbia WYE)	71.2	57	123	265	571
35	State Route 49	w/o Parrotts Ferry Rd (Columbia WYE)	67.0	30	65	139	299
36	State Route 49	e/o Rawhide Rd	67.3	32	68	147	317
37	State Route 49	b/w Rawhide Rd and Turttletown	66.5	28	60	130	279
38	State Route 49	b/w Tuttletown and Tuolumne / Calveras County Line	67.4	32	69	149	321
39	State Route 120	b/w Tulloch Rd and La Grange Rd	70.3	94	203	437	942
40	State Route 120	b/w East Jct 108 and North Jct SR 49	64.2	20	42	92	197
41	State Route 120	b/w North Jct SR 49 and Jacksonville Rd	65.7	25	53	114	246
42	State Route 120	b/w Jacksonville Rd and South Jct SR 49	66.9	30	64	138	297
43	State Route 120	b/w South Jct SR 49 and Priest-Coulterville Rd	65.8	25	54	117	252
44	State Route 120	w/o Ferretti Rd (Groveland Townsite)	66.7	29	62	134	289
45	State Route 120	e/o Ferretti Rd (Groveland Townsite)	67.6	33	71	152	328
46	State Route 120	w/o Hells Hollow Rd	66.8	29	63	135	291
47	State Route 120	e/o Smiths Station Rd	65.7	25	53	115	248
48	State Route 120	w/o Cherry Valley/Lake Rd	65.5	24	51	111	239
49	State Route 120	w/oYosemite Park West Boundary	65.4	23	51	109	234
50	Mono Way	w/o Sanguinetti Rd	63.8	19	41	88	191
51	Mono Way	b/W Sanguinetti Rd & Greenley Rd	62.6	16	34	74	159
52	Mono Way	b/w Greenley Rd & Fir Dr	63.6	19	40	87	187
53	Mono Way	b/w Fir Dr & Tuolumne Rd	64.3	21	44	96	207
54	Mono Way	b/w Tuolumne Rd & Hess Ave	61.2	13	28	60	129
55	Mono Way	b/w Hess Ave & Standard Rd / Peaceful Oak Dr	61.1	13	27	59	127
56	Mono Way	b/w Standard Rd/Peaceful Oak Dr & SR 108	59.0	9	20	43	92
60	Parrotts Ferry Road	b/w SR 49 & Sawmill Flat Rd	64.1	20	43	93	201
61	Parrotts Ferry Road	b/w Sawmill Flat Rd & Springfield Dr	62.6	16	35	74	160
62	Parrotts Ferry Road	n/o Springfield Dr	62.7	16	35	75	163
63	Parrotts Ferry Road	s/o Calaveras County Line	59.8	10	22	48	103
75	Tuolumne Road	b/w Mono Way & Lambert lake Rd	65.5	25	53	115	248
76	Tuolumne Road	b/w Lambert Lake Rd & Hess Ave	64.8	22	48	104	224
77	Tuolumne Road	b/w Hess Ave & Wards Ferry Rd	64.5	22	46	100	215
78	Tuolumne Road	b/w Wards Ferry Rd & Standard Rd	64.4	21	45	97	209
79	Tuolumne Road	b/w Standard Rd & Woodhams Carne	64.4	21	46	98	211
80	Tuolumne Road	b/w Woodhams Carne & Cherokee Rd	64.4	21	45	98	210
104	Tuolumne Road North	b/w Tuolumne Rd & Black Oak Casino Entrance St	61.7	14	30	65	140
105	Tuolumne Road North	n/o Mi Wu St	57.4	7	16	34	72
106	Tuolumne Road North	n/o East Ave	55.2	5	11	24	51
144	Other Roads	Smith Station Rd, s/o SR 120	51.0	3	6	12	27

Traffic Noise Spreadsheet Calculator
Existing + Project

ASCENT ENVIRONMENTAL

Project: Tuolumne County General Plan Update (existing + project)

				Output			

Noise Level Descriptor:	CNEL
Site Conditions:	Soft
Traffic Input:	ADT
Traffic K-Factor:	

