
Appendix A:

Air Quality and GHG Emissions Supporting Information

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Freedom Lane Project Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Freedom Lane Project
Construction Start Date	7/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.5
Precipitation (days)	14
Location	33.561769542603585, -117.728687666962
County	Orange
City	Aliso Viejo
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6035
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.32

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Condo/Townhouse	72	Dwelling Unit	4.4	170,500	64,092	—	215	Lot Acreage is Net Site development area inclusive of landscaping and parking/roadways. Pavement also captured under Paved Area.
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	59	59	14	15	0.02	0.59	4.0	4.6	0.54	2.0	2.6	—	2,857	2,857	0.11	0.17	2.3	2,870
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.79	0.66	5.0	8.3	0.01	0.17	0.53	0.70	0.16	0.13	0.28	—	1,833	1,833	0.07	0.05	0.05	1,851
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.2	3.2	3.4	5.9	0.01	0.11	0.38	0.49	0.10	0.13	0.20	—	1,309	1,309	0.05	0.04	0.54	1,322
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	0.58	0.62	1.1	< 0.005	0.02	0.07	0.09	0.02	0.02	0.04	—	217	217	0.01	0.01	0.09	219

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.9	1.6	14	15	0.02	0.59	4.0	4.6	0.54	2.0	2.6	—	2,857	2,857	0.11	0.17	2.3	2,870
2028	0.76	0.64	4.8	8.4	0.01	0.15	0.53	0.68	0.14	0.13	0.27	—	1,843	1,843	0.07	0.04	1.7	1,858
2029	59	59	6.0	9.6	0.01	0.20	0.53	0.67	0.18	0.13	0.26	—	1,831	1,831	0.07	0.04	1.5	1,845
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.79	0.66	5.0	8.3	0.01	0.17	0.53	0.70	0.16	0.13	0.28	—	1,833	1,833	0.07	0.05	0.05	1,851
2028	0.76	0.64	4.8	8.2	0.01	0.15	0.53	0.68	0.14	0.13	0.27	—	1,821	1,821	0.07	0.05	0.04	1,839
2029	0.74	0.62	4.6	8.0	0.01	0.14	0.53	0.67	0.13	0.13	0.26	—	1,809	1,809	0.07	0.05	0.04	1,826
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.29	0.24	2.0	2.8	0.01	0.07	0.35	0.42	0.07	0.13	0.20	—	692	692	0.03	0.03	0.30	703
2028	0.55	0.46	3.4	5.9	0.01	0.11	0.38	0.49	0.10	0.09	0.19	—	1,309	1,309	0.05	0.04	0.54	1,322
2029	3.2	3.2	1.8	3.1	< 0.005	0.06	0.19	0.24	0.05	0.04	0.10	—	678	678	0.02	0.02	0.24	685
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.05	0.04	0.37	0.52	< 0.005	0.01	0.06	0.08	0.01	0.02	0.04	—	115	115	< 0.005	0.01	0.05	116
2028	0.10	0.08	0.62	1.1	< 0.005	0.02	0.07	0.09	0.02	0.02	0.03	—	217	217	0.01	0.01	0.09	219
2029	0.59	0.58	0.33	0.57	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	112	112	< 0.005	< 0.005	0.04	113

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.1	5.9	1.1	17	0.03	0.02	3.4	3.4	0.02	0.86	0.88	34	3,986	4,020	3.6	0.15	9.9	4,165
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.7	5.6	1.1	12	0.03	0.02	3.4	3.4	0.02	0.86	0.87	34	3,844	3,878	3.6	0.16	1.4	4,017
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.6	5.5	0.95	13	0.03	0.02	2.7	2.7	0.02	0.69	0.70	34	3,238	3,272	3.6	0.13	4.2	3,405
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.0	1.0	0.17	2.3	< 0.005	< 0.005	0.49	0.50	< 0.005	0.13	0.13	5.6	536	542	0.59	0.02	0.70	564

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.8	1.6	1.1	13	0.03	0.02	3.4	3.4	0.02	0.86	0.87	—	3,455	3,455	0.15	0.13	8.7	3,508
Area	4.3	4.3	0.04	4.1	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	11	11	< 0.005	< 0.005	—	11
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	497	497	0.05	0.01	—	500
Water	—	—	—	—	—	—	—	—	—	—	—	5.2	23	28	0.53	0.01	—	45
Waste	—	—	—	—	—	—	—	—	—	—	—	29	0.00	29	2.9	0.00	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1.2
Total	6.1	5.9	1.1	17	0.03	0.02	3.4	3.4	0.02	0.86	0.88	34	3,986	4,020	3.6	0.15	9.9	4,165
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.8	1.6	1.1	12	0.03	0.02	3.4	3.4	0.02	0.86	0.87	—	3,324	3,324	0.16	0.14	0.22	3,370
Area	3.9	3.9	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
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	497	497	0.05	0.01	—	500
Water	—	—	—	—	—	—	—	—	—	—	—	5.2	23	28	0.53	0.01	—	45
Waste	—	—	—	—	—	—	—	—	—	—	—	29	0.00	29	2.9	0.00	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1.2
Total	5.7	5.6	1.1	12	0.03	0.02	3.4	3.4	0.02	0.86	0.87	34	3,844	3,878	3.6	0.16	1.4	4,017
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.4	1.3	0.93	9.8	0.03	0.02	2.7	2.7	0.01	0.69	0.70	—	2,711	2,711	0.13	0.11	3.0	2,750
Area	4.2	4.2	0.03	2.8	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	7.5	7.5	< 0.005	< 0.005	—	7.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	497	497	0.05	0.01	—	500
Water	—	—	—	—	—	—	—	—	—	—	—	5.2	23	28	0.53	0.01	—	45
Waste	—	—	—	—	—	—	—	—	—	—	—	29	0.00	29	2.9	0.00	—	101
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1.2
Total	5.6	5.5	0.95	13	0.03	0.02	2.7	2.7	0.02	0.69	0.70	34	3,238	3,272	3.6	0.13	4.2	3,405
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.26	0.24	0.17	1.8	< 0.005	< 0.005	0.49	0.50	< 0.005	0.13	0.13	—	449	449	0.02	0.02	0.50	455
Area	0.77	0.76	< 0.005	0.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.2	1.2	< 0.005	< 0.005	—	1.2
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	82	82	0.01	< 0.005	—	83
Water	—	—	—	—	—	—	—	—	—	—	—	0.86	3.7	4.6	0.09	< 0.005	—	7.4
Waste	—	—	—	—	—	—	—	—	—	—	—	4.8	0.00	4.8	0.48	0.00	—	17
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.0	1.0	0.17	2.3	< 0.005	< 0.005	0.49	0.50	< 0.005	0.13	0.13	5.6	536	542	0.59	0.02	0.70	564

3. Construction Emissions Details

3.1. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.8	1.5	14	14	0.02	0.59	—	0.59	0.54	—	0.54	—	2,649	2,649	0.11	0.02	—	2,658
Dust From Material Movement	—	—	—	—	—	—	3.8	3.8	—	2.0	2.0	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.39	< 0.005	0.02	—	0.02	0.01	—	0.01	—	73	73	< 0.005	< 0.005	—	73
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12	12	< 0.005	< 0.005	—	12

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.65	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.51	163
Vendor	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47	47	< 0.005	0.01	0.11	49
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.2	4.2	< 0.005	< 0.005	0.01	4.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.3	1.3	< 0.005	< 0.005	< 0.005	1.4
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.70	0.70	< 0.005	< 0.005	< 0.005	0.71
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Hauling	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	0.00

3.3. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.40	3.6	4.3	0.01	0.15	—	0.15	0.14	—	0.14	—	740	740	0.03	0.01	—	743
Dust From Material Movement	—	—	—	—	—	—	0.69	0.69	—	0.33	0.33	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.47	< 0.005	0.02	—	0.02	0.02	—	0.02	—	81	81	< 0.005	< 0.005	—	81
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13	13	< 0.005	< 0.005	—	13
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.56	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	138	138	< 0.005	0.01	0.43	140
Vendor	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	0.00
Hauling	0.09	0.02	1.2	0.52	0.01	0.01	0.27	0.28	0.01	0.07	0.09	—	988	988	0.08	0.16	1.9	1,039
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15	15	< 0.005	< 0.005	0.02	15
Vendor	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	0.00
Hauling	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	0.01	0.02	0.09	114
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.4	2.4	< 0.005	< 0.005	< 0.005	2.4
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18	18	< 0.005	< 0.005	0.01	19

3.5. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm ent	0.62	0.51	4.7	6.5	0.01	0.17	—	0.17	0.15	—	0.15	—	1,199	1,199	0.05	0.01	—	1,203
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.62	0.51	4.7	6.5	0.01	0.17	—	0.17	0.15	—	0.15	—	1,199	1,199	0.05	0.01	—	1,203
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.14	0.11	1.0	1.4	< 0.005	0.04	—	0.04	0.03	—	0.03	—	267	267	0.01	< 0.005	—	268
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.03	0.02	0.19	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	44	44	< 0.005	< 0.005	—	44
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.12	1.9	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	476	476	0.01	0.02	1.5	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	182	182	0.01	0.02	0.43	190

Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.12	1.7	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	453	453	0.01	0.02	0.04	459
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	182	182	0.01	0.02	0.01	190
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.39	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	102	102	< 0.005	< 0.005	0.14	104
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41	41	< 0.005	0.01	0.04	42
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17	17	< 0.005	< 0.005	0.02	17
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.7	6.7	< 0.005	< 0.005	0.01	7.0
Hauling	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	0.00

3.7. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.50	4.5	6.5	0.01	0.15	—	0.15	0.14	—	0.14	—	1,199	1,199	0.05	0.01	—	1,203
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.50	4.5	6.5	0.01	0.15	—	0.15	0.14	—	0.14	—	1,199	1,199	0.05	0.01	—	1,203
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.36	3.2	4.6	0.01	0.11	—	0.11	0.10	—	0.10	—	859	859	0.03	0.01	—	862
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.58	0.85	< 0.005	0.02	—	0.02	0.02	—	0.02	—	142	142	0.01	< 0.005	—	143
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.10	1.8	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	467	467	0.01	< 0.005	1.3	470
Vendor	0.01	< 0.005	0.19	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	178	178	0.01	0.02	0.39	186
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.12	1.6	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	445	445	0.01	0.02	0.03	451

Vendor	0.01	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	178	178	0.01	0.02	0.01	185
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.09	1.2	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	323	323	0.01	0.01	0.42	327
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	127	127	0.01	0.02	0.12	133
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	53	53	< 0.005	< 0.005	0.07	54
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21	21	< 0.005	< 0.005	0.02	22
Hauling	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	0.00

3.9. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.48	4.3	6.5	0.01	0.14	—	0.14	0.13	—	0.13	—	1,198	1,198	0.05	0.01	—	1,203
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.48	4.3	6.5	0.01	0.14	—	0.14	0.13	—	0.13	—	1,198	1,198	0.05	0.01	—	1,203

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.19	0.15	1.4	2.1	< 0.005	0.04	—	0.04	0.04	—	0.04	—	385	385	0.02	< 0.005	—	386
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.03	0.03	0.25	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64	64	< 0.005	< 0.005	—	64
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.10	1.7	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	459	459	0.01	< 0.005	1.2	462
Vendor	0.01	< 0.005	0.18	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	173	173	0.01	0.02	0.35	181
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.10	1.5	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	437	437	0.01	0.02	0.03	443
Vendor	0.01	< 0.005	0.19	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	173	173	0.01	0.02	0.01	181
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.50	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	142	142	< 0.005	0.01	0.17	144
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	56	56	< 0.005	0.01	0.05	58

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24	24	< 0.005	< 0.005	0.03	24
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.2	9.2	< 0.005	< 0.005	0.01	9.6
Hauling	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	0.00

3.11. Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	0.62	5.7	8.8	0.01	0.20	—	0.20	0.18	—	0.18	—	1,350	1,350	0.05	0.01	—	1,354
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	67	67	< 0.005	< 0.005	—	67
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11	11	< 0.005	< 0.005	—	11
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.66	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	177	177	< 0.005	< 0.005	0.46	178
Vendor	0.02	0.01	0.21	0.11	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	202	202	0.01	0.03	0.40	212
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.4	8.4	< 0.005	< 0.005	0.01	8.6
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.4	1.4	< 0.005	< 0.005	< 0.005	1.4
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.7	1.7	< 0.005	< 0.005	< 0.005	1.7
Hauling	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	0.00

3.13. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	59	59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.6	6.6	< 0.005	< 0.005	—	6.6
Architectural Coatings	2.9	2.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.1	1.1	< 0.005	< 0.005	—	1.1
Architectural Coatings	0.53	0.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92	92	< 0.005	< 0.005	0.24	92
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.4	4.4	< 0.005	< 0.005	0.01	4.4
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	1.8	1.6	1.1	13	0.03	0.02	3.4	3.4	0.02	0.86	0.87	—	3,455	3,455	0.15	0.13	8.7	3,508
Total	1.8	1.6	1.1	13	0.03	0.02	3.4	3.4	0.02	0.86	0.87	—	3,455	3,455	0.15	0.13	8.7	3,508
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	1.8	1.6	1.1	12	0.03	0.02	3.4	3.4	0.02	0.86	0.87	—	3,324	3,324	0.16	0.14	0.22	3,370
Total	1.8	1.6	1.1	12	0.03	0.02	3.4	3.4	0.02	0.86	0.87	—	3,324	3,324	0.16	0.14	0.22	3,370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.26	0.24	0.17	1.8	< 0.005	< 0.005	0.49	0.50	< 0.005	0.13	0.13	—	449	449	0.02	0.02	0.50	455
Total	0.26	0.24	0.17	1.8	< 0.005	< 0.005	0.49	0.50	< 0.005	0.13	0.13	—	449	449	0.02	0.02	0.50	455

