Appendix D Noise Data

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Roadway Segment		Speed	24-hour Traffic Volume			Distance to CNEL from Roadway Centerline							
						Existing				Future With Project			
			Existing	Future Without Project	Future With Project	50.0 Feet	60 CNEL	65 CNEL	70 CNEL	50.0 Feet	60 CNEL	65 CNEL	70 CNEL
4TH STREET	I-215 - Arrowhead	40	1,208		24,633	60.9	58	27	12	74.0	430	200	93
5TH STREET	Pepper - I-215	50	24,250		19,238	75.7	560	260	121	74.7	480	223	103
5TH STREET	I-215 - Waterman	50	28,290		24,007	76.4	621	288	134	75.7	557	258	120
5TH STREET	Waterman - Victoria	50	11,200		17,878	72.4	335	155	72	74.4	457	212	99
5TH STREET	Victoria - Palm	50	1,965		14,370	64.8	105	49	23	73.5	395	183	85
9TH STREET	Medical Center - I-215	40	4,495		5,219	66.6	138	64	30	67.3	153	71	33
9TH STREET	I-215 - Waterman	40	6,018		8,367	67.9	168	78	36	69.3	209	97	45
9TH STREET	Waterman - Tippecanoe	40	4,539		5,927	66.7	139	65	30	67.8	166	77	36
9TH STREET	Tippecanoe - Del Rosa	40	4,745		5,712	66.9	143	67	31	67.7	162	75	35
40TH STREET	Valencia - Waterman	45	8,910		17,908	70.5	251	117	54	73.6	401	186	86
40TH STREET	Waterman - Sierra	35	18,879		22,625	71.9	310	144	67	72.7	349	162	75
40TH STREET	Sierra - Mountain View	35	15,810		31,279	71.1	275	128	59	74.1	433	201	93
BASELINE STREET	SR-30 - Palm	40	6,940		25,185	68.5	185	86	40	74.1	436	203	94
BASELINE STREET	Palm - Valencia	40	14,670		34,286	71.8	304	141	66	75.5	536	249	115
BASELINE STREET	Valencia - I-215	55	24,141		23,585	76.5	634	294	137	76.4	624	290	134
BASELINE STREET	I-215 - Riverside	45	18,680		18,194	73.7	412	191	89	73.6	405	188	87
HIGHLAND AVENUE	Riverside - I-215	35	26,028		8,447	73.3	383	178	83	68.4	181	84	39
HIGHLAND AVENUE	I-215 - Victoria	35	15,150		26,775	70.9	267	124	58	73.4	391	181	84
HIGHLAND AVENUE	Victoria - SR-30	35	18,930		27,788	71.9	310	144	67	73.6	400	186	86
HIGHLAND AVENUE	SR-30 - E. City Limit	45	12,970		23,666	72.2	323	150	70	74.8	482	224	104
HOSPITAILITY LANE	E St - Hunts	35	25,820		13,972	73.2	381	177	82	70.6	253	118	55
HOSPITAILITY LANE	Hunts - Waterman	35	25,750		18,460	73.2	381	177	82	71.8	305	142	66
MILL STREET	Tippecanoe - Waterman	40	13,040		19,150	71.3	281	131	61	72.9	363	169	78
MILL STREET	Waterman - Mt Vernon	35	16,179		30,155	71.2	279	130	60	73.9	423	196	91
MILL STREET	Mt Vernon - Bordwell	35	15,680		31,126	71.1	273	127	59	74.0	432	200	93
REDLANDS BLVD	I-215 - Waterman	40	14,554		18,011	71.7	303	141	65	72.7	349	162	75
RIALTO AVENUE	Riverside - Rancho	35	12,250		16,287	70.0	232	108	50	71.2	280	130	60
RIALTO AVENUE	Rancho - I St	35	10,050		16,970	69.1	203	94	44	71.4	288	134	62
RIALTO AVENUE	I St - Sierra	35	8,410		8,628	68.4	181	84	39	68.5	184	85	40
RIALTO AVENUE	Sierra - Tippecanoe	35	2,920		7,688	63.8	89	41	19	68.0	170	79	37
BOULDER AVENUE	Atlantic -Pacific	50	10,910		14,853	72.3	329	153	71	73.6	404	188	87
DEL ROSA DRIVE	3rd St - Paloma	35	6,040		14,877	66.9	145	67	31	70.8	264	123	57
DEL ROSA DRIVE	Baseline - SR-30	35	8,110		21,995	68.2	176	82	38	72.5	343	159	74
DEL ROSA DRIVE	SR-30 - Quail Cyn	40	4,070		1,445	66.2	129	60	28	61.7	65	30	14
E STREET	I-10- Fairway	40	18,134		23,208	72.7	351	163	76	73.8	413	192	89
E STREET	Fairway - 9th St	40	8,770		18,814	69.5	216	100	47	72.8	359	167	77
E STREET	9th St - Kendall	40	17,740		35,103	72.6	345	160	74	75.6	544	253	117
PALM AVENUE	Pacific - Highland	45	9,940		19,826	71.0	271	126	58	74.0	429	199	92
PEPPER AVENUE	I-10 - Foothill	45	16,420		44,034	73.2	378	175	81	77.5	730	339	157
RANCHO AVENUE	I-10 - Mill	40	10,566		21,870	70.3	245	113	53	73.5	397	184	86
RANCHO AVENUE	Mill - Rialto	40	10,566		23,685	70.3	245	113	53	73.8	419	194	90
RANCHO AVENUE	Rialto - Foothill	40	5,770		20,783	67.7	163	76	35	73.3	384	178	83
SIERRA WAY	Waterman - 40th St	40	9,000		37,828	69.6	220	102	47	75.9	572	266	123
SIERRA WAY	40th St - 5th St	35	7,000		2,112	67.6	160	74	34	62.4	72	33	15
SIERRA WAY	5th St - 2nd St	35	9,336		5,505	68.8	194	90	42	66.5	136	63	29
SIERRA WAY	2nd St - Mill	35	3,385		5,789	64.4	98	46	21	66.7	141	65	30

