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M E M O

Date: March 6, 2024

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From: James A. Reyff
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RE: Elm Tree Station – Santa Rosa, CA

SUBJECT: GHG Emissions Modeling Job#23-007

This memo addresses Greenhouse Gas (GHG) emissions associated with the proposed Elm Street Station project located at 874 N. Wright Road in Santa Rosa, CA. Illingworth & Rodkin, Inc. prepared a health risk assessment for this Project in 2023¹. The CalEEMod model was used to predict GHG emissions that are consistent with the traffic trip generation forecasts in the Elm Street Station TIS².

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described below. The CalEEMod output is included in *Attachment 1*.

Project Land Uses	Size	Units	Square Feet	Acreage
Convenience Market with Gas Pumps	3.54	1000 square feet	3,540	1.12
Single Family Housing	1.00	Dwelling Unit	806	

The Project is considered a local-serving retail establishment that is not expected to add new trips to the region. However, GHG emissions from traffic associated with the Project were computed. The project uses are expected to generate 2,546 daily trips (2,536 customer trips and

¹ Illingworth & Rodkin, Inc. 2023. *Elm Street Station – Gas Station Health Risk Assessment*. February 27.

² W-Trans. 2024. Email regarding trip generation estimates and travel lengths for the Elm Street Station Project in the City of Santa Rosa. March 5.

10 on-site residence trips), but most, about 65 percent) are predicted as pass-by trips from vehicles already passing by or near the site. CalEEMod also considers 21 percent to be from diverted trips, which are from vehicles already on the roadway network that alter their trip slightly to use the facility. The CalEEMod default trip passby and diverted trip percentages were used in the modeling. W-Trans reports estimated travel trip lengths for this traffic zone at 5.67 miles per trip.

CalEEMod defaults for energy use were used, which include the latest 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The model has a default rate of 39.46 pounds of CO₂ per megawatt of electricity produced, which is based on the model's default emission rate for Sonoma Clean Power.

Default model assumptions for emissions associated with solid waste generation and refrigerants use were used. Wastewater treatment was changed to 100 percent aerobic conditions to represent the use of city sewer services (i.e., project would not send wastewater to septic tanks or facultative lagoons).

Operational GHG Emissions

The CalEEMod model predictions for annual GHG emissions in carbon dioxide equivalent (CO₂e) metric tons associated with operation of the fully developed site under the proposed project for the year 2025 (project operation) are presented below.

Annual Project GHG Emissions (CO₂e) in Metric Tons

Source Category	Proposed Project in 2025
Mobile	537
Area	<1
Energy Consumption	9
Water Usage	<1
Solid Waste Generation	4
Refrigeration	122
Metric Ton Total	671

23-007 Santa Rosa Gas Station GHG Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	23-007 Santa Rosa Gas Station GHG
Construction Start Date	6/1/2023
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	24.4
Location	874 N Wright Rd, Santa Rosa, CA 95407, USA
County	Sonoma-San Francisco
City	Santa Rosa
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	954
EDFZ	2
Electric Utility	Sonoma Clean Power
Gas Utility	Pacific Gas & Electric
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
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Convenience Market with Gas Pumps	3.54	1000sqft	1.12	3,540	0.00	0.00	—	—
Single Family Housing	1.00	Dwelling Unit	0.00	806	0.00	0.00	3.00	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	2.17	26.8	0.98	8.36	9.34	0.91	3.77	4.68	14.7	8,444
Mit.	0.54	17.2	0.26	4.03	4.16	0.24	1.68	1.82	14.7	8,444
% Reduced	75%	36%	74%	52%	55%	73%	55%	61%	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	4.97	18.0	0.47	1.73	2.05	0.44	0.48	0.79	0.38	8,423
Mit.	4.85	17.1	0.26	1.73	1.87	0.24	0.48	0.61	0.38	8,423
% Reduced	2%	5%	45%	—	9%	44%	—	22%	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—

Unmit.	0.55	7.58	0.20	0.62	0.83	0.19	0.20	0.39	1.94	3,105
Mit.	0.21	7.09	0.11	0.55	0.66	0.10	0.16	0.26	1.94	3,105
% Reduced	63%	7%	48%	11%	20%	47%	17%	32%	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	1.38	0.04	0.11	0.15	0.03	0.04	0.07	0.32	514
Mit.	0.04	1.29	0.02	0.10	0.12	0.02	0.03	0.05	0.32	514
% Reduced	63%	7%	48%	11%	20%	47%	17%	32%	—	—

