

Appendix I-1

Technical Noise Appendices – Proposed Project

Mace Ranch Innovation Center – City of Davis, California

Appendix I

2014-216

24hr Continuous Noise Monitoring - Site A

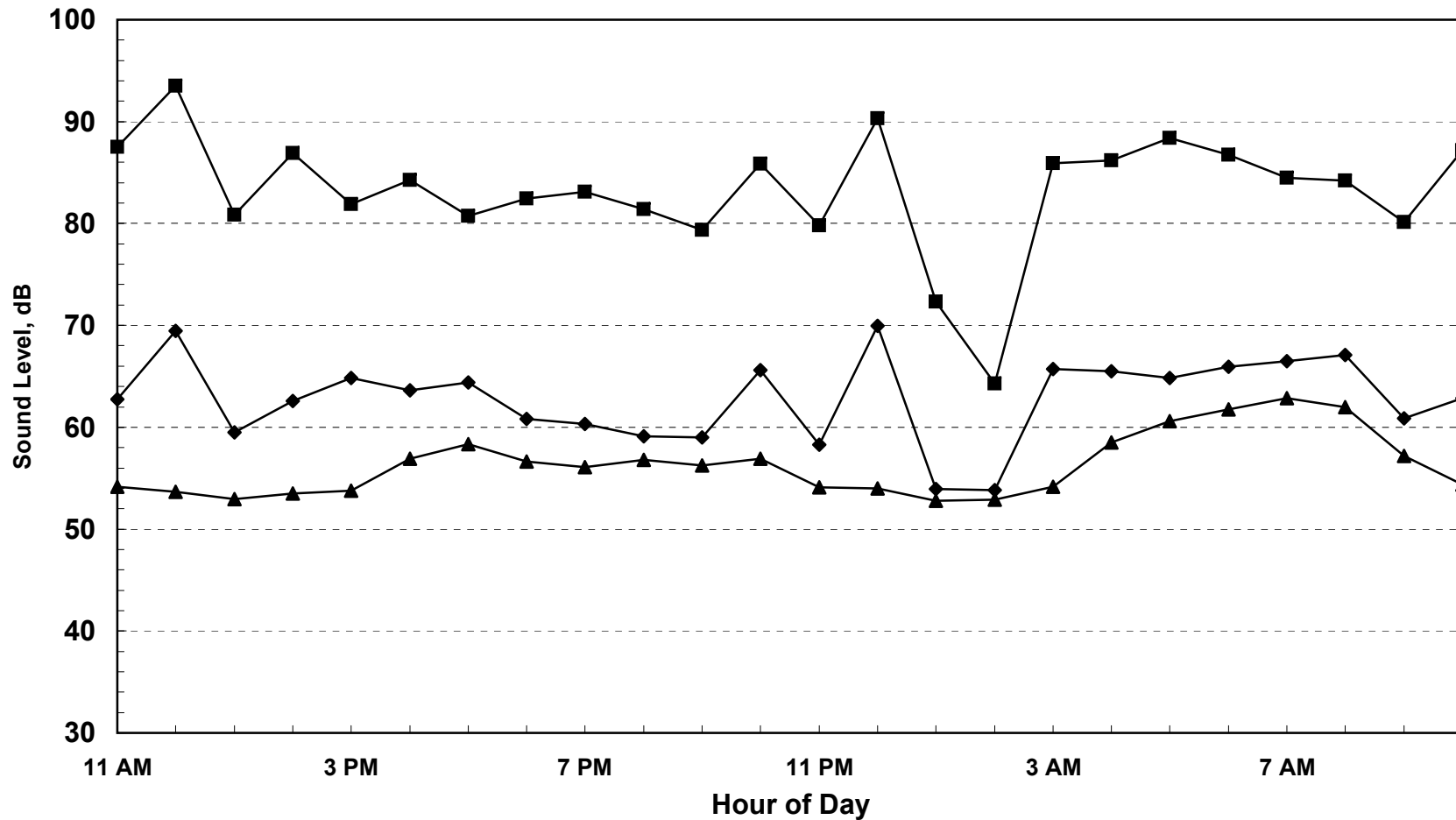
17/2014 - 1/8/2014

Hour	Leq	Lmax	L50	L90
11:00	63	88	54	51
12:00	69	94	54	51
13:00	59	81	53	50
14:00	63	87	54	51
15:00	65	82	54	51
16:00	64	84	57	53
17:00	64	81	58	56
18:00	61	82	57	55
19:00	60	83	56	54
20:00	59	81	57	54
21:00	59	79	56	54
22:00	66	86	57	53
23:00	58	80	54	51
0:00	70	90	54	50
1:00	54	72	53	48
2:00	54	64	53	49
3:00	66	86	54	50
4:00	66	86	59	55
5:00	65	88	61	57
6:00	66	87	62	60
7:00	66	84	63	61
8:00	67	84	62	60
9:00	61	80	57	54
10:00	63	87	54	52

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	69	59	64	70	54	65
Lmax (Maximum)	94	79	84	90	64	82
L50 (Median)	63	53	56	62	53	56
L90 (Background)	61	50	54	60	48	53

Computed Ldn, dB	71
% Daytime Energy	57%
% Nighttime Energy	43%

Appendix I
2014-216
24hr Continuous Noise Monitoring - Site A
17/2014 - 1/8/2014



Ldn = 71 dB

◆ Leq ■ Lmax ▲ L50

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	West of L	10,300	85		15	1.0	1	30	50	
2	5th Street	L to Pole Line	9,660	85		15	1.0	1	30	70	
3	5th Street	East of Pole Line	10,000	85		15	1.0	1	30	75	
4	Alhambra	South of Covell	2,720	85		15	1.0	1	30	60	
5	Alhambra	West of Mace	4,840	85		15	1.0	1	30	60	
6	Cantrill Drive	North of 2nd	2,710	85		15	1.0	1	25	60	
7	Chiles Road	North of Cowell	4,690	85		15	1.0	1	40	50	
8	Covell Blvd.	West of F	17,420	83		17	1.0	1	35	70	
9	Covell Blvd.	F to J	18,960	83		17	1.0	1	35	100	
10	Covell Blvd.	J to L	11,690	83		17	1.0	1	35	175	
11	Covell Blvd.	L to Pole Line	17,620	83		17	1.0	1	35	100	
12	Covell Blvd.	Pole Line to Birch	13,420	83		17	1.0	1	35	75	
13	Covell Blvd.	Birch to Baywood	13,420	83		17	1.0	1	35	75	
14	Covell Blvd.	Baywood to Manzanita	13,050	83		17	1.0	1	35	75	
15	Covell Blvd.	Manzanita to Wright	13,070	83		17	1.0	1	35	75	
16	Covell Blvd.	Wright to Monarch	13,460	83		17	1.0	1	35	75	
17	Covell Blvd.	Monarch to Alhambra	13,590	83		17	1.0	1	40	75	
18	Covell Blvd.	Alhambra to Harper JR HS	11,710	83		17	1.0	1	40	75	
19	Cowell Blvd	West of Research Park	16,560	85		15	1.0	1	35	100	
20	Cowell Blvd	Research Park to Drew	11,460	85		15	1.0	1	35	75	
21	Cowell Blvd	Drew to Valdora	9,900	85		15	1.0	1	35	70	
22	Cowell Blvd	Valdora to Lillard	9,110	85		15	1.0	1	35	55	
23	Cowell Blvd	Lillard to Research Park	5,590	85		15	1.0	1	35	65	
24	Cowell Blvd	Research Park to Drummond	6,660	85		15	1.0	1	40	50	
25	Cowell Blvd	Drummond to Mace	4,140	85		15	1.0	1	25	50	
26	Cowell Blvd	East of Mace	4,180	85		15	1.0	1	25	60	
27	Danbury Street	South of Lillard	3,500	85		15	1.0	1	25	50	
28	Drexel Drive	West of L	1,930	85		15	1.0	1	25	50	
29	Drexel Drive	L to Pole Line	780	85		15	1.0	1	25	50	
30	Drummond Ave.	Lillard to Cowell	1,890	85		15	1.0	1	30	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	West of L	61.1	51.8	58.9	63.4
2	5th Street	L to Pole Line	58.6	49.3	56.4	61.0
3	5th Street	East of Pole Line	58.3	49.0	56.1	60.7
4	Alhambra	South of Covell	54.1	44.8	51.9	56.5
5	Alhambra	West of Mace	56.6	47.3	54.4	59.0
6	Cantrill Drive	North of 2nd	51.8	43.5	51.2	54.9
7	Chiles Road	North of Cowell	61.3	50.3	55.1	62.5
8	Covell Blvd.	West of F	63.4	53.2	58.4	64.9
9	Covell Blvd.	F to J	61.5	51.3	56.5	63.0
10	Covell Blvd.	J to L	55.7	45.5	50.7	57.2
11	Covell Blvd.	L to Pole Line	61.2	50.9	56.1	62.7
12	Covell Blvd.	Pole Line to Birch	61.9	51.6	56.8	63.3
13	Covell Blvd.	Birch to Baywood	61.9	51.6	56.8	63.3
14	Covell Blvd.	Baywood to Manzanita	61.7	51.5	56.7	63.2
15	Covell Blvd.	Manzanita to Wright	61.7	51.5	56.7	63.2
16	Covell Blvd.	Wright to Monarch	61.9	51.6	56.8	63.4
17	Covell Blvd.	Monarch to Alhambra	63.6	52.6	57.4	64.8
18	Covell Blvd.	Alhambra to Harper JR HS	62.9	51.9	56.8	64.1
19	Cowell Blvd	West of Research Park	60.6	50.4	55.5	62.1
20	Cowell Blvd	Research Park to Drew	60.8	50.6	55.8	62.3
21	Cowell Blvd	Drew to Valdora	60.7	50.4	55.6	62.2
22	Cowell Blvd	Valdora to Lillard	61.9	51.6	56.8	63.4
23	Cowell Blvd	Lillard to Research Park	58.7	48.4	53.6	60.2
24	Cowell Blvd	Research Park to Drummond	62.8	51.8	56.6	64.0
25	Cowell Blvd	Drummond to Mace	54.9	46.6	54.2	57.9
26	Cowell Blvd	East of Mace	53.7	45.4	53.1	56.7
27	Danbury Street	South of Lillard	54.1	45.8	53.5	57.2
28	Drexel Drive	West of L	51.5	43.3	50.9	54.6
29	Drexel Drive	L to Pole Line	47.6	39.3	46.9	50.6
30	Drummond Ave.	Lillard to Cowell	53.7	44.4	51.5	56.1