VICTORIA AVENUE	Lynwood - Baseline	40	7,720		9,412	69.0	198	92	43	69.8	226	105	49
VICTORIA AVENUE	Baseline - 3rd St	40	6,380		6,158	68.1	175	81	38	68.0	171	79	37
WATERMAN AVENUE	I-10 - Highland	40	22,144		26,590	73.6	400	186	86	74.3	452	210	97
WATERMAN AVENUE	Highland - Sierra	50	18,480		24,062	74.6	468	217	101	75.7	557	259	120
Freeways													
10 Freeway	COLTON, JCT. RTE. 215, RIVERSIDE/SAN BERNARDIN	60	198,000		297,000	86.5	2908	1350	626	88.2	3810	1768	821
10 Freeway	MILEPOST EQUATION =24.66	60	228,000		342,000	87.1	3194	1483	688	88.8	4186	1943	902
10 Freeway	SAN BERNARDINO, WATERMAN AVENUE	60	228,000		342,000	87.1	3194	1483	688	88.8	4186	1943	902
10 Freeway	TIPPECANOE AVENUE (LOMA LINDA TURNOFF)	60	202,000		303,000	86.6	2947	1368	635	88.3	3861	1792	832
10 Freeway	LOMA LINDA, MOUNTAIN VIEW AVENUE	60	195,000		292,500	86.4	2878	1336	620	88.2	3771	1751	813
Interstate 215	COLTON, JCT. RTE. 10, SAN BERNARDINO/RIVERSID	60	168,000		252,000	85.8	2606	1210	561	87.5	3415	1585	736
Interstate 215	SAN BERNARDINO, ORANGE SHOW ROAD/AUTO CEI	60	182,000		273,000	86.1	2749	1276	592	87.9	3602	1672	776
Interstate 215	SAN BERNARDINO, INLAND CENTER DRIVE	60	170,000		255,000	85.8	2627	1219	566	87.6	3442	1598	742
Interstate 215	SAN BERNARDINO, MILL STREET	60	163,000		244,500	85.6	2554	1185	550	87.4	3347	1553	721
Interstate 215	SAN BERNARDINO, SECOND STREET	60	165,000		247,500	85.7	2575	1195	555	87.4	3374	1566	727
Interstate 215	SAN BERNARDINO, JCT. RTE. 66 WEST, 5TH STREET	60	148,000		222,000	85.2	2395	1112	516	87.0	3138	1457	676
Interstate 215	SAN BERNARDINO, BASELINE STREET	60	148,000		222,000	85.2	2395	1112	516	87.0	3138	1457	676
Interstate 215	SAN BERNARDINO, JCT. RTE. 259 NORTH, 16TH STR	60	133,000		199,500	84.7	2230	1035	480	86.5	2922	1356	630
Interstate 215	SAN BERNARDINO, MASSACHUSETTS AVENUE	60	71,000		106,500	82.0	1468	681	316	83.8	1923	893	414
Interstate 215	SAN BERNARDINO, HIGHLAND AVENUE	60	69,000		103,500	81.9	1440	668	310	83.7	1887	876	406
Interstate 215	SAN BERNARDINO, MOUNT VERNON AVENUE/27TH S	60	66,000		99,000	81.7	1398	649	301	83.5	1832	850	395
Interstate 215	SAN BERNARDINO, JCT. RTE. 30	60	60,000		90,000	81.3	1312	609	283	83.0	1719	798	370
Interstate 215	SAN BERNARDINO, UNIVERSITY PARKWAY	60	86,000		129,000	82.8	1668	774	359	84.6	2185	1014	471
Interstate 215	SAN BERNARDINO, PALM AVENUE	60	63,000		94,500	81.5	1355	629	292	83.3	1776	824	383
Interstate 215	DEVORE ROAD	60	63,000		94,500	81.5	1355	629	292	83.3	1776	824	383
State Route 259	SAN BERNARDINO, JCT. RTE. 30	60	67,000		100,500	81.8	1412	655	304	83.5	1850	859	399
State Route 259	SAN BERNARDINO, E STREET	60	67,000		100,500	81.8	1412	655	304	83.5	1850	859	399
State Route 259	SAN BERNARDINO, END ROUTE 259	60	55,000		82,500	80.9	1238	575	267	82.7	1622	753	349
State Route 30	SAN BERNARDINO, CALIFORNIA STREET	60	28,500		42,750	78.1	799	371	172	79.8	1046	486	225
State Route 30	ROUTE 30 LEFT TURN AT HIGHLAND AVENUE; BEGIN	60	35,000		52,500	78.9	916	425	197	80.7	1200	557	259
State Route 30	SAN BERNARDINO, JCT. RTE. 215	60	32,000		48,000	78.6	863	400	186	80.3	1130	525	244
State Route 30	SAN BERNARDINO, H STREET	60	55,000		82,500	80.9	1238	575	267	82.7	1622	753	349
State Route 30	SAN BERNARDINO, NORTH JCT. RTE. 259	60	58,000		87,000	81.1	1282	595	276	82.9	1681	780	362
State Route 30	SAN BERNARDINO, JCT. RTE. 18 NORTH; WATERMAN	60	114,000		171,000	84.1	2012	934	434	85.8	2637	1224	568
State Route 30	DEL ROSA AVENUE	60	96,000		144,000	83.3	1794	833	387	85.1	2351	1091	507
State Route 30	SAN BERNARDINO, HIGHLAND AVENUE	60	81,000		121,500	82.6	1602	744	345	84.3	2100	975	452
State Route 30	SAN BERNARDINO, JCT. RTE. 330	60	64,000		96,000	81.6	1369	636	295	83.3	1794	833	387
State Route 330	SAN BERNARDINO, JCT. RTE. 30	60	11,500		17,250	74.1	436	202	94	75.9	571	265	123
State Route 330	RUNNING SPRINGS, JCT. RTE. 18	60	12,400		18,600	74.4	459	213	99	76.2	601	279	129
						61				62			
						77				76			
	Simplified to 2 lanes		6.1 meters=		20.0	74							
	future		6.1 meters=		20.0	87							

