

To: City of Orange Planning Department
 From: Elaina Chambers, Tanya Kalaskar, Alex J. Garber, EPD Solutions, Inc.
 Date: 4/8/2026
 Re: Air Quality, Energy, and Greenhouse Gas Impact Analysis for 2411 North Glassell Street Project, EPD Project Number 24-092

This technical memorandum presents an analysis of the air quality, energy, and greenhouse gas (GHG) impacts for the proposed 2411 North (N.) Glassell Street Project (“Project” or “proposed Project”) located at the southeast corner of the intersection of N. Glassell Street and Fletcher Avenue in the City of Orange (City) in Orange County. The 12.1-acre Project site is identified by Assessor’s Parcel Numbers (APNs) 374-381-01 and 374-381-02. The Project proposes to demolish the three existing two-story office buildings, totaling 191,127 square feet (SF) located on the Project site, and to redevelop the site with a single-story speculative industrial building with mezzanine, totaling 298,988 SF building area. The building would support warehousing, manufacturing, and office space. The building would include 171,188 SF of warehouse space, 109,000 SF of manufacturing, and 9,400 SF of ground floor office space with an additional 9,400 SF of office space on the mezzanine level (18,800 SF total). Development of the site would also include landscaping, utility connections, fencing, and stormwater facilities, as well as pavement of parking areas, loading areas, and driveways. The proposed industrial building is anticipated to be operational 24 hours a day, 7 days a week. No cold storage is proposed. The proposed building would be designed to Leadership in Energy and Environmental Design (LEED) Gold Standards. The proposed Project is shown in Figure 1, *Conceptual Site Plan*, included at the end of this document.

The Project is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

To support the California Environmental Quality Act (CEQA) analysis for the Project, this report analyzes the proposed Project’s construction and net operational impacts to air quality (emission of criteria pollutants), energy usage, and greenhouse gas (GHG) emissions using the California Emissions Estimator Model (CalEEMod Version 2022.1) and Emission Factor model (EMFAC Version 2021).

Table 1, *Construction Schedule*, shows the estimated construction schedule, which is expected to last approximately 17 months.

Table 1: Construction Schedule ¹

Activity	Start Date	End Date	Total Working Days
Demolition	9/1/2025	11/26/2025	75
Site Preparation	9/30/2025	10/10/2025	10
Grading	10/15/2025	11/18/2025	30
Building Construction	11/27/2025	11/11/2026	300
Paving	11/12/2026	12/4/2026	20
Architectural Coating	12/7/2026	1/21/2027	40

Notes:

¹ Construction is anticipated to begin in the first quarter of 2027; however, a more conservative start date was assumed for the analysis.

Source: CalEEMod Output Sheets (see Attachment B).

The following non-default assumptions and adjustments were used in the CalEEMod emission model for this proposed Project analysis:

- Land Use: The lot acreage was adjusted to match the site plan provided by the client. The office uses were incorporated into the “Un-Refrigerated Warehouse – No Rail” land use.
- Construction Equipment: It was assumed that all equipment would be used for 10 hours per workday. Tractors/loaders/backhoes were replaced with crawler tractors in the site preparation and grading phases. Crushing/processing equipment (1) was added to the demolition phase.
- Construction Phases: The construction schedule was adjusted to match the schedule provided by the client, including an extended demolition phase from the CalEEMod default of 20 days to 75 days. The construction days per week were increased from 5 days to 6 days to adhere to the client’s provided schedule.
- Demolition: The demolition of the existing buildings and hardscape is anticipated to amount to 2,600 tons of debris. These calculations can be found in Attachment A, *Demolition Calculations*.
- Construction Earthmoving Activity: The Project would require import of 2,200 cubic yards (CY) of material during the grading phase, as provided by the client. No volumes of soil are anticipated to be exported during the construction of the Project.
- Construction: One diesel-powered crushing/processing equipment was assumed. Emission factors for crushing/processing equipment were derived from EMFAC OffRoad2021 tool using 2025 rates, within the Orange County South Coast sub-area. The rates for crushing/processing equipment can be found in Attachment E, *Rock Crushing Calculations*.
- Operational Trip Rates: The trip rate was adjusted to match the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* auto trip rates for manufacturing and warehouse land use. Truck trip lengths were obtained from the WAIRE Menu Technical Report Appendix B, *Truck Trip Lengths*.¹ Vehicle splits were obtained using the daily trip total from EPD Solutions’ *2411 Glassell Street Vehicle Miles Traveled (VMT) Memorandum*.² Truck trips were applied to the User Defined Industrial land use in CalEEMod, where two-axle trucks with a 15.3-mile trip length and a trip percentage of 16.46%, were applied to non-residential H-W (home to work trips); three-axle trucks with a 14.2-mile trip length and a trip percentage of 20.73% were applied to non-residential W-O (work to other); and four + axle trucks with a 40-mile trip length and a trip percentage of 62.80% were applied to non-residential O-O (other to other trips).
- Operational Fleet Mixes: For fleet mix, vehicle splits were updated to match the operational trip generation provided by the *VMT Screening Analysis* that was prepared for the Project. The User Defined Industrial land use was utilized to analyze 100% of trucks (heavy-heavy duty truck [HHDT], medium-heavy duty trucks [MHDT], and light-heavy duty trucks 1 and 2 [LHDT1 and LHDT2]), and general heavy industrial and refrigerated warehouse land use defaults were utilized with the CalEEMod defaults to analyze 100% passenger vehicles only.
- Operational Off-Road Equipment: Assumed one compressed natural gas (CNG) forklift per 10,000 SF of warehouse area will be used for operational purposes, for a total of 30 forklifts.³ The 30 forklifts were assumed to operate for 10 hours a day.

¹ SCAQMD. (2021). *WAIRE Implementation Guide, Appendix B: WAIRE Menu Technical Report*.

<https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12>

² EPD Solutions. (2025). *24-092 2411 Glassell Street Vehicle Miles Traveled (VMT) Memorandum*.

³ SCAQMD. (2014). *High Cube Warehouse Truck Trip Study White Paper Summary Of Business Survey Results*.
<https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/high-cube-warehouse>

- Operational Equipment: One diesel fire pump was assumed for the Project. The fire pump was assumed to operate for 1 hour a day and would not exceed 50 hours per year of operating time for testing in accordance with SCAQMD Rule 1470.⁴

The following non-default assumptions and adjustments were used in the CalEEMod emission model for the Existing Site's analysis:

- Land Use: The lot acreage was adjusted to match the existing site information provided by the client.
- Operational Trip Rates: The trip rate was adjusted to match the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* auto trip rates for 710-General Office Building.
- Operational Equipment: Three emergency generators are currently on-site associated with the existing use of the site. The emergency generators were included in the modeling for the existing use. The generators were each assumed to operate for 1 hour a day and would not exceed 50 hours per year of operating time for testing, for a total of 3 hours a day and a maximum of 150 hours per year, in accordance with SCAQMD Rule 1470.⁵

⁴ SCAQMD. (2021). *Rule 1470: Requirements for Stationary Diesel Fueled Internal Combustion and Other Compression Ignition Engines.*

⁵ SCAQMD. (2021). *Rule 1470: Requirements for Stationary Diesel Fueled Internal Combustion and Other Compression Ignition Engines.*

SUMMARY OF AIR QUALITY, ENERGY, AND GHG IMPACTS

Air Quality

The proposed Project's maximum daily emissions (regional and local) for construction and operation would not exceed the SCAQMD's regional thresholds of significance. In addition, all construction activities would comply with applicable SCAQMD rules and regulations, including Rule 402, Rule 403, Rule 1113, Rule 1403, and Rule 1470:

- Rule 402, *Public Nuisance*: Prohibits the discharge of air contaminants that cause injury, nuisance, or annoyance to the public or damage to property.
- Rule 403, *Fugitive Dust*: Aims to minimize fugitive particulate matter dust emissions during construction activities.
- Rule 1113, *Architectural Coatings*: Allows only low-volatile organic compound (VOC) paints to be used.
- Rule 1403, *Asbestos*: Establish work practice requirements to limit asbestos emissions from building demolition or renovation.
- Rule 1470, *Stationary Sources*: Sets operational hour requirements, stating that new stationary emergency diesel engines shall not operate more than 50 hours a year for maintenance and testing.

The construction and operation of the proposed Project would not exceed SCAQMD thresholds for any of the six criteria pollutants. Projects that do not exceed the regional thresholds are assumed to not have a significant impact on both a project level and cumulative level. The proposed Project aligns with SCAQMD'S 2025 Air Quality Management Plan (AQMP), reflecting adherence to regional air quality management goals and standards. Furthermore, odors produced by construction and operation of the proposed Project would be minimal and comply with SCAQMD Rule 402. Therefore, the proposed Project would have a less-than-significant air quality impact. No mitigation would be required.