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

			----- Distances to Traffic Noise Contours -----				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	5th Street	West of L	8	18	39	85	183
2	5th Street	L to Pole Line	8	18	38	81	175
3	5th Street	East of Pole Line	8	18	39	83	179
4	Alhambra	South of Covell	3	8	16	35	75
5	Alhambra	West of Mace	5	11	24	51	110
6	Cantrill Drive	North of 2nd	3	6	13	27	59
7	Chiles Road	North of Cowell	7	16	34	73	158
8	Covell Blvd.	West of F	15	32	69	149	321
9	Covell Blvd.	F to J	16	34	73	158	340
10	Covell Blvd.	J to L	11	25	53	114	246
11	Covell Blvd.	L to Pole Line	15	32	70	150	324
12	Covell Blvd.	Pole Line to Birch	13	27	58	125	270
13	Covell Blvd.	Birch to Baywood	13	27	58	125	270
14	Covell Blvd.	Baywood to Manzanita	12	26	57	123	265
15	Covell Blvd.	Manzanita to Wright	12	27	57	123	265
16	Covell Blvd.	Wright to Monarch	13	27	58	126	270
17	Covell Blvd.	Monarch to Alhambra	16	34	73	156	337
18	Covell Blvd.	Alhambra to Harper JR HS	14	31	66	142	305
19	Cowell Blvd	West of Research Park	14	30	64	137	296
20	Cowell Blvd	Research Park to Drew	11	23	50	107	231
21	Cowell Blvd	Drew to Valdora	10	21	45	97	210
22	Cowell Blvd	Valdora to Lillard	9	20	43	92	199
23	Cowell Blvd	Lillard to Research Park	7	14	31	67	143
24	Cowell Blvd	Research Park to Drummond	9	20	43	93	199
25	Cowell Blvd	Drummond to Mace	4	8	17	36	78
26	Cowell Blvd	East of Mace	4	8	17	36	78
27	Danbury Street	South of Lillard	3	7	15	32	70
28	Drexel Drive	West of L	2	5	10	22	47
29	Drexel Drive	L to Pole Line	1	3	6	12	26
30	Drummond Ave.	Lillard to Cowell	3	6	13	27	59

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
31	F Street	North of Covell	6,010	85		15	1.0	1.0	35	50	
32	F Street	South of Covell	9,250	85		15	1.0	1.0	25	60	
33	Interstate 80	East of Mace	101,100	63		37	3.0	6.0	65	475	
34	J Street	South of Covell	3,800	85		15	1.0	1.0	25	50	
35	L Street	Covell to Drexel	3,590	85		15	1.0	1.0	25	50	
36	L Street	South of Drexel	3,500	85		15	1.0	1.0	25	50	
37	L Street	North of 5th	5,700	85		15	1.0	1.0	25	50	
38	L Street	5th to 3rd	7,140	85		15	1.0	1.0	25	50	
39	Lillard Drive	Cowell to Danbury	7,320	85		15	1.0	1.0	25	60	
40	Lillard Drive	Danbury to Drummond	4,000	85		15	1.0	1.0	25	60	
41	Lillard Drive	East of Drummond	1,070	85		15	1.0	1.0	25	60	
42	Loyola Drive	East of Pole Line	3,100	85		15	1.0	1.0	25	50	
43	Mace Blvd.	Harper JR HS to Alhambra	11,580	83		17	1.0	1.0	40	600	
44	Mace Blvd.	Alhambra to 2nd	16,040	83		17	1.0	1.0	40	115	
45	Mace Blvd.	Chiles to Cowell	10,300	83		17	1.0	1.0	40	325	
46	Mace Blvd.	Cowell to El Macero	6,290	83		17	1.0	1.0	35	65	
47	Mace Blvd.	South of El Macero	4,290	83		17	1.0	1.0	35	65	
48	Pena Drive	North of 2nd	3,540	85		15	1.0	1.0	25	55	
49	Pole Line Road	North of Covell	12,840	85		15	1.0	1.0	40	75	
50	Pole Line Road	Covell to Claremont	9,260	85		15	1.0	1.0	25	75	
51	Pole Line Road	Claremont to Loyola	9,690	85		15	1.0	1.0	25	50	
52	Pole Line Road	South of Loyola	8,850	85		15	1.0	1.0	25	50	
53	Pole Line Road	North of 5th	11,390	85		15	1.0	1.0	25	50	
54	Pole Line Road	South of 5th	10,450	85		15	1.0	1.0	30	50	
55	Research Park	North of Cowell	2,490	85		15	1.0	1.0	35	75	
56	Third Street	West of L	4,890	85		15	1.0	1.0	25	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
31	F Street	North of Covell	60.7	50.5	55.7	62.2
32	F Street	South of Covell	57.2	48.9	56.5	60.2
33	Interstate 80	East of Mace	68.4	59.7	66.2	70.8
34	J Street	South of Covell	54.5	46.2	53.8	57.5
35	L Street	Covell to Drexel	54.2	45.9	53.6	57.3
36	L Street	South of Drexel	54.1	45.8	53.5	57.2
37	L Street	North of 5th	56.2	48.0	55.6	59.3
38	L Street	5th to 3rd	57.2	48.9	56.6	60.3
39	Lillard Drive	Cowell to Danbury	56.1	47.9	55.5	59.2
40	Lillard Drive	Danbury to Drummond	53.5	45.2	52.9	56.5
41	Lillard Drive	East of Drummond	47.8	39.5	47.1	50.8
42	Loyola Drive	East of Pole Line	53.6	45.3	52.9	56.6
43	Mace Blvd.	Harper JR HS to Alhambra	49.3	38.3	43.2	50.5
44	Mace Blvd.	Alhambra to 2nd	61.5	50.5	55.4	62.7
45	Mace Blvd.	Chiles to Cowell	52.8	41.8	46.7	54.0
46	Mace Blvd.	Cowell to El Macero	59.5	49.3	54.5	61.0
47	Mace Blvd.	South of El Macero	57.8	47.6	52.8	59.3
48	Pena Drive	North of 2nd	53.6	45.3	52.9	56.6
49	Pole Line Road	North of Covell	63.0	52.0	56.8	64.2
50	Pole Line Road	Covell to Claremont	55.7	47.4	55.1	58.7
51	Pole Line Road	Claremont to Loyola	58.6	50.3	57.9	61.6
52	Pole Line Road	South of Loyola	58.2	49.9	57.5	61.2
53	Pole Line Road	North of 5th	59.3	51.0	58.6	62.3
54	Pole Line Road	South of 5th	61.2	51.8	58.9	63.5
55	Research Park	North of Cowell	54.2	44.0	49.2	55.7
56	Third Street	West of L	55.6	47.3	54.9	58.6

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

			----- Distances to Traffic Noise Contours -----				
Segment	Roadway Name	Segment Description	75	70	65	60	55
31	F Street	North of Covell	7	15	32	70	150
32	F Street	South of Covell	6	13	29	62	133
33	Interstate 80	East of Mace	248	534	1149	2476	5335
34	J Street	South of Covell	3	7	16	34	74
35	L Street	Covell to Drexel	3	7	15	33	71
36	L Street	South of Drexel	3	7	15	32	70
37	L Street	North of 5th	4	10	21	45	96
38	L Street	5th to 3rd	5	11	24	52	112
39	Lillard Drive	Cowell to Danbury	5	11	25	53	114
40	Lillard Drive	Danbury to Drummond	4	8	16	35	76
41	Lillard Drive	East of Drummond	1	3	7	15	32
42	Loyola Drive	East of Pole Line	3	6	14	30	64
43	Mace Blvd.	Harper JR HS to Alhambra	14	30	65	141	303
44	Mace Blvd.	Alhambra to 2nd	17	38	81	175	376
45	Mace Blvd.	Chiles to Cowell	13	28	60	130	280
46	Mace Blvd.	Cowell to El Macero	8	16	35	76	163
47	Mace Blvd.	South of El Macero	6	13	27	59	126
48	Pena Drive	North of 2nd	3	7	15	33	70
49	Pole Line Road	North of Covell	14	31	67	143	309
50	Pole Line Road	Covell to Claremont	6	13	29	62	133
51	Pole Line Road	Claremont to Loyola	6	14	30	64	137
52	Pole Line Road	South of Loyola	6	13	28	60	129
53	Pole Line Road	North of 5th	7	15	33	71	153
54	Pole Line Road	South of 5th	9	18	40	86	185
55	Research Park	North of Cowell	4	8	18	39	84
56	Third Street	West of L	4	9	19	40	87