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2023	2.17	26.8	0.98	8.36	9.34	0.91	3.77	4.68	10.8	8,195
2024	0.71	14.8	0.31	1.73	2.04	0.29	0.48	0.77	14.7	8,444
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2023	1.29	18.0	0.47	1.25	1.72	0.44	0.35	0.79	0.28	7,447
2024	4.97	17.3	0.43	1.73	2.05	0.40	0.48	0.77	0.38	8,423
Average Daily	—	—	—	—	—	—	—	—	—	—
2023	0.55	7.58	0.20	0.62	0.83	0.19	0.20	0.39	1.94	3,105
2024	0.33	2.93	0.07	0.23	0.30	0.07	0.06	0.13	0.85	1,303
Annual	—	—	—	—	—	—	—	—	—	—
2023	0.10	1.38	0.04	0.11	0.15	0.03	0.04	0.07	0.32	514
2024	0.06	0.53	0.01	0.04	0.05	0.01	0.01	0.02	0.14	216

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2023	0.54	17.2	0.26	4.03	4.16	0.24	1.68	1.82	10.8	8,195
2024	0.37	14.5	0.13	1.73	1.87	0.13	0.48	0.61	14.7	8,444
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2023	0.43	17.1	0.26	1.25	1.51	0.24	0.35	0.59	0.28	7,447
2024	4.85	16.8	0.26	1.73	1.87	0.24	0.48	0.61	0.38	8,423
Average Daily	—	—	—	—	—	—	—	—	—	—
2023	0.18	7.09	0.11	0.55	0.66	0.10	0.16	0.26	1.94	3,105
2024	0.21	2.86	0.04	0.23	0.27	0.04	0.06	0.10	0.85	1,303
Annual	—	—	—	—	—	—	—	—	—	—
2023	0.03	1.29	0.02	0.10	0.12	0.02	0.03	0.05	0.32	514
2024	0.04	0.52	0.01	0.04	0.05	0.01	0.01	0.02	0.14	216

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	9.77	3.56	0.04	2.34	2.38	0.04	0.59	0.63	746	4,173
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	9.05	4.14	0.04	2.34	2.38	0.04	0.59	0.63	734	4,047
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	8.99	3.90	0.04	2.30	2.34	0.04	0.59	0.62	739	4,055

Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.64	0.71	0.01	0.42	0.43	0.01	0.11	0.11	122	671

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	9.63	3.53	0.04	2.34	2.37	0.04	0.59	0.63	12.4	3,360
Area	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Energy	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.7
Water	—	—	—	—	—	—	—	—	—	1.07
Waste	—	—	—	—	—	—	—	—	—	21.3
Refrig.	—	—	—	—	—	—	—	—	734	734
Total	9.77	3.56	0.04	2.34	2.38	0.04	0.59	0.63	746	4,173
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	8.94	4.11	0.04	2.34	2.37	0.04	0.59	0.63	0.32	3,235
Area	0.11	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Energy	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.7
Water	—	—	—	—	—	—	—	—	—	1.07
Waste	—	—	—	—	—	—	—	—	—	21.3
Refrig.	—	—	—	—	—	—	—	—	734	734
Total	9.05	4.14	0.04	2.34	2.38	0.04	0.59	0.63	734	4,047
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	8.86	3.87	0.04	2.30	2.34	0.04	0.59	0.62	5.37	3,242
Area	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.39
Energy	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.7

Water	—	—	—	—	—	—	—	—	—	1.07
Waste	—	—	—	—	—	—	—	—	—	21.3
Refrig.	—	—	—	—	—	—	—	—	734	734
Total	8.99	3.90	0.04	2.30	2.34	0.04	0.59	0.62	739	4,055
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	1.62	0.71	0.01	0.42	0.43	0.01	0.11	0.11	0.89	537
Area	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.06
Energy	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.22
Water	—	—	—	—	—	—	—	—	—	0.18
Waste	—	—	—	—	—	—	—	—	—	3.52
Refrig.	—	—	—	—	—	—	—	—	122	122
Total	1.64	0.71	0.01	0.42	0.43	0.01	0.11	0.11	122	671