Energy

The proposed Project's energy consumption for construction activities related to redevelopment of the site for new industrial warehousing uses would be required to comply with existing fuel standards, machinery efficiency standards, and California Air Resources Board (CARB) requirements that limit idling of trucks. The Project would not result in significant impacts related to the CEQA Guidelines thresholds for energy consumption:

- a) Construction activities related to the proposed Project and the associated infrastructure are not expected to result in demand for fuel greater on a per-unit-of-development basis than any other development projects in Southern California.
- b) The proposed Project would be required to meet the California Code of Regulations (CCR) Title 24 energy efficiency standards and comply with all applicable City energy codes, and the Project buildings would be solar ready in compliance with current Title 24 requirements. Therefore, the Project would not inhibit the use of and would allow for future flexibility relating to renewable energy.

It should be noted that although the Project does not propose the usage of natural gas during operations, this analysis presents a conservative account of the Project's natural gas consumption during operations to provide future flexibility. The proposed Project would consume more natural gas and diesel fuel than the existing buildings currently occupying the site but would result in a reduced consumption of electricity and gasoline fuel than the existing buildings. Through compliance with existing standards, the Project would not result in a fuel demand on a per-development basis that is greater than other similar development projects in Southern California. The Project would be developed in compliance with LEED Gold standards. This analysis does not take credit for the LEED Gold certification, and therefore, presents a conservative assessment of

energy impacts. Additionally, there are no unusual Project characteristics that would cause the use of construction equipment that would be less energy-efficient compared with other similar construction sites in other parts of the State. Therefore, the construction and operation of the Project would result in a less-than-significant impact related to inefficient, wasteful, or unnecessary consumption of energy. No mitigation would be required.

GHG Emissions

The proposed Project's construction and operational GHG emissions would total 5,160 metric tons of carbon dioxide equivalent (MTCO_{2e}). Considering the emissions resulting from the existing buildings on-site, the net new emissions generated by the proposed Project would result in 2,247 MTCO_{2e} per year. The Project's net GHG emissions would be below the SCAQMD's significance threshold of 3,000 MTCO_{2e} per year. Additionally, the proposed Project would be consistent with the GHG reduction policies within the City's General Plan and CARB's 2022 Scoping Plan. Therefore, the Project would have a less-than-significant impact on GHG emissions. No mitigation would be required.

AIR QUALITY

Methodology and Model Inputs

To calculate the operational impacts, the air quality emissions from the existing land use were estimated using CalEEMod. SCAQMD recommends in the WAIRE Menu Technical Report (Appendix B of the WAIRE Implementation Guidelines) to use 40-mile trip lengths for four or more axle trucks, 14.2-mile trip lengths for three-axle trucks, and 15.3-mile trip lengths for two-axle trucks. Therefore, the User Defined Industrial CalEEMod land use was added to the model to specifically analyze truck operational emissions with the SCAQMD recommended truck trip lengths. The passenger vehicles were analyzed using the CalEEMod default trip distance information.⁶

Rock Crushing

This analysis assumes all rock crushing would occur during the demolition phase, which had been extended to 75 days. Fugitive dust emissions comprised of PM₁₀ and PM_{2.5} were calculated using emission factors provided by the United States Environmental Protection Agency (USEPA).⁷ Pursuant to SCAQMD Rule 403, *Fugitive Dust*, it was assumed that crushing operations would utilize watering for dust suppression. Thus, controlled rates were used to estimate emissions for the proposed Project. Approximately 34.7 tons of rock would be crushed per day (2,600 tons of debris/75 days), resulting in 0.17 pounds/day of PM₁₀ and 0.01 pounds/day of PM_{2.5}. These calculations can be found in Attachment E, *Rock Crushing Calculations*. Estimated emissions were added to the demolition phase, shown below in Table 2, *Regional Construction Emission Estimates*.

Regional Regulatory Setting

The SCAQMD establishes a program of rules and regulations to achieve attainment of the State and federal standards along with the AQMP. The rules and regulations applicable to this Project include the following:

- Rule 402, *Public Nuisance*: Governs emissions of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. These apply to any odors that would be deemed objectionable to a substantial number of people. This rule does not apply to agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- Rule 403, *Fugitive Dust*: Aims to minimize emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.
- Rule 1113, *Architectural Coatings*: Allows only low-VOC (volatile organic compounds) paints to be used.
- Rule 1403, *Asbestos*: Establish work practice requirements to limit asbestos emissions from building demolition or renovation. These requirements include asbestos surveying, public notification, removal and handling procedures, time schedules, and storage/disposal/landfill requirements. Records of compliance must be maintained and all appropriate warning labels, signs, and marking must be utilized. Since the

⁶ EPD utilized the Metropolitan Planning Organization (MPO) default data provided in CalEEMod, as it provides more accurate trip length data than the region-wide California Statewide Travel Demand Model (CSTDm) trip length data.

⁷ USEPA. 1998. AP-42, Section 11.19.2 Crushed Stone Processing and Pulverized Mineral Processing. Referenced February 2025, from <https://www.epa.gov/sites/default/files/2020-10/documents/c11s1902.pdf>

Project site would involve the demolition of the three existing buildings, demolition would be required to comply with Rule 1403.

- Rule 1470, *Stationary Sources*: Sets operational hour requirements, stating that new stationary emergency diesel engines shall not operate more than 50 hours a year for maintenance and testing. The Project site would involve the operation of a diesel fire pump; thus, the Project would be required to comply with Rule 1470.

Regional Emissions

The SCAQMD has adopted maximum daily emission thresholds (pounds/day) for the criteria pollutants during construction and operation of a project.⁸ While incremental regional air quality impacts of an individual project are generally very small and difficult to measure, SCAQMD’s regional maximum emission thresholds set standards to reduce the burden of the SCAQMD to attain and maintain ambient air quality standards. The regional thresholds apply to the criteria pollutants mentioned in Table 2, *Regional Construction Emission Estimates*, and Table 3, *Regional Operational Emission Estimates*, along with the CalEEMod Project emissions. These emission thresholds include the Project emissions generated both from on-site sources (such as off-road construction equipment and fugitive dust) and off-site sources (vehicle travel arriving to and leaving from the site). To calculate the operational impacts, the air quality emissions from the existing land use were estimated using CalEEMod and credit was taken from the existing office buildings on the site.

As shown in Table 2 and Table 3, the Project would generate construction and operational emissions below the SCAQMD thresholds and therefore result in less-than-significant regional air quality impacts. The CalEEMod output sheets for the proposed Project and existing site can be found in Attachment B and C, respectively.

Table 2: Regional Construction Emission Estimates

Construction Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
2025						
Demolition (with crushing)	3.1	28.5	26.2	<0.1	2.2	1.2
Site Preparation	5.1	46.9	41.5	0.1	9.7	5.6
Grading	4.5	41.6	38.1	0.1	5.7	3.1
Building Construction	2.0	16.3	24.6	<0.1	2.7	1.0
Maximum Daily Emissions -2025	5.1	46.9	41.5	0.1	9.7	5.6
2026						
Building Construction	1.9	15.4	25.0	<0.1	2.6	1.0
Paving	1.5	9.0	13.1	<0.1	0.6	0.4
Architectural Coating	70.8	1.5	3.0	<0.1	0.4	0.1
Maximum Daily Emissions -2026	70.8	15.4	25.0	<0.1	2.6	1.0

⁸ SCAQMD. (March 2023). *South Coast AQMD Air Quality Significance Thresholds*. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>

Construction Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2027						
Architectural Coating	70.8	1.5	2.9	<0.1	0.4	0.1
Maximum Daily Emissions -2027	70.8	1.5	2.9	<0.1	0.4	0.1
Maximum Daily Emission 2025-2027	70.8	46.9	41.5	0.1	9.7	5.6
SCAQMD Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases, NO_x = nitrogen oxides, CO = carbon monoxide, SO₂ = sulfur dioxide, PM₁₀ = particulate matter 10 microns in diameter, PM_{2.5} = particulate matter 2.5 microns in diameter
Source: CalEEMod Output Sheets (see Attachment B).

Table 3: Regional Operational Emission Estimates

Operational Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Mobile	2.3	15.3	25.5	0.2	9.4	2.6
Area	9.3	0.1	13.0	<0.1	<0.1	<0.1
Energy	0.1	2.2	1.9	<0.1	0.2	0.2
Off-Road	<0.1	33.1	330.4	<0.1	<0.1	<0.1
Stationary	0.4	1.1	1.0	<0.1	0.1	0.1
Total Project Operational Emissions	12.1	51.8	371.8	0.2	9.7	2.8
Existing Use Operational Emissions	13.7	9.9	69.4	0.2	15.2	4.1
Net New Emissions	-1.5	41.9	302.4	<0.1	-5.5	-1.3
SCAQMD Significance Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases, NO_x = nitrogen oxides, CO = carbon monoxide, SO₂ = sulfur dioxide, PM₁₀ = particulate matter 10 microns in diameter, PM_{2.5} = particulate matter 2.5 microns in diameter

Source: CalEEMod Output Sheets (see Attachments B and C).