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	West of L	9,940	85		15	1.0	1	30	50	
2	5th Street	L to Pole Line	9,660	85		15	1.0	1	30	70	
3	5th Street	East of Pole Line	9,720	85		15	1.0	1	30	75	
4	Alhambra	South of Covell	3,140	85		15	1.0	1	30	60	
5	Alhambra	West of Mace	4,790	85		15	1.0	1	30	60	
6	Cantrill Drive	North of 2nd	3,250	85		15	1.0	1	25	60	
7	Chiles Road	North of Cowell	5,060	85		15	1.0	1	40	50	
8	Covell Blvd.	West of F	21,110	83		17	1.0	1	35	70	
9	Covell Blvd.	F to J	21,110	83		17	1.0	1	35	100	
10	Covell Blvd.	J to L	20,070	83		17	1.0	1	35	175	
11	Covell Blvd.	L to Pole Line	20,070	83		17	1.0	1	35	100	
12	Covell Blvd.	Pole Line to Birch	14,980	83		17	1.0	1	35	75	
13	Covell Blvd.	Birch to Baywood	15,110	83		17	1.0	1	35	75	
14	Covell Blvd.	Baywood to Manzanita	14,780	83		17	1.0	1	35	75	
15	Covell Blvd.	Manzanita to Wright	14,690	83		17	1.0	1	35	75	
16	Covell Blvd.	Wright to Monarch	16,970	83		17	1.0	1	35	75	
17	Covell Blvd.	Monarch to Alhambra	15,810	83		17	1.0	1	40	75	
18	Covell Blvd.	Alhambra to Harper JR HS	14,030	83		17	1.0	1	40	75	
19	Cowell Blvd	West of Research Park	18,530	85		15	1.0	1	35	100	
20	Cowell Blvd	Research Park to Drew	12,690	85		15	1.0	1	35	75	
21	Cowell Blvd	Drew to Valdora	10,470	85		15	1.0	1	35	70	
22	Cowell Blvd	Valdora to Lillard	8,820	85		15	1.0	1	35	55	
23	Cowell Blvd	Lillard to Research Park	5,980	85		15	1.0	1	35	65	
24	Cowell Blvd	Research Park to Drummond	5,950	85		15	1.0	1	40	50	
25	Cowell Blvd	Drummond to Mace	3,680	85		15	1.0	1	25	50	
26	Cowell Blvd	East of Mace	4,040	85		15	1.0	1	25	60	
27	Danbury Street	South of Lillard	3,730	85		15	1.0	1	25	50	
28	Drexel Drive	West of L	1,750	85		15	1.0	1	25	50	
29	Drexel Drive	L to Pole Line	1,270	85		15	1.0	1	25	50	
30	Drummond Ave.	Lillard to Cowell	2,480	85		15	1.0	1	30	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	West of L	60.9	51.6	58.7	63.3
2	5th Street	L to Pole Line	58.6	49.3	56.4	61.0
3	5th Street	East of Pole Line	58.2	48.9	56.0	60.6
4	Alhambra	South of Covell	54.8	45.4	52.5	57.1
5	Alhambra	West of Mace	56.6	47.2	54.4	58.9
6	Cantrill Drive	North of 2nd	52.6	44.3	52.0	55.6
7	Chiles Road	North of Cowell	61.6	50.6	55.4	62.8
8	Covell Blvd.	West of F	64.3	54.0	59.2	65.8
9	Covell Blvd.	F to J	61.9	51.7	56.9	63.4
10	Covell Blvd.	J to L	58.1	47.9	53.1	59.6
11	Covell Blvd.	L to Pole Line	61.7	51.5	56.7	63.2
12	Covell Blvd.	Pole Line to Birch	62.3	52.1	57.3	63.8
13	Covell Blvd.	Birch to Baywood	62.4	52.1	57.3	63.9
14	Covell Blvd.	Baywood to Manzanita	62.3	52.1	57.2	63.8
15	Covell Blvd.	Manzanita to Wright	62.2	52.0	57.2	63.7
16	Covell Blvd.	Wright to Monarch	62.9	52.7	57.8	64.4
17	Covell Blvd.	Monarch to Alhambra	64.2	53.2	58.1	65.4
18	Covell Blvd.	Alhambra to Harper JR HS	63.7	52.7	57.6	64.9
19	Cowell Blvd	West of Research Park	61.1	50.8	56.0	62.6
20	Cowell Blvd	Research Park to Drew	61.3	51.1	56.3	62.8
21	Cowell Blvd	Drew to Valdora	60.9	50.7	55.9	62.4
22	Cowell Blvd	Valdora to Lillard	61.7	51.5	56.7	63.2
23	Cowell Blvd	Lillard to Research Park	59.0	48.7	53.9	60.4
24	Cowell Blvd	Research Park to Drummond	62.3	51.3	56.1	63.5
25	Cowell Blvd	Drummond to Mace	54.3	46.1	53.7	57.4
26	Cowell Blvd	East of Mace	53.6	45.3	52.9	56.6
27	Danbury Street	South of Lillard	54.4	46.1	53.7	57.4
28	Drexel Drive	West of L	51.1	42.8	50.5	54.1
29	Drexel Drive	L to Pole Line	49.7	41.4	49.1	52.8
30	Drummond Ave.	Lillard to Cowell	54.9	45.6	52.7	57.3

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	----- Distances to Traffic Noise Contours -----				
			75	70	65	60	55
1	5th Street	West of L	8	18	38	83	179
2	5th Street	L to Pole Line	8	18	38	81	175
3	5th Street	East of Pole Line	8	18	38	82	176
4	Alhambra	South of Covell	4	8	18	38	83
5	Alhambra	West of Mace	5	11	24	51	110
6	Cantrill Drive	North of 2nd	3	7	14	31	66
7	Chiles Road	North of Cowell	8	17	36	77	166
8	Covell Blvd.	West of F	17	37	79	169	365
9	Covell Blvd.	F to J	17	37	79	169	365
10	Covell Blvd.	J to L	16	35	76	164	353
11	Covell Blvd.	L to Pole Line	16	35	76	164	353
12	Covell Blvd.	Pole Line to Birch	13	29	63	135	290
13	Covell Blvd.	Birch to Baywood	14	29	63	136	292
14	Covell Blvd.	Baywood to Manzanita	13	29	62	134	288
15	Covell Blvd.	Manzanita to Wright	13	29	62	133	287
16	Covell Blvd.	Wright to Monarch	15	32	68	147	316
17	Covell Blvd.	Monarch to Alhambra	17	37	80	173	373
18	Covell Blvd.	Alhambra to Harper JR HS	16	34	74	160	344
19	Cowell Blvd	West of Research Park	15	32	69	148	319
20	Cowell Blvd	Research Park to Drew	11	25	53	115	248
21	Cowell Blvd	Drew to Valdora	10	22	47	101	218
22	Cowell Blvd	Valdora to Lillard	9	19	42	90	194
23	Cowell Blvd	Lillard to Research Park	7	15	32	70	150
24	Cowell Blvd	Research Park to Drummond	9	19	40	86	185
25	Cowell Blvd	Drummond to Mace	3	7	16	33	72
26	Cowell Blvd	East of Mace	4	8	16	36	77
27	Danbury Street	South of Lillard	3	7	16	34	73
28	Drexel Drive	West of L	2	4	9	20	44
29	Drexel Drive	L to Pole Line	2	4	8	16	35
30	Drummond Ave.	Lillard to Cowell	3	7	15	33	71

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
31	F Street	North of Covell	6,050	85		15	1.0	1.0	35	50	
32	F Street	South of Covell	8,540	85		15	1.0	1.0	25	60	
33	Interstate 80	East of Mace	112,490	63		37	3.0	6.0	65	475	
34	J Street	South of Covell	3,710	85		15	1.0	1.0	25	50	
35	L Street	Covell to Drexel	3,380	85		15	1.0	1.0	25	50	
36	L Street	South of Drexel	4,610	85		15	1.0	1.0	25	50	
37	L Street	North of 5th	5,610	85		15	1.0	1.0	25	50	
38	L Street	5th to 3rd	7,150	85		15	1.0	1.0	25	50	
39	Lillard Drive	Cowell to Danbury	8,520	85		15	1.0	1.0	25	60	
40	Lillard Drive	Danbury to Drummond	5,410	85		15	1.0	1.0	25	60	
41	Lillard Drive	East of Drummond	2,170	85		15	1.0	1.0	25	60	
42	Loyola Drive	East of Pole Line	3,780	85		15	1.0	1.0	25	50	
43	Mace Blvd.	Harper JR HS to Alhambra	11,570	83		17	1.0	1.0	40	600	
44	Mace Blvd.	Alhambra to 2nd	21,040	83		17	1.0	1.0	40	115	
45	Mace Blvd.	Chiles to Cowell	10,920	83		17	1.0	1.0	40	325	
46	Mace Blvd.	Cowell to El Macero	6,480	83		17	1.0	1.0	35	65	
47	Mace Blvd.	South of El Macero	4,090	83		17	1.0	1.0	35	65	
48	Pena Drive	North of 2nd	3,650	85		15	1.0	1.0	25	55	
49	Pole Line Road	North of Covell	13,250	85		15	1.0	1.0	40	75	
50	Pole Line Road	Covell to Claremont	9,580	85		15	1.0	1.0	25	75	
51	Pole Line Road	Claremont to Loyola	9,610	85		15	1.0	1.0	25	50	
52	Pole Line Road	South of Loyola	9,230	85		15	1.0	1.0	25	50	
53	Pole Line Road	North of 5th	12,170	85		15	1.0	1.0	25	50	
54	Pole Line Road	South of 5th	10,900	85		15	1.0	1.0	30	50	
55	Research Park	North of Cowell	4,030	85		15	1.0	1.0	35	75	
56	Third Street	West of L	4,610	85		15	1.0	1.0	25	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
31	F Street	North of Covell	60.7	50.5	55.7	62.2
32	F Street	South of Covell	56.8	48.5	56.2	59.8
33	Interstate 80	East of Mace	68.8	60.1	66.6	71.2
34	J Street	South of Covell	54.4	46.1	53.7	57.4
35	L Street	Covell to Drexel	54.0	45.7	53.3	57.0
36	L Street	South of Drexel	55.3	47.0	54.7	58.4
37	L Street	North of 5th	56.2	47.9	55.5	59.2
38	L Street	5th to 3rd	57.2	48.9	56.6	60.3
39	Lillard Drive	Cowell to Danbury	56.8	48.5	56.1	59.8
40	Lillard Drive	Danbury to Drummond	54.8	46.5	54.2	57.9
41	Lillard Drive	East of Drummond	50.9	42.6	50.2	53.9
42	Loyola Drive	East of Pole Line	54.5	46.2	53.8	57.5
43	Mace Blvd.	Harper JR HS to Alhambra	49.3	38.3	43.2	50.5
44	Mace Blvd.	Alhambra to 2nd	62.7	51.7	56.5	63.9
45	Mace Blvd.	Chiles to Cowell	53.1	42.1	46.9	54.3
46	Mace Blvd.	Cowell to El Macero	59.6	49.4	54.6	61.1
47	Mace Blvd.	South of El Macero	57.6	47.4	52.6	59.1
48	Pena Drive	North of 2nd	53.7	45.4	53.0	56.7
49	Pole Line Road	North of Covell	63.1	52.2	57.0	64.4
50	Pole Line Road	Covell to Claremont	55.9	47.6	55.2	58.9
51	Pole Line Road	Claremont to Loyola	58.5	50.2	57.9	61.5
52	Pole Line Road	South of Loyola	58.3	50.0	57.7	61.4
53	Pole Line Road	North of 5th	59.5	51.2	58.9	62.6
54	Pole Line Road	South of 5th	61.3	52.0	59.1	63.7
55	Research Park	North of Cowell	56.3	46.1	51.3	57.8
56	Third Street	West of L	55.3	47.0	54.7	58.4

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	----- Distances to Traffic Noise Contours -----				
			75	70	65	60	55
31	F Street	North of Covell	7	15	33	70	151
32	F Street	South of Covell	6	13	27	59	126
33	Interstate 80	East of Mace	266	573	1234	2659	5729
34	J Street	South of Covell	3	7	16	34	72
35	L Street	Covell to Drexel	3	7	15	32	68
36	L Street	South of Drexel	4	8	18	39	84
37	L Street	North of 5th	4	10	21	44	95
38	L Street	5th to 3rd	5	11	24	52	112
39	Lillard Drive	Cowell to Danbury	6	13	27	58	126
40	Lillard Drive	Danbury to Drummond	4	9	20	43	93
41	Lillard Drive	East of Drummond	2	5	11	23	51
42	Loyola Drive	East of Pole Line	3	7	16	34	73
43	Mace Blvd.	Harper JR HS to Alhambra	14	30	65	141	303
44	Mace Blvd.	Alhambra to 2nd	21	45	97	209	451
45	Mace Blvd.	Chiles to Cowell	14	29	63	135	291
46	Mace Blvd.	Cowell to El Macero	8	17	36	77	166
47	Mace Blvd.	South of El Macero	6	12	26	57	122
48	Pena Drive	North of 2nd	3	7	15	33	72
49	Pole Line Road	North of Covell	15	32	68	146	315
50	Pole Line Road	Covell to Claremont	6	14	29	63	136
51	Pole Line Road	Claremont to Loyola	6	14	29	63	136
52	Pole Line Road	South of Loyola	6	13	29	62	133
53	Pole Line Road	North of 5th	7	16	34	74	160
54	Pole Line Road	South of 5th	9	19	41	88	190
55	Research Park	North of Cowell	5	12	25	53	115
56	Third Street	West of L	4	8	18	39	84

