Living Desert Expansion Project Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Living Desert Expansion Project
Construction Start Date	9/1/2024
Operational Year	2026
Lead Agency	City of Palm Desert
Land Use Scale	Project/site
Analysis Level for Defaults	Air District
Windspeed (m/s)	3.30
Precipitation (days)	10.8
Location	33.70060591480973, -116.37407359771292
County	Riverside-Salton Sea
City	Palm Desert
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	5647
EDFZ	11
Electric Utility	Southern California Edison
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

General Office Building	13.2	1000sqft	3.00	13,223	59,835	0.00	—	Includes lion care facility and 2nd floor admin space in the event center
Quality Restaurant	31.8	1000sqft	1.00	31,750	59,835	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-10-A	Water Exposed Surfaces
Water	W-5	Design Water-Efficient Landscapes

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	3.73	36.0	34.2	0.05	21.5	11.6	5,564
Mit.	3.73	36.0	34.2	0.05	9.49	5.47	5,564
% Reduced	—	—	—	—	56%	53%	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	7.96	36.0	34.0	0.05	21.5	11.6	5,549
Mit.	7.96	36.0	34.0	0.05	9.49	5.47	5,549
% Reduced	—	—	—	—	56%	53%	—
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	2.06	8.19	10.9	0.02	2.05	1.11	2,171

Mit.	2.06	8.19	10.9	0.02	0.97	0.56	2,171
% Reduced	—	—	—	—	53%	49%	—
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.38	1.50	1.99	< 0.005	0.37	0.20	359
Mit.	0.38	1.50	1.99	< 0.005	0.18	0.10	359
% Reduced	—	—	—	—	53%	49%	—
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	Yes
Mit.	No	No	No	No	No	No	Yes
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	Yes
Mit.	No	No	No	No	No	No	Yes
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	No
Mit.	—	—	—	—	—	—	No

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	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2024	3.73	36.0	34.2	0.05	21.5	11.6	5,564
2025	2.00	17.4	24.6	0.04	1.28	0.80	4,530
Daily - Winter (Max)	—	—	—	—	—	—	—

2024	3.72	36.0	34.0	0.05	21.5	11.6	5,549
2025	7.96	17.4	24.1	0.04	1.28	0.80	4,497
Average Daily	—	—	—	—	—	—	—
2024	0.52	4.88	5.14	0.01	2.05	1.11	900
2025	2.06	8.19	10.9	0.02	0.56	0.36	2,171
Annual	—	—	—	—	—	—	—
2024	0.09	0.89	0.94	< 0.005	0.37	0.20	149
2025	0.38	1.50	1.99	< 0.005	0.10	0.07	359

2.3. Construction Emissions by Year, Mitigated

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	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2024	3.73	36.0	34.2	0.05	9.49	5.47	5,564
2025	2.00	17.4	24.6	0.04	1.28	0.80	4,530
Daily - Winter (Max)	—	—	—	—	—	—	—
2024	3.72	36.0	34.0	0.05	9.49	5.47	5,549
2025	7.96	17.4	24.1	0.04	1.28	0.80	4,497
Average Daily	—	—	—	—	—	—	—
2024	0.52	4.88	5.14	0.01	0.97	0.56	900
2025	2.06	8.19	10.9	0.02	0.56	0.36	2,171
Annual	—	—	—	—	—	—	—
2024	0.09	0.89	0.94	< 0.005	0.18	0.10	149
2025	0.38	1.50	1.99	< 0.005	0.10	0.07	359

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.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	4.01	4.97	48.9	0.13	12.0	3.17	16,017
Mit.	4.01	4.97	48.9	0.13	12.0	3.17	16,017
% Reduced	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	3.64	5.31	40.2	0.13	12.0	3.16	15,347
Mit.	3.64	5.31	40.2	0.13	12.0	3.16	15,347
% Reduced	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	2.34	2.67	17.3	0.05	4.34	1.18	7,378
Mit.	2.34	2.67	17.3	0.05	4.34	1.18	7,378
% Reduced	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.43	0.49	3.15	0.01	0.79	0.22	1,222
Mit.	0.43	0.49	3.15	0.01	0.79	0.22	1,222
% Reduced	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Mit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Mit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000

