APPENDIX C

Air Quality and Greenhouse Gas Emissions

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Criteria Pollutant and Greenhouse Gas Emission Calculations

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Off-Road Construction Emissions during Alternative 1

TABLE 1
ALTERNATIVE 1 EQUIPMENT LIST

OFFROAD Equipment Type	Horsepower	Load Factor
Backhoe	98	0.5
Crane	226	0.29
Drill Rig	206	0.5
Forklift	89	0.2
Generator Set	84	0.74
Grader	175	0.41
Loader	200	0.36
Note: Equipment horse power and load factors were obtained from CalEEMod User's Guide, Appendix D, 2013.		

TABLE 2
ALTERNATIVE 1 UNMITIGATED CONSTRUCTION EMISSIONS FACTORS

Equipment	Model Year	Unmitigated Emission Factors (g/bhp-hr)							
		ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
Bore/Drill Rigs	2017	0.1735	1.1021	2.5215	0.0048	0.0725	0.0667	494.1381	0.1514
Bore/Drill Rigs	2018	0.1545	1.07328	2.15308	0.0048	0.0608	0.056	484.5605	0.1509
Bore/Drill Rigs	2019	0.1434	1.06058	1.8943	0.0048	0.0537	0.0494	475.7896	0.1505
Bore/Drill Rigs	2023	0.1104	1.04309	1.04653	0.0049	0.0339	0.0312	469.7058	0.1519
Cranes	2017	0.5606	2.38452	6.65526	0.0049	0.2967	0.273	499.3721	0.153
Cranes	2018	0.4831	2.13445	5.77298	0.0049	0.2499	0.2299	491.4069	0.153
Cranes	2019	0.4266	1.94079	5.0842	0.0049	0.2155	0.1983	483.4616	0.153
Cranes	2023	0.2974	1.55262	3.22938	0.0049	0.1349	0.1241	472.9738	0.153
Forklifts	2017	0.6719	3.97881	5.81772	0.0049	0.48	0.4416	497.7245	0.1525
Forklifts	2018	0.5674	3.85819	5.0153	0.0049	0.4002	0.3682	489.8657	0.1525
Forklifts	2019	0.5095	3.80391	4.54965	0.0049	0.3525	0.3243	482.0069	0.1525
Forklifts	2023	0.3266	3.64655	3.0569	0.0049	0.1889	0.1738	471.5285	0.1525
Generator Sets	2017	0.356	2.931	3.347	0.006	0.151	0.151	568.299	0.032
Generator Sets	2018	0.319	2.93	2.989	0.006	0.133	0.133	568.299	0.028
Generator Sets	2019	0.29	2.929	2.669	0.006	0.118	0.118	568.299	0.026
Generator Sets	2023	0.211	2.927	1.635	0.006	0.071	0.071	568.299	0.019
Graders	2017	0.7571	3.84518	7.66265	0.0049	0.4304	0.396	506.7478	0.1553
Graders	2018	0.6614	3.70957	6.60465	0.0049	0.3713	0.3416	497.3767	0.1548
Graders	2019	0.6088	3.65586	6.01354	0.0049	0.3365	0.3096	489.0419	0.1547
Graders	2023	0.3898	3.45006	3.54785	0.0049	0.1953	0.1797	478.4629	0.1547
Rubber Tired Loaders	2017	0.3727	1.4172	4.75473	0.0048	0.162	0.149	495.9499	0.152
Rubber Tired Loaders	2018	0.3335	1.34644	4.13133	0.0048	0.1401	0.1289	487.9023	0.1519
Rubber Tired Loaders	2019	0.3094	1.30248	3.74452	0.0048	0.1255	0.1155	480.0997	0.1519
Rubber Tired Loaders	2023	0.2099	1.17136	2.05963	0.0049	0.069	0.0635	469.824	0.152
Tractors/Loaders/Backhoes	2017	0.5005	3.7818	4.8087	0.0049	0.3616	0.3327	502.7952	0.1541
Tractors/Loaders/Backhoes	2018	0.4204	3.69155	4.15444	0.0049	0.2943	0.2708	494.1237	0.1538
Tractors/Loaders/Backhoes	2019	0.3678	3.63777	3.69257	0.0049	0.2465	0.2268	485.8548	0.1537
Tractors/Loaders/Backhoes	2023	0.2391	3.52504	2.42607	0.0049	0.1198	0.1102	476.4307	0.1541

Source: CalEEMod User's Guide, Appendix D, Table 3.4, 2013.

TABLE 3
ALTERNATIVE 1 MITIGATED CONSTRUCTION EMISSIONS FACTORS

Equipment	Tier 4 Emission Factors (g/bhp-hr)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
Bore/Drill Rigs Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Cranes Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Forklifts Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-
Generator Sets Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-
Graders Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Rubber Tired Loaders Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Tractors/Loaders/Backhoes Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-

Source: CalEEMod User's Guide, Appendix D, Table 3.5, 2013.

TABLE 4
ALTERNATIVE 1 UNMITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Unmitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
1a. Remove and relocate existing gas line	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
2a. Create swale (10,000 CY wet cut)	5.06	26.68	55.53	0.05	2.70	2.50	5,293.77	1.47
3a. Remove existing inactive gas line	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
3b. Cut and cap gas line at Fiji Way	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
4b. Construct new pedestrian/bike bridge over Ballona Creek	5.42	34.27	56.31	0.06	2.95	2.77	6,367.09	1.33
9a. Drill new well at SoCal Gas Plant to replace Del Ray 12	13.79	93.94	143.89	0.20	6.82	6.52	19,143.36	3.06
25a. Drill new well at SoCal Gas Plant to replace Del Ray 19	13.79	93.94	143.89	0.20	6.82	6.52	19,143.36	3.06
29a. Drill new well at SoCal Gas Plant to replace Del Rey 9 and Vidor 18	13.79	93.94	143.89	0.20	6.82	6.52	19,143.36	3.06
29b. Abandon and plug Vidor 1, 2, 3, 5, 14, 18 and Del Rey 4, 5, 9, 11	1.06	7.82	12.37	0.02	0.45	0.43	2,281.04	0.47
9b. Abandon and plug Del Ray 12	1.06	7.82	12.37	0.02	0.45	0.43	2,281.04	0.47
4a. Construct temporary & portion of final re-routed trail to existing trail	3.72	18.60	42.16	0.04	1.99	1.83	4,029.47	1.23
4c. Reroute Ballona Creek Bike Trail under Culver Blvd Bridge	3.72	18.60	42.16	0.04	1.99	1.83	4,029.47	1.23
5a. Build Lincoln Bridge next to Culver Bridge to connect Area A to Area C North	3.20	19.65	34.63	0.04	1.62	1.53	4,233.75	0.83
6a. Remove vegetation from Area A (54,400 CY dry cut)	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
6b. Remove trash	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
6c. Stockpile	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
7a. Remove 36" concrete pipe near center of Area A	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
7c. Dig below (over excavate) future levees (25,200 CY dry cut)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
8a. Grade and construct new levee around Area A (125,300 CY fill)	5.42	34.27	56.31	0.06	2.95	2.77	6,367.09	1.33
9c. Remove/relocate existing pipelines	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
10a. Remove vegetation from Area B North and interim levee (25,000 CY wet cut)	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
10b. Remove trash	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
11a. Excavate Area B North (56,700 CY wet cut)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
11b. Dig below (over excavate) future levees (11,400k CY wet cut)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
29c. Remove existing pipelines	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52

TABLE 4 (Continued)
ALTERNATIVE 1 UNMITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Unmitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
30a. Remove vegetation around wells (2,000 CY)	5.06	26.68	55.53	0.05	2.70	2.50	5,293.77	1.47
31a. Finish grading around wells	5.06	26.68	55.53	0.05	2.70	2.50	5,293.77	1.47
12a. Construct Area B levees (452,800 CY fill = total import from Area A = 566,000 CY)	12.28	68.03	131.26	0.12	6.84	6.32	12,377.19	3.48
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
26a. Remove vegetation around wells (2,000 CY)	4.44	25.82	48.16	0.05	2.31	2.13	5,214.18	1.46
27a. Excavate Area A and Export to West Area B (208,000 CY)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
13a. Remove vegetation in Area B East (4,600 CY wet cut)	4.44	25.82	48.16	0.05	2.31	2.13	5,214.18	1.46
13b. Stockpile and prepare for fill	7.81	42.05	85.86	0.09	3.96	3.65	8,951.28	2.62
14a. Grade Area B east and import from Area A (80,000 CY import from Area A)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
28a. Finish grading around wells	4.44	25.82	48.16	0.05	2.31	2.13	5,214.18	1.46
28b. Re-establish upland vegetation	4.44	25.82	48.16	0.05	2.31	2.13	5,214.18	1.46
15b. Clear vegetation from Area C North (56,000 CY dry cut) & South (15,000 CY dry cut)	7.81	42.05	85.86	0.09	3.96	3.65	8,951.28	2.62
15c. Re-align and replace Marina ditch (45,000 CY wet cut)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
16a. Excavate Area A and export to C South (300,000 CY total)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
16b. Excavate Area A and export to C North (720,000 CY ultimate total; 420,000 CY to C North)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
18a. Install culverts under Culver/Jefferson Blvd, Gas Co Rd, and FWM berm; modify existing culvert under west end of Culver Blvd.	4.07	25.37	43.55	0.05	2.04	1.89	5,139.16	1.46
19a. Excavate Ballona Creek Channel in Areas A and B North (277,800 CY cut)	8.89	56.54	93.34	0.10	4.79	4.41	9,890.42	3.13
20a. Install temporary pipe	1.48	9.42	15.56	0.02	0.80	0.73	1,648.40	0.52
20b. Temporary block then fill existing Ballona Creek (269,100 CY fill from Seq 19)	8.89	56.54	93.34	0.10	4.79	4.41	9,890.42	3.13
17a. Finish grading Area C South	3.08	18.51	30.44	0.02	1.70	1.57	2,475.44	0.78
18b. Remove existing FWM pipes and outlets	4.07	25.37	43.55	0.05	2.04	1.89	5,139.16	1.46
21a. Remove old Ballona Creek levee (424,400CY) and excavate new channel meanders - Export to Area C North, quantities included in Sequence 16, ultimate.	8.89	56.54	93.34	0.10	4.79	4.41	9,890.42	3.13
18c. Construct new FWM outlet and spillway	4.07	25.37	43.55	0.05	2.04	1.89	5,139.16	1.46
22a. Construct maintenance and fire road in Area B West	2.98	17.53	33.01	0.04	1.49	1.37	3,897.27	1.23
22b. Reconstruct Area B parking lot	2.98	17.53	33.01	0.04	1.49	1.37	3,897.27	1.23
23a. Construct bike and ped trails on levees	2.98	17.53	33.01	0.04	1.49	1.37	3,897.27	1.23

TABLE 4 (Continued)
ALTERNATIVE 1 UNMITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Unmitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
23b. Construct County Parking Structure Foundation	5.87	36.61	61.94	0.08	2.91	2.70	7,444.36	2.02
23c. Construct County Parking Structure	3.02	18.43	33.94	0.05	1.36	1.27	4,663.44	1.14
24a. Export final excess dirt quantity (Assume up to 110,000 CY)	0.79	3.31	9.51	0.01	0.32	0.29	1,219.32	0.39
34a. Breach existing levee in Area B West and place in Stability berms (75,000 CY wet = 26,000 + 49,000)	5.80	53.40	55.21	0.10	2.63	2.42	9,682.94	3.13
32a. Remove vegetation in Area B West (76,000 CY)	4.75	38.66	44.87	0.09	1.97	1.82	8,641.30	2.61
33a. Install temporary flexible storm drain	2.70	23.98	25.43	0.05	1.13	1.05	5,043.91	1.45
33b. Dig below (over excavate) levees (10,800k CY wet cut)	6.46	61.71	60.70	0.12	2.85	2.63	11,782.28	3.45
33c. Grade Area B West channels, construct salt pan berm, and construct levee with import from stockpile from Area B North and East at 248,000 CY (31,200 + 216,800 CY (291,800 less 49,000 and 26,000))	6.46	61.71	60.70	0.12	2.85	2.63	11,782.28	3.45
35a. Construct maintenance and fire access road and bike path on new levee.	1.97	16.41	19.14	0.04	0.80	0.74	3,815.40	1.23
36a. Finish grading Area B East	1.97	17.46	17.96	0.02	0.99	0.91	2,421.89	0.78

TABLE 5
ALTERNATIVE 1 MITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Mitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
1a. Remove and relocate existing gas line	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
2a. Create swale (10,000 CY wet cut)	0.63	26.68	2.71	0.05	0.08	0.08	5,293.77	1.47
3a. Remove existing inactive gas line	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
3b. Cut and cap gas line at Fiji Way	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
4b. Construct new pedestrian/bike bridge over Ballona Creek	0.73	34.27	3.16	0.06	0.10	0.10	6,367.09	1.33
9a. Drill new well at SoCal Gas Plant to replace Del Ray 12	2.14	93.94	9.27	0.20	0.29	0.29	19,143.36	3.06
25a. Drill new well at SoCal Gas Plant to replace Del Ray 19	2.14	93.94	9.27	0.20	0.29	0.29	19,143.36	3.06
29a. Drill new well at SoCal Gas Plant to replace Del Rey 9 and Vidor 18	2.14	93.94	9.27	0.20	0.29	0.29	19,143.36	3.06
29b. Abandon and plug Vidor 1, 2, 3, 5, 14, 18 and Del Rey 4, 5, 9, 11	0.26	7.82	1.14	0.02	0.03	0.03	2,281.04	0.47
9b. Abandon and plug Del Ray 12	0.26	7.82	1.14	0.02	0.03	0.03	2,281.04	0.47
4a. Construct temporary & portion of final re-routed trail to existing trail	0.48	18.60	2.10	0.04	0.06	0.06	4,029.47	1.23
4c. Reroute Ballona Creek Bike Trail under Culver Blvd Bridge	0.48	18.60	2.10	0.04	0.06	0.06	4,029.47	1.23
5a. Build Lincoln Bridge next to Culver Bridge to connect Area A to Area C North	0.48	19.65	2.09	0.04	0.06	0.06	4,233.75	0.83
6a. Remove vegetation from Area A (54,400 CY dry cut)	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
6b. Remove trash	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
6c. Stockpile	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
7a. Remove 36" concrete pipe near center of Area A	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
7c. Dig below (over excavate) future levees (25,200 CY dry cut)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
8a. Grade and construct new levee around Area A (125,300 CY fill)	0.73	34.27	3.16	0.06	0.10	0.10	6,367.09	1.33
9c. Remove/relocate existing pipelines	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
10a. Remove vegetation from Area B North and interim levee (25,000 CY wet cut)	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
10b. Remove trash	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
11a. Excavate Area B North (56,700 CY wet cut)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
11b. Dig below (over excavate) future levees (11,400k CY wet cut)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
29c. Remove existing pipelines	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
30a. Remove vegetation around wells (2,000 CY)	0.63	26.68	2.71	0.05	0.08	0.08	5,293.77	1.47
31a. Finish grading around wells	0.63	26.68	2.71	0.05	0.08	0.08	5,293.77	1.47