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative No MRIC Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	L to Pole Line	14,020	85		15	1.0	1	30	70	
2	Alhambra	South of Covell	3,300	85		15	1.0	1	30	60	
3	Alhambra	West of Mace	8,240	85		15	1.0	1	30	60	
4	Covell Blvd.	F to J	26,520	83		17	1.0	1	35	100	
5	Covell Blvd.	Monarch to Alhambra	18,720	83		17	1.0	1	40	75	
6	Cowell Blvd	Research Park to Drew	22,630	85		15	1.0	1	35	75	
7	Cowell Blvd	Drummond to Mace	6,230	85		15	1.0	1	25	50	
8	F Street	North of Covell	9,790	85		15	1.0	1	35	50	
9	F Street	South of Covell	7,240	85		15	1.0	1	25	75	
10	Interstate 80	East of Mace	140,620	63		37	3.0	6	65	475	
11	L Street	Covell to Drexel	4,560	85		15	1.0	1	25	50	
12	Loyola Drive	East of Pole Line	4,350	85		15	1.0	1	25	50	
13	Mace Blvd.	Harper JR HS to Alhambra	15,770	83		17	1.0	1	40	600	
14	Mace Blvd.	South of El Macero	2,740	83		17	1.0	1	35	65	
15	Pole Line Road	North of Covell	14,080	85		15	1.0	1	40	75	
16	Pole Line Road	Covell to Claremont	12,070	85		15	1.0	1	25	75	
17	Pole Line Road	North of 5th	15,060	85		15	1.0	1	25	50	
18	Pole Line Road	South of 5th	15,330	85		15	1.0	1	30	50	
19	Research Park	North of Cowell	10,720	85		15	1.0	1	35	75	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative No MRIC Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	L to Pole Line	60.2	50.9	58.0	62.6
2	Alhambra	South of Covell	55.0	45.6	52.8	57.3
3	Alhambra	West of Mace	58.9	49.6	56.7	61.3
4	Covell Blvd.	F to J	62.9	52.7	57.9	64.4
5	Covell Blvd.	Monarch to Alhambra	65.0	54.0	58.8	66.2
6	Cowell Blvd	Research Park to Drew	63.8	53.6	58.8	65.3
7	Cowell Blvd	Drummond to Mace	56.6	48.3	56.0	59.7
8	F Street	North of Covell	62.8	52.6	57.8	64.3
9	F Street	South of Covell	54.6	46.4	54.0	57.7
10	Interstate 80	East of Mace	69.8	61.1	67.6	72.2
11	L Street	Covell to Drexel	55.3	47.0	54.6	58.3
12	Loyola Drive	East of Pole Line	55.1	46.8	54.4	58.1
13	Mace Blvd.	Harper JR HS to Alhambra	50.7	39.7	44.5	51.9
14	Mace Blvd.	South of El Macero	55.9	45.7	50.9	57.4
15	Pole Line Road	North of Covell	63.4	52.4	57.2	64.6
16	Pole Line Road	Covell to Claremont	56.9	48.6	56.2	59.9
17	Pole Line Road	North of 5th	60.5	52.2	59.8	63.5
18	Pole Line Road	South of 5th	62.8	53.5	60.6	65.2
19	Research Park	North of Cowell	60.6	50.3	55.5	62.0

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative No MRIC Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

			----- Distances to Traffic Noise Contours -----				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	5th Street	L to Pole Line	10	22	48	104	225
2	Alhambra	South of Covell	4	9	18	40	86
3	Alhambra	West of Mace	7	16	34	73	158
4	Covell Blvd.	F to J	20	43	92	197	425
5	Covell Blvd.	Monarch to Alhambra	19	42	90	194	417
6	Cowell Blvd	Research Park to Drew	17	36	78	169	364
7	Cowell Blvd	Drummond to Mace	5	10	22	47	102
8	F Street	North of Covell	10	21	45	97	208
9	F Street	South of Covell	5	11	24	52	113
10	Interstate 80	East of Mace	309	665	1432	3086	6648
11	L Street	Covell to Drexel	4	8	18	39	83
12	Loyola Drive	East of Pole Line	4	8	17	37	80
13	Mace Blvd.	Harper JR HS to Alhambra	17	37	80	173	372
14	Mace Blvd.	South of El Macero	4	9	20	43	94
15	Pole Line Road	North of Covell	15	33	71	152	329
16	Pole Line Road	Covell to Claremont	7	16	34	74	159
17	Pole Line Road	North of 5th	9	18	40	85	184
18	Pole Line Road	South of 5th	11	24	51	111	238
19	Research Park	North of Cowell	10	22	48	103	221

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	L to Pole Line	14,680	85		15	1.0	1	30	70	
2	Alhambra	South of Covell	3,830	85		15	1.0	1	30	60	
3	Alhambra	West of Mace	7,930	85		15	1.0	1	30	60	
4	Covell Blvd.	F to J	25,830	83		17	1.0	1	35	100	
5	Covell Blvd.	Monarch to Alhambra	16,960	83		17	1.0	1	40	75	
6	Cowell Blvd	Research Park to Drew	22,220	85		15	1.0	1	35	75	
7	Cowell Blvd	Drummond to Mace	6,580	85		15	1.0	1	25	50	
8	F Street	North of Covell	7,370	85		15	1.0	1	35	50	
9	F Street	South of Covell	9,830	85		15	1.0	1	25	75	
10	Interstate 80	East of Mace	151,910	63		37	3.0	6	65	475	
11	L Street	Covell to Drexel	6,440	85		15	1.0	1	25	50	
12	Loyola Drive	East of Pole Line	4,450	85		15	1.0	1	25	50	
13	Mace Blvd.	Harper JR HS to Alhambra	14,760	83		17	1.0	1	40	600	
14	Mace Blvd.	South of El Macero	3,610	83		17	1.0	1	35	65	
15	Pole Line Road	North of Covell	15,190	85		15	1.0	1	40	75	
16	Pole Line Road	Covell to Claremont	10,680	85		15	1.0	1	25	75	
17	Pole Line Road	North of 5th	13,130	85		15	1.0	1	25	50	
18	Pole Line Road	South of 5th	19,620	85		15	1.0	1	30	50	
19	Research Park	North of Covell	9,530	85		15	1.0	1	35	75	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	L to Pole Line	60.4	51.1	58.2	62.8
2	Alhambra	South of Covell	55.6	46.3	53.4	58.0
3	Alhambra	West of Mace	58.8	49.4	56.6	61.1
4	Covell Blvd.	F to J	62.8	52.6	57.8	64.3
5	Covell Blvd.	Monarch to Alhambra	64.5	53.6	58.4	65.8
6	Cowell Blvd	Research Park to Drew	63.7	53.5	58.7	65.2
7	Cowell Blvd	Drummond to Mace	56.9	48.6	56.2	59.9
8	F Street	North of Covell	61.6	51.3	56.5	63.1
9	F Street	South of Covell	56.0	47.7	55.3	59.0
10	Interstate 80	East of Mace	70.1	61.4	67.9	72.5
11	L Street	Covell to Drexel	56.8	48.5	56.1	59.8
12	Loyola Drive	East of Pole Line	55.2	46.9	54.5	58.2
13	Mace Blvd.	Harper JR HS to Alhambra	50.4	39.4	44.2	51.6
14	Mace Blvd.	South of El Macero	57.1	46.9	52.1	58.6
15	Pole Line Road	North of Covell	63.7	52.8	57.6	65.0
16	Pole Line Road	Covell to Claremont	56.3	48.0	55.7	59.4
17	Pole Line Road	North of 5th	59.9	51.6	59.2	62.9
18	Pole Line Road	South of 5th	63.9	54.6	61.7	66.2
19	Research Park	North of Cowell	60.0	49.8	55.0	61.5

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	----- Distances to Traffic Noise Contours -----				
			75	70	65	60	55
1	5th Street	L to Pole Line	11	23	50	107	232
2	Alhambra	South of Covell	4	9	20	44	95
3	Alhambra	West of Mace	7	15	33	71	154
4	Covell Blvd.	F to J	19	42	90	194	418
5	Covell Blvd.	Monarch to Alhambra	18	39	84	181	391
6	Cowell Blvd	Research Park to Drew	17	36	77	167	360
7	Cowell Blvd	Drummond to Mace	5	11	23	49	106
8	F Street	North of Covell	8	17	37	80	172
9	F Street	South of Covell	6	14	30	64	139
10	Interstate 80	East of Mace	325	700	1508	3249	6999
11	L Street	Covell to Drexel	5	10	23	49	104
12	Loyola Drive	East of Pole Line	4	8	18	38	82
13	Mace Blvd.	Harper JR HS to Alhambra	17	36	77	165	356
14	Mace Blvd.	South of El Macero	5	11	24	52	112
15	Pole Line Road	North of Covell	16	35	74	160	346
16	Pole Line Road	Covell to Claremont	7	15	32	68	146
17	Pole Line Road	North of 5th	8	17	36	78	168
18	Pole Line Road	South of 5th	13	28	61	130	281
19	Research Park	North of Cowell	9	20	44	95	205

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Interstate 80	Project Site - Hotel	112,490	63		37	3	6	65	1200	-5
2	Interstate 80	Project Site - North-South Commons	112,490	63		37	3	6	65	950	-5
3	Interstate 80	Project Site - The Oval	112,490	63		37	3	6	65	2300	-5
4	Interstate 80	Project Site - East-West Commons	112,490	63		37	3	6	65	2000	-5
5	Interstate 80	Project Site - Courtyard Plaza	112,490	63		37	3	6	65	1500	-5
6	Mace Blvd.	Project Site - Hotel	26,040	83		17	1	1	40	170	
7	Mace Blvd.	Project Site - North-South Commons	26,040	83		17	1	1	40	775	
8	Mace Blvd.	Project Site - The Oval	26,040	83		17	1	1	40	440	
9	Mace Blvd.	Project Site - East-West Commons	26,040	83		17	1	1	40	440	
10	Mace Blvd.	Project Site - Courtyard Plaza	26,040	83		17	1	1	40	465	-5

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	Autos	Medium Trucks	Heavy Trucks	Total
1	Interstate 80	Project Site - Hotel	58	49	56	60
2	Interstate 80	Project Site - North-South Commons	59	51	57	62
3	Interstate 80	Project Site - The Oval	54	45	51	56
4	Interstate 80	Project Site - East-West Commons	54	46	52	57
5	Interstate 80	Project Site - Courtyard Plaza	56	48	54	59
6	Mace Blvd.	Project Site - Hotel	61	50	55	62
7	Mace Blvd.	Project Site - North-South Commons	51	40	45	52
8	Mace Blvd.	Project Site - The Oval	55	44	49	56
9	Mace Blvd.	Project Site - East-West Commons	55	44	49	56
10	Mace Blvd.	Project Site - Courtyard Plaza	50	39	43	51



Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Interstate 80	Project Site - Hotel	151,910	63		37	3	6	65	1200	-5
2	Interstate 80	Project Site - North-South Commons	151,910	63		37	3	6	65	950	-5
3	Interstate 80	Project Site - The Oval	151,910	63		37	3	6	65	2300	-5
4	Interstate 80	Project Site - East-West Commons	151,910	63		37	3	6	65	2000	-5
5	Interstate 80	Project Site - Courtyard Plaza	151,910	63		37	3	6	65	1500	-5
6	Mace Blvd.	Project Site - Hotel	26,040	83		17	1	1	40	170	
7	Mace Blvd.	Project Site - North-South Commons	26,040	83		17	1	1	40	775	
8	Mace Blvd.	Project Site - The Oval	26,040	83		17	1	1	40	440	
9	Mace Blvd.	Project Site - East-West Commons	26,040	83		17	1	1	40	440	
10	Mace Blvd.	Project Site - Courtyard Plaza	26,040	83		17	1	1	40	465	-5

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative + Project Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	Autos	Medium Trucks	Heavy Trucks	Total
1	Interstate 80	Project Site - Hotel	59	50	57	61
2	Interstate 80	Project Site - North-South Commons	61	52	58	63
3	Interstate 80	Project Site - The Oval	55	46	53	57
4	Interstate 80	Project Site - East-West Commons	56	47	54	58
5	Interstate 80	Project Site - Courtyard Plaza	58	49	55	60
6	Mace Blvd.	Project Site - Hotel	61	50	55	62
7	Mace Blvd.	Project Site - North-South Commons	51	40	45	52
8	Mace Blvd.	Project Site - The Oval	55	44	49	56
9	Mace Blvd.	Project Site - East-West Commons	55	44	49	56
10	Mace Blvd.	Project Site - Courtyard Plaza	50	39	43	51



Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Reduced Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	West of L	9,810	85		15	1.0	1	30	50	
2	5th Street	L to Pole Line	9,630	85		15	1.0	1	30	70	
3	5th Street	East of Pole Line	9,870	85		15	1.0	1	30	75	
4	Alhambra	South of Covell	2,700	85		15	1.0	1	30	60	
5	Alhambra	West of Mace	4,860	85		15	1.0	1	30	60	
6	Cantrill Drive	North of 2nd	2,970	85		15	1.0	1	25	60	
7	Chiles Road	North of Cowell	4,570	85		15	1.0	1	40	50	
8	Covell Blvd.	West of F	17,970	83		17	1.0	1	35	70	
9	Covell Blvd.	F to J	19,580	83		17	1.0	1	35	100	
10	Covell Blvd.	J to L	18,750	83		17	1.0	1	35	175	
11	Covell Blvd.	L to Pole Line	17,590	83		17	1.0	1	35	100	
12	Covell Blvd.	Pole Line to Birch	13,900	83		17	1.0	1	35	75	
13	Covell Blvd.	Birch to Baywood	13,820	83		17	1.0	1	35	75	
14	Covell Blvd.	Baywood to Manzanita	13,530	83		17	1.0	1	35	75	
15	Covell Blvd.	Manzanita to Wright	13,570	83		17	1.0	1	35	75	
16	Covell Blvd.	Wright to Monarch	14,190	83		17	1.0	1	35	75	
17	Covell Blvd.	Monarch to Alhambra	13,960	83		17	1.0	1	40	75	
18	Covell Blvd.	Alhambra to Harper JR HS	12,100	83		17	1.0	1	40	75	
19	Cowell Blvd	West of Research Park	16,590	85		15	1.0	1	35	100	
20	Cowell Blvd	Research Park to Drew	12,300	85		15	1.0	1	35	75	
21	Cowell Blvd	Drew to Valdora	10,490	85		15	1.0	1	35	70	
22	Cowell Blvd	Valdora to Lillard	9,270	85		15	1.0	1	35	55	
23	Cowell Blvd	Lillard to Research Park	6,290	85		15	1.0	1	35	65	
24	Cowell Blvd	Research Park to Drummond	6,610	85		15	1.0	1	40	50	
25	Cowell Blvd	Drummond to Mace	3,990	85		15	1.0	1	25	50	
26	Cowell Blvd	East of Mace	4,190	85		15	1.0	1	25	60	
27	Danbury Street	South of Lillard	3,600	85		15	1.0	1	25	50	
28	Drexel Drive	West of L	1,750	85		15	1.0	1	25	50	
29	Drexel Drive	L to Pole Line	1,410	85		15	1.0	1	25	50	
30	Drummond Ave.	Lillard to Cowell	1,870	85		15	1.0	1	30	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center
Description: Existing Plus Reduced Alternative Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	West of L	60.9	51.5	58.7	63.2
2	5th Street	L to Pole Line	58.6	49.3	56.4	61.0
3	5th Street	East of Pole Line	58.3	48.9	56.1	60.6
4	Alhambra	South of Covell	54.1	44.8	51.9	56.4
5	Alhambra	West of Mace	56.6	47.3	54.4	59.0
6	Cantrill Drive	North of 2nd	52.2	43.9	51.6	55.3
7	Chiles Road	North of Cowell	61.2	50.2	55.0	62.4
8	Covell Blvd.	West of F	63.6	53.3	58.5	65.1
9	Covell Blvd.	F to J	61.6	51.4	56.6	63.1
10	Covell Blvd.	J to L	57.8	47.6	52.8	59.3
11	Covell Blvd.	L to Pole Line	61.2	50.9	56.1	62.6
12	Covell Blvd.	Pole Line to Birch	62.0	51.8	57.0	63.5
13	Covell Blvd.	Birch to Baywood	62.0	51.8	57.0	63.5
14	Covell Blvd.	Baywood to Manzanita	61.9	51.7	56.9	63.4
15	Covell Blvd.	Manzanita to Wright	61.9	51.7	56.9	63.4
16	Covell Blvd.	Wright to Monarch	62.1	51.9	57.1	63.6
17	Covell Blvd.	Monarch to Alhambra	63.7	52.7	57.5	64.9
18	Covell Blvd.	Alhambra to Harper JR HS	63.1	52.1	56.9	64.3
19	Cowell Blvd	West of Research Park	60.6	50.4	55.6	62.1
20	Cowell Blvd	Research Park to Drew	61.2	50.9	56.1	62.6
21	Cowell Blvd	Drew to Valdora	60.9	50.7	55.9	62.4
22	Cowell Blvd	Valdora to Lillard	61.9	51.7	56.9	63.4
23	Cowell Blvd	Lillard to Research Park	59.2	49.0	54.1	60.7
24	Cowell Blvd	Research Park to Drummond	62.8	51.8	56.6	64.0
25	Cowell Blvd	Drummond to Mace	54.7	46.4	54.0	57.7
26	Cowell Blvd	East of Mace	53.7	45.4	53.1	56.7
27	Danbury Street	South of Lillard	54.3	46.0	53.6	57.3
28	Drexel Drive	West of L	51.1	42.8	50.5	54.1
29	Drexel Drive	L to Pole Line	50.2	41.9	49.5	53.2
30	Drummond Ave.	Lillard to Cowell	53.7	44.3	51.5	56.0

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Reduced Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

			----- Distances to Traffic Noise Contours -----				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	5th Street	West of L	8	18	38	82	177
2	5th Street	L to Pole Line	8	17	38	81	175
3	5th Street	East of Pole Line	8	18	38	82	178
4	Alhambra	South of Covell	3	7	16	35	75
5	Alhambra	West of Mace	5	11	24	51	111
6	Cantrill Drive	North of 2nd	3	6	13	29	62
7	Chiles Road	North of Cowell	7	16	33	72	155
8	Covell Blvd.	West of F	15	33	71	152	328
9	Covell Blvd.	F to J	16	35	75	161	347
10	Covell Blvd.	J to L	16	34	73	157	337
11	Covell Blvd.	L to Pole Line	15	32	70	150	323
12	Covell Blvd.	Pole Line to Birch	13	28	60	128	276
13	Covell Blvd.	Birch to Baywood	13	28	59	128	275
14	Covell Blvd.	Baywood to Manzanita	13	27	58	126	271
15	Covell Blvd.	Manzanita to Wright	13	27	59	126	272
16	Covell Blvd.	Wright to Monarch	13	28	60	130	280
17	Covell Blvd.	Monarch to Alhambra	16	34	74	159	343
18	Covell Blvd.	Alhambra to Harper JR HS	14	31	67	145	312
19	Cowell Blvd	West of Research Park	14	30	64	137	296
20	Cowell Blvd	Research Park to Drew	11	24	52	113	242
21	Cowell Blvd	Drew to Valdora	10	22	47	101	218
22	Cowell Blvd	Valdora to Lillard	9	20	43	93	201
23	Cowell Blvd	Lillard to Research Park	7	16	33	72	155
24	Cowell Blvd	Research Park to Drummond	9	20	43	92	198
25	Cowell Blvd	Drummond to Mace	4	8	16	35	76
26	Cowell Blvd	East of Mace	4	8	17	36	78
27	Danbury Street	South of Lillard	3	7	15	33	71
28	Drexel Drive	West of L	2	4	9	20	44
29	Drexel Drive	L to Pole Line	2	4	8	18	38
30	Drummond Ave.	Lillard to Cowell	3	6	13	27	59