Local Emissions

Localized significance thresholds (LSTs) were also adopted by the SCAQMD due to project-related construction or operational air emissions having the potential to exceed the State and national air quality standards in the project vicinity, while not exceeding the regional emission significance thresholds adopted by the SCAQMD. These thresholds set the maximum rates of daily construction or operational emissions from a project site that would not exceed a national or State ambient air quality standard.⁹ The differences between regional thresholds and LSTs are as follows:

1. Regional thresholds include all sources of project construction and operational emissions generated from on-site and off-site emission sources whereas the LSTs only consider the emissions generated from on-site emission sources.
2. LSTs only apply to carbon monoxide (CO), nitrogen oxides (NO_x), and particulate matter (PM₁₀ and PM_{2.5}), while regional thresholds include both reactive organic gases (ROG) and sulfur dioxide (SO₂).
3. Regional thresholds apply to emission sources located anywhere within the SCAQMD whereas the LSTs are location dependent and rely on the size of the project and emission location relative to the nearest sensitive receptor.

SCAQMD provides screening tables (Appendix C of the SCAQMD 2008 *Final Localized Significance Threshold Methodology*) for projects that disturb less than or equal to 5 acres in a day. These tables were created to easily determine if the daily emissions of NO_x, CO, PM₁₀, and PM_{2.5} from a project could result in a significant impact to the local air quality. The thresholds are determined by:

⁹ SCAQMD. (2008). *Final Localized Significance Threshold Methodology*. https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=8c641d61_2

- Source receptor area (SRA), which is the geographic area within the SCAQMD that can act as both a source of emissions and a receptor of emission impacts (the Project is located within SRA 17, Central Orange County);
- Size of grading disturbance (construction)/size of the project (operation); and
- Distance to the nearest sensitive receptor, which is defined as an individual who is most susceptible to negative health effects when exposed to air pollutants and includes children, the elderly, and adults with chronic health issues. Locations for such receptors include residences, schools, elderly care centers, and hospitals.

Table 4, *Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day*, shows the amount of grading that would occur during the demolition, site preparation, and grading phases. As can be seen in Table 4, the phase with the most ground disturbance would be the grading phase, with a maximum ground disturbance of 4.0 acres per day. Distance to the nearest sensitive receptor also determines the emission thresholds. The sensitive receptors closest to the Project site include residences about 16.54 meters (54 feet) north of the Project site's fence line along the northern boundary; therefore, the construction and operation emission thresholds for 25 meters were used, as 25 meters is the minimum distance for thresholds as provided by SCAQMD's LST Methodology. Table 5, *Localized Construction Emission Estimates*, shows the thresholds and estimated maximum daily construction emissions for the proposed Project. As shown in Table 5, the proposed Project would not exceed the SCAQMD LST thresholds and would therefore have a less-than-significant impact on localized air quality during construction.

Table 4: Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day

Activity	Equipment Type	Equipment Quantity	Operating Hours per Day	Acres Disturbed per piece of Equipment per Day	Acres Disturbed per Day
Demolition	Rubber Tired Dozers	2	10	0.5	1.0
	Excavators	3	10	0	0
	Concrete/Industrial Saws	1	10	0	0
	Crushing/Proc. Equipment	1	10	0	0
Total Acres Disturbed Per Day					1.0
Site Preparation	Rubber Tired Dozers	3	10	0.5	1.5
	Crawler Tractors	4	10	0.5	2.0
Total Acres Disturbed Per Day					3.5
Grading	Graders	1	10	0.5	0.5
	Excavators	2	10	0	0
	Scrapers	2	10	1.0	2.0
	Rubber Tired Dozers	1	10	0.5	0.5
	Crawler Tractors	2	10	0.5	1.0
Total Acres Disturbed Per Day					4.0
Maximum Acres Disturbed Per Day					4.0

Source: CalEEMod Output Sheets (see Attachment B).

Table 5: Localized Construction Emission Estimates

Construction Activity	Maximum Daily Localized Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
2025				
Demolition (with crushing)	27.7	24.9	1.8	1.1
Site Prep	46.8	40.5	9.5	5.6
Grading	40.7	36.8	5.2	3.0
Building Construction	14.1	17.7	0.6	0.5
Maximum Daily Emissions - 2025	46.8	40.5	9.5	5.6
2026				
Building Construction	13.3	17.6	0.5	0.5
Paving	8.9	12.4	0.4	0.4
Architectural Coating	1.4	1.9	<0.1	<0.1
Maximum Daily Emissions - 2026	13.3	17.6	0.5	0.5
2027				
Architectural Coating	1.4	1.9	<0.1	<0.1
Maximum Daily Emissions - 2027	1.4	1.9	<0.1	<0.1
Maximum Daily Emission 2025-2027	46.8	40.5	9.5	5.6
SCAQMD Localized Significance Thresholds	160.3	1,073.7	10.7	6
Threshold Exceeded?	No	No	No	No

Notes: NO_x = nitrogen oxides, CO = carbon monoxide, PM₁₀ = particulate matter 10 microns in diameter, PM_{2.5} = particulate matter 2.5 microns in diameter

Source: CalEEMod Output Sheets (see Attachment B).

The localized significance thresholds for operation are determined by the size of the Project site and the distance to the nearest sensitive receptor as well as the maximum trip length possible within the Project site. While the Project site is 12.1 acres, the thresholds for 5 acres were utilized to yield a conservative analysis for the operational LST, as the 5-acre thresholds are the minimum applicable thresholds published by SCAQMD and would provide lower thresholds for the Project. The distance to the nearest receptor of 25 meters that was utilized for the construction LST analysis was also utilized for the operational LST analysis. As shown in Table 6, *Localized Operational Emission Estimates*, the proposed Project would generate emissions below the SCAQMD localized thresholds and would therefore have a less-than-significant localized operational air quality impact.

Table 6: Localized Operational Emission Estimates

Operational Activity	Maximum Daily Localized Emissions (pounds/day)			
	NOx	CO	PM ₁₀	PM _{2.5}
Mobile	5.2	4.0	2.1	0.6
Area	0.1	13.0	<0.1	<0.1
Energy	2.2	1.9	0.2	0.2
Off-Road	33.1	330.4	<0.1	<0.1
Stationary	1.1	1.0	0.1	0.1
Total	41.8	350.3	2.4	0.9
SCAQMD Localized Significance Thresholds	183	1,253	3	2
Threshold Exceeded?	No	No	No	No

Notes: NOx = nitrogen oxides, CO = carbon monoxide, PM₁₀ = particulate matter 10 microns in diameter, PM_{2.5} = particulate matter 2.5 microns in diameter

Source: CalEEMod Output Sheets (see Attachment B).

Air Quality Management Plan Consistency

SCAQMD’s CEQA Handbook provides the following two criteria to determine whether a project would be consistent or in conflict with the AQMP:

1. The Project would not generate population and employment growth that would be inconsistent with Southern California Association of Governments (SCAG)’s growth forecasts.
2. The Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Consistency Criterion No. 1 refers to the SCAG’s growth forecasts, and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG’s growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, if the level of housing and employment growth related to the proposed Project is consistent with the applicable assumptions used in the development of the AQMP, the Project would not jeopardize attainment of the air quality levels identified in the AQMP.

The Project site has a City of Orange General Plan land use designation of Light Industrial (LI) and is zoned as Industrial Manufacturing (M-2). The Project proposes an industrial building, consistent with the land use and zoning designation of the site. Additionally, based on the size of the Project, it is anticipated that the employment base for both the construction and operational phases of the proposed Project would come from the existing population in the region. Thus, the proposed Project would not induce population growth or growth in the area. Therefore, implementation of the Project would not exceed the growth assumptions for the Project site. As a result, the proposed Project would be consistent with Criterion 1.

Consistency Criterion No. 2 refers to the California Ambient Air Quality Standards. An impact would occur if the long-term emissions associated with the proposed Project exceed SCAQMD's regional significance thresholds for operation-phase emissions. As presented in Table 3, operation of the proposed Project would result in emissions that do not exceed any SCAQMD thresholds. Therefore, the proposed Project would be consistent with Criterion No. 2.

As the Project would be consistent with both Criterion No. 1 and 2, impacts related to consistency with the AQMP would be less than significant.

Odors

Odors would be produced during the construction of the proposed Project due to the operation of heavy-duty off-road equipment. The primary odor emitted would be diesel particulate matter (DPM) from the vendor trucks and heavy-duty off-road equipment. This odor may be noticeable by nearby residents; however, these odors would be expected and not necessarily objectionable. These odors would also dissipate quickly and would be temporary. Therefore, due to the nature of the odor produced during construction as temporary and non-objectionable to a substantial number of people, the odor impact from construction of the proposed Project would be less than significant.