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	497	497	0.05	0.01	—	500
Total	—	—	—	—	—	—	—	—	—	—	—	—	497	497	0.05	0.01	—	500

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	497	497	0.05	0.01	—	500
Total	—	—	—	—	—	—	—	—	—	—	—	—	497	497	0.05	0.01	—	500
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	82	82	0.01	< 0.005	—	83
Total	—	—	—	—	—	—	—	—	—	—	—	—	82	82	0.01	< 0.005	—	83

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	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
Total	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

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	3.6	3.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.29	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.35	0.04	4.1	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11	11	< 0.005	< 0.005	—	11
Total	4.3	4.3	0.04	4.1	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	11	11	< 0.005	< 0.005	—	11
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	3.6	3.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	0.29	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.9	3.9	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	0.67	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.04	< 0.005	0.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.2	1.2	< 0.005	< 0.005	—	1.2
Total	0.77	0.76	< 0.005	0.51	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.2	1.2	< 0.005	< 0.005	—	1.2

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	5.2	23	28	0.53	0.01	—	45
Total	—	—	—	—	—	—	—	—	—	—	—	5.2	23	28	0.53	0.01	—	45
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	—	—	—	—	—	—	—	—	—	—	—	5.2	23	28	0.53	0.01	—	45
Total	—	—	—	—	—	—	—	—	—	—	—	5.2	23	28	0.53	0.01	—	45
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/T ownhou se	—	—	—	—	—	—	—	—	—	—	—	0.86	3.7	4.6	0.09	< 0.005	—	7.4
Total	—	—	—	—	—	—	—	—	—	—	—	0.86	3.7	4.6	0.09	< 0.005	—	7.4

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/T ownhou se	—	—	—	—	—	—	—	—	—	—	—	29	0.00	29	2.9	0.00	—	101
Total	—	—	—	—	—	—	—	—	—	—	—	29	0.00	29	2.9	0.00	—	101
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/T ownhou se	—	—	—	—	—	—	—	—	—	—	—	29	0.00	29	2.9	0.00	—	101
Total	—	—	—	—	—	—	—	—	—	—	—	29	0.00	29	2.9	0.00	—	101
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/T ownhou se	—	—	—	—	—	—	—	—	—	—	—	4.8	0.00	4.8	0.48	0.00	—	17
Total	—	—	—	—	—	—	—	—	—	—	—	4.8	0.00	4.8	0.48	0.00	—	17

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetati on	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	7/1/2027	7/14/2027	5.0	10.0	—
Grading	Grading	7/15/2027	9/8/2027	5.0	40	—
Building Construction	Building Construction	9/9/2027	6/13/2029	5.0	460	—

Paving	Paving	6/14/2029	7/9/2029	5.0	18	—
Architectural Coating	Architectural Coating	7/10/2029	8/2/2029	5.0	18	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.0	4.0	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.0	4.0	84	0.37
Grading	Graders	Diesel	Average	1.00	2.0	148	0.41
Grading	Excavators	Diesel	Average	1.00	2.0	36	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.0	2.0	84	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	2.0	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	3.5	367	0.29
Building Construction	Forklifts	Diesel	Average	3.0	4.0	82	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	4.0	14	0.74
Building Construction	Welders	Diesel	Average	1.00	4.0	46	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.0	3.5	84	0.37
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.0	84	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.0	6.0	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.0	81	0.42
Paving	Paving Equipment	Diesel	Average	2.0	6.0	89	0.36
Paving	Rollers	Diesel	Average	2.0	6.0	36	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.0	37	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	18	13	LDA,LDT1,LDT2
Site Preparation	Vendor	2.0	7.8	HHDT,MHDT
Site Preparation	Hauling	0.00	20	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	15	13	LDA,LDT1,LDT2
Grading	Vendor	—	7.8	HHDT,MHDT
Grading	Hauling	15	20	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	52	13	LDA,LDT1,LDT2
Building Construction	Vendor	7.7	7.8	HHDT,MHDT
Building Construction	Hauling	0.00	20	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	20	13	LDA,LDT1,LDT2
Paving	Vendor	9.0	7.8	HHDT,MHDT
Paving	Hauling	0.00	20	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	10	13	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.8	HHDT,MHDT
Architectural Coating	Hauling	0.00	20	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	345,263	115,088	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	7.5	0.00	0.00
Grading	—	4,700	10.0	0.00	0.00
Paving	0.00	0.00	0.00	0.00	1.6

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Condo/Townhouse	1.6	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	346	0.03	< 0.005
2028	0.00	346	0.03	< 0.005
2029	0.00	346	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Condo/Townhouse	466	601	465	177,052	3,697	4,772	3,692	1,405,247

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Condo/Townhouse	Wood Fireplaces	0	0
Condo/Townhouse	Gas Fireplaces	0	0
Condo/Townhouse	Propane Fireplaces	0	0
Condo/Townhouse	Electric Fireplaces	0	0
Condo/Townhouse	No Fireplaces	72	72
Condo/Townhouse	Conventional Wood Stoves	0	0
Condo/Townhouse	Catalytic Wood Stoves	0	0
Condo/Townhouse	Non-Catalytic Wood Stoves	0	0
Condo/Townhouse	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

—	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
---	--	--	--	--	-----------------------------

undefined	345,263	115,088	0.00	0.00	—
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5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	524,172	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	2,701,847	1,015,246

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	53	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.5	2.5	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.1	annual days of extreme heat
Extreme Precipitation	4.1	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	65
AQ-PM	45
AQ-DPM	30
Drinking Water	5.9
Lead Risk Housing	2.6
Pesticides	0.00
Toxic Releases	41
Traffic	46
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	24
Impaired Water Bodies	72
Solid Waste	0.00
Sensitive Population	—
Asthma	11
Cardio-vascular	28
Low Birth Weights	33
Socioeconomic Factor Indicators	—
Education	14
Housing	35
Linguistic	13

Poverty	9.8
Unemployment	67

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	93.9304504
Employed	97.78005903
Median HI	95.50878994
Education	—
Bachelor's or higher	87.75824458
High school enrollment	100
Preschool enrollment	68.66418581
Transportation	—
Auto Access	47.37585012
Active commuting	1.039394328
Social	—
2-parent households	80.07185936
Voting	64.37828821
Neighborhood	—
Alcohol availability	81.79135121
Park access	81.35506224
Retail density	81.11125369
Supermarket access	4.79917875
Tree canopy	62.22250738
Housing	—
Homeownership	56.2941101

Housing habitability	92.22379058
Low-inc homeowner severe housing cost burden	77.32580521
Low-inc renter severe housing cost burden	92.48043116
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	93.81496215
Arthritis	0.0
Asthma ER Admissions	87.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	95.9
Cognitively Disabled	43.0
Physically Disabled	97.9
Heart Attack ER Admissions	78.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0

Climate Change Exposures	—
Wildfire Risk	16.5
SLR Inundation Area	0.0
Children	55.0
Elderly	73.9
English Speaking	80.3
Foreign-born	22.7
Outdoor Workers	91.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	46.3
Traffic Density	28.6
Traffic Access	23.0
Other Indices	—
Hardship	11.7
Other Decision Support	—
2016 Voting	78.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	10.0
Healthy Places Index Score for Project Location (b)	94
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Site Area based on parcel and inclusive of interior roads, alleys, and landscaping.
Construction: Construction Phases	Extended construction schedule to fit applicant provided schedule. Demolition not required on-site as site is undeveloped.
Construction: Off-Road Equipment	Equipment hours adjusted to reflect extended site preparation, grading, and building construction. Equipment adjusted 0.5 hours to account for the construction duration that is 2 times CalEEMod defaults for aforementioned construction phases.
Operations: Vehicle Data	Weekday Trip Rates adjusted from Freedom Residential Trip Generation Assessment, Urban Crossroads, November 5, 2025. ITE LU Code 215 does not have Saturday and Sunday rates in ITE Trip Generation Manual 12th edition. CalEEMod defaults used for trip rate adjustment.
Operations: Hearths	No natural gas or wood fireplaces and stoves
Operations: Energy Use	Adjusted to add electricity for NG replaced End Uses. Source: CAPCOA GHG Handbook, Table E 15.1 and 2. Commercial Energy Consumption by End Use,1 Electricity Demand Forecast Zone, and Building Type

Freedom Lane Project Construction LST Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Freedom Lane Project Construction LST
Construction Start Date	7/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50000
Precipitation (days)	13.6000
Location	33.561769542603585, -117.728687666962
County	Orange
City	Aliso Viejo
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6035
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Condo/Townhouse	72.0000	Dwelling Unit	4.41000	170,500	64,092.0	—	215.000	Lot Acreage is Net Site development area inclusive of landscaping and parking/roadways. Pavement also captured under Paved Area.
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2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	59.4352	59.4131	14.0169	14.2836	0.02447	0.58589	2.56243	3.14832	0.53902	1.31500	1.85402	—	2,662.62	2,662.62	0.11076	0.02355	0.08466	2,672.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.75385	0.64437	4.81090	6.96355	0.01179	0.16837	0.02154	0.18991	0.15491	0.00518	0.16009	—	1,242.84	1,242.84	0.06027	0.01644	0.00220	1,249.25
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.20692	3.16695	3.27507	4.96142	0.00844	0.10758	0.12689	0.19692	0.09898	0.06193	0.12636	—	889.824	889.824	0.04317	0.01178	0.02348	894.435
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.58526	0.57797	0.59770	0.90546	0.00154	0.01963	0.02316	0.03594	0.01806	0.01130	0.02306	—	147.320	147.320	0.00715	0.00195	0.00389	148.084

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.86213	1.56973	14.0169	14.2836	0.02447	0.58589	2.56243	3.14832	0.53902	1.31500	1.85402	—	2,662.62	2,662.62	0.11076	0.02355	0.08466	2,672.44
2028	0.72639	0.62171	4.56793	6.88469	0.01179	0.15020	0.02154	0.17175	0.13819	0.00518	0.14338	—	1,242.83	1,242.83	0.05896	0.01587	0.07582	1,249.11
2029	59.4352	59.4131	5.82486	9.00690	0.01305	0.19782	0.02154	0.20866	0.18200	0.00518	0.18470	—	1,380.59	1,380.59	0.06147	0.01587	0.06751	1,386.77
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.75385	0.64437	4.81090	6.96355	0.01178	0.16837	0.02154	0.18991	0.15491	0.00518	0.16009	—	1,242.84	1,242.84	0.06027	0.01644	0.00220	1,249.25
2028	0.72491	0.62057	4.57418	6.93695	0.01179	0.15020	0.02154	0.17175	0.13819	0.00518	0.14338	—	1,242.21	1,242.21	0.06027	0.01644	0.00196	1,248.62
2029	0.70347	0.60154	4.39938	6.89566	0.01178	0.13791	0.02154	0.15945	0.12688	0.00518	0.13206	—	1,241.09	1,241.09	0.05895	0.01644	0.00175	1,247.46
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.27726	0.23516	1.87263	2.44744	0.00410	0.07002	0.12689	0.19692	0.06443	0.06193	0.12636	—	437.349	437.349	0.02145	0.00595	0.01148	439.670
2028	0.52015	0.44542	3.27507	4.96142	0.00844	0.10758	0.01530	0.12288	0.09898	0.00368	0.10266	—	889.824	889.824	0.04317	0.01178	0.02348	894.435
2029	3.20692	3.16695	1.73825	2.71391	0.00451	0.05465	0.00756	0.06221	0.05028	0.00182	0.05210	—	473.262	473.262	0.02228	0.00614	0.01048	475.660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.05060	0.04292	0.34175	0.44666	0.00075	0.01278	0.02316	0.03594	0.01176	0.01130	0.02306	—	72.4082	72.4082	0.00355	0.00099	0.00190	72.7924
2028	0.09493	0.08129	0.59770	0.90546	0.00154	0.01963	0.00279	0.02243	0.01806	0.00067	0.01874	—	147.320	147.320	0.00715	0.00195	0.00389	148.084
2029	0.58526	0.57797	0.31723	0.49529	0.00082	0.00997	0.00138	0.01135	0.00918	0.00033	0.00951	—	78.3539	78.3539	0.00369	0.00102	0.00173	78.7509