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Reduced Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
31	F Street	North of Covell	5,970	85		15	1.0	1.0	35	50	
32	F Street	South of Covell	9,100	85		15	1.0	1.0	25	60	
33	Interstate 80	East of Mace	106,860	63		37	3.0	6.0	65	475	
34	J Street	South of Covell	3,700	85		15	1.0	1.0	25	50	
35	L Street	Covell to Drexel	3,920	85		15	1.0	1.0	25	50	
36	L Street	South of Drexel	4,420	85		15	1.0	1.0	25	50	
37	L Street	North of 5th	5,370	85		15	1.0	1.0	25	50	
38	L Street	5th to 3rd	7,170	85		15	1.0	1.0	25	50	
39	Lillard Drive	Cowell to Danbury	7,260	85		15	1.0	1.0	25	60	
40	Lillard Drive	Danbury to Drummond	3,940	85		15	1.0	1.0	25	60	
41	Lillard Drive	East of Drummond	1,040	85		15	1.0	1.0	25	60	
42	Loyola Drive	East of Pole Line	3,060	85		15	1.0	1.0	25	50	
43	Mace Blvd.	Harper JR HS to Alhambra	11,980	83		17	1.0	1.0	40	600	
44	Mace Blvd.	Alhambra to 2nd	16,980	83		17	1.0	1.0	40	115	
45	Mace Blvd.	Chiles to Cowell	11,120	83		17	1.0	1.0	40	325	
46	Mace Blvd.	Cowell to El Macero	6,230	83		17	1.0	1.0	35	65	
47	Mace Blvd.	South of El Macero	4,240	83		17	1.0	1.0	35	65	
48	Pena Drive	North of 2nd	3,670	85		15	1.0	1.0	25	55	
49	Pole Line Road	North of Covell	12,960	85		15	1.0	1.0	40	75	
50	Pole Line Road	Covell to Claremont	9,080	85		15	1.0	1.0	25	75	
51	Pole Line Road	Claremont to Loyola	9,440	85		15	1.0	1.0	25	50	
52	Pole Line Road	South of Loyola	8,840	85		15	1.0	1.0	25	50	
53	Pole Line Road	North of 5th	12,440	85		15	1.0	1.0	25	50	
54	Pole Line Road	South of 5th	10,810	85		15	1.0	1.0	30	50	
55	Research Park	North of Cowell	3,690	85		15	1.0	1.0	35	75	
56	Third Street	West of L	5,060	85		15	1.0	1.0	25	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center
Description: Existing Plus Reduced Alternative Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
31	F Street	North of Covell	60.7	50.4	55.6	62.1
32	F Street	South of Covell	57.1	48.8	56.4	60.1
33	Interstate 80	East of Mace	68.6	59.9	66.4	71.0
34	J Street	South of Covell	54.4	46.1	53.7	57.4
35	L Street	Covell to Drexel	54.6	46.3	54.0	57.6
36	L Street	South of Drexel	55.1	46.8	54.5	58.2
37	L Street	North of 5th	56.0	47.7	55.3	59.0
38	L Street	5th to 3rd	57.2	49.0	56.6	60.3
39	Lillard Drive	Cowell to Danbury	56.1	47.8	55.4	59.1
40	Lillard Drive	Danbury to Drummond	53.5	45.2	52.8	56.5
41	Lillard Drive	East of Drummond	47.7	39.4	47.0	50.7
42	Loyola Drive	East of Pole Line	53.5	45.3	52.9	56.6
43	Mace Blvd.	Harper JR HS to Alhambra	49.5	38.5	43.3	50.7
44	Mace Blvd.	Alhambra to 2nd	61.8	50.8	55.6	63.0
45	Mace Blvd.	Chiles to Cowell	53.2	42.2	47.0	54.4
46	Mace Blvd.	Cowell to El Macero	59.5	49.2	54.4	60.9
47	Mace Blvd.	South of El Macero	57.8	47.6	52.8	59.3
48	Pena Drive	North of 2nd	53.7	45.4	53.1	56.7
49	Pole Line Road	North of Covell	63.1	52.1	56.9	64.3
50	Pole Line Road	Covell to Claremont	55.6	47.3	55.0	58.7
51	Pole Line Road	Claremont to Loyola	58.4	50.1	57.8	61.5
52	Pole Line Road	South of Loyola	58.2	49.9	57.5	61.2
53	Pole Line Road	North of 5th	59.6	51.3	59.0	62.7
54	Pole Line Road	South of 5th	61.3	52.0	59.1	63.7
55	Research Park	North of Cowell	55.9	45.7	50.9	57.4
56	Third Street	West of L	55.7	47.4	55.1	58.8

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Existing Plus Reduced Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

			----- Distances to Traffic Noise Contours -----				
Segment	Roadway Name	Segment Description	75	70	65	60	55
31	F Street	North of Covell	7	15	32	70	150
32	F Street	South of Covell	6	13	28	61	132
33	Interstate 80	East of Mace	257	554	1193	2570	5536
34	J Street	South of Covell	3	7	16	34	72
35	L Street	Covell to Drexel	3	8	16	35	75
36	L Street	South of Drexel	4	8	18	38	81
37	L Street	North of 5th	4	9	20	43	93
38	L Street	5th to 3rd	5	11	24	52	112
39	Lillard Drive	Cowell to Danbury	5	11	24	53	113
40	Lillard Drive	Danbury to Drummond	3	8	16	35	75
41	Lillard Drive	East of Drummond	1	3	7	14	31
42	Loyola Drive	East of Pole Line	3	6	14	30	64
43	Mace Blvd.	Harper JR HS to Alhambra	14	31	67	144	310
44	Mace Blvd.	Alhambra to 2nd	18	39	84	181	391
45	Mace Blvd.	Chiles to Cowell	14	29	64	137	295
46	Mace Blvd.	Cowell to El Macero	8	16	35	75	162
47	Mace Blvd.	South of El Macero	6	13	27	58	125
48	Pena Drive	North of 2nd	3	7	15	33	72
49	Pole Line Road	North of Covell	14	31	67	144	311
50	Pole Line Road	Covell to Claremont	6	13	28	61	131
51	Pole Line Road	Claremont to Loyola	6	13	29	63	135
52	Pole Line Road	South of Loyola	6	13	28	60	129
53	Pole Line Road	North of 5th	8	16	35	75	162
54	Pole Line Road	South of 5th	9	19	41	88	189
55	Research Park	North of Cowell	5	11	23	50	109
56	Third Street	West of L	4	9	19	41	89

Appendix I-2

Technical Noise Appendices – Mixed Use Project

Mace Ranch Innovation Center – City of Davis, California

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center
 Description: Existing Plus Mixed Use Alternative Traffic
 Ldn/CNEL: Ldn
 Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	West of L	10,300	85		15	1.0	1	30	50	
2	5th Street	L to Pole Line	9,900	85		15	1.0	1	30	70	
3	5th Street	East of Pole Line	9,900	85		15	1.0	1	30	75	
4	Alhambra	South of Covell	2,800	85		15	1.0	1	30	60	
5	Alhambra	West of Mace	4,900	85		15	1.0	1	30	60	
6	Cantrill Drive	North of 2nd	3,400	85		15	1.0	1	25	60	
7	Chiles Road	North of Cowell	5,300	85		15	1.0	1	40	50	
8	Covell Blvd.	West of F	18,600	83		17	1.0	1	35	70	
9	Covell Blvd.	F to J	20,600	83		17	1.0	1	35	100	
10	Covell Blvd.	J to L	19,600	83		17	1.0	1	35	175	
11	Covell Blvd.	L to Pole Line	19,400	83		17	1.0	1	35	100	
12	Covell Blvd.	Pole Line to Birch	14,800	83		17	1.0	1	35	75	
13	Covell Blvd.	Birch to Baywood	14,900	83		17	1.0	1	35	75	
14	Covell Blvd.	Baywood to Manzanita	14,200	83		17	1.0	1	35	75	
15	Covell Blvd.	Manzanita to Wright	14,200	83		17	1.0	1	35	75	
16	Covell Blvd.	Wright to Monarch	15,700	83		17	1.0	1	35	75	
17	Covell Blvd.	Monarch to Alhambra	15,000	83		17	1.0	1	40	75	
18	Covell Blvd.	Alhambra to Harper JR HS	13,200	83		17	1.0	1	40	75	
19	Cowell Blvd	West of Research Park	18,300	85		15	1.0	1	35	100	
20	Cowell Blvd	Research Park to Drew	13,400	85		15	1.0	1	35	75	
21	Cowell Blvd	Drew to Valdora	11,200	85		15	1.0	1	35	70	
22	Cowell Blvd	Valdora to Lillard	9,300	85		15	1.0	1	35	55	
23	Cowell Blvd	Lillard to Research Park	6,900	85		15	1.0	1	35	65	
24	Cowell Blvd	Research Park to Drummond	7,100	85		15	1.0	1	40	50	
25	Cowell Blvd	Drummond to Mace	4,500	85		15	1.0	1	25	50	
26	Cowell Blvd	East of Mace	4,500	85		15	1.0	1	25	60	
27	Danbury Street	South of Lillard	3,800	85		15	1.0	1	25	50	
28	Drexel Drive	West of L	2,300	85		15	1.0	1	25	50	
29	Drexel Drive	L to Pole Line	1,800	85		15	1.0	1	25	50	
30	Drummond Ave.	Lillard to Cowell	2,700	85		15	1.0	1	30	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center
Description: Existing Plus Mixed Use Alternative Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	West of L	61.1	51.8	58.9	63.4
2	5th Street	L to Pole Line	58.7	49.4	56.5	61.1
3	5th Street	East of Pole Line	58.3	48.9	56.1	60.6
4	Alhambra	South of Covell	54.3	44.9	52.0	56.6
5	Alhambra	West of Mace	56.7	47.3	54.5	59.0
6	Cantrill Drive	North of 2nd	52.8	44.5	52.2	55.8
7	Chiles Road	North of Cowell	61.8	50.8	55.6	63.0
8	Covell Blvd.	West of F	63.7	53.5	58.7	65.2
9	Covell Blvd.	F to J	61.8	51.6	56.8	63.3
10	Covell Blvd.	J to L	58.0	47.8	53.0	59.5
11	Covell Blvd.	L to Pole Line	61.6	51.4	56.6	63.1
12	Covell Blvd.	Pole Line to Birch	62.3	52.1	57.3	63.8
13	Covell Blvd.	Birch to Baywood	62.3	52.1	57.3	63.8
14	Covell Blvd.	Baywood to Manzanita	62.1	51.9	57.1	63.6
15	Covell Blvd.	Manzanita to Wright	62.1	51.9	57.1	63.6
16	Covell Blvd.	Wright to Monarch	62.5	52.3	57.5	64.0
17	Covell Blvd.	Monarch to Alhambra	64.0	53.0	57.8	65.2
18	Covell Blvd.	Alhambra to Harper JR HS	63.5	52.5	57.3	64.7
19	Cowell Blvd	West of Research Park	61.0	50.8	56.0	62.5
20	Cowell Blvd	Research Park to Drew	61.5	51.3	56.5	63.0
21	Cowell Blvd	Drew to Valdora	61.2	51.0	56.2	62.7
22	Cowell Blvd	Valdora to Lillard	62.0	51.7	56.9	63.5
23	Cowell Blvd	Lillard to Research Park	59.6	49.4	54.5	61.1
24	Cowell Blvd	Research Park to Drummond	63.1	52.1	56.9	64.3
25	Cowell Blvd	Drummond to Mace	55.2	46.9	54.6	58.2
26	Cowell Blvd	East of Mace	54.0	45.7	53.4	57.1
27	Danbury Street	South of Lillard	54.5	46.2	53.8	57.5
28	Drexel Drive	West of L	52.3	44.0	51.6	55.3
29	Drexel Drive	L to Pole Line	51.2	42.9	50.6	54.3
30	Drummond Ave.	Lillard to Cowell	55.3	45.9	53.1	57.6

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center
 Description: Existing Plus Mixed Use Alternative Traffic
 Ldn/CNEL: Ldn
 Hard/Soft: Soft

