Appendix Q2. Construction and Operational Air Quality and Greenhouse Gas Emissions Calculations

Appendix Q2 - Construction AQ/GHG Emissions Calculations for Alternative 2 SR-1 Lincoln 2-15-24 v3 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SR-1 Lincoln 2-15-24 v3
Construction Start Date	2/15/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	8.20
Location	33.976217100488896, -118.43260359325164
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4428
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.21

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
Road Widening	0.79	Mile	22.0	0.00	—	—	—	—

Bridge/Overpass Construction	0.08	Mile	1.00	0.00	—	—	—	—

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.45	77.7	100	0.21	3.24	5.73	8.97	2.98	0.87	3.85	24,666
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.44	77.9	99.5	0.21	3.24	5.73	8.97	2.98	0.87	3.85	24,595
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.59	44.9	60.3	0.13	1.79	3.49	5.28	1.65	0.51	2.16	14,967
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.02	8.19	11.0	0.02	0.33	0.64	0.96	0.30	0.09	0.39	2,478

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2027	9.45	77.7	100	0.21	3.24	5.73	8.97	2.98	0.87	3.85	24,666

2028	9.07	72.6	99.6	0.21	2.95	5.73	8.68	2.71	0.87	3.58	24,591
2029	5.56	43.0	59.7	0.13	1.63	3.47	5.10	1.50	0.47	1.97	14,960
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2027	9.44	77.9	99.5	0.21	3.24	5.73	8.97	2.98	0.87	3.85	24,595
2028	9.07	72.8	98.8	0.21	2.95	5.73	8.68	2.71	0.87	3.58	24,522
2029	5.56	43.1	59.2	0.13	1.63	3.47	5.10	1.50	0.47	1.97	14,918
2030	1.31	11.8	21.8	0.03	0.36	0.42	0.78	0.33	0.10	0.43	3,508
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2027	4.12	34.5	43.7	0.09	1.43	2.64	4.06	1.32	0.41	1.73	10,995
2028	5.59	44.9	60.3	0.13	1.79	3.49	5.28	1.65	0.51	2.16	14,967
2029	2.97	23.4	33.5	0.07	0.87	1.75	2.62	0.80	0.25	1.05	7,940
2030	0.11	0.99	1.84	< 0.005	0.03	0.04	0.07	0.03	0.01	0.04	296
Annual	—	—	—	—	—	—	—	—	—	—	—
2027	0.75	6.30	7.97	0.02	0.26	0.48	0.74	0.24	0.08	0.32	1,820
2028	1.02	8.19	11.0	0.02	0.33	0.64	0.96	0.30	0.09	0.39	2,478
2029	0.54	4.26	6.11	0.01	0.16	0.32	0.48	0.15	0.05	0.19	1,315
2030	0.02	0.18	0.34	< 0.005	0.01	0.01	0.01	0.01	< 0.005	0.01	49.0

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.86	7.62	8.94	0.01	0.37	—	0.37	0.34	—	0.34	1,269
Dust From Material Movement	—	—	—	—	—	0.42	0.42	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	7.62	8.94	0.01	0.37	—	0.37	0.34	—	0.34	1,269
Dust From Material Movement	—	—	—	—	—	0.42	0.42	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.63	1.91	< 0.005	0.08	—	0.08	0.07	—	0.07	271
Dust From Material Movement	—	—	—	—	—	0.09	0.09	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.30	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	44.9
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	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	0.06	1.05	0.00	0.00	0.23	0.23	0.00	0.05	0.05	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.03	2.44	0.97	0.01	0.03	0.57	0.60	0.03	0.16	0.18	2,170
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.08	0.89	0.00	0.00	0.23	0.23	0.00	0.05	0.05	223
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	2.55	0.98	0.01	0.03	0.57	0.60	0.03	0.16	0.18	2,167
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	48.4
Vendor	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	0.55	0.21	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	463
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.02
Vendor	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	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	76.7