Number	Name	Segment Description and Location — From	CNEL, (dBA)$_{5,6,7}$	75 dBA	70 dBA	65 dBA	60 dBA
					Distance to Contour, (feet)$_3$		
1	Existing + Project	w/o Tulloch rd	71.1	49	106	229	493
2	0	b/w O'Byrnes Ferry Rd & La Grange Rd	72.8	34	73	157	339
3	State Route 108	b/w La Grange Rd & SR 120 (Yosemite Junction)	73.4	37	81	174	374
4	State Route 108	b/w SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)	73.2	36	78	168	361
5	State Route 108	b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	73.5	38	82	177	381
6	State Route 108	w/o Mono Way	73.6	38	83	178	384
7	State Route 108	b/w Mono Way and Hess Ave	73.5	38	82	177	382
8	State Route 108	b/w Hess Ave and Peaceful Oak Rd	72.3	32	68	147	316
9	State Route 108	b/w Peaceful Oak Rd and Mono Way	71.9	30	64	137	296
10	State Route 108	b/w Mono Way and Soulsbyville Rd	72.2	39	85	183	393
11	State Route 108	b/w Soulsbyville Rd and W Conn. Twain Harte Dr	69.5	26	55	119	257
12	State Route 108	b/w W & E Conn Twain Harte Dr	69.3	25	54	116	250
13	State Route 108	e/o East Conn. Twain Hart Rd	69.3	25	54	116	250
14	State Route 108	w/o Chief Fuller Rd	68.5	18	38	82	177
15	State Route 108	e/o Chief Fuller Rd	66.7	13	29	62	133
16	State Route 108	w/o West Long Barn Conn.	66.4	13	28	59	128
17	State Route 108	b/w West Long Barn Conn. and East Long Barn Conn.	67.3	18	40	85	184
18	State Route 108	b/w Kennedy Meadows Rd and Tuolumne/Mono Countyline	60.0	5	10	22	47
20	State Route 49	s/o South Jct SR 120	60.2	5	11	23	49
21	State Route 49	n/o North SR 120 Jct	65.3	11	23	50	107
22	State Route 49	b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	73.6	38	83	179	385
23	State Route 49	b/w Bell Mooney Rd and South Jct Main St	73.8	39	85	183	394
24	State Route 49	b/w South Jct Main St and Rawhide Rd	74.0	41	88	190	409
25	State Route 49	b/w Rawhide Rd and Fifth Ave	74.5	44	96	206	445
26	State Route 49	b/w Fifth Ave and Stockton Rd/SR 108	74.7	45	98	211	455
27	State Route 49	btn SR 108 and Fairview Lane (Ponderosa)	71.4	28	59	128	275
28	State Route 49	b/w Fairview Lane and Southgate Dr	70.9	26	55	119	256
29	State Route 49	b/w Southgate Dr and Washington St	71.6	28	61	132	284
30	State Route 49	b/w Stockton Rd and Dodge St	72.5	32	70	150	323
31	State Route 49	n/o Dodge St	72.0	30	64	139	299
32	State Route 49	s/o N Washington St / Columbia Way	70.9	26	55	119	256
33	State Route 49	n/o N Washington St / Columbia Way	70.9	25	55	118	255
34	State Route 49	e/o Parrotts Ferry Rd (Columbia WYE)	72.2	31	67	145	312
35	State Route 49	w/o Parrotts Ferry Rd (Columbia WYE)	68.8	18	40	86	184
36	State Route 49	e/o Rawhide Rd	68.1	17	36	77	167
37	State Route 49	b/w Rawhide Rd and Turttletown	67.4	15	32	69	150
38	State Route 49	b/w Tuttletown and Tuolumne / Calveras County Line	68.2	17	36	78	168
39	State Route 120	b/w Tulloch Rd and La Grange Rd	71.2	50	108	233	503
40	State Route 120	b/w East Jct 108 and North Jct SR 49	65.3	11	23	50	107
41	State Route 120	b/w North Jct SR 49 and Jacksonville Rd	67.8	16	34	73	157
42	State Route 120	b/w Jacksonville Rd and South Jct SR 49	67.9	16	34	74	160
43	State Route 120	b/w South Jct SR 49 and Priest-Coulterville Rd	67.4	15	32	69	148
44	State Route 120	w/o Ferretti Rd (Groveland Townsite)	67.8	16	34	73	158
45	State Route 120	e/o Ferretti Rd (Groveland Townsite)	68.2	17	36	78	168
46	State Route 120	w/o Hells Hollow Rd	67.6	15	33	71	153
47	State Route 120	e/o Smiths Station Rd	66.7	13	29	62	133
48	State Route 120	w/o Cherry Valley/Lake Rd	66.5	13	28	60	129
49	State Route 120	w/oYosemite Park West Boundary	66.4	13	27	59	127
50	Mono Way	w/o Sanguinetti Rd	63.7	9	19	41	88
51	Mono Way	b/W Sanguinetti Rd & Greenley Rd	62.7	8	16	35	76
52	Mono Way	b/w Greenley Rd & Fir Dr	64.3	10	21	44	96
53	Mono Way	b/w Fir Dr & Tuolumne Rd	65.1	11	23	50	108
54	Mono Way	b/w Tuolumne Rd & Hess Ave	62.4	7	15	33	71
55	Mono Way	b/w Hess Ave & Standard Rd / Peaceful Oak Dr	62.2	7	15	32	70
56	Mono Way	b/w Standard Rd/Peaceful Oak Dr & SR 108	59.5	5	10	21	46
60	Parrotts Ferry Road	b/w SR 49 & Sawmill Flat Rd	64.7	10	22	48	103
61	Parrotts Ferry Road	b/w Sawmill Flat Rd & Springfield Dr	63.1	8	17	37	81
62	Parrotts Ferry Road	n/o Springfield Dr	63.2	8	17	37	81
63	Parrotts Ferry Road	s/o Calaveras County Line	60.4	5	11	25	53
75	Tuolumne Road	b/w Mono Way & Lambert lake Rd	65.8	12	26	56	120
76	Tuolumne Road	b/w Lambert Lake Rd & Hess Ave	65.3	11	24	52	112
77	Tuolumne Road	b/w Hess Ave & Wards Ferry Rd	65.0	11	23	50	107
78	Tuolumne Road	b/w Wards Ferry Rd & Standard Rd	64.9	11	23	49	105
79	Tuolumne Road	b/w Standard Rd & Woodhams Carne	65.0	11	23	50	108
80	Tuolumne Road	b/w Woodhams Carne & Cherokee Rd	64.9	10	23	49	105
104	Tuolumne Road North	b/w Tuolumne Rd & Black Oak Casino Entrance St	62.0	7	14	31	67
105	Tuolumne Road North	n/o Mi Wu St	57.9	4	8	17	36
106	Tuolumne Road North	n/o East Ave	55.4	2	5	11	25
144	Other Roads	Smith Station Rd, s/o SR 120	51.7	1	3	6	14