Noise path decay parameter for hard site

Calculations using methods of Federal Highway Administration *Highway Traffic Noise Prediction Model*, December, 1978. Baseline California vehicle noise levels from Caltrans, TAN 95-03, 1995

FRA Grade Crossing Noise Model

User Input	
Noise Situation (Pick from List)	3
Horn Lmax (dBA) @ 100 feet	103
Horn Location on Locomotive(Pick from List)	1
Non Train Noise Environment (pick from list)	2
Shielding (Pick from List)	4
Length of Impact Area (pick from list)	1
Existing Train Speed (mph)	55
Future Train Speed (mph)	55
Number of Existing Trains in one Direction	96
Number of Future Trains in one Direction	198
Existing Number of Day Trains (7 am to 10 p.m.)	60
Future Number of Day Trains (7 am to 10 p.m.)	123.75
Existing Number of Night Trains (10 p.m. to 7 am)	36
Future Number of Night Trains (10 p.m. to 7 am)	74.25
Existing Average Number of Cars	100
Future Average Number of Cars	100
Existing Average Number of Locomotives	2
Future Average Number of Locomotives	2

Noise Situation	
Horns Existing and Future	1
Horns in Future Only	2
No Horns Existing and Future	3

Horn Location on Locomotive			
National Average (50% front, 50% middle)			1
All Front Mounted			2
All Middle Mounted			3
User Defined	80	% front mounted horns	4

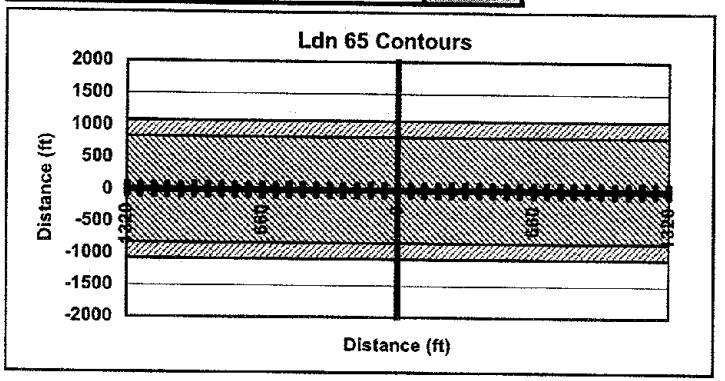
Non Train Noise Environment			
Urban			1
Suburban			2
Rural			3
User Defined Ldn =	50	dBA	4

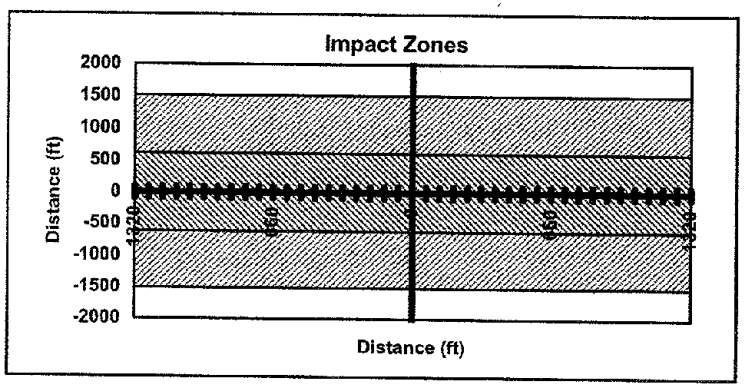
Shielding	
Dense Urban	1
Light Urban	2
Dense Suburban	3
Light Suburban	4
Rural	5
No Shielding	6

Length of Impact Area	
1/4 mile	1
20 seconds	2
15 seconds	3

Ldn 65 Contours Numeric Output (in feet)	
Existing 65 Ldn Contour at X-ing	829
Future 65 Ldn Contour at X-ing	1076
Existing 65 Ldn Contour at 1/2 zone length	829
Future 65 Ldn Contour at 1/2 zone length	1076
Zone Length	1320
1/2 Zone Length	660

Impact Zones Numeric Output (in feet)	
Impact Distance at X-ing	1515
Severe Impact Distance at X-ing	614
Impact Distance at 1/2 zone length	1515
Severe Impact Distance at 1/2 zone length	614
Zone Length	1320
1/2 Zone Length	660