			----- Distances to Traffic Noise Contours -----				
Segment	Roadway Name	Segment Description	75	70	65	60	55
1	5th Street	West of L	8	18	39	85	183
2	5th Street	L to Pole Line	8	18	38	83	178
3	5th Street	East of Pole Line	8	18	38	83	178
4	Alhambra	South of Covell	4	8	17	36	77
5	Alhambra	West of Mace	5	11	24	52	111
6	Cantrill Drive	North of 2nd	3	7	15	32	68
7	Chiles Road	North of Cowell	8	17	37	79	171
8	Covell Blvd.	West of F	16	34	72	156	336
9	Covell Blvd.	F to J	17	36	77	167	359
10	Covell Blvd.	J to L	16	35	75	161	348
11	Covell Blvd.	L to Pole Line	16	35	74	160	345
12	Covell Blvd.	Pole Line to Birch	13	29	62	134	288
13	Covell Blvd.	Birch to Baywood	13	29	62	134	289
14	Covell Blvd.	Baywood to Manzanita	13	28	60	130	280
15	Covell Blvd.	Manzanita to Wright	13	28	60	130	280
16	Covell Blvd.	Wright to Monarch	14	30	65	139	300
17	Covell Blvd.	Monarch to Alhambra	17	36	78	167	360
18	Covell Blvd.	Alhambra to Harper JR HS	15	33	71	153	331
19	Cowell Blvd	West of Research Park	15	32	68	147	316
20	Cowell Blvd	Research Park to Drew	12	26	55	119	257
21	Cowell Blvd	Drew to Valdora	11	23	49	106	228
22	Cowell Blvd	Valdora to Lillard	9	20	43	93	201
23	Cowell Blvd	Lillard to Research Park	8	16	36	77	165
24	Cowell Blvd	Research Park to Drummond	10	21	45	97	208
25	Cowell Blvd	Drummond to Mace	4	8	18	38	82
26	Cowell Blvd	East of Mace	4	8	18	38	82
27	Danbury Street	South of Lillard	3	7	16	34	74
28	Drexel Drive	West of L	2	5	11	24	53
29	Drexel Drive	L to Pole Line	2	4	10	21	45
30	Drummond Ave.	Lillard to Cowell	3	7	16	35	75

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center
 Description: Existing Plus Mixed Use Alternative Traffic
 Ldn/CNEL: Ldn
 Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
31	F Street	North of Covell	6,200	85		15	1.0	1.0	35	50	
32	F Street	South of Covell	9,200	85		15	1.0	1.0	25	60	
33	Interstate 80	East of Mace	101,300	63		37	3.0	6.0	65	475	
34	J Street	South of Covell	3,900	85		15	1.0	1.0	25	50	
35	L Street	Covell to Drexel	3,300	85		15	1.0	1.0	25	50	
36	L Street	South of Drexel	4,600	85		15	1.0	1.0	25	50	
37	L Street	North of 5th	5,800	85		15	1.0	1.0	25	50	
38	L Street	5th to 3rd	7,600	85		15	1.0	1.0	25	50	
39	Lillard Drive	Cowell to Danbury	8,000	85		15	1.0	1.0	25	60	
40	Lillard Drive	Danbury to Drummond	4,600	85		15	1.0	1.0	25	60	
41	Lillard Drive	East of Drummond	1,300	85		15	1.0	1.0	25	60	
42	Loyola Drive	East of Pole Line	3,500	85		15	1.0	1.0	25	50	
43	Mace Blvd.	Harper JR HS to Alhambra	11,500	83		17	1.0	1.0	40	600	
44	Mace Blvd.	Alhambra to 2nd	19,400	83		17	1.0	1.0	40	115	
45	Mace Blvd.	Chiles to Cowell	11,500	83		17	1.0	1.0	40	325	
46	Mace Blvd.	Cowell to El Macero	6,800	83		17	1.0	1.0	35	65	
47	Mace Blvd.	South of El Macero	4,500	83		17	1.0	1.0	35	65	
48	Pena Drive	North of 2nd	3,800	85		15	1.0	1.0	25	55	
49	Pole Line Road	North of Covell	13,300	85		15	1.0	1.0	40	75	
50	Pole Line Road	Covell to Claremont	9,800	85		15	1.0	1.0	25	75	
51	Pole Line Road	Claremont to Loyola	9,500	85		15	1.0	1.0	25	50	
52	Pole Line Road	South of Loyola	9,400	85		15	1.0	1.0	25	50	
53	Pole Line Road	North of 5th	11,800	85		15	1.0	1.0	25	50	
54	Pole Line Road	South of 5th	10,900	85		15	1.0	1.0	30	50	
55	Research Park	North of Cowell	3,900	85		15	1.0	1.0	35	75	
56	Third Street	West of L	5,100	85		15	1.0	1.0	25	50	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center
Description: Existing Plus Mixed Use Alternative Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
31	F Street	North of Covell	60.8	50.6	55.8	62.3
32	F Street	South of Covell	57.1	48.8	56.5	60.2
33	Interstate 80	East of Mace	68.4	59.7	66.2	70.8
34	J Street	South of Covell	54.6	46.3	53.9	57.6
35	L Street	Covell to Drexel	53.9	45.6	53.2	56.9
36	L Street	South of Drexel	55.3	47.0	54.7	58.3
37	L Street	North of 5th	56.3	48.0	55.7	59.3
38	L Street	5th to 3rd	57.5	49.2	56.8	60.5
39	Lillard Drive	Cowell to Danbury	56.5	48.2	55.9	59.6
40	Lillard Drive	Danbury to Drummond	54.1	45.8	53.5	57.2
41	Lillard Drive	East of Drummond	48.6	40.3	48.0	51.7
42	Loyola Drive	East of Pole Line	54.1	45.8	53.5	57.2
43	Mace Blvd.	Harper JR HS to Alhambra	49.3	38.3	43.1	50.5
44	Mace Blvd.	Alhambra to 2nd	62.3	51.4	56.2	63.6
45	Mace Blvd.	Chiles to Cowell	53.3	42.3	47.1	54.5
46	Mace Blvd.	Cowell to El Macero	59.8	49.6	54.8	61.3
47	Mace Blvd.	South of El Macero	58.0	47.8	53.0	59.5
48	Pena Drive	North of 2nd	53.9	45.6	53.2	56.9
49	Pole Line Road	North of Covell	63.2	52.2	57.0	64.4
50	Pole Line Road	Covell to Claremont	56.0	47.7	55.3	59.0
51	Pole Line Road	Claremont to Loyola	58.5	50.2	57.8	61.5
52	Pole Line Road	South of Loyola	58.4	50.1	57.8	61.4
53	Pole Line Road	North of 5th	59.4	51.1	58.7	62.4
54	Pole Line Road	South of 5th	61.3	52.0	59.1	63.7
55	Research Park	North of Cowell	56.2	45.9	51.1	57.7
56	Third Street	West of L	55.8	47.5	55.1	58.8

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center
 Description: Existing Plus Mixed Use Alternative Traffic
 Ldn/CNEL: Ldn
 Hard/Soft: Soft

			----- Distances to Traffic Noise Contours -----				
Segment	Roadway Name	Segment Description	75	70	65	60	55
31	F Street	North of Covell	7	15	33	71	154
32	F Street	South of Covell	6	13	29	62	133
33	Interstate 80	East of Mace	248	534	1151	2480	5342
34	J Street	South of Covell	3	7	16	35	75
35	L Street	Covell to Drexel	3	7	14	31	67
36	L Street	South of Drexel	4	8	18	39	83
37	L Street	North of 5th	5	10	21	45	97
38	L Street	5th to 3rd	5	12	25	54	117
39	Lillard Drive	Cowell to Danbury	6	12	26	56	121
40	Lillard Drive	Danbury to Drummond	4	8	18	39	83
41	Lillard Drive	East of Drummond	2	4	8	17	36
42	Loyola Drive	East of Pole Line	3	7	15	32	70
43	Mace Blvd.	Harper JR HS to Alhambra	14	30	65	140	302
44	Mace Blvd.	Alhambra to 2nd	20	43	92	198	427
45	Mace Blvd.	Chiles to Cowell	14	30	65	140	302
46	Mace Blvd.	Cowell to El Macero	8	17	37	80	172
47	Mace Blvd.	South of El Macero	6	13	28	60	130
48	Pena Drive	North of 2nd	3	7	16	34	74
49	Pole Line Road	North of Covell	15	32	68	147	316
50	Pole Line Road	Covell to Claremont	6	14	30	64	138
51	Pole Line Road	Claremont to Loyola	6	14	29	63	135
52	Pole Line Road	South of Loyola	6	13	29	62	134
53	Pole Line Road	North of 5th	7	16	34	73	156
54	Pole Line Road	South of 5th	9	19	41	88	190
55	Research Park	North of Cowell	5	11	24	52	113
56	Third Street	West of L	4	9	19	42	89

Appendix I**FHWA-RD-77-108 Highway Traffic Noise Prediction Model****Data Input Sheet**

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	L to Pole Line	14,000	85		15	1.0	1	30	70	
2	Alhambra	South of Covell	3,300	85		15	1.0	1	30	60	
3	Alhambra	West of Mace	8,200	85		15	1.0	1	30	60	
4	Covell Blvd.	F to J	26,500	83		17	1.0	1	35	100	
5	Covell Blvd.	Monarch to Alhambra	18,700	83		17	1.0	1	40	75	
6	Cowell Blvd	Research Park to Drew	22,600	85		15	1.0	1	35	75	
7	Cowell Blvd	Drummond to Mace	6,700	85		15	1.0	1	25	50	
8	F Street	North of Covell	9,800	85		15	1.0	1	35	50	
9	F Street	South of Covell	7,200	85		15	1.0	1	25	75	
10	Interstate 80	East of Mace	129,400	63		37	3.0	6	65	475	
11	L Street	Covell to Drexel	4,600	85		15	1.0	1	25	50	
12	Loyola Drive	East of Pole Line	4,400	85		15	1.0	1	25	50	
13	Mace Blvd.	Harper JR HS to Alhambra	15,800	83		17	1.0	1	40	600	
14	Mace Blvd.	South of El Macero	2,700	83		17	1.0	1	35	65	
15	Pole Line Road	North of Covell	14,100	85		15	1.0	1	40	75	
16	Pole Line Road	Covell to Claremont	12,100	85		15	1.0	1	25	75	
17	Pole Line Road	North of 5th	15,100	85		15	1.0	1	25	50	
18	Pole Line Road	South of 5th	15,300	85		15	1.0	1	30	50	
19	Research Park	North of Cowell	10,700	85		15	1.0	1	35	75	