For operational odor emissions, SCAQMD's *CEQA Air Quality Handbook* describes odor complaints associated with the following land uses:

- Agricultural uses
- Chemical plants
- Composting activities
- Dairies
- Fiberglass molding
- Food processing plants
- Landfills
- Refineries
- Wastewater treatment plants

The Project does not propose any of the above land uses and is required to comply with SCAQMD Rule 402, *Nuisance*, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Thus, impacts associated with odor produced by operation of the proposed Project would be less than significant.

Conclusion

The proposed Project's maximum daily regional and localized construction and operational emissions would not exceed SCAQMD's thresholds of significance, as detailed in Tables 2 through 6. Projects that do not exceed the regional thresholds are assumed to not have a significant impact on a project-level and cumulative level. The proposed Project aligns with SCAQMD'S 2025 AQMP, reflecting adherence to regional air quality management goals and standards. Finally, odors produced during construction would be temporary and not significantly objectionable, and during operation, the proposed Project involves land uses

that typically do not generate significant odor complaints and would comply with SCAQMD Rule 402. Therefore, the proposed Project would result in less-than-significant air quality impacts. No mitigation would be required.

ENERGY

The CEQA Guidelines do not have specific numerical thresholds for energy consumption. Rather, the question in Appendix G: VI Energy ask: (a) “[Would the proposed Project] Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?” and (b) “[Would the project] Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?”¹⁰ Therefore, for the purpose of this analysis, a significant impact would occur if:

- a) The project design and/or location encourages wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, as well as the use of fuel by vehicles anticipated to travel to and from the project; or
- b) The project design impedes the growth of future renewable energy developments.

Southern California Edison and Southern California Gas Company would provide electricity and natural gas, respectively, for construction and operation of the proposed Project. The following assumptions were used to calculate the energy (electricity, natural gas, and petroleum) consumption of the proposed Project:

- Construction equipment fuel consumption was derived from the CARB OffRoad2021 emission model.
- Fuel Consumption from vehicle travel was derived from the CARB EMFAC2021 emission model.
- Electrical and natural gas usage was derived from the CalEEMod model Version 2022.1.

Construction

Electricity and Natural Gas Usage

Due to the Project size and the fact that construction is temporary, the electricity used during construction of the proposed Project would be substantially less than that required for Project operation and would have a negligible contribution to the Project’s overall energy consumption. The electric power used would be for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers. Natural gas is not anticipated to be needed for construction activities. Any consumption of natural gas would be minor and negligible in comparison to the usage during the operation of the proposed Project.

Petroleum Fuel Usage

The equipment associated with construction activities (off-road/heavy-duty vehicles) would rely on diesel fuel as would vendor and haul trucks involved in delivering building materials and removing the demolition debris from the Project site. Construction workers would travel to and from the Project site throughout the duration of construction, and for a conservative analysis, it is assumed that construction workers would travel in gasoline-powered passenger vehicles. Table 7, *Construction Equipment Fuel Usage*, lists the total fuel consumption and horsepower-hour data contained within the CARB OffRoad2021 emission model for specific types of diesel construction equipment. It should be noted that the total fuel consumption is a conservative analysis and would likely overstate the amount of fuel usage, as specific construction equipment is not expected to operate during the entire duration of the construction activity (i.e., crane). Table 8, *Estimated Project Vehicle Fuel Usage*, summarizes the Project’s construction vehicle fuel usage based on vehicle miles traveled and fuel usage factors contained in the CARB EMFAC2021. The trips included are worker vehicles,

¹⁰ California Energy Commission. (2023). *CEQA Statutes and Guidelines Attachment 10 Appendix G: Environmental Checklist Form*. https://www.energy.ca.gov/sites/default/files/2024-01/11_Attachment_10_-_Appendix_G_from_CEQA_Handbook_ada.docx

vendor vehicles, and haul vehicles. Table 9, *Total Construction Fuel Usage*, shows the overall fuel consumption for Project construction.

Table 7: Construction Equipment Fuel Usage

Activity	Equipment	Number	Hours per day	Horsepower	Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Rubber Tired Dozers	2	10	367	0.4	75	220,200	0.047455	10,450
	Excavators	3	10	36	0.38	75	30,780	0.051215	1,576
	Concrete/Industrial Saws	1	10	33	0.73	75	18,068	0.041899	757
	Crushing/Proc. Equipment	1	10	200	0.6	75	90,000	0.050642	4,558
Site Preparation	Rubber Tired Dozers	3	10	367	0.4	10	44,040	0.047455	2,090
	Crawler Tractors	4	10	87	0.43	10	14,964	0.050488	756
Grading	Graders	1	10	148	0.41	30	18,204	0.051539	938
	Excavators	2	10	36	0.38	30	8,208	0.051215	420
	Scrapers	2	10	423	0.48	30	121,824	0.048091	5,859
	Rubber Tired Dozers	1	10	367	0.4	30	44,040	0.047455	2,090
	Crawler Tractors	2	10	87	0.43	30	22,446	0.050488	1,133
Building Construction	Forklifts	3	10	82	0.2	300	147,600	0.053254	7,860
	Generator Sets	1	10	14	0.74	300	31,080	0.069091	2,147
	Cranes	1	10	367	0.29	300	319,290	0.053012	16,926
	Welders	1	10	46	0.45	300	62,100	0.030238	1,878
	Tractors/Loaders/Backhoes	3	10	84	0.37	300	279,720	0.053121	14,859
Paving	Pavers	2	10	81	0.42	20	13,608	0.051517	701
	Paving Equipment	2	10	89	0.36	20	12,816	0.051165	656
	Rollers	2	10	36	0.38	20	5,472	0.052592	288
Architectural Coating	Air Compressors	1	10	37	0.48	40	7,104	0.02939644	209
Total									76,151

Source: Fuel Calculations (See Attachment D).

Table 8: Estimated Project Vehicle Fuel Usage

Construction Source	Total Number of Trips	VMT	Fuel Rate	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	463	18,500	6.06	3,051	0
Vendor Trucks	14,700	299,880	8.98	33,403	0
Worker Vehicles	41,230	1,525,510	29.08	0	52,453
Total				36,453	52,453

Source: Fuel Calculations, See Attachment D.

Table 9: Total Construction Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Construction Vehicles	36,453	52,453
Off-Road Construction Equipment	76,151	0
Total	112,604	52,453

Source: Fuel Calculations, See Attachment D.

As seen above in Table 9, the Project is estimated to consume approximately 52,453 gallons of gasoline and approximately 112,604 gallons of diesel fuel. According to fuel consumption information obtained from EMFAC2021, approximately 9,467,772 gallons of gasoline and 1,295,850 gallons of diesel fuel would be consumed in Orange County in 2025 through 2027. Thus, the construction of the Project would marginally increase the annual fuel usage during the 17 months of construction spanning three calendar years within Orange County by 0.55% for annual gasoline consumption and 7.99% for annual diesel consumption. The Project construction would have a negligible effect on local and regional energy supplies within Orange County. Additionally, the Project would be required to comply with regulations implemented to reduce emissions from construction, such as CCR Title 13, Motor Vehicles, section 2449(d)(3), *Idling*, which limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Thus, the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy. Therefore, the proposed Project would result in less-than-significant energy impacts during construction. No mitigation would be required.

Operation

The operation of the proposed Project would consume electricity, natural gas, and petroleum. The net energy consumption can be found in Table 10, *Project Annual Operational Energy Requirements*, below. Electricity and natural gas consumption can be found in the CalEEMod Output Sheets attached (Attachment B). The gasoline consumption rates utilize the same assumptions that were used for the worker vehicles. As shown in Table 10, the proposed Project is expected to require more natural gas and diesel fuel than the existing use on-site but would consume less electricity and gasoline fuel than the existing use. However, the Project would remain consistent with that of similar sized projects and would result in a marginal increase in fuel usage in Orange County. Thus, the Project would not constitute a wasteful, inefficient, or unnecessary consumption of energy. Therefore, the proposed Project would result in less-than-significant energy impacts during operation. No mitigation would be required.

Table 10: Project Annual Operational Energy Requirements

Electricity (Kilowatt-Hours)		
Proposed Project	2,065,323	
Existing Use	3,637,751	
Natural Gas (Thousands British Thermal Units)		
Proposed Project ¹	8,343,678 ²	
Existing Use	4,844,394	
Petroleum (Gasoline) Consumption		
	Annual VMT	Gallons of Gasoline Fuel
Proposed Project	2,511,385	86,351
Existing Use	5,762,416	198,133
Petroleum (Diesel) Consumption		
	Annual VMT	Gallons of Diesel Fuel
Proposed Project	1,835,754	246,051 ³
Existing Use	0	1,388 ⁴
Net Total Energy Use		
	Net Electricity (Kilowatt-Hours)	-1,572,428
	Net Natural Gas (Thousands British thermal Units)	3,499,284
	Net Gasoline Consumption (Gallons)	-111,783
	Net Diesel Consumption (Gallons)	244,663

Notes:

¹The Project does not propose the use of natural gas during the operation of the Project, annual natural gas consumption is included in Table 10 for a conservative analysis to provide future flexibility.