TABLE 5 (Continued)
ALTERNATIVE 1 MITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Mitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
12a. Construct Area B levees (452,800 CY fill = total import from Area A = 566,000 CY)	1.46	68.03	6.35	0.12	0.20	0.20	12,377.19	3.48
26a. Remove vegetation around wells (2,000 CY)	0.63	25.82	2.71	0.05	0.08	0.08	5,214.18	1.46
27a. Excavate Area A and Export to West Area B (208,000 CY)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
13a. Remove vegetation in Area B East (4,600 CY wet cut)	0.63	25.82	2.71	0.05	0.08	0.08	5,214.18	1.46
13b. Stockpile and prepare for fill	1.08	42.05	4.69	0.09	0.14	0.14	8,951.28	2.62
14a. Grade Area B east and import from Area A (80,000 CY import from Area A)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
28a. Finish grading around wells	0.63	25.82	2.71	0.05	0.08	0.08	5,214.18	1.46
28b. Re-establish upland vegetation	0.63	25.82	2.71	0.05	0.08	0.08	5,214.18	1.46
15b. Clear vegetation from Area C North (56,000 CY dry cut) & South (15,000 CY dry cut)	1.08	42.05	4.69	0.09	0.14	0.14	8,951.28	2.62
15c. Re-align and replace Marina ditch (45,000 CY wet cut)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
16a. Excavate Area A and export to C South (300,000 CY total)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
16b. Excavate Area A and export to C North (720,000 CY ultimate total; 420,000 CY to C North)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
18a. Install culverts under Culver/Jefferson Blvd, Gas Co Rd, and FWM berm; modify existing culvert under west end of Culver Blvd.	0.63	25.37	2.71	0.05	0.08	0.08	5,139.16	1.46
19a. Excavate Ballona Creek Channel in Areas A and B North (277,800 CY cut)	1.22	56.54	5.30	0.10	0.16	0.16	9,890.42	3.13
20a. Install temporary pipe	0.20	9.42	0.88	0.02	0.03	0.03	1,648.40	0.52
20b. Temporary block then fill existing Ballona Creek (269,100 CY fill from Seq 19)	1.22	56.54	5.30	0.10	0.16	0.16	9,890.42	3.13
17a. Finish grading Area C South	0.30	18.51	1.32	0.02	0.04	0.04	2,475.44	0.78
18b. Remove existing FWM pipes and outlets	0.63	25.37	2.71	0.05	0.08	0.08	5,139.16	1.46
21a. Remove old Ballona Creek levee (424,400CY) and excavate new channel meanders - Export to Area C North, quantities included in Sequence 16, ultimate.	1.22	56.54	5.30	0.10	0.16	0.16	9,890.42	3.13
18c. Construct new FWM outlet and spillway	0.63	25.37	2.71	0.05	0.08	0.08	5,139.16	1.46
22a. Construct maintenance and fire road in Area B West	0.48	17.53	2.10	0.04	0.06	0.06	3,897.27	1.23
22b. Reconstruct Area B parking lot	0.48	17.53	2.10	0.04	0.06	0.06	3,897.27	1.23
23a. Construct bike and ped trails on levees	0.48	17.53	2.10	0.04	0.06	0.06	3,897.27	1.23
23b. Construct County Parking Structure Foundation	0.90	36.61	3.90	0.08	0.12	0.12	7,444.36	2.02
23c. Construct County Parking Structure	0.56	18.43	2.42	0.05	0.07	0.07	4,663.44	1.14

TABLE 5 (Continued)
ALTERNATIVE 1 MITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Mitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
24a. Export final excess dirt quantity (Assume up to 110,000 CY)	0.15	3.31	0.66	0.01	0.02	0.02	1,219.32	0.39
34a. Breach existing levee in Area B West and place in Stability berms (75,000 CY wet = 26,000 + 49,000)	1.22	53.40	5.30	0.10	0.16	0.16	9,682.94	3.13
32a. Remove vegetation in Area B West (76,000 CY)	1.08	38.66	4.69	0.09	0.14	0.14	8,641.30	2.61
33a. Install temporary flexible storm drain	0.63	23.98	2.71	0.05	0.08	0.08	5,043.91	1.45
33b. Dig below (over excavate) levees (10,800k CY wet cut)	1.46	61.71	6.35	0.12	0.20	0.20	11,782.28	3.45
33c. Grade Area B West channels, construct salt pan berm, and construct levee with import from stockpile from Area B North and East at 248,000 CY (31,200 + 216,800 CY (291,800 less 49,000 and 26,000))	1.46	61.71	6.35	0.12	0.20	0.20	11,782.28	3.45
35a. Construct maintenance and fire access road and bike path on new levee.	0.48	16.41	2.10	0.04	0.06	0.06	3,815.40	1.23
36a. Finish grading Area B East	0.30	17.46	1.32	0.02	0.04	0.04	2,421.89	0.78

Off-Road Construction Emissions during Alternative 2

TABLE 6
ALTERNATIVE 2 EQUIPMENT LIST

OFFROAD Equipment Type	Horsepower	Load Factor
Backhoe	98	0.5
Crane	226	0.29
Drill Rig	206	0.5
Forklift	89	0.2
Generator Set	84	0.74
Grader	175	0.41
Loader	200	0.36
Note: Equipment horse power and load factors were obtained from CalEEMod User's Guide, Appendix D, 2013.		

TABLE 7
ALTERNATIVE 2 UNMITIGATED CONSTRUCTION EMISSIONS FACTORS

Equipment	Model Year	Unmitigated Emission Factors (g/bhp-hr)							
		ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
Bore/Drill Rigs	2017	0.1735	1.1021	2.5215	0.0048	0.0725	0.0667	494.1381	0.1514
Bore/Drill Rigs	2018	0.1545	1.07328	2.15308	0.0048	0.0608	0.056	484.5605	0.1509
Bore/Drill Rigs	2019	0.1434	1.06058	1.8943	0.0048	0.0537	0.0494	475.7896	0.1505
Bore/Drill Rigs	2023	0.1104	1.04309	1.04653	0.0049	0.0339	0.0312	469.7058	0.1519
Cranes	2017	0.5606	2.38452	6.65526	0.0049	0.2967	0.273	499.3721	0.153
Cranes	2018	0.4831	2.13445	5.77298	0.0049	0.2499	0.2299	491.4069	0.153
Cranes	2019	0.4266	1.94079	5.0842	0.0049	0.2155	0.1983	483.4616	0.153
Cranes	2023	0.2974	1.55262	3.22938	0.0049	0.1349	0.1241	472.9738	0.153
Forklifts	2017	0.6719	3.97881	5.81772	0.0049	0.48	0.4416	497.7245	0.1525
Forklifts	2018	0.5674	3.85819	5.0153	0.0049	0.4002	0.3682	489.8657	0.1525
Forklifts	2019	0.5095	3.80391	4.54965	0.0049	0.3525	0.3243	482.0069	0.1525
Forklifts	2023	0.3266	3.64655	3.0569	0.0049	0.1889	0.1738	471.5285	0.1525
Generator Sets	2017	0.356	2.931	3.347	0.006	0.151	0.151	568.299	0.032
Generator Sets	2018	0.319	2.93	2.989	0.006	0.133	0.133	568.299	0.028
Generator Sets	2019	0.29	2.929	2.669	0.006	0.118	0.118	568.299	0.026
Generator Sets	2023	0.211	2.927	1.635	0.006	0.071	0.071	568.299	0.019
Graders	2017	0.7571	3.84518	7.66265	0.0049	0.4304	0.396	506.7478	0.1553
Graders	2018	0.6614	3.70957	6.60465	0.0049	0.3713	0.3416	497.3767	0.1548
Graders	2019	0.6088	3.65586	6.01354	0.0049	0.3365	0.3096	489.0419	0.1547
Graders	2023	0.3898	3.45006	3.54785	0.0049	0.1953	0.1797	478.4629	0.1547
Rubber Tired Loaders	2017	0.3727	1.4172	4.75473	0.0048	0.162	0.149	495.9499	0.152
Rubber Tired Loaders	2018	0.3335	1.34644	4.13133	0.0048	0.1401	0.1289	487.9023	0.1519
Rubber Tired Loaders	2019	0.3094	1.30248	3.74452	0.0048	0.1255	0.1155	480.0997	0.1519
Rubber Tired Loaders	2023	0.2099	1.17136	2.05963	0.0049	0.069	0.0635	469.824	0.152
Tractors/Loaders/Backhoes	2017	0.5005	3.7818	4.8087	0.0049	0.3616	0.3327	502.7952	0.1541

TABLE 7 (Continued)
ALTERNATIVE 2 UNMITIGATED CONSTRUCTION EMISSIONS FACTORS

Equipment	Model Year	Unmitigated Emission Factors (g/bhp-hr)							
		ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
Tractors/Loaders/Backhoes	2018	0.4204	3.69155	4.15444	0.0049	0.2943	0.2708	494.1237	0.1538
Tractors/Loaders/Backhoes	2019	0.3678	3.63777	3.69257	0.0049	0.2465	0.2268	485.8548	0.1537
Tractors/Loaders/Backhoes	2023	0.2391	3.52504	2.42607	0.0049	0.1198	0.1102	476.4307	0.1541

Source: CalEEMod User's Guide, Appendix D, Table 3.4, 2013.

TABLE 8
ALTERNATIVE 2 MITIGATED CONSTRUCTION EMISSIONS FACTORS

Equipment	Tier 4 Emission Factors (g/bhp-hr)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
Bore/Drill Rigs Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Cranes Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Forklifts Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-
Generator Sets Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-
Graders Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Rubber Tired Loaders Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Tractors/Loaders/Backhoes Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-

Source: CalEEMod User's Guide, Appendix D, Table 3.5, 2013.

TABLE 9
ALTERNATIVE 2 UNMITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Unmitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
1a. Remove and relocate existing gas line	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
2a. Create swale (10,000 CY wet cut)	5.06	26.68	55.53	0.05	2.70	2.50	5,293.77	1.47
3a. Remove existing inactive gas line	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
3b. Cut and cap gas line at Fiji Way	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
4b. Construct new pedestrian/bike bridge over Ballona Creek	5.42	34.27	56.31	0.06	2.95	2.77	6,367.09	1.33
9a. Drill new well at SoCal Gas Plant to replace Del Ray 12	13.79	93.94	143.89	0.20	6.82	6.52	19,143.36	3.06
9b. Abandon and plug Del Ray 12	1.06	7.82	12.37	0.02	0.45	0.43	2,281.04	0.47
4a. Construct temporary & portion of final re-routed trail to existing trail	3.72	18.60	42.16	0.04	1.99	1.83	4,029.47	1.23
4c. Reroute Ballona Creek Bike Trail under Culver Blvd Bridge	3.72	18.60	42.16	0.04	1.99	1.83	4,029.47	1.23
5a. Build Lincoln Bridge next to Culver Bridge to connect Area A to Area C North	3.20	19.65	34.63	0.04	1.62	1.53	4,233.75	0.83
6a. Remove vegetation from Area A (54,400 CY dry cut)	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
6b. Remove trash	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
6c. Stockpile	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
7a. Remove 36" concrete pipe near center of Area A	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
7c. Dig below (over excavate) future levees (25,200 CY dry cut)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
8a. Grade and construct new levee around Area A (125,300 CY fill)	5.42	34.27	56.31	0.06	2.95	2.77	6,367.09	1.33
9c. Remove/relocate existing pipelines	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
10a. Remove vegetation from Area B North and interim levee (25,000 CY wet cut)	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
10b. Remove trash	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
11a. Excavate Area B North (56,700 CY wet cut)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
11b. Dig below (over excavate) future levees (11,400k CY wet cut)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
12a. Construct Area B levees (452,800 CY fill = total import from Area A = 566,000 CY)	12.28	68.03	131.26	0.12	6.84	6.32	12,377.19	3.48
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
12a. Construct Area B levees (452,800 CY fill = total import from Area A = 566,000 CY)	12.28	68.03	131.26	0.12	6.84	6.32	12,377.19	3.48
26a. Remove vegetation around wells (2,000 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27a. Excavate Area A and Export to West Area B (208,000 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13a. Remove vegetation in Area B East (4,600 CY wet cut)	4.44	25.82	48.16	0.05	2.31	2.13	5,214.18	1.46

TABLE 9 (Continued)
ALTERNATIVE 2 UNMITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Unmitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
13b. Stockpile and prepare for fill	7.81	42.05	85.86	0.09	3.96	3.65	8,951.28	2.62
14a. Grade Area B east and import from Area A (80,000 CY import from Area A)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
15b. Clear vegetation from Area C North (56,000 CY dry cut) & South (15,000 CY dry cut)	7.81	42.05	85.86	0.09	3.96	3.65	8,951.28	2.62
15c. Re-align and replace Marina ditch (45,000 CY wet cut)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
16a. Excavate Area A and export to C South (300,000 CY total)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
16b. Excavate Area A and export to C North (720,000 CY ultimate total; 420,000 CY to C North)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
18a. Install culverts under Culver/Jefferson Blvd, Gas Co Rd, and FWM berm; modify existing culvert under west end of Culver Blvd.	4.07	25.37	43.55	0.05	2.04	1.89	5,139.16	1.46
19a. Excavate Ballona Creek Channel in Areas A and B North (277,800 CY cut)	8.89	56.54	93.34	0.10	4.79	4.41	9,890.42	3.13
20a. Install temporary pipe	1.48	9.42	15.56	0.02	0.80	0.73	1,648.40	0.52
20b. Temporary block then fill existing Ballona Creek (269,100 CY fill from Seq 19)	8.89	56.54	93.34	0.10	4.79	4.41	9,890.42	3.13
17a. Finish grading Area C South	3.08	18.51	30.44	0.02	1.70	1.57	2,475.44	0.78
18b. Remove existing FWM pipes and outlets	4.07	25.37	43.55	0.05	2.04	1.89	5,139.16	1.46
21a. Remove old Ballona Creek levee (424,400CY) and excavate new channel meanders - Export to Area C North, quantities included in Sequence 16, ultimate.	8.89	56.54	93.34	0.10	4.79	4.41	9,890.42	3.13
18c. Construct new FWM outlet and spillway	4.07	25.37	43.55	0.05	2.04	1.89	5,139.16	1.46
22a. Construct maintenance and fire road in Area B West	2.98	17.53	33.01	0.04	1.49	1.37	3,897.27	1.23
22b. Reconstruct Area B parking lot	2.98	17.53	33.01	0.04	1.49	1.37	3,897.27	1.23
23a. Construct bike and ped trails on levees	2.98	17.53	33.01	0.04	1.49	1.37	3,897.27	1.23
23b. Construct County Parking Structure Foundation	5.87	36.61	61.94	0.08	2.91	2.70	7,444.36	2.02
23c. Construct County Parking Structure	3.02	18.43	33.94	0.05	1.36	1.27	4,663.44	1.14
24a. Export final excess dirt quantity (Assume up to 110,000 CY)	0.79	3.31	9.51	0.01	0.32	0.29	1,219.32	0.39