3.3. Linear, Grading & Excavation (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	9.08	74.9	93.8	0.20	3.21	—	3.21	2.95	—	2.95	21,192
Dust From Material Movement	—	—	—	—	—	3.93	3.93	—	0.43	0.43	—
Onsite truck	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	9.08	74.9	93.8	0.20	3.21	—	3.21	2.95	—	2.95	21,192
Dust From Material Movement	—	—	—	—	—	3.93	3.93	—	0.43	0.43	—
Onsite truck	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	3.77	31.1	38.9	0.08	1.33	—	1.33	1.23	—	1.23	8,792
Dust From Material Movement	—	—	—	—	—	1.63	1.63	—	0.18	0.18	—
Onsite truck	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	0.69	5.67	7.10	0.01	0.24	—	0.24	0.22	—	0.22	1,456
Dust From Material Movement	—	—	—	—	—	0.30	0.30	—	0.03	0.03	—
Onsite truck	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	0.33	0.32	5.56	0.00	0.00	1.21	1.21	0.00	0.28	0.28	1,247
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	63.9
Hauling	0.03	2.44	0.97	0.01	0.03	0.57	0.60	0.03	0.16	0.18	2,163
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.40	4.71	0.00	0.00	1.21	1.21	0.00	0.28	0.28	1,179
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	63.8
Hauling	0.03	2.54	0.98	0.01	0.03	0.57	0.60	0.03	0.16	0.18	2,160
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Worker	0.13	0.17	2.05	0.00	0.00	0.50	0.50	0.00	0.12	0.12	497
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	26.5
Hauling	0.01	1.07	0.40	0.01	0.01	0.24	0.25	0.01	0.06	0.08	896
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.37	0.00	0.00	0.09	0.09	0.00	0.02	0.02	82.3
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.38
Hauling	< 0.005	0.19	0.07	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	148

3.5. Linear, Grading & Excavation (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.72	69.9	93.4	0.20	2.92	—	2.92	2.68	—	2.68	21,192
Dust From Material Movement	—	—	—	—	—	3.93	3.93	—	0.43	0.43	—
Onsite truck	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	8.72	69.9	93.4	0.20	2.92	—	2.92	2.68	—	2.68	21,192
Dust From Material Movement	—	—	—	—	—	3.93	3.93	—	0.43	0.43	—
Onsite truck	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	3.87	31.0	41.5	0.09	1.30	—	1.30	1.19	—	1.19	9,414
Dust From Material Movement	—	—	—	—	—	1.75	1.75	—	0.19	0.19	—
Onsite truck	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	0.71	5.67	7.57	0.02	0.24	—	0.24	0.22	—	0.22	1,559
Dust From Material Movement	—	—	—	—	—	0.32	0.32	—	0.03	0.03	—
Onsite truck	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	0.32	0.32	5.22	0.00	0.00	1.21	1.21	0.00	0.28	0.28	1,224
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	62.4
Hauling	0.03	2.36	0.94	0.01	0.03	0.57	0.60	0.03	0.16	0.18	2,112
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.36	4.44	0.00	0.00	1.21	1.21	0.00	0.28	0.28	1,158
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	62.3
Hauling	0.03	2.45	0.95	0.01	0.03	0.57	0.60	0.03	0.16	0.18	2,109
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.16	2.06	0.00	0.00	0.53	0.53	0.00	0.13	0.13	523
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	27.7
Hauling	0.01	1.10	0.42	0.01	0.01	0.25	0.27	0.01	0.07	0.08	937
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.38	0.00	0.00	0.10	0.10	0.00	0.02	0.02	86.5

Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.59
Hauling	< 0.005	0.20	0.08	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	155

3.7. Linear, Drainage, Utilities, & Sub-Grade (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.55	45.8	57.1	0.13	1.77	—	1.77	1.63	—	1.63	14,183
Dust From Material Movement	—	—	—	—	—	2.69	2.69	—	0.29	0.29	—
Onsite truck	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	5.55	45.8	57.1	0.13	1.77	—	1.77	1.63	—	1.63	14,183
Dust From Material Movement	—	—	—	—	—	2.69	2.69	—	0.29	0.29	—
Onsite truck	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	1.51	12.5	15.5	0.04	0.48	—	0.48	0.44	—	0.44	3,858
Dust From Material Movement	—	—	—	—	—	0.73	0.73	—	0.08	0.08	—
Onsite truck	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	0.28	2.27	2.83	0.01	0.09	—	0.09	0.08	—	0.08	639
Dust From Material Movement	—	—	—	—	—	0.13	0.13	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.20	3.38	0.00	0.00	0.78	0.78	0.00	0.18	0.18	794
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.23	2.88	0.00	0.00	0.78	0.78	0.00	0.18	0.18	751
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.82	0.00	0.00	0.21	0.21	0.00	0.05	0.05	208
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	34.4
Vendor	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