3. Construction Emissions Details

3.1. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.81589	1.52585	13.9862	14.1397	0.02445	0.58587	—	0.58587	0.53900	—	0.53900	—	2,648.91	2,648.91	0.10745	0.02149	—	2,658.00
Dust From Material Movement	—	—	—	—	—	—	2.55541	2.55541	—	1.31332	1.31332	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04975	0.04180	0.38318	0.38739	0.00067	0.01605	—	0.01605	0.01477	—	0.01477	—	72.5729	72.5729	0.00294	0.00059	—	72.8219
Dust From Material Movement	—	—	—	—	—	—	0.07001	0.07001	—	0.03598	0.03598	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00908	0.00763	0.06993	0.07070	0.00012	0.00293	—	0.00293	0.00269	—	0.00269	—	12.0153	12.0153	0.00049	0.00010	—	12.0565
Dust From Material Movement	—	—	—	—	—	—	0.01278	0.01278	—	0.00657	0.00657	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04437	0.04302	0.01080	0.12925	0.00000	0.00000	0.00618	0.00618	0.00000	0.00145	0.00145	—	8.85740	8.85740	0.00231	0.00135	0.01920	9.33687
Vendor	0.00187	0.00086	0.01991	0.01466	0.00002	0.00002	0.00084	0.00086	0.00002	0.00023	0.00025	—	4.85641	4.85641	0.00099	0.00071	0.00722	5.09866
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00120	0.00117	0.00032	0.00395	0.00000	0.00000	0.00017	0.00017	0.00000	0.00004	0.00004	—	0.23768	0.23768	0.00007	0.00004	0.00023	0.25078
Vendor	0.00005	0.00002	0.00056	0.00041	< 0.000005	< 0.000005	0.00002	0.00002	< 0.000005	0.00001	0.00001	—	0.13343	0.13343	0.00003	0.00002	0.00009	0.13992
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00022	0.00021	0.00006	0.00072	0.00000	0.00000	0.00003	0.00003	0.00000	0.00001	0.00001	—	0.03935	0.03935	0.00001	0.00001	0.00004	0.04152
Vendor	0.00001	< 0.000005	0.00010	0.00007	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	—	0.02209	0.02209	< 0.000005	< 0.000005	0.00001	0.02317
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47199	0.39660	3.55803	4.31859	0.00683	0.14942	—	0.14942	0.13746	—	0.13746	—	740.018	740.018	0.03002	0.00600	—	742.558

Dust From Material Movement	—	—	—	—	—	—	0.46198	0.46198	—	0.22285	0.22285	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05172	0.04346	0.38992	0.47327	0.00075	0.01637	—	0.01637	0.01506	—	0.01506	—	81.0979	81.0979	0.00329	0.00066	—	81.3762
Dust From Material Movement	—	—	—	—	—	—	0.05063	0.05063	—	0.02442	0.02442	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00944	0.00793	0.07116	0.08637	0.00014	0.00299	—	0.00299	0.00275	—	0.00275	—	13.4267	13.4267	0.00054	0.00011	—	13.4728
Dust From Material Movement	—	—	—	—	—	—	0.00924	0.00924	—	0.00446	0.00446	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03803	0.03687	0.00926	0.11078	0.00000	0.00000	0.00530	0.00530	0.00000	0.00124	0.00124	—	7.59206	7.59206	0.00198	0.00116	0.01646	8.00303

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02252	0.00891	0.22086	0.15896	0.00049	0.00032	0.00665	0.00698	0.00032	0.00187	0.00219	—	47.2382	47.2382	0.01296	0.00778	0.04704	49.9271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00413	0.00400	0.00111	0.01354	0.00000	0.00000	0.00058	0.00058	0.00000	0.00013	0.00013	—	0.81490	0.81490	0.00025	0.00013	0.00078	0.85982
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00243	0.00091	0.02477	0.01763	0.00005	0.00004	0.00072	0.00076	0.00004	0.00020	0.00024	—	5.19383	5.19383	0.00142	0.00085	0.00222	5.48558
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00075	0.00073	0.00020	0.00247	0.00000	0.00000	0.00011	0.00011	0.00000	0.00002	0.00002	—	0.13492	0.13492	0.00004	0.00002	0.00013	0.14235
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00044	0.00017	0.00452	0.00322	0.00001	0.00001	0.00013	0.00014	0.00001	0.00004	0.00004	—	0.85990	0.85990	0.00024	0.00014	0.00037	0.90820

3.5. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61538	0.51494	4.69547	6.46897	0.01170	0.16829	—	0.16829	0.15482	—	0.15482	—	1,198.54	1,198.54	0.04862	0.00972	—	1,202.65
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.61538	0.51494	4.69547	6.46897	0.01170	0.16829	—	0.16829	0.15482	—	0.15482	—	1,198.54	1,198.54	0.04862	0.00972	—	1,202.65
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13729	0.11488	1.04752	1.44318	0.00261	0.03754	—	0.03754	0.03454	—	0.03454	—	267.384	267.384	0.01085	0.00217	—	268.302
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02505	0.02097	0.19117	0.26338	0.00048	0.00685	—	0.00685	0.00630	—	0.00630	—	44.2685	44.2685	0.00180	0.00036	—	44.4205
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13143	0.12743	0.03200	0.38286	0.00000	0.00000	0.01831	0.01831	0.00000	0.00429	0.00429	—	26.2382	26.2382	0.00686	0.00400	0.05687	27.6585
Vendor	0.00721	0.00331	0.07661	0.05642	0.00008	0.00008	0.00323	0.00331	0.00008	0.00089	0.00098	—	18.6894	18.6894	0.00382	0.00271	0.02778	19.6217
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13143	0.12629	0.03543	0.43544	0.00000	0.00000	0.01831	0.01831	0.00000	0.00429	0.00429	—	25.4867	25.4867	0.00800	0.00400	0.00148	26.8802
Vendor	0.00704	0.00314	0.08001	0.05914	0.00008	0.00008	0.00323	0.00331	0.00008	0.00089	0.00098	—	18.8138	18.8138	0.00365	0.00271	0.00072	19.7148
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02907	0.02817	0.00778	0.09523	0.00000	0.00000	0.00405	0.00405	0.00000	0.00095	0.00095	—	5.73318	5.73318	0.00178	0.00089	0.00549	6.04921
Vendor	0.00161	0.00074	0.01747	0.01285	0.00002	0.00002	0.00071	0.00073	0.00002	0.00020	0.00022	—	4.18119	4.18119	0.00081	0.00061	0.00267	4.38470
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00530	0.00514	0.00142	0.01738	0.00000	0.00000	0.00074	0.00074	0.00000	0.00017	0.00017	—	0.94919	0.94919	0.00030	0.00015	0.00091	1.00152
Vendor	0.00029	0.00013	0.00319	0.00235	< 0.000005	< 0.000005	0.00013	0.00013	< 0.000005	0.00004	0.00004	—	0.69224	0.69224	0.00013	0.00010	0.00044	0.72594
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59241	0.49572	4.46248	6.46762	0.01170	0.15012	—	0.15012	0.13811	—	0.13811	—	1,198.73	1,198.73	0.04863	0.00973	—	1,202.84
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59241	0.49572	4.46248	6.46762	0.01170	0.15012	—	0.15012	0.13811	—	0.13811	—	1,198.73	1,198.73	0.04863	0.00973	—	1,202.84
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.42431	0.35505	3.19622	4.63239	0.00838	0.10752	—	0.10752	0.09892	—	0.09892	—	858.580	858.580	0.03483	0.00697	—	861.527
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07744	0.06480	0.58331	0.84541	0.00153	0.01962	—	0.01962	0.01805	—	0.01805	—	142.148	142.148	0.00577	0.00115	—	142.636
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12686	0.12286	0.03029	0.36115	0.00000	0.00000	0.01831	0.01831	0.00000	0.00429	0.00429	—	25.7559	25.7559	0.00686	0.00343	0.05083	26.9999
Vendor	0.00713	0.00314	0.07517	0.05591	0.00008	0.00008	0.00323	0.00331	0.00008	0.00089	0.00098	—	18.3428	18.3428	0.00348	0.00271	0.02499	19.2638
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12572	0.12172	0.03314	0.41086	0.00000	0.00000	0.01831	0.01831	0.00000	0.00429	0.00429	—	25.0130	25.0130	0.00800	0.00400	0.00132	26.4063
Vendor	0.00679	0.00314	0.07856	0.05846	0.00008	0.00008	0.00323	0.00331	0.00008	0.00089	0.00098	—	18.4721	18.4721	0.00365	0.00271	0.00065	19.3730
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09086	0.08800	0.02374	0.28814	0.00000	0.00000	0.01300	0.01300	0.00000	0.00305	0.00305	—	18.0660	18.0660	0.00573	0.00287	0.01574	19.0788
Vendor	0.00498	0.00237	0.05512	0.04090	0.00006	0.00006	0.00230	0.00236	0.00006	0.00063	0.00070	—	13.1770	13.1770	0.00261	0.00194	0.00773	13.8296
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01658	0.01606	0.00433	0.05259	0.00000	0.00000	0.00237	0.00237	0.00000	0.00056	0.00056	—	2.99103	2.99103	0.00095	0.00047	0.00261	3.15871
Vendor	0.00091	0.00043	0.01006	0.00746	0.00001	0.00001	0.00042	0.00043	0.00001	0.00012	0.00013	—	2.18161	2.18161	0.00043	0.00032	0.00128	2.28965

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
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3.9. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57668	0.48257	4.29083	6.45062	0.01170	0.13782	—	0.13782	0.12680	—	0.12680	—	1,198.42	1,198.42	0.04861	0.00972	—	1,202.53
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57668	0.48257	4.29083	6.45062	0.01170	0.13782	—	0.13782	0.12680	—	0.12680	—	1,198.42	1,198.42	0.04861	0.00972	—	1,202.53
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18508	0.15488	1.37710	2.07026	0.00375	0.04423	—	0.04423	0.04069	—	0.04069	—	384.619	384.619	0.01560	0.00312	—	385.939
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.03378	0.02826	0.25132	0.37782	0.00069	0.00807	—	0.00807	0.00743	—	0.00743	—	63.6781	63.6781	0.00258	0.00052	—	63.8966
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12114	0.11829	0.02914	0.34058	0.00000	0.00000	0.01831	0.01831	0.00000	0.00429	0.00429	—	25.3050	25.3050	0.00686	0.00343	0.04519	26.5433
Vendor	0.00713	0.00314	0.07339	0.05523	0.00008	0.00008	0.00323	0.00331	0.00008	0.00089	0.00098	—	17.9697	17.9697	0.00348	0.00271	0.02232	18.8880
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12000	0.11600	0.03143	0.38744	0.00000	0.00000	0.01831	0.01831	0.00000	0.00429	0.00429	—	24.5718	24.5718	0.00686	0.00400	0.00117	25.9365
Vendor	0.00679	0.00297	0.07712	0.05761	0.00008	0.00008	0.00323	0.00331	0.00008	0.00089	0.00098	—	18.1029	18.1029	0.00348	0.00271	0.00058	18.9995
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03815	0.03686	0.01009	0.12196	0.00000	0.00000	0.00583	0.00583	0.00000	0.00136	0.00136	—	7.95228	7.95228	0.00220	0.00128	0.00627	8.39613
Vendor	0.00223	0.00101	0.02418	0.01811	0.00003	0.00003	0.00103	0.00106	0.00003	0.00028	0.00031	—	5.78526	5.78526	0.00112	0.00087	0.00309	6.07592
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00696	0.00673	0.00184	0.02226	0.00000	0.00000	0.00106	0.00106	0.00000	0.00025	0.00025	—	1.31659	1.31659	0.00036	0.00021	0.00104	1.39008
Vendor	0.00041	0.00018	0.00441	0.00330	< 0.000005	< 0.000005	0.00019	0.00019	< 0.000005	0.00005	0.00006	—	0.95782	0.95782	0.00018	0.00014	0.00051	1.00594
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73586	0.61696	5.72780	8.81092	0.01295	0.19772	—	0.19772	0.18190	—	0.18190	—	1,349.81	1,349.81	0.05475	0.01095	—	1,354.44
Paving	0.23289	0.23289	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03629	0.03043	0.28247	0.43451	0.00064	0.00975	—	0.00975	0.00897	—	0.00897	—	66.5661	66.5661	0.00270	0.00054	—	66.7945
Paving	0.01148	0.01148	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00662	0.00555	0.05155	0.07930	0.00012	0.00178	—	0.00178	0.00164	—	0.00164	—	11.0208	11.0208	0.00045	0.00009	—	11.0586
Paving	0.00210	0.00210	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04674	0.04564	0.01124	0.13140	0.00000	0.00000	0.00707	0.00707	0.00000	0.00166	0.00166	—	9.76273	9.76273	0.00265	0.00132	0.01743	10.2405
Vendor	0.00833	0.00367	0.08581	0.06458	0.00010	0.00010	0.00377	0.00387	0.00010	0.00104	0.00114	—	21.0123	21.0123	0.00407	0.00317	0.02610	22.0861
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00226	0.00219	0.00060	0.00723	0.00000	0.00000	0.00035	0.00035	0.00000	0.00008	0.00008	—	0.47143	0.47143	0.00013	0.00008	0.00037	0.49774
Vendor	0.00040	0.00018	0.00434	0.00325	< 0.000005	< 0.000005	0.00018	0.00019	< 0.000005	0.00005	0.00006	—	1.03947	1.03947	0.00020	0.00016	0.00056	1.09169
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00041	0.00040	0.00011	0.00132	0.00000	0.00000	0.00006	0.00006	0.00000	0.00001	0.00001	—	0.07805	0.07805	0.00002	0.00001	0.00006	0.08241
Vendor	0.00007	0.00003	0.00079	0.00059	< 0.000005	< 0.000005	0.00003	0.00003	< 0.000005	0.00001	0.00001	—	0.17210	0.17210	0.00003	0.00003	0.00009	0.18074
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.13. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968