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	9.63	3.53	0.04	2.34	2.37	0.04	0.59	0.63	12.4	3,360
Area	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Energy	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.7
Water	—	—	—	—	—	—	—	—	—	1.07
Waste	—	—	—	—	—	—	—	—	—	21.3
Refrig.	—	—	—	—	—	—	—	—	734	734
Total	9.77	3.56	0.04	2.34	2.38	0.04	0.59	0.63	746	4,173
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	8.94	4.11	0.04	2.34	2.37	0.04	0.59	0.63	0.32	3,235

Area	0.11	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Energy	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.7
Water	—	—	—	—	—	—	—	—	—	1.07
Waste	—	—	—	—	—	—	—	—	—	21.3
Refrig.	—	—	—	—	—	—	—	—	734	734
Total	9.05	4.14	0.04	2.34	2.38	0.04	0.59	0.63	734	4,047
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	8.86	3.87	0.04	2.30	2.34	0.04	0.59	0.62	5.37	3,242
Area	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.39
Energy	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.7
Water	—	—	—	—	—	—	—	—	—	1.07
Waste	—	—	—	—	—	—	—	—	—	21.3
Refrig.	—	—	—	—	—	—	—	—	734	734
Total	8.99	3.90	0.04	2.30	2.34	0.04	0.59	0.62	739	4,055
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	1.62	0.71	0.01	0.42	0.43	0.01	0.11	0.11	0.89	537
Area	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.06
Energy	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.22
Water	—	—	—	—	—	—	—	—	—	0.18
Waste	—	—	—	—	—	—	—	—	—	3.52
Refrig.	—	—	—	—	—	—	—	—	122	122
Total	1.64	0.71	0.01	0.42	0.43	0.01	0.11	0.11	122	671

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.54	15.1	0.72	—	0.72	0.66	—	0.66	—	2,070
Dust From Material Movement	—	—	—	6.26	6.26	—	3.00	3.00	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3
Dust From Material Movement	—	—	—	0.03	0.03	—	0.02	0.02	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.88
Dust From Material Movement	—	—	—	0.01	0.01	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.00	0.06	0.06	0.00	0.01	0.01	0.32	69.0
Vendor	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.35
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.06
Vendor	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

3.2. Site Preparation (2023) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	6.40	0.04	—	0.04	0.04	—	0.04	—	2,070
Dust From Material Movement	—	—	—	2.44	2.44	—	1.17	1.17	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3

Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.88
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.00	0.06	0.06	0.00	0.01	0.01	0.32	69.0
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.35
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.06
Vendor	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

3.3. Grading (2023) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.78	17.5	0.83	—	0.83	0.77	—	0.77	—	2,462
Dust From Material Movement	—	—	—	7.10	7.10	—	3.43	3.43	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.01	—	0.01	0.01	—	0.01	—	27.0
Dust From Material Movement	—	—	—	0.08	0.08	—	0.04	0.04	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.47
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.08	0.08	0.00	0.02	0.02	0.42	92.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	7.12	0.06	1.13	1.19	0.06	0.32	0.37	9.85	5,162

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.05	56.5
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	9.36

3.4. Grading (2023) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	7.70	0.05	—	0.05	0.05	—	0.05	—	2,462
Dust From Material Movement	—	—	—	2.77	2.77	—	1.34	1.34	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.0

Dust From Material Movement	—	—	—	0.03	0.03	—	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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.47
Dust From Material Movement	—	—	—	0.01	0.01	—	< 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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.08	0.08	0.00	0.02	0.02	0.42	92.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	7.12	0.06	1.13	1.19	0.06	0.32	0.37	9.85	5,162
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.05	56.5
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	9.36

3.5. Building Construction (2023) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	9.81	0.41	—	0.41	0.38	—	0.38	—	1,807
Onsite truck	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	1.19	9.81	0.41	—	0.41	0.38	—	0.38	—	1,807
Onsite truck	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	0.48	3.95	0.17	—	0.17	0.15	—	0.15	—	729
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.72	0.03	—	0.03	0.03	—	0.03	—	121
Onsite truck	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	0.01	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	0.06	13.7
Vendor	< 0.005	0.03	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.05	20.5
Hauling	0.10	7.75	0.06	1.23	1.29	0.06	0.35	0.41	10.7	5,616
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	12.8
Vendor	< 0.005	0.03	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	20.5