TABLE 10
ALTERNATIVE 2 MITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Mitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
1a. Remove and relocate existing gas line	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
2a. Create swale (10,000 CY wet cut)	0.63	26.68	2.71	0.05	0.08	0.08	5,293.77	1.47
3a. Remove existing inactive gas line	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
3b. Cut and cap gas line at Fiji Way	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
4b. Construct new pedestrian/bike bridge over Ballona Creek	0.73	34.27	3.16	0.06	0.10	0.10	6,367.09	1.33
9a. Drill new well at SoCal Gas Plant to replace Del Ray 12	2.14	93.94	9.27	0.20	0.29	0.29	19,143.36	3.06
9b. Abandon and plug Del Ray 12	0.26	7.82	1.14	0.02	0.03	0.03	2,281.04	0.47
4a. Construct temporary & portion of final re-routed trail to existing trail	0.48	18.60	2.10	0.04	0.06	0.06	4,029.47	1.23
4c. Reroute Ballona Creek Bike Trail under Culver Blvd Bridge	0.48	18.60	2.10	0.04	0.06	0.06	4,029.47	1.23
5a. Build Lincoln Bridge next to Culver Bridge to connect Area A to Area C North	0.48	19.65	2.09	0.04	0.06	0.06	4,233.75	0.83
6a. Remove vegetation from Area A (54,400 CY dry cut)	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
6b. Remove trash	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
6c. Stockpile	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
7a. Remove 36" concrete pipe near center of Area A	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
7c. Dig below (over excavate) future levees (25,200 CY dry cut)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
8a. Grade and construct new levee around Area A (125,300 CY fill)	0.73	34.27	3.16	0.06	0.10	0.10	6,367.09	1.33
9c. Remove/relocate existing pipelines	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
10a. Remove vegetation from Area B North and interim levee (25,000 CY wet cut)	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
10b. Remove trash	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
11a. Excavate Area B North (56,700 CY wet cut)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
11b. Dig below (over excavate) future levees (11,400k CY wet cut)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
12a. Construct Area B levees (452,800 CY fill = total import from Area A = 566,000 CY)	1.46	68.03	6.35	0.12	0.20	0.20	12,377.19	3.48
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
13a. Remove vegetation in Area B East (4,600 CY wet cut)	0.63	25.82	2.71	0.05	0.08	0.08	5,214.18	1.46
13b. Stockpile and prepare for fill	1.08	42.05	4.69	0.09	0.14	0.14	8,951.28	2.62
14a. Grade Area B east and import from Area A (80,000 CY import from Area A)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
15b. Clear vegetation from Area C North (56,000 CY dry cut) & South (15,000 CY dry cut)	1.08	42.05	4.69	0.09	0.14	0.14	8,951.28	2.62

TABLE 10 (Continued)
ALTERNATIVE 2 MITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Mitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
15c. Re-align and replace Marina ditch (45,000 CY wet cut)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
16a. Excavate Area A and export to C South (300,000 CY total)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
16b. Excavate Area A and export to C North (720,000 CY ultimate total; 420,000 CY to C North)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
18a. Install culverts under Culver/Jefferson Blvd, Gas Co Rd, and FWM berm; modify existing culvert under west end of Culver Blvd.	0.63	25.37	2.71	0.05	0.08	0.08	5,139.16	1.46
19a. Excavate Ballona Creek Channel in Areas A and B North (277,800 CY cut)	1.22	56.54	5.30	0.10	0.16	0.16	9,890.42	3.13
20a. Install temporary pipe	0.20	9.42	0.88	0.02	0.03	0.03	1,648.40	0.52
20b. Temporary block then fill existing Ballona Creek (269,100 CY fill from Seq 19)	1.22	56.54	5.30	0.10	0.16	0.16	9,890.42	3.13
17a. Finish grading Area C South	0.30	18.51	1.32	0.02	0.04	0.04	2,475.44	0.78
18b. Remove existing FWM pipes and outlets	0.63	25.37	2.71	0.05	0.08	0.08	5,139.16	1.46
21a. Remove old Ballona Creek levee (424,400CY) and excavate new channel meanders - Export to Area C North, quantities included in Sequence 16, ultimate.	1.22	56.54	5.30	0.10	0.16	0.16	9,890.42	3.13
18c. Construct new FWM outlet and spillway	0.63	25.37	2.71	0.05	0.08	0.08	5,139.16	1.46
22a. Construct maintenance and fire road in Area B West	0.48	17.53	2.10	0.04	0.06	0.06	3,897.27	1.23
22b. Reconstruct Area B parking lot	0.48	17.53	2.10	0.04	0.06	0.06	3,897.27	1.23
23a. Construct bike and ped trails on levees	0.48	17.53	2.10	0.04	0.06	0.06	3,897.27	1.23
23b. Construct County Parking Structure Foundation	0.90	36.61	3.90	0.08	0.12	0.12	7,444.36	2.02
23c. Construct County Parking Structure	0.56	18.43	2.42	0.05	0.07	0.07	4,663.44	1.14
24a. Export final excess dirt quantity (Assume up to 110,000 CY)	0.15	3.31	0.66	0.01	0.02	0.02	1,219.32	0.39

Off-Road Construction Emissions during Alternative 3

TABLE 11
ALTERNATIVE 3 EQUIPMENT LIST

OFFROAD Equipment Type	Horsepower	Load Factor
Backhoe	98	0.5
Crane	226	0.29
Drill Rig	206	0.5
Forklift	89	0.2
Generator Set	84	0.74
Grader	175	0.41
Loader	200	0.36
Note: Equipment horse power and load factors were obtained from CalEEMod User's Guide, Appendix D, 2013.		

TABLE 12
ALTERNATIVE 3 UNMITIGATED CONSTRUCTION EMISSIONS FACTORS

Equipment	Model Year	Unmitigated Emission Factors (g/bhp-hr)							
		ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
Bore/Drill Rigs	2017	0.1735	1.1021	2.5215	0.0048	0.0725	0.0667	494.1381	0.1514
Bore/Drill Rigs	2018	0.1545	1.07328	2.15308	0.0048	0.0608	0.056	484.5605	0.1509
Bore/Drill Rigs	2019	0.1434	1.06058	1.8943	0.0048	0.0537	0.0494	475.7896	0.1505
Bore/Drill Rigs	2023	0.1104	1.04309	1.04653	0.0049	0.0339	0.0312	469.7058	0.1519
Cranes	2017	0.5606	2.38452	6.65526	0.0049	0.2967	0.273	499.3721	0.153
Cranes	2018	0.4831	2.13445	5.77298	0.0049	0.2499	0.2299	491.4069	0.153
Cranes	2019	0.4266	1.94079	5.0842	0.0049	0.2155	0.1983	483.4616	0.153
Cranes	2023	0.2974	1.55262	3.22938	0.0049	0.1349	0.1241	472.9738	0.153
Forklifts	2017	0.6719	3.97881	5.81772	0.0049	0.48	0.4416	497.7245	0.1525
Forklifts	2018	0.5674	3.85819	5.0153	0.0049	0.4002	0.3682	489.8657	0.1525
Forklifts	2019	0.5095	3.80391	4.54965	0.0049	0.3525	0.3243	482.0069	0.1525
Forklifts	2023	0.3266	3.64655	3.0569	0.0049	0.1889	0.1738	471.5285	0.1525
Generator Sets	2017	0.356	2.931	3.347	0.006	0.151	0.151	568.299	0.032
Generator Sets	2018	0.319	2.93	2.989	0.006	0.133	0.133	568.299	0.028
Generator Sets	2019	0.29	2.929	2.669	0.006	0.118	0.118	568.299	0.026
Generator Sets	2023	0.211	2.927	1.635	0.006	0.071	0.071	568.299	0.019
Graders	2017	0.7571	3.84518	7.66265	0.0049	0.4304	0.396	506.7478	0.1553
Graders	2018	0.6614	3.70957	6.60465	0.0049	0.3713	0.3416	497.3767	0.1548
Graders	2019	0.6088	3.65586	6.01354	0.0049	0.3365	0.3096	489.0419	0.1547
Graders	2023	0.3898	3.45006	3.54785	0.0049	0.1953	0.1797	478.4629	0.1547
Rubber Tired Loaders	2017	0.3727	1.4172	4.75473	0.0048	0.162	0.149	495.9499	0.152
Rubber Tired Loaders	2018	0.3335	1.34644	4.13133	0.0048	0.1401	0.1289	487.9023	0.1519
Rubber Tired Loaders	2019	0.3094	1.30248	3.74452	0.0048	0.1255	0.1155	480.0997	0.1519
Rubber Tired Loaders	2023	0.2099	1.17136	2.05963	0.0049	0.069	0.0635	469.824	0.152
Tractors/Loaders/Backhoes	2017	0.5005	3.7818	4.8087	0.0049	0.3616	0.3327	502.7952	0.1541
Tractors/Loaders/Backhoes	2018	0.4204	3.69155	4.15444	0.0049	0.2943	0.2708	494.1237	0.1538
Tractors/Loaders/Backhoes	2019	0.3678	3.63777	3.69257	0.0049	0.2465	0.2268	485.8548	0.1537
Tractors/Loaders/Backhoes	2023	0.2391	3.52504	2.42607	0.0049	0.1198	0.1102	476.4307	0.1541

Source: CalEEMod User's Guide, Appendix D, Table 3.4, 2013.

TABLE 13
ALTERNATIVE 3 MITIGATED CONSTRUCTION EMISSIONS FACTORS

Equipment	Tier 4 Emission Factors (g/bhp-hr)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
Bore/Drill Rigs Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Cranes Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Forklifts Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-
Generator Sets Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-
Graders Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Rubber Tired Loaders Composite	0.0600	2.2	0.26	-	0.008	0.008	-	-
Tractors/Loaders/Backhoes Composite	0.0600	3.7	0.26	-	0.008	0.008	-	-

Source: CalEEMod User's Guide, Appendix D, Table 3.5, 2013.

TABLE 14
ALTERNATIVE 3 UNMITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Mitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
1a. Remove and relocate existing gas line	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
2a. Create swale (10,000 CY wet cut)	5.06	26.68	55.53	0.05	2.70	2.50	5,293.77	1.47
3a. Remove existing inactive gas line	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
3b. Cut and cap gas line at Fiji Way	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
9a. Drill new well at SoCal Gas Plant to replace Del Ray 12	13.79	93.94	143.89	0.20	6.82	6.52	19,143.36	3.06
25a. Drill new well at SoCal Gas Plant to replace Del Ray 19	13.79	93.94	143.89	0.20	6.82	6.52	19,143.36	3.06
29a. Drill new well at SoCal Gas Plant to replace Del Rey 9 and Vidor 18	13.79	93.94	143.89	0.20	6.82	6.52	19,143.36	3.06
9b. Abandon and plug Del Ray 12	1.06	7.82	12.37	0.02	0.45	0.43	2,281.04	0.47
6a. Remove vegetation from Area A (54,400 CY dry cut)	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
6b. Remove trash	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
6c. Stockpile	8.87	43.61	99.07	0.09	4.61	4.26	9,095.45	2.63
7a. Remove 36" concrete pipe near center of Area A	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
7c. Dig below (over excavate) future levees (25,200 CY dry cut)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
8a. Grade and construct new levee around Area A (125,300 CY fill)	5.42	34.27	56.31	0.06	2.95	2.77	6,367.09	1.33
9c. Remove/relocate existing pipelines	1.86	9.93	19.89	0.02	1.06	0.98	1,705.58	0.52
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	11.18	59.60	119.34	0.10	6.38	5.87	10,233.46	3.14
16a. Excavate Area A and export to C South (300,000 CY total)	9.74	57.57	103.17	0.10	5.41	4.98	10,056.03	3.13
19a. Excavate Ballona Creek Channel in Areas A and B North (277,800 CY cut)	8.89	56.54	93.34	0.10	4.79	4.41	9,890.42	3.13
17a. Finish grading Area C South	3.08	18.51	30.44	0.02	1.70	1.57	2,475.44	0.78
23a. Construct bike and ped trails on levees	2.98	17.53	33.01	0.04	1.49	1.37	3,897.27	1.23
23b. Construct County Parking Structure Foundation	5.87	36.61	61.94	0.08	2.91	2.70	7,444.36	2.02
23c. Construct County Parking Structure	3.02	18.43	33.94	0.05	1.36	1.27	4,663.44	1.14
24a. Export final excess dirt quantity (Assume up to 110,000 CY)	0.79	3.31	9.51	0.01	0.32	0.29	1,219.32	0.39