Architect Coatings	59.2871	59.2871	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00611	0.00505	0.03916	0.05485	0.00009	0.00063	—	0.00063	0.00058	—	0.00058	—	6.58404	6.58404	0.00027	0.00005	—	6.60663
Architectural Coatings	2.92375	2.92375	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00111	0.00092	0.00715	0.01001	0.00002	0.00012	—	0.00012	0.00011	—	0.00011	—	1.09006	1.09006	0.00004	0.00001	—	1.09380
Architectural Coatings	0.53358	0.53358	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02423	0.02366	0.00583	0.06812	0.00000	0.00000	0.00366	0.00366	0.00000	0.00086	0.00086	—	5.06100	5.06100	0.00137	0.00069	0.00904	5.30867
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00117	0.00113	0.00031	0.00375	0.00000	0.00000	0.00018	0.00018	0.00000	0.00004	0.00004	—	0.24439	0.24439	0.00007	0.00004	0.00019	0.25803
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00021	0.00021	0.00006	0.00068	0.00000	0.00000	0.00003	0.00003	0.00000	0.00001	0.00001	—	0.04046	0.04046	0.00001	0.00001	0.00003	0.04272
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	7/1/2027	7/14/2027	5.00000	10.00000	—
Grading	Grading	7/15/2027	9/8/2027	5.00000	40.0000	—
Building Construction	Building Construction	9/9/2027	6/13/2029	5.00000	460.000	—
Paving	Paving	6/14/2029	7/9/2029	5.00000	18.0000	—
Architectural Coating	Architectural Coating	7/10/2029	8/2/2029	5.00000	18.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	4.00000	367.000	0.40000

Site Preparation	Tractors/Loaders/Back	Diesel	Average	4.00000	4.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	2.00000	148.000	0.41000
Grading	Excavators	Diesel	Average	1.000000	2.00000	36.0000	0.38000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	2.00000	84.0000	0.37000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	2.00000	367.000	0.40000
Building Construction	Cranes	Diesel	Average	1.000000	3.50000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	4.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	4.00000	14.0000	0.74000
Building Construction	Welders	Diesel	Average	1.000000	4.00000	46.0000	0.45000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	3.50000	84.0000	0.37000
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Paving	Cement and Mortar Mixers	Diesel	Average	2.00000	6.00000	10.00000	0.56000
Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	6.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	6.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	17.5000	0.50000	LDA,LDT1,LDT2
Site Preparation	Vendor	2.00000	0.50000	HHDT,MHDT
Site Preparation	Hauling	0.00000	0.50000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	15.0000	0.50000	LDA,LDT1,LDT2

Grading	Vendor	—	0.50000	HHDT,MHDT
Grading	Hauling	14.7000	0.50000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	51.8400	0.50000	LDA,LDT1,LDT2
Building Construction	Vendor	7.69680	0.50000	HHDT,MHDT
Building Construction	Hauling	0.00000	0.50000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	20.0000	0.50000	LDA,LDT1,LDT2
Paving	Vendor	9.00000	0.50000	HHDT,MHDT
Paving	Hauling	0.00000	0.50000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	10.3680	0.50000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	0.50000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	345,263	115,088	0.00000	0.00000	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	7.50000	0.00000	0.00000
Grading	—	4,700.00	10.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	1.60000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Condo/Townhouse	1.60000	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	346.196	0.03300	0.00400
2028	0.00000	346.196	0.03300	0.00400
2029	0.00000	346.196	0.03300	0.00400

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Site Area based on parcel and inclusive of interior roads, alleys, and landscaping.
Construction: Construction Phases	Extended construction schedule to fit applicant provided schedule. Demolition not required on-site as site is undeveloped.
Construction: Off-Road Equipment	Equipment hours adjusted to reflect extended site preparation, grading, and building construction. Equipment adjusted 0.5 hours to account for the construction duration that is 2 times CalEEMod defaults for aforementioned construction phases.
Construction: Trips and VMT	Trip Length adjusted to 0.5 miles to reflect on-site construction emissions.
Construction: Paving	Based on paved areas estimated from site plans - alleys and parking spaces, including Freedom Lane paving.
Operations: Vehicle Data	Weekday Trip Rates adjusted from Freedom Residential Trip Generation Assessment, Urban Crossroads, November 5, 2025. ITE LU Code 215 does not have Saturday and Sunday rates in ITE Trip Generation Manual 12th edition. CalEEMod defaults used for trip rate adjustment.
Operations: Hearths	No natural gas or wood fireplaces and stoves
Operations: Energy Use	Adjusted to add electricity for NG replaced End Uses. Source: CAPCOA GHG Handbook, Table E 15.1 and 2. Commercial Energy Consumption by End Use,1 Electricity Demand Forecast Zone, and Building Type

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	4.50000	4.41000
Building Area	sq. ft	76,320.0	170,500
Landscape Area	sq. ft	—	64,092.0

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	Start Date	7/30/2027	7/1/2027
Site Preparation	Site Preparation	End Date	8/6/2027	7/14/2027
Site Preparation	Site Preparation	Work Days per Phase	5.00000	10.00000

Grading	Grading	Start Date	8/7/2027	7/15/2027
Grading	Grading	End Date	8/18/2027	9/8/2027
Grading	Grading	Work Days per Phase	8.00000	40.0000
Building Construction	Building Construction	Start Date	8/19/2027	9/9/2027
Building Construction	Building Construction	End Date	7/6/2028	6/13/2029
Building Construction	Building Construction	Work Days per Phase	230.000	460.000
Paving	Paving	Start Date	7/7/2028	6/14/2029
Paving	Paving	End Date	8/1/2028	7/9/2029
Architectural Coating	Architectural Coating	Start Date	8/2/2028	7/10/2029
Architectural Coating	Architectural Coating	End Date	8/27/2028	8/2/2029

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Site Preparation	Rubber Tired Dozers	Hours Per Day	8.00000	4.00000
Site Preparation	Tractors/Loaders/Backhoes	Hours Per Day	8.00000	4.00000
Grading	Graders	Hours Per Day	8.00000	2.00000
Grading	Excavators	Hours Per Day	8.00000	2.00000
Grading	Tractors/Loaders/Backhoes	Hours Per Day	8.00000	2.00000
Grading	Rubber Tired Dozers	Hours Per Day	8.00000	2.00000
Building Construction	Cranes	Hours Per Day	7.00000	3.50000
Building Construction	Forklifts	Hours Per Day	8.00000	4.00000
Building Construction	Generator Sets	Hours Per Day	8.00000	4.00000
Building Construction	Welders	Hours Per Day	8.00000	4.00000
Building Construction	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	3.50000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Site Preparation	Worker	Miles per Trip	13.1900	0.50000

Site Preparation	Vendor	One-Way Trips per Day	—	2.00000
Site Preparation	Vendor	Miles per Trip	7.75000	0.50000
Site Preparation	Hauling	Miles per Trip	20.0000	0.50000
Grading	Worker	Miles per Trip	13.1900	0.50000
Grading	Vendor	Miles per Trip	7.75000	0.50000
Grading	Hauling	Miles per Trip	20.0000	0.50000
Building Construction	Worker	Miles per Trip	13.1900	0.50000
Building Construction	Vendor	Miles per Trip	7.75000	0.50000
Building Construction	Hauling	Miles per Trip	20.0000	0.50000
Paving	Worker	Miles per Trip	13.1900	0.50000
Paving	Vendor	One-Way Trips per Day	—	9.00000
Paving	Vendor	Miles per Trip	7.75000	0.50000
Paving	Hauling	Miles per Trip	20.0000	0.50000
Architectural Coating	Worker	Miles per Trip	13.1900	0.50000
Architectural Coating	Vendor	Miles per Trip	7.75000	0.50000
Architectural Coating	Hauling	Miles per Trip	20.0000	0.50000

8.4.9. Paving

Phase Name	Land Use	Model Parameter	Units	Default Value	New Value
Paving	Condo/Townhouse	Area Paved	acres	—	1.60000
Paving	Condo/Townhouse	% Asphalt	%	0.00000	100.0000

Freedom Lane Project - LST Custom Report

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- 4. Operations Emissions Details
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 - 5.9. Operational Mobile Sources
 - 5.9.1. Unmitigated
- 8. User Changes to Default Data
 - 8.1. Justifications

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Freedom Lane Project - LST
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.5
Precipitation (days)	14
Location	33.561769542603585, -117.728687666962
County	Orange
City	Aliso Viejo
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6035
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.35

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Condo/Townhouse	72	Dwelling Unit	4.4	170,500	64,092	—	215	Lot Acreage is Net Site development area inclusive of landscaping and parking/roadways. Pavement also captured under Paved Area.
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	1.4	1.3	0.39	3.4	< 0.005	< 0.005	0.21	0.22	< 0.005	0.05	0.06	—	307	307	0.07	0.04	0.55	322
Total	1.4	1.3	0.39	3.4	< 0.005	< 0.005	0.21	0.22	< 0.005	0.05	0.06	—	307	307	0.07	0.04	0.55	322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	1.4	1.3	0.42	3.8	< 0.005	< 0.005	0.21	0.22	< 0.005	0.05	0.06	—	300	300	0.08	0.04	0.01	315
Total	1.4	1.3	0.42	3.8	< 0.005	< 0.005	0.21	0.22	< 0.005	0.05	0.06	—	300	300	0.08	0.04	0.01	315
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	0.20	0.19	0.06	0.56	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	40	40	0.01	0.01	0.03	42
Total	0.20	0.19	0.06	0.56	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	40	40	0.01	0.01	0.03	42

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Condo/Townhouse	466	601	465	177,052	233	301	233	88,526

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Site Area based on parcel and inclusive of interior roads, alleys, and landscaping.
Construction: Construction Phases	Extended construction schedule to fit applicant provided schedule. Demolition not required on-site as site is undeveloped.
Construction: Off-Road Equipment	Equipment hours adjusted to reflect extended site preparation, grading, and building construction. Equipment adjusted 0.5 hours to account for the construction duration that is 2 times CalEEMod defaults for aforementioned construction phases.
Operations: Vehicle Data	Weekday Trip Rates adjusted from Freedom Residential Trip Generation Assessment, Urban Crossroads, November 5, 2025. ITE LU Code 215 does not have Saturday and Sunday rates in ITE Trip Generation Manual 12th edition. CalEEMod defaults used for trip rate adjustment. Trip Length changes to 0.5 to simulate on-site vehicle activity.
Operations: Hearths	No natural gas or wood fireplaces and stoves
Operations: Energy Use	Adjusted to add electricity for NG replaced End Uses. Source: CAPCOA GHG Handbook, Table E 15.1 and 2. Commercial Energy Consumption by End Use,1 Electricity Demand Forecast Zone, and Building Type

Freedom Lane Project

Construction - Trips and VMT

Phase / Activity	Add'l One-Way Trips/Day	Trip Type	Trip Length	Vehicle Class
Paving	9	Vendor	default	HHDT
Site Preparation	2	Vendor	default	HHDT/MHDT

- Notes:
1. CalEEMod defaults include haul trips for demolition, site preparation and grading based on the quantity of demoltion waste and/or soil imported/exported.
 2. CalEEMod defaults include vendor trips during constrution based on the number of dwelling units or the non-residential square footage.

Justification for Changes

Additional trips include vendor trips for hauling site preparation materials from removed trees. Additional trips include vendor haul trips for hauling asphalt during paving phase.

