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Memo

To: Mike Wolfe, Lee & Associates

CC: Deirdre McCollister, Pam Steele, and Chris Dugan, MIG

From: Phil Gleason and Kasey Kitowski

Date: May 5, 2023

SUBJECT: Greenhouse Gas and Energy Analysis for Brew Harley Knox Warehouse Project in Perris, CA

MIG, Inc. (MIG) has prepared this memorandum at the request of Brew Enterprises II. This memorandum estimates the potential greenhouse gas (GHG) emissions and energy consumption levels for the proposed Brew Harley Knox Warehouse Project (proposed Project) and evaluates Project emissions against applicable South Coast Air Quality Management District (SCAQMD)-recommended California Environmental Quality Act (CEQA) significance thresholds. As explained in this memorandum, the proposed Project does not have the potential to result in emissions that exceed SCAQMD thresholds or result in wasteful, inefficient, or unnecessary energy consumption.

PROJECT DESCRIPTION

The proposed Project involves the construction of a new, all-electric, 58,974 square foot warehouse building on one parcel of land in the northern part of Perris, California (Assessor's Parcel Number (APN) 302-090-021). The proposed building would feature an approximately 42,000 square foot solar panel system on its roof. The approximately 4.01-acre Project site is located on the south side of Harley Knox Boulevard, east of Indian Avenue, west of North Parris Boulevard. Industrial land uses are located to the north and south of the Project site. The site is bound by vacant land to the west and east that the City plans to develop with industrial and commercial uses, respectively. The Project site is currently vacant and undeveloped.

The Project site is, at closest, approximately 1.4 miles east of Interstate 215 (I-215). The nearest airport, March Air Reserve Base, is 0.8 miles northwest of the Project site and the nearest school, Val Verde Regional Learning Center, is approximately 1.5 feet southwest of the Project site. While the Project site is surrounded by predominantly industrial uses, there are approximately three residences along East Nance Street, approximately 1,150 feet southeast of the Project site.

The proposed Project would be required to comply with the City of Perris Good Neighbor Guidelines, including the following guidelines related to GHG emissions and energy consumption:

- Goal 2, Policy 1e). On site equipment, such as forklifts, shall be electric with the necessary electrical charging stations provided or be powered by alternative technology.
- Goal 2, Policy 6). On site motorized operational equipment shall be ZE (Zero Emissions).
- Goal 2, Policy 1g). At least 10% of all passenger vehicle parking spaces shall be electric vehicle (EV) ready.

- Goal 2, Policy 12. Require low energy use features, low water use features, all-electric vehicles (EV) parking spaces and charging facility, carpool/vanpool parking spaces, and short- and long-term bicycle parking facilities.
- Goal 6, Policy 12. Designate an area of the construction site where electric-powered construction vehicles and equipment can charge if the utility provider can feasibly provide temporary power for this purpose.
- Goal 7, Policy 7. All building roofs shall be solar-ready.

The proposed Project would involve site preparation, grading, trenching, new building construction, paving, and architectural coating. Construction is expected to begin as soon as January 2024 and last approximately 12 months. The proposed Project's construction schedule and anticipated equipment usage is listed in Table 1*, Brew Harley Knox Warehouse Project Construction Activities.*

Table 1: Brew Harley Knox Warehouse Project Construction Activities

Construction Phase	Duration (Days)(A)	Typical Equipment Used(B)
Site Preparation	8	Tractor/Loader/Backhoe
Grading	8	Scraper, Tractor/Loader/Backhoe, Grader
Building Construction (Foundation)	15	Tractor/Loader/Backhoe
Building Construction (Vertical)(C)	180	Tractor/Loader/Backhoe, Forklift, Crane
Trenching	20	Excavator, Backhoe
Building Construction (MEP/Other)	30	Forklift
Paving	18	Paver, Paving Equipment, Roller
Architectural Coating	18	Air Compressor

Source: RDM 2023.

(A) Days refers to total active workdays in the construction phase, not calendar days.

(B) The typical equipment list does not reflect all equipment that would be used during the construction phase. Not all equipment would operate eight hours per day each workday.

(C) The Building Construction (Vertical) phrase overlaps with the Trenching Phase and with the Building Construction (MEP/Other) Phase.

The Project is expected to be operational in late 2024 / early 2025. Once operational, the proposed Project would operate as an industrial warehouse building.

GHG ANALYSIS

Gases that trap heat in the atmosphere and affect regulation of the Earth's temperature are known as GHGs. GHG that contribute to climate change are a different type of pollutant than criteria or hazardous air pollutants because climate change is global in scale, both in terms of causes and effects. Some GHG are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide), and off-gassing from low oxygen environments such as swamps or exposed permafrost (methane); however, GHG emissions from human activities such as fuel combustion (e.g., carbon dioxide) and refrigerants use (e.g., hydrofluorocarbons) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHGs – carbon dioxide, methane, nitrous oxide, and sulfur hexafluoride – and

two groups of gases – hydrofluorocarbons and perfluorocarbons. These GHG are the primary GHG emitted into the atmosphere by human activities. The six most common GHG's are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

GHG emissions from human activities contribute to overall GHG concentrations in the atmosphere and the corresponding effects of global climate change (e.g., rising temperatures, increased severe weather events such as drought and flooding). GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHGs by their GWP determines their carbon dioxide equivalent (CO_2e), which enables a project's combined global warming potential to be expressed in terms of mass CO_2 emissions (referred to as CO_2 equivalents, or CO_2e).

To date, the SCAQMD has not adopted a numerical threshold for determining the significance of GHG emissions in the Basin; however, as an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* handbook, the SCAQMD has considered adopting and recommending for use a non-zero threshold that captures approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this interim method is 10,000 $MTCO_2e$ per year for industrial projects (SCAQMD 2019).

The SCAQMD's interim 10,000 $MTCO_2e$ per year threshold for industrial land uses was intended to address GHG emissions through the Year 2020, consistent with AB 32 GHG emissions reduction goals at the state level. Since the proposed Project would become operational as early as late-2024 (i.e., four years after 2020), the 10,000 $MTCO_2e$ per year interim threshold is not directly applicable to the proposed Project. As such, in addition to the 10,000 $MTCO_2e$ per year interim threshold, this analysis also uses a Project-specific GHG emissions goal of 6,000 $MTCO_2e$ per year, which demonstrates progress towards the state's next GHG emission reduction goal in 2030 (i.e., 40 percent below 1990 levels by 2030).[1]

GHG Emissions and Plan Consistency Analysis

The proposed project would generate GHG emission from both short-term construction and long-term operational activities. Construction activities would generate GHG emissions primarily from equipment fuel combustion as well as worker, vendor, and haul trips to and from the project site during site preparation, grading, building construction, paving, and architectural coating activities. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the project is decommissioned. The SCAQMD recommends amortizing construction GHG emissions over a 30-year period and including them with operational emissions estimates. This normalizes construction emissions so that they can be grouped with operational emissions and compared

[1] The 6,000 $MTCO_2e$ per year goal was developed by taking the SCAQMD's 10,000 $MTCO_2e$ per year, which was the threshold to reduce emissions back to 1990 levels, and reducing it by 40 percent (10,000 $MTCO_2e$/yr * (1 - 0.4) = 6,000 $MTCO_2e$/yr). This reduction is consistent with the GHG reductions required under SB 32. This linear reduction approach oversimplifies the threshold development process. The City is not adopting nor proposing to use 6,000 MTCO2e as a CEQA GHG threshold for general use; rather, it is only intended for to provide additional context and information on the magnitude of the proposed Project's GHG emissions.

to appropriate thresholds, plans, etc. Once operational, the proposed project would generate GHG emissions from area, stationary, mobile, water/wastewater, and solid waste sources.

The proposed Project's potential GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version (V.) 2022.1.1.8. Project emissions were generated using CalEEMod default assumptions and modified as necessary to reflect the following Project-specific context, information, and details:

- The type and length of construction phases for each site, as well as the equipment used in each phase and the number of worker trips per day, were modified per information provided by the Project Applicant. To comply with the Perris Good Neighbor Guidelines, all off-road construction equipment greater than 50 horsepower was assumed to meet U.S EPA / CARB Tier 3 exhaust emission standards.
- The default, weekday trip generation rate, average vehicle miles travelled (VMT) distance, and fleet mix were updated to reflect the information provided in the Transportation Study Screening Assessment (Ganddini Group 2023).
- Natural gas use was excluded from the Project since the Project does not propose natural gas connections for building or appliance systems.

The proposed Project's total GHG emissions are shown in Table 2.

Table 2: Unmitigated Project Greenhouse Gas Emissions

GHG Emissions Source	**GHG Emissions ($MTCO_2e$ Per Year)**
Operations	
Area	1.2
Energy	161.0
Mobile	851.0
Waste	4.7
Water	18.1
Subtotal(A)	1,036.0
Construction	
Total Construction Emissions	468.0
Average Annual Emissions (30 Year Lifetime)(B)	15.6
Total Project Emissions(A)	1,051.6
SCAQMD 2020 Interim Threshold	**10,000**
Project-specific 2030 GHG Emissions Goal	**6,000**
SCAQMD Interim Threshold or Project-specific Goal Exceeded?	***No***

Source: MIG 2023 (See Attachment 1) and SCAQMD, 2019.
(A) Totals may not equal due to rounding.
(B) Construction emissions value has been averaged over a 30-year assumed project lifetime.

As shown in Table 2, the proposed Project's potential increase in GHG emissions would be below the SCAQMD's interim 2020 GHG emissions threshold. Furthermore, the proposed Project's GHG emissions would also be below an adjusted Project-specific GHG emissions goal of 6,000 $MTCO_2e$ per year, which takes into account post 2020 GHG emissions targets the state is currently working towards. It should be noted that the energy emissions estimates contained in Table 2 are considered conservative, because they do not take into account to the on-site renewable electricity that would be generated by the approximately 42,000 square foot solar

panel. The proposed Project, therefore, would not generate GHG emissions that exceed SCAQMD CEQA thresholds or otherwise result in a significant impact on the environment. The proposed Project also would not conflict with or otherwise obstruct implementation of a plan, policy, or regulation adopted for the purposes of reducing GHG emissions, including the California Air Resources Board (CARB) 2022 Climate Change Scoping Plan (*2022 Climate Change Scoping Plan*), the Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS), or the City of Perris Climate Action Plan (CAP).