FRA Grade Crossing Noise Model

User Input	
Noise Situation (Pick from List)	1
Horn Lmax (dBA) @ 100 feet	103
Horn Location on Locomotive(Pick from List)	1
Non Train Noise Environment (pick from list)	2
Shielding (Pick from List)	4
Length of Impact Area (pick from list)	1
Existing Train Speed (mph)	55
Future Train Speed (mph)	55
Number of Existing Trains in one Direction	11
Number of Future Trains in one Direction	24
Existing Number of Day Trains (7 am to 10 p.m.)	6.875
Future Number of Day Trains (7 am to 10 p.m.)	15
Existing Number of Night Trains (10 p.m. to 7 am)	4.125
Future Number of Night Trains (10 p.m. to 7 am)	9
Existing Average Number of Cars	100
Future Average Number of Cars	100
Existing Average Number of Locomotives	2
Future Average Number of Locomotives	2

Noise Situation	
Horns Existing and Future	1
Horns in Future Only	2
No Horns Existing and Future	3

Horn Location on Locomotive			
National Average (50% front, 50% middle)			1
All Front Mounted			2
All Middle Mounted			3
User Defined	80	% front mounted horns	4

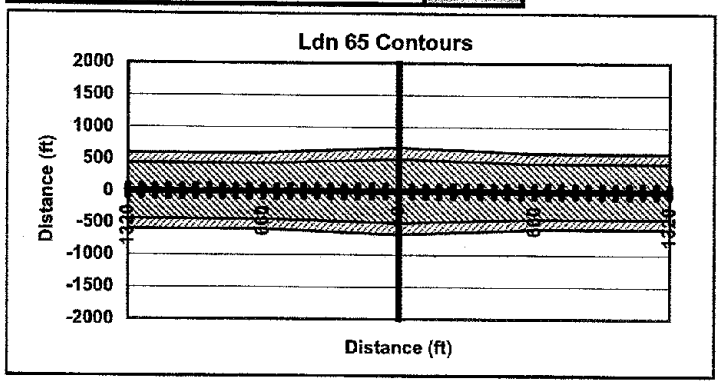
Non Train Noise Environment			
Urban			1
Suburban			2
Rural			3
User Defined Ldn =	50	dBA	4

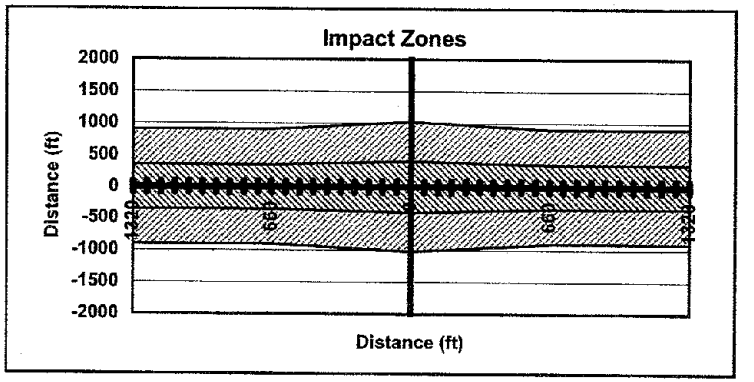
Shielding	
Dense Urban	1
Light Urban	2
Dense Suburban	3
Light Suburban	4
Rural	5
No Shielding	6

Length of Impact Area	
1/4 mile	1
20 seconds	2
15 seconds	3

Ldn 65 Contours Numeric Output (in feet)	
Existing 65 Ldn Contour at X-ing	505
Future 65 Ldn Contour at X-ing	685
Existing 65 Ldn Contour at 1/2 zone length	440
Future 65 Ldn Contour at 1/2 zone length	600
Zone Length	1320
1/2 Zone Length	660

Impact Zones Numeric Output (in feet)	
Impact Distance at X-ing	1024
Severe Impact Distance at X-ing	410
Impact Distance at 1/2 zone length	905
Severe Impact Distance at 1/2 zone length	355
Zone Length	1320
1/2 Zone Length	660





FRA Grade Crossing Noise Model

User Input	
Noise Situation (Pick from List)	3
Horn Lmax (dBA) @ 100 feet	103
Horn Location on Locomotive(Pick from List)	1
Non Train Noise Environment (pick from list)	2
Shielding (Pick from List)	4
Length of Impact Area (pick from list)	1
Existing Train Speed (mph)	55
Future Train Speed (mph)	55
Number of Existing Trains in one Direction	30
Number of Future Trains in one Direction	32
Existing Number of Day Trains (7 am to 10 p.m.)	18.75
Future Number of Day Trains (7 am to 10 p.m.)	20
Existing Number of Night Trains (10 p.m. to 7 am)	11.25
Future Number of Night Trains (10 p.m. to 7 am)	12
Existing Average Number of Cars	100
Future Average Number of Cars	100
Existing Average Number of Locomotives	2
Future Average Number of Locomotives	2

Noise Situation	
Horns Existing and Future	1
Horns in Future Only	2
No Horns Existing and Future	3

Horn Location on Locomotive			
National Average (50% front, 50% middle)			1
All Front Mounted			2
All Middle Mounted			3
User Defined	80	% front mounted horns	4

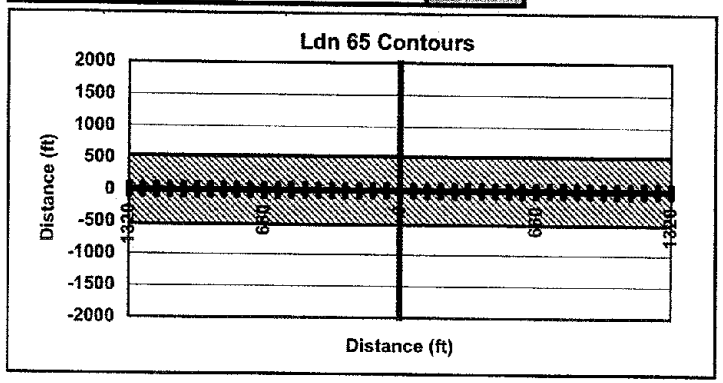
Non Train Noise Environment			
Urban			1
Suburban			2
Rural			3
User Defined Ldn =	50	dBA	4