Calculations: Asphalt Pavement Vendor Trips - based on 1.6 acres

Landuse Asphalt Paved Area	Asphalt Paved Area (sf)	Asphalt volume (cubic feet)	Asphalt Volume (cy)	Capacity per vendor truck (cy per truck)	One Way Trips Total	Days in Paving Phase	One Way Vendor Trips Per Day (Asphalt)
Condo/Townhouse	69,524	34,762	1,287	16	160	18	9

- Notes:
1. Assumptions: Asphalt paved areas includes off-site improvement area on Freedom Lane.
 2. Assumptions: Asphalt volume (cubic feet) assumes 6 inch pavement

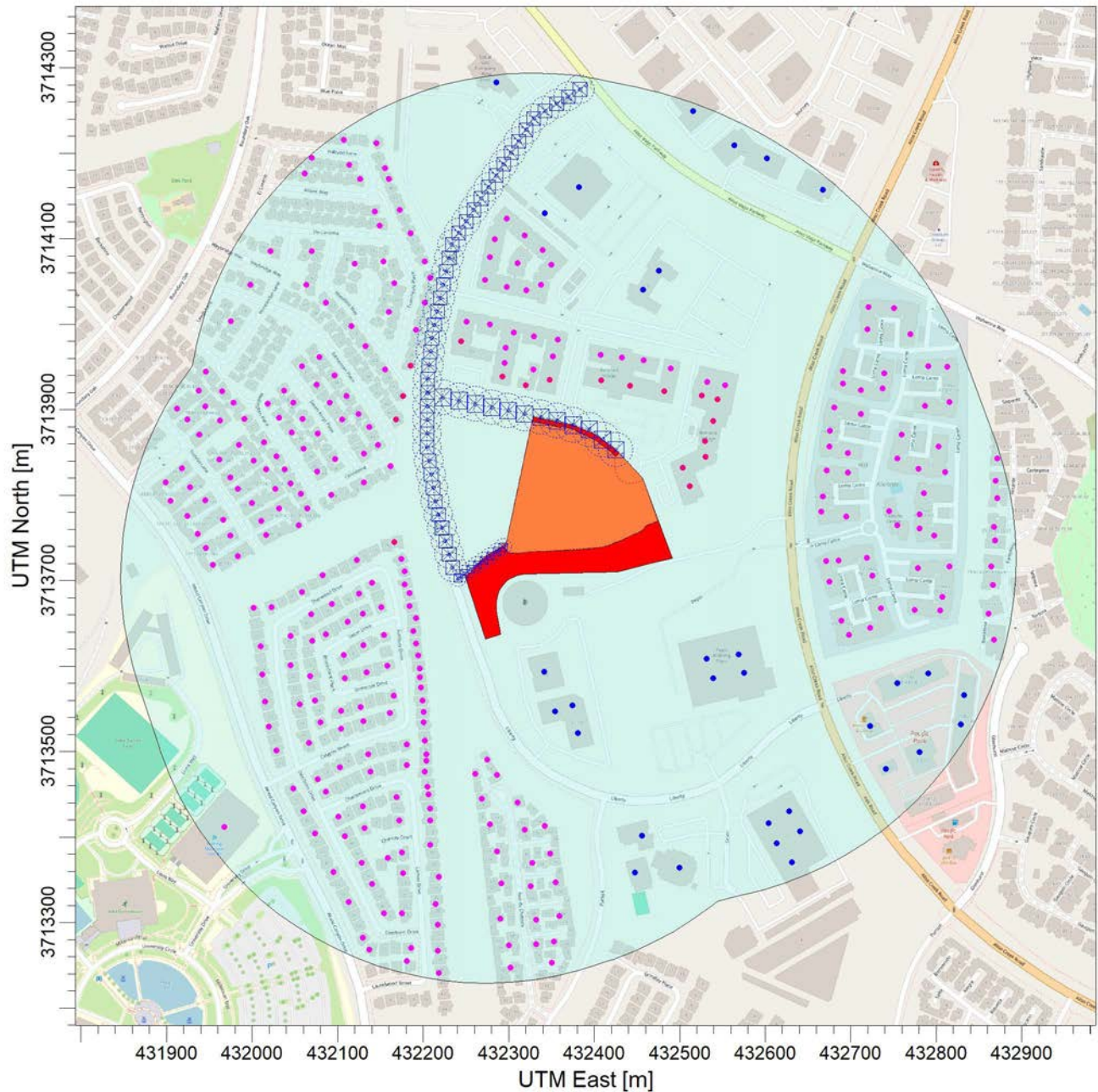
Freedom Lane Project

Measure E-15 All-Electric

CEC Electricity Demand Forecast Zone (EDFZ): 7									
			Per Unit			Additional electricity use per Unit for equivalent electrified end uses			
Land Use Subtype	Size	Units	Annual Energy Use by Land Use Subtype and EDFZ ¹			Title 24		Non Title 24	
			Total	Title 24	Non Title 24	Water Heater	Primary Heat	Cooking	Dryer
Condo/Townhouse	72	Dwelling Units	4,592	1,132	3,460	1,365	609	292	422
Notes:									
Source: CalEEMod Table G-28. Annual Energy Use by Land Use Subtype and EDFZ . Recreational Pool building assigned Health Club Usage									
CalEEMod Defaults									
			Baseline Annual Energy Usage for Project Landuse			for equivalent electrified end uses			
Land Use Subtype	Size	Units	Baseline Annual Energy Usage for Project Landuse			Title 24		Non Title 24	
			Total	Title 24	Non Title 24	Water Heater	Primary Heat	Cooking	Dryer
Condo/Townhouse	72	Dwelling Units	330,636	81,497	249,139	98,280	43,848	21,024	30,384
Notes:									
Source: CAPCOA GHG Handbook, Table E 15.1 and 2. Commercial Energy Consumption by End Use,1 Electricity Demand Forecast Zone, and Building Type Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Available at: Available at: https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf .									
Adjustment for Measure E-15									
			Annual Electrical Usage (kWhr)						
Building Type / LandUse	Amount	Units	Total	Title 24	Non Title 24				
Condo/Townhouse	72	Dwelling Units	524,172	223,625	300,547				

PROJECT TITLE:

Freedom Lane Residential Project Sources and Receptor Figure



Source Legend:

- Site Boundary -----
- Site ■
- Developed Site Area ■
- Haul Road XXXX

Receptor Legend:

- Residential
- Residential – Sensitive
- Non-Residential

Sources / Receptors :

4 / 345

SCALE: 1:7,500

0 0.2 km

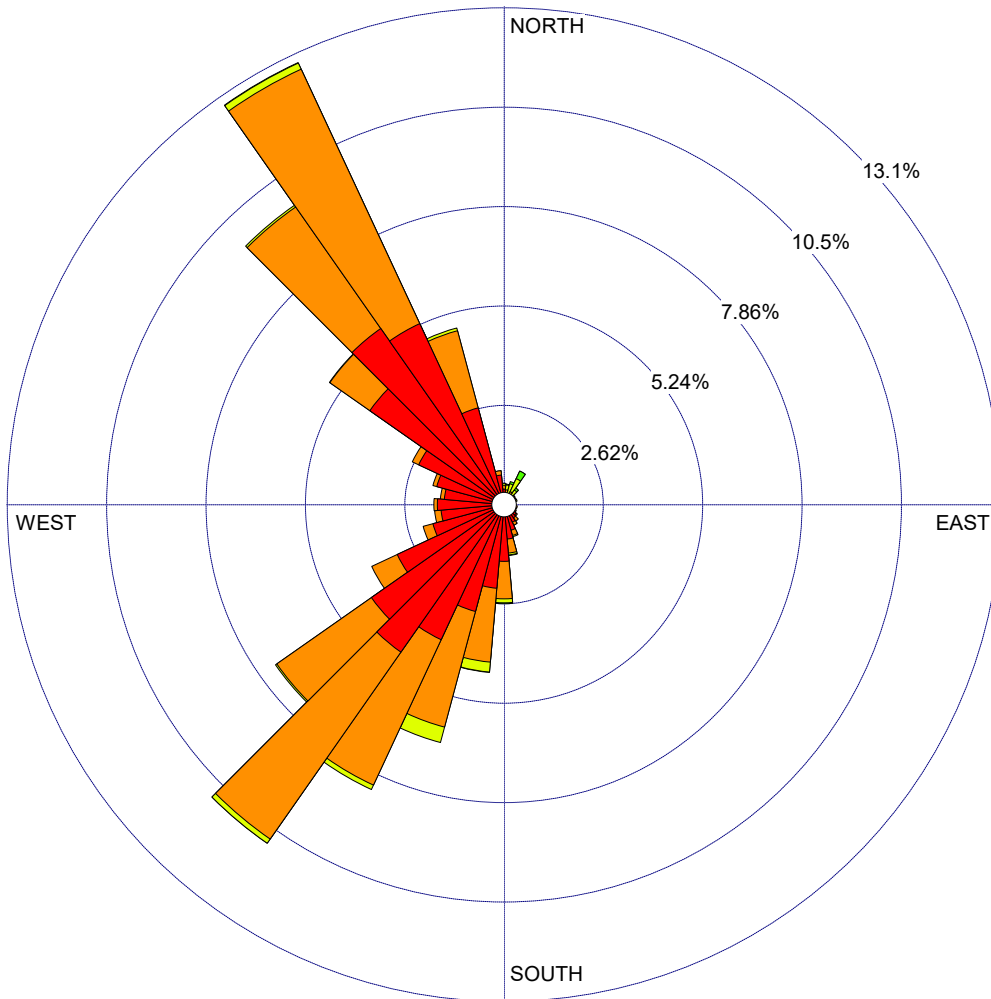
FCS
An ADEC Innovation

WIND ROSE PLOT:

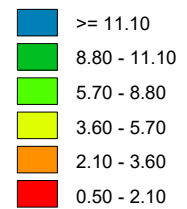
MSVJ
Wind Direction during Construction Hours

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(m/s)



Calms: 0.56%

COMMENTS:

DATA PERIOD:

Start Date: 1/1/2017 - 09:00
End Date: 12/31/2021 - 17:00

COMPANY NAME:

MODELER:

CALM WINDS:

0.56%

TOTAL COUNT:

16434 hrs.

AVG. WIND SPEED:

1.96 m/s

DATE:

12/29/2024

PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Freedom Lane Residential Project

AERMOD DPM Sources

Source Release Parameters (m)

Source ID	Modeled Source	Location Description	Source Type	Size		Release Height	Initial Lateral Dimension	Initial Vertical Dimension	Emissions* (lb/hr)	AERMOD Source Emission Rate	
SITE	Site - Off-Road Equipment Diesel Exhaust ¹	Project Site - Construction Area	Area	17915.7	m2	5	—	1.4	0.0194	1.36E-07	g/m2-sec
ROAD1_DPM	Haul Road - On-Road Diesel Exhaust ^{2,3}	Truck Route - Private Road - Lot C	Line-Volume	73.4	meters	3.40	8.37	3.16	1.13E-06	1.42E-07	g/s
ROAD2_DPM	Haul Road - On-Road Diesel Exhaust ^{2,4}	Truck Route - Private Road - Freedom Lane	Line-Volume	225.1	meters	3.40	6.51	3.16	3.46E-06	4.36E-07	g/s
ROAD3_DPM	Haul Road - On-Road Diesel Exhaust ^{2,5}	Truck Route - Liberty	Line-Volume	642	meters	3.40	7.44	3.16	9.86E-06	1.24E-06	g/s

1 Construction exhaust modeled as an area source. Release parameters for construction equipment DPM exhaust modeling from SCAQMD (2008) for gaseous exhaust from construction equipment.

2 Emissions for On-Road Mobile Sources (Vendor and Haul Diesel Exhaust) modeled only for roadways within 1,000 feet of the site within the modeling domain.

3 Parameters calculated as per US EPA Haul Road Workgroup Final Report released on March 2, 2012 which suggests the use of Adjacent Volume Sources to represent the haul road.

4 Emissions from CalEEModeling for Construction modeled during construction hours as included in Attachment A. See Note 2 above regarding roadway emission portion modeled.

Freedom Lane Residential Project

DPM Emissions - Unmitigated

Net Work Days	546
Net Construction Years	2.09
Total Working Hours	4,368

Construction Year	Construction Activity	On-site DPM (lbs)	Off-Site DPM (lbs)	Off-Site DPM(lbs)		
				Worker	Vendor	Haul
2027	Site Preparation	5.86	0.00	-	0.00	-
2027	Grading	5.98	0.52	-	-	0.52
2027	Building Construction	13.70	0.11	-	0.11	-
2028	Building Construction	39.25	0.34	-	0.34	-
2029	Building Construction	16.14	0.15	-	0.15	-
2029	Paving	3.56	0.03	-	0.03	-
2029	Architectural Coating	0.23	0.00	-	-	-
Total PM Exhaust (On-site)		84.72	1.15	-	0.64	0.52

Note: PM10E = PM10 Exhaust which is a surrogate for Diesel Exhaust, particulate matter

	Worker	Vendor	Haul
CalEEMod Distance (miles)	13.19	7.75	20
Roadways Included within 1,000 ft	0.58	0.58	0.58
Roadway Emissions included	4%	8%	3%

	On-site Construction DPM	Off-site Roadway DPM	Off-Site Diesel PM (lbs) within 1,000 ft Roadways		
			Worker	Vendor	Haul
Modeled Emissions (lbs)	84.72	0.063	-	0.05	0.02

Source	acres/miles	% of Source		lbs	lb/hr	g/s ; g/m2-sec
		Type				
Site Emissions	4.43	100%		84.72	0.0194	1.36E-07
Roadway 1 Emissions	0.05	8%		0.005	1.13E-06	1.42E-07
Roadway 2 Emissions	0.14	24%		0.015	3.46E-06	4.36E-07
Roadway 3 Emissions	0.40	68%		0.043	9.86E-06	1.24E-06

Dispersion Options

Titles Freedom Lane Residential Construction Health Risk Assessment - November 2025	
Dispersion Options ☒ Regulatory Default ☐ Non-Default Options	Dispersion Coefficient Urban Population: Name (Optional): Roughness Length:
	Output Type ☒ Concentration ☐ Total Deposition (Dry & Wet) ☐ Dry Deposition ☐ Wet Deposition
	Plume Depletion ☐ Dry Removal ☐ Wet Removal
	Output Warnings ☐ No Output Warnings ☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type PM10	Exponential Decay Half-life of 4 hours will be used
Averaging Time Options Hours ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24 ☐ Month ☒ Period ☐ Annual	Terrain Height Options ☐ Flat ☒ Elevated SO: Meters RE: Meters TG: Meters
Flagpole Receptors ☐ Yes ☒ No Default Height = 0.00 m	