TABLE 15
ALTERNATIVE 3 MITIGATED CONSTRUCTION EMISSIONS BY ACTION ITEM

Actions	Mitigated Emission (lbs/day)							
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2	CH4
1a. Remove and relocate existing gas line	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
2a. Create swale (10,000 CY wet cut)	0.63	26.68	2.71	0.05	0.08	0.08	5,293.77	1.47
3a. Remove existing inactive gas line	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
3b. Cut and cap gas line at Fiji Way	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
4b. Construct new pedestrian/bike bridge over Ballona Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9a. Drill new well at SoCal Gas Plant to replace Del Ray 12	2.14	93.94	9.27	0.20	0.29	0.29	19,143.36	3.06
25a. Drill new well at SoCal Gas Plant to replace Del Ray 19	2.14	93.94	9.27	0.20	0.29	0.29	19,143.36	3.06
29a. Drill new well at SoCal Gas Plant to replace Del Rey 9 and Vidor 18	2.14	93.94	9.27	0.20	0.29	0.29	19,143.36	3.06
29b. Abandon and plug Vidor 1, 2, 3, 5, 14, 18 and Del Rey 4, 5, 9, 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9b. Abandon and plug Del Ray 12	0.26	7.82	1.14	0.02	0.03	0.03	2,281.04	0.47
6a. Remove vegetation from Area A (54,400 CY dry cut)	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
6b. Remove trash	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
6c. Stockpile	1.08	43.61	4.69	0.09	0.14	0.14	9,095.45	2.63
7a. Remove 36" concrete pipe near center of Area A	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
7c. Dig below (over excavate) future levees (25,200 CY dry cut)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
8a. Grade and construct new levee around Area A (125,300 CY fill)	0.73	34.27	3.16	0.06	0.10	0.10	6,367.09	1.33
9c. Remove/relocate existing pipelines	0.20	9.93	0.88	0.02	0.03	0.03	1,705.58	0.52
7b. Excavate old fill from Area A (1,134,200 CY wet cut and 54,400 dry cut, see note)	1.22	59.60	5.30	0.10	0.16	0.16	10,233.46	3.14
16a. Excavate Area A and export to C South (300,000 CY total)	1.22	57.57	5.30	0.10	0.16	0.16	10,056.03	3.13
19a. Excavate Ballona Creek Channel in Areas A and B North (277,800 CY cut)	1.22	56.54	5.30	0.10	0.16	0.16	9,890.42	3.13
17a. Finish grading Area C South	0.30	18.51	1.32	0.02	0.04	0.04	2,475.44	0.78
23a. Construct bike and ped trails on levees	0.48	17.53	2.10	0.04	0.06	0.06	3,897.27	1.23
23b. Construct County Parking Structure Foundation	0.90	36.61	3.90	0.08	0.12	0.12	7,444.36	2.02
23c. Construct County Parking Structure	0.56	18.43	2.42	0.05	0.07	0.07	4,663.44	1.14
24a. Export final excess dirt quantity (Assume up to 110,000 CY)	0.15	3.31	0.66	0.01	0.02	0.02	1,219.32	0.39

Parking Structure Construction - Application of Arch Coatings

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	43.00	Space	0.39	17,200.00	0
Unenclosed Parking Structure	302.00	Space	0.80	120,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	13			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics –

Land Use - Based on project specific information

Construction Phase - Only want architectural coating emissions and paving ROG emissions associated with the construction of the parking structure and parking lot paving other construction Equipment emissions determined outside of CalEEMod

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	66.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	PhaseEndDate	1/21/2020	11/8/2019
tblConstructionPhase	PhaseStartDate	1/1/2020	10/21/2019
tblLandUse	LotAcreage	2.72	0.80
tblProjectCharacteristics	OperationalYear	2014	2023

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	43.9030	10.9831	11.8474	0.0198	0.2794	0.6473	0.9267	0.0741	0.6067	0.6808	0.0000	1,851.936 2	1,851.9362	0.4410	0.0000	1,861.197 3
Total	**43.9030**	**10.9831**	**11.8474**	**0.0198**	**0.2794**	**0.6473**	**0.9267**	**0.0741**	**0.6067**	**0.6808**	**0.0000**	**1,851.936 2**	**1,851.9362**	**0.4410**	**0.0000**	**1,861.197 3**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	43.9030	10.9831	11.8474	0.0198	0.2794	0.6473	0.9267	0.0741	0.6067	0.6808	0.0000	1,851.9362	1,851.9362	0.4410	0.0000	1,861.1973
Total	**43.9030**	**10.9831**	**11.8474**	**0.0198**	**0.2794**	**0.6473**	**0.9267**	**0.0741**	**0.6067**	**0.6808**	**0.0000**	**1,851.9362**	**1,851.9362**	**0.4410**	**0.0000**	**1,861.1973**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.5059	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0755	0.0755	2.0000e-004		0.0797
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.5059**	**3.2000e-004**	**0.0352**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**1.3000e-004**		**0.0755**	**0.0755**	**2.0000e-004**	**0.0000**	**0.0797**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.5059	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0755	0.0755	2.0000e-004		0.0797
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.5059**	**3.2000e-004**	**0.0352**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**1.3000e-004**		**0.0755**	**0.0755**	**2.0000e-004**	**0.0000**	**0.0797**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/1/2019	12/31/2019	5	66	
2	Paving	Paving	10/21/2019	11/8/2019	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 181,974; Non-Residential Outdoor: 60,658 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

<u>Trips and VMT</u>

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating – 2019

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Archit. Coating	42.5985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**42.8649**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0373	0.0470	0.5882	1.6900e-003	0.1341	1.0300e-003	0.1352	0.0356	9.6000e-004	0.0365		127.1672	127.1672	5.8700e-003		127.2904
Total	**0.0373**	**0.0470**	**0.5882**	**1.6900e-003**	**0.1341**	**1.0300e-003**	**0.1352**	**0.0356**	**9.6000e-004**	**0.0365**		**127.1672**	**127.1672**	**5.8700e-003**		**127.2904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.5985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**42.8649**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0373	0.0470	0.5882	1.6900e-003	0.1341	1.0300e-003	0.1352	0.0356	9.6000e-004	0.0365		127.1672	127.1672	5.8700e-003		127.2904
Total	**0.0373**	**0.0470**	**0.5882**	**1.6900e-003**	**0.1341**	**1.0300e-003**	**0.1352**	**0.0356**	**9.6000e-004**	**0.0365**		**127.1672**	**127.1672**	**5.8700e-003**		**127.2904**

3.3 Paving – 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8923	9.0499	8.7806	0.0133		0.5164	0.5164		0.4759	0.4759		1,305.5566	1,305.5566	0.4050		1,314.0618
Paving	0.0681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9604**	**9.0499**	**8.7806**	**0.0133**		**0.5164**	**0.5164**		**0.4759**	**0.4759**		**1,305.5566**	**1,305.5566**	**0.4050**		**1,314.0618**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0404	0.0509	0.6373	1.8400e-003	0.1453	1.1200e-003	0.1464	0.0385	1.0400e-003	0.0396		137.7644	137.7644	6.3600e-003		137.8979
Total	**0.0404**	**0.0509**	**0.6373**	**1.8400e-003**	**0.1453**	**1.1200e-003**	**0.1464**	**0.0385**	**1.0400e-003**	**0.0396**		**137.7644**	**137.7644**	**6.3600e-003**		**137.8979**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	0.8923	9.0499	8.7806	0.0133		0.5164	0.5164		0.4759	0.4759	0.0000	1,305.5566	1,305.5566	0.4050		1,314.0618
Paving	0.0681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9604**	**9.0499**	**8.7806**	**0.0133**		**0.5164**	**0.5164**		**0.4759**	**0.4759**	**0.0000**	**1,305.5566**	**1,305.5566**	**0.4050**		**1,314.0618**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0404	0.0509	0.6373	1.8400e-003	0.1453	1.1200e-003	0.1464	0.0385	1.0400e-003	0.0396		137.7644	137.7644	6.3600e-003		137.8979
Total	**0.0404**	**0.0509**	**0.6373**	**1.8400e-003**	**0.1453**	**1.1200e-003**	**0.1464**	**0.0385**	**1.0400e-003**	**0.0396**		**137.7644**	**137.7644**	**6.3600e-003**		**137.8979**

4.0 Operational Detail – Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.503640	0.059862	0.182421	0.141149	0.043488	0.006857	0.016394	0.034533	0.001981	0.002521	0.004259	0.000566	0.002330

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - Natural Gas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.5059	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0755	0.0755	2.0000e-004		0.0797
Unmitigated	3.5059	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0755	0.0755	2.0000e-004		0.0797

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7703					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7324					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.2600e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0755	0.0755	2.0000e-004		0.0797
Total	**3.5059**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0755**	**0.0755**	**2.0000e-004**		**0.0797**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7703					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7324					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.2600e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0755	0.0755	2.0000e-004		0.0797
Total	**3.5059**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0755**	**0.0755**	**2.0000e-004**		**0.0797**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Grading Fugitive Dust Emissions during Alternatives 1, 2 and 3

$$EF_{PM15} = 0.051 \times (S)^{2.0}\text{, and } EF_{PM10} = EF_{PM15} \times F_{PM10}$$
$$EF_{TSP} = 0.04 \times (S)^{2.5}\text{, and } EF_{PM2.5} = EF_{TSP} \times F_{PM2.5}$$

Where:

EF = emission factor (lb/VMT)
S = mean vehicle speed (mph). The AP-42 default value is 7.1 mph.
$F_{PM2.5}$ = $PM_{2.5}$ scaling factor. The AP-42 default value is 0.031.
F_{PM10} = PM_{10} scaling factor. The AP-42 default value is 0.6.

$$E = EF \times VMT\text{, and}$$
$$VMT = As / Wb \times 43{,}560(sqft / acre) / 5{,}280(ft / mile)$$

Where:

E: emissions (lb)
EF: emission factor (lb/VMT)
VMT: vehicle miles traveled (mile)
A_S: the acreage of the grading site (acre)
W_b: Blade width of the grading equipment. The program uses a default blade width of 12 ft based on Caterpillar's 140 Motor Grader.[7]

Equipment Type	Acres/8hr-day
Crawler Tractors	0.5
Graders	0.5
Rubber Tired Dozers	0.5
Scrapers	1

Source: CalEEMod, Appendix A

TABLE 16
ALTERNATIVE 1 - 3 ON-SITE GRADING ASSUMPTIONS

Assumptions			
Parameter	**Value**	**Units**	**Reference**
Fpm2.5	0.031	-	AP-42 default
FPM10	0.6	-	AP-42 default
S - Mean Vehicle speed	7.1	mph	AP-42 default
As- Acres per day	6	a/d	CalEEMod Appendix A
Wb	12	ft	CalEEMod Appendix A

TABLE 17
ALTERNATIVE 1 - 3 ON-SITE GRADING EMISSIONS (POUNDS PER DAY)

Category	F (PM10)	F (PM2.5)	EF (PM15)	EF (TSP)	EF (PM10)	EF (2.5)	VMT	Pm10 Emissions	PM2.5 Emissions
Alternative 1, 2 & 3									
Grading	0.6	0.031	2.57091	5.372864	1.542546	0.166559	4.125	6.4	0.7

On-Road Criteria Emissions during Alternatives 1, 2 and 3

TABLE 18
ALTERNATIVE 1 - 3 ONROAD EMISSION FACTORS

Running Emissions						g/mi				
Veh Class	ROG	CO	NOx	CO2	PM10	PM2.5	SOx	CH4	Tire & Brake Wear PM10	Tire & Brake Wear PM2.5
LDA										
2017	0.018588	0.854138	0.062278	274.0034	0.001529	0.00141438	0.002747	0.006156	0.04475	0.01775
2018	0.01492	0.752626	0.054283	265.5478	0.001496	0.00138223	0.002661	0.005412	0.04475	0.01775
2019	0.012171	0.671513	0.047745	256.4536	0.00147	0.0013577	0.002569	0.0048	0.04475	0.01775
2023	0.00785	0.491893	0.031639	218.9987	0.001304	0.00120227	0.002192	0.003114	0.04475	0.01775
HHDT										
2017	0.115779	0.895885	2.488663	1029.657	0.10263	0.09818611	0.009896	0.01107	0.14234	0.05886
2018	0.098577	0.741123	2.159946	1027.937	0.087227	0.08344956	0.009875	0.009258	0.14234	0.05886
2019	0.081035	0.608762	1.812461	1025.163	0.073145	0.06997675	0.009844	0.007569	0.14234	0.05886
2023	0.014607	0.187222	0.280815	1011.855	0.002375	0.00226842	0.009707	0.002246	0.14234	0.05886

Source: EMFAC 2014

Running Emissions						lbs/mi				
Veh Class	ROG	CO	NOx	CO2	PM10	PM2.5	SOx	CH4	Tire & Brake Wear PM10	Tire & Brake Wear PM2.5
LDA										
2017	3.3E-05	1.7E-03	1.2E-04	5.9E-01	3.3E-06	3.0E-06	5.9E-06	1.2E-05	9.9E-05	3.9E-05
2018	2.7E-05	1.5E-03	1.1E-04	5.7E-01	3.2E-06	3.0E-06	5.7E-06	1.1E-05	9.9E-05	3.9E-05
2019	1.7E-05	1.1E-03	7.0E-05	4.8E-01	2.9E-06	2.7E-06	4.8E-06	6.9E-06	9.9E-05	3.9E-05
2023	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HHDT										
2017	2.6E-04	2.0E-03	5.5E-03	2.3E+00	2.3E-04	2.2E-04	2.2E-05	2.4E-05	3.1E-04	1.3E-04
2018	2.2E-04	1.6E-03	4.8E-03	2.3E+00	1.9E-04	1.8E-04	2.2E-05	2.0E-05	3.1E-04	1.3E-04
2019	1.8E-04	1.3E-03	4.0E-03	2.3E+00	1.6E-04	1.5E-04	2.2E-05	1.7E-05	3.1E-04	1.3E-04
2023	3.2E-05	4.1E-04	6.2E-04	2.2E+00	5.2E-06	5.0E-06	2.1E-05	5.0E-06	3.1E-04	1.3E-04

Source: EMFAC 2014

TABLE 19
ALTERNATIVE 1 - 3 OFFSITE VMT ESTIMATES

Heavy Truck/Work Trip Data						
Category	Round Trips	Annual Round Trips	Vehicle Type	Trip length (miles)	Daily VMT	Annual VMT
Alternative 1 & 2						
Haul trips	480	124,800	HHDT	19	9,120	2,371,200
Worker Trips	809	210,340	LDA/LDT	15	11,892	3,091,998
Alternative 3						
Haul trips	480	124,800	HHDT	19	9,120	2,371,200
Worker Trips	371	96,460	LDA/LDT	15	5,454	1,417,962

TABLE 20
ALTERNATIVE 1 - 3 ONSITE VMT ESTIMATES

Heavy Truck/Work Trip Data						
Category	Daily Trips	Annual Round Trips	Vehicle Type	Trip length (miles)	Daily VMT	Annual VMT
Alternative 1 & 2						
Haul trips	480	124,800	HHDT	1	343	89,275
Worker Trips	809	210,340	LDA/LDT	1	579	150,465
Alternative 3						
Haul trips	480	124,800	HHDT	1	343	89,275
Worker Trips	371	96,460	LDA/LDT	1	265	69,002