²Inclusive of the 30 CNG forklifts assumed for the proposed Project.

³ A single diesel fire pump is included in the diesel consumption for the proposed Project diesel consumption analysis.

⁴ Three diesel emergency backup generators were identified on-site associated with the existing use of the site and are included in the diesel consumption for this analysis.

Source: CalEEMod Output Sheets (See Attachment B, C).

Future Renewable Energy Developments

The proposed Project would be required to meet the CCR Title 24 State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards in effect during permitting of the proposed Project and comply with all applicable City energy codes. The City’s administration of energy efficiency requirements includes review of design components and energy conservation measures during the permitting process to ensure that all requirements are met. In addition, the Project buildings would be solar ready in compliance with current Title 24 requirements, which would allow for the future installation of rooftop solar. As such, the Project would not inhibit the use of and would allow for future flexibility relating to renewable energy.

Conclusion

As described above, the Project would not result in significant impacts related to energy. Construction activities related to the proposed Project and associated infrastructure are not expected to result in demand for fuel greater on a per-unit-of-development basis than any other development project in Southern California. There are no unusual Project characteristics that would cause the use of construction equipment that would be less energy efficient compared with other similar construction sites. Additionally, the Project would comply with regulations implemented that reduce emissions, such as those related to construction

vehicle idling, fuel standards, and machinery efficiency standards. Operation of the proposed Project would consume more natural gas and diesel fuel than the site's existing uses, but less electricity and gasoline fuel. While this analysis presents operational natural gas consumption, the Project does not propose the usage of natural gas in the operation of the Project, thus providing a conservative analysis to provide future flexibility. However, as with construction and through compliance with existing standards, the Project would not result in a fuel demand on a per-development basis that is greater than other development projects in Southern California. Therefore, the construction and operation of the Project would result in a less-than-significant impact related to inefficient, wasteful, or unnecessary consumption of energy. No mitigation would be required.

In addition, the operation of the Project would also be similar to other industrial projects within the City and would be required to meet CCR Title 24 energy efficiency standards and comply with all applicable City energy codes. The Project buildings would also be solar ready in compliance with current Title 24 requirements. Therefore, the Project would not inhibit the use of and would allow for future flexibility relating to renewable energy. Furthermore, the Project would be designed to LEED Gold standards, which certify high levels of environmental performance in areas such as energy efficiency, water conservation, and sustainable building materials. LEED Gold certification reflects a commitment to sustainability beyond minimum code requirements. This analysis does not take credit for the Project's LEED Gold design or other green features that are proposed, such as solar panel installation and EV parking stalls. Thus, the energy analysis here presents a conservative analysis.

Therefore, the Project would result in a less-than-significant impact related to impediment of future renewable energy development.

GREENHOUSE GAS EMISSIONS

Regulatory Background and Thresholds

California State Executive Order S-3-05, issued by Governor Arnold Schwarzenegger in June 2005, established comprehensive GHG reduction targets for the State.¹¹ It mandated reducing GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. This Executive Order laid the foundation for subsequent climate change mitigation efforts in California, including the development of various policies and programs aimed at reducing emissions across sectors such as transportation, energy, and industry. The objective of the Executive Order is to contribute to capping worldwide CO₂ concentrations at 450 parts-per-million (ppm), stabilizing global climate change.

The SCAQMD convened a GHG Emissions CEQA Significance Threshold Working Group to help lead agencies determine significance thresholds for GHG emissions when SCAQMD is not the lead agency. The last working group was held in September 2010 (Meeting No. 15) and proposed a tiered approach (Tier 1 to Tier 5), which involves different methods to determine significance of GHG emissions.¹² This assessment will apply the Tier 3 (Numerical Screening Thresholds) approach. Tier 3 consists of screening values which the lead agency can choose from, but it must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project impact would be less than significant:

- Option 1, all land use types: 3,000 MTCO_{2e} per year
- Option 2, based on land use type:
 - Residential: 3,500 MTCO_{2e} per year
 - Commercial: 1,400 MTCO_{2e} per year
 - Mixed-use: 3,000 MTCO_{2e} per year

Based on the foregoing guidance, the City has elected to rely on compliance with a local air district (SCAQMD) threshold in the determination of significance of Project-related GHG emissions. Specifically, the City has selected the interim 3,000 MTCO_{2e} per year threshold recommended by SCAQMD staff for all land use types against which to compare Project-related GHG emissions.

The City understands that the 3,000 MTCO_{2e} per year threshold was proposed by SCAQMD a decade ago and was adopted as an interim policy; however, no permanent, superseding policy or threshold has since been adopted. The 3,000 MTCO_{2e} per year threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the *Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold* document and subsequent Working Group meetings (latest of which occurred in 2010).¹³ SCAQMD has not withdrawn its support of the interim threshold and all documentation supporting the interim threshold remains on the SCAQMD website on a page that provides guidance to CEQA practitioners for air quality analysis (and where all SCAQMD significance thresholds for regional and

¹¹ Executive Department State of California Executive Order S-3-05: <https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/5129-5130.pdf>

¹² SCAQMD. (2010). *Minutes of the GHG CEQA Significance Threshold Stakeholder Working Group #15*. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf)

¹³ SCAQMD. (2008). *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf)

local criteria pollutants and toxic air contaminants also are listed). Further, as stated by SCAQMD, this threshold “uses the Executive Order S-3-05 goal [80% below 1990 levels by 2050] as the basis for deriving the screening level” and, thus, remains valid for use in 2025 and for purposes of this CEQA document. Lastly, this threshold has been used for hundreds, if not thousands of GHG analyses performed for projects located within the SCAQMD jurisdiction.

Project GHG Emissions

The Project’s construction GHG emissions are shown in Table 11, *Project Construction GHG Emissions*, and the overall construction and operational emissions are shown in Table 12, *Project Total GHG Emissions*, below. These emissions were calculated using the CalEEMod model. The construction emissions are amortized over 30 years and added to the operational GHG emissions. As shown in Table 12, the Project’s construction and operation GHG emissions would total 5,160 MTCO_{2e} per year, resulting in a net increase of 2,247 MTCO_{2e} per year when taking into consideration the existing office buildings. The Project’s net GHG emission results are below the SCAQMD significance threshold of 3,000 MTCO_{2e} per year. Therefore, the Project would have a less-than-significant impact on GHG emissions.

Table 11: Project Construction GHG Emissions

Activity	Annual GHG Emissions (MTCO _{2e})
2025	513
2026	821
2027	4
Total Emissions	1,337
Total Emissions Amortized Over 30 Years	45

Source: CalEEMod Output Sheets (See Attachment B).

Table 12: Project Total GHG Emissions

Activity	Annual GHG Emissions (MTCO _{2e})
Mobile	3,200
Area	6
Energy	769
Water	169
Waste	98
Refrigerant	5
Off-Road	864
Stationary	5
Total Project Gross Operation Emissions	5,115
Project Construction Emissions	45
Total Project Emissions	5,160
Existing Emissions	2,913
Net New Emissions	2,247
Significance Threshold	3,000
Threshold Exceeded?	No

Source: CalEEMod Output Sheets (See Attachment B,C)

Greenhouse Gas Reduction Plans Consistency

The City has not adopted a Climate Action Plan. The City of Orange General Plan (adopted in 2010) includes policies related to reducing GHG emissions.¹⁴ Table 14, *City of Orange General Plan Consistency Summary*, presents the Project’s consistency with the City’s General Plan policies related to reducing GHG emissions. As shown in Table 14, the Project would not conflict with applicable policies within the City of Orange General Plan intended to reduce GHG emissions.

On December 15, 2022, CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan).¹⁵ The 2022 Scoping Plan sets the State’s GHG emissions reduction target for 2045 at 85% below 1990 levels, which was codified by Senate Bill (SB) 32. Table 15, *2022 Scoping Plan Consistency Summary*, shows the Project’s consistency with CARB’s 2022 Scoping Plan. As seen in Table 15, the Project would be consistent with the 2022 Scoping Plan.