Optional Files



Re-Start File



Init File



Multi-Year Analyses



Event Input File



Error Listing File

Detailed Error Listing File

Filename: ConHRA.err

Source Pathway - Source Inputs

AERMOD

Polygon Area Sources

Source Type: AREA POLY

Source: SITE

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
142.56	1.00	1.36E-7	1.40	26	432293.30	3713741.13
		1.36E-7			432300.81	3713731.67
		1.36E-7			432302.97	3713732.48
		1.36E-7			432313.52	3713732.51
		1.36E-7			432410.78	3713739.34
		1.36E-7			432454.45	3713757.42
		1.36E-7			432460.94	3713764.93
		1.36E-7			432474.59	3713769.71
		1.36E-7			432457.36	3713818.24
		1.36E-7			432452.18	3713815.72
		1.36E-7			432445.79	3713813.59
		1.36E-7			432439.27	3713813.63
		1.36E-7			432431.11	3713817.94
		1.36E-7			432426.13	3713824.36
		1.36E-7			432424.04	3713832.63
		1.36E-7			432424.34	3713842.10
		1.36E-7			432414.02	3713851.12
		1.36E-7			432395.55	3713864.07
		1.36E-7			432381.61	3713870.80
		1.36E-7			432360.99	3713875.93
		1.36E-7			432339.26	3713880.57
		1.36E-7			432332.47	3713881.77
		1.36E-7			432326.55	3713883.37
		1.36E-7			432301.92	3713768.69
		1.36E-7			432297.91	3713746.43
		1.36E-7			432296.94	3713743.83

Source Pathway - Source Inputs

AERMOD

Line Volume Sources

Source Type: LINE VOLUME

Source: ROAD1 (Private Road)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
18.00	1.42E-7		432297.43	3713741.90	142.50	3.40
			432237.02	3713700.24	143.34	3.40

Source Type: LINE VOLUME

Source: ROAD2 (Freedom Lane)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
14.00	4.36E-7		432433.17	3713847.33	140.11	3.40
			432393.58	3713877.36	140.67	3.40
			432354.34	3713887.94	141.15	3.40
			432222.26	3713914.56	142.48	3.40

Source Type: LINE VOLUME

Source: ROAD3 (Liberty)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
16.00	1.24E-6		432390.24	3714279.03	132.69	3.40
			432329.62	3714241.62	134.50	3.40
			432234.47	3714096.17	137.72	3.40
			432210.79	3713988.17	139.49	3.40
			432205.28	3713937.06	141.29	3.40
			432204.60	3713856.48	145.07	3.40
			432214.88	3713788.90	146.28	3.40
			432237.11	3713705.83	143.77	3.40

Source Pathway - Source Inputs

AERMOD

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
ROAD3	L0001522	432383.43	3714274.83	132.89	3.40	3.11E-8	16.00		7.44	3.16
	L0001523	432369.82	3714266.43	133.30	3.40	3.11E-8	16.00		7.44	3.16
	L0001524	432356.20	3714258.03	133.71	3.40	3.11E-8	16.00		7.44	3.16
	L0001525	432342.58	3714249.63	134.11	3.40	3.11E-8	16.00		7.44	3.16
	L0001526	432329.20	3714240.99	134.51	3.40	3.11E-8	16.00		7.44	3.16
	L0001527	432320.44	3714227.60	134.81	3.40	3.11E-8	16.00		7.44	3.16
	L0001528	432311.68	3714214.21	135.11	3.40	3.11E-8	16.00		7.44	3.16
	L0001529	432302.92	3714200.82	135.40	3.40	3.11E-8	16.00		7.44	3.16
	L0001530	432294.16	3714187.43	135.70	3.40	3.11E-8	16.00		7.44	3.16
	L0001531	432285.41	3714174.04	136.00	3.40	3.11E-8	16.00		7.44	3.16
	L0001532	432276.65	3714160.65	136.29	3.40	3.11E-8	16.00		7.44	3.16
	L0001533	432267.89	3714147.26	136.59	3.40	3.11E-8	16.00		7.44	3.16
	L0001534	432259.13	3714133.87	136.89	3.40	3.11E-8	16.00		7.44	3.16
	L0001535	432250.37	3714120.48	137.18	3.40	3.11E-8	16.00		7.44	3.16
	L0001536	432241.61	3714107.09	137.48	3.40	3.11E-8	16.00		7.44	3.16
	L0001537	432233.83	3714093.29	137.77	3.40	3.11E-8	16.00		7.44	3.16
	L0001538	432230.41	3714077.66	138.02	3.40	3.11E-8	16.00		7.44	3.16
	L0001539	432226.98	3714062.03	138.28	3.40	3.11E-8	16.00		7.44	3.16
	L0001540	432223.56	3714046.40	138.54	3.40	3.11E-8	16.00		7.44	3.16
	L0001541	432220.13	3714030.77	138.79	3.40	3.11E-8	16.00		7.44	3.16
	L0001542	432216.71	3714015.14	139.05	3.40	3.11E-8	16.00		7.44	3.16
	L0001543	432213.28	3713999.51	139.30	3.40	3.11E-8	16.00		7.44	3.16
	L0001544	432210.32	3713983.81	139.64	3.40	3.11E-8	16.00		7.44	3.16
	L0001545	432208.61	3713967.90	140.20	3.40	3.11E-8	16.00		7.44	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
ROAD3	L0001546	432206.89	3713951.99	140.76	3.40	3.11E-8	16.00		7.44	3.16
	L0001547	432205.27	3713936.08	141.34	3.40	3.11E-8	16.00		7.44	3.16
	L0001548	432205.14	3713920.08	142.09	3.40	3.11E-8	16.00		7.44	3.16
	L0001549	432205.00	3713904.08	142.84	3.40	3.11E-8	16.00		7.44	3.16
	L0001550	432204.86	3713888.08	143.59	3.40	3.11E-8	16.00		7.44	3.16
	L0001551	432204.73	3713872.08	144.34	3.40	3.11E-8	16.00		7.44	3.16
	L0001552	432204.65	3713856.09	145.08	3.40	3.11E-8	16.00		7.44	3.16
	L0001553	432207.06	3713840.27	145.36	3.40	3.11E-8	16.00		7.44	3.16
	L0001554	432209.47	3713824.45	145.64	3.40	3.11E-8	16.00		7.44	3.16
	L0001555	432211.88	3713808.63	145.93	3.40	3.11E-8	16.00		7.44	3.16
	L0001556	432214.28	3713792.82	146.21	3.40	3.11E-8	16.00		7.44	3.16
	L0001557	432217.99	3713777.27	145.93	3.40	3.11E-8	16.00		7.44	3.16
	L0001558	432222.13	3713761.81	145.46	3.40	3.11E-8	16.00		7.44	3.16
	L0001559	432226.26	3713746.36	144.99	3.40	3.11E-8	16.00		7.44	3.16
	L0001560	432230.40	3713730.90	144.53	3.40	3.11E-8	16.00		7.44	3.16
	L0001561	432234.53	3713715.45	144.06	3.40	3.11E-8	16.00		7.44	3.16

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
ROAD2	L0001562	432427.60	3713851.56	140.19	3.40	2.72E-8	14.00		6.51	3.16
	L0001563	432416.44	3713860.02	140.35	3.40	2.72E-8	14.00		6.51	3.16
	L0001564	432405.29	3713868.48	140.50	3.40	2.72E-8	14.00		6.51	3.16
	L0001565	432394.14	3713876.95	140.66	3.40	2.72E-8	14.00		6.51	3.16
	L0001566	432380.74	3713880.83	140.83	3.40	2.72E-8	14.00		6.51	3.16
	L0001567	432367.22	3713884.47	140.99	3.40	2.72E-8	14.00		6.51	3.16
	L0001568	432353.69	3713888.07	141.16	3.40	2.72E-8	14.00		6.51	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROAD2	L0001569	432339.97	3713890.84	141.29	3.40	2.72E-8	14.00		6.51	3.16
	L0001570	432326.24	3713893.61	141.43	3.40	2.72E-8	14.00		6.51	3.16
	L0001571	432312.52	3713896.37	141.57	3.40	2.72E-8	14.00		6.51	3.16
	L0001572	432298.79	3713899.14	141.71	3.40	2.72E-8	14.00		6.51	3.16
	L0001573	432285.07	3713901.90	141.85	3.40	2.72E-8	14.00		6.51	3.16
	L0001574	432271.35	3713904.67	141.99	3.40	2.72E-8	14.00		6.51	3.16
	L0001575	432257.62	3713907.44	142.12	3.40	2.72E-8	14.00		6.51	3.16
	L0001576	432243.90	3713910.20	142.26	3.40	2.72E-8	14.00		6.51	3.16
	L0001577	432230.17	3713912.97	142.40	3.40	2.72E-8	14.00		6.51	3.16
Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROAD1	L0001578	432290.02	3713736.79	142.60	3.40	3.56E-8	18.00		8.37	3.16
	L0001579	432275.20	3713726.57	142.81	3.40	3.56E-8	18.00		8.37	3.16
	L0001580	432260.38	3713716.35	143.02	3.40	3.56E-8	18.00		8.37	3.16
	L0001581	432245.57	3713706.13	143.22	3.40	3.56E-8	18.00		8.37	3.16

Source Pathway

AERMOD

Building Downwash Information

Option not in use

Emission Rate Units for Output

For Concentration

Unit Factor: 1E6
Emission Unit Label: GRAMS/SEC
Concentration Unit Label: MICROGRAMS/M**3

Source Groups

Source Group ID: SITE	List of Sources in Group (Source Range or Single Sources)
	SITE
Source Group ID: ROAD3	List of Sources in Group (Source Range or Single Sources)
	ROAD3
Source Group ID: ROAD2	List of Sources in Group (Source Range or Single Sources)
	ROAD2
Source Group ID: ROAD1	List of Sources in Group (Source Range or Single Sources)
	ROAD1
Source Group ID: DPM	List of Sources in Group (Source Range or Single Sources)
	SITE ROAD2 ROAD3 ROAD1

Variable Emissions

Source Pathway

AERMOD

Hour-of-Day / Day-of-Week Emission Rate Variation

Scenario: Scenario 3

Source ID:		SITE						
Weekdays								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	1.00	1.00	1.00	1.00
	Day	13 - 18	0.00	1.00	1.00	1.00	1.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Source ID:		ROAD2						
Weekdays								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	1.00	1.00	1.00	1.00
	Day	13 - 18	0.00	1.00	1.00	1.00	1.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Source ID:		ROAD3						
Weekdays								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	1.00	1.00	1.00	1.00
	Day	13 - 18	0.00	1.00	1.00	1.00	1.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Source ID:		ROAD1						
Weekdays								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	1.00	1.00	1.00	1.00
	Day	13 - 18	0.00	1.00	1.00	1.00	1.00	0.00

Source Pathway

AERMOD

Scenario: Scenario 3

Source ID:		ROAD1						
Saturday		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday								
	Hour	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	of	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	Day	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
		19 - 24	0.00	0.00	0.00	0.00	0.00	0.00

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	432382.29	3714160.79	ComFac	137.02	
2	432283.54	3714099.31	Res	138.12	
3	432277.95	3714078.81	Res	138.15	
4	432272.36	3714051.80	Res	138.13	
5	432297.51	3714043.41	Res	138.05	
6	432320.80	3714039.69	Res	138.07	
7	432337.57	3714046.21	Res	138.12	
8	432349.68	3714069.50	Res	138.06	
9	432339.44	3714087.20	Res	138.24	
10	432318.94	3714103.97	Res	138.16	
11	432297.51	3714123.53	Res	138.14	
12	432310.56	3714071.36	Res	138.14	
13	432475.45	3714062.98	ComFac	134.18	
14	432456.82	3714040.62	ComFac	134.21	
15	432244.41	3713980.06	Near-Res	139.97	
16	432250.93	3714003.35	Res	138.55	
17	432277.95	3713999.63	Res	139.36	
18	432305.90	3713990.31	Res	140.07	
19	432296.58	3713972.61	Res	141.05	
20	432295.52	3713954.82	Res	140.97	
21	432292.77	3713939.11	Near-Res	140.96	
22	432329.19	3713985.65	Res	139.76	
23	432357.14	3713981.93	Res	139.33	
24	432351.55	3713962.36	Res	140.40	
25	432347.82	3713935.34	Near-Res	140.99	
26	432319.72	3713928.82	Near-Res	141.00	
27	432329.08	3713947.39	Res	140.97	
28	432407.64	3713964.18	Res	135.68	
29	432432.60	3713961.43	Res	135.70	
30	432457.75	3713957.70	Res	135.63	

Receptor Pathway

AERMOD

31	432489.43	3713948.39	Res	135.53
32	432481.95	3713921.52	Near-Res	135.66
33	432441.89	3713927.83	Near-Res	135.67
34	432408.38	3713934.41	Near-Res	135.64
35	432532.28	3713932.55	Res	134.75
36	432552.78	3713928.82	Res	134.61
37	432525.76	3713916.71	Near-Res	136.05
38	432544.39	3713912.05	Near-Res	136.11
39	432538.80	3713886.90	Near-Res	138.22
40	432529.49	3713863.61	Near-Res	138.43
41	432530.42	3713844.98	Near-Res	138.35
42	432503.52	3713831.94	Near-Res	138.43
43	432511.99	3713810.91	Near-Res	138.36
44	432719.53	3713994.04	Res	110.91
45	432720.47	3714020.12	Res	110.93
46	432750.28	3714019.19	Res	110.92
47	432769.84	3713988.45	Res	110.70
48	432739.10	3713942.80	Res	110.92
49	432737.23	3713925.10	Res	111.00
50	432712.08	3713923.23	Res	110.99
51	432690.65	3713930.69	Res	111.04
52	432690.65	3713945.59	Res	111.07
53	432790.34	3713951.18	Res	111.05
54	432812.70	3713950.25	Res	111.29
55	432815.49	3713909.26	Res	111.41
56	432786.61	3713904.60	Res	111.34
57	432759.59	3713871.06	Res	111.87
58	432754.00	3713843.12	Res	112.02
59	432779.16	3713831.00	Res	111.99
60	432809.90	3713827.28	Res	111.97
61	432802.45	3713857.09	Res	112.00
62	432712.08	3713895.29	Res	111.68
63	432680.41	3713902.74	Res	111.76
64	432675.75	3713875.72	Res	111.78
65	432674.82	3713857.09	Res	111.79
66	432696.24	3713849.64	Res	111.75
67	432696.24	3713826.35	Res	111.29
68	432672.02	3713829.14	Res	111.34

Receptor Pathway

AERMOD

69	432667.36	3713798.40	Res	111.34
70	432665.50	3713780.70	Res	111.35
71	432694.38	3713775.11	Res	111.22
72	432744.69	3713781.63	Res	111.19
73	432754.00	3713764.86	Res	111.29
74	432785.68	3713802.12	Res	111.73
75	432780.09	3713777.90	Res	111.68
76	432780.09	3713761.13	Res	111.68
77	432797.79	3713752.75	Res	111.63
78	432674.82	3713698.72	Res	110.81
79	432671.09	3713722.94	Res	110.73
80	432686.00	3713723.87	Res	110.84
81	432718.60	3713726.66	Res	110.78
82	432725.12	3713706.17	Res	110.74
83	432778.23	3713714.55	Res	110.88
84	432815.49	3713716.42	Res	110.91
85	432807.11	3713681.01	Res	110.84
86	432804.31	3713665.18	Res	110.87
87	432774.50	3713666.11	Res	110.76
88	432341.30	3713593.44	Bus	126.65
89	432563.96	3714209.24	Bus	120.50
90	432602.15	3714194.33	Bus	120.51
91	432515.51	3714249.30	Bus	119.65
92	432667.36	3714157.07	Bus	121.45
93	432871.39	3713843.12	Res	99.32
94	432869.52	3713817.03	Res	99.29
95	432871.39	3713796.53	Res	99.31
96	432867.66	3713763.00	Res	100.16
97	432868.59	3713747.16	Res	100.09
98	432863.93	3713716.42	Res	100.42
99	432865.80	3713694.99	Res	100.56
100	432861.14	3713661.45	Res	100.84
101	432867.66	3713630.71	Res	101.08
102	432790.34	3713591.58	Non-Res	96.53
103	432754.00	3713580.40	Non-Res	96.58
104	432832.26	3713566.43	Non-Res	94.91
105	432828.53	3713531.96	Non-Res	94.50
106	432780.09	3713499.35	Non-Res	94.57

Receptor Pathway

AERMOD

107	432740.96	3713479.79	Non-Res	94.31
108	432722.33	3713530.09	Non-Res	95.58
109	432604.01	3713416.44	Bus	110.23
110	432628.24	3713430.41	Bus	110.26
111	432613.33	3713393.15	Bus	110.21
112	432640.35	3713407.12	Bus	110.30
113	432631.03	3713370.79	Bus	110.23
114	432499.67	3713364.27	Bus	110.98
115	432455.89	3713401.53	Bus	112.05
116	432447.50	3713358.68	Bus	111.63
117	431967.72	3713411.78	Res	145.83
118	432285.40	3714282.84	Bus	136.31
119	432342.23	3714130.05	ComFac	136.76
120	432531.44	3713609.05	Bus	109.13
121	432568.66	3713613.80	Bus	109.20
122	432539.36	3713586.09	Bus	109.49
123	432574.99	3713592.42	Bus	109.55
124	432354.05	3713547.28	Bus	126.44
125	432374.64	3713554.41	Bus	126.44
126	432380.98	3713521.94	Bus	126.52
127	432689.11	3713653.33	Res	110.46
128	432697.50	3713636.54	Res	110.46
129	432722.70	3713644.94	Res	110.46
130	432735.30	3713668.03	Res	110.38
131	432185.16	3713951.50	Near-Res	137.17
132	432191.46	3713993.49	Res	137.19
133	432201.96	3714024.99	Res	137.39
134	432208.26	3714054.39	Res	137.11
135	432201.96	3714073.28	Res	136.73
136	432185.16	3714106.88	Res	136.41
137	432172.57	3714134.18	Res	136.69
138	432159.97	3714169.87	Res	136.74
139	432155.77	3714182.47	Res	136.89
140	432145.27	3714211.87	Res	137.05
141	432107.47	3714216.07	Res	136.43
142	432113.77	3714186.67	Res	136.16
143	432126.37	3714169.87	Res	136.22
144	432069.68	3714195.07	Res	135.34

Receptor Pathway

AERMOD

145	432061.28	3714176.17	Res	134.97
146	432143.17	3714132.08	Res	136.33
147	432149.47	3714115.28	Res	135.78
148	432176.77	3713915.80	Near-Res	137.33
149	432168.37	3713888.51	Near-Res	136.93
150	432155.77	3713947.30	Res	136.70
151	432132.67	3713974.60	Res	136.25
152	432115.87	3713997.69	Res	135.99
153	432086.48	3714024.99	Res	135.54
154	432159.97	3714014.49	Res	136.79
155	432166.27	3714048.09	Res	136.79
156	432153.67	3714073.28	Res	136.31
157	432120.07	3714071.19	Res	135.93
158	432069.68	3714085.88	Res	134.73
159	432063.38	3714045.99	Res	135.16
160	432021.38	3714085.88	Res	134.04
161	431998.29	3714045.99	Res	133.74
162	431975.19	3714003.99	Res	133.60
163	432147.37	3713859.11	Res	136.76
164	432136.87	3713880.11	Res	136.53
165	432124.27	3713894.81	Res	136.24
166	432130.57	3713848.61	Res	136.37
167	432096.98	3713842.31	Res	135.95
168	432075.98	3713827.61	Res	135.90
169	432162.07	3713833.91	Res	136.97
170	432130.57	3713815.02	Res	136.67
171	432092.78	3713800.32	Res	136.12
172	432110.67	3713916.01	Res	135.83
173	432096.42	3713940.13	Res	135.36
174	432078.88	3713962.05	Res	135.05
175	432058.05	3713951.09	Res	134.10
176	432075.59	3713929.17	Res	134.63
177	432090.94	3713908.34	Res	135.10
178	432105.19	3713888.61	Res	135.54
179	432037.23	3713922.59	Res	134.16
180	432048.19	3713908.34	Res	134.44
181	432059.15	3713889.70	Res	134.84
182	432076.69	3713872.17	Res	135.22

Receptor Pathway

AERMOD

183	432060.25	3713854.63	Res	135.31
184	432046.00	3713873.26	Res	134.87
185	432031.75	3713890.80	Res	134.37
186	432018.59	3713907.24	Res	134.04
187	431946.24	3713944.51	Res	132.98
188	431964.88	3713921.49	Res	133.50
189	431978.03	3713908.34	Res	133.77
190	431991.19	3713889.70	Res	134.12
191	432014.21	3713862.30	Res	134.63
192	432028.46	3713845.86	Res	134.95
193	432038.32	3713830.51	Res	135.29
194	432044.90	3713814.07	Res	135.72
195	432056.96	3713802.01	Res	136.00
196	432064.63	3713784.47	Res	136.32
197	432054.76	3713764.74	Res	137.04
198	432016.40	3713753.78	Res	136.50
199	432010.92	3713770.22	Res	136.44
200	432031.75	3713784.47	Res	136.70
201	432027.36	3713807.49	Res	135.71
202	431999.96	3713791.05	Res	135.39
203	432016.40	3713830.51	Res	135.42
204	431983.51	3713807.49	Res	135.03
205	432002.15	3713840.38	Res	134.63
206	431974.74	3713820.65	Res	134.34
207	431984.61	3713859.01	Res	134.32
208	431961.59	3713841.47	Res	134.06
209	431962.69	3713887.51	Res	133.13
210	431938.57	3713871.07	Res	132.82
211	431924.32	3713888.61	Res	132.63
212	431945.15	3713903.95	Res	132.94
213	431937.47	3713922.59	Res	132.29
214	431912.26	3713901.76	Res	131.99
215	431917.74	3713831.61	Res	133.66
216	431899.11	3713815.16	Res	133.88
217	431904.59	3713793.24	Res	134.02
218	431927.61	3713809.68	Res	133.83
219	431945.15	3713794.34	Res	134.97
220	431924.32	3713775.70	Res	135.07

Receptor Pathway

AERMOD

221	431936.38	3713754.88	Res	135.52
222	431965.97	3713771.32	Res	135.33
223	431974.74	3713752.68	Res	136.70
224	431946.24	3713738.43	Res	137.09
225	431953.92	3713718.70	Res	137.29
226	431983.51	3713728.57	Res	136.99
227	432166.57	3713745.01	Near-Res	158.49
228	432174.25	3713725.28	Res	158.28
229	432178.63	3713711.03	Res	158.16
230	432178.63	3713695.68	Res	157.98
231	432184.11	3713685.82	Res	157.92
232	432184.11	3713670.47	Res	157.72
233	432191.79	3713656.22	Res	157.63
234	432188.50	3713640.87	Res	157.41
235	432191.79	3713626.62	Res	157.40
236	432193.98	3713612.37	Res	157.22
237	432196.17	3713597.03	Res	157.01
238	432196.17	3713587.16	Res	156.91
239	432197.27	3713575.10	Res	156.81
240	432199.46	3713559.76	Res	156.70
241	432200.56	3713546.60	Res	156.51
242	432200.56	3713534.55	Res	156.43
243	432201.65	3713512.62	Res	156.67
244	432203.84	3713497.28	Res	157.00
245	432203.84	3713489.60	Res	157.11
246	432201.65	3713476.45	Res	157.06
247	432204.94	3713458.91	Res	156.89
248	432206.04	3713450.14	Res	156.77
249	432208.23	3713433.70	Res	156.57
250	432208.23	3713419.45	Res	156.42
251	432208.23	3713390.95	Res	156.08
252	432218.09	3713353.68	Res	155.58
253	432214.81	3713321.89	Res	155.37
254	432217.00	3713297.77	Res	155.14
255	432217.00	3713267.08	Res	155.09
256	432218.09	3713240.77	Res	155.48
257	432275.09	3713490.70	Res	138.04
258	432286.06	3713473.16	Res	137.88

Receptor Pathway

AERMOD

259	432260.84	3713474.26	Res	138.22
260	432268.52	3713444.66	Res	137.85
261	432310.17	3713440.27	Res	137.32
262	432278.38	3713415.06	Res	137.35
263	432286.06	3713383.27	Res	136.61
264	432291.54	3713346.00	Res	135.85
265	432290.44	3713304.35	Res	135.04
266	432300.31	3713273.66	Res	134.59
267	432318.94	3713408.49	Res	137.01
268	432341.96	3713412.87	Res	137.11
269	432348.54	3713381.08	Res	136.57
270	432327.71	3713370.12	Res	136.19
271	432325.52	3713342.72	Res	135.57
272	432355.11	3713347.10	Res	136.08
273	432359.50	3713307.64	Res	135.31
274	432332.10	3713303.25	Res	134.88
275	432332.10	3713274.75	Res	134.31
276	432352.92	3713278.04	Res	134.66
277	432350.73	3713252.83	Res	134.24
278	432302.50	3713247.35	Res	134.26
279	432122.73	3713724.18	Res	158.58
280	432082.17	3713706.64	Res	158.85
281	432058.05	3713686.91	Res	159.33
282	432022.98	3713669.37	Res	159.22
283	432002.15	3713668.28	Res	158.79
284	432009.82	3713623.33	Res	158.88
285	432012.01	3713590.45	Res	158.66
286	432015.30	3713558.66	Res	158.22
287	432019.69	3713529.06	Res	157.96
288	432028.46	3713501.66	Res	157.75
289	432066.82	3713510.43	Res	157.71
290	432055.86	3713555.37	Res	158.20
291	432044.90	3713601.41	Res	158.54
292	432044.90	3713635.39	Res	159.03
293	432070.11	3713629.91	Res	159.16
294	432067.92	3713588.26	Res	158.70
295	432073.40	3713559.76	Res	158.30
296	432079.98	3713534.55	Res	158.32

Receptor Pathway

AERMOD

297	432104.09	3713547.70	Res	157.95
298	432127.11	3713552.08	Res	157.68
299	432165.48	3713565.24	Res	157.23
300	432161.09	3713545.51	Res	156.68
301	432130.40	3713535.64	Res	156.88
302	432104.09	3713526.87	Res	157.20
303	432108.48	3713586.07	Res	158.13
304	432133.69	3713592.64	Res	157.75
305	432157.80	3713600.32	Res	157.47
306	432154.52	3713636.49	Res	158.06
307	432130.40	3713624.43	Res	158.63
308	432107.38	3713613.47	Res	158.96
309	432151.23	3713669.37	Res	157.93
310	432140.27	3713697.87	Res	158.39
311	432124.92	3713684.72	Res	158.73
312	432093.13	3713672.66	Res	159.01
313	432069.01	3713660.60	Res	159.24
314	432086.55	3713637.59	Res	159.13
315	432111.77	3713651.84	Res	158.76
316	432129.30	3713661.70	Res	158.50
317	432076.69	3713467.68	Res	157.40
318	432103.00	3713481.93	Res	157.17
319	432135.88	3713497.28	Res	156.66
320	432180.82	3713508.24	Res	156.40
321	432180.82	3713484.12	Res	157.02
322	432138.07	3713476.45	Res	157.28
323	432086.55	3713453.43	Res	157.81
324	432100.80	3713423.83	Res	157.97
325	432129.30	3713435.89	Res	157.59
326	432168.77	3713446.85	Res	156.90
327	432172.05	3713419.45	Res	157.13
328	432131.50	3713410.68	Res	157.79
329	432108.48	3713400.81	Res	158.44
330	432128.21	3713370.12	Res	158.66
331	432140.27	3713344.91	Res	158.00
332	432154.52	3713310.93	Res	157.15
333	432158.90	3713375.60	Res	157.33
334	432175.34	3713382.18	Res	156.90