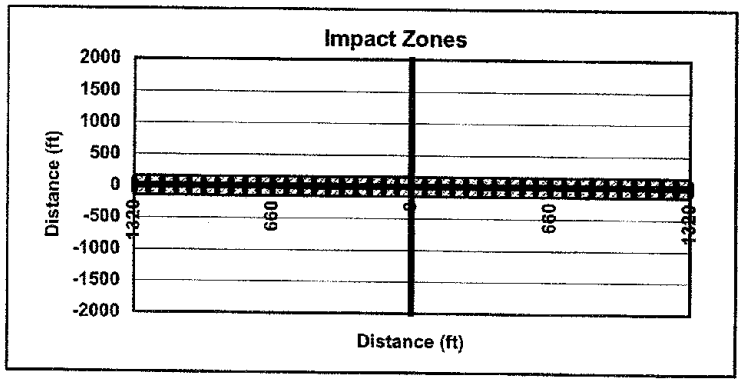
Shielding	
Dense Urban	1
Light Urban	2
Dense Suburban	3
Light Suburban	4
Rural	5
No Shielding	6

Length of Impact Area	
1/4 mile	1
20 seconds	2
15 seconds	3

Ldn 65 Contours Numeric Output (in feet)	
Existing 65 Ldn Contour at X-ing	532
Future 65 Ldn Contour at X-ing	545
Existing 65 Ldn Contour at 1/2 zone length	532
Future 65 Ldn Contour at 1/2 zone length	545
Zone Length	1320
1/2 Zone Length	660

Impact Zones Numeric Output (in feet)	
Impact Distance at X-ing	150
Severe Impact Distance at X-ing	35
Impact Distance at 1/2 zone length	150
Severe Impact Distance at 1/2 zone length	35
Zone Length	1320
1/2 Zone Length	660





FRA Grade Crossing Noise Model

User Input	
Noise Situation (Pick from List)	3
Horn Lmax (dBA) @ 100 feet	103
Horn Location on Locomotive(Pick from List)	1
Non Train Noise Environment (pick from list)	2
Shielding (Pick from List)	4
Length of Impact Area (pick from list)	1
Existing Train Speed (mph)	55
Future Train Speed (mph)	55
Number of Existing Trains in one Direction	6.5
Number of Future Trains in one Direction	8.8
Existing Number of Day Trains (7 am to 10 p.m.)	4.0625
Future Number of Day Trains (7 am to 10 p.m.)	5.5
Existing Number of Night Trains (10 p.m. to 7 am)	2.4375
Future Number of Night Trains (10 p.m. to 7 am)	3.3
Existing Average Number of Cars	100
Future Average Number of Cars	100
Existing Average Number of Locomotives	2
Future Average Number of Locomotives	2

Noise Situation	
Horns Existing and Future	1
Horns in Future Only	2
No Horns Existing and Future	3

Horn Location on Locomotive			
National Average (50% front, 50% middle)			1
All Front Mounted			2
All Middle Mounted			3
User Defined	80	% front mounted horns	4

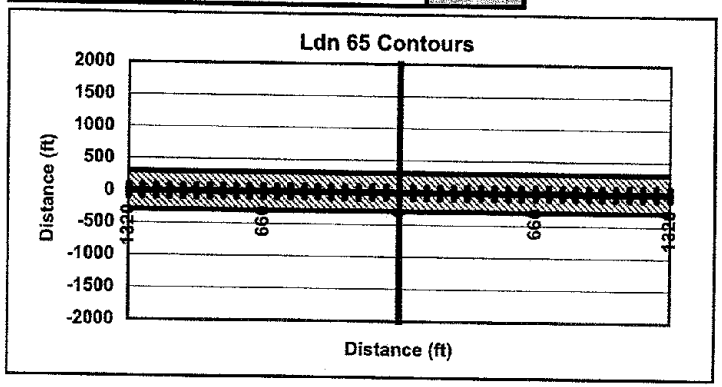
Non Train Noise Environment			
Urban			1
Suburban			2
Rural			3
User Defined Ldn =	50	dBA	4

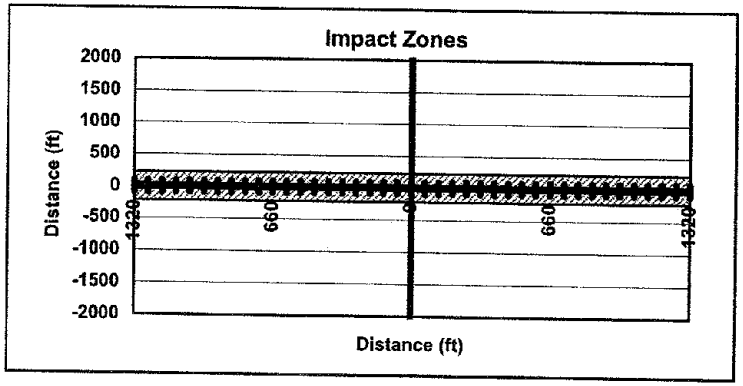
Shielding	
Dense Urban	1
Light Urban	2
Dense Suburban	3
Light Suburban	4
Rural	5
No Shielding	6