Hauling	0.09	8.13	0.06	1.23	1.29	0.06	0.35	0.41	0.28	5,606
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01	5.19
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	8.26
Hauling	0.04	3.24	0.02	0.49	0.51	0.02	0.14	0.16	1.87	2,262
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.86
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.37
Hauling	0.01	0.59	< 0.005	0.09	0.09	< 0.005	0.03	0.03	0.31	374

3.6. Building Construction (2023) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	8.95	0.20	—	0.20	0.18	—	0.18	—	1,807
Onsite truck	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	0.33	8.95	0.20	—	0.20	0.18	—	0.18	—	1,807
Onsite truck	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	0.13	3.61	0.08	—	0.08	0.07	—	0.07	—	729
Onsite truck	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	0.66	0.01	—	0.01	0.01	—	0.01	—	121
Onsite truck	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	0.01	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	0.06	13.7
Vendor	< 0.005	0.03	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.05	20.5
Hauling	0.10	7.75	0.06	1.23	1.29	0.06	0.35	0.41	10.7	5,616
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	12.8
Vendor	< 0.005	0.03	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	20.5
Hauling	0.09	8.13	0.06	1.23	1.29	0.06	0.35	0.41	0.28	5,606
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01	5.19
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	8.26
Hauling	0.04	3.24	0.02	0.49	0.51	0.02	0.14	0.16	1.87	2,262
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.86
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.37
Hauling	0.01	0.59	< 0.005	0.09	0.09	< 0.005	0.03	0.03	0.31	374

3.7. 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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	0.37	—	0.37	0.34	—	0.34	—	1,807
Onsite truck	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	0.16	1.37	0.05	—	0.05	0.05	—	0.05	—	262
Onsite truck	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	0.25	0.01	—	0.01	0.01	—	0.01	—	43.3
Onsite truck	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	0.01	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	12.5
Vendor	< 0.005	0.03	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	20.2
Hauling	0.09	7.82	0.06	1.23	1.29	0.06	0.35	0.41	0.28	5,533
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	1.83
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.93
Hauling	0.01	1.12	0.01	0.18	0.18	0.01	0.05	0.06	0.67	802
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.30
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.49
Hauling	< 0.005	0.20	< 0.005	0.03	0.03	< 0.005	0.01	0.01	0.11	133

3.8. 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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	8.95	0.20	—	0.20	0.18	—	0.18	—	1,807
Onsite truck	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	0.05	1.30	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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.24	0.01	—	0.01	< 0.005	—	< 0.005	—	43.3
Onsite truck	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	0.01	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	< 0.005	12.5
Vendor	< 0.005	0.03	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	20.2
Hauling	0.09	7.82	0.06	1.23	1.29	0.06	0.35	0.41	0.28	5,533
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	1.83

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.93
Hauling	0.01	1.12	0.01	0.18	0.18	0.01	0.05	0.06	0.67	802
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.30
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.49
Hauling	< 0.005	0.20	< 0.005	0.03	0.03	< 0.005	0.01	0.01	0.11	133

3.9. Paving (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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	0.23	—	0.23	0.21	—	0.21	—	995
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.53	4.90	0.23	—	0.23	0.21	—	0.21	—	995
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.13	0.01	—	0.01	0.01	—	0.01	—	27.3
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.51
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.04	0.00	0.10	0.10	0.00	0.02	0.02	0.49	113
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.13	9.84	0.08	1.63	1.71	0.08	0.46	0.54	14.2	7,336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.10	0.10	0.00	0.02	0.02	0.01	105
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.12	10.4	0.08	1.63	1.71	0.08	0.46	0.54	0.37	7,323
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01	2.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.28	< 0.005	0.04	0.05	< 0.005	0.01	0.01	0.17	201
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.03	33.2

3.10. Paving (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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	4.63	0.06	—	0.06	0.05	—	0.05	—	995
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.19	4.63	0.06	—	0.06	0.05	—	0.05	—	995
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.13	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.3
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.51
Paving	0.00	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.04	0.00	0.10	0.10	0.00	0.02	0.02	0.49	113
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.13	9.84	0.08	1.63	1.71	0.08	0.46	0.54	14.2	7,336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Worker	0.05	0.05	0.00	0.10	0.10	0.00	0.02	0.02	0.01	105
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.12	10.4	0.08	1.63	1.71	0.08	0.46	0.54	0.37	7,323
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01	2.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.28	< 0.005	0.04	0.05	< 0.005	0.01	0.01	0.17	201
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.03	33.2