As such, the proposed Project would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Table 13: City of Orange General Plan Consistency Summary

Policy	Consistency
Natural Resources Element	
Policy 2.1: Cooperate with the South Coast Air Quality Management District (SCAQMD) and other regional agencies to implement and enforce regional air quality management plans.	Consistent. As described under the Air Quality section of this assessment, the proposed Project would not conflict with the SCAQMD’s 2025 AQMP.
Policy 2.2: Support alternative transportation modes, alternative technologies, and bicycle- and pedestrian-friendly neighborhoods to reduce emissions related to vehicular travel.	Consistent. The proposed Project would provide up to twenty (20) bicycle parking spaces to encourage alternative modes of transportation. The proposed Project would also provide electric vehicle charging stations to promote alternative technologies in lieu of traditional transportation modes.
Policy 2.6: Encourage sustainable building and site designs for new construction and renovation projects.	Consistent. The Project would comply with the 2025 Title 24, Part 6 and Part 11 building energy and energy efficiency requirements along with other local and State initiatives that aim to encourage sustainable building design for new construction development.
Policy 3.1: Evaluate the potential effects of climate change on the City’s human and natural systems and prepare strategies that allow the City to appropriately respond and adapt.	Not Applicable, Not Project Specific. The proposed Project would not interfere with this policy.
Policy 3.2: Develop and adopt a comprehensive strategy to reduce greenhouse gasses (GHGs) within Orange by at least 15 percent from current levels by 2020.	Not Applicable, Not Project Specific. The proposed Project would not interfere with this policy.

Source: City of Orange. (2010). *2010 General Plan, Natural Resources Element*, <https://www.cityoforange.org/home/showpublisheddocument/210/637698172559270000>

¹⁴ City of Orange. (2010) *City of Orange 2010 General Plan*. <https://www.cityoforange.org/our-city/departments/community-development/general-plan>

¹⁵ California Air Resources Board. (2022). *Scoping Plan for Achieving Carbon Neutrality*. <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>

Table 14: 2022 Scoping Plan Consistency Summary

Action	Consistency
GHG Emissions Reductions Relative to the SB 32 Target	
40% Below 1990 levels by 2030.	Consistent. The Project would comply with the 2025 Title 24, Part 6 and Part 11 building energy and energy efficiency requirements along with other local and State initiatives that aim to achieve the 40% below 1990 levels by 2030 goal. Additionally, the Project would be LEED gold certified and would further increase energy efficiency and reduce GHG emissions.
Smart Growth/Vehicle Miles Traveled (VMT)	
VMT per capita reduced 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045.	Consistent. The proposed Project would provide up to twelve (12) parking spaces to encourage alternative modes of transportation. The Project would also reduce passenger vehicle trips compared to the site's existing use. The Project is consistent with the growth and land use assumptions in the Southern California Association of Government's 2022 Connect SoCal Regional Transportation Plan/Sustainable Communities Strategy (which was utilized for growth estimates in CARB's 2022 Scoping Plan) including reductions in VMT per capita. The plan aims to reduce VMT per capita by 25% below 2019 levels by 2030 and 30% by 2045, which aligns with targets set in the CARB Scoping Plan. Thus, the Project would not interfere with VMT reduction targets and measures.
Light-Duty Vehicle (LDV) Zero-Emission Vehicles (ZEVs)	
100% of LDV sales are ZEV by 2035.	Consistent. The proposed Project is a speculative industrial building that could potentially involve the manufacturing and storage of LDV ZEVs. The future tenant would be required to comply with the CARB's Advanced Clean Truck Regulation and would be designed and constructed in accordance with the 2025 Title 24 Part 6 and Part 11 requirements, which includes constructing infrastructure to allow for electric vehicle charging.
Truck ZEVs	
100% of medium-duty (MDV)/HDC sales are ZEV by 2040 (AB 74 University of California Institute of Transportation Studies [ITS] report).	Consistent. The proposed Project is a speculative industrial building that could potentially involve the manufacturing and storage of MDV/HDC ZEVs. The future tenant would be required to comply with the CARB's Advanced Clean Truck Regulation that would require truck manufacturers to transition from diesel trucks to zero emission trucks and would be designed and constructed in accordance with the 2025 Title 24 Part 6 and Part 11 requirements, which include constructing infrastructure to allow for electric vehicle charging.
Aviation	
20% of aviation fuel demand is met by electricity (batteries) or hydrogen (fuel cells) in 2045. Sustainable aviation fuel meets most or the rest of the aviation fuel demand that has not already transitioned to hydrogen or batteries.	Not Applicable. The proposed Project would not utilize aviation fuel.
Ocean-Going Vessels (OGV)	

Action	Consistency
<p>2020 OGV At-Berth regulation fully implemented, with most OGVs utilizing shore power by 2027.</p> <p>25% of OGVs utilize hydrogen fuel cell electric technology by 2045.</p>	<p>Not Applicable. The proposed Project would not utilize any OGVs.</p>
Port Operations	
<p>100% of cargo handling equipment is zero-emission by 2037.</p> <p>100% of drayage trucks are zero emission by 2035.</p>	<p>Not Applicable. The proposed Project would not directly impact the closest major port (Port of Long Beach).</p>
Freight and Passenger Rail	
<p>100% of passenger and other locomotive sales are ZEV by 2030.</p> <p>100% of line haul locomotive sales are ZEV by 2035.</p> <p>Line haul and passenger rail rely primarily on hydrogen fuel cell technology, and others primarily utilize electricity.</p>	<p>Not Applicable. The proposed Project would not involve any freight or passenger rail operations.</p>
Oil and Gas Extraction	
<p>Reduce oil and gas extraction operations in line with petroleum demand by 2045.</p>	<p>Not Applicable. The proposed Project would not involve oil and gas extraction operations.</p>
Petroleum Refining	
<p>CCS on majority of operations by 2030, beginning in 2028. Production reduced in line with petroleum demand.</p>	<p>Not Applicable. The proposed Project would not involve any petroleum refining.</p>
Electricity Generation	
<p>Sector GHG target of 38 million metric tons of carbon dioxide equivalent (MMTCO_{2e}) in 2030 and 30 MMTCO_{2e} in 2035.</p> <p>Retail sales load coverage 13420 gigawatts (GW) of offshore wind by 2045. Meet increased demand for electrification without new fossil gas-fired resources.</p>	<p>Consistent. As shown in the Project site plans, the Project building is consistent with Title 24, Part 6, including increases in on-site renewable energy generation requirements via the implementation of solar as well as improved insulation reducing energy consumption. Additionally, the Project would be LEED gold certified and thus increase energy efficiency of the Project.</p>
New Residential and Commercial Buildings	
<p>All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030.</p>	<p>Consistent. The Project would be consistent and comply with Title 24 Section 6 requirements for commercial buildings, including complying with 100% electric appliances beginning in 2029.</p>
Existing Residential Buildings	
<p>80% of appliance sales are electric by 2030 and 100% of appliance sales are electric by 2035.</p> <p>Appliances are replaced at end of life such that by 2030 there are 3 million all-electric and electric-ready homes—and by 2035, 7 million homes—as well as contributing to 6 million heat pumps installed statewide by 2030.</p>	<p>Not Applicable. The proposed Project would not involve the sale of appliances, does not propose residential buildings and does not involve any existing residential buildings.</p>
Existing Commercial Buildings	
<p>80% of appliance sales are electric by 2030, and 100% of appliance sales are electric by 2045.</p> <p>Appliances are replaced at end of life, contributing to 6 million heat pumps installed statewide by 2030.</p>	<p>Not Applicable. The proposed Project does not involve the sale of appliances and would not interfere with the action of the replacement of non-electric heat pumps for existing commercial buildings by 2030.</p>

Action	Consistency
Food Products	
7.5% of energy demand electrified directly and/or indirectly by 2030; 75% by 2045.	Not Applicable. The proposed Project includes a speculative industrial building that would be used for warehousing and manufacturing uses and does not propose cold storage.
Construction Equipment	
25% of energy demand electrified by 2030 and 75% electrified by 2045.	Consistent. The proposed Project would be required to use construction equipment that is registered by CARB and meet CARB's standards. CARB sets its standards to be in line with the goal of reducing energy demand by 25% in 2030 and 75% in 2045.
Chemicals and Allied Products; Pulp and Paper	
Electrify 0% of boilers by 2030 and 100% of boilers by 2045. Hydrogen for 25% of process heat by 2035 and 100% by 2045. Electrify 100% of other energy demand by 2045.	Consistent. As the Project proposes a speculative industrial building, there is a potential for the Project to involve the production and/or storage of chemicals and allied products like pulp and paper. The Project would comply with the energy demands of the 2025 Title 24 Section 6 Building Codes and would comply with the electricity and hydrogen requirement by 2045 for the production of chemicals and allied products.
Stone, Clay, Glass, and Cement	
Carbon capture and storage (CCS) on 40% of operations by 2035 and on all facilities by 2045. Process emissions reduced through alternative materials and CCS.	Consistent. As the Project proposes a speculative industrial building, there is a potential for the Project to involve the production and/or storage of stone, clay, glass and/or cement. The Project would comply with the energy demands of the 2025 Title 24 Section 6 Building Codes and would promote the implementation and use of CCS for operations by 2035 and on all operations and facilities by 2045.
Other Industrial Manufacturing	
0% energy demand electrified by 2030 and 50% by 2045.	Consistent. As the Project proposes a speculative industrial building that could allow manufacturing, the future manufacturing tenant would be required to meet the energy demand goals of 50% by 2045, and the proposed Project would be constructed to comply with Title 24 Part 6 energy requirements, including increases in on-site energy generation requirements and improved insulation, reducing energy consumption in industrial manufacturing operations.
Combined Heat and Power	
Facilities retire by 2040.	Not Applicable. The proposed Project would not involve any existing combined heat and power facilities.
Agriculture Energy Use	
25% energy demand electrified by 2030 and 75% by 2045.	Not Applicable. The proposed Project would not involve any agricultural uses.
Low Carbon Fuels for Transportation	
Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen.	Not Applicable. The proposed Project would not involve any production of biofuels.
Low Carbon Fuels for Buildings and Industry	
In 2030s, biomethane 135 blended in pipeline Renewable hydrogen blended in fossil gas pipeline at 7% energy (~20% by volume), ramping up between 2030 and 2040.	Not Applicable. The proposed Project would not involve any production of fuels for buildings and industry.

