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November 4, 2024

Sophia Habl Mitchell
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RE: Armorlite Lofts 225 Development (GPA23-0002, R23-0001, SDP23-0003, CUP23-0002) Energy Usage Letter – San Marcos CA

This analysis evaluates both construction and operational energy efficiency as it relates to non-renewable fuel sources including Electrical, Natural Gas, Diesel and Gasoline for the proposed Armorlite Lofts Development. This effort was prepared according to requirements established within Public Resource Code (PRC) Section 21100(b)(3) and California Environmental Quality Act (CEQA) Guidelines Section 15126.4. The intent is to adequately address the following CEQA question:

Would the project:

1. *Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*
2. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Project Description

The project proposes up to 165 multi-family residential units within a five-story building situated on approximately 2.44 acres. The project would also include up to 5,600 square feet (SF) of retail/flex use. Additionally, the project proposes as many as 254 parking spaces which includes 13 Level 2 electric vehicle (EV) spaces, 62 EV ready spaces, and 25 EV capable spaces. The project seeks a General Plan Amendment (GPA) and to rezone the property from Public-Institutional (P-I) Specific Plan Area (SPA). Construction would be expected to start in 2026 and be completed in about one year. Full operations are expected in late 2027.

The General Plan Land Use designation for the site is P-I. This use is typically used for any type of public use, including schools, hospitals, civic centers etc. The allowable use onsite per the zoning could have a maximum floor area ratio (FAR) of 3.0. Based on this, any facility which could be constructed onsite would be limited to approximately 318,000 SF. The total area including the parking would have a total gross floor area of 158,000 SF and would have a Floor Area Ratio (FAR) of 1.5.

One other approved use under the General Plan would be to construct a data center. Realistically, the site could be developed with a 160,000 SF data center or larger if multiple stories are constructed. Data centers are recognized as very high consumers of electrical energy. For example, a 413,000 SF data center in Santa Clara was found to consume 665,750 megawatt hours (MWH) or 1.61 MWH/SF/year and 410 daily vehicular trips (Ramboll Environ, 2016). Based on this, a 160,000 SF building would require at least 257,600 MWH annually.

Construction of the proposed project or the alternative General Plan consistent data center could be expected to occur over a conservative worst-case 12-month fast paced duration. Grading would consist of approximately 6,950 cubic yards (CY) of cut material and 4,400 CY of fill material. Based on discussions with the applicant, shrinkage and swelling would be expected and the total export expected would be approximately 2,250 CY of material. During grading blasting may be required and if blasting is required, a standalone rock crusher similar to a Terex 4242SR 310 horsepower (HP)+/- will be utilized.

Construction

Energy usage for construction equipment is best estimated using total horsepower hours and an assumed thermal efficiency of 30%. The most common measure of the energy efficiency of a tractor is referred to here as “specific volumetric fuel consumption” (SVFC), which is given in units of gallons per horsepower-hour (gal/hp-h). SVFC for diesel engines typically ranges from 0.0476 to 0.1110 gal/hp-h. Inverting these numbers yields a range of between 12-21 hp-h/gal. Over the last 30 years, fuel efficiency at maximum power has increased from roughly 14.5 to 16.5 hp-h/gal (VirginiaTech, 2010).

Project construction dates were estimated using CalEEMod and follow assumptions identified in both the project Air Quality and Greenhouse Gas (GHG) analysis. Based on this, an estimated construction kickoff starting in 2026 and completing the project roughly one year later. Based on the equipment, quantity, work time, Horsepower (HP), the project would require a total of 489,450 hp-h (See Table 1 Below). Based on this, the project would consume roughly 29,663 gallons of diesel for construction. The project would require essentially the same energy during construction as the GP Buildout scenario. It should be noted that fuel consumption would go up if diesel construction equipment is poorly maintained. Based on this, the project shall properly maintain all equipment per manufacture recommendations. The model is provided as ***Attachments A*** to this report.

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Table 2: Proposed Construction Phase and Duration

Equipment Identification	Const. Days	Number per Day	Hours Per Day	Hp	Load Factor	HP Hours
Site Preparation	3					
Graders		1	8	148	0.41	1,456.32
Scrapers		1	8	423	0.48	4,872.96
Tractors/Loaders/Back hoes		1	7	84	0.37	652.68
Grading	20					
Graders		1	8	148	0.41	9,708.80
Rubber Tired Dozers		1	8	367	0.4	23,488.00
Tractors/Loaders/Back hoes		2	7	84	0.37	8,702.40
Crushing/Proc. Equipment		1	6	310	0.41	15,252.00
Building Construction	220					
Cranes		1	8	367	0.29	187,316.80
Forklifts		2	7	82	0.2	50,512.00
Generator Sets		1	8	14	0.74	18,233.60
Tractors/Loaders/Back hoes		1	6	84	0.37	41,025.60
Welders		3	8	46	0.45	109,296.00
Paving	10					
Pavers		1	8	84	0.37	2,486.40
Paving Equipment		1	8	81	0.42	2,721.60
Rollers		1	8	89	0.36	2,563.20
Architectural Coating	80					
Air Compressors		1	6	37	0.48	8,524.8
Total Horsepower Hours						489,449.96
Total Diesel Fuel (Gal) @ 16.5 hp-h/gal						29,663.63
This equipment list is based upon equipment inventory and estimates within CalEEMod 2022.1						