TABLE 21
ALTERNATIVE 1 - 3 OFFSITE ONROAD EMISSION ESTIMTES (POUNDS PER DAY)

	lbs/day									
Category	ROG	CO	NOx	CO2	PM10	PM2.5	SOx	CH4	Tire & Brake Wear PM10	Tire & Brake Wear PM2.5
Alternative 1 & 2										
Haul trips										
2017	2.33	18.01	50.04	20702.42	2.06	1.97	0.20	0.22	2.86	1.18
2018	1.98	14.90	43.43	20667.84	1.75	1.68	0.20	0.19	2.86	1.18
2019	1.63	12.24	36.44	20612.07	1.47	1.41	0.20	0.15	2.86	1.18
2023	0.29	3.76	5.65	20344.48	0.05	0.05	0.20	0.05	2.86	1.18
Worker Trips										
2017	0.39	19.73	1.42	6962.13	0.04	0.04	0.07	0.14	1.17	0.47
2018	0.32	17.61	1.25	6723.70	0.04	0.04	0.07	0.13	1.17	0.47
2019	0.21	12.90	0.83	5741.71	0.03	0.03	0.06	0.08	1.17	0.47
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alternative 3										
Haul trips										
2017	2.33	18.01	50.04	20702.42	2.06	1.97	0.20	0.22	2.86	1.18
2018	1.98	14.90	43.43	20667.84	1.75	1.68	0.20	0.19	2.86	1.18
2019	1.63	12.24	36.44	20612.07	1.47	1.41	0.20	0.15	2.86	1.18
2023	0.29	3.76	5.65	20344.48	0.05	0.05	0.20	0.05	2.86	1.18
Worker Trips										
2017	0.18	9.05	0.65	3192.77	0.02	0.02	0.03	0.07	0.54	0.21
2018	0.15	8.07	0.57	3083.43	0.02	0.02	0.03	0.06	0.54	0.21
2019	0.09	5.91	0.38	2633.09	0.02	0.01	0.03	0.04	0.54	0.21
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 22
ALTERNATIVE 1 - 3 OFFSITE ONROAD EMISSION ESTIAMTES (METRIC TONS PER YEAR)

	MT/year									
Category	**ROG**	**CO**	**NOx**	**CO2**	**PM10**	**PM2.5**	**SOx**	**CH4**	**Tire & Brake Wear PM10**	**Tire & Brake Wear PM2.5**
Alternative 1 & 2										
Haul trips										
2017	0.30	2.34	6.50	2691.31	0.27	0.26	0.03	0.03	0.37	0.15
2018	0.26	1.94	5.65	2686.82	0.23	0.22	0.03	0.02	0.37	0.15
2019	0.21	1.59	4.74	2679.57	0.19	0.18	0.03	0.02	0.37	0.15
2023	0.04	0.49	0.73	2644.78	0.01	0.01	0.03	0.01	0.37	0.15
Worker Trips										
2017	0.05	2.57	0.19	905.08	0.01	0.00	0.01	0.02	0.15	0.06
2018	0.04	2.29	0.16	874.08	0.01	0.00	0.01	0.02	0.15	0.06
2019	0.03	1.68	0.11	746.42	0.00	0.00	0.01	0.01	0.15	0.06
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alternative 3										
Haul trips										
2017	0.30	2.34	6.50	2691.31	0.27	0.26	0.03	0.03	0.37	0.15
2018	0.26	1.94	5.65	2686.82	0.23	0.22	0.03	0.02	0.37	0.15
2019	0.21	1.59	4.74	2679.57	0.19	0.18	0.03	0.02	0.37	0.15
2023	0.04	0.49	0.73	2644.78	0.01	0.01	0.03	0.01	0.37	0.15
Worker Trips										
2017	0.02	1.18	0.08	415.06	0.00	0.00	0.00	0.01	0.07	0.03
2018	0.02	1.05	0.07	400.85	0.00	0.00	0.00	0.01	0.07	0.03
2019	0.01	0.77	0.05	342.30	0.00	0.00	0.00	0.00	0.07	0.03
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 23
ALTERNATIVE 1 - 3 ONSITE ONROAD EMISSION ESTIMTES (POUNDS PER DAY)

	lbs/day									
Category	ROG	CO	NOx	CO2	PM10	PM2.5	SOx	CH4	Tire & Brake Wear PM10	Tire & Brake Wear PM2.5
Alternative 1 & 2										
Haul trips										
2017	0.09	0.68	1.88	779.44	0.08	0.07	0.01	0.01	0.11	0.04
2018	0.07	0.56	1.64	778.13	0.07	0.06	0.01	0.01	0.11	0.04
2019	0.06	0.46	1.37	776.03	0.06	0.05	0.01	0.01	0.11	0.04
2023	0.01	0.14	0.21	765.96	0.00	0.00	0.01	0.00	0.11	0.04
Worker Trips										
2017	0.02	0.96	0.07	338.80	0.00	0.00	0.00	0.01	0.06	0.02
2018	0.02	0.86	0.06	327.19	0.00	0.00	0.00	0.01	0.06	0.02
2019	0.01	0.63	0.04	279.41	0.00	0.00	0.00	0.00	0.06	0.02
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alternative 3										
Haul trips										
2017	0.09	0.68	1.88	779.44	0.08	0.07	0.01	0.01	0.11	0.04
2018	0.07	0.56	1.64	778.13	0.07	0.06	0.01	0.01	0.11	0.04
2019	0.06	0.46	1.37	776.03	0.06	0.05	0.01	0.01	0.11	0.04
2023	0.01	0.14	0.21	765.96	0.00	0.00	0.01	0.00	0.11	0.04
Worker Trips										
2017	0.01	0.44	0.03	155.37	0.00	0.00	0.00	0.00	0.03	0.01
2018	0.01	0.39	0.03	150.05	0.00	0.00	0.00	0.00	0.03	0.01
2019	0.00	0.29	0.02	128.13	0.00	0.00	0.00	0.00	0.03	0.01
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 24
ALTERNATIVE 1 - 3 ONSITE ONROAD EMISSION ESTIAMTES (METRIC TONS PER YEAR)

	MT/year									
Category	**ROG**	**CO**	**NOx**	**CO2**	**PM10**	**PM2.5**	**SOx**	**CH4**	**Tire & Brake Wear PM10**	**Tire & Brake Wear PM2.5**
Alternative 1 & 2										
Haul trips										
2017	0.01	0.09	0.24	101.33	0.01	0.01	0.00	0.00	0.01	0.01
2018	0.01	0.07	0.21	101.16	0.01	0.01	0.00	0.00	0.01	0.01
2019	0.01	0.06	0.18	100.88	0.01	0.01	0.00	0.00	0.01	0.01
2023	0.00	0.02	0.03	99.57	0.00	0.00	0.00	0.00	0.01	0.01
Worker Trips										
2017	0.00	0.12	0.01	44.04	0.00	0.00	0.00	0.00	0.01	0.00
2018	0.00	0.11	0.01	42.54	0.00	0.00	0.00	0.00	0.01	0.00
2019	0.00	0.08	0.01	36.32	0.00	0.00	0.00	0.00	0.01	0.00
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alternative 3										
Haul trips										
2017	0.01	0.09	0.24	101.33	0.01	0.01	0.00	0.00	0.01	0.01
2018	0.01	0.07	0.21	101.16	0.01	0.01	0.00	0.00	0.01	0.01
2019	0.01	0.06	0.18	100.88	0.01	0.01	0.00	0.00	0.01	0.01
2023	0.00	0.02	0.03	99.57	0.00	0.00	0.00	0.00	0.01	0.01
Worker Trips										
2017	0.00	0.06	0.00	20.20	0.00	0.00	0.00	0.00	0.00	0.00
2018	0.00	0.05	0.00	19.51	0.00	0.00	0.00	0.00	0.00	0.00
2019	0.00	0.04	0.00	16.66	0.00	0.00	0.00	0.00	0.00	0.00
2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Alternative 1 Construction Annual GHG Emissions

TABLE 25
ALTERNATIVE 1 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2017

Category	CO2	CH4	CO2e
Off-road Emissions	4,251	25	4,275
On-road Emissions	3,742	0	3,742
Amortized over 30 years			267

TABLE 26
ALTERNATIVE 1 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2018

Category	CO2	CH4	CO2e
Off-road Emissions	2,632	20	2,652
On-road Emissions	3,705	1	3,706
Amortized over 30 years			212

TABLE 27
ALTERNATIVE 1 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2019

Category	CO2	CH4	CO2e
Off-road Emissions	3,401	26	3,427
On-road Emissions	3,563	1	3,564
Amortized over 30 years			233

TABLE 28
ALTERNATIVE 1 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2023

Category	CO2	CH4	CO2e
Off-road Emissions	1,133	9	1,142
On-road Emissions	2,744	1	2,745
Amortized over 30 years			130

Alternative 2 Construction Annual GHG Emissions

TABLE 29
ALTERNATIVE 2 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2017

Category	CO2	CH4	CO2e
Off-road Emissions	3,106	20	3,126
On-road Emissions	3,742	0	3,742
Amortized over 30 years			229

TABLE 30
ALTERNATIVE 2 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2018

Category	CO2	CH4	CO2e
Off-road Emissions	2,562	19	2,581
On-road Emissions	3,705	1	3,706
Amortized over 30 years			210

TABLE 31
ALTERNATIVE 2 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2019

Category	CO2	CH4	CO2e
Off-road Emissions	3,401	26	3,427
On-road Emissions	3,563	1	3,564
Amortized over 30 years			233

Alternative 3 Construction Annual GHG Emissions

TABLE 32
ALTERNATIVE 3 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2017

Category	CO2	CH4	CO2e
Off-road Emissions	2,451	13	2,465
On-road Emissions	3,228	0	3,228
Amortized over 30 years			190

TABLE 33
ALTERNATIVE 3 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2018

Category	CO2	CH4	CO2e
Off-road Emissions	1,549	12	1,561
On-road Emissions	3,208	0	3,208
Amortized over 30 years			159

TABLE 34
ALTERNATIVE 3 CONSTRUCTION ANNUAL GHG EMISSIONS
FOR YEAR 2019

Category	CO2	CH4	CO2e
Off-road Emissions	1,967	15	1,981
On-road Emissions	3,139	0	3,139
Amortized over 30 years			171

Operational Criteria Pollutant Emissions

Ballona EIR

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	574.10	Acre	574.10	25,007,796.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	13			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumed O&M activities requiring off-road equipment would occure 55 days out of the year.