The *2022 Climate Change Scoping Plan* is CARB's primary document used to ensure State GHG reduction goals are met. The *2022 Climate Change Scoping Plan's* primary objective is to identify the measures needed to achieve the 2030 reduction target established under SB 32 and have the state achieve carbon neutrality by 2045, as established by AB 1279. Many of the measures identified in the *2022 Scoping Plan Update* are not applicable at the proposed Project's level; rather, the success of the plan primarily relies upon the State's actions to uphold and implement existing legislation and develop new plans and strategies to sequester, trap, and store emitted carbon emissions. Although most of these measures would be implemented at the State level, the GHG reductions achieved by these state measures would be realized at the local level. For example, regardless of actions taken by the City of Perris or County of Riverside, emissions generated through gasoline combustion in motor vehicles within the county would produce less GHG in 2030 than they do now. Similarly, the electricity consumed by on-site sources (e.g., lighting, building systems, etc.) would become greener over time as the State's RPS increases, consistent with the benchmarks established in SB 100 and SB 1020. The proposed Project would, however, be of an all-electric design (i.e., no natural gas connections or appliances) and install an approximately 42,000 square foot solar panel on its roof. These Project components are considered to be items that support the State's long-term GHG emission reduction goal of becoming carbon neutral by 2045. Therefore, the proposed Project would not conflict with or obstruct implementation of the *2022 Climate Change Scoping Plan*.

The proposed Project would also be consistent with the SCAG *2020 RTP/SCS*. The proposed Project would add 50 new jobs, which is consistent with the regional forecasts in the *2020 RTP/SCS*, in which Perris is projected to add 10,300 jobs between 2016 and 2045 (SCAG 2020). In addition, the Project does not conflict with the *2020 RTP/SCS*'s goal of reducing vehicle miles travelled (VMT), as it met the City's VMT screening criteria and is presumed to have a less than significant VMT impact (Ganddini Group 2023). In addition, the proposed Project would result in 7,667 fewer passenger car equivalent (PCE) trips than if the site was built with a commercial land use as it currently zoned for (Ganddini Group 2023).

The City of Perris has implemented a CAP to address GHG emissions related to transportation, commercial and industrial energy, residential energy, waste, and wastewater. The Perris CAP builds off of the Western Riverside Council of Governments (WRCOG) CAP, which the City was a participant of.

The Perris CAP evaluates current GHG emissions, forecasts "business-as-usual" emissions, introduces greenhouse gas reduction measures at the state, regional, and local level, and establishes targets of a 15% reduction in GHG emissions below 2010 levels by 2020 and a 47.5% reduction in GHG emissions below 2010 levels by 2035. By implementing all greenhouse gas reduction measures, the CAP estimates it will reduce GHG emissions by 49% below 2010 levels by 2035, which would meet its target. The proposed Project would:

- Be consistent with CAP growth projections,[2]
- Be subject to the latest State energy efficiency standards (consistent with CAP Measure R1-E4),
- Divert 65% of construction and demolition waste (meeting the CalGreen Code and exceeding the requirements of CAP Measure SR-13),
- Provide electric vehicle charging infrastructure (consistent with CAP Measure SR-12), and
- Provide bicycle parking (consistent with CAP Measure T-2).

In addition, the Project would install 42,000 square feet of solar panels, providing the Project with a renewable source of electricity.

As described above, the proposed Project would not result in significant GHG emissions, proposes growth in a manner that would be consistent with the State's long-term GHG emission reduction goals, and would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

ENERGY ANALYSIS

The proposed Project consists of the construction and operation of a 58,974 square foot warehouse building. Construction activities associated with the proposed project would require the use of heavy-duty, off-road equipment and construction-related vehicle trips that would combust fuel, primarily diesel and gasoline. Heavy-duty construction equipment would be required to comply with CARB's airborne toxic control measures, which restrict heavy-duty diesel vehicle idling to five minutes. It is estimated that construction activities would consume approximately 19,014 gallons of diesel fuel to power on-site, off-road heavy-duty construction equipment. Worker, vendor, and haul truck trips during construction activities are anticipated to consume 7,945 gallons of gasoline, 10,473 gallons of diesel, and 1,846 kWh of electricity.

Once operational, the proposed Project would consume energy for vehicle trips and electricity usage. As estimated using CalEEMod, the proposed Project building would consume approximately 838 megawatt-hours (mWh) of electricity per year. Some of this consumption would be offset by the electricity generated by the approximately 42,000 square foot solar panel the Project proposes. The warehouse building would be all electric and would not consume natural gas. Operational vehicle trips are anticipated to consume approximately 24,349 gallons of gasoline, 66,814 gallons of diesel, and 8,799 kilowatt-hours (kWh) of electricity on an annual basis, upon its first year of operation.

Electricity and gasoline fuel consumption are energy sources necessary to operate and maintain the proposed Project in a safe manner. Electricity for lighting is essential for safety and security and electricity for temperature-controlled activities is necessary for the operation of the building. Due to energy efficiency standards being improved over time, the new structures would be more efficient in its energy consumption than the existing structures. In addition, the proposed Project includes elements that support energy efficiency and renewable energy, including a 42,000 square foot solar panel system over the building, light colored roofing over the office area, and on-site electric vehicle charging facilities.

[2] The Perris CAP projects that there will be 14,406 new jobs between 2010 and 2035. The proposed Project is anticipated to support 50 new jobs, which is within the CAP's employment projections. The proposed Project's change in land use also would not conflict with the underlying growth assumptions associated with the CAP, because the Project would be of an all-electric design, it would install approximately 42,000 square feet solar panels, and would reduce passenger vehicle trips by approximately 7,667 trips, compared to the commercial land use that could have been accommodated by the site.

The City of Perris was a participant in the Western Riverside Energy Leadership Partnership, under which each jurisdiction developed an Energy Action Plan. Growth rates from the Energy Action Plans were incorporated in the Perris CAP, which establishes local energy efficiency measures. These measures are focused on residential and commercial efficiency improvements; the proposed Project would not conflict with them.

As discussed above, the proposed Project would be built to the latest CALGreen Code, would include building elements that support energy efficiency and renewable energy, and would not conflict with or obstruct a state or local plan for renewable energy. For these reasons, the proposed Project would not result in the wasteful, inefficient, or unnecessary use of energy resources.

CONCLUSION

As described in this memo, the proposed Project would not exceed any applicable SCAQMD-recommended CEQA thresholds of significance and is consistent with all applicable plans, policies and regulations adopted for the purposes of reducing GHG emissions and/or energy consumption impacts. The proposed project, therefore, would not result in substantial adverse GHG or energy-related effects on the environment.

REFERENCES

The following references were used to prepare this memorandum:

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Attachment 1

CalEEMod Project File Outputs

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Brew Harley Knox Industrial Project Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Brew Harley Knox Industrial Project
Construction Start Date	1/1/2024
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.856815, -117.229084
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.11

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

Unrefrigerated Warehouse-No Rail	52.0	1000sqft	1.19	51,974	0.00	0.00	—	—
General Office Building	4.00	1000sqft	0.09	8,000	0.00	0.00	—	—
Parking Lot	69.9	1000sqft	2.73	0.00	29,692	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.17	1.01	18.4	57.9	0.04	0.60	1.91	2.44	0.55	0.47	0.96	—	6,656	6,656	0.21	0.40	11.8	6,791
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.80	32.9	15.4	49.1	0.03	0.62	1.80	2.42	0.56	0.27	0.78	—	4,467	4,467	0.15	0.35	0.17	4,534
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.51	2.07	8.82	26.8	0.02	0.27	0.72	0.99	0.25	0.17	0.42	—	2,784	2,784	0.09	0.14	1.78	2,829
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.38	1.61	4.89	< 0.005	0.05	0.13	0.18	0.04	0.03	0.08	—	461	461	0.02	0.02	0.30	468
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshol	—	75.0	100	550	—	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshol d	—	75.0	100	550	—	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.17	1.01	18.4	57.9	0.04	0.60	1.91	2.44	0.55	0.47	0.96	—	6,656	6,656	0.21	0.40	11.8	6,791
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.80	32.9	15.4	49.1	0.03	0.62	1.80	2.42	0.56	0.27	0.78	—	4,467	4,467	0.15	0.35	0.17	4,534
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.51	2.07	8.82	26.8	0.02	0.27	0.72	0.99	0.25	0.17	0.42	—	2,784	2,784	0.09	0.14	1.78	2,829
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.09	0.38	1.61	4.89	< 0.005	0.05	0.13	0.18	0.04	0.03	0.08	—	461	461	0.02	0.02	0.30	468

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.00	2.30	4.59	8.60	0.05	0.08	1.00	1.08	0.08	0.21	0.29	52.7	6,341	6,394	5.54	0.72	16.2	6,764
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.52	1.86	4.79	5.05	0.05	0.07	1.00	1.07	0.07	0.21	0.28	52.7	6,252	6,305	5.54	0.73	0.44	6,660
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.83	2.15	4.86	6.99	0.05	0.08	1.00	1.08	0.07	0.21	0.28	52.7	6,202	6,255	5.53	0.73	7.01	6,616
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.39	0.89	1.28	0.01	0.01	0.18	0.20	0.01	0.04	0.05	8.73	1,027	1,036	0.92	0.12	1.16	1,095
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	—	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	—	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	—	—	—	No	—	—	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.42	4.57	5.99	0.05	0.07	1.00	1.07	0.07	0.21	0.28	—	5,206	5,206	0.10	0.65	16.2	5,419
Area	0.46	1.88	0.02	2.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,039	1,039	0.10	0.01	—	1,045
Water	—	—	—	—	—	—	—	—	—	—	—	24.4	85.2	110	2.51	0.06	—	190
Waste	—	—	—	—	—	—	—	—	—	—	—	28.3	0.00	28.3	2.83	0.00	—	99.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.00	2.30	4.59	8.60	0.05	0.08	1.00	1.08	0.08	0.21	0.29	52.7	6,341	6,394	5.54	0.72	16.2	6,764
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.52	0.40	4.79	5.05	0.05	0.07	1.00	1.07	0.07	0.21	0.28	—	5,128	5,128	0.10	0.65	0.42	5,325
Area	—	1.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,039	1,039	0.10	0.01	—	1,045
Water	—	—	—	—	—	—	—	—	—	—	—	24.4	85.2	110	2.51	0.06	—	190
Waste	—	—	—	—	—	—	—	—	—	—	—	28.3	0.00	28.3	2.83	0.00	—	99.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.52	1.86	4.79	5.05	0.05	0.07	1.00	1.07	0.07	0.21	0.28	52.7	6,252	6,305	5.54	0.73	0.44	6,660
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.52	0.40	4.85	5.21	0.05	0.07	1.00	1.07	0.07	0.21	0.28	—	5,139	5,139	0.10	0.65	6.99	5,343
Area	0.32	1.75	0.02	1.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.35	7.35	< 0.005	< 0.005	—	7.37
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	971	971	0.09	0.01	—	976
Water	—	—	—	—	—	—	—	—	—	—	—	24.4	85.2	110	2.51	0.06	—	190
Waste	—	—	—	—	—	—	—	—	—	—	—	28.3	0.00	28.3	2.83	0.00	—	99.1