Unmit.	—	—	—	—	—	—	No
Mit.	—	—	—	—	—	—	No

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	2.63	3.88	46.0	0.13	11.9	3.08	13,219
Area	1.33	0.02	1.96	< 0.005	< 0.005	< 0.005	8.07
Energy	0.06	1.07	0.90	0.01	0.08	0.08	2,565
Water	—	—	—	—	—	—	98.5
Waste	—	—	—	—	—	—	77.8
Refrig.	—	—	—	—	—	—	49.7
Total	4.01	4.97	48.9	0.13	12.0	3.17	16,017
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	2.57	4.24	39.3	0.12	11.9	3.08	12,556
Area	1.00	—	—	—	—	—	—
Energy	0.06	1.07	0.90	0.01	0.08	0.08	2,565
Water	—	—	—	—	—	—	98.5
Waste	—	—	—	—	—	—	77.8
Refrig.	—	—	—	—	—	—	49.7
Total	3.64	5.31	40.2	0.13	12.0	3.16	15,347
Average Daily	—	—	—	—	—	—	—
Mobile	1.05	1.58	15.0	0.04	4.25	1.10	4,582
Area	1.22	0.01	1.34	< 0.005	< 0.005	< 0.005	5.53
Energy	0.06	1.07	0.90	0.01	0.08	0.08	2,565
Water	—	—	—	—	—	—	98.5

Waste	—	—	—	—	—	—	77.8
Refrig.	—	—	—	—	—	—	49.7
Total	2.34	2.67	17.3	0.05	4.34	1.18	7,378
Annual	—	—	—	—	—	—	—
Mobile	0.19	0.29	2.75	0.01	0.78	0.20	759
Area	0.22	< 0.005	0.24	< 0.005	< 0.005	< 0.005	0.92
Energy	0.01	0.20	0.16	< 0.005	0.01	0.01	425
Water	—	—	—	—	—	—	16.3
Waste	—	—	—	—	—	—	12.9
Refrig.	—	—	—	—	—	—	8.22
Total	0.43	0.49	3.15	0.01	0.79	0.22	1,222

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	2.63	3.88	46.0	0.13	11.9	3.08	13,219
Area	1.33	0.02	1.96	< 0.005	< 0.005	< 0.005	8.07
Energy	0.06	1.07	0.90	0.01	0.08	0.08	2,565
Water	—	—	—	—	—	—	98.5
Waste	—	—	—	—	—	—	77.8
Refrig.	—	—	—	—	—	—	49.7
Total	4.01	4.97	48.9	0.13	12.0	3.17	16,017
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	2.57	4.24	39.3	0.12	11.9	3.08	12,556
Area	1.00	—	—	—	—	—	—
Energy	0.06	1.07	0.90	0.01	0.08	0.08	2,565

Water	—	—	—	—	—	—	98.5
Waste	—	—	—	—	—	—	77.8
Refrig.	—	—	—	—	—	—	49.7
Total	3.64	5.31	40.2	0.13	12.0	3.16	15,347
Average Daily	—	—	—	—	—	—	—
Mobile	1.05	1.58	15.0	0.04	4.25	1.10	4,582
Area	1.22	0.01	1.34	< 0.005	< 0.005	< 0.005	5.53
Energy	0.06	1.07	0.90	0.01	0.08	0.08	2,565
Water	—	—	—	—	—	—	98.5
Waste	—	—	—	—	—	—	77.8
Refrig.	—	—	—	—	—	—	49.7
Total	2.34	2.67	17.3	0.05	4.34	1.18	7,378
Annual	—	—	—	—	—	—	—
Mobile	0.19	0.29	2.75	0.01	0.78	0.20	759
Area	0.22	< 0.005	0.24	< 0.005	< 0.005	< 0.005	0.92
Energy	0.01	0.20	0.16	< 0.005	0.01	0.01	425
Water	—	—	—	—	—	—	16.3
Waste	—	—	—	—	—	—	12.9
Refrig.	—	—	—	—	—	—	8.22
Total	0.43	0.49	3.15	0.01	0.79	0.22	1,222

3. Construction Emissions Details

3.1. Site Preparation (2024) - 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	1.47	5,314
Dust From Material Movement	—	—	—	—	19.7	10.1	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	1.47	5,314
Dust From Material Movement	—	—	—	—	19.7	10.1	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.56	2.35	< 0.005	0.11	0.10	379
Dust From Material Movement	—	—	—	—	1.40	0.72	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.47	0.43	< 0.005	0.02	0.02	62.7
Dust From Material Movement	—	—	—	—	0.26	0.13	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.08	0.08	1.31	0.00	0.23	0.05	250
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.09	1.07	0.00	0.23	0.05	235
Vendor	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

Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	< 0.005	17.0
Vendor	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
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.82
Vendor	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

3.2. Site Preparation (2024) - Mitigated

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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	1.47	5,314
Dust From Material Movement	—	—	—	—	7.67	3.94	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	1.47	5,314
Dust From Material Movement	—	—	—	—	7.67	3.94	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.26	2.56	2.35	< 0.005	0.11	0.10	379
Dust From Material Movement	—	—	—	—	0.55	0.28	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.47	0.43	< 0.005	0.02	0.02	62.7
Dust From Material Movement	—	—	—	—	0.10	0.05	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.08	0.08	1.31	0.00	0.23	0.05	250
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.09	1.07	0.00	0.23	0.05	235
Vendor	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
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	< 0.005	17.0
Vendor	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
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.82
Vendor	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

3.3. Grading (2024) - 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.90	18.2	18.8	0.03	0.84	0.77	2,969
Dust From Material Movement	—	—	—	—	7.08	3.42	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.95	0.98	< 0.005	0.04	0.04	155
Dust From Material Movement	—	—	—	—	0.37	0.18	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.18	< 0.005	0.01	0.01	25.6
Dust From Material Movement	—	—	—	—	0.07	0.03	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	0.92	0.00	0.20	0.05	201
Vendor	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
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.01	< 0.005	10.7
Vendor	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
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.76
Vendor	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

3.4. Grading (2024) - Mitigated

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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.90	18.2	18.8	0.03	0.84	0.77	2,969
Dust From Material Movement	—	—	—	—	2.76	1.34	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.95	0.98	< 0.005	0.04	0.04	155
Dust From Material Movement	—	—	—	—	0.14	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.18	< 0.005	0.01	0.01	25.6
Dust From Material Movement	—	—	—	—	0.03	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	0.92	0.00	0.20	0.05	201
Vendor	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

Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.01	< 0.005	10.7
Vendor	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
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.76
Vendor	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

3.5. Building Construction (2024) - 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	0.46	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.32	1.54	< 0.005	0.06	0.05	282
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.28	< 0.005	0.01	0.01	46.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.09	1.08	0.00	0.23	0.05	236

Vendor	0.01	0.28	0.13	< 0.005	0.07	0.02	246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.03	0.01	28.1
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	28.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	4.66
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	4.79
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2024) - Mitigated

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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	0.46	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.32	1.54	< 0.005	0.06	0.05	282
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.28	< 0.005	0.01	0.01	46.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.09	1.08	0.00	0.23	0.05	236
Vendor	0.01	0.28	0.13	< 0.005	0.07	0.02	246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.03	0.01	28.1
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	28.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	4.66
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	4.79
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	0.40	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	0.40	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.46	9.31	0.02	0.31	0.28	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—

Off-Road Equipment	0.15	1.36	1.70	< 0.005	0.06	0.05	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	1.21	0.00	0.23	0.05	246
Vendor	0.01	0.25	0.12	< 0.005	0.07	0.02	243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	1.00	0.00	0.23	0.05	231
Vendor	0.01	0.27	0.12	< 0.005	0.07	0.02	242
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.05	0.06	0.75	0.00	0.16	0.04	168
Vendor	< 0.005	0.19	0.09	< 0.005	0.05	0.01	173
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.03	0.01	27.8
Vendor	< 0.005	0.03	0.02	< 0.005	0.01	< 0.005	28.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2025) - Mitigated

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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	0.40	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	0.40	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.46	9.31	0.02	0.31	0.28	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.36	1.70	< 0.005	0.06	0.05	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	1.21	0.00	0.23	0.05	246
Vendor	0.01	0.25	0.12	< 0.005	0.07	0.02	243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	1.00	0.00	0.23	0.05	231
Vendor	0.01	0.27	0.12	< 0.005	0.07	0.02	242
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.05	0.06	0.75	0.00	0.16	0.04	168
Vendor	< 0.005	0.19	0.09	< 0.005	0.05	0.01	173
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.03	0.01	27.8
Vendor	< 0.005	0.03	0.02	< 0.005	0.01	< 0.005	28.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2025) - 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.52	8.84	0.01	0.29	0.26	1,355
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.52	8.84	0.01	0.29	0.26	1,355
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.32	0.44	< 0.005	0.01	0.01	66.8
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.08	< 0.005	< 0.005	< 0.005	11.1
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.08	0.09	1.38	0.00	0.26	0.06	280
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.10	1.14	0.00	0.26	0.06	263

Vendor	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
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.01	< 0.005	13.2
Vendor	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
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.18
Vendor	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