3.9. Linear, Drainage, Utilities, & Sub-Grade (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.37	42.9	56.5	0.13	1.63	—	1.63	1.50	—	1.50	14,179
Dust From Material Movement	—	—	—	—	—	2.69	2.69	—	0.29	0.29	—
Onsite truck	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	5.37	42.9	56.5	0.13	1.63	—	1.63	1.50	—	1.50	14,179
Dust From Material Movement	—	—	—	—	—	2.69	2.69	—	0.29	0.29	—
Onsite truck	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	2.55	20.4	26.9	0.06	0.77	—	0.77	0.71	—	0.71	6,743
Dust From Material Movement	—	—	—	—	—	1.28	1.28	—	0.14	0.14	—
Onsite truck	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	0.47	3.72	4.90	0.01	0.14	—	0.14	0.13	—	0.13	1,116
Dust From Material Movement	—	—	—	—	—	0.23	0.23	—	0.03	0.03	—
Onsite truck	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	0.20	0.18	3.16	0.00	0.00	0.78	0.78	0.00	0.18	0.18	780
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.21	2.68	0.00	0.00	0.78	0.78	0.00	0.18	0.18	739
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.10	1.34	0.00	0.00	0.37	0.37	0.00	0.09	0.09	357
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.07	0.07	0.00	0.02	0.02	59.1
Vendor	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

3.11. Linear, Paving (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	12.0	20.5	0.03	0.39	—	0.39	0.36	—	0.36	3,114
Onsite truck	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	1.26	12.0	20.5	0.03	0.39	—	0.39	0.36	—	0.36	3,114
Onsite truck	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	0.30	2.86	4.90	0.01	0.09	—	0.09	0.09	—	0.09	743
Onsite truck	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	0.05	0.52	0.89	< 0.005	0.02	—	0.02	0.02	—	0.02	123
Onsite truck	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	0.11	0.10	1.71	0.00	0.00	0.42	0.42	0.00	0.10	0.10	423
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	1.45	0.00	0.00	0.42	0.42	0.00	0.10	0.10	400
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.36	0.00	0.00	0.10	0.10	0.00	0.02	0.02	97.0
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	16.1

Vendor	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

3.13. Linear, Paving (2030) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.21	11.7	20.5	0.03	0.36	—	0.36	0.33	—	0.33	3,114
Onsite truck	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	0.10	0.99	1.72	< 0.005	0.03	—	0.03	0.03	—	0.03	262
Onsite truck	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	0.02	0.18	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	43.4
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	1.36	0.00	0.00	0.42	0.42	0.00	0.10	0.10	394
Vendor	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.04	0.04	0.00	0.01	0.01	33.6
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.57
Vendor	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

4. Operations Emissions Details

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)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	2/15/2027	6/2/2027	5.00	78.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	6/3/2027	8/14/2028	5.00	313	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	8/15/2028	8/31/2029	5.00	274	—
Linear, Paving	Linear, Paving	9/1/2029	2/12/2030	5.00	117	—

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
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	4.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	7.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	3.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	4.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	5.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	6.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	4.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	6.00	8.00	423	0.48
Linear, Grading & Excavation	Cranes	Diesel	Average	1.00	8.00	367	0.29
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	5.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	2.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	5.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	3.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	2.00	8.00	8.00	0.43

Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	2.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	2.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	5.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	17.5	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	30.9	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	92.5	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	2.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	30.8	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	60.0	18.5	LDA,LDT1,LDT2

Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	32.5	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

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)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	19,305	0.00	23.0	0.00	—
Linear, Grading & Excavation	77,220	0.00	23.0	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	23.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Widening	22.0	100%
Bridge/Overpass Construction	1.00	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	58.7	690	0.05	0.01
2028	58.7	690	0.05	0.01
2029	58.7	690	0.05	0.01
2030	29.4	690	0.05	0.01

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	5.27	annual days of extreme heat
Extreme Precipitation	5.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	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 ¾ 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	40.0
AQ-PM	64.7
AQ-DPM	79.1
Drinking Water	71.7
Lead Risk Housing	21.1
Pesticides	0.00
Toxic Releases	80.8
Traffic	77.7
Effect Indicators	—
CleanUp Sites	74.4
Groundwater	86.2
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	99.6
Solid Waste	55.5
Sensitive Population	—
Asthma	13.1
Cardio-vascular	14.8
Low Birth Weights	54.8
Socioeconomic Factor Indicators	—

Education	18.8
Housing	78.1
Linguistic	41.4
Poverty	38.1
Unemployment	9.72

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	66.23893238
Employed	55.84498909
Median HI	76.76119595
Education	—
Bachelor's or higher	91.36404466
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	86.34672142
Active commuting	50.8020018
Social	—
2-parent households	9.80366996
Voting	64.49377647
Neighborhood	—
Alcohol availability	47.37585012
Park access	81.35506224
Retail density	58.1675863