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.83	2.15	4.86	6.99	0.05	0.08	1.00	1.08	0.07	0.21	0.28	52.7	6,202	6,255	5.53	0.73	7.01	6,616
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.07	0.88	0.95	0.01	0.01	0.18	0.20	0.01	0.04	0.05	—	851	851	0.02	0.11	1.16	885
Area	0.06	0.32	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.22
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	161	161	0.02	< 0.005	—	162
Water	—	—	—	—	—	—	—	—	—	—	—	4.04	14.1	18.1	0.42	0.01	—	31.5
Waste	—	—	—	—	—	—	—	—	—	—	—	4.69	0.00	4.69	0.47	0.00	—	16.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.15	0.39	0.89	1.28	0.01	0.01	0.18	0.20	0.01	0.04	0.05	8.73	1,027	1,036	0.92	0.12	1.16	1,095

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.20	6.01	8.11	0.01	0.24	—	0.24	0.22	—	0.22	—	1,162	1,162	0.05	0.01	—	1,166

Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.13	0.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	25.5	25.5	< 0.005	< 0.005	—	25.6
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.22	4.22	< 0.005	< 0.005	—	4.23
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.63	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	< 0.005	0.01	134
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.08	0.03	2.48	0.58	0.01	0.04	0.54	0.58	0.04	0.15	0.19	—	2,102	2,102	0.04	0.34	0.12	2,204

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.94	2.94	< 0.005	< 0.005	0.01	2.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	46.1	46.1	< 0.005	0.01	0.04	48.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.63	7.63	< 0.005	< 0.005	0.01	8.00

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.57	15.3	19.4	0.03	0.62	—	0.62	0.56	—	0.56	—	3,333	3,333	0.14	0.03	—	3,345
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.34	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	73.1	73.1	< 0.005	< 0.005	—	73.3

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.1	12.1	< 0.005	< 0.005	—	12.1
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	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.01	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	212	212	0.01	0.01	0.02	214
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.70	4.70	< 0.005	< 0.005	0.01	4.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.13	3.94	5.32	0.01	0.16	—	0.16	0.14	—	0.14	—	763	763	0.03	0.01	—	765
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.16	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.3	31.3	< 0.005	< 0.005	—	31.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.19	5.19	< 0.005	< 0.005	—	5.21
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.20	2.27	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.05	482
Vendor	0.05	0.03	1.29	0.39	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,087	1,087	0.02	0.16	0.08	1,137
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.8	19.8	< 0.005	< 0.005	0.04	20.1
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.7	44.7	< 0.005	0.01	0.05	46.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.28	3.28	< 0.005	< 0.005	0.01	3.33
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.40	7.40	< 0.005	< 0.005	0.01	7.74
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	12.8	44.9	0.02	0.41	—	0.41	0.37	—	0.37	—	2,586	2,586	0.09	0.02	—	2,593
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.43	0.36	12.8	44.9	0.02	0.41	—	0.41	0.37	—	0.37	—	2,586	2,586	0.09	0.02	—	2,593
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.18	6.33	22.1	0.01	0.20	—	0.20	0.18	—	0.18	—	1,275	1,275	0.04	0.01	—	1,279
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	1.16	4.04	< 0.005	0.04	—	0.04	0.03	—	0.03	—	211	211	0.01	< 0.005	—	212
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.31	0.29	5.01	0.00	0.00	0.78	0.78	0.00	0.18	0.18	—	864	864	0.04	0.03	3.43	877
Vendor	0.05	0.03	1.23	0.38	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,087	1,087	0.02	0.16	3.06	1,139
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.29	0.34	3.79	0.00	0.00	0.78	0.78	0.00	0.18	0.18	—	794	794	0.04	0.03	0.09	804
Vendor	0.05	0.03	1.29	0.39	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,087	1,087	0.02	0.16	0.08	1,137
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.17	1.97	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	396	396	0.02	0.01	0.73	402
Vendor	0.02	0.02	0.64	0.19	< 0.005	0.01	0.15	0.15	0.01	0.04	0.05	—	536	536	0.01	0.08	0.65	561

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.36	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	65.6	65.6	< 0.005	< 0.005	0.12	66.6
Vendor	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	88.7	88.7	< 0.005	0.01	0.11	92.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	2.38	3.21	< 0.005	0.10	—	0.10	0.09	—	0.09	—	457	457	0.02	< 0.005	—	459
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.20	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.6	37.6	< 0.005	< 0.005	—	37.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.22	6.22	< 0.005	< 0.005	—	6.24
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.19	3.34	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	576	576	0.02	0.02	2.28	585
Vendor	0.05	0.03	1.23	0.38	0.01	0.02	0.30	0.32	0.02	0.08	0.10	—	1,087	1,087	0.02	0.16	3.06	1,139
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	44.0	44.0	< 0.005	< 0.005	0.08	44.7
Vendor	< 0.005	< 0.005	0.11	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	89.3	89.3	< 0.005	0.01	0.11	93.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.29	7.29	< 0.005	< 0.005	0.01	7.39
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.8	14.8	< 0.005	< 0.005	0.02	15.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2024) - Unmitigated

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

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

Off-Road Equipment	0.45	0.40	6.85	8.90	0.01	0.29	—	0.29	0.26	—	0.26	—	1,351	1,351	0.05	0.01	—	1,355
Paving	—	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.34	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.11	1.26	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	265	265	0.01	0.01	0.03	268
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.2	13.2	< 0.005	< 0.005	0.02	13.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.19	2.19	< 0.005	< 0.005	< 0.005	2.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	32.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	—	1.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.92	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.67	9.67	< 0.005	< 0.005	0.02	9.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Trenching (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	3.96	5.95	0.01	0.18	—	0.18	0.16	—	0.16	—	850	850	0.03	0.01	—	853
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.22	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.6	46.6	< 0.005	< 0.005	—	46.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.71	7.71	< 0.005	< 0.005	—	7.73
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	288	288	0.01	0.01	1.14	292
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.03	14.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.17	0.10	4.33	1.14	0.04	0.07	0.63	0.70	0.07	0.15	0.21	—	4,180	4,180	0.07	0.63	12.1	4,381
General Office Building	0.36	0.32	0.24	4.85	0.01	< 0.005	0.36	0.37	< 0.005	0.06	0.07	—	1,026	1,026	0.03	0.02	4.06	1,038
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.53	0.42	4.57	5.99	0.05	0.07	1.00	1.07	0.07	0.21	0.28	—	5,206	5,206	0.10	0.65	16.2	5,419

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.17	0.09	4.52	1.14	0.04	0.07	0.63	0.70	0.07	0.15	0.21	—	4,181	4,181	0.07	0.63	0.31	4,370
General Office Building	0.35	0.31	0.27	3.90	0.01	< 0.005	0.36	0.37	< 0.005	0.06	0.07	—	947	947	0.03	0.03	0.11	955
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.52	0.40	4.79	5.05	0.05	0.07	1.00	1.07	0.07	0.21	0.28	—	5,128	5,128	0.10	0.65	0.42	5,325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.02	0.83	0.21	0.01	0.01	0.12	0.13	0.01	0.03	0.04	—	692	692	0.01	0.10	0.87	724
General Office Building	0.06	0.06	0.05	0.74	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	—	159	159	0.01	< 0.005	0.29	160
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.09	0.07	0.88	0.95	0.01	0.01	0.18	0.20	0.01	0.04	0.05	—	851	851	0.02	0.11	1.16	885

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	506	506	0.05	0.01	—	509
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	195	195	0.02	< 0.005	—	196
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.9
undefined	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.02	< 0.005	—	240
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,039	1,039	0.10	0.01	—	1,045
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	506	506	0.05	0.01	—	509
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	195	195	0.02	< 0.005	—	196
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	99.3	99.3	0.01	< 0.005	—	99.9
undefined	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.02	< 0.005	—	240
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,039	1,039	0.10	0.01	—	1,045
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	83.8	83.8	0.01	< 0.005	—	84.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	32.3	32.3	< 0.005	< 0.005	—	32.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.5
undefined	—	—	—	—	—	—	—	—	—	—	—	—	28.2	28.2	< 0.005	< 0.005	—	28.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	161	161	0.02	< 0.005	—	162

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consum er Products	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.46	0.43	0.02	2.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Total	0.46	1.88	0.02	2.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.05	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.22
Total	0.06	0.32	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.22

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	23.0	78.1	101	2.37	0.06	—	177
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.36	4.62	5.98	0.14	< 0.005	—	10.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	2.39	2.39	< 0.005	< 0.005	—	2.40
Total	—	—	—	—	—	—	—	—	—	—	—	24.4	85.2	110	2.51	0.06	—	190
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	23.0	78.1	101	2.37	0.06	—	177
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.36	4.62	5.98	0.14	< 0.005	—	10.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	2.39	2.39	< 0.005	< 0.005	—	2.40
Total	—	—	—	—	—	—	—	—	—	—	—	24.4	85.2	110	2.51	0.06	—	190
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.81	12.9	16.8	0.39	0.01	—	29.4

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.23	0.77	0.99	0.02	< 0.005	—	1.74
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.40	0.40	< 0.005	< 0.005	—	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	4.04	14.1	18.1	0.42	0.01	—	31.5

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	26.3	0.00	26.3	2.63	0.00	—	92.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.00	0.00	2.00	0.20	0.00	—	7.01
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.3	0.00	28.3	2.83	0.00	—	99.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	26.3	0.00	26.3	2.63	0.00	—	92.1

General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.00	0.00	2.00	0.20	0.00	—	7.01
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.3	0.00	28.3	2.83	0.00	—	99.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.36	0.00	4.36	0.44	0.00	—	15.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.33	0.00	0.33	0.03	0.00	—	1.16
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.69	0.00	4.69	0.47	0.00	—	16.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	1/1/2024	1/10/2024	5.00	8.00	—
Grading	Grading	1/11/2024	1/22/2024	5.00	8.00	—
Building Construction (Foundation)	Building Construction	2/5/2024	2/23/2024	5.00	15.0	—
Building Construction (Vertical)	Building Construction	2/24/2024	11/1/2024	5.00	180	—
Building Construction (MEP/Other)	Building Construction	7/22/2024	8/30/2024	5.00	30.0	—
Paving	Paving	11/2/2024	11/27/2024	5.00	18.0	—
Architectural Coating	Architectural Coating	11/28/2024	12/23/2024	5.00	18.0	—
Trenching	Trenching	6/3/2024	6/28/2024	5.00	20.0	—