Length of Impact Area	
1/4 mile	1
20 seconds	2
15 seconds	3

Ldn 65 Contours Numeric Output (in feet)	
Existing 65 Ldn Contour at X-ing	279
Future 65 Ldn Contour at X-ing	319
Existing 65 Ldn Contour at 1/2 zone length	279
Future 65 Ldn Contour at 1/2 zone length	319
Zone Length	1320
1/2 Zone Length	660

Impact Zones Numeric Output (in feet)	
Impact Distance at X-ing	223
Severe Impact Distance at X-ing	41
Impact Distance at 1/2 zone length	223
Severe Impact Distance at 1/2 zone length	41
Zone Length	1320
1/2 Zone Length	660





Roadway Segment		Speed	24-hour Traffic Volume: Existing	Future Without Project	Future With Project	Distance to CNEL from Roadway Centerline: Existing 50 Feet	Existing 60 CNEL	Existing 65 CNEL	Existing 70 CNEL	Future With Project 50 Feet	Future With Project 60 CNEL	Future With Project 65 CNEL	Future With Project 70 CNEL	Change From Existing	Noise Level (CNEL or Ldn) at Distance from Roadway Centerline: Existing 50 feet	Existing 50 feet	Existing 50 feet	Future No Proj 50 feet	Future No Proj 50 feet	Future No Proj 50 feet	Noise Level (CNEL or Ldn) at D from Roadway Centerline: Future Plus Proj 50 feet	Future Plus Proj 50 feet	Future Plus Proj 50 feet	Change From Existing
4TH STREET	I-215 - Arrowhead	40	1,208		24,633	61	58	27	12	74	430	200	93	13	60.9	60.9	60.9	4.8	4.8	4.8	74.0	74.0	74.0	+13.1
5TH STREET	Pepper - I-215	50	24,250		19,238	76	560	260	121	75	480	223	103	-1	75.7	75.7	75.7	4.8	4.8	4.8	74.7	74.7	74.7	-1.0
5TH STREET	I-215 - Waterman	50	28,290		24,007	76	621	288	134	76	557	258	120	-1	76.4	76.4	76.4	4.8	4.8	4.8	75.7	75.7	75.7	-0.7
5TH STREET	Waterman - Victoria	50	11,200		17,878	72	335	155	72	74	457	212	99	2	72.4	72.4	72.4	4.8	4.8	4.8	74.4	74.4	74.4	+2.0
5TH STREET	Victoria - Palm	50	1,965		14,370	65	105	49	23	73	395	183	85	9	64.8	64.8	64.8	4.8	4.8	4.8	73.5	73.5	73.5	+8.6
9TH STREET	Medical Center - I-215	40	4,495		5,219	67	138	64	30	67	153	71	33	1	66.6	66.6	66.6	4.8	4.8	4.8	67.3	67.3	67.3	+0.6
9TH STREET	I-215 - Waterman	40	6,018		8,367	68	168	78	36	69	209	97	45	1	67.9	67.9	67.9	4.8	4.8	4.8	69.3	69.3	69.3	+1.4
9TH STREET	Waterman - Tippecanoe	40	4,539		5,927	67	139	65	30	68	166	77	36	1	66.7	66.7	66.7	4.8	4.8	4.8	67.8	67.8	67.8	+1.2
9TH STREET	Tippecanoe - Del Rosa	40	4,745		5,712	67	143	67	31	68	162	75	35	1	66.9	66.9	66.9	4.8	4.8	4.8	67.7	67.7	67.7	+0.8
40TH STREET	Valencia - Waterman	45	8,910		17,908	71	251	117	54	74	401	186	86	3	70.5	70.5	70.5	4.8	4.8	4.8	73.6	73.6	73.6	+3.0
40TH STREET	Waterman - Sierra	35	18,879		22,625	72	310	144	67	73	349	162	75	1	71.9	71.9	71.9	4.8	4.8	4.8	72.7	72.7	72.7	+0.8
40TH STREET	Sierra - Mountain View	35	15,810		31,279	71	275	128	59	74	433	201	93	3	71.1	71.1	71.1	4.8	4.8	4.8	74.1	74.1	74.1	+3.0
BASELINE STREET	SR-30 - Palm	40	6,940		25,185	69	185	86	40	74	436	203	94	6	68.5	68.5	68.5	4.8	4.8	4.8	74.1	74.1	74.1	+5.6
BASELINE STREET	Palm - Valencia	40	14,670		34,286	72	304	141	66	75	536	249	115	4	71.8	71.8	71.8	4.8	4.8	4.8	75.5	75.5	75.5	+3.7
BASELINE STREET	Valencia - I-215	55	24,141		23,585	77	634	294	137	76	624	290	134	0	76.5	76.5	76.5	4.8	4.8	4.8	76.4	76.4	76.4	-0.1
BASELINE STREET	I-215 - Riverside	45	18,680		18,194	74	412	191	89	74	405	188	87	0	73.7	73.7	73.7	4.8	4.8	4.8	73.6	73.6	73.6	-0.1
HIGHLAND AVENUE	Riverside - I-215	35	26,028		8,447	73	383	178	83	68	181	84	39	-5	73.3	73.3	73.3	4.8	4.8	4.8	68.4	68.4	68.4	-4.9
HIGHLAND AVENUE	I-215 - Victoria	35	15,150		26,775	71	267	124	58	73	391	181	84	2	70.9	70.9	70.9	4.8	4.8	4.8	73.4	73.4	73.4	+2.5
HIGHLAND AVENUE	Victoria - SR-30	35	18,930		27,788	72	310	144	67	74	400	186	86	2	71.9	71.9	71.9	4.8	4.8	4.8	73.6	73.6	73.6	+1.7
HIGHLAND AVENUE	SR-30 - E. City Limit	45	12,970		23,666	72	323	150	70	75	482	224	104	3	72.2	72.2	72.2	4.8	4.8	4.8	74.8	74.8	74.8	+2.6