Construction energy from workers, vendors, and haulage are based on the estimated vehicle miles traveled (VMT) for the total construction duration which is 493,141 miles for the project which is calculated from the CalEEMod output file provided in ***Attachment A*** to this report. In California, the average fuel economy for on-road vehicles is 24.1 miles per gal or 0.0415 gal/mile (CARB, 2022). Based on this, the vehicular trips would consume roughly 20,465 gallons during construction.

On-road vehicles are regulated by state and federal regulations and, vehicular fleet efficiencies are getting better each year. Additionally, all construction equipment shall be maintained as

needed per the manufacturers' recommendations. Since the projected energy usage of the project and the GP Buildout scenario would be assumed to be identical, the project would not significantly alter the energy consumption with respect to construction when compared to the GP Buildout scenario but would not necessarily increase energy demand with respect to the proposed GP Buildout scenario either.

The proposed equipment would be required to construct the proposed project and is consistent with what would be likely required within the GP Buildout scenario as well. The equipment will be maintained and operated in accordance with the equipment manufacturer recommendations. Given this, since the proposed project wouldn't increase energy requirements at the time of construction when compared to the GP Buildout scenario, and since the construction equipment would not be in excess of what would be required to complete the project, the construction activities would not be *wasteful, inefficient, or unnecessary as related to the required consumption of energy resources during project construction*. Therefore, a less than significant energy impact would be expected during the construction activities of the project.

Operations

Energy – Utility Demand

The State of California has implemented a number of energy reducing policies largely geared to reducing Greenhouse gasses (GHGs). The most notable is Assembly Bill (AB) 32, Senate Bill (SB) 32, and Executive Order (EO) S-3-05. In addition, the state has implemented two scoping plan updates which are geared to reduce GHG emissions by reducing energy consumption, increasing energy efficiency and increasing the usage of renewable sources. The state has also taken a strong steps in increasing building efficiencies under Title 24, Part 6 of California's Code of Regulations. The project would be required, at a minimum, to comply with the latest version of Title 24 standards at the time the project seeks building permits. At the time this report was written, the 2022 standards were applicable and went into effect on January 1, 2023. The 2023 standards continue to improve upon the 2019 standards for residential and nonresidential buildings. It should be noted that the State updates these regulations every three years.

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The current CALGreen standards were last updated in 2022 and went into effect January 1, 2023. CALGreen standards include mandatory measures for planning and design, energy efficiency, water and conservation efficiency, material and resource conservation as well as Environmental Quality (California Title 24, Part 11, 2022).

Furthermore, the City has updated their Climate Action Plan (CAP) and now requires projects exceeding 500 metric tons carbon dioxide equivalent ($MTCO_2e$) per year to complete the CAP Consistency Review Checklist (Ascent, 2020). The CAP checklist provides a number of requirements designed to reduce greenhouse gas (GHG) of which the primary method is to reduce the usage of non-renewable energy.

Finally, the state has implemented a number of regulations which force electrical utility providers to increase renewable portfolios or procurement. Specifically, the following policies and how they shaped the current energy supply and the future energy horizon are noted below:

SB 1078 (2002) established the Renewables Portfolio Standard (RPS) program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1 percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010.

SB X1 2 (2011) expanded the RPS by establishing that 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 350 (2015) further expanded the RPS by establishing that 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030 be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency.

SB 100 (2018) has further accelerated and expanded the RPS, requiring achievement of a 50 percent RPS by December 31, 2026, and a 60 percent RPS by December 31, 2030. SB 100 also established a new statewide policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100 percent of electricity retail sales and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

The natural gas and electrical energy usage utilized by project could be compared to the GP Buildout scenario which is presented in Table 3 below. Based on the results, the project is estimated to consume 1,192,176 kBTU more natural gas annually than the GP Buildout Scenario, since the data center would not likely require natural gas. The project would consume

256,692,993 kWh less electrical energy annually when compared to the predicted energy usage scenario which could be constructed under the General Plan. This is largely due to the fact that Data Centers consume significant amounts of electrical energy each year.

In the event the project decides to go all electric, if we assumed the equivalent energy would be required and converted the natural gas energy usage estimated by CalEEMod for each land use from kBTU/year to electrical energy usage (in kWh/year) using a standard conversion rate of 3.412 kBTU/kWh an additional 349,406 kWH would be required. This would mean the project would still require 256,343,587 kWH less than a data center. Since there isn't a requirement to use all electric, the natural gas discussion will be the basis of this analysis.