3.10. Paving (2025) - Mitigated

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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.52	8.84	0.01	0.29	0.26	1,355
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.52	8.84	0.01	0.29	0.26	1,355
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.32	0.44	< 0.005	0.01	0.01	66.8
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.08	< 0.005	< 0.005	< 0.005	11.1
Paving	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.08	0.09	1.38	0.00	0.26	0.06	280
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.10	1.14	0.00	0.26	0.06	263
Vendor	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
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.01	< 0.005	13.2
Vendor	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
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.18
Vendor	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

3.11. Architectural Coating (2025) - 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	0.03	134
Architectural Coatings	6.62	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.20	< 0.005	< 0.005	< 0.005	23.1
Architectural Coatings	1.14	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	3.83
Architectural Coatings	0.21	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.01	0.02	0.20	0.00	0.05	0.01	46.2
Vendor	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
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	8.10
Vendor	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
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.34
Vendor	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

3.12. Architectural Coating (2025) - Mitigated

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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	0.03	134
Architectural Coatings	6.62	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.20	< 0.005	< 0.005	< 0.005	23.1
Architectural Coatings	1.14	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	3.83
Architectural Coatings	0.21	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.01	0.02	0.20	0.00	0.05	0.01	46.2
Vendor	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
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	8.10
Vendor	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

Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.34
Vendor	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

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	0.46	0.45	5.12	0.01	1.23	0.32	1,373
Quality Restaurant	2.17	3.43	40.9	0.11	10.7	2.76	11,845
Total	2.63	3.88	46.0	0.13	11.9	3.08	13,219
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	0.45	0.49	4.51	0.01	1.23	0.32	1,306
Quality Restaurant	2.12	3.75	34.8	0.11	10.7	2.76	11,250
Total	2.57	4.24	39.3	0.12	11.9	3.08	12,556
Annual	—	—	—	—	—	—	—
General Office Building	0.08	0.09	0.85	< 0.005	0.22	0.06	219
Quality Restaurant	0.11	0.20	1.89	0.01	0.55	0.14	540
Total	0.19	0.29	2.75	0.01	0.78	0.20	759

4.1.2. Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	0.46	0.45	5.12	0.01	1.23	0.32	1,373
Quality Restaurant	2.17	3.43	40.9	0.11	10.7	2.76	11,845
Total	2.63	3.88	46.0	0.13	11.9	3.08	13,219
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	0.45	0.49	4.51	0.01	1.23	0.32	1,306
Quality Restaurant	2.12	3.75	34.8	0.11	10.7	2.76	11,250
Total	2.57	4.24	39.3	0.12	11.9	3.08	12,556
Annual	—	—	—	—	—	—	—
General Office Building	0.08	0.09	0.85	< 0.005	0.22	0.06	219
Quality Restaurant	0.11	0.20	1.89	0.01	0.55	0.14	540
Total	0.19	0.29	2.75	0.01	0.78	0.20	759

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	220
Quality Restaurant	—	—	—	—	—	—	1,064
Total	—	—	—	—	—	—	1,284
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	220
Quality Restaurant	—	—	—	—	—	—	1,064
Total	—	—	—	—	—	—	1,284

Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	36.4
Quality Restaurant	—	—	—	—	—	—	176
Total	—	—	—	—	—	—	213

4.2.2. Electricity Emissions By Land Use - Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	220
Quality Restaurant	—	—	—	—	—	—	1,064
Total	—	—	—	—	—	—	1,284
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	220
Quality Restaurant	—	—	—	—	—	—	1,064
Total	—	—	—	—	—	—	1,284
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	36.4
Quality Restaurant	—	—	—	—	—	—	176
Total	—	—	—	—	—	—	213

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	0.01	0.10	0.08	< 0.005	0.01	0.01	117
Quality Restaurant	0.05	0.97	0.82	0.01	0.07	0.07	1,164

Total	0.06	1.07	0.90	0.01	0.08	0.08	1,281
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	0.01	0.10	0.08	< 0.005	0.01	0.01	117
Quality Restaurant	0.05	0.97	0.82	0.01	0.07	0.07	1,164
Total	0.06	1.07	0.90	0.01	0.08	0.08	1,281
Annual	—	—	—	—	—	—	—
General Office Building	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	19.4
Quality Restaurant	0.01	0.18	0.15	< 0.005	0.01	0.01	193
Total	0.01	0.20	0.16	< 0.005	0.01	0.01	212