HOSPITAILITY LANE	E St - Hunts	35	25,820		13,972	73	381	177	82	71	253	118	55	-3	73.2	73.2	73.2	4.8	4.8	4.8	70.6	70.6	70.6	-2.7
HOSPITAILITY LANE	Hunts - Waterman	35	25,750		18,460	73	381	177	82	72	305	142	66	-1	73.2	73.2	73.2	4.8	4.8	4.8	71.8	71.8	71.8	-1.4
MILL STREET	Tippecanoe - Waterman	40	13,040		19,150	71	281	131	61	73	363	169	78	2	71.3	71.3	71.3	4.8	4.8	4.8	72.9	72.9	72.9	+1.7
MILL STREET	Waterman - Mt Vernon	35	16,179		30,155	71	279	130	60	74	423	196	91	3	71.2	71.2	71.2	4.8	4.8	4.8	73.9	73.9	73.9	+2.7
MILL STREET	Mt Vernon - Bordwell	35	15,680		31,126	71	273	127	59	74	432	200	93	3	71.1	71.1	71.1	4.8	4.8	4.8	74.0	74.0	74.0	+3.0
REDLANDS BLVD	I-215 - Waterman	40	14,554		18,011	72	303	141	65	73	349	162	75	1	71.7	71.7	71.7	4.8	4.8	4.8	72.7	72.7	72.7	+0.9
RIALTO AVENUE	Riverside - Rancho	35	12,250		16,287	70	232	108	50	71	280	130	60	1	70.0	70.0	70.0	4.8	4.8	4.8	71.2	71.2	71.2	+1.2
RIALTO AVENUE	Rancho - I St	35	10,050		16,970	69	203	94	44	71	288	134	62	2	69.1	69.1	69.1	4.8	4.8	4.8	71.4	71.4	71.4	+2.3
RIALTO AVENUE	I St - Sierra	35	8,410		8,628	68	181	84	39	68	184	85	40	0	68.4	68.4	68.4	4.8	4.8	4.8	68.5	68.5	68.5	+0.1
RIALTO AVENUE	Sierra - Tippecanoe	35	2,920		7,688	64	39	41	19	68	170	79	37	4	63.8	63.8	63.8	4.8	4.8	4.8	68.0	68.0	68.0	+4.2
BOULDER AVENUE	Atlantic -Pacific	50	10,910		14,853	72	329	153	71	74	404	188	87	1	72.3	72.3	72.3	4.8	4.8	4.8	73.6	73.6	73.6	+1.3
DEL ROSA DRIVE	3rd St - Paloma	35	6,040		14,877	67	145	67	31	71	264	123	57	4	66.9	66.9	66.9	4.8	4.8	4.8	70.8	70.8	70.8	+3.9
DEL ROSA DRIVE	Baseline - SR-30	35	8,110		21,995	68	176	82	38	73	343	159	74	4	68.2	68.2	68.2	4.8	4.8	4.8	72.5	72.5	72.5	+4.3
DEL ROSA DRIVE	SR-30 - Quail Cyn	40	4,070		1,445	66	129	60	28	62	65	30	14	-4	66.2	66.2	66.2	4.8	4.8	4.8	61.7	61.7	61.7	-4.5
E STREET	I-10- Fairway	40	18,134		23,208	73	351	163	76	74	413	192	89	1	72.7	72.7	72.7	4.8	4.8	4.8	73.8	73.8	73.8	+1.1
E STREET	Fairway - 9th St	40	8,770		18,814	70	216	100	47	73	359	167	77	3	69.5	69.5	69.5	4.8	4.8	4.8	72.8	72.8	72.8	+3.3
E STREET	9th St - Kendall	40	17,740		35,103	73	345	160	74	76	544	253	117	3	72.6	72.6	72.6	4.8	4.8	4.8	75.6	75.6	75.6	+3.0
PALM AVENUE	Pacific - Highland	45	9,940		19,826	71	271	126	58	74	429	199	92	3	71.0	71.0	71.0	4.8	4.8	4.8	74.0	74.0	74.0	+3.0
PEPPER AVENUE	I-10 - Foothill	45	16,420		44,034	73	378	175	81	77	730	339	157	4	73.2	73.2	73.2	4.8	4.8	4.8	77.5	77.5	77.5	+4.3
RANCHO AVENUE	I-10 - Mill	40	10,566		21,870	70	245	113	53	73	397	184	86	3	70.3	70.3	70.3	4.8	4.8	4.8	73.5	73.5	73.5	+3.2
RANCHO AVENUE	Mill - Rialto	40	10,566		23,685	70	245	113	53	74	419	194	90	4	70.3	70.3	70.3	4.8	4.8	4.8	73.8	73.8	73.8	+3.5
RANCHO AVENUE	Rialto - Foothill	40	5,770		20,783	68	163	76	35	73	384	178	83	6	67.7	67.7	67.7	4.8	4.8	4.8	73.3	73.3	73.3	+5.6
SIERRA WAY	Waterman - 40th St	40	9,000		37,828	70	220	102	47	76	572	266	123	6	69.6	69.6	69.6	4.8	4.8	4.8	75.9	75.9	75.9	+6.2
SIERRA WAY	40th St - 5th St	35	7,000		2,112	68	160	74	34	62	72	33	15	-5	67.6	67.6	67.6	4.8	4.8	4.8	62.4	62.4	62.4	-5.2
SIERRA WAY	5th St - 2nd St	35	9,336		5,505	69	194	90	42	67	136	63	29	-2	68.8	68.8	68.8	4.8	4.8	4.8	66.5	66.5	66.5	-2.3
SIERRA WAY	2nd St - Mill	35	3,385		5,789	64	98	46	21	67	141	65	30	2	64.4	64.4	64.4	4.8	4.8	4.8	66.7	66.7	66.7	+2.3
VICTORIA AVENUE	Lynwood - Baseline	40	7,720		9,412	69	198	92	43	70	226	105	49	1	69.0	69.0	69.0	4.8	4.8	4.8	69.8	69.8	69.8	+0.9
VICTORIA AVENUE	Baseline - 3rd St	40	6,380		6,158	68	175	81	38	68	171	79	37	0	68.1	68.1	68.1	4.8	4.8	4.8	68.0	68.0	68.0	-0.2
WATERMAN AVENUE	I-10 - Highland	40	22,144		26,590	74	400	186	86	74	452	210	97	1	73.6	73.6	73.6	4.8	4.8	4.8	74.3	74.3	74.3	+0.8
WATERMAN AVENUE	Highland - Sierra	50	18,480		24,062	75	468	217	101	76	557	259	120	1	74.6	74.6	74.6	4.8	4.8	4.8	75.7	75.7	75.7	+1.1