Under this comparison, reductions from Title 24 of the California Building Code (2019) were accounted for which would improve the efficiency of the project in terms of energy consumption. Title 24 (2022) has not been included into CalEEMod 2022.1 but would essentially with some benefit reduce energy consumption for both scenarios. It should be noted that further reductions would be expected with the incorporation of the City's CAP measures, which were not considered in this energy assessment. Based on this, energy use associated with project operations would not result in wasteful, inefficient, or an unnecessary use of energy. The CalEEMod estimation tool output for the project and the GP Buildout scenario are provided as ***Attachments A*** and ***-B*** to this letter.

Table 3: Annul Energy Use Project vs. GP Buildout Scenario

Energy Source	Project	GP Buildout Scenario	Project Reductions compared to GP Buildout Scenario
Natural Gas Usage (kBTU/Year)	1,192,176	0	1,192,176
Electrical Usage (kWH)	907,007	257,600,000	-256,692,993

Energy – Vehicular Usage

The project traffic engineer estimated that the project would generate 1,214 daily trips (LL&G Engineers, 2023) however, estimates for the GP Buildout Scenario were not estimated by the Traffic Engineer. Data centers do not generally generate many vehicular trips. For example, a 413,000 SF data center in Santa Clara was found to generate 410 daily trips or approximately 1 trip per 1,000 SF (Ramboll Environ, 2016).

Based on this, a 160,000 SF building would generate as many as 160 trips per day. Therefore, the project would generate more vehicular trips than would be expected from a GP Buildout scenario where a data center was constructed. Since the GP Buildout scenario would require a

significantly larger electrical usage demand than the proposed project, the additional residential vehicular trips would be insignificant in terms of energy usage.

Furthermore, energy efficiency for vehicles is mandated by State specific policies geared to reduce GHG emissions. For example, in May 2022, the National Highway Traffic Safety Administration (NHTSA) published rules finalizing revised fuel economy standards for passenger cars and light trucks for 2024-2025 and the standards increase at a rate of 8 percent per year. Then in 2026 an increase in the efficiency standard by 10 percent would be required. NHTSA estimates that the industry fleet-wide average will be 49 miles per gallon (MPG) in 2026 (NHTSA, 2022).

In July 2023, NHTSA proposed new Corporate Average Fuel Economy (CAFE) standards for passenger cars and light trucks built in model years 2027-2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030-2035. If finalized, the proposal would require an industry fleet-wide average of approximately 58 miles per gallon for passenger cars and light trucks in MY 2032, by increasing fuel economy by 2 percent year over year for passenger cars and by 4 percent year over year for light trucks (NHTSA, 2023),

In 2015, SB 350 – the Clean Energy and Pollution Reduction Act – was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code Section 740.12). This was further expanded by requiring 100 percent of all new cars sold in the state by 2035 to be electric (See EO N-79-20 (CARB, 2023)).

The project development would install electric vehicle chargers which would increase the usage of zero emission vehicles and would allow the project to be "ready" and consistent with the states EV regulations and goals. Therefore, a less than significant impact on the energy resources would be expected from the project. The operational modeling of both the project and the GP Buildout scenario are also shown in ***Attachments A*** and ***-B,*** respectively.

Conclusion

Based on this analysis, the long-term energy demand during construction and operation of the project would not result in a wasteful or inefficient use of energy. This analysis assumes that the Project would meet all building efficiency requirements for both the State and the City and would be designed to minimize wasteful energy use. This analysis also uses a comparison approach comparing a likely general plan buildout alternative allowed under the General Plan to construct a 160,000 SF data center. Since data centers would be a high consumer of electrical energy, the GPA proposed would utilize significantly less energy when compared to the data center allowed by right for the stie. Given this, a less than significant impact under CEQA with respect to Energy Waste is expected and the project would not result in a wasteful or inefficient

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use of energy. Furthermore, the project would not conflict with or obstruct the State's or Local plans for renewable energy or energy efficiency.

Sincerely,
Ldn Consulting, Inc.

Jeremy Louden, Principal

Attachment A: CalEEMod analysis tool (Proposed Project)
Attachment B: CalEEMod analysis tool (Proposed GP Buildout Scenario)

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Armorlite Lofts Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Armorlite Lofts
Construction Start Date	1/1/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	20.4
Location	225 N Las Posas Rd, San Marcos, CA 92069, USA
County	San Diego
City	San Marcos
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6297
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments Mid Rise	165	Dwelling Unit	1.00	158,400	0.25	—	512	—
Strip Mall	5.60	1000sqft	0.44	5,600	0.25	—	—	—
Enclosed Parking with Elevator	189	Space	0.50	75,600	0.25	—	—	—
Parking Lot	65.0	Space	0.50	0.00	0.25	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.8	6.29	22.1	0.03	0.08	1.74	1.82	0.08	0.42	0.49	—	4,794	4,794	0.20	0.19	4,863
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.3	8.22	31.8	0.07	0.16	9.78	9.94	0.14	3.89	4.03	—	8,831	8,831	0.39	0.61	9,022
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.37	3.60	13.2	0.02	0.04	1.37	1.41	0.04	0.42	0.46	—	2,942	2,942	0.13	0.12	2,984
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.61	0.66	2.41	< 0.005	0.01	0.25	0.26	0.01	0.08	0.08	—	487	487	0.02	0.02	494