			Summary and Change in Noise Levels	Existing	Existing + Project		
ID	Road	Location		CNEL @ 50 ft	CNEL @ 50 ft	60	Change
1	State Route 108	w/o Tulloch rd		70.1	71.1	229	0.9
2	State Route 108	b/w O'Byrnes Ferry Rd & La Grange Rd		71.8	72.8	157	1.0
3	State Route 108	b/w La Grange Rd & SR 120 (Yosemite Junction)		72.5	73.4	174	0.9
4	State Route 108	b/w SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)		72.4	73.2	168	0.8
5	State Route 108	b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd		72.9	73.5	177	0.6
6	State Route 108	w/o Mono Way		73.1	73.6	178	0.5
7	State Route 108	b/w Mono Way and Hess Ave		73.1	73.5	177	0.4
8	State Route 108	b/w Hess Ave and Peaceful Oak Rd		71.9	72.3	147	0.4
9	State Route 108	b/w Peaceful Oak Rd and Mono Way		71.5	71.9	137	0.4
10	State Route 108	b/w Mono Way and Soulsbyville Rd		71.6	72.2	183	0.6
11	State Route 108	b/w Soulsbyville Rd and W Conn. Twain Harte Dr		69.1	69.5	119	0.4
12	State Route 108	b/w W & E Conn Twain Harte Dr		69.0	69.3	116	0.3
13	State Route 108	e/o East Conn. Twain Hart Rd		69.1	69.3	116	0.2
14	State Route 108	w/o Chief Fuller Rd		68.3	68.5	82	0.2
15	State Route 108	e/o Chief Fuller Rd		66.4	66.7	62	0.3
16	State Route 108	w/o West Long Barn Conn.		66.2	66.4	59	0.3
17	State Route 108	b/w West Long Barn Conn. and East Long Barn Conn.		67.1	67.3	85	0.2
18	State Route 108	b/w Kennedy Meadows Rd and Tuolumne/Mono Countyline		58.9	60.0	22	1.1
20	State Route 49	s/o South Jct SR 120		59.1	60.2	23	1.1
21	State Route 49	n/o North SR 120 Jct		61.8	65.3	50	3.4
22	State Route 49	b/w SR 49 (Montezuma Jct) & Bell Mooney Rd		72.6	73.6	179	1.0
23	State Route 49	b/w Bell Mooney Rd and South Jct Main St		72.8	73.8	183	1.0
24	State Route 49	b/w South Jct Main St and Rawhide Rd		72.8	74.0	190	1.2
25	State Route 49	b/w Rawhide Rd and Fifth Ave		72.9	74.5	206	1.7
26	State Route 49	b/w Fifth Ave and Stockton Rd/SR 108		73.6	74.7	211	1.0
27	State Route 49	btn SR 108 and Fairview Lane (Ponderosa)		70.7	71.4	128	0.7
28	State Route 49	b/w Fairview Lane and Southgate Dr		70.2	70.9	119	0.7
29	State Route 49	b/w Southgate Dr and Washington St		70.3	71.6	132	1.3
30	State Route 49	b/w Stockton Rd and Dodge St		72.6	72.5	150	-0.1
31	State Route 49	n/o Dodge St		72.8	72.0	139	-0.9
32	State Route 49	s/o N Washington St / Columbia Way		72.0	70.9	119	-1.1
33	State Route 49	n/o N Washington St / Columbia Way		71.8	70.9	118	-0.9