San Bernardino General Plan

Roadway Segment		Speed	24-hour Traffic Volume: Existing	Future Without Project	Future With Project	Distance to CNEL from Roadway Centerline: Existing 50 Feet	Existing 60 CNEL	Existing 65 CNEL	Existing 70 CNEL	Future With Project 50 Feet	Future With Project 60 CNEL	Future With Project 65 CNEL	Future With Project 70 CNEL	Change From Existing	Noise Level (CNEL or Ldn) at Distance from Roadway Centerline: Existing 50 feet	Existing 50 feet	Existing 50 feet	Future No Proj 50 feet	Future No Proj 50 feet	Future No Proj 50 feet	Noise Level (CNEL or Ldn) at D from Roadway Centerline: Future Plus Proj 50 feet	Future Plus Proj 50 feet	Future Plus Proj 50 feet	Change From Existing
Freeways																								
I-10	Jct. I-215 to Waterman Ave	60	182,350		286,000	86	2752	1278	593	88	3715	1725	800	2	86.1	86.1	86.1	4.8	4.8	4.8	88.1	88.1	88.1	+2.0
I-10	Waterman Ave to Tippecanoe Ave	60	149,470		264,000	85	2411	1119	519	88	3522	1635	759	2	85.2	85.2	85.2	4.8	4.8	4.8	87.7	87.7	87.7	+2.5
I-10	Tippecanoe Ave to Mountain View	60	148,420		264,000	85	2399	1114	517	88	3522	1635	759	3	85.2	85.2	85.2	4.8	4.8	4.8	87.7	87.7	87.7	+2.5
Route 30	Highland Ave to Jct. I-215	60	15,260		154,000	75	527	244	113	85	2459	1141	530	10	75.3	75.3	75.3	4.8	4.8	4.8	85.4	85.4	85.4	+10.0
Route 30	Jct. I-215 to H Street	60	31,580		132,000	78	855	397	184	85	2219	1030	478	6	78.5	78.5	78.5	4.8	4.8	4.8	84.7	84.7	84.7	+6.2
Route 30	H Street to Route 259	60	32,630		132,000	79	874	406	188	85	2219	1030	478	6	78.6	78.6	78.6	4.8	4.8	4.8	84.7	84.7	84.7	+6.1
Route 30	Route 259 to Waterman Ave	60	66,670		176,000	82	1407	653	303	85	2688	1248	579	4	81.7	81.7	81.7	4.8	4.8	4.8	86.0	86.0	86.0	+4.2
Route 30	Waterman Ave to Del Rosa Drive	60	66,670		132,000	82	1407	653	303	85	2219	1030	478	3	81.7	81.7	81.7	4.8	4.8	4.8	84.7	84.7	84.7	+3.0
I-215	Jct. I-10 to Orange Show Rd	60	144,220		220,000	85	2354	1093	507	87	3119	1448	672	2	85.1	85.1	85.1	4.8	4.8	4.8	86.9	86.9	86.9	+1.8
I-215	Orange Show Rd to Inland Center Driv	60	135,780		220,000	85	2261	1050	487	87	3119	1448	672	2	84.8	84.8	84.8	4.8	4.8	4.8	86.9	86.9	86.9	+2.1
I-215	Jct. Route 66 to Baseline St	60	113,690		242,000	84	2009	932	433	87	3324	1543	716	3	84.1	84.1	84.1	4.8	4.8	4.8	87.3	87.3	87.3	+3.3
I-215	Jct. Route 30 to University Parkway	60	55,790		132,000	81	1250	580	269	85	2219	1030	478	4	81.0	81.0	81.0	4.8	4.8	4.8	84.7	84.7	84.7	+3.7
						61				52														
						77				76														
	Simplified to 2 lanes		6.1 meters=		20.0	5																		
	future		6.1 meters=		20.0	86																		

Noise path decay parameter for hard site

feet from centerline

feet from centerline Time of Day:

Fleet Mix

92%	Autos
3%	Medium Trucks
5%	Heavy Trucks
73%	Day
13%	Evening
14%	Night

Calculations using methods of Federal Highway Administration *Highway Traffic Noise Prediction Model*, December, 1978. Baseline California vehicle noise levels from Caltrans, TAN 95-03, 1995