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	13.8	6.29	22.1	0.03	0.08	1.74	1.82	0.08	0.42	0.49	—	4,794	4,794	0.20	0.19	4,863
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	14.3	8.22	31.8	0.07	0.16	9.78	9.94	0.14	3.89	4.03	—	8,831	8,831	0.39	0.61	9,022
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.37	3.60	13.2	0.02	0.04	1.37	1.41	0.04	0.42	0.46	—	2,942	2,942	0.13	0.12	2,984
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.61	0.66	2.41	< 0.005	0.01	0.25	0.26	0.01	0.08	0.08	—	487	487	0.02	0.02	494

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.73	3.24	42.7	0.07	0.09	6.25	6.34	0.08	1.58	1.67	88.2	7,746	7,834	9.32	0.32	8,186
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.24	3.40	28.5	0.07	0.08	6.25	6.33	0.07	1.58	1.66	88.2	7,389	7,477	9.34	0.34	7,814
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	8.87	3.41	34.7	0.07	0.08	6.17	6.25	0.08	1.56	1.64	88.2	7,456	7,544	9.34	0.34	7,889
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.62	0.62	6.34	0.01	0.02	1.13	1.14	0.01	0.29	0.30	14.6	1,234	1,249	1.55	0.06	1,306

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.52	2.82	29.7	0.07	0.05	6.25	6.30	0.05	1.58	1.63	—	7,207	7,207	0.35	0.28	7,322
Area	5.20	0.12	12.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	39.6	39.6	< 0.005	< 0.005	39.7
Energy	0.02	0.30	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	494	494	0.12	0.01	500
Water	—	—	—	—	—	—	—	—	—	—	11.9	5.22	17.1	1.22	0.03	56.5
Waste	—	—	—	—	—	—	—	—	—	—	76.3	0.00	76.3	7.63	0.00	267
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17
Total	9.73	3.24	42.7	0.07	0.09	6.25	6.34	0.08	1.58	1.67	88.2	7,746	7,834	9.32	0.32	8,186
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.42	3.10	28.4	0.07	0.05	6.25	6.30	0.05	1.58	1.63	—	6,889	6,889	0.38	0.30	6,989
Area	3.80	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.30	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	494	494	0.12	0.01	500
Water	—	—	—	—	—	—	—	—	—	—	11.9	5.22	17.1	1.22	0.03	56.5
Waste	—	—	—	—	—	—	—	—	—	—	76.3	0.00	76.3	7.63	0.00	267
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17
Total	8.24	3.40	28.5	0.07	0.08	6.25	6.33	0.07	1.58	1.66	88.2	7,389	7,477	9.34	0.34	7,814

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.37	3.05	28.2	0.07	0.05	6.17	6.22	0.05	1.56	1.61	—	6,937	6,937	0.37	0.30	7,044
Area	4.49	0.06	6.36	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	0.00	19.5	19.5	< 0.005	< 0.005	19.6
Energy	0.02	0.30	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	494	494	0.12	0.01	500
Water	—	—	—	—	—	—	—	—	—	—	11.9	5.22	17.1	1.22	0.03	56.5
Waste	—	—	—	—	—	—	—	—	—	—	76.3	0.00	76.3	7.63	0.00	267
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17
Total	8.87	3.41	34.7	0.07	0.08	6.17	6.25	0.08	1.56	1.64	88.2	7,456	7,544	9.34	0.34	7,889
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.80	0.56	5.15	0.01	0.01	1.13	1.14	0.01	0.29	0.29	—	1,149	1,149	0.06	0.05	1,166
Area	0.82	0.01	1.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.23	3.23	< 0.005	< 0.005	3.24
Energy	< 0.005	0.06	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	81.8	81.8	0.02	< 0.005	82.8
Water	—	—	—	—	—	—	—	—	—	—	1.97	0.87	2.84	0.20	< 0.005	9.36
Waste	—	—	—	—	—	—	—	—	—	—	12.6	0.00	12.6	1.26	0.00	44.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19
Total	1.62	0.62	6.34	0.01	0.02	1.13	1.14	0.01	0.29	0.30	14.6	1,234	1,249	1.55	0.06	1,306

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	1.33	15.0	0.03	0.05	—	0.05	0.05	—	0.05	—	2,716	2,716	0.11	0.02	2,725
Dust From Material Movement	—	—	—	—	—	1.61	1.61	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	22.4
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.70	3.70	< 0.005	< 0.005	3.71
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	65.8	65.8	< 0.005	< 0.005	66.7