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	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 3	1.00	8.00	423	0.48
Building Construction (Foundation)	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction (Vertical)	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29
Building Construction (Vertical)	Forklifts	CNG	Average	3.00	8.00	70.0	0.30
Building Construction (Vertical)	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction (Vertical)	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Building Construction (MEP/Other)	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Paving	Cement and Mortar Mixers	Diesel	Tier 3	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 3	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 3	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 3	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Excavators	Diesel	Tier 3	1.00	8.00	158	0.38

Trenching	Tractors/Loaders/Backh	Diesel	Tier 3	1.00	8.00	84.0	0.37

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	10.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	30.0	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	16.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction (Foundation)	—	—	—	—
Building Construction (Foundation)	Worker	36.0	18.5	LDA,LDT1,LDT2
Building Construction (Foundation)	Vendor	35.0	10.2	HHDT,MHDT
Building Construction (Foundation)	Hauling	0.00	20.0	HHDT
Building Construction (Foundation)	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	14.6	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
Building Construction (Vertical)	—	—	—	—
Building Construction (Vertical)	Worker	60.0	18.5	LDA,LDT1,LDT2
Building Construction (Vertical)	Vendor	35.0	10.2	HHDT,MHDT
Building Construction (Vertical)	Hauling	0.00	20.0	HHDT
Building Construction (Vertical)	Onsite truck	—	—	HHDT
Building Construction (MEP/Other)	—	—	—	—
Building Construction (MEP/Other)	Worker	40.0	18.5	LDA,LDT1,LDT2
Building Construction (MEP/Other)	Vendor	35.0	10.2	HHDT,MHDT
Building Construction (MEP/Other)	Hauling	0.00	20.0	HHDT
Building Construction (MEP/Other)	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	20.0	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%

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	89,961	29,987	7,122

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	0.00	0.00	—
Grading	0.00	0.00	12.0	0.00	—
Paving	0.00	0.00	0.00	0.00	2.73

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
Unrefrigerated Warehouse-No Rail	0.00	0%
General Office Building	0.00	0%
Parking Lot	2.73	100%

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	349	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
Unrefrigerated Warehouse-No Rail	36.0	36.0	36.0	13,140	1,440	1,440	1,440	525,600
General Office Building	67.0	67.0	67.0	24,455	1,367	1,367	1,367	499,007
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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	89,961	29,987	7,122

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	530,028	349	0.0330	0.0040	0.00
General Office Building	204,227	349	0.0330	0.0040	0.00
Parking Lot	103,983	349	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)
Unrefrigerated Warehouse-No Rail	12,018,988	0.00
General Office Building	710,935	0.00
Parking Lot	0.00	470,788

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	48.9	—
General Office Building	3.72	—
Parking Lot	0.00	—

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

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
Forklifts	Electric	Average	7.00	8.00	82.0	0.20

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. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.36	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0
Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1

Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

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	36.04516874
Employed	38.00846914
Median HI	53.00911074
Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849

Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8
Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5

Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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
Land Use	Land use information from site plan and project applicant.
Construction: Construction Phases	Construction schedule based on information from project applicant, with CalEEMod defaults for paving and architectural coating.
Construction: Off-Road Equipment	Equipment adjusted from defaults based on information from project applicant. Equipment over 50hp set to Tier 3 based on the Good Neighbor Guidelines. Excavator hp increased to reflect project conditions.
Construction: Trips and VMT	Worker and vendor trips increased to reflect information from project applicant.
Operations: Vehicle Data	Trip rate updated based on traffic report.
Operations: Fleet Mix	Fleet mix updated based on traffic report.

Operations: Energy Use	Building would be all electric.

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Attachment 2

Energy Calculations

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Brew Harley Knox Warehouse Project

Energy Calculations
Prepared by: MIG, Inc.
May 2023

Contents:

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Sheet 1: Summary of Energy Consumption

Table 1-1: Off-Road Equipment Fuel Consumption

Year	Diesel Fuel Consumed (Gal)	Gasoline Fuel Consumed (Gal)	Electricity Consumed (kWh)
Off-Road Equipment	19,014	--	--
On-Road Equipment	7,945	10,473	1,846
Total	26,959	10,473	1,846

Table 1-2: Operational Vehicle Fuel Consumption

Operational Estimates	Diesel Fuel Consumed (Gal)	Gasoline Fuel Consumed (Gal)	Electricity Consumed (kW)
Mobile Sources	66,814	24,349	8,799

Table 1-3: Operational Energy Consumption (Building)

Land Use	Electricity (kWh/yr)
General Office Building	204,227
Parking Lot	103,983
Unrefrigerated Warehouse	530,028
Total	838,238

Table 1-4: Total Operational Energy Consumption

Source	Diesel Fuel Consumed (Gal)	Gasoline Fuel Consumed (Gal)	Electricity Consumed (kW)
Mobile Source	66,814	24,349	8,799
Building	0	0	838,238
Total	66,814	24,349	847,037

Sheet 2: Construction On-site Fuel Consumption Estimations

Phase	Days	Equipment	# of Pieces	Hr/Day	Horsepower	Load Factor	Runtime (bhp-hr)	Consumption (bhp-hr/gal)[1]	Gallons of Diesel
Site	8	Tractors/Loaders/Backhoes	4	8	84	0.37	7,956	18.5	430
Grading	8	Graders	1	8	148	0.41	3,884		210
		Scraper	1	8	423	0.48	12,995		702
		Tractors/Loaders/Backhoes	3	8	84	0.37	5,967		323
Building (Foundation)	15	Tractors/Loaders/Backhoes	3	7	84	0.37	9,790		529
Trenching	20	Tractors/Loaders/Backhoes	1	8	97	0.37	5,742		310
		Excavators	1	8	158	0.38	9,606		519
Building (Vertical)	180	Cranes	1	7	367	0.29	134,102		7,249
		Welders	1	8	46	0.45	29,808		1,611
		Tractors/Loaders/Backhoes	3	7	84	0.37	117,482		6,350
		Forklifts	3	8	70	0.30	90,720		0
Building (MEP/Other)	30	Forklifts	3	8	70	0.30	15,120		0
Paving	18	Pavers	1	8	81	0.42	4,899		265
		Paving Equipment	2	6	89	0.36	6,921		374
		Cement and Mortar Mixer	2	6	10	0.56	1,210		65
		Rollers	2	6	36	0.38	2,955		160
		Tractors/Loaders/Backhoes	1	8	84	0.37	4,476		242
Architectural Coating	18	Air Compressors	1	6	37	0.48	1,918		104
								Total	19,014

[1] The Carl Moyer Program Guidelines 2017 Revisions. Table D-21. Approved by the Board April 27, 2017.

Sheet 3: Construction Off-site Fuel Consumption Estimates

Phase	Days	Number of Trips	Dist (mi)	Total VMT	Vehicle Class	Percent of Workers by Vehcile Class	Gasoline Average Fuel Economy (MPG)	Gasoline Fuel Split	Gasoline Fuel Consumption by Class (gal)	Diesel Average Fuel Economy (MPG)	Diesel Fuel Split	Diesel Fuel Consumption by Class (gal)	Electricity Average Economy (mi/kWh)	Electric Split	Electricity Consumption by Class (kWh)	Hybrid Average Economy (mi/kWh)	Hybrid Average Economy (mi/gal)	Hybrid Split	Hybrid Consumption by Class (kWh)	Hybrid Consumption by Class (gal)	Gasoline Fuel Consumption by Phase (gal)	Diesel Fuel Consumption by Phase (gal)	Electricity Consumption by Phase (kWh)
Worker Trips																							
Site Preparation	8	10	18.5	1480	LDA	0.25	29.4	93.06%	12	42.6	0.29%	0.0	2.59	4.07%	5.8	6.6	61.1	2.58%	1.5	0.2	57.3	0.1	9.2
					LDT1	0.50	24.2	99.67%	30	24.4	0.05%	0.0	2.59	0.15%	0.4	6.0	67.3	0.13%	0.2	0.0			
					LDT2	0.25	24.0	98.25%	15	32.7	0.32%	0.0	2.59	0.61%	0.9	6.2	64.3	0.82%	0.5	0.0			
Grading	8	16	18.5	2368	LDA	0.25	29.4	93.06%	19	42.6	0.29%	0.0	2.59	4.07%	9.3	6.6	61.1	2.58%	2.3	0.3	91.7	0.1	14.8
					LDT1	0.50	24.2	99.67%	49	24.4	0.05%	0.0	2.59	0.15%	0.7	6.0	67.3	0.13%	0.3	0.0			
					LDT2	0.25	24.0	98.25%	24	32.7	0.32%	0.1	2.59	0.61%	1.4	6.2	64.3	0.82%	0.8	0.1			
Building Construction (Foundation)	15	36	18.5	9990	LDA	0.25	29.4	93.06%	79	42.6	0.3%	0.2	2.59	4.07%	39.2	6.6	61.1	2.58%	9.8	1.1	387.0	0.5	62.2
					LDT1	0.50	24.2	99.67%	206	24.4	0.05%	0.1	2.59	0.15%	2.9	6.0	67.3	0.13%	1.1	0.1			
					LDT2	0.25	24.0	98.25%	102	32.7	0.3%	0.2	2.59	0.61%	5.9	6.2	64.3	0.82%	3.3	0.3			
Trenching	20	20	18.5	7400	LDA	0.25	29.4	93.1%	59	42.6	0.3%	0.1	2.59	4.07%	29.1	6.6	61.1	2.58%	7.3	0.8	286.7	0.4	46.1
					LDT1	0.50	24.2	99.7%	152	24.4	0.05%	0.1	2.59	0.15%	2.1	6.0	67.3	0.13%	0.8	0.1			
					LDT2	0.25	24.0	98.3%	76	32.7	0.3%	0.2	2.59	0.61%	4.4	6.2	64.3	0.82%	2.4	0.2			
Building Construction (Vertical)	180	60	18.5	199800	LDA	0.25	29.4	93.1%	1,582	42.6	0.3%	3.4	2.59	4.07%	784.6	6.6	61.1	2.58%	196.8	21.1	7,740.0	10.3	1,244.6
					LDT1	0.50	24.2	99.7%	4,112	24.4	0.05%	2.0	2.59	0.15%	57.2	6.0	67.3	0.13%	21.8	1.9			
					LDT2	0.25	24.0	98.3%	2,046	32.7	0.3%	4.9	2.59	0.61%	118.3	6.2	64.3	0.82%	65.7	6.3			
Building Construction (MEP/Other)	30	40	18.5	22200	LDA	0.25	29.4	93.1%	176	42.6	0.3%	0.4	2.59	4.07%	87.2	6.6	61.1	2.58%	21.9	2.3	860.0	1.1	138.3
					LDT1	0.50	24.2	99.7%	457	24.4	0.05%	0.2	2.59	0.15%	6.4	6.0	67.3	0.13%	2.4	0.2			
					LDT2	0.25	24.0	98.3%	227	32.7	0.3%	0.5	2.59	0.61%	13.1	6.2	64.3	0.82%	7.3	0.7			
Paving	18	20	18.5	6660	LDA	0.25	29.4	93.1%	53	42.6	0.3%	0.1	2.59	4.07%	26.2	6.6	61.1	2.58%	6.6	0.7	258.0	0.3	41.5
					LDT1	0.50	24.2	99.7%	137	24.4	0.05%	0.1	2.59	0.15%	1.9	6.0	67.3	0.13%	0.7	0.1			
					LDT2	0.25	24.0	98.3%	68	32.7	0.3%	0.2	2.59	0.61%	3.9	6.2	64.3	0.82%	2.2	0.2			
Architectural Coating	18	15	18.5	4995	LDA	0.25	29.4	93.1%	40	42.6	0.3%	0.1	2.59	4.07%	19.6	6.6	61.1	2.58%	4.9	0.5	193.5	0.3	31.1
					LDT1	0.50	24.2	99.7%	103	24.4	0.05%	0.1	2.59	0.15%	1.4	6.0	67.3	0.13%	0.5	0.0			
					LDT2	0.25	24.0	98.3%	51	32.7	0.3%	0.1	2.59	0.61%	3.0	6.2	64.3	0.82%	1.6	0.2			
Sub-Total Worker Trips Energy Consumption							Gasoline (gal)		9,874.2	Diesel (gal)		13.1	Electricity (kWh)		1,225.0	Hybrid (kWh; gal of gasoline)			362.8	37.5	9,874.2	13.1	1,587.8
Vendor Trips																							
Building (Foundation)	15	35	10.2	5355	MHDT	0.5	5.2	11.0%	57	9.0	87.66%	262	0.95	0.28%	8.03	--	--	--	--	--	56.9	682.0	22.1
					HHDT	0.5	3.8	0.0%	0	6.1	96.39%	420	0.55	0.29%	14.11	--	--	--	--	--			
Building Vertical	180	35	6.94	43722	MHDT	0.5	5.2	11.0%	462	9.0	87.66%	2,136	0.95	0.28%	65.56	--	--	--	--	--	464.3	5,568.3	180.8
					HHDT	0.5	3.8	0.0%	2	6.1	96.39%	3,432	0.55	0.29%	115.24	--	--	--	--	--			
Building (MEP/Other)	30	35	6.94	7287	MHDT	0.5	5.2	11.0%	77	9.0	87.66%	356	0.95	0.28%	10.93	--	--	--	--	--	77.4	928	30.1
					HHDT	0.5	3.8	0.0%	0	6.1	96.39%	572	0.55	0.29%	19.21	--	--	--	--	--			
Sub-Total Vendor Trips Energy Consumption							Gasoline (gal)		598.5	Diesel (gal)		7,178.4	Electricity (kWh)		233.1	--	--	--	--	--	599	7,178	233
Hauling Trips																							
Site Preparation	8	30	20	4800	HHDT	1.0	3.8	0.04%	0.5	6.1	96.39%	754	0.6	0.29%	25.30	--	--	--	--	--	0.5	754	25.30
Sub-Total Haul Trips Energy Consumption							Gasoline (gal)		0.470	Diesel (gal)		753.5	Electricity (kWh)		25	--	--	--	--	--	0.5	754	25

Total On-Road Construction Trips Genergy Usage	Gasoline (gal)	10,473	Diesel (gal)	7,945	Electricity (kWh)	1,846

Sheet 4: Operational Fuel Consumption Estimates

Table 1: Fuel Consumption Estimates for General Office Land Use

		Fuel Split			Fuel Economy			Fuel Consumption		
Vehicle	**Breakdown**	**Gas**	**Diesel**	**Electric**	**Gas**	**Diesel**	**Electric**	**Gas**	**Diesel**	**Electric**
HHDT		0.00	1.00	0.00	3.76	6.14	0.55	0.00	0.00	0.00
LDA	0.54	0.94	0.00	0.06	29.39	42.60	2.74	8,588.01	15.16	6,027.35
LDT1	0.04	1.00	0.00	0.00	24.22	24.39	2.81	898.66	0.23	22.64
LDT2	0.21	0.99	0.00	0.01	24.01	32.70	2.91	4,403.27	11.02	380.06
LHDT1		0.55	0.44	0.00	13.59	20.60	1.77	0.00	0.00	0.00
LHDT2		0.29	0.71	0.00	11.99	17.16	1.77	0.00	0.00	0.00
MCY	0.03	1.00	0.00	0.00	41.80	0.00	0.00	308.43	0.00	0.00
MDV	0.18	0.97	0.01	0.01	19.36	23.69	2.81	4,401.31	53.51	369.91
MH		0.69	0.31	0.00	4.87	10.37	0.00	0.00	0.00	0.00
MHDT		0.13	0.87	0.00	5.18	8.97	0.95	0.00	0.00	0.00
							General Office Sub-Total	**18,599.68**	**79.92**	**6,799.96**

VMT 499,007

Table 2: Fuel Consumption Estimates for Unrefrigerated Warehouse

		Fuel Split			Fuel Economy			Fuel Consumption		
Vehicle	**Breakdown**	**Gas**	**Diesel**	**Electric**	**Gas**	**Diesel**	**Electric**	**Gas**	**Diesel**	**Electric**
HHDT	0.64	0.00	1.00	0.00	3.76	6.14	0.55	15.04	54,551.16	1,463.50
LDA		0.94	0.00	0.06	29.39	42.60	2.74	0.00	0.00	0.00
LDT1		1.00	0.00	0.00	24.22	24.39	2.81	0.00	0.00	0.00
LDT2		0.99	0.00	0.01	24.01	32.70	2.91	0.00	0.00	0.00
LHDT1	0.13	0.55	0.44	0.00	13.59	20.60	1.77	2,773.38	1,474.84	133.26
LHDT1	0.04	0.29	0.71	0.00	11.99	17.16	1.77	464.16	796.43	32.63
MCY		1.00	0.00	0.00	41.80	0.00	0.00	0.00	0.00	0.00
MDV		0.97	0.01	0.01	19.36	23.69	2.81	0.00	0.00	0.00
MH		0.69	0.31	0.00	4.87	10.37	0.00	0.00	0.00	0.00
MHDT	0.19	0.13	0.87	0.00	5.18	8.97	0.95	2,496.64	9,911.76	369.35
							Unrefrigerated Warehouse Sub-Total	**5,749.21**	**66,734.20**	**1,998.73**

VMT 525,600 ***Overall Total*** ***24,348.89*** ***66,814.12*** ***8,798.69***

1,024,607.0

Sheet 5: Average Fuel Efficiency - San Bernardino County

EMFAC2021 San Bernardino County Fuel Efficiency Estimates for 2024

Table 1: 2024 Riverside County Average Vehicle Fuel Efficiency (Gasoline)

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	9.99	703.14	187.03	3.76
LDA	646,871.24	26,429,019.81	899,147.87	29.39
LDT1	56,719.08	2,085,581.70	86,116.76	24.22
LDT2	279,478.07	11,958,367.42	498,010.01	24.01
LHDT1	24,193.88	894,591.39	65,817.27	13.59
LHDT2	3,740.39	132,352.11	11,040.46	11.99
MCY	31,064.51	183,169.92	4,382.10	41.80
MDV	217,543.58	8,734,898.42	451,230.25	19.36
MH	5,910.35	51,810.83	10,642.20	4.87
MHDT	1,944.49	101,379.83	19,555.06	5.18
OBUS	532.65	23,554.47	4,611.27	5.11
SBUS	525.83	24,132.01	2,715.63	8.89
UBUS	146.21	18,511.11	3,282.63	5.64
TOTAL	1,268,680.28	50,638,072.16	2,056,738.55	24.62

Table 2: 2024 Riverside County Average Vehicle Fuel Efficiency (Diesel)

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	26,140.27	4,166,185.06	678,551.16	6.14
LDA	1,959.75	67,629.41	1,587.49	42.60
LDT1	27.91	531.85	21.80	24.39
LDT2	899.73	40,768.11	1,246.73	32.70
LHDT1	19,420.72	721,008.50	35,000.73	20.60
LHDT2	8,700.34	325,030.20	18,944.07	17.16
MCY	0.00	0.00	0.00	0.00
MDV	3,144.47	129,980.49	5,485.94	23.69
MH	2,677.34	23,302.05	2,246.58	10.37
MHDT	15,553.22	696,366.06	77,634.34	8.97
OBUS	277.63	19,839.00	2,638.73	7.52
SBUS	657.59	13,742.71	1,873.26	7.34
UBUS	0.31	30.11	2.68	11.26
TOTAL	79459.29	6204413.56	825233.50	7.52

Table 3: 2024 Riverside County Average Vehicle Fuel Efficiency (Electricity)

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Energy Consumption (kWh/day)	Miles Per kWh
HHDT	79.02	10,062.12	18,204.20	0.55
LDA	44,983.10	1,727,204.38	631,052.09	2.74
LDT1	158.74	6,100.33	2,169.43	2.81
LDT2	4,035.04	125,151.45	42,984.98	2.91
LHDT1	76.12	5,598.41	3,162.53	1.77
LHDT2	19.70	1,372.93	776.03	1.77
MCY	0.00	0.00	0.00	0.00
MDV	3,433.46	106,628.98	37,923.39	2.81
MH	0.00	0.00	0.00	0.00
MHDT	50.41	2,740.73	2,892.91	0.95
OBUS	1.17	98.29	104.35	0.94
SBUS	3.24	90.93	105.14	0.86
UBUS	22.33	831.14	1,728.45	0.48
TOTAL	52,862.32	1,985,879.70	741,103.51	2.68

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: County
Region: Riverside
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day f