3.11. Architectural Coating (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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	0.03	—	0.03	0.03	—	0.03	—	134
Architectural Coatings	4.83	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.67

Architectural Coatings	0.13	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	2.51
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.07
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.01
Vendor	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

3.12. Architectural Coating (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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	1.07	0.03	—	0.03	0.03	—	0.03	—	134
Architectural Coatings	4.83	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.67
Architectural Coatings	0.13	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	2.51
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.07
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.01
Vendor	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

3.13. Trenching (2023) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	2.14	0.09	—	0.09	0.09	—	0.09	—	433
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.75
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Onsite truck	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	0.02	0.02	0.00	0.04	0.04	0.00	0.01	0.01	0.21	46.0
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.47
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.08
Vendor	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

3.14. Trenching (2023) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	2.28	0.04	—	0.04	0.03	—	0.03	—	433
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.75
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Onsite truck	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	0.02	0.02	0.00	0.04	0.04	0.00	0.01	0.01	0.21	46.0
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.47
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.08
Vendor	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

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	9.59	3.50	0.04	2.30	2.33	0.03	0.59	0.62	12.2	3,311
Single Family Housing	0.04	0.03	< 0.005	0.04	0.04	< 0.005	0.01	0.01	0.21	49.2
Total	9.63	3.53	0.04	2.34	2.37	0.04	0.59	0.63	12.4	3,360
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	8.90	4.07	0.04	2.30	2.33	0.03	0.59	0.62	0.32	3,189
Single Family Housing	0.04	0.04	< 0.005	0.04	0.04	< 0.005	0.01	0.01	0.01	46.8
Total	8.94	4.11	0.04	2.34	2.37	0.04	0.59	0.63	0.32	3,235
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	1.61	0.70	0.01	0.41	0.42	0.01	0.11	0.11	0.87	529
Single Family Housing	0.01	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01	7.61
Total	1.62	0.71	0.01	0.42	0.43	0.01	0.11	0.11	0.89	537

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Convenience Market with Gas Pumps	9.59	3.50	0.04	2.30	2.33	0.03	0.59	0.62	12.2	3,311
Single Family Housing	0.04	0.03	< 0.005	0.04	0.04	< 0.005	0.01	0.01	0.21	49.2
Total	9.63	3.53	0.04	2.34	2.37	0.04	0.59	0.63	12.4	3,360
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	8.90	4.07	0.04	2.30	2.33	0.03	0.59	0.62	0.32	3,189
Single Family Housing	0.04	0.04	< 0.005	0.04	0.04	< 0.005	0.01	0.01	0.01	46.8
Total	8.94	4.11	0.04	2.34	2.37	0.04	0.59	0.63	0.32	3,235
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	1.61	0.70	0.01	0.41	0.42	0.01	0.11	0.11	0.87	529
Single Family Housing	0.01	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01	7.61
Total	1.62	0.71	0.01	0.42	0.43	0.01	0.11	0.11	0.89	537

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.7

Single Family Housing	—	—	—	—	—	—	—	—	—	2.06
Total	—	—	—	—	—	—	—	—	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.7
Single Family Housing	—	—	—	—	—	—	—	—	—	2.06
Total	—	—	—	—	—	—	—	—	—	22.7
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	3.42
Single Family Housing	—	—	—	—	—	—	—	—	—	0.34
Total	—	—	—	—	—	—	—	—	—	3.76

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.7
Single Family Housing	—	—	—	—	—	—	—	—	—	2.06
Total	—	—	—	—	—	—	—	—	—	22.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.7
Single Family Housing	—	—	—	—	—	—	—	—	—	2.06
Total	—	—	—	—	—	—	—	—	—	22.7
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	3.42
Single Family Housing	—	—	—	—	—	—	—	—	—	0.34
Total	—	—	—	—	—	—	—	—	—	3.76

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Total	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00

Total	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Total	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Total	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Total	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.0
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46

Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Total	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Consumer Products	0.09	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Total	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Consumer Products	0.09	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—
Total	0.11	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Consumer Products	0.02	—	—	—	—	—	—	—	—	—

Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.06
Total	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.06

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Consumer Products	0.09	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Total	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.79
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Consumer Products	0.09	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—
Total	0.11	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00
Consumer Products	0.02	—	—	—	—	—	—	—	—	—

Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.06
Total	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.06

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	0.94
Single Family Housing	—	—	—	—	—	—	—	—	—	0.14
Total	—	—	—	—	—	—	—	—	—	1.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	0.94
Single Family Housing	—	—	—	—	—	—	—	—	—	0.14
Total	—	—	—	—	—	—	—	—	—	1.07
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	0.16

Single Family Housing	—	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	—	0.18

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	0.94
Single Family Housing	—	—	—	—	—	—	—	—	—	0.14
Total	—	—	—	—	—	—	—	—	—	1.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	0.94
Single Family Housing	—	—	—	—	—	—	—	—	—	0.14
Total	—	—	—	—	—	—	—	—	—	1.07
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	—	0.18

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.1
Single Family Housing	—	—	—	—	—	—	—	—	—	1.19
Total	—	—	—	—	—	—	—	—	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.1
Single Family Housing	—	—	—	—	—	—	—	—	—	1.19
Total	—	—	—	—	—	—	—	—	—	21.3
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	3.32
Single Family Housing	—	—	—	—	—	—	—	—	—	0.20
Total	—	—	—	—	—	—	—	—	—	3.52

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.1
Single Family Housing	—	—	—	—	—	—	—	—	—	1.19
Total	—	—	—	—	—	—	—	—	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	20.1
Single Family Housing	—	—	—	—	—	—	—	—	—	1.19
Total	—	—	—	—	—	—	—	—	—	21.3
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	—	3.32
Single Family Housing	—	—	—	—	—	—	—	—	—	0.20
Total	—	—	—	—	—	—	—	—	—	3.52

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	734	734
Single Family Housing	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	734	734
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	734	734
Single Family Housing	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	734	734
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	122	122
Single Family Housing	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	122	122

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	734	734
Single Family Housing	—	—	—	—	—	—	—	—	0.01	0.01

Total	—	—	—	—	—	—	—	—	734	734
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	734	734
Single Family Housing	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	734	734
Annual	—	—	—	—	—	—	—	—	—	—
Convenience Market with Gas Pumps	—	—	—	—	—	—	—	—	122	122
Single Family Housing	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	122	122

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—
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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	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2023	6/2/2023	5.00	2.00	—
Grading	Grading	6/3/2023	6/8/2023	5.00	4.00	—
Building Construction	Building Construction	6/9/2023	3/14/2024	5.00	200	—
Paving	Paving	3/30/2024	4/12/2024	5.00	10.0	—
Architectural Coating	Architectural Coating	3/15/2024	3/28/2024	5.00	10.0	—
Trenching	Trenching	6/3/2023	6/8/2023	5.00	4.00	—

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	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37

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

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	6.00	367	0.29

Building Construction	Forklifts	Diesel	Tier 4 Interim	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Interim	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	8.00	84.0	0.37
Trenching	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38

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	7.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT

Grading	Hauling	62.5	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	1.49	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	0.69	8.40	HHDT,MHDT
Building Construction	Hauling	68.0	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	90.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.30	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	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	7.50	11.7	LDA,LDT1,LDT2

Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	62.5	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	1.49	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	0.69	8.40	HHDT,MHDT
Building Construction	Hauling	68.0	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	90.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.30	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT

Trenching	Onsite truck	—	—	HHDT
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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	1,632	544	5,310	1,770	—

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	—	—	1.88	0.00	—
Grading	1,000	1,000	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.01

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Convenience Market with Gas Pumps	0.00	0%
Single Family Housing	0.01	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	39.5	0.03	< 0.005
2024	0.00	39.5	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
Convenience Market with Gas Pumps	2,480	2,480	2,480	905,026	3,216	3,216	3,216	1,173,916
Single Family Housing	9.44	9.54	8.55	3,404	53.6	54.2	48.6	19,338

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Convenience Market with Gas Pumps	2,480	2,480	2,480	905,026	3,216	3,216	3,216	1,173,916
Single Family Housing	9.44	9.54	8.55	3,404	53.6	54.2	48.6	19,338