Action	Consistency
In 2030s, dedicated hydrogen pipelines constructed to serve certain industrial clusters.	
Non-Combustion Methane Emissions	
Increase landfill and dairy digester methane capture. Some alternative manure management deployed for smaller dairies. Moderate adoption of enteric strategies by 2030. Divert 75% of organic waste from landfills by 2025. Oil and gas fugitive methane emissions reduced 50% by 2030 and further reductions as infrastructure components retire in line with reduced fossil gas demand.	Not Applicable. The proposed Project would not involve any production of non-combustion methane emissions or organic waste.
High GWP Potential Emissions	
Low GWP refrigerants introduced as building electrification increases, mitigating HFC emissions.	Not Applicable. The proposed Project includes a speculative industrial building that would be used for warehousing and manufacturing uses and does not propose cold storage and the use of refrigerants.

Source: California's 2022 Climate Change Scoping Plan Table 2-1: Actions for the Scoping Plan Scenario: AB 32 GHG Inventory Sectors

Conclusion

As described above, the proposed Project's net increase in emissions of 2,247 MTCO_{2e} per year is below the SCAQMD significance threshold of 3,000 MTCO_{2e} per year. Additionally, the Project is consistent with the GHG reduction policies within the City's General Plan and the CARB's 2022 Scoping Plan. Therefore, the Project would have a less-than-significant impact related to GHG emissions. No mitigation would be required.

Figure 1: Conceptual Site Plan



ATTACHMENT A: DEMOLITION CALCULATIONS

2411 Glassell Street Project

24-092

Estimates of Demolition Debris

Building Demolition

					Demo Building Volume (cy)
Building	103,340	SF	0.5	Ft	5200
Asphalt Hardscape	176,320	SF			
Total		0	0	5200	

Weight of the Building Demolition Debris (ton/cy): 0.5

Total Weight of Building Debris 2600 tons



ATTACHMENT B: PROPOSED PROJECT CALEEMOD OUTPUT SHEETS

24-092 2411 Glassell Street Proposed Detailed Report

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Data Field	Value
Project Name	24-092 2411 Glassell Street Proposed
Construction Start Date	9/1/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	21.2
Location	33.82851829562385, -117.85121543575805
County	Orange
City	Orange
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6813
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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	190	1000sqft	5.64	189,988	83,248	0.00	—	—

Manufacturing	109	1000sqft	2.50	109,000	0.00	0.00	—	—
Parking Lot	380	Space	3.42	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	0.54	Acre	0.54	0.00	0.00	0.00	—	—
User Defined Industrial	299	User Defined Unit	0.00	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	8.20	75.4	67.7	0.11	11.7	6.86	12,338
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	70.8	75.5	67.5	0.13	11.7	6.86	14,505
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	5.64	12.0	18.9	0.03	1.94	0.75	4,956
Annual (Max)	—	—	—	—	—	—	—
Unmit.	1.03	2.19	3.45	0.01	0.35	0.14	821
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—
Unmit.	No	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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2025	8.20	75.4	67.7	0.11	11.7	6.86	12,338
2026	1.90	15.3	25.0	0.04	2.58	0.98	6,565
Daily - Winter (Max)	—	—	—	—	—	—	—
2025	8.20	75.5	67.5	0.13	11.7	6.86	14,505
2026	70.8	15.4	24.1	0.04	2.58	0.98	6,478
2027	70.8	1.46	2.94	< 0.005	0.36	0.11	533
Average Daily	—	—	—	—	—	—	—
2025	1.31	11.9	11.7	0.02	1.36	0.75	2,564
2026	5.64	12.0	18.9	0.03	1.94	0.75	4,956
2027	3.49	0.07	0.15	< 0.005	0.02	0.01	26.5
Annual	—	—	—	—	—	—	—
2025	0.24	2.18	2.13	< 0.005	0.25	0.14	425
2026	1.03	2.19	3.45	0.01	0.35	0.14	821
2027	0.64	0.01	0.03	< 0.005	< 0.005	< 0.005	4.39

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	12.1	51.2	372	0.19	9.70	2.85	33,372
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	9.97	51.7	357	0.19	9.67	2.83	33,065
Average Daily (Max)	—	—	—	—	—	—	—

Unmit.	11.1	41.5	271	0.19	9.53	2.76	30,897
Annual (Max)	—	—	—	—	—	—	—
Unmit.	2.02	7.58	49.4	0.03	1.74	0.50	5,115
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	10,000
Unmit.	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	2.28	14.6	25.5	0.18	9.45	2.60	19,503
Area	9.32	0.11	13.0	< 0.005	0.02	0.02	53.7
Energy	0.12	2.24	1.88	0.01	0.17	0.17	4,647
Water	—	—	—	—	—	—	1,023
Waste	—	—	—	—	—	—	592
Refrig.	—	—	—	—	—	—	28.4
Off-Road	0.00	33.1	330	0.00	0.00	0.00	7,325
Stationary	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Total	12.1	51.2	372	0.19	9.70	2.85	33,372
Daily, Winter (Max)	—	—	—	—	—	—	—

Mobile	2.27	15.3	24.1	0.17	9.45	2.60	19,250
Area	7.18	—	—	—	—	—	—
Energy	0.12	2.24	1.88	0.01	0.17	0.17	4,647
Water	—	—	—	—	—	—	1,023
Waste	—	—	—	—	—	—	592
Refrig.	—	—	—	—	—	—	28.4
Off-Road	0.00	33.1	330	0.00	0.00	0.00	7,325
Stationary	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Total	9.97	51.7	357	0.19	9.67	2.83	33,065
Average Daily	—	—	—	—	—	—	—
Mobile	2.26	15.4	24.5	0.17	9.33	2.57	19,325
Area	8.65	0.07	8.91	< 0.005	0.02	0.01	36.8
Energy	0.12	2.24	1.88	0.01	0.17	0.17	4,647
Water	—	—	—	—	—	—	1,023
Waste	—	—	—	—	—	—	592
Refrig.	—	—	—	—	—	—	28.4
Off-Road	0.00	23.6	235	0.00	0.00	0.00	5,218
Stationary	0.05	0.15	0.14	< 0.005	0.01	0.01	27.5
Total	11.1	41.5	271	0.19	9.53	2.76	30,897
Annual	—	—	—	—	—	—	—
Mobile	0.41	2.82	4.47	0.03	1.70	0.47	3,200
Area	1.58	0.01	1.63	< 0.005	< 0.005	< 0.005	6.09
Energy	0.02	0.41	0.34	< 0.005	0.03	0.03	769
Water	—	—	—	—	—	—	169
Waste	—	—	—	—	—	—	97.9
Refrig.	—	—	—	—	—	—	4.70
Off-Road	0.00	4.31	42.9	0.00	0.00	0.00	864
Stationary	0.01	0.03	0.02	< 0.005	< 0.005	< 0.005	4.55

Total	2.02	7.58	49.4	0.03	1.74	0.50	5,115
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3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.00	27.7	24.9	0.04	1.15	1.06	4,296
Demolition	—	—	—	—	0.47	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.00	27.7	24.9	0.04	1.15	1.06	4,296
Demolition	—	—	—	—	0.47	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.62	5.70	5.12	0.01	0.24	0.22	883
Demolition	—	—	—	—	0.10	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.04	0.93	< 0.005	0.04	0.04	146
Demolition	—	—	—	—	0.02	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.06	0.06	0.98	0.00	0.23	0.05	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.01	0.73	0.33	< 0.005	0.16	0.05	636
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.06	0.07	0.85	0.00	0.23	0.05	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.76	0.33	< 0.005	0.16	0.05	635
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.18	0.00	0.05	0.01	46.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.16	0.07	< 0.005	0.03	0.01	131
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	7.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	21.6