Off-road Equipment - Assumed one

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Trips and VMT - Provided by project engineer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	9/20/2017	9/20/2018
tblConstructionPhase	PhaseEndDate	12/6/2018	3/19/2019
tblConstructionPhase	PhaseEndDate	6/4/2019	3/18/2020
tblConstructionPhase	PhaseEndDate	6/3/2020	3/19/2021
tblConstructionPhase	PhaseEndDate	6/4/2021	3/18/2022
tblConstructionPhase	PhaseEndDate	6/3/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	6/2/2023	3/19/2035
tblConstructionPhase	PhaseStartDate	7/6/2017	7/6/2018
tblConstructionPhase	PhaseStartDate	9/21/2018	1/2/2019
tblConstructionPhase	PhaseStartDate	3/20/2019	1/2/2020
tblConstructionPhase	PhaseStartDate	3/19/2020	1/2/2021
tblConstructionPhase	PhaseStartDate	3/20/2021	1/2/2022
tblConstructionPhase	PhaseStartDate	3/19/2022	1/2/2023
tblConstructionPhase	PhaseStartDate	3/18/2023	1/2/2035
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.0394	19.9420	31.2994	0.0737	4.3593	0.9022	5.2615	1.1561	0.8301	1.9862	0.0000	6,351.1491	6,351.1491	0.7987	0.0000	6,367.9208
2018	2.6946	17.3676	28.9052	0.0737	4.3593	0.7608	5.1201	1.1561	0.7001	1.8562	0.0000	6,153.8339	6,153.8339	0.7824	0.0000	6,170.2642
2019	2.4622	15.6673	27.0405	0.0735	4.3593	0.6629	5.0221	1.1561	0.6101	1.7662	0.0000	5,960.8089	5,960.8089	0.7693	0.0000	5,976.9632
2020	2.2909	14.2742	25.6067	0.0735	4.3593	0.5865	4.9458	1.1561	0.5399	1.6960	0.0000	5,753.2601	5,753.2601	0.7590	0.0000	5,769.1986
2021	2.1243	12.6934	24.4364	0.0737	4.3593	0.5095	4.8688	1.1561	0.4690	1.6251	0.0000	5,692.6464	5,692.6464	0.7514	0.0000	5,708.4252
2022	1.9208	10.5265	23.2783	0.0737	4.3593	0.4125	4.7718	1.1561	0.3797	1.5358	0.0000	5,629.7988	5,629.7988	0.7445	0.0000	5,645.4336
2023	1.7994	9.4478	22.3284	0.0737	4.3593	0.3592	4.7185	1.1561	0.3307	1.4868	0.0000	5,571.5952	5,571.5952	0.7382	0.0000	5,587.0968
2035	1.3838	3.7592	17.5169	0.0782	4.3593	0.0973	4.4565	1.1561	0.0948	1.2509	0.0000	5,633.1772	5,633.1772	0.1931	0.0000	5,637.2323
Total	**17.7154**	**103.6780**	**200.4117**	**0.5936**	**34.8742**	**4.2909**	**39.1651**	**9.2488**	**3.9544**	**13.2032**	**0.0000**	**46,746.2695**	**46,746.2695**	**5.5364**	**0.0000**	**46,862.5348**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.0394	19.9420	31.2994	0.0737	4.3593	0.9022	5.2615	1.1561	0.8301	1.9862	0.0000	6,351.1491	6,351.1491	0.7987	0.0000	6,367.9208
2018	2.6946	17.3676	28.9052	0.0737	4.3593	0.7608	5.1201	1.1561	0.7001	1.8562	0.0000	6,153.8339	6,153.8339	0.7824	0.0000	6,170.2642
2019	2.4622	15.6673	27.0405	0.0735	4.3593	0.6629	5.0221	1.1561	0.6101	1.7662	0.0000	5,960.8089	5,960.8089	0.7693	0.0000	5,976.9632
2020	2.2909	14.2742	25.6067	0.0735	4.3593	0.5865	4.9458	1.1561	0.5399	1.6960	0.0000	5,753.2601	5,753.2601	0.7590	0.0000	5,769.1986
2021	2.1243	12.6934	24.4364	0.0737	4.3593	0.5095	4.8688	1.1561	0.4690	1.6251	0.0000	5,692.6464	5,692.6464	0.7514	0.0000	5,708.4252
2022	1.9208	10.5265	23.2783	0.0737	4.3593	0.4125	4.7718	1.1561	0.3797	1.5358	0.0000	5,629.7988	5,629.7988	0.7445	0.0000	5,645.4336
2023	1.7994	9.4478	22.3284	0.0737	4.3593	0.3592	4.7185	1.1561	0.3307	1.4868	0.0000	5,571.5952	5,571.5952	0.7382	0.0000	5,587.0968
2035	1.3838	3.7592	17.5169	0.0782	4.3593	0.0973	4.4565	1.1561	0.0948	1.2509	0.0000	5,633.1772	5,633.1772	0.1931	0.0000	5,637.2323
Total	**17.7154**	**103.6780**	**200.4117**	**0.5936**	**34.8742**	**4.2909**	**39.1651**	**9.2488**	**3.9544**	**13.2032**	**0.0000**	**46,746.2695**	**46,746.2695**	**5.5364**	**0.0000**	**46,862.5348**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	653.9421	5.2000e-004	0.0583	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1256	0.1256	3.2000e-004		0.1324
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.7404	4.0560	18.9631	0.0873	5.5838	0.1182	5.7020	1.4931	0.1090	1.6021		6,229.9010	6,229.9010	0.1566		6,233.1905
Total	**655.6825**	**4.0565**	**19.0214**	**0.0873**	**5.5838**	**0.1184**	**5.7022**	**1.4931**	**0.1092**	**1.6023**		**6,230.0266**	**6,230.0266**	**0.1570**	**0.0000**	**6,233.3229**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	653.9421	5.2000e-004	0.0583	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1256	0.1256	3.2000e-004		0.1324
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.7404	4.0560	18.9631	0.0873	5.5838	0.1182	5.7020	1.4931	0.1090	1.6021		6,229.9010	6,229.9010	0.1566		6,233.1905
Total	**655.6825**	**4.0565**	**19.0214**	**0.0873**	**5.5838**	**0.1184**	**5.7022**	**1.4931**	**0.1092**	**1.6023**		**6,230.0266**	**6,230.0266**	**0.1570**	**0.0000**	**6,233.3229**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	O&M Activities 2017	Trenching	4/20/2017	7/5/2017	5	55	
2	O&M Activities 2018	Trenching	7/6/2018	9/20/2018	5	55	
3	O&M Activities 2019	Trenching	1/2/2019	3/19/2019	5	55	
4	O&M Activities 2020	Trenching	1/2/2020	3/18/2020	5	55	
5	O&M Activities 2021	Trenching	1/2/2021	3/19/2021	5	55	
6	O&M Activities 2022	Trenching	1/2/2022	3/18/2022	5	55	
7	O&M Activities 2023	Trenching	1/2/2023	3/17/2023	5	55	
8	O&M Activities 2035	Trenching	1/2/2035	3/19/2035	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
O&M Activities 2017	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2017	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2018	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2018	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2019	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2019	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2020	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2020	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2021	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2021	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2022	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2022	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2023	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2023	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2035	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2035	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
O&M Activities 2017	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2018	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2019	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2020	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2021	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2022	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2023	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2035	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 O&M Activities 2017 – 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5754	18.1031	8.3690	0.0185		0.8672	0.8672		0.7978	0.7978		1,889.8084	1,889.8084	0.5790		1,901.9681
Total	**1.5754**	**18.1031**	**8.3690**	**0.0185**		**0.8672**	**0.8672**		**0.7978**	**0.7978**		**1,889.8084**	**1,889.8084**	**0.5790**		**1,901.9681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.4640	1.8390	22.9304	0.0552	4.3593	0.0351	4.3943	1.1561	0.0323	1.1884		4,461.340 7	4,461.3407	0.2196		4,465.952 6
Total	**1.4640**	**1.8390**	**22.9304**	**0.0552**	**4.3593**	**0.0351**	**4.3943**	**1.1561**	**0.0323**	**1.1884**		**4,461.340 7**	**4,461.3407**	**0.2196**		**4,465.952 6**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5754	18.1031	8.3690	0.0185		0.8672	0.8672		0.7978	0.7978	0.0000	1,889.808 4	1,889.8084	0.5790		1,901.968 1
Total	**1.5754**	**18.1031**	**8.3690**	**0.0185**		**0.8672**	**0.8672**		**0.7978**	**0.7978**	**0.0000**	**1,889.808 4**	**1,889.8084**	**0.5790**		**1,901.968 1**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.4640	1.8390	22.9304	0.0552	4.3593	0.0351	4.3943	1.1561	0.0323	1.1884		4,461.340 7	4,461.3407	0.2196		4,465.952 6
Total	**1.4640**	**1.8390**	**22.9304**	**0.0552**	**4.3593**	**0.0351**	**4.3943**	**1.1561**	**0.0323**	**1.1884**		**4,461.340 7**	**4,461.3407**	**0.2196**		**4,465.952 6**

3.3 O&M Activities 2018 – 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3749	15.6994	8.0759	0.0185		0.7267	0.7267		0.6685	0.6685		1,858.494 1	1,858.4941	0.5786		1,870.644 2
Total	**1.3749**	**15.6994**	**8.0759**	**0.0185**		**0.7267**	**0.7267**		**0.6685**	**0.6685**		**1,858.494 1**	**1,858.4941**	**0.5786**		**1,870.644 2**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.3197	1.6681	20.8293	0.0552	4.3593	0.0341	4.3934	1.1561	0.0316	1.1877		4,295.3398	4,295.3398	0.2038		4,299.6200
Total	**1.3197**	**1.6681**	**20.8293**	**0.0552**	**4.3593**	**0.0341**	**4.3934**	**1.1561**	**0.0316**	**1.1877**		**4,295.3398**	**4,295.3398**	**0.2038**		**4,299.6200**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	1.3749	15.6994	8.0759	0.0185		0.7267	0.7267		0.6685	0.6685	0.0000	1,858.4941	1,858.4941	0.5786		1,870.6442
Total	**1.3749**	**15.6994**	**8.0759**	**0.0185**		**0.7267**	**0.7267**		**0.6685**	**0.6685**	**0.0000**	**1,858.4941**	**1,858.4941**	**0.5786**		**1,870.6442**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.3197	1.6681	20.8293	0.0552	4.3593	0.0341	4.3934	1.1561	0.0316	1.1877		4,295.3398	4,295.3398	0.2038		4,299.6200
Total	**1.3197**	**1.6681**	**20.8293**	**0.0552**	**4.3593**	**0.0341**	**4.3934**	**1.1561**	**0.0316**	**1.1877**		**4,295.3398**	**4,295.3398**	**0.2038**		**4,299.6200**

3.4 O&M Activities 2019 - 2019

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	1.2474	14.1372	7.8968	0.0185		0.6293	0.6293		0.5790	0.5790		1,828.3084	1,828.3084	0.5785		1,840.4560
Total	**1.2474**	**14.1372**	**7.8968**	**0.0185**		**0.6293**	**0.6293**		**0.5790**	**0.5790**		**1,828.3084**	**1,828.3084**	**0.5785**		**1,840.4560**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.2148	1.5301	19.1437	0.0551	4.3593	0.0335	4.3928	1.1561	0.0311	1.1872		4,132.5005	4,132.5005	0.1908		4,136.5072
Total	**1.2148**	**1.5301**	**19.1437**	**0.0551**	**4.3593**	**0.0335**	**4.3928**	**1.1561**	**0.0311**	**1.1872**		**4,132.5005**	**4,132.5005**	**0.1908**		**4,136.5072**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	1.2474	14.1372	7.8968	0.0185		0.6293	0.6293		0.5790	0.5790	0.0000	1,828.3084	1,828.3084	0.5785		1,840.4560
Total	**1.2474**	**14.1372**	**7.8968**	**0.0185**		**0.6293**	**0.6293**		**0.5790**	**0.5790**	**0.0000**	**1,828.3084**	**1,828.3084**	**0.5785**		**1,840.4560**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.2148	1.5301	19.1437	0.0551	4.3593	0.0335	4.3928	1.1561	0.0311	1.1872		4,132.5005	4,132.5005	0.1908		4,136.5072
Total	**1.2148**	**1.5301**	**19.1437**	**0.0551**	**4.3593**	**0.0335**	**4.3928**	**1.1561**	**0.0311**	**1.1872**		**4,132.5005**	**4,132.5005**	**0.1908**		**4,136.5072**

3.5 O&M Activities 2020 – 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1524	12.8557	7.7658	0.0185		0.5532	0.5532		0.5090	0.5090		1,788.0082	1,788.0082	0.5783		1,800.1520
Total	**1.1524**	**12.8557**	**7.7658**	**0.0185**		**0.5532**	**0.5532**		**0.5090**	**0.5090**		**1,788.0082**	**1,788.0082**	**0.5783**		**1,800.1520**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1524	12.8557	7.7658	0.0185		0.5532	0.5532		0.5090	0.5090		1,788.0082	1,788.0082	0.5783		1,800.1520
Total	**1.1524**	**12.8557**	**7.7658**	**0.0185**		**0.5532**	**0.5532**		**0.5090**	**0.5090**		**1,788.0082**	**1,788.0082**	**0.5783**		**1,800.1520**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.1384	1.4185	17.8409	0.0551	4.3593	0.0333	4.3926	1.1561	0.0309	1.1870		3,965.2519	3,965.2519	0.1807		3,969.0466
Total	**1.1384**	**1.4185**	**17.8409**	**0.0551**	**4.3593**	**0.0333**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,965.2519**	**3,965.2519**	**0.1807**		**3,969.0466**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1524	12.8557	7.7658	0.0185		0.5532	0.5532		0.5090	0.5090	0.0000	1,788.0082	1,788.0082	0.5783		1,800.1520
Total	**1.1524**	**12.8557**	**7.7658**	**0.0185**		**0.5532**	**0.5532**		**0.5090**	**0.5090**	**0.0000**	**1,788.0082**	**1,788.0082**	**0.5783**		**1,800.1520**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.1384	1.4185	17.8409	0.0551	4.3593	0.0333	4.3926	1.1561	0.0309	1.1870		3,965.2519	3,965.2519	0.1807		3,969.0466
Total	**1.1384**	**1.4185**	**17.8409**	**0.0551**	**4.3593**	**0.0333**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,965.2519**	**3,965.2519**	**0.1807**		**3,969.0466**

3.6 O&M Activities 2021 – 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0470	11.3669	7.6548	0.0185		0.4762	0.4762		0.4381	0.4381		1,788.4013	1,788.4013	0.5784		1,800.5478
Total	**1.0470**	**11.3669**	**7.6548**	**0.0185**		**0.4762**	**0.4762**		**0.4381**	**0.4381**		**1,788.4013**	**1,788.4013**	**0.5784**		**1,800.5478**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0773	1.3266	16.7815	0.0552	4.3593	0.0334	4.3926	1.1561	0.0309	1.1870		3,904.2451	3,904.2451	0.1730		3,907.8774
Total	**1.0773**	**1.3266**	**16.7815**	**0.0552**	**4.3593**	**0.0334**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,904.2451**	**3,904.2451**	**0.1730**		**3,907.8774**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	1.0470	11.3669	7.6548	0.0185		0.4762	0.4762		0.4381	0.4381	0.0000	1,788.4013	1,788.4013	0.5784		1,800.5478
Total	**1.0470**	**11.3669**	**7.6548**	**0.0185**		**0.4762**	**0.4762**		**0.4381**	**0.4381**	**0.0000**	**1,788.4013**	**1,788.4013**	**0.5784**		**1,800.5478**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0773	1.3266	16.7815	0.0552	4.3593	0.0334	4.3926	1.1561	0.0309	1.1870		3,904.2451	3,904.2451	0.1730		3,907.8774
Total	**1.0773**	**1.3266**	**16.7815**	**0.0552**	**4.3593**	**0.0334**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,904.2451**	**3,904.2451**	**0.1730**		**3,907.8774**

3.7 O&M Activities 2022 - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	0.9007	9.2820	7.4780	0.0185		0.3792	0.3792		0.3488	0.3488		1,789.9380	1,789.9380	0.5789		1,802.0949
Total	**0.9007**	**9.2820**	**7.4780**	**0.0185**		**0.3792**	**0.3792**		**0.3488**	**0.3488**		**1,789.9380**	**1,789.9380**	**0.5789**		**1,802.0949**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0201	1.2445	15.8003	0.0552	4.3593	0.0333	4.3926	1.1561	0.0309	1.1870		3,839.8608	3,839.8608	0.1656		3,843.3387
Total	**1.0201**	**1.2445**	**15.8003**	**0.0552**	**4.3593**	**0.0333**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,839.8608**	**3,839.8608**	**0.1656**		**3,843.3387**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9007	9.2820	7.4780	0.0185		0.3792	0.3792		0.3488	0.3488	0.0000	1,789.9380	1,789.9380	0.5789		1,802.0949
Total	**0.9007**	**9.2820**	**7.4780**	**0.0185**		**0.3792**	**0.3792**		**0.3488**	**0.3488**	**0.0000**	**1,789.9380**	**1,789.9380**	**0.5789**		**1,802.0949**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0201	1.2445	15.8003	0.0552	4.3593	0.0333	4.3926	1.1561	0.0309	1.1870		3,839.860 8	3,839.8608	0.1656		3,843.338 7
Total	**1.0201**	**1.2445**	**15.8003**	**0.0552**	**4.3593**	**0.0333**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,839.860 8**	**3,839.8608**	**0.1656**		**3,843.338 7**