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
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Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
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1632.1499999999999	544	5,310	1,770	—
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5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Convenience Market with Gas Pumps	181,901	39.5	0.0330	0.0040	102,643
Single Family Housing	18,086	39.5	0.0330	0.0040	0.00

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)
Convenience Market with Gas Pumps	181,901	39.5	0.0330	0.0040	102,643
Single Family Housing	18,086	39.5	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Convenience Market with Gas Pumps	222,218	0.00
Single Family Housing	32,237	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Convenience Market with Gas Pumps	222,218	0.00
Single Family Housing	32,237	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Convenience Market with Gas Pumps	10.6	—
Single Family Housing	0.63	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Convenience Market with Gas Pumps	10.6	—
Single Family Housing	0.63	—

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
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Convenience Market with Gas Pumps	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market with Gas Pumps	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
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5.16.2. Process Boilers

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

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	11.2	annual days of extreme heat
Extreme Precipitation	14.1	annual days with precipitation above 20 mm
Sea Level Rise	0.00	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	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	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	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	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	6.38
AQ-PM	6.51
AQ-DPM	17.1
Drinking Water	18.4
Lead Risk Housing	51.0
Pesticides	59.7
Toxic Releases	2.25
Traffic	33.5
Effect Indicators	—
CleanUp Sites	61.8

Groundwater	95.8
Haz Waste Facilities/Generators	85.4
Impaired Water Bodies	66.7
Solid Waste	89.8
Sensitive Population	—
Asthma	75.9
Cardio-vascular	83.9
Low Birth Weights	22.6
Socioeconomic Factor Indicators	—
Education	70.2
Housing	47.1
Linguistic	59.8
Poverty	52.7
Unemployment	49.9

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	44.61696394
Employed	64.05748749
Median HI	56.24278198
Education	—
Bachelor's or higher	31.64378288
High school enrollment	100
Preschool enrollment	20.18478121
Transportation	—

Auto Access	65.16104196
Active commuting	56.0246375
Social	—
2-parent households	22.53304247
Voting	73.68150905
Neighborhood	—
Alcohol availability	59.43795714
Park access	25.83087386
Retail density	18.69626588
Supermarket access	40.40805851
Tree canopy	36.75093032
Housing	—
Homeownership	44.89926857
Housing habitability	50.0449121
Low-inc homeowner severe housing cost burden	37.88014885
Low-inc renter severe housing cost burden	69.16463493
Uncrowded housing	37.31553959
Health Outcomes	—
Insured adults	45.18157321
Arthritis	84.5
Asthma ER Admissions	26.4
High Blood Pressure	94.2
Cancer (excluding skin)	74.5
Asthma	32.2
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	56.7
Diagnosed Diabetes	80.8

Life Expectancy at Birth	34.2
Cognitively Disabled	10.2
Physically Disabled	32.1
Heart Attack ER Admissions	33.4
Mental Health Not Good	35.7
Chronic Kidney Disease	85.5
Obesity	54.6
Pedestrian Injuries	63.5
Physical Health Not Good	53.6
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	17.1
Current Smoker	32.2
No Leisure Time for Physical Activity	56.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	69.7
Elderly	76.6
English Speaking	63.9
Foreign-born	43.9
Outdoor Workers	19.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	74.3
Traffic Density	32.5
Traffic Access	52.0
Other Indices	—

Hardship	60.5
Other Decision Support	—
2016 Voting	67.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	62.0
Healthy Places Index Score for Project Location (b)	51.0
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 Healthy 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: Utility Information	Santa Rosa Default Power provider is Sonoma Clean Power.
Land Use	Total lot acreage from project description. Total square footages from project plans and trip generation.
Construction: Construction Phases	Defaults based on provided land uses from project applicant.

Construction: Off-Road Equipment	Defaults.
Construction: Trips and VMT	Building const = est 34 concrete truck round trips, Paving = est 45 asphalt truck round trips.
Operations: Vehicle Data	Weekday passby and diverted applied to Weekend
Operations: Hearths	No hearths.
Operations: Energy Use	Santa Rosa REACH code - all electric new residential construction - convert natural gas to electricity.
Operations: Water and Waste Water	Wastewater 100% aerobic, no septic tanks or lagoons.