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT
Riverside	2024	HHDT	Aggregate	Aggregate	Gasoline	9.988803	703.1401	703.1401
Riverside	2024	HHDT	Aggregate	Aggregate	Diesel	26140.27	4166185	4166185
Riverside	2024	HHDT	Aggregate	Aggregate	Electricity	79.01894	10062.12	0
Riverside	2024	HHDT	Aggregate	Aggregate	Natural Ga	891.092	62963.84	62963.84
Riverside	2024	LDA	Aggregate	Aggregate	Gasoline	629406.9	26012016	26012016
Riverside	2024	LDA	Aggregate	Aggregate	Diesel	1959.754	67629.41	67629.41
Riverside	2024	LDA	Aggregate	Aggregate	Electricity	27518.77	1301384	0
Riverside	2024	LDA	Aggregate	Aggregate	Plug-in Hyb	17464.33	842824.2	417003.9
Riverside	2024	LDT1	Aggregate	Aggregate	Gasoline	56644.69	2083796	2083796
Riverside	2024	LDT1	Aggregate	Aggregate	Diesel	27.9148	531.8513	531.8513
Riverside	2024	LDT1	Aggregate	Aggregate	Electricity	84.34217	3889.812	0
Riverside	2024	LDT1	Aggregate	Aggregate	Plug-in Hyb	74.39364	3996	1785.485
Riverside	2024	LDT2	Aggregate	Aggregate	Gasoline	277174.2	11902838	11902838
Riverside	2024	LDT2	Aggregate	Aggregate	Diesel	899.7267	40768.11	40768.11
Riverside	2024	LDT2	Aggregate	Aggregate	Electricity	1731.179	61693.58	0
Riverside	2024	LDT2	Aggregate	Aggregate	Plug-in Hyb	2303.862	118987.6	55529.68
Riverside	2024	LHDT1	Aggregate	Aggregate	Gasoline	24193.88	894591.4	894591.4
Riverside	2024	LHDT1	Aggregate	Aggregate	Diesel	19420.72	721008.5	721008.5
Riverside	2024	LHDT1	Aggregate	Aggregate	Electricity	76.11664	5598.413	0
Riverside	2024	LHDT2	Aggregate	Aggregate	Gasoline	3740.395	132352.1	132352.1
Riverside	2024	LHDT2	Aggregate	Aggregate	Diesel	8700.339	325030.2	325030.2
Riverside	2024	LHDT2	Aggregate	Aggregate	Electricity	19.70137	1372.929	0
Riverside	2024	MCY	Aggregate	Aggregate	Gasoline	31064.51	183169.9	183169.9
Riverside	2024	MDV	Aggregate	Aggregate	Gasoline	216020.6	8698898	8698898
Riverside	2024	MDV	Aggregate	Aggregate	Diesel	3144.466	129980.5	129980.5
Riverside	2024	MDV	Aggregate	Aggregate	Electricity	1910.484	68031.86	0
Riverside	2024	MDV	Aggregate	Aggregate	Plug-in Hyb	1522.972	74597.67	36000.54
Riverside	2024	MH	Aggregate	Aggregate	Gasoline	5910.354	51810.83	51810.83
Riverside	2024	MH	Aggregate	Aggregate	Diesel	2677.342	23302.05	23302.05
Riverside	2024	MHDT	Aggregate	Aggregate	Gasoline	1944.488	101379.8	101379.8
Riverside	2024	MHDT	Aggregate	Aggregate	Diesel	15553.22	696366.1	696366.1
Riverside	2024	MHDT	Aggregate	Aggregate	Electricity	50.41228	2740.729	0
Riverside	2024	MHDT	Aggregate	Aggregate	Natural Ga	194.1117	9126.041	9126.041
Riverside	2024	OBUS	Aggregate	Aggregate	Gasoline	532.6451	23554.47	23554.47
Riverside	2024	OBUS	Aggregate	Aggregate	Diesel	277.6317	19839	19839
Riverside	2024	OBUS	Aggregate	Aggregate	Electricity	1.168676	98.2899	0
Riverside	2024	OBUS	Aggregate	Aggregate	Natural Ga	40.39339	2417.021	2417.021
Riverside	2024	SBUS	Aggregate	Aggregate	Gasoline	525.8259	24132.01	24132.01

Riverside	2024	SBUS	Aggregate	Aggregate	Diesel	657.5907	13742.71	13742.71
Riverside	2024	SBUS	Aggregate	Aggregate	Electricity	3.242614	90.93134	0
Riverside	2024	SBUS	Aggregate	Aggregate	Natural Ga	596.2941	14702.07	14702.07
Riverside	2024	UBUS	Aggregate	Aggregate	Gasoline	146.2127	18511.11	18511.11
Riverside	2024	UBUS	Aggregate	Aggregate	Diesel	0.311734	30.10971	30.10971
Riverside	2024	UBUS	Aggregate	Aggregate	Electricity	22.32574	831.1385	0
Riverside	2024	UBUS	Aggregate	Aggregate	Natural Ga	368.9615	46600.93	46600.93

or Emissions, 1000 gallons/day for Fuel Consumption

EVMT	Trips	Energy Con	NOx_RUNE	NOx_IDLEX	NOx_STRE)	NOx_TOTE	PM2.5_RUI	PM2.5_IDL
0	199.856	0	0.004253	0	9.77E-05	0.004351	8.56E-07	0
0	463049.9	0	7.127948	2.440202	1.356888	10.92504	0.140116	0.000976
10062.12	1308.368	18204.2	0	0	0	0	0	0
0	8123.874	0	0.031909	0.012867	0	0.044776	0.000136	3.46E-05
0	2933202	0	1.100175	0	0.76976	1.869935	0.033589	0
0	8510.289	0	0.013586	0	0	0.013586	0.00112	0
1301384	138292.9	502441.7	0	0	0	0	0	0
425820.3	72214.99	128610.4	0.002726	0	0.008809	0.011535	0.000553	0
0	245944.5	0	0.439945	0	0.123441	0.563386	0.004718	0
0	80.27527	0	0.000926	0	0	0.000926	0.000135	0
3889.812	418.7034	1501.788	0	0	0	0	0	0
2210.515	307.6177	667.6415	1.17E-05	0	3.75E-05	4.91E-05	1.6E-06	0
0	1301926	0	0.910158	0	0.450615	1.360773	0.015702	0
0	4340.044	0	0.002182	0	0	0.002182	0.000223	0
61693.58	8851.159	23818.81	0	0	0	0	0	0
63457.87	9526.47	19166.17	0.000362	0	0.001161	0.001524	5.92E-05	0
0	360452.8	0	0.160374	0.000987	0.257046	0.418407	0.001042	0
0	244288.2	0	1.479039	0.045226	0	1.524265	0.021098	0.00056
5598.413	1063.301	3162.528	0	0	0	0	0	0
0	55726.31	0	0.021046	0.000153	0.040424	0.061623	0.000133	0
0	109439.3	0	0.51794	0.020032	0	0.537971	0.008783	0.000251
1372.929	260.7864	776.0283	0	0	0	0	0	0
0	62129.01	0	0.117481	0	0.009252	0.126733	0.000347	0
0	990573.5	0	1.08895	0	0.483894	1.572844	0.011883	0
0	14622.09	0	0.020143	0	0	0.020143	0.001154	0
68031.86	9764.881	26265.91	0	0	0	0	0	0
38597.13	6297.488	11657.48	0.000235	0	0.000768	0.001003	4.82E-05	0
0	591.2719	0	0.019251	0	0.000273	0.019524	5.82E-05	0
0	267.7342	0	0.104082	0	0	0.104082	0.00344	0
0	38905.31	0	0.052231	0.000191	0.018701	0.071123	0.0001	0
0	185502.7	0	0.687798	0.215448	0.339577	1.242823	0.008964	0.00043
2740.729	641.9119	2892.913	0	0	0	0	0	0
0	1677.366	0	0.000934	0.001432	0	0.002367	6.86E-06	3.83E-06
0	10657.16	0	0.010734	3.82E-05	0.004793	0.015566	1.61E-05	0
0	3255.237	0	0.039101	0.003931	0.005709	0.048741	0.000903	6.28E-06
98.2899	23.38288	104.3523	0	0	0	0	0	0
0	359.5011	0	0.000307	6.92E-05	0	0.000376	1.45E-06	1.55E-07
0	2103.303	0	0.01015	0.000537	0.001646	0.012332	2.35E-05	0

0	9521.913	0	0.118134	0.023758	0.002159	0.144051	0.000661	2.5E-05
90.93134	40.23643	105.144	0	0	0	0	0	0
0	8634.339	0	0.014263	0.003453	0	0.017716	6.68E-05	7.75E-06
0	584.8509	0	0.004198	0	0.00051	0.004709	2.5E-05	0
0	1.246935	0	5.35E-06	0	0	5.35E-06	7E-08	0
831.1385	89.30294	1728.45	0	0	0	0	0	0
0	1475.846	0	0.025629	0	0	0.025629	1.61E-05	0

PM2.5_STR	PM2.5_TO	PM2.5_PM	PM2.5_PM	PM2.5_TO	PM10_RUN	PM10_IDLE	PM10_STR	PM10_TOT
2.38E-07	1.09E-06	3.88E-06	2.21E-05	2.7E-05	9.31E-07	0	2.59E-07	1.19E-06
0	0.141092	0.040817	0.114429	0.296338	0.146451	0.00102	0	0.147472
0	0	9.69E-05	0.000137	0.000234	0	0	0	0
0	0.00017	0.000625	0.002337	0.003132	0.000148	3.77E-05	0	0.000185
0.006173	0.039762	0.057347	0.066529	0.163638	0.036531	0	0.006713	0.043245
0	0.00112	0.000149	0.000176	0.001445	0.00117	0	0	0.00117
0	0	0.002869	0.002192	0.005061	0	0	0	0
0.00016	0.000712	0.001858	0.001214	0.003785	0.000601	0	0.000174	0.000775
0.000848	0.005566	0.004594	0.006424	0.016584	0.005131	0	0.000923	0.006054
0	0.000135	1.17E-06	1.8E-06	0.000138	0.000141	0	0	0.000141
0	0	8.58E-06	6.55E-06	1.51E-05	0	0	0	0
4.66E-07	2.07E-06	8.81E-06	5.83E-06	1.67E-05	1.74E-06	0	5.07E-07	2.25E-06
0.002758	0.01846	0.026241	0.034852	0.079554	0.017077	0	0.003	0.020077
0	0.000223	8.99E-05	0.000116	0.000429	0.000233	0	0	0.000233
0	0	0.000136	0.000104	0.00024	0	0	0	0
1.71E-05	7.63E-05	0.000262	0.000173	0.000511	6.43E-05	0	1.86E-05	8.29E-05
0.000117	0.001159	0.001972	0.026921	0.030053	0.001133	0	0.000128	0.001261
0	0.021659	0.002384	0.021697	0.04574	0.022052	0.000586	0	0.022638
0	0	1.23E-05	8.42E-05	9.66E-05	0	0	0	0
1.36E-05	0.000147	0.000292	0.004647	0.005085	0.000145	0	1.48E-05	0.00016
0	0.009034	0.001075	0.011411	0.021521	0.00918	0.000262	0	0.009443
0	0	3.03E-06	2.41E-05	2.71E-05	0	0	0	0
0.000207	0.000553	0.000202	0.000848	0.001603	0.000371	0	0.00022	0.000591
0.002226	0.014109	0.019178	0.026532	0.059818	0.012924	0	0.002421	0.015344
0	0.001154	0.000287	0.000399	0.001839	0.001206	0	0	0.001206
0	0	0.00015	0.000114	0.000264	0	0	0	0
1.41E-05	6.24E-05	0.000164	0.000108	0.000335	5.25E-05	0	1.54E-05	6.78E-05
2.21E-07	5.84E-05	0.000171	0.000842	0.001072	6.33E-05	0	2.4E-07	6.35E-05
0	0.00344	0.000103	0.000378	0.003921	0.003596	0	0	0.003596
2.03E-05	0.000121	0.000335	0.001644	0.0021	0.000109	0	2.2E-05	0.000131
0	0.009394	0.002303	0.011329	0.023026	0.009369	0.00045	0	0.009819
0	0	9.06E-06	2.23E-05	3.13E-05	0	0	0	0
0	1.07E-05	3.02E-05	0.000148	0.000189	7.46E-06	4.16E-06	0	1.16E-05
2.74E-06	1.89E-05	7.79E-05	0.000382	0.000479	1.76E-05	0	2.98E-06	2.05E-05
0	0.000909	6.56E-05	0.000426	0.001401	0.000944	6.56E-06	0	0.00095
0	0	3.25E-07	7.98E-07	1.12E-06	0	0	0	0
0	1.6E-06	7.99E-06	3.93E-05	4.88E-05	1.57E-06	1.69E-07	0	1.74E-06
9.87E-07	2.45E-05	5.32E-05	0.000436	0.000514	2.56E-05	0	1.07E-06	2.66E-05

0	0.000686	4.54E-05	0.000248	0.00098	0.000691	2.61E-05	0	0.000717
0	0	2.66E-07	8.22E-07	1.09E-06	0	0	0	0
0	7.45E-05	4.86E-05	0.000266	0.000389	7.27E-05	8.43E-06	0	8.11E-05
2.92E-07	2.53E-05	5.29E-05	0.00073	0.000808	2.72E-05	0	3.18E-07	2.75E-05
0	7E-08	9.96E-08	1.28E-06	1.45E-06	7.31E-08	0	0	7.31E-08
0	0	8.21E-06	1.76E-05	2.58E-05	0	0	0	0
0	1.61E-05	0.000385	0.00197	0.002371	1.68E-05	0	0	1.68E-05

PM10_PMT	PM10_PMI	PM10_TOT	CO2_RUNE	CO2_IDLEX	CO2_STREX	CO2_TOTE	CH4_RUNE	CH4_IDLEX
1.55E-05	6.31E-05	7.98E-05	1.761442	0	0.012249	1.773691	0.000104	0
0.163267	0.32694	0.637679	7117.949	478.0898	0	7596.039	0.002769	0.009568
0.000388	0.000392	0.000779	0	0	0	0	0	0
0.002499	0.006676	0.00936	78.71444	10.55195	0	89.26639	0.065025	0.033654
0.229387	0.190084	0.462715	8172.5	0	223.5511	8396.052	0.065708	0
0.000596	0.000504	0.002271	17.77114	0	0	17.77114	8.56E-05	0
0.011476	0.006263	0.017739	0	0	0	0	0	0
0.007432	0.00347	0.011677	125.6717	0	5.147555	130.8192	0.000384	0
0.018376	0.018355	0.042784	791.9288	0	24.17781	816.1066	0.021934	0
4.69E-06	5.15E-06	0.000151	0.244063	0	0	0.244063	8.7E-06	0
3.43E-05	1.87E-05	5.3E-05	0	0	0	0	0	0
3.52E-05	1.67E-05	5.41E-05	0.539336	0	0.023415	0.562751	1.64E-06	0
0.104965	0.099578	0.22462	4581.715	0	123.5014	4705.216	0.039767	0
0.00036	0.000333	0.000925	13.95648	0	0	13.95648	2.61E-05	0
0.000544	0.000296	0.00084	0	0	0	0	0	0
0.001049	0.000493	0.001625	16.76306	0	0.789062	17.55212	5.12E-05	0
0.007889	0.076917	0.086067	610.8311	3.195331	10.13716	624.1636	0.00449	0.003119
0.009537	0.061993	0.094168	388.9507	2.864805	0	391.8155	0.004	0.000109
4.94E-05	0.000241	0.00029	0	0	0	0	0	0
0.001167	0.013276	0.014603	102.5659	0.573078	1.560816	104.6997	0.000421	0.000486
0.004299	0.032604	0.046346	210.0112	2.058059	0	212.0693	0.001616	4.89E-05
1.21E-05	6.89E-05	8.1E-05	0	0	0	0	0	0
0.000808	0.002423	0.003821	38.24815	0	3.308502	41.55666	0.034198	0
0.076711	0.075805	0.16786	4149.902	0	117.7257	4267.628	0.043112	0
0.001146	0.00114	0.003492	61.41237	0	0	61.41237	0.000103	0
0.0006	0.000327	0.000927	0	0	0	0	0	0
0.000658	0.000308	0.001033	10.85902	0	0.655543	11.51456	3.31E-05	0
0.000685	0.002406	0.003155	100.9028	0	0.020233	100.923	0.000561	0
0.000411	0.00108	0.005087	25.14928	0	0	25.14928	8.49E-05	0
0.001341	0.004698	0.006171	182.3109	1.161142	1.974056	185.4461	0.001329	0.000553
0.009211	0.032367	0.051398	831.1833	37.89411	0	869.0774	0.000587	0.000187
3.63E-05	6.37E-05	9.99E-05	0	0	0	0	0	0
0.000121	0.000424	0.000556	7.758785	1.156904	0	8.91569	0.004399	0.003877
0.000312	0.001092	0.001424	43.13928	0.223877	0.366826	43.72999	0.000255	0.000116
0.000262	0.001217	0.00243	28.7435	0.795794	0	29.5393	5.92E-05	1.26E-05
1.3E-06	2.28E-06	3.58E-06	0	0	0	0	0	0
3.2E-05	0.000112	0.000146	2.072302	0.054119	0	2.126421	0.001098	0.000198
0.000213	0.001246	0.001486	24.09587	1.527189	0.130058	25.75312	0.000258	0.001413

0.000182	0.00071	0.001608	19.2501	1.72012	0	20.97022	0.000105	5.52E-06
1.06E-06	2.35E-06	3.41E-06	0	0	0	0	0	0
0.000194	0.000759	0.001035	27.76115	2.71087	0	30.47202	0.076471	0.009881
0.000212	0.002087	0.002326	31.08197	0	0.048157	31.13013	7.78E-05	0
3.98E-07	3.65E-06	4.12E-06	0.029947	0	0	0.029947	5.58E-08	0
3.28E-05	5.04E-05	8.32E-05	0	0	0	0	0	0
0.00154	0.005629	0.007186	100.904	0	0	100.904	0.105993	0

CH4_STREX	CH4_TOTE	N2O_RUNE	N2O_IDLEX	N2O_STRE	N2O_TOTE	ROG_RUNE	ROG_IDLEX	ROG_STRE
1.29E-08	0.000104	0.000138	0	2.63E-06	0.000141	0.000556	0	6.65E-08
0	0.012338	1.121436	0.075323	0	1.196759	0.059625	0.206001	0
0	0	0	0	0	0	0	0	0
0	0.09868	0.016046	0.002151	0	0.018198	0.001414	0.000508	0
0.212714	0.278422	0.128248	0	0.104161	0.23241	0.242622	0	0.939116
0	8.56E-05	0.0028	0	0	0.0028	0.001842	0	0
0	0	0	0	0	0	0	0	0
0.003185	0.003569	0.00051	0	0.001643	0.002152	0.001195	0	0.012726
0.033555	0.055489	0.030444	0	0.011465	0.041909	0.097319	0	0.175226
0	8.7E-06	3.85E-05	0	0	3.85E-05	0.000187	0	0
0	0	0	0	0	0	0	0	0
1.35E-05	1.52E-05	2.18E-06	0	7.01E-06	9.19E-06	5.11E-06	0	5.41E-05
0.111549	0.151317	0.079297	0	0.052295	0.131592	0.153063	0	0.502309
0	2.61E-05	0.002199	0	0	0.002199	0.000562	0	0
0	0	0	0	0	0	0	0	0
0.00042	0.000471	6.79E-05	0	0.000217	0.000285	0.000159	0	0.001674
0.01334	0.02095	0.009345	8.1E-05	0.020454	0.02988	0.021861	0.011315	0.064987
0	0.004109	0.061279	0.000451	0	0.061731	0.086114	0.00235	0
0	0	0	0	0	0	0	0	0
0.002016	0.002923	0.001353	1.24E-05	0.003151	0.004516	0.001886	0.001761	0.009735
0	0.001665	0.033087	0.000324	0	0.033412	0.03479	0.001053	0
0	0	0	0	0	0	0	0	0
0.011912	0.04611	0.008071	0	0.000548	0.008619	0.22475	0	0.087742
0.112936	0.156047	0.081891	0	0.04616	0.128051	0.178125	0	0.555201
0	0.000103	0.009676	0	0	0.009676	0.002214	0	0
0	0	0	0	0	0	0	0	0
0.000277	0.00031	4.38E-05	0	0.000143	0.000187	0.000103	0	0.001108
2.42E-05	0.000585	0.001265	0	3.03E-05	0.001295	0.002332	0	9.53E-05
0	8.49E-05	0.003962	0	0	0.003962	0.001828	0	0
0.002014	0.003896	0.002589	1.57E-05	0.001398	0.004003	0.006435	0.002151	0.010999
0	0.000773	0.130953	0.00597	0	0.136924	0.012631	0.004015	0
0	0	0	0	0	0	0	0	0
0	0.008275	0.001582	0.000236	0	0.001818	6.28E-05	5.54E-05	0
0.000409	0.000779	0.000548	3.14E-06	0.000365	0.000917	0.001215	0.000438	0.002127
0	7.18E-05	0.004529	0.000125	0	0.004654	0.001274	0.000272	0
0	0	0	0	0	0	0	0	0
0	0.001296	0.000422	1.1E-05	0	0.000433	1.57E-05	2.83E-06	0
0.000156	0.001828	0.000612	4.92E-05	0.000149	0.00081	0.001268	0.006165	0.000895