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	0.01	0.10	0.08	< 0.005	0.01	0.01	117
Quality Restaurant	0.05	0.97	0.82	0.01	0.07	0.07	1,164
Total	0.06	1.07	0.90	0.01	0.08	0.08	1,281
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	0.01	0.10	0.08	< 0.005	0.01	0.01	117
Quality Restaurant	0.05	0.97	0.82	0.01	0.07	0.07	1,164
Total	0.06	1.07	0.90	0.01	0.08	0.08	1,281
Annual	—	—	—	—	—	—	—
General Office Building	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	19.4
Quality Restaurant	0.01	0.18	0.15	< 0.005	0.01	0.01	193
Total	0.01	0.20	0.16	< 0.005	0.01	0.01	212

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	0.89	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—
Landscape Equipment	0.32	0.02	1.96	< 0.005	< 0.005	< 0.005	8.07
Total	1.33	0.02	1.96	< 0.005	< 0.005	< 0.005	8.07
Daily, Winter (Max)	—	—	—	—	—	—	—
Consumer Products	0.89	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—
Total	1.00	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.16	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—
Landscape Equipment	0.04	< 0.005	0.24	< 0.005	< 0.005	< 0.005	0.92
Total	0.22	< 0.005	0.24	< 0.005	< 0.005	< 0.005	0.92

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	0.89	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—
Landscape Equipment	0.32	0.02	1.96	< 0.005	< 0.005	< 0.005	8.07
Total	1.33	0.02	1.96	< 0.005	< 0.005	< 0.005	8.07
Daily, Winter (Max)	—	—	—	—	—	—	—

Consumer Products	0.89	—	—	—	—	—	—
Architectural Coatings	0.11	—	—	—	—	—	—
Total	1.00	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.16	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—
Landscape Equipment	0.04	< 0.005	0.24	< 0.005	< 0.005	< 0.005	0.92
Total	0.22	< 0.005	0.24	< 0.005	< 0.005	< 0.005	0.92

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	19.3
Quality Restaurant	—	—	—	—	—	—	79.2
Total	—	—	—	—	—	—	98.5
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	19.3
Quality Restaurant	—	—	—	—	—	—	79.2
Total	—	—	—	—	—	—	98.5
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	3.20
Quality Restaurant	—	—	—	—	—	—	13.1
Total	—	—	—	—	—	—	16.3

4.4.2. Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	19.3
Quality Restaurant	—	—	—	—	—	—	79.2
Total	—	—	—	—	—	—	98.5
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	19.3
Quality Restaurant	—	—	—	—	—	—	79.2
Total	—	—	—	—	—	—	98.5
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	3.20
Quality Restaurant	—	—	—	—	—	—	13.1
Total	—	—	—	—	—	—	16.3

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	23.2
Quality Restaurant	—	—	—	—	—	—	54.6
Total	—	—	—	—	—	—	77.8
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	23.2

Quality Restaurant	—	—	—	—	—	—	54.6
Total	—	—	—	—	—	—	77.8
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	3.84
Quality Restaurant	—	—	—	—	—	—	9.04
Total	—	—	—	—	—	—	12.9

4.5.2. Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	23.2
Quality Restaurant	—	—	—	—	—	—	54.6
Total	—	—	—	—	—	—	77.8
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	23.2
Quality Restaurant	—	—	—	—	—	—	54.6
Total	—	—	—	—	—	—	77.8
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	3.84
Quality Restaurant	—	—	—	—	—	—	9.04
Total	—	—	—	—	—	—	12.9

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.03
Quality Restaurant	—	—	—	—	—	—	49.6
Total	—	—	—	—	—	—	49.7
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.03
Quality Restaurant	—	—	—	—	—	—	49.6
Total	—	—	—	—	—	—	49.7
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.01
Quality Restaurant	—	—	—	—	—	—	8.22
Total	—	—	—	—	—	—	8.22

4.6.2. Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.03
Quality Restaurant	—	—	—	—	—	—	49.6
Total	—	—	—	—	—	—	49.7
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.03
Quality Restaurant	—	—	—	—	—	—	49.6
Total	—	—	—	—	—	—	49.7
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.01

Quality Restaurant	—	—	—	—	—	—	8.22
Total	—	—	—	—	—	—	8.22

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	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)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

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

4.9.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	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)