3.8 O&M Activities 2023 - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	0.8331	8.2761	7.4227	0.0185		0.3259	0.3259		0.2998	0.2998		1,790.410 8	1,790.4108	0.5791		1,802.570 9
Total	**0.8331**	**8.2761**	**7.4227**	**0.0185**		**0.3259**	**0.3259**		**0.2998**	**0.2998**		**1,790.410 8**	**1,790.4108**	**0.5791**		**1,802.570 9**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.9663	1.1717	14.9057	0.0552	4.3593	0.0333	4.3926	1.1561	0.0309	1.1870		3,781.1844	3,781.1844	0.1591		3,784.5259
Total	**0.9663**	**1.1717**	**14.9057**	**0.0552**	**4.3593**	**0.0333**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,781.1844**	**3,781.1844**	**0.1591**		**3,784.5259**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8331	8.2761	7.4227	0.0185		0.3259	0.3259		0.2998	0.2998	0.0000	1,790.4108	1,790.4108	0.5791		1,802.5709
Total	**0.8331**	**8.2761**	**7.4227**	**0.0185**		**0.3259**	**0.3259**		**0.2998**	**0.2998**	**0.0000**	**1,790.4108**	**1,790.4108**	**0.5791**		**1,802.5709**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.9663	1.1717	14.9057	0.0552	4.3593	0.0333	4.3926	1.1561	0.0309	1.1870		3,781.1844	3,781.1844	0.1591		3,784.5259
Total	**0.9663**	**1.1717**	**14.9057**	**0.0552**	**4.3593**	**0.0333**	**4.3926**	**1.1561**	**0.0309**	**1.1870**		**3,781.1844**	**3,781.1844**	**0.1591**		**3,784.5259**

3.9 O&M Activities 2035 - 2035

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	0.8093	3.0223	7.5410	0.0228		0.0632	0.0632		0.0632	0.0632		2,155.5633	2,155.5633	0.0721		2,157.0769
Total	**0.8093**	**3.0223**	**7.5410**	**0.0228**		**0.0632**	**0.0632**		**0.0632**	**0.0632**		**2,155.5633**	**2,155.5633**	**0.0721**		**2,157.0769**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5745	0.7369	9.9759	0.0555	4.3593	0.0340	4.3933	1.1561	0.0316	1.1877		3,477.6139	3,477.6139	0.1210		3,480.1554
Total	**0.5745**	**0.7369**	**9.9759**	**0.0555**	**4.3593**	**0.0340**	**4.3933**	**1.1561**	**0.0316**	**1.1877**		**3,477.6139**	**3,477.6139**	**0.1210**		**3,480.1554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8093	3.0223	7.5410	0.0228		0.0632	0.0632		0.0632	0.0632	0.0000	2,155.5633	2,155.5633	0.0721		2,157.0769
Total	**0.8093**	**3.0223**	**7.5410**	**0.0228**		**0.0632**	**0.0632**		**0.0632**	**0.0632**	**0.0000**	**2,155.5633**	**2,155.5633**	**0.0721**		**2,157.0769**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5745	0.7369	9.9759	0.0555	4.3593	0.0340	4.3933	1.1561	0.0316	1.1877		3,477.6139	3,477.6139	0.1210		3,480.1554
Total	**0.5745**	**0.7369**	**9.9759**	**0.0555**	**4.3593**	**0.0340**	**4.3933**	**1.1561**	**0.0316**	**1.1877**		**3,477.6139**	**3,477.6139**	**0.1210**		**3,480.1554**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7404	4.0560	18.9631	0.0873	5.5838	0.1182	5.7020	1.4931	0.1090	1.6021		6,229.9010	6,229.9010	0.1566		6,233.1905
Unmitigated	1.7404	4.0560	18.9631	0.0873	5.5838	0.1182	5.7020	1.4931	0.1090	1.6021		6,229.9010	6,229.9010	0.1566		6,233.1905

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	912.82	912.82	912.82	2,626,673	2,626,673
Total	912.82	912.82	912.82	2,626,673	2,626,673

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.474926	0.062601	0.188601	0.146937	0.045783	0.007301	0.017304	0.043806	0.002178	0.002600	0.003891	0.000533	0.003539

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	653.9421	5.2000e-004	0.0583	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1256	0.1256	3.2000e-004		0.1324
Unmitigated	653.9421	5.2000e-004	0.0583	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1256	0.1256	3.2000e-004		0.1324

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	158.7824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	495.1544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.3300e-003	5.2000e-004	0.0583	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1256	0.1256	3.2000e-004		0.1324
Total	**653.9421**	**5.2000e-004**	**0.0583**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1256**	**0.1256**	**3.2000e-004**		**0.1324**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	158.7824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	495.1544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.3300e-003	5.2000e-004	0.0583	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1256	0.1256	3.2000e-004		0.1324
Total	**653.9421**	**5.2000e-004**	**0.0583**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1256**	**0.1256**	**3.2000e-004**		**0.1324**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Operational Annual GHG Emissions

Ballona EIR

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	574.10	Acre	574.10	25,007,796.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	13			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumed O&M activities requiring off-road equipment would occure 55 days out of the year.

Off-road Equipment - Assumed one

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Off-road Equipment - Assumed O&M off-road equipment

Trips and VMT - Provided by project engineer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	9/20/2017	9/20/2018
tblConstructionPhase	PhaseEndDate	12/6/2018	3/19/2019
tblConstructionPhase	PhaseEndDate	6/4/2019	3/18/2020
tblConstructionPhase	PhaseEndDate	6/3/2020	3/19/2021
tblConstructionPhase	PhaseEndDate	6/4/2021	3/18/2022
tblConstructionPhase	PhaseEndDate	6/3/2022	3/17/2023
tblConstructionPhase	PhaseEndDate	6/2/2023	3/19/2035
tblConstructionPhase	PhaseStartDate	7/6/2017	7/6/2018
tblConstructionPhase	PhaseStartDate	9/21/2018	1/2/2019
tblConstructionPhase	PhaseStartDate	3/20/2019	1/2/2020
tblConstructionPhase	PhaseStartDate	3/19/2020	1/2/2021
tblConstructionPhase	PhaseStartDate	3/20/2021	1/2/2022
tblConstructionPhase	PhaseStartDate	3/19/2022	1/2/2023
tblConstructionPhase	PhaseStartDate	3/18/2023	1/2/2035
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		O&M Activities 2017
tblOffRoadEquipment	PhaseName		O&M Activities 2018
tblOffRoadEquipment	PhaseName		O&M Activities 2019
tblOffRoadEquipment	PhaseName		O&M Activities 2020
tblOffRoadEquipment	PhaseName		O&M Activities 2021
tblOffRoadEquipment	PhaseName		O&M Activities 2022
tblOffRoadEquipment	PhaseName		O&M Activities 2023
tblOffRoadEquipment	PhaseName		O&M Activities 2035
tblOffRoadEquipment	PhaseName		O&M Activities 2017
tblOffRoadEquipment	PhaseName		O&M Activities 2018
tblOffRoadEquipment	PhaseName		O&M Activities 2019
tblOffRoadEquipment	PhaseName		O&M Activities 2020
tblOffRoadEquipment	PhaseName		O&M Activities 2021

tblOffRoadEquipment	PhaseName		O&M Activities 2022
tblOffRoadEquipment	PhaseName		O&M Activities 2023
tblOffRoadEquipment	PhaseName		O&M Activities 2035
tblProjectCharacteristics	OperationalYear	2014	2035
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00
tblTripsAndVMT	WorkerTripNumber	10.00	390.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0819	0.5550	0.8236	1.9500e-003	0.1177	0.0248	0.1425	0.0313	0.0228	0.0541	0.0000	153.1532	153.1532	0.0199	0.0000	153.5716
2018	0.0725	0.4836	0.7595	1.9500e-003	0.1177	0.0209	0.1386	0.0313	0.0193	0.0505	0.0000	148.4153	148.4153	0.0195	0.0000	148.8252

2019	0.0661	0.4363	0.7099	1.9500e-003	0.1177	0.0182	0.1359	0.0313	0.0168	0.0480	0.0000	143.7785	143.7785	0.0192	0.0000	144.1815
2020	0.0615	0.3976	0.6721	1.9500e-003	0.1177	0.0161	0.1338	0.0313	0.0149	0.0461	0.0000	138.7855	138.7855	0.0189	0.0000	139.1832
2021	0.0570	0.3538	0.6412	1.9500e-003	0.1177	0.0140	0.1317	0.0313	0.0129	0.0442	0.0000	137.3323	137.3323	0.0187	0.0000	137.7259
2022	0.0515	0.2939	0.6106	1.9500e-003	0.1177	0.0113	0.1290	0.0313	0.0104	0.0417	0.0000	135.8303	135.8303	0.0186	0.0000	136.2203
2023	0.0482	0.2640	0.5855	1.9500e-003	0.1177	9.8800e-003	0.1276	0.0313	9.0900e-003	0.0403	0.0000	134.4371	134.4371	0.0184	0.0000	134.8238
2035	0.0373	0.1059	0.4593	2.0700e-003	0.1177	2.6700e-003	0.1203	0.0313	2.6100e-003	0.0339	0.0000	136.2125	136.2125	4.8200e-003	0.0000	136.3137
Total	**0.4760**	**2.8900**	**5.2616**	**0.0157**	**0.9414**	**0.1180**	**1.0594**	**0.2500**	**0.1088**	**0.3588**	**0.0000**	**1,127.9447**	**1,127.9447**	**0.1381**	**0.0000**	**1,130.8452**

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2017	0.0819	0.5550	0.8236	1.9500e-003	0.1177	0.0248	0.1425	0.0313	0.0228	0.0541	0.0000	153.1531	153.1531	0.0199	0.0000	153.5715
2018	0.0725	0.4836	0.7595	1.9500e-003	0.1177	0.0209	0.1386	0.0313	0.0193	0.0505	0.0000	148.4152	148.4152	0.0195	0.0000	148.8251
2019	0.0661	0.4363	0.7099	1.9500e-003	0.1177	0.0182	0.1359	0.0313	0.0168	0.0480	0.0000	143.7785	143.7785	0.0192	0.0000	144.1815
2020	0.0615	0.3976	0.6721	1.9500e-003	0.1177	0.0161	0.1338	0.0313	0.0149	0.0461	0.0000	138.7855	138.7855	0.0189	0.0000	139.1831
2021	0.0570	0.3538	0.6412	1.9500e-003	0.1177	0.0140	0.1317	0.0313	0.0129	0.0442	0.0000	137.3322	137.3322	0.0187	0.0000	137.7258
2022	0.0515	0.2939	0.6105	1.9500e-003	0.1177	0.0113	0.1290	0.0313	0.0104	0.0417	0.0000	135.8302	135.8302	0.0186	0.0000	136.2203
2023	0.0482	0.2640	0.5855	1.9500e-003	0.1177	9.8800e-003	0.1276	0.0313	9.0900e-003	0.0403	0.0000	134.4370	134.4370	0.0184	0.0000	134.8238
2035	0.0373	0.1059	0.4593	2.0700e-003	0.1177	2.6700e-003	0.1203	0.0313	2.6100e-003	0.0339	0.0000	136.2125	136.2125	4.8200e-003	0.0000	136.3136
Total	**0.4760**	**2.8900**	**5.2616**	**0.0157**	**0.9414**	**0.1180**	**1.0594**	**0.2500**	**0.1088**	**0.3588**	**0.0000**	**1,127.9442**	**1,127.9442**	**0.1381**	**0.0000**	**1,130.8448**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	119.3441	7.0000e-005	7.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0143	0.0143	4.0000e-005	0.0000	0.0150
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.3096	0.7848	3.5063	0.0153	0.9978	0.0215	1.0193	0.2672	0.0199	0.2871	0.0000	992.2784	992.2784	0.0259	0.0000	992.8215
Waste						0.0000	0.0000		0.0000	0.0000	10.0217	0.0000	10.0217	0.5923	0.0000	22.4592
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2,174.7445	2,174.7445	0.1000	0.0207	2,183.2554
Total	**119.6538**	**0.7849**	**3.5136**	**0.0153**	**0.9978**	**0.0215**	**1.0194**	**0.2672**	**0.0199**	**0.2871**	**10.0217**	**3,167.0371**	**3,177.0588**	**0.7181**	**0.0207**	**3,198.5511**

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	119.3441	7.0000e-005	7.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0143	0.0143	4.0000e-005	0.0000	0.0150
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.3096	0.7848	3.5063	0.0153	0.9978	0.0215	1.0193	0.2672	0.0199	0.2871	0.0000	992.2784	992.2784	0.0259	0.0000	992.8215
Waste						0.0000	0.0000		0.0000	0.0000	10.0217	0.0000	10.0217	0.5923	0.0000	22.4592
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2,174.7445	2,174.7445	0.1000	0.0207	2,183.2554
Total	**119.6538**	**0.7849**	**3.5136**	**0.0153**	**0.9978**	**0.0215**	**1.0194**	**0.2672**	**0.0199**	**0.2871**	**10.0217**	**3,167.0371**	**3,177.0588**	**0.7181**	**0.0207**	**3,198.5511**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	O&M Activities 2017	Trenching	4/20/2017	7/5/2017	5	55	
2	O&M Activities 2018	Trenching	7/6/2018	9/20/2018	5	55	
3	O&M Activities 2019	Trenching	1/2/2019	3/19/2019	5	55	
4	O&M Activities 2020	Trenching	1/2/2020	3/18/2020	5	55	
5	O&M Activities 2021	Trenching	1/2/2021	3/19/2021	5	55	
6	O&M Activities 2022	Trenching	1/2/2022	3/18/2022	5	55	
7	O&M Activities 2023	Trenching	1/2/2023	3/17/2023	5	55	
8	O&M Activities 2035	Trenching	1/2/2035	3/19/2035	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
O&M Activities 2017	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2017	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2018	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2018	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2019	Rubber Tired Loaders	2	8.00	199	0.36