Receptor Pathway

AERMOD

335	432176.44	3713358.06	Res	155.94
336	432175.34	3713310.93	Res	155.88
337	432186.30	3713270.37	Res	155.75
338	432136.98	3713268.18	Res	157.06
339	432180.82	3713255.02	Res	156.56
340	432129.30	3713282.43	Res	157.37
341	432112.86	3713324.08	Res	158.13
342	432095.32	3713359.16	Res	158.77
343	432073.40	3713404.10	Res	158.33
344	432060.25	3713430.41	Res	157.96
345	432048.19	3713456.72	Res	157.49

Plant Boundary Receptors

Receptor Groups

Record Number	Group ID	Group Description
1	Res	Residential
2	ComFac	Community Facility
3	Non-Res	Non-Residential
4	Bus	Business Park
5	Near-Res	Residential Sensitive Receptor

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: Met\MSVJ_V11_trimmed.sfc
Format Type: Default AERMET format

Profile Met Data

Filename: Met\MSVJ_V11_trimmed.PFL
Format Type: Default AERMET format

Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 168.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2017			
Upper Air		2017			
On-Site		2017			

Data Period

Data Period to Process

Start Date: 1/1/2017 Start Hour: 1 End Date: 12/31/2021 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Sensitive Receptor Summary

Freedom Lane Residential
Construction Health Risk Assessment - November 2025

PM10 - Concentration - Source Group: DPM

Averaging Period	Rank	Peak	Units	Receptor ID	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.00148	ug/m^3		432244.41	3713980.06	139.97	0.00	140.62	
PERIOD		0.00432	ug/m^3		432292.77	3713939.11	140.96	0.00	140.96	
PERIOD		0.01394	ug/m^3		432347.82	3713935.34	140.99	0.00	140.99	
PERIOD		0.00919	ug/m^3		432319.72	3713928.82	141.00	0.00	141.00	
PERIOD		0.01614	ug/m^3		432481.95	3713921.52	135.66	0.00	140.25	
PERIOD		0.02003	ug/m^3		432441.89	3713927.83	135.67	0.00	140.37	
PERIOD		0.02006	ug/m^3		432408.38	3713934.41	135.64	0.00	141.04	
PERIOD		0.01096	ug/m^3		432525.76	3713916.71	136.05	0.00	137.96	
PERIOD		0.00911	ug/m^3		432544.39	3713912.05	136.11	0.00	137.65	
PERIOD		0.01044	ug/m^3		432538.80	3713886.90	138.22	0.00	138.22	
PERIOD		0.01257	ug/m^3		432529.49	3713863.61	138.43	0.00	138.43	
PERIOD		0.01269	ug/m^3		432530.42	3713844.98	138.35	0.00	138.35	
PERIOD		0.02270	ug/m^3	MEIR	432503.52	3713831.94	138.43	0.00	138.43	
PERIOD		0.01944	ug/m^3		432511.99	3713810.91	138.36	0.00	138.36	
PERIOD		0.00692	ug/m^3	MEIW	432531.44	3713609.05	109.13	0.00	159.45	
PERIOD		0.00083	ug/m^3		432185.16	3713951.50	137.17	0.00	158.56	
PERIOD		0.00084	ug/m^3		432176.77	3713915.80	137.33	0.00	158.80	
PERIOD		0.00081	ug/m^3		432168.37	3713888.51	136.93	0.00	159.17	
PERIOD		0.00057	ug/m^3		432166.57	3713745.01	158.49	0.00	158.49	

HARP2 - HRACalc (dated 22118) 12/1/2025 2:24:39 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: Cancer

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 1.84

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 1.84

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: ON

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk saved to: F:\Jobs\49400051P\ConHRA\HARP2\ResRISK CancerRisk.csv

HRA ran successfully

*HARP - HRACalc v22118 12/1/2025 2:24:39 PM - Cancer Risk - Input File: F:\Jobs\49400051P\ConHRA\HARP2\ResRISKHRAInput.hra

UTME	UTMN	Pollutant	Conc ($\mu\text{g}/\text{m}^3$)	Risk	Scenario	Inhalation Risk
432503.52	3713831.94	DieselExhPM	0.0227	7.17E-06	1.84YrCancerRMP_Inh_FAH16to70	7.17E-06

Freedom Lane Project

Off-Road Equipment Fuel Use

0.054 bhp-hr/gal
18.5 gal/bhp-hr

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	Days	bhp-hr	gallons
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	4	367	0.4	10	17616	951
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4	4	84	0.37	10	4973	269
Grading	Graders	Diesel	Average	1	2	148	0.41	40	4854	262
Grading	Excavators	Diesel	Average	1	2	36	0.38	40	1094	59
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3	2	84	0.37	40	7459	403
Grading	Rubber Tired Dozers	Diesel	Average	1	2	367	0.4	40	11744	634
Building Construction	Cranes	Diesel	Average	1	3.5	367	0.29	460	171352	9,253
Building Construction	Forklifts	Diesel	Average	3	4	82	0.2	460	90528	4,889
Building Construction	Generator Sets	Diesel	Average	1	4	14	0.74	460	19062	1,029
Building Construction	Welders	Diesel	Average	1	4	46	0.45	460	38088	2,057
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3	3.5	84	0.37	460	150116	8,106
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37	18	4476	242
Paving	Cement and Mortar Mixers	Diesel	Average	2	6	10	0.56	18	1210	65
Paving	Pavers	Diesel	Average	1	8	81	0.42	18	4899	265
Paving	Paving Equipment	Diesel	Average	2	6	89	0.36	18	6921	374
Paving	Rollers	Diesel	Average	2	6	36	0.38	18	2955	160
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	18	1918	104
										29,120

Freedom Lane Project

Construction Vehicle Fuel

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Days	VMT	Vehicle Mix
Site Preparation	Worker	18	13.19	10	2308	LDA,LDT1,LDT2
Site Preparation	Vendor	2	7.75	10	155	HHDT,MHDT
Site Preparation	Hauling	0	20	10	0	HHDT
Grading	Worker	15	13.19	40	7914	LDA,LDT1,LDT2
Grading	Vendor		7.75			HHDT,MHDT
Grading	Hauling	15	20	40	11760	HHDT
Building Construction	Worker	52	13.19	460	314534	LDA,LDT1,LDT2
Building Construction	Vendor	8	7.75	460	27439	HHDT,MHDT
Building Construction	Hauling	0	20	460	0	HHDT
Paving	Worker	20	13.19	18	4748	LDA,LDT1,LDT2
Paving	Vendor	9	7.75	18	1256	HHDT,MHDT
Paving	Hauling	0	20	18	0	HHDT
Architectural Coating	Worker	10	13.19	18	2462	LDA,LDT1,LDT2
Architectural Coating	Vendor		7.75			HHDT,MHDT
Architectural Coating	Hauling	0	20	18	0	HHDT

mpg	gal/mile	EMFAC Vehicle Category	Vehicle Category	VMT TOTALS
31.94	0.03	LDA	LDA,LDT1,LDT2	331,966
26.51	0.04	LDT1	HHDT,MHDT	28,850
26.14	0.04	LDT2	MHDT	-
9.04	0.11	MHDT	HHDT	11,760
6.22	0.16	HHDT		372,576

(County-Specific Fuel Efficiency)

Gasoline for Light Duty and Diesel for Heavy Duty - Consistent with CalEEMod Assumptions

Orange County		2027
Fuel Efficiency		
Vehicle Category	(MPG)	Fuel (gallons)
LDA,LDT1,LDT2	27.78	11,952
HHDT,MHDT	7.63	3,781
MHDT	9.04	-
HHDT	6.22	1,891
		17,624

Freedom Lane Residential Project

Operational Fuel Summary

Freedom Lane Residential Project

Total Annual Project VMT	1,405,247
County	Orange
Operation Year	2029

Fuel Totals (gal for gasoline, diesel and CNG and kWhr for Electricity)

Gasoline	45,374
Diesel	4,407
Natural Gas	212
Electricity	38,817

VMT by Land Use	VMT/year
Single-Family Attached Housing	1,405,247

Fuel Consumption by Land Use	Gasoline	Diesel	CNG	Electricity
Single-Family Attached Housing	45,374	4,407	212	38,817

Freedom Lane Residential Project

Operational Fuel

Single-Family Attache 1,405,247 VMT/year			CVMT Fuel (gallons)					EVMT Energy (kWhr)	
Vehicle Category	Fleet Mix	by Veh Cat	Gasoline	Diesel	Natural Gas	Electricity	Plug-in Hybrid	Electricity	Plug-in Hybrid
HHDT	0.60%	8,380.7	1	1178	86	-	-		
LDA	49.03%	688,976.3	18009	19	-	-	405	536	-
LDT1	3.87%	54,384.3	1949	0	-	-	6	25273	4330
LDT2	23.98%	336,999.2	12005	37	-	-	83	202	75
LHDT1	2.83%	39,782.3	1480	675	-	-	-	1709	949
LHDT2	0.76%	10,635.3	257	361	-	-	-	1566	-
MCY	2.25%	31,651.7	741	-	-	-	-	402	-
MDV	14.58%	204,909.4	8805	98	-	-	53	-	-
MH	0.34%	4,818.7	635	169	-	-	-	1802	587
MHDT	1.57%	22,024.5	815	1781	24	-	-	-	-
OBUS	0.06%	835.8	61	54	7	-	-	1305	-
SBUS	0.10%	1,353.4	70	35	95	-	-	30	-
UBUS	0.04%	495.3						51	-
	100%	1,405,247	44,827	4,407	212	-	547	32,875	5,941

Freedom Lane Residential Project

Operational Fuel

Op Year 2029
Region Orange
Model EMFAC2021 v1.0.2

Vehicle Category	Total VMT Percentage by Veh Cat and Veh Technology					CVMT Fraction by Veh Cat and Veh Tech				EVMT Fraction by Veh Cat and Veh Tech	
	Gasoline	Diesel	Natural Gas	Electricity	Plug-in Hybrid	Gasoline	Diesel	Natural Gas	Plug-in Hybrid	Electricity	Plug-in Hybrid
HHDT	0.04%	89.99%	6.44%	3.53%	-	1	1	1	-	1	-
LDA	86.61%	0.12%	-	9.50%	3.77%	1	1	-	0.45	1	0.55
LDT1	98.26%	0.00%	-	0.96%	0.78%	1	1	-	0.41	1	0.59
LDT2	96.67%	0.39%	-	1.31%	1.63%	1	1	-	0.43	1	0.57
LHDT1	57.07%	35.93%	-	6.99%	-	1	1	-	-	1	-
LHDT2	32.15%	61.14%	-	6.70%	-	1	1	-	-	1	-
MCY	100.00%	-	-	-	-	1	-	-	-	-	-
MDV	94.81%	1.24%	-	2.28%	1.67%	1	1	-	0.43	1	0.57
MH	64.35%	35.65%	-	-	-	1	1	-	-	-	-
MHDT	19.68%	73.75%	0.93%	5.64%	-	1	1	1	-	1	-
OBUS	39.93%	49.06%	7.52%	3.48%	-	1	1	1	-	1	-
SBUS	46.48%	19.42%	30.87%	3.24%	-	1	1	1	-	1	-
UBUS	27.57%	-	72.22%	0.21%	-	1	-	1	-	1	-

Freedom Lane Residential Project

Operational Fuel

Op Year 2029
Region Orange
Model EMFAC2021 v1.0.2

Vehicle Category	Fuel Consumption for CVMT (gal/mi)				Electrical Consumption for EVMT (kw-hr/mi)	
	Gasoline	Diesel	Natural Gas	Plug-in Hybrid	Electricity	Plug-in Hybrid
HHDT	0.215	0.156	0.15850	-	1.811	-
LDA	0.030	0.022	-	0.0349	0.386	0.302
LDT1	0.036	0.038	-	0.0349	0.386	0.302
LDT2	0.037	0.029	-	0.0351	0.386	0.302
LHDT1	0.065	0.047	-	-	0.563	-
LHDT2	0.075	0.055	-	-	0.563	-
MCY	0.023	-	-	-	-	-
MDV	0.045	0.038	-	0.0356	0.386	0.302
MH	0.205	0.099	-	-	-	-
MHDT	0.188	0.110	0.11737	-	1.050	-
OBUS	0.183	0.132	0.10613	-	1.042	-
SBUS	0.111	0.133	0.22804	-	1.156	-
UBUS	0.077	-	0.33465	-	2.127	-