34	State Route 49	e/o Parrotts Ferry Rd (Columbia WYE)		71.2	72.2	145	1.1
35	State Route 49	w/o Parrotts Ferry Rd (Columbia WYE)		67.0	68.8	86	1.8
36	State Route 49	e/o Rawhide Rd		67.3	68.1	77	0.8
37	State Route 49	b/w Rawhide Rd and Turttletown		66.5	67.4	69	0.9
38	State Route 49	b/w Tuttletown and Tuolumne / Calveras County Line		67.4	68.2	78	0.8
39	State Route 120	b/w Tulloch Rd and La Grange Rd		70.3	71.2	233	0.9
40	State Route 120	b/w East Jct 108 and North Jct SR 49		64.2	65.3	50	1.0
41	State Route 120	b/w North Jct SR 49 and Jacksonville Rd		65.7	67.8	73	2.1
42	State Route 120	b/w Jacksonville Rd and South Jct SR 49		66.9	67.9	74	1.0
43	State Route 120	b/w South Jct SR 49 and Priest-Coulterville Rd		65.8	67.4	69	1.5
44	State Route 120	w/o Ferretti Rd (Groveland Townsite)		66.7	67.8	73	1.1
45	State Route 120	e/o Ferretti Rd (Groveland Townsite)		67.6	68.2	78	0.6
46	State Route 120	w/o Hells Hollow Rd		66.8	67.6	71	0.8
47	State Route 120	e/o Smiths Station Rd		65.7	66.7	62	0.9
48	State Route 120	w/o Cherry Valley/Lake Rd		65.5	66.5	60	1.0
49	State Route 120	w/oYosemite Park West Boundary		65.4	66.4	59	1.0
50	Mono Way	w/o Sanguinetti Rd		63.8	63.7	41	0.0
51	Mono Way	b/W Sanguinetti Rd & Greenley Rd		62.6	62.7	35	0.2
52	Mono Way	b/w Greenley Rd & Fir Dr		63.6	64.3	44	0.6
53	Mono Way	b/w Fir Dr & Tuolumne Rd		64.3	65.1	50	0.8
54	Mono Way	b/w Tuolumne Rd & Hess Ave		61.2	62.4	33	1.2
55	Mono Way	b/w Hess Ave & Standard Rd / Peaceful Oak Dr		61.1	62.2	32	1.1
56	Mono Way	b/w Standard Rd/Peaceful Oak Dr & SR 108		59.0	59.5	21	0.5
60	Parrotts Ferry Road	b/w SR 49 & Sawmill Flat Rd		64.1	64.7	48	0.6
61	Parrotts Ferry Road	b/w Sawmill Flat Rd & Springfield Dr		62.6	63.1	37	0.5
62	Parrotts Ferry Road	n/o Springfield Dr		62.7	63.2	37	0.4
63	Parrotts Ferry Road	s/o Calaveras County Line		59.8	60.4	25	0.7
75	Tuolumne Road	b/w Mono Way & Lambert lake Rd		65.5	65.8	56	0.3
76	Tuolumne Road	b/w Lambert Lake Rd & Hess Ave		64.8	65.3	52	0.5
77	Tuolumne Road	b/w Hess Ave & Wards Ferry Rd		64.5	65.0	50	0.5
78	Tuolumne Road	b/w Wards Ferry Rd & Standard Rd		64.4	64.9	49	0.5
79	Tuolumne Road	b/w Standard Rd & Woodhams Carne		64.4	65.0	50	0.6
80	Tuolumne Road	b/w Woodhams Carne & Cherokee Rd		64.4	64.9	49	0.5
104	Tuolumne Road North	b/w Tuolumne Rd & Black Oak Casino Entrance St		61.7	62.0	31	0.2
105	Tuolumne Road North	n/o Mi Wu St		57.4	57.9	17	0.5
106	Tuolumne Road North	n/o East Ave		55.2	55.4	11	0.2