0	0.000111	0.003033	0.000271	0	0.003304	0.002271	0.000119	0
0	0	0	0	0	0	0	0	0
0	0.086352	0.005659	0.000553	0	0.006212	0.001093	0.000141	0
6.57E-05	0.000143	0.000387	0	5.1E-05	0.000438	0.000242	0	0.00026
0	5.58E-08	4.72E-06	0	0	4.72E-06	1.2E-06	0	0
0	0	0	0	0	0	0	0	0
0	0.105993	0.02057	0	0	0.02057	0.001548	0	0

ROG_TOTE	ROG_DIUR	ROG_HOTS	ROG_RUNI	ROG_TOTA	TOG_RUNE	TOG_IDLEX	TOG_STRE)	TOG_TOTE
0.000556	8.24E-05	1.93E-05	0.000163	0.000821	0.000812	0	7.28E-08	0.000812
0.265626	0	0	0	0.265626	0.067879	0.234516	0	0.302395
0	0	0	0	0	0	0	0	0
0.001922	0	0	0	0.001922	0.066915	0.034378	0	0.101294
1.181738	1.087347	0.28425	0.700428	3.253763	0.354034	0	1.028214	1.382248
0.001842	0	0	0	0.001842	0.002097	0	0	0.002097
0	0	0	0	0	0	0	0	0
0.013921	0.010724	0.003378	0.003046	0.031069	0.001743	0	0.013934	0.015677
0.272545	0.262585	0.060984	0.180943	0.777056	0.14199	0	0.19185	0.33384
0.000187	0	0	0	0.000187	0.000213	0	0	0.000213
0	0	0	0	0	0	0	0	0
5.92E-05	2.7E-05	8.44E-06	7.26E-06	0.000102	7.45E-06	0	5.92E-05	6.67E-05
0.655371	0.482752	0.11837	0.314826	1.57132	0.223338	0	0.549965	0.773302
0.000562	0	0	0	0.000562	0.00064	0	0	0.00064
0	0	0	0	0	0	0	0	0
0.001833	0.000937	0.000279	0.000252	0.003301	0.000232	0	0.001833	0.002065
0.098164	0.088881	0.019971	0.110623	0.317639	0.0319	0.016511	0.071153	0.119564
0.088464	0	0	0	0.088464	0.098035	0.002675	0	0.10071
0	0	0	0	0	0	0	0	0
0.013382	0.012645	0.002808	0.014825	0.04366	0.002752	0.002569	0.010659	0.015981
0.035842	0	0	0	0.035842	0.039606	0.001198	0	0.040804
0	0	0	0	0	0	0	0	0
0.312492	0.179384	0.247058	0.262272	1.001206	0.26943	0	0.095392	0.364822
0.733326	0.511372	0.119697	0.347284	1.711679	0.259793	0	0.607874	0.867667
0.002214	0	0	0	0.002214	0.00252	0	0	0.00252
0	0	0	0	0	0	0	0	0
0.001211	0.000726	0.000223	0.000196	0.002357	0.00015	0	0.001213	0.001364
0.002427	0.032315	0.007454	0.000169	0.042366	0.003403	0	0.000104	0.003507
0.001828	0	0	0	0.001828	0.002081	0	0	0.002081
0.019585	0.007678	0.001537	0.012261	0.041061	0.00939	0.003139	0.012043	0.024571
0.016646	0	0	0	0.016646	0.014379	0.004571	0	0.018951
0	0	0	0	0	0	0	0	0
0.000118	0	0	0	0.000118	0.004489	0.003956	0	0.008446
0.003779	0.002014	0.000417	0.001875	0.008085	0.001772	0.000639	0.002328	0.00474
0.001546	0	0	0	0.001546	0.00145	0.000309	0	0.00176
0	0	0	0	0	0	0	0	0
1.85E-05	0	0	0	1.85E-05	0.001121	0.000202	0	0.001323
0.008329	0.001351	0.000299	0.000721	0.010699	0.001851	0.008996	0.00098	0.011827

0.00239	0	0	0	0.00239	0.002585	0.000135	0	0.00272
0	0	0	0	0	0	0	0	0
0.001234	0	0	0	0.001234	0.078044	0.010084	0	0.088129
0.000502	0.000127	3.84E-05	6.14E-05	0.000729	0.000353	0	0.000285	0.000638
1.2E-06	0	0	0	1.2E-06	1.37E-06	0	0	1.37E-06
0	0	0	0	0	0	0	0	0
0.001548	0	0	0	0.001548	0.108211	0	0	0.108211

TOG_DIURI	TOG_HOTS	TOG_RUNL	TOG_TOTA	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	SOx_RUNE
8.24E-05	1.93E-05	0.000163	0.001077	0.02734	0	0.00097	0.02831	1.74E-05
0	0	0	0.302395	0.241285	3.026376	0	3.267661	0.067403
0	0	0	0	0	0	0	0	0
0	0	0	0.101294	0.377425	0.075723	0	0.453148	0
1.087347	0.28425	0.700428	3.454273	21.72667	0	9.233029	30.9597	0.080793
0	0	0	0.002097	0.02314	0	0	0.02314	0.000168
0	0	0	0	0	0	0	0	0
0.010724	0.003378	0.003046	0.032825	0.208482	0	0.097155	0.305637	0.001242
0.262585	0.060984	0.180943	0.838352	4.747514	0	1.638728	6.386242	0.007829
0	0	0	0.000213	0.001267	0	0	0.001267	2.31E-06
0	0	0	0	0	0	0	0	0
2.7E-05	8.44E-06	7.26E-06	0.000109	0.000902	0	0.000413	0.001315	5.33E-06
0.482752	0.11837	0.314826	1.689251	11.88757	0	4.788416	16.67598	0.045295
0	0	0	0.00064	0.005346	0	0	0.005346	0.000132
0	0	0	0	0	0	0	0	0
0.000937	0.000279	0.000252	0.003533	0.027991	0	0.012788	0.04078	0.000166
0.088881	0.019971	0.110623	0.33904	0.995679	0.100244	1.159442	2.255364	0.006039
0	0	0	0.10071	0.281122	0.019476	0	0.300598	0.003686
0	0	0	0	0	0	0	0	0
0.012645	0.002808	0.014825	0.046258	0.108433	0.015537	0.173977	0.297947	0.001014
0	0	0	0.040804	0.097129	0.008725	0	0.105853	0.00199
0	0	0	0	0	0	0	0	0
0.179384	0.247058	0.262272	1.053536	2.693565	0	0.524497	3.218062	0.000378
0.511372	0.119697	0.347284	1.84602	10.91656	0	4.202913	15.11947	0.041026
0	0	0	0.00252	0.035481	0	0	0.035481	0.000582
0	0	0	0	0	0	0	0	0
0.000726	0.000223	0.000196	0.002509	0.018106	0	0.008462	0.026568	0.000107
0.032315	0.007454	0.000169	0.043446	0.06798	0	0.002048	0.070028	0.000998
0	0	0	0.002081	0.008256	0	0	0.008256	0.000238
0.007678	0.001537	0.012261	0.046047	0.158591	0.030792	0.234412	0.423795	0.001802
0	0	0	0.018951	0.049573	0.12772	0	0.177293	0.007871
0	0	0	0	0	0	0	0	0
0	0	0	0.008446	0.018355	0.007285	0	0.02564	0
0.002014	0.000417	0.001875	0.009045	0.030946	0.003391	0.043442	0.077778	0.000426
0	0	0	0.00176	0.00439	0.004147	0	0.008537	0.000272
0	0	0	0	0	0	0	0	0
0	0	0	0.001323	0.005403	0.000286	0	0.005689	0
0.001351	0.000299	0.000721	0.014198	0.025648	0.04765	0.020137	0.093435	0.000238

0	0	0	0.00272	0.00552	0.002048	0	0.007568	0.000182
0	0	0	0	0	0	0	0	0
0	0	0	0.088129	0.265044	0.014278	0	0.279321	0
0.000127	3.84E-05	6.14E-05	0.000865	0.009118	0	0.00474	0.013857	0.000307
0	0	0	1.37E-06	9.67E-07	0	0	9.67E-07	2.84E-07
0	0	0	0	0	0	0	0	0
0	0	0	0.108211	1.535519	0	0	1.535519	0

SOx_IDLEX	SOx_STREX	SOx_TOTEX	NH3_RUNE	Fuel Consumption
0	1.21E-07	1.75E-05	3.44E-05	0.187033
0.004527	0	0.07193	1.005342	678.5512
0	0	0	0	0
0	0	0	0.068111	10.31783
0	0.00221	0.083004	0.995168	885.3531
0	0	0.000168	0.000231	1.587489
0	0	0	0	0
0	5.09E-05	0.001293	0.017947	13.79472
0	0.000239	0.008068	0.088012	86.05742
0	0	2.31E-06	1.82E-06	0.021802
0	0	0	0	0
0	2.31E-07	5.56E-06	8.27E-05	0.059341
0	0.001221	0.046516	0.481427	496.1592
0	0	0.000132	0.000139	1.246727
0	0	0	0	0
0	7.8E-06	0.000174	0.002567	1.850849
3.16E-05	0.0001	0.00617	0.0443	65.81727
2.71E-05	0	0.003713	0.128217	35.00073
0	0	0	0	0
5.67E-06	1.54E-05	0.001035	0.006563	11.04046
1.95E-05	0	0.002009	0.061939	18.94407
0	0	0	0	0
0	3.27E-05	0.000411	0.001772	4.382097
0	0.001164	0.04219	0.33929	450.0161
0	0	0.000582	0.000444	5.485943
0	0	0	0	0
0	6.48E-06	0.000114	0.001667	1.214196
0	2E-07	0.000998	0.002564	10.6422
0	0	0.000238	0.003273	2.246575
1.15E-05	1.95E-05	0.001833	0.005026	19.55506
0.000359	0	0.00823	0.163294	77.63434
0	0	0	0	0
0	0	0	0.010663	1.030518
2.21E-06	3.63E-06	0.000432	0.001167	4.611272
7.54E-06	0	0.00028	0.004545	2.638734
0	0	0	0	0
0	0	0	0.002824	0.245782
1.51E-05	1.29E-06	0.000255	0.001197	2.715634

1.63E-05	0	0.000199	0.001234	1.873262
0	0	0	0	0
0	0	0	0.017179	3.522101
0	4.76E-07	0.000308	0.000918	3.282633
0	0	2.84E-07	7.3E-06	0.002675
0	0	0	0	0
0	0	0	0.049828	11.66296

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