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
Hauling	0.06	3.92	1.46	0.02	0.06	0.77	0.83	0.04	0.21	0.25	—	2,932	2,932	0.15	0.47	3,076
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	0.55
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
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.1	24.1	< 0.005	< 0.005	25.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	0.09
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.99	3.99	< 0.005	< 0.005	4.19

3.3. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	1.20	14.2	0.02	0.05	—	0.05	0.05	—	0.05	—	2,455	2,455	0.10	0.02	2,463
Dust From Material Movement	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.07	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	135	135	0.01	< 0.005	135
Dust From Material Movement	—	—	—	—	—	0.39	0.39	—	0.19	0.19	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.3	22.3	< 0.005	< 0.005	22.3
Dust From Material Movement	—	—	—	—	—	0.07	0.07	—	0.03	0.03	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.48	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	110	110	0.01	< 0.005	111
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
Hauling	0.01	0.74	0.28	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	552	552	0.03	0.09	580
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.07	6.07	< 0.005	< 0.005	6.16
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
Hauling	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	31.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	1.02

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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.01	5.01	< 0.005	< 0.005	5.26

3.5. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	3.74	12.8	0.02	0.04	—	0.04	0.04	—	0.04	—	2,201	2,201	0.09	0.02	2,208
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	3.74	12.8	0.02	0.04	—	0.04	0.04	—	0.04	—	2,201	2,201	0.09	0.02	2,208
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	2.25	7.69	0.01	0.02	—	0.02	0.02	—	0.02	—	1,327	1,327	0.05	0.01	1,331
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.41	1.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	220	220	0.01	< 0.005	220
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

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.42	6.59	0.00	0.00	1.29	1.29	0.00	0.30	0.30	—	1,416	1,416	0.07	0.05	1,438
Vendor	0.03	0.98	0.46	0.01	0.01	0.20	0.21	0.01	0.05	0.07	—	760	760	0.03	0.11	795
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.54	0.48	5.81	0.00	0.00	1.29	1.29	0.00	0.30	0.30	—	1,337	1,337	0.07	0.05	1,355
Vendor	0.02	1.02	0.47	0.01	0.01	0.20	0.21	0.01	0.05	0.07	—	761	761	0.03	0.11	794
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.28	3.54	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	813	813	0.04	0.03	825
Vendor	0.02	0.61	0.28	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	458	458	0.02	0.07	479
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	135	135	0.01	0.01	137
Vendor	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.9	75.9	< 0.005	0.01	79.3
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

3.7. Paving (2026) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.77	8.32	0.01	0.02	—	0.02	0.02	—	0.02	—	1,244	1,244	0.05	0.01	1,248
Paving	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.1	34.1	< 0.005	< 0.005	34.2
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.64	5.64	< 0.005	< 0.005	5.66
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	133
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.64	3.64	< 0.005	< 0.005	3.69
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	0.61
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
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

3.9. Architectural Coating (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	134
Architectural Coatings	12.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	134
Architectural Coatings	12.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.23	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.3	29.3	< 0.005	< 0.005	29.4
Architectural Coatings	2.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.84	4.84	< 0.005	< 0.005	4.86
Architectural Coatings	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.08	1.32	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	283	283	0.01	0.01	288
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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	1.16	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	267	267	0.01	0.01	271
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.1	59.1	< 0.005	< 0.005	60.0

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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.79	9.79	< 0.005	< 0.005	9.94
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
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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.65	2.23	23.4	0.06	0.04	4.88	4.93	0.04	1.24	1.28	—	5,642	5,642	0.28	0.22	5,732
Strip Mall	0.87	0.59	6.26	0.02	0.01	1.36	1.37	0.01	0.35	0.36	—	1,565	1,565	0.07	0.06	1,590
Enclosed Parking with Elevator	0.00	0.00	0.00	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	0.00
Total	4.52	2.82	29.7	0.07	0.05	6.25	6.30	0.05	1.58	1.63	—	7,207	7,207	0.35	0.28	7,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	3.57	2.45	22.4	0.05	0.04	4.88	4.93	0.04	1.24	1.28	—	5,393	5,393	0.30	0.24	5,472
Strip Mall	0.85	0.65	5.91	0.01	0.01	1.36	1.37	0.01	0.35	0.36	—	1,496	1,496	0.08	0.06	1,517
Enclosed Parking with Elevator	0.00	0.00	0.00	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	0.00
Total	4.42	3.10	28.4	0.07	0.05	6.25	6.30	0.05	1.58	1.63	—	6,889	6,889	0.38	0.30	6,989
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.64	0.44	4.08	0.01	0.01	0.88	0.89	0.01	0.22	0.23	—	899	899	0.05	0.04	913
Strip Mall	0.15	0.12	1.08	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.06	—	249	249	0.01	0.01	253
Enclosed Parking with Elevator	0.00	0.00	0.00	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	0.00
Total	0.80	0.56	5.15	0.01	0.01	1.13	1.14	0.01	0.29	0.29	—	1,149	1,149	0.06	0.05	1,166