O&M Activities 2019	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2020	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2020	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2021	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2021	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2022	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2022	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2023	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2023	Tractors/Loaders/Backhoes	2	8.00	97	0.37
O&M Activities 2035	Rubber Tired Loaders	2	8.00	199	0.36
O&M Activities 2035	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
O&M Activities 2017	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2018	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2019	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2020	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2021	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2022	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2023	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
O&M Activities 2035	4	390.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 O&M Activities 2017 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.4978	0.2302	5.1000e-004		0.0239	0.0239		0.0219	0.0219	0.0000	47.1462	47.1462	0.0145	0.0000	47.4495
Total	**0.0433**	**0.4978**	**0.2302**	**5.1000e-004**		**0.0239**	**0.0239**		**0.0219**	**0.0219**	**0.0000**	**47.1462**	**47.1462**	**0.0145**	**0.0000**	**47.4495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0572	0.5935	1.4500e-003	0.1177	9.6000e-004	0.1186	0.0313	8.9000e-004	0.0321	0.0000	106.0070	106.0070	5.4800e-003	0.0000	106.1221
Total	**0.0386**	**0.0572**	**0.5935**	**1.4500e-003**	**0.1177**	**9.6000e-004**	**0.1186**	**0.0313**	**8.9000e-004**	**0.0321**	**0.0000**	**106.0070**	**106.0070**	**5.4800e-003**	**0.0000**	**106.1221**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.4978	0.2302	5.1000e-004		0.0239	0.0239		0.0219	0.0219	0.0000	47.1461	47.1461	0.0145	0.0000	47.4495
Total	**0.0433**	**0.4978**	**0.2302**	**5.1000e-004**		**0.0239**	**0.0239**		**0.0219**	**0.0219**	**0.0000**	**47.1461**	**47.1461**	**0.0145**	**0.0000**	**47.4495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0572	0.5935	1.4500e-003	0.1177	9.6000e-004	0.1186	0.0313	8.9000e-004	0.0321	0.0000	106.0070	106.0070	5.4800e-003	0.0000	106.1221
Total	**0.0386**	**0.0572**	**0.5935**	**1.4500e-003**	**0.1177**	**9.6000e-004**	**0.1186**	**0.0313**	**8.9000e-004**	**0.0321**	**0.0000**	**106.0070**	**106.0070**	**5.4800e-003**	**0.0000**	**106.1221**

3.3 O&M Activities 2018 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0378	0.4317	0.2221	5.1000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	46.3649	46.3649	0.0144	0.0000	46.6681
Total	**0.0378**	**0.4317**	**0.2221**	**5.1000e-004**		**0.0200**	**0.0200**		**0.0184**	**0.0184**	**0.0000**	**46.3649**	**46.3649**	**0.0144**	**0.0000**	**46.6681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0347	0.0519	0.5374	1.4400e-003	0.1177	9.4000e-004	0.1186	0.0313	8.7000e-004	0.0321	0.0000	102.0504	102.0504	5.0800e-003	0.0000	102.1571
Total	**0.0347**	**0.0519**	**0.5374**	**1.4400e-003**	**0.1177**	**9.4000e-004**	**0.1186**	**0.0313**	**8.7000e-004**	**0.0321**	**0.0000**	**102.0504**	**102.0504**	**5.0800e-003**	**0.0000**	**102.1571**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0378	0.4317	0.2221	5.1000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	46.3649	46.3649	0.0144	0.0000	46.6680
Total	**0.0378**	**0.4317**	**0.2221**	**5.1000e-004**		**0.0200**	**0.0200**		**0.0184**	**0.0184**	**0.0000**	**46.3649**	**46.3649**	**0.0144**	**0.0000**	**46.6680**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0347	0.0519	0.5374	1.4400e-003	0.1177	9.4000e-004	0.1186	0.0313	8.7000e-004	0.0321	0.0000	102.0504	102.0504	5.0800e-003	0.0000	102.1571
Total	**0.0347**	**0.0519**	**0.5374**	**1.4400e-003**	**0.1177**	**9.4000e-004**	**0.1186**	**0.0313**	**8.7000e-004**	**0.0321**	**0.0000**	**102.0504**	**102.0504**	**5.0800e-003**	**0.0000**	**102.1571**

3.4 O&M Activities 2019 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3888	0.2172	5.1000e-004		0.0173	0.0173		0.0159	0.0159	0.0000	45.6119	45.6119	0.0144	0.0000	45.9149
Total	**0.0343**	**0.3888**	**0.2172**	**5.1000e-004**		**0.0173**	**0.0173**		**0.0159**	**0.0159**	**0.0000**	**45.6119**	**45.6119**	**0.0144**	**0.0000**	**45.9149**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0318	0.0476	0.4928	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	98.1667	98.1667	4.7600e-003	0.0000	98.2666
Total	**0.0318**	**0.0476**	**0.4928**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**98.1667**	**98.1667**	**4.7600e-003**	**0.0000**	**98.2666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3888	0.2172	5.1000e-004		0.0173	0.0173		0.0159	0.0159	0.0000	45.6118	45.6118	0.0144	0.0000	45.9149
Total	**0.0343**	**0.3888**	**0.2172**	**5.1000e-004**		**0.0173**	**0.0173**		**0.0159**	**0.0159**	**0.0000**	**45.6118**	**45.6118**	**0.0144**	**0.0000**	**45.9149**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0318	0.0476	0.4928	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	98.1667	98.1667	4.7600e-003	0.0000	98.2666
Total	**0.0318**	**0.0476**	**0.4928**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**98.1667**	**98.1667**	**4.7600e-003**	**0.0000**	**98.2666**

3.5 O&M Activities 2020 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3535	0.2136	5.1000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	44.6065	44.6065	0.0144	0.0000	44.9094
Total	**0.0317**	**0.3535**	**0.2136**	**5.1000e-004**		**0.0152**	**0.0152**		**0.0140**	**0.0140**	**0.0000**	**44.6065**	**44.6065**	**0.0144**	**0.0000**	**44.9094**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0441	0.4585	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	94.1791	94.1791	4.5100e-003	0.0000	94.2737
Total	**0.0298**	**0.0441**	**0.4585**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**94.1791**	**94.1791**	**4.5100e-003**	**0.0000**	**94.2737**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3535	0.2136	5.1000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	44.6064	44.6064	0.0144	0.0000	44.9094
Total	**0.0317**	**0.3535**	**0.2136**	**5.1000e-004**		**0.0152**	**0.0152**		**0.0140**	**0.0140**	**0.0000**	**44.6064**	**44.6064**	**0.0144**	**0.0000**	**44.9094**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0441	0.4585	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	94.1791	94.1791	4.5100e-003	0.0000	94.2737
Total	**0.0298**	**0.0441**	**0.4585**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**94.1791**	**94.1791**	**4.5100e-003**	**0.0000**	**94.2737**

3.6 O&M Activities 2021 - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0288	0.3126	0.2105	5.1000e-004		0.0131	0.0131		0.0121	0.0121	0.0000	44.6163	44.6163	0.0144	0.0000	44.9193
Total	**0.0288**	**0.3126**	**0.2105**	**5.1000e-004**		**0.0131**	**0.0131**		**0.0121**	**0.0121**	**0.0000**	**44.6163**	**44.6163**	**0.0144**	**0.0000**	**44.9193**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0412	0.4307	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	92.7160	92.7160	4.3200e-003	0.0000	92.8066
Total	**0.0282**	**0.0412**	**0.4307**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**92.7160**	**92.7160**	**4.3200e-003**	**0.0000**	**92.8066**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0288	0.3126	0.2105	5.1000e-004		0.0131	0.0131		0.0121	0.0121	0.0000	44.6162	44.6162	0.0144	0.0000	44.9193
Total	**0.0288**	**0.3126**	**0.2105**	**5.1000e-004**		**0.0131**	**0.0131**		**0.0121**	**0.0121**	**0.0000**	**44.6162**	**44.6162**	**0.0144**	**0.0000**	**44.9193**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0412	0.4307	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	92.7160	92.7160	4.3200e-003	0.0000	92.8066
Total	**0.0282**	**0.0412**	**0.4307**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**92.7160**	**92.7160**	**4.3200e-003**	**0.0000**	**92.8066**

3.7 O&M Activities 2022 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0248	0.2553	0.2056	5.1000e-004		0.0104	0.0104		9.5900e-003	9.5900e-003	0.0000	44.6546	44.6546	0.0144	0.0000	44.9579
Total	**0.0248**	**0.2553**	**0.2056**	**5.1000e-004**		**0.0104**	**0.0104**		**9.5900e-003**	**9.5900e-003**	**0.0000**	**44.6546**	**44.6546**	**0.0144**	**0.0000**	**44.9579**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0267	0.0386	0.4049	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	91.1757	91.1757	4.1300e-003	0.0000	91.2624
Total	**0.0267**	**0.0386**	**0.4049**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**91.1757**	**91.1757**	**4.1300e-003**	**0.0000**	**91.2624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0248	0.2553	0.2056	5.1000e-004		0.0104	0.0104		9.5900e-003	9.5900e-003	0.0000	44.6546	44.6546	0.0144	0.0000	44.9579
Total	**0.0248**	**0.2553**	**0.2056**	**5.1000e-004**		**0.0104**	**0.0104**		**9.5900e-003**	**9.5900e-003**	**0.0000**	**44.6546**	**44.6546**	**0.0144**	**0.0000**	**44.9579**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0267	0.0386	0.4049	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	91.1757	91.1757	4.1300e-003	0.0000	91.2624
Total	**0.0267**	**0.0386**	**0.4049**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**91.1757**	**91.1757**	**4.1300e-003**	**0.0000**	**91.2624**

3.8 O&M Activities 2023 - 2023

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0229	0.2276	0.2041	5.1000e-004		8.9600e-003	8.9600e-003		8.2500e-003	8.2500e-003	0.0000	44.6664	44.6664	0.0145	0.0000	44.9698
Total	**0.0229**	**0.2276**	**0.2041**	**5.1000e-004**		**8.9600e-003**	**8.9600e-003**		**8.2500e-003**	**8.2500e-003**	**0.0000**	**44.6664**	**44.6664**	**0.0145**	**0.0000**	**44.9698**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0364	0.3814	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	89.7707	89.7707	3.9700e-003	0.0000	89.8540
Total	**0.0253**	**0.0364**	**0.3814**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**89.7707**	**89.7707**	**3.9700e-003**	**0.0000**	**89.8540**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0229	0.2276	0.2041	5.1000e-004		8.9600e-003	8.9600e-003		8.2500e-003	8.2500e-003	0.0000	44.6664	44.6664	0.0145	0.0000	44.9697
Total	**0.0229**	**0.2276**	**0.2041**	**5.1000e-004**		**8.9600e-003**	**8.9600e-003**		**8.2500e-003**	**8.2500e-003**	**0.0000**	**44.6664**	**44.6664**	**0.0145**	**0.0000**	**44.9697**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0364	0.3814	1.4400e-003	0.1177	9.2000e-004	0.1186	0.0313	8.5000e-004	0.0321	0.0000	89.7707	89.7707	3.9700e-003	0.0000	89.8540
Total	**0.0253**	**0.0364**	**0.3814**	**1.4400e-003**	**0.1177**	**9.2000e-004**	**0.1186**	**0.0313**	**8.5000e-004**	**0.0321**	**0.0000**	**89.7707**	**89.7707**	**3.9700e-003**	**0.0000**	**89.8540**

3.9 O&M Activities 2035 - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0223	0.0831	0.2074	6.3000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	53.7761	53.7761	1.8000e-003	0.0000	53.8139
Total	**0.0223**	**0.0831**	**0.2074**	**6.3000e-004**		**1.7400e-003**	**1.7400e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**53.7761**	**53.7761**	**1.8000e-003**	**0.0000**	**53.8139**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0151	0.0228	0.2519	1.4500e-003	0.1177	9.4000e-004	0.1186	0.0313	8.7000e-004	0.0321	0.0000	82.4365	82.4365	3.0200e-003	0.0000	82.4999
Total	**0.0151**	**0.0228**	**0.2519**	**1.4500e-003**	**0.1177**	**9.4000e-004**	**0.1186**	**0.0313**	**8.7000e-004**	**0.0321**	**0.0000**	**82.4365**	**82.4365**	**3.0200e-003**	**0.0000**	**82.4999**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0223	0.0831	0.2074	6.3000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	53.7760	53.7760	1.8000e-003	0.0000	53.8138
Total	**0.0223**	**0.0831**	**0.2074**	**6.3000e-004**		**1.7400e-003**	**1.7400e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**53.7760**	**53.7760**	**1.8000e-003**	**0.0000**	**53.8138**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0151	0.0228	0.2519	1.4500e-003	0.1177	9.4000e-004	0.1186	0.0313	8.7000e-004	0.0321	0.0000	82.4365	82.4365	3.0200e-003	0.0000	82.4999
Total	**0.0151**	**0.0228**	**0.2519**	**1.4500e-003**	**0.1177**	**9.4000e-004**	**0.1186**	**0.0313**	**8.7000e-004**	**0.0321**	**0.0000**	**82.4365**	**82.4365**	**3.0200e-003**	**0.0000**	**82.4999**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3096	0.7848	3.5063	0.0153	0.9978	0.0215	1.0193	0.2672	0.0199	0.2871	0.0000	992.2784	992.2784	0.0259	0.0000	992.8215
Unmitigated	0.3096	0.7848	3.5063	0.0153	0.9978	0.0215	1.0193	0.2672	0.0199	0.2871	0.0000	992.2784	992.2784	0.0259	0.0000	992.8215

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	912.82	912.82	912.82	2,626,673	2,626,673
Total	912.82	912.82	912.82	2,626,673	2,626,673

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.474926	0.062601	0.188601	0.146937	0.045783	0.007301	0.017304	0.043806	0.002178	0.002600	0.003891	0.000533	0.003539

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	119.3441	7.0000e-005	7.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0143	0.0143	4.0000e-005	0.0000	0.0150
Unmitigated	119.3441	7.0000e-005	7.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0143	0.0143	4.0000e-005	0.0000	0.0150

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	28.9778					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	90.3657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.7000e-004	7.0000e-005	7.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0143	0.0143	4.0000e-005	0.0000	0.0150
Total	**119.3441**	**7.0000e-005**	**7.2900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0143**	**0.0143**	**4.0000e-005**	**0.0000**	**0.0150**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	28.9778					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	90.3657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.7000e-004	7.0000e-005	7.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0143	0.0143	4.0000e-005	0.0000	0.0150
Total	**119.3441**	**7.0000e-005**	**7.2900e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0143**	**0.0143**	**4.0000e-005**	**0.0000**	**0.0150**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		2,174.7445	0.1000	0.0207	2,183.2554
Unmitigated		2,174.7445	0.1000	0.0207	2,183.2554

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 684.029		2,174.7445	0.1000	0.0207	2,183.2554
Total			**2,174.7445**	**0.1000**	**0.0207**	**2,183.2554**

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 684.029		2,174.7445	0.1000	0.0207	2,183.2554
Total			**2,174.7445**	**0.1000**	**0.0207**	**2,183.2554**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		10.0217	0.5923	0.0000	22.4592
Unmitigated		10.0217	0.5923	0.0000	22.4592

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	49.37		10.0217	0.5923	0.0000	22.4592
Total			**10.0217**	**0.5923**	**0.0000**	**22.4592**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	49.37		10.0217	0.5923	0.0000	22.4592
Total			**10.0217**	**0.5923**	**0.0000**	**22.4592**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation