

APPENDIX B

AIR QUALITY CALCULATIONS

Carbon Monoxide Calculation

Existing Conditions Plus Project Option 1

Variable	Value	Source
CO (1hr)	2.1	www.epa.gov/air/data
CO (8hr)	1.5	www.epa.gov/air/data
Efi	4.63	Table 10, BAAQMD CEQA Guidelines

[illegible]

Existing Plus Project Option 1

Intersection	Ci	Ci + C (1hr)	Ci + C (8hr)
1	1.1575	3.26	2.66
2	0.8602	2.96	2.36
3	0.7032	2.80	2.20
4	0.7490	2.85	2.25
5	1.7722	3.87	3.27
6	1.1160	3.22	2.62
7	1.5313	3.63	3.03
8	2.1988	4.30	3.70
9	1.7470	3.85	3.25
10	1.7597	3.86	3.26
11	1.4817	3.58	2.98
12	0.3284	2.43	1.83
13	0.3007	2.40	1.80
14	0.1767	2.28	1.68
15	0.3530	2.45	1.85
16	0.2072	2.31	1.71
17	0.0986	2.20	1.60
18	1.2797	3.38	2.78

Carbon Monoxide Calculation
Existing

Variable	Value	Source
C0 (1hr)	2.1	www.epa.gov/air/data
C0 (8hr)	1.5	www.epa.gov/air/data
Efi	4.63	Table 10, BAAQMD CEQA Guidelines

Intersection	Ref. Con.	Traffic Vol.	Emission Factor	Road Concentrat
1 Primary	14	1438	4.63	0.9321116
Secondary	3.7	1168	4.63	0.20009008
2 Primary	14	1274	4.63	0.8258068
Secondary	3.7	140	4.63	0.0239834
3 Primary	14	1005	4.63	0.651441
Secondary	3.7	283	4.63	0.04848073
4 Primary	14	969	4.63	0.6281058
Secondary	3.7	264	4.63	0.04522584
5 Primary	14	2396	4.63	1.5530872
Secondary	3.7	1196	4.63	0.20488676
6 Primary	14	1507	4.63	0.9768374
Secondary	3.7	791	4.63	0.13550621
7 Primary	14	1912	4.63	1.2393584
Secondary	3.7	1685	4.63	0.28865735
8 Primary	14	2764	4.63	1.7916248
Secondary	3.7	1609	4.63	0.27563779
9 Primary	11.9	2740	4.63	1.5096578
Secondary	3.7	786	4.63	0.13464966
10 Primary	11.9	2827	4.63	1.55759219
Secondary	3.7	786	4.63	0.13464966
11 Primary	11.9	2349	4.63	1.29422853
Secondary	3.7	762	4.63	0.13053822
12 Primary	11.9	476	4.63	0.26226172
Secondary	3.7	67	4.63	0.01147777
13 Primary	11.9	350	4.63	0.1928395
Secondary	3.7	65	4.63	0.01113515
14 Primary	11.9	176	4.63	0.09697072
Secondary	3.7	160	4.63	0.0274096
15 Primary	11.9	132	4.63	0.07272804
Secondary	3.7	872	4.63	0.14938232
16 Primary	11.9	285	4.63	0.15702645
Secondary	3.7	112	4.63	0.01918672
17 Primary	11.9	117	4.63	0.06446349
Secondary	3.7	99	4.63	0.01695969
18 Primary	11.9	1930	4.63	1.0633721
Secondary	3.7	60	4.63	0.0102786

Existing

Intersection	Ci	Ci + C (1hr)	Ci + C (8hr)
1	1.1	3.2	2.6
2	0.8	2.9	2.3
3	0.7	2.8	2.2
4	0.7	2.8	2.2
5	1.8	3.9	3.3
6	1.1	3.2	2.6
7	1.5	3.6	3.0
8	2.1	4.2	3.6
9	1.6	3.7	3.1
10	1.7	3.8	3.2
11	1.4	3.5	2.9
12	0.3	2.4	1.8
13	0.2	2.3	1.7
14	0.1	2.2	1.6
15	0.2	2.3	1.7
16	0.2	2.3	1.7
17	0.1	2.2	1.6
18	1.1	3.2	2.6

Carbon Monoxide Calculation Cumulative PP Opt. 1

Variable	Value	Source
C0 (1hr)	2.1	www.epa.gov/air/data
C0 (8hr)	1.5	www.epa.gov/air/data
Efi	4.63	Table 10, BAAQMD CEQA Guidelines

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Cumulative PP Option 1

ersection	Cl + C (1hr)	+ C (8hr)	
1	1.5628	3.66	3.06
2	1.1292	3.23	2.63
3	1.0286	3.13	2.53
4	1.0631	3.16	2.56
5	2.9786	5.08	4.48
6	1.6367	3.74	3.14
7	2.0231	4.12	3.52
8	2.9731	5.07	4.47
9	2.3128	4.41	3.81
10	2.3260	4.43	3.83
11	2.4824	4.58	3.98
12	0.4539	2.55	1.95
13	0.3710	2.47	1.87
14	0.2223	2.32	1.72
15	0.4490	2.55	1.95
16	0.2988	2.40	1.80
17	0.1335	2.23	1.63
18	2.2023	4.30	3.70

Carbon Monoxide Calculation Cumulative PP Option 2

Variable	Value	Source
C0 (1hr)	2.1	www.epa.gov/air/data
C0 (8hr)	1.5	www.epa.gov/air/data
Efi	4.63	Table 10, BAAQMD CEQA Guidelines

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Cumulative PP Opt. 2

ersection	Cl + C (1hr)	+ C (8hr)
1	1.5631	3.66
2	1.1299	3.23
3	1.0299	3.13
4	1.0936	3.19
5	2.9786	5.08
6	1.6357	3.74
7	2.0237	4.12
8	2.9731	5.07
9	2.3128	4.41
10	2.3260	4.43
11	2.4824	4.58
12	0.4317	2.53
13	0.3762	2.48
14	0.1974	2.30
15	0.4736	2.57
16	0.2975	2.40
17	0.1361	2.24
18	2.2036	4.30

Carbon Monoxide Calculation Cumulative No Project

Variable	Value	Source
C0 (1hr)	2.1	www.epa.gov/air/data
C0 (8hr)	1.5	www.epa.gov/air/data
Efi	4.63	Table 10, BAAQMD CEQA Guidelines

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Cumulative

ersection	Cl + C (1hr)	C (8hr)
1	1.5375	3.64
2	1.1188	3.22
3	1.0253	3.13
4	0.9874	3.09
5	2.9644	5.06
6	1.6331	3.73
7	2.0198	4.12
8	2.8416	4.94
9	2.2101	4.31
10	2.2586	4.36
11	2.4254	4.53
12	0.3992	2.50
13	0.3083	2.41
14	0.1870	2.29
15	0.3310	2.43
16	0.2955	2.40
17	0.1277	2.23
18	2.1840	4.28

Intersection	Existing		Existing plus Project - Access Option 1		Existing plus Project - Access Option 2	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour

1	3.2	2.6	3.3	2.7	3.3	2.7
2	2.9	2.3	3.0	2.4	3.0	2.4
3	2.8	2.2	2.8	2.2	2.8	2.2
4	2.8	2.2	2.8	2.2	2.9	2.3
5	3.9	3.3	3.9	3.3	3.9	3.3
6	3.2	2.6	3.2	2.6	3.2	2.6
7	3.6	3.0	3.6	3.0	3.6	3.0
8	4.2	3.6	4.3	3.7	4.3	3.7
9	3.7	3.1	3.8	3.2	3.8	3.2
10	3.8	3.2	3.9	3.3	3.9	3.3
11	3.5	2.9	3.6	3.0	3.6	3.0
12	2.4	1.8	2.4	1.8	2.4	1.8
13	2.3	1.7	2.4	1.8	2.4	1.8
14	2.2	1.6	2.3	1.7	2.2	1.6
15	2.3	1.7	2.5	1.9	2.4	1.8
16	2.3	1.7	2.3	1.7	2.3	1.7
17	2.2	1.6	2.2	1.6	2.2	1.6
18	3.2	2.6	3.4	2.8	3.2	2.6

Cumulative (2030)	Cumulative plus Project - Access Option 1	Cumulative plus Project - Access Option 2
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1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
3.6	3.0	3.7	3.1	3.7	3.1
3.2	2.6	3.2	2.6	3.2	2.6
3.1	2.5	3.1	2.5	3.1	2.5
3.1	2.5	3.2	2.6	3.2	2.6
5.1	4.5	5.1	4.5	5.1	4.5
3.7	3.1	3.7	3.1	3.7	3.1
4.1	3.5	4.1	3.5	4.1	3.5
4.9	4.3	5.1	4.5	5.1	4.5
4.3	3.7	4.4	3.8	4.4	3.8
4.4	3.8	4.4	3.8	4.4	3.8
4.5	3.9	4.6	4.0	4.6	4.0
2.5	1.9	2.6	2.0	2.5	1.9
2.4	1.8	2.5	1.9	2.5	1.9
2.3	1.7	2.3	1.7	2.3	1.7
2.4	1.8	2.5	1.9	2.6	2.0
2.4	1.8	2.4	1.8	2.4	1.8
2.2	1.6	2.2	1.6	2.2	1.6
4.3	3.7	4.3	3.7	4.3	3.7