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

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

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	69.1	69.1	0.05	0.01	72.2
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.10	6.10	< 0.005	< 0.005	6.37
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	0.03	< 0.005	36.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	2.36	2.36	< 0.005	< 0.005	2.46
Total	—	—	—	—	—	—	—	—	—	—	—	112	112	0.08	0.01	117
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	69.1	69.1	0.05	0.01	72.2
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.10	6.10	< 0.005	< 0.005	6.37
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	0.03	< 0.005	36.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	2.36	2.36	< 0.005	< 0.005	2.46
Total	—	—	—	—	—	—	—	—	—	—	—	112	112	0.08	0.01	117
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	11.4	11.4	0.01	< 0.005	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.01	1.01	< 0.005	< 0.005	1.05
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	5.71	5.71	< 0.005	< 0.005	5.96

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.39	0.39	< 0.005	< 0.005	0.41
Total	—	—	—	—	—	—	—	—	—	—	—	18.6	18.6	0.01	< 0.005	19.4

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.29	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	374	374	0.03	< 0.005	375
Strip Mall	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	7.79
Enclosed Parking with Elevator	0.00	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
Total	0.02	0.30	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	382	382	0.03	< 0.005	383
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.29	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	374	374	0.03	< 0.005	375
Strip Mall	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.77	7.77	< 0.005	< 0.005	7.79
Enclosed Parking with Elevator	0.00	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

Total	0.02	0.30	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	382	382	0.03	< 0.005	383
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.05	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.0	62.0	0.01	< 0.005	62.1
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.29	1.29	< 0.005	< 0.005	1.29
Enclosed Parking with Elevator	0.00	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
Total	< 0.005	0.06	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.3	63.3	0.01	< 0.005	63.4

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	3.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.40	0.12	12.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	39.6	39.6	< 0.005	< 0.005	39.7
Total	5.20	0.12	12.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	39.6	39.6	< 0.005	< 0.005	39.7

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	3.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.80	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.13	0.01	1.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.23	3.23	< 0.005	< 0.005	3.24
Total	0.82	0.01	1.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.23	3.23	< 0.005	< 0.005	3.24

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

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

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	11.1	4.88	16.0	1.14	0.03	52.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	0.79	0.35	1.14	0.08	< 0.005	3.77
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	11.9	5.22	17.1	1.22	0.03	56.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	11.1	4.88	16.0	1.14	0.03	52.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	0.79	0.35	1.14	0.08	< 0.005	3.77
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	11.9	5.22	17.1	1.22	0.03	56.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1.84	0.81	2.65	0.19	< 0.005	8.73
Strip Mall	—	—	—	—	—	—	—	—	—	—	0.13	0.06	0.19	0.01	< 0.005	0.62
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	1.97	0.87	2.84	0.20	< 0.005	9.36

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	73.1	0.00	73.1	7.31	0.00	256
Strip Mall	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	11.1
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	76.3	0.00	76.3	7.63	0.00	267
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	73.1	0.00	73.1	7.31	0.00	256
Strip Mall	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	11.1

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	76.3	0.00	76.3	7.63	0.00	267
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	12.1	0.00	12.1	1.21	0.00	42.4
Strip Mall	—	—	—	—	—	—	—	—	—	—	0.52	0.00	0.52	0.05	0.00	1.84
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	12.6	0.00	12.6	1.26	0.00	44.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.13
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.13
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2026	1/5/2026	5.00	3.00	—
Grading	Grading	1/4/2026	2/1/2026	5.00	20.0	—
Building Construction	Building Construction	2/2/2026	12/4/2026	5.00	220	—
Paving	Paving	11/14/2026	11/27/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	8/15/2026	12/04/2026	5.00	80.0	—

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	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Tier 4 Final	1.00	8.00	423	0.48

Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	7.00	84.0	0.37
Grading	Crushing/Proc. Equipment	Diesel	Tier 4 Final	1.00	6.00	310	0.41
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Final	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Tier 4 Final	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT

Site Preparation	Hauling	41.7	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	12.5	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	7.85	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	152	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	30.9	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	30.5	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	320,760	106,920	9,380	2,909	2,614

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	—	1,000	4.50	0.00	—
Grading	—	1,250	5.00	0.00	—
Paving	0.00	0.00	0.00	0.00	1.00

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
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Enclosed Parking with Elevator	0.50	100%
Parking Lot	0.50	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	45.1	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
Apartments Mid Rise	990	990	990	361,350	6,916	6,916	6,916	2,524,178
Strip Mall	224	224	224	81,760	1,930	1,930	1,930	704,309
Enclosed Parking with Elevator	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

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	165
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
320760	106,920	9,380	2,909	2,614

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	559,494	45.1	0.0330	0.0040	1,167,942
Strip Mall	49,362	45.1	0.0330	0.0040	24,234
Enclosed Parking with Elevator	279,072	45.1	0.0330	0.0040	0.00
Parking Lot	19,079	45.1	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)
Apartments Mid Rise	5,796,957	4.57
Strip Mall	414,806	3.74
Enclosed Parking with Elevator	0.00	3.74