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	L to Pole Line	60.2	50.9	58.0	62.6
2	Alhambra	South of Covell	55.0	45.6	52.8	57.3
3	Alhambra	West of Mace	58.9	49.6	56.7	61.3
4	Covell Blvd.	F to J	62.9	52.7	57.9	64.4
5	Covell Blvd.	Monarch to Alhambra	65.0	54.0	58.8	66.2
6	Cowell Blvd	Research Park to Drew	63.8	53.6	58.8	65.3
7	Cowell Blvd	Drummond to Mace	56.9	48.7	56.3	60.0
8	F Street	North of Covell	62.8	52.6	57.8	64.3
9	F Street	South of Covell	54.6	46.3	54.0	57.6
10	Interstate 80	East of Mace	69.4	60.7	67.2	71.8
11	L Street	Covell to Drexel	55.3	47.0	54.7	58.3
12	Loyola Drive	East of Pole Line	55.1	46.8	54.5	58.1
13	Mace Blvd.	Harper JR HS to Alhambra	50.7	39.7	44.5	51.9
14	Mace Blvd.	South of El Macero	55.8	45.6	50.8	57.3
15	Pole Line Road	North of Covell	63.4	52.4	57.3	64.6
16	Pole Line Road	Covell to Claremont	56.9	48.6	56.2	59.9
17	Pole Line Road	North of 5th	60.5	52.2	59.8	63.5
18	Pole Line Road	South of 5th	62.8	53.5	60.6	65.2
19	Research Park	North of Cowell	60.5	50.3	55.5	62.0

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Noise Contour Output

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	----- Distances to Traffic Noise Contours -----				
			75	70	65	60	55
1	5th Street	L to Pole Line	10	22	48	104	224
2	Alhambra	South of Covell	4	9	18	40	86
3	Alhambra	West of Mace	7	16	34	73	157
4	Covell Blvd.	F to J	20	42	92	197	425
5	Covell Blvd.	Monarch to Alhambra	19	42	90	194	417
6	Cowell Blvd	Research Park to Drew	17	36	78	169	364
7	Cowell Blvd	Drummond to Mace	5	11	23	50	107
8	F Street	North of Covell	10	21	45	97	208
9	F Street	South of Covell	5	11	24	52	113
10	Interstate 80	East of Mace	292	629	1355	2919	6290
11	L Street	Covell to Drexel	4	8	18	39	83
12	Loyola Drive	East of Pole Line	4	8	17	38	81
13	Mace Blvd.	Harper JR HS to Alhambra	17	37	80	173	373
14	Mace Blvd.	South of El Macero	4	9	20	43	93
15	Pole Line Road	North of Covell	15	33	71	153	329
16	Pole Line Road	Covell to Claremont	7	16	34	74	159
17	Pole Line Road	North of 5th	9	18	40	86	184
18	Pole Line Road	South of 5th	11	24	51	110	238
19	Research Park	North of Cowell	10	22	48	103	221

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center

Description: Cumulative Mixed Use Alternative Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	5th Street	L to Pole Line	14,500	85		15	1.0	1	30	70	
2	Alhambra	South of Covell	3,700	85		15	1.0	1	30	60	
3	Alhambra	West of Mace	8,300	85		15	1.0	1	30	60	
4	Covell Blvd.	F to J	26,100	83		17	1.0	1	35	100	
5	Covell Blvd.	Monarch to Alhambra	17,200	83		17	1.0	1	40	75	
6	Cowell Blvd	Research Park to Drew	21,900	85		15	1.0	1	35	75	
7	Cowell Blvd	Drummond to Mace	7,000	85		15	1.0	1	25	50	
8	F Street	North of Covell	7,400	85		15	1.0	1	35	50	
9	F Street	South of Covell	9,000	85		15	1.0	1	25	75	
10	Interstate 80	East of Mace	124,900	63		37	3.0	6	65	475	
11	L Street	Covell to Drexel	6,400	85		15	1.0	1	25	50	
12	Loyola Drive	East of Pole Line	4,600	85		15	1.0	1	25	50	
13	Mace Blvd.	Harper JR HS to Alhambra	15,000	83		17	1.0	1	40	600	
14	Mace Blvd.	South of El Macero	4,100	83		17	1.0	1	35	65	
15	Pole Line Road	North of Covell	15,200	85		15	1.0	1	40	75	
16	Pole Line Road	Covell to Claremont	10,900	85		15	1.0	1	25	75	
17	Pole Line Road	North of 5th	13,300	85		15	1.0	1	25	50	
18	Pole Line Road	South of 5th	19,500	85		15	1.0	1	30	50	
19	Research Park	North of Covell	10,000	85		15	1.0	1	35	75	

Appendix I
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center
 Description: Cumulative Mixed Use Alternative Traffic
 Ldn/CNEL: Ldn
 Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	5th Street	L to Pole Line	60.4	51.1	58.2	62.7
2	Alhambra	South of Covell	55.5	46.1	53.2	57.8
3	Alhambra	West of Mace	59.0	49.6	56.8	61.3
4	Covell Blvd.	F to J	62.9	52.6	57.8	64.4
5	Covell Blvd.	Monarch to Alhambra	64.6	53.6	58.4	65.8
6	Cowell Blvd	Research Park to Drew	63.7	53.4	58.6	65.1
7	Cowell Blvd	Drummond to Mace	57.1	48.8	56.5	60.2
8	F Street	North of Covell	61.6	51.4	56.6	63.1
9	F Street	South of Covell	55.6	47.3	54.9	58.6
10	Interstate 80	East of Mace	69.3	60.6	67.1	71.7
11	L Street	Covell to Drexel	56.8	48.5	56.1	59.8
12	Loyola Drive	East of Pole Line	55.3	47.0	54.7	58.3
13	Mace Blvd.	Harper JR HS to Alhambra	50.5	39.5	44.3	51.7
14	Mace Blvd.	South of El Macero	57.6	47.4	52.6	59.1
15	Pole Line Road	North of Covell	63.7	52.8	57.6	65.0
16	Pole Line Road	Covell to Claremont	56.4	48.1	55.8	59.4
17	Pole Line Road	North of 5th	59.9	51.6	59.3	63.0
18	Pole Line Road	South of 5th	63.9	54.5	61.7	66.2
19	Research Park	North of Cowell	60.3	50.0	55.2	61.7

Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center
 Description: Existing + Mixed-Use Alternative Project Traffic
 Ldn/CNEL: Ldn
 Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Interstate 80	Project Site - Hotel	101,300	63		37	3	6	65	1200	-5
2	Interstate 80	Project Site - North-South Commons	101,300	63		37	3	6	65	950	-5
3	Interstate 80	Project Site - The Oval	101,300	63		37	3	6	65	2300	-5
4	Interstate 80	Project Site - East-West Commons	101,300	63		37	3	6	65	2000	-5
5	Interstate 80	Project Site - Courtyard Plaza	101,300	63		37	3	6	65	1500	-5
6	Mace Blvd.	Project Site - Hotel	19,400	83		17	1	1	40	170	
7	Mace Blvd.	Project Site - North-South Commons	19,400	83		17	1	1	40	775	
8	Mace Blvd.	Project Site - The Oval	19,400	83		17	1	1	40	440	
9	Mace Blvd.	Project Site - East-West Commons	19,400	83		17	1	1	40	440	
10	Mace Blvd.	Project Site - Courtyard Plaza	19,400	83		17	1	1	40	465	-5
11	Interstate 80	Project Site - Residential	101,300	63		37	3	6	65	2400	-5
12	Mace Blvd.	Project Site - Residential	19,400	83		17	1	1	40	170	-5

Appendix I
FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center
 Description: Existing + Mixed-Use Alternative Project Traffic
 Ldn/CNEL: Ldn
 Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	Autos	Medium Trucks	Heavy Trucks	Total
1	Interstate 80	Project Site - Hotel	57	49	55	60
2	Interstate 80	Project Site - North-South Commons	59	50	57	61
3	Interstate 80	Project Site - The Oval	53	44	51	55
4	Interstate 80	Project Site - East-West Commons	54	45	52	56
5	Interstate 80	Project Site - Courtyard Plaza	56	47	54	58
6	Mace Blvd.	Project Site - Hotel	60	49	54	61
7	Mace Blvd.	Project Site - North-South Commons	50	39	44	51
8	Mace Blvd.	Project Site - The Oval	54	43	47	55
9	Mace Blvd.	Project Site - East-West Commons	54	43	47	55
10	Mace Blvd.	Project Site - Courtyard Plaza	48	37	42	49
11	Interstate 80	Project Site - Residential	53	44	51	55
12	Mace Blvd.	Project Site - Residential	55	44	49	56



Appendix I

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Data Input Sheet

Project #: 2014-216 Mace Ranch Innovation Center
Description: Cumulative + Mixed-Use Alternative Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Interstate 80	Project Site - Hotel	124,900	63		37	3	6	65	1200	-5
2	Interstate 80	Project Site - North-South Commons	124,900	63		37	3	6	65	950	-5
3	Interstate 80	Project Site - The Oval	124,900	63		37	3	6	65	2300	-5
4	Interstate 80	Project Site - East-West Commons	124,900	63		37	3	6	65	2000	-5
5	Interstate 80	Project Site - Courtyard Plaza	124,900	63		37	3	6	65	1500	-5
6	Mace Blvd.	Project Site - Hotel	15,000	83		17	1	1	40	170	
7	Mace Blvd.	Project Site - North-South Commons	15,000	83		17	1	1	40	775	
8	Mace Blvd.	Project Site - The Oval	15,000	83		17	1	1	40	440	
9	Mace Blvd.	Project Site - East-West Commons	15,000	83		17	1	1	40	440	
10	Mace Blvd.	Project Site - Courtyard Plaza	15,000	83		17	1	1	40	465	-5
11	Interstate 80	Project Site - Residential	124,900	63		37	3	6	65	2400	-5
12	Mace Blvd.	Project Site - Residential	15,000	83		17	1	1	40	170	-5

Appendix I
FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Predicted Levels

Project #: 2014-216 Mace Ranch Innovation Center
Description: Cumulative + Mixed-Use Alternative Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Lot Numbers	Autos	Medium Trucks	Heavy Trucks	Total
1	Interstate 80	Project Site - Hotel	58	50	56	61
2	Interstate 80	Project Site - North-South Commons	60	51	58	62
3	Interstate 80	Project Site - The Oval	54	45	52	56
4	Interstate 80	Project Site - East-West Commons	55	46	53	57
5	Interstate 80	Project Site - Courtyard Plaza	57	48	55	59
6	Mace Blvd.	Project Site - Hotel	59	48	53	60
7	Mace Blvd.	Project Site - North-South Commons	49	38	43	50
8	Mace Blvd.	Project Site - The Oval	52	41	46	54
9	Mace Blvd.	Project Site - East-West Commons	52	41	46	54
10	Mace Blvd.	Project Site - Courtyard Plaza	47	36	41	48
11	Interstate 80	Project Site - Residential	54	45	52	56
12	Mace Blvd.	Project Site - Residential	54	43	48	55