Supermarket access	76.08109842
Tree canopy	50.8020018
Housing	—
Homeownership	50.58385731
Housing habitability	74.43859874
Low-inc homeowner severe housing cost burden	32.50352881
Low-inc renter severe housing cost burden	79.13512126
Uncrowded housing	92.9038881
Health Outcomes	—
Insured adults	81.30373412
Arthritis	17.5
Asthma ER Admissions	89.1
High Blood Pressure	15.4
Cancer (excluding skin)	6.6
Asthma	80.2
Coronary Heart Disease	17.4
Chronic Obstructive Pulmonary Disease	56.7
Diagnosed Diabetes	57.0
Life Expectancy at Birth	81.4
Cognitively Disabled	26.7
Physically Disabled	45.1
Heart Attack ER Admissions	91.5
Mental Health Not Good	87.0
Chronic Kidney Disease	45.1
Obesity	75.0
Pedestrian Injuries	48.4
Physical Health Not Good	70.2

Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	71.2
Current Smoker	89.0
No Leisure Time for Physical Activity	82.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	61.9
Children	73.7
Elderly	6.3
English Speaking	52.1
Foreign-born	56.5
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	12.3
Traffic Density	74.6
Traffic Access	64.6
Other Indices	—
Hardship	20.2
Other Decision Support	—
2016 Voting	64.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	49.0
Healthy Places Index Score for Project Location (b)	78.0
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

Screen	Justification
Construction: Construction Phases	Based on data from the Roadway Construction Emissions Model

Appendix Q2 - Operational AQ/GHG Emissions Calculations

VMT Emissions Analysis

Emission Rates (grams/mile)

	Year	CO	NOx	ROG	PM10	PM2.5	CO2	Average Speed(mph)
Existing Year	2019	1.58	0.20	0.04	0.00	0.00	361.55	29
Opening Year 2030 No Project	2030	1.08	0.10	0.02	0.00	0.00	347.44	25
Opening Year 2030 With Project	2030	1.03	0.09	0.02	0.00	0.00	324.13	28
Design Year 2050 No Project	2050	0.59	0.04	0.01	0.00	0.00	246.15	29
Design Year 2050 With Project	2050	0.59	0.04	0.01	0.00	0.00	246.15	29

Emissions (lbs./day)

	VMT	CO	NOx	ROG	PM10	PM2.5	CO2
Existing Year	593,873	2,066	257	52	4	4	472,946
Opening Year 2030 No Project	632,532	1,512	137	32	3	3	484,066
Opening Year 2030 With Project	621,550	1,410	125	28	3	2	443,745
Opening Year Difference (Project minus No Project)	98%	-102.0	-12.0	-4.0	0.0	-1.0	(40,321)
Design Year 2050 No Project	700,441	917	58	13	1	1	379,769
Design Year 2050 With Project	667,226	873	56	12	1	1	361,760
Design Year Difference (Project minus No Project)	95%	-44	-2	-1	0	0	(18,009)

Emissions (tons/day)

	CO	NOx	ROG	PM10	PM2.5	CO2	CO2 (tonnes/year)
Existing Year	1.03	0.13	0.03	0.00	0.00	215	74,441
Opening Year 2030 No Project	0.76	0.07	0.02	0.00	0.00	220	76,191
Opening Year 2030 With Project	0.71	0.06	0.01	0.00	0.00	201	69,845
Opening Year Difference (Project minus No Project)	(0.05)	(0.01)	(0.00)	0.00	(0.00)	(18)	(6,346)
Design Year 2050 No Project	0.46	0.03	0.01	0.00	0.00	172	59,775
Design Year 2050 With Project	0.44	0.03	0.01	0.00	0.00	164	56,940
Design Year Difference (Project minus No Project)	(0.02)	(0.00)	(0.00)	0.00	0.00	(8)	(2,835)

	CO	PM10	PM2.5	NOx
Existing Year	1.0330	0.0020	0.0020	0.1285
Opening Year 2030 No Project	0.7560	0.0015	0.0015	0.0685
Opening Year 2030 With Project	0.7050	0.0015	0.0010	0.0625
Year 2030 Build Alternative Difference	-0.0510	0.0000	-0.0005	-0.0060
Design Year 2050 No Project	0.4585	0.0005	0.0005	0.0290
Design Year 2050 With Project	0.4365	0.0005	0.0005	0.0280
Year 2050 Build Alternative Difference	-0.0220	0.0000	0.0000	-0.0010

Daily

TABLE 12
VEHICLE MILES TRAVELED (VMT) - 1.5 mile radius

Year	No Build	Build	Difference	Percent Difference
Existing (2019)	593,873	--	--	--
Opening Year (2030)	632,532	621,550	-10,982	-1.74%
Design Year (2050)	700,441	667,226	-33,215	-4.74%

Annual - Calculated

TABLE
VEHICLE MILES TRAVELED (VMT) - 1.5 mile radius

Year	No Build	Build	Difference	Percent Difference
Existing (2019)	206,073,931	--	--	--
Opening Year (2030)	219,488,604	215,677,850	-3,810,754	-1.74%
Design Year (2050)	243,053,027	231,527,422	-11,525,605	-4.74%