Parking Lot	0.00	3.74

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	136	—
Strip Mall	5.88	—
Enclosed Parking with Elevator	0.00	—
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
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. 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	11.0	annual days of extreme heat
Extreme Precipitation	3.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	7.44	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

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

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

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

6.3. Adjusted Climate Risk Scores

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	42.6
AQ-PM	28.1
AQ-DPM	76.8
Drinking Water	24.2
Lead Risk Housing	39.5
Pesticides	35.7
Toxic Releases	27.8
Traffic	61.5
Effect Indicators	—
CleanUp Sites	78.6
Groundwater	67.5
Haz Waste Facilities/Generators	82.7
Impaired Water Bodies	43.8
Solid Waste	96.6
Sensitive Population	—
Asthma	3.22
Cardio-vascular	14.1
Low Birth Weights	40.5
Socioeconomic Factor Indicators	—
Education	78.3
Housing	82.8

Linguistic	77.9
Poverty	78.2
Unemployment	36.4

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	14.57718465
Employed	17.95200821
Median HI	15.05196972
Education	—
Bachelor's or higher	34.96727833
High school enrollment	100
Preschool enrollment	1.873476197
Transportation	—
Auto Access	7.878865649
Active commuting	68.52303349
Social	—
2-parent households	81.04709355
Voting	41.66559733
Neighborhood	—
Alcohol availability	17.16925446
Park access	56.96137559
Retail density	84.51174131
Supermarket access	77.74926216
Tree canopy	38.40626203

Housing	—
Homeownership	8.623123316
Housing habitability	19.36353137
Low-inc homeowner severe housing cost burden	79.81521879
Low-inc renter severe housing cost burden	64.18580778
Uncrowded housing	31.19466188
Health Outcomes	—
Insured adults	5.902733222
Arthritis	9.2
Asthma ER Admissions	99.1
High Blood Pressure	21.8
Cancer (excluding skin)	21.2
Asthma	30.0
Coronary Heart Disease	3.1
Chronic Obstructive Pulmonary Disease	5.5
Diagnosed Diabetes	18.3
Life Expectancy at Birth	13.9
Cognitively Disabled	11.9
Physically Disabled	7.5
Heart Attack ER Admissions	99.6
Mental Health Not Good	25.4
Chronic Kidney Disease	2.7
Obesity	34.9
Pedestrian Injuries	81.7
Physical Health Not Good	17.6
Stroke	5.6
Health Risk Behaviors	—

Binge Drinking	68.3
Current Smoker	35.6
No Leisure Time for Physical Activity	16.4
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	16.3
Elderly	23.2
English Speaking	15.1
Foreign-born	80.3
Outdoor Workers	11.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	47.4
Traffic Density	77.2
Traffic Access	23.0
Other Indices	—
Hardship	72.9
Other Decision Support	—
2016 Voting	49.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	59.0
Healthy Places Index Score for Project Location (b)	15.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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	Total Area is 2.44 acres - 254 Parking Spaces
Construction: Construction Phases	Estimated Construction Schedule
Construction: Off-Road Equipment	Design Feature to use Tier 4 final equipment
Operations: Vehicle Data	Updated to reflect the TS
Operations: Hearths	no hearth options installed
Construction: Off-Road Equipment EF	crusher equipment similar to scraper equipment and was updated since no defaults were provided by CalEEMod
Construction: Dust From Material Movement	Updated to reflect PD

data center scenario Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	data center scenario
Construction Start Date	1/1/2026
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	9.80
Location	San Marcos, CA, USA
County	San Diego
City	San Marcos
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6215
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-Rail	160	1000sqft	3.67	160,000	1,000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	1.94	5.41	0.51	11.6	0.01	0.02	0.97	0.99	0.02	0.25	0.26	152	1,226	1,378	15.5	0.22	3.80	1,835
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.69	4.26	0.49	4.39	0.01	0.01	0.97	0.98	0.01	0.25	0.25	152	1,147	1,299	15.5	0.22	0.10	1,753
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.29	4.81	0.51	7.81	0.01	0.01	0.96	0.98	0.01	0.24	0.26	152	1,169	1,321	15.5	0.22	1.64	1,776
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.88	0.09	1.43	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	25.2	193	219	2.56	0.04	0.27	294