Vegetation	ROG	NOx	CO	SO2	PM10T	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	PM10T	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	PM10T	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	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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	PM10T	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
Site Preparation	Site Preparation	9/1/2024	10/7/2024	5.00	26.0	—
Grading	Grading	10/8/2024	11/1/2024	5.00	19.0	—
Building Construction	Building Construction	11/2/2024	12/31/2025	5.00	303	—
Paving	Paving	9/8/2025	10/3/2025	5.00	18.0	—
Architectural Coating	Architectural Coating	10/4/2025	12/31/2025	5.00	63.0	—

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	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backh oes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	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	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	17.6	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	7.37	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.51	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	17.6	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	7.37	10.2	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.51	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	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)
Architectural Coating	0.00	0.00	67,460	22,487	—

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	—	—	39.0	0.00	—

Grading	—	—	19.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.30

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Quality Restaurant	0.30	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	122	122	122	44,520	1,719	1,718	1,718	627,370
Quality Restaurant	0.00	375	375	39,104	0.00	14,999	14,999	1,564,150

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	122	122	122	44,520	1,719	1,718	1,718	627,370
Quality Restaurant	0.00	375	375	39,104	0.00	14,999	14,999	1,564,150

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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)
0	0.00	67,460	22,487	—

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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)
General Office Building	230,651	346	0.0330	0.0040	364,778
Quality Restaurant	1,114,898	346	0.0330	0.0040	3,621,368

5.11.2. Mitigated

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)
General Office Building	230,651	346	0.0330	0.0040	364,778
Quality Restaurant	1,114,898	346	0.0330	0.0040	3,621,368

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	2,350,173	980,704
Quality Restaurant	9,637,195	980,704

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	2,350,173	445,857
Quality Restaurant	9,637,195	445,857

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	12.3	—
Quality Restaurant	29.0	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	12.3	—
Quality Restaurant	29.0	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Quality Restaurant	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Quality Restaurant	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Quality Restaurant	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Quality Restaurant	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Quality Restaurant	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Quality Restaurant	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	25.1	annual days of extreme heat
Extreme Precipitation	0.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.21	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	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	N/A	N/A	N/A	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 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	88.7
AQ-PM	7.89
AQ-DPM	3.10
Drinking Water	45.4
Lead Risk Housing	6.05
Pesticides	0.00
Toxic Releases	1.49
Traffic	22.6
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	12.1
Cardio-vascular	34.8
Low Birth Weights	—
Socioeconomic Factor Indicators	—
Education	4.67
Housing	18.5
Linguistic	5.64
Poverty	18.9

Unemployment	71.7

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	76.88951623
Employed	8.27665854
Median HI	76.65853972
Education	—
Bachelor's or higher	72.53945849
High school enrollment	100
Preschool enrollment	74.14346208
Transportation	—
Auto Access	82.44578468
Active commuting	1.039394328
Social	—
2-parent households	14.14089568
Voting	90.1321699
Neighborhood	—
Alcohol availability	97.0101373
Park access	30.0012832
Retail density	12.61388426
Supermarket access	2.399589375
Tree canopy	38.25227769
Housing	—
Homeownership	89.43924034

Housing habitability	89.74720903
Low-inc homeowner severe housing cost burden	23.34146028
Low-inc renter severe housing cost burden	90.56845887
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	97.45925831
Arthritis	0.0
Asthma ER Admissions	70.6
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	95.2
Cognitively Disabled	68.5
Physically Disabled	49.3
Heart Attack ER Admissions	76.2
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	81.2
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	0.0
SLR Inundation Area	0.0
Children	99.4
Elderly	0.9
English Speaking	98.1
Foreign-born	15.8
Outdoor Workers	34.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	50.3
Traffic Density	2.8
Traffic Access	23.0
Other Indices	—
Hardship	33.5
Other Decision Support	—
2016 Voting	95.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	2.00
Healthy Places Index Score for Project Location (b)	62.0
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
Characteristics: Project Details	Expansion of the Living Desert to include a new event center, entry pavilion, and lion habitat.
Land Use	General Office includes 1,282 SF entry pavilion, 7,490 SF 2nd floor admin space, and 4,451 SF lion care facility. Quality Restaurant includes the event space and kitchen/B.O.H of the event center.
Construction: Construction Phases	Assumes a 15-month buildout.
Construction: Paving	Hardscapes include pathways, patio areas, side walks. No additional parking is proposed.
Operations: Vehicle Data	Daily trips provided by Project specific trip generation report. The admin and lion care facility will generate 122 daily trips, the event center will generate 350 trips on weekends for a total of 472 trips. This is the most intense scenario, which assumes a large wedding is being held at the event center on weekend evenings only.