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	0.70	0.64	0.45	4.64	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,134	1,134	0.05	0.04	3.80	1,152
Area	1.24	4.77	0.06	6.96	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	31.8	31.8	0.02	< 0.005	—	33.3
Water	—	—	—	—	—	—	—	—	—	—	—	70.9	31.1	102	7.29	0.18	—	337
Waste	—	—	—	—	—	—	—	—	—	—	—	81.1	0.00	81.1	8.10	0.00	—	284
Total	1.94	5.41	0.51	11.6	0.01	0.02	0.97	0.99	0.02	0.25	0.26	152	1,226	1,378	15.5	0.22	3.80	1,835
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.69	0.63	0.49	4.39	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,084	1,084	0.06	0.05	0.10	1,099
Area	—	3.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	31.8	31.8	0.02	< 0.005	—	33.3
Water	—	—	—	—	—	—	—	—	—	—	—	70.9	31.1	102	7.29	0.18	—	337
Waste	—	—	—	—	—	—	—	—	—	—	—	81.1	0.00	81.1	8.10	0.00	—	284
Total	0.69	4.26	0.49	4.39	0.01	0.01	0.97	0.98	0.01	0.25	0.25	152	1,147	1,299	15.5	0.22	0.10	1,753
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.68	0.62	0.49	4.38	0.01	0.01	0.96	0.97	0.01	0.24	0.25	—	1,092	1,092	0.06	0.05	1.64	1,108
Area	0.61	4.19	0.03	3.43	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	14.1	14.1	< 0.005	< 0.005	—	14.2
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	31.8	31.8	0.02	< 0.005	—	33.3
Water	—	—	—	—	—	—	—	—	—	—	—	70.9	31.1	102	7.29	0.18	—	337
Waste	—	—	—	—	—	—	—	—	—	—	—	81.1	0.00	81.1	8.10	0.00	—	284
Total	1.29	4.81	0.51	7.81	0.01	0.01	0.96	0.98	0.01	0.24	0.26	152	1,169	1,321	15.5	0.22	1.64	1,776
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.11	0.09	0.80	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	181	181	0.01	0.01	0.27	183
Area	0.11	0.76	0.01	0.63	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.34	2.34	< 0.005	< 0.005	—	2.34

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	5.27	5.27	< 0.005	< 0.005	—	5.51
Water	—	—	—	—	—	—	—	—	—	—	—	11.7	5.15	16.9	1.21	0.03	—	55.7
Waste	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	47.0
Total	0.24	0.88	0.09	1.43	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	25.2	193	219	2.56	0.04	0.27	294

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-Rail	0.70	0.64	0.45	4.64	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,134	1,134	0.05	0.04	3.80	1,152
Total	0.70	0.64	0.45	4.64	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,134	1,134	0.05	0.04	3.80	1,152
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.69	0.63	0.49	4.39	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,084	1,084	0.06	0.05	0.10	1,099
Total	0.69	0.63	0.49	4.39	0.01	0.01	0.97	0.98	0.01	0.25	0.25	—	1,084	1,084	0.06	0.05	0.10	1,099
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehou	0.12	0.11	0.09	0.80	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	181	181	0.01	0.01	0.27	183
Total	0.12	0.11	0.09	0.80	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	181	181	0.01	0.01	0.27	183

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-Rail	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.02	< 0.005	—	33.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.02	< 0.005	—	33.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.02	< 0.005	—	33.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.02	< 0.005	—	33.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	5.27	5.27	< 0.005	< 0.005	—	5.51
Total	—	—	—	—	—	—	—	—	—	—	—	—	5.27	5.27	< 0.005	< 0.005	—	5.51

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-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
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-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
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-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
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.24	1.14	0.06	6.96	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Total	1.24	4.77	0.06	6.96	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11	0.10	0.01	0.63	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.34	2.34	< 0.005	< 0.005	—	2.34
Total	0.11	0.76	0.01	0.63	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.34	2.34	< 0.005	< 0.005	—	2.34

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	70.9	31.1	102	7.29	0.18	—	337
Total	—	—	—	—	—	—	—	—	—	—	—	70.9	31.1	102	7.29	0.18	—	337
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	70.9	31.1	102	7.29	0.18	—	337
Total	—	—	—	—	—	—	—	—	—	—	—	70.9	31.1	102	7.29	0.18	—	337
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	11.7	5.15	16.9	1.21	0.03	—	55.7
Total	—	—	—	—	—	—	—	—	—	—	—	11.7	5.15	16.9	1.21	0.03	—	55.7

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	81.1	0.00	81.1	8.10	0.00	—	284
Total	—	—	—	—	—	—	—	—	—	—	—	81.1	0.00	81.1	8.10	0.00	—	284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	81.1	0.00	81.1	8.10	0.00	—	284
Total	—	—	—	—	—	—	—	—	—	—	—	81.1	0.00	81.1	8.10	0.00	—	284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	47.0
Total	—	—	—	—	—	—	—	—	—	—	—	13.4	0.00	13.4	1.34	0.00	—	47.0

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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-Rail	160	160	160	58,400	1,371	1,371	1,371	500,443

5.10. Operational Area Sources

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	240,000	80,000	—

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-Rail	257,600	45.1	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-Rail	37,000,000	14,944

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-Rail	150	—

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

8. User Changes to Default Data

Screen	Justification
Operations: Energy Use	per data center
Operations: Vehicle Data	Data Center Trip Generation based on 413,000 SF Data Center (Romboll Environ, 2016) See Source in Report
Construction: Construction Phases	construction emission not calculated