3.3. Site Preparation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	5.06	46.8	40.5	0.06	2.41	2.22	6,934
Dust From Material Movement	—	—	—	—	7.08	3.36	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	5.06	46.8	40.5	0.06	2.41	2.22	6,934
Dust From Material Movement	—	—	—	—	7.08	3.36	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	0.14	1.28	1.11	< 0.005	0.07	0.06	190
Dust From Material Movement	—	—	—	—	0.19	0.09	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.20	< 0.005	0.01	0.01	31.5
Dust From Material Movement	—	—	—	—	0.04	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.06	0.06	0.98	0.00	0.23	0.05	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.06	0.07	0.85	0.00	0.23	0.05	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005	6.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	4.46	40.7	36.8	0.08	1.90	1.75	8,423
Dust From Material Movement	—	—	—	—	3.34	1.22	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.35	3.02	0.01	0.16	0.14	692
Dust From Material Movement	—	—	—	—	0.27	0.10	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.61	0.55	< 0.005	0.03	0.03	115
Dust From Material Movement	—	—	—	—	0.05	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	0.97	0.00	0.26	0.06	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.81	0.35	< 0.005	0.17	0.05	672
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	< 0.005	21.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.07	0.03	< 0.005	0.01	< 0.005	55.2
Annual	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	3.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	9.15

3.7. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.52	14.1	17.7	0.03	0.58	0.54	3,299
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.16	1.45	< 0.005	0.05	0.04	271
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.27	< 0.005	0.01	0.01	44.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.44	0.50	6.08	0.00	1.64	0.38	1,605
Vendor	0.04	1.69	0.83	0.01	0.43	0.13	1,630
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.04	0.04	0.52	0.00	0.13	0.03	134
Vendor	< 0.005	0.14	0.07	< 0.005	0.03	0.01	134
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.02	0.01	22.2
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	22.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.44	13.3	17.6	0.03	0.51	0.47	3,299
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.44	13.3	17.6	0.03	0.51	0.47	3,299
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.87	13.0	0.02	0.38	0.35	2,440
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.80	2.37	< 0.005	0.07	0.06	404
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.42	0.38	6.62	0.00	1.64	0.38	1,659
Vendor	0.03	1.56	0.78	0.01	0.43	0.13	1,608
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.42	0.44	5.71	0.00	1.64	0.38	1,575

Vendor	0.03	1.63	0.80	0.01	0.43	0.13	1,604
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.31	0.32	4.39	0.00	1.20	0.28	1,182
Vendor	0.02	1.21	0.59	0.01	0.31	0.09	1,188
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.06	0.06	0.80	0.00	0.22	0.05	196
Vendor	< 0.005	0.22	0.11	< 0.005	0.06	0.02	197
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.95	8.90	12.4	0.02	0.40	0.37	1,895
Paving	0.52	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.49	0.68	< 0.005	0.02	0.02	104
Paving	0.03	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.12	< 0.005	< 0.005	< 0.005	17.2
Paving	0.01	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.05	0.05	0.68	0.00	0.20	0.05	188
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. 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	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.43	1.89	< 0.005	0.04	0.04	223
Architectural Coatings	70.5	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	< 0.005	13.1
Architectural Coatings	4.14	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	2.17
Architectural Coatings	0.76	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.08	0.09	1.14	0.00	0.33	0.08	315
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.02	< 0.005	18.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	3.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.39	1.88	< 0.005	0.03	0.03	223
Architectural Coatings	70.5	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.09	< 0.005	< 0.005	< 0.005	11.0
Architectural Coatings	3.48	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	1.82
Architectural Coatings	0.63	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.08	1.07	0.00	0.33	0.08	310
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.02	< 0.005	15.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.62	0.31	5.90	0.01	1.50	0.38	1,445
Manufacturing	1.38	0.68	13.1	0.03	3.33	0.85	3,211
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.28	13.6	6.52	0.13	4.62	1.37	14,847
Total	2.28	14.6	25.5	0.18	9.45	2.60	19,503
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.62	0.34	5.44	0.01	1.50	0.38	1,376
Manufacturing	1.38	0.76	12.1	0.03	3.33	0.85	3,059
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.27	14.1	6.55	0.13	4.62	1.37	14,815
Total	2.27	15.3	24.1	0.17	9.45	2.60	19,250
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.11	0.06	1.02	< 0.005	0.27	0.07	231
Manufacturing	0.25	0.14	2.26	0.01	0.60	0.15	514
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.05	2.61	1.19	0.02	0.83	0.25	2,455
Total	0.41	2.82	4.47	0.03	1.70	0.47	3,200

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	848
Manufacturing	—	—	—	—	—	—	998
Parking Lot	—	—	—	—	—	—	125
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	1,970
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	848
Manufacturing	—	—	—	—	—	—	998
Parking Lot	—	—	—	—	—	—	125
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	1,970
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	140
Manufacturing	—	—	—	—	—	—	165
Parking Lot	—	—	—	—	—	—	20.6

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	326

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.98	0.83	0.01	0.07	0.07	1,177
Manufacturing	0.07	1.25	1.05	0.01	0.10	0.10	1,499
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.12	2.24	1.88	0.01	0.17	0.17	2,676
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.98	0.83	0.01	0.07	0.07	1,177
Manufacturing	0.07	1.25	1.05	0.01	0.10	0.10	1,499
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.12	2.24	1.88	0.01	0.17	0.17	2,676
Annual	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.01	0.18	0.15	< 0.005	0.01	0.01	195
Manufacturing	0.01	0.23	0.19	< 0.005	0.02	0.02	248
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.41	0.34	< 0.005	0.03	0.03	443

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	6.41	—	—	—	—	—	—
Architectural Coatings	0.77	—	—	—	—	—	—
Landscape Equipment	2.14	0.11	13.0	< 0.005	0.02	0.02	53.7
Total	9.32	0.11	13.0	< 0.005	0.02	0.02	53.7
Daily, Winter (Max)	—	—	—	—	—	—	—
Consumer Products	6.41	—	—	—	—	—	—
Architectural Coatings	0.77	—	—	—	—	—	—
Total	7.18	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	1.17	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—
Landscape Equipment	0.27	0.01	1.63	< 0.005	< 0.005	< 0.005	6.09
Total	1.58	0.01	1.63	< 0.005	< 0.005	< 0.005	6.09

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	652
Manufacturing	—	—	—	—	—	—	371
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	1,023
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	652
Manufacturing	—	—	—	—	—	—	371
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	1,023
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	108
Manufacturing	—	—	—	—	—	—	61.4
Parking Lot	—	—	—	—	—	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	169

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	337
Manufacturing	—	—	—	—	—	—	255
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	592
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	337
Manufacturing	—	—	—	—	—	—	255
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	592

Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	55.8
Manufacturing	—	—	—	—	—	—	42.2
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	97.9

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	28.4
Total	—	—	—	—	—	—	28.4
Daily, Winter (Max)	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	28.4
Total	—	—	—	—	—	—	28.4
Annual	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	4.70
Total	—	—	—	—	—	—	4.70

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Forklifts	0.00	33.1	330	0.00	0.00	0.00	7,325
Total	0.00	33.1	330	0.00	0.00	0.00	7,325
Daily, Winter (Max)	—	—	—	—	—	—	—
Forklifts	0.00	33.1	330	0.00	0.00	0.00	7,325
Total	0.00	33.1	330	0.00	0.00	0.00	7,325
Annual	—	—	—	—	—	—	—
Forklifts	0.00	4.31	42.9	0.00	0.00	0.00	864
Total	0.00	4.31	42.9	0.00	0.00	0.00	864

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Fire Pump	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Total	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Daily, Winter (Max)	—	—	—	—	—	—	—
Fire Pump	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Total	0.39	1.09	1.00	< 0.005	0.06	0.06	200
Annual	—	—	—	—	—	—	—
Fire Pump	0.01	0.03	0.02	< 0.005	< 0.005	< 0.005	4.55
Total	0.01	0.03	0.02	< 0.005	< 0.005	< 0.005	4.55

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/1/2025	11/26/2025	6.00	75.0	—
Site Preparation	Site Preparation	9/30/2025	10/10/2025	6.00	10.0	—
Grading	Grading	10/15/2025	11/18/2025	6.00	30.0	—
Building Construction	Building Construction	11/27/2025	11/11/2026	6.00	300	—
Paving	Paving	11/12/2026	12/4/2026	6.00	20.0	—
Architectural Coating	Architectural Coating	12/7/2026	1/21/2027	6.00	40.0	—

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
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	10.0	367	0.40
Demolition	Excavators	Diesel	Average	3.00	10.0	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	10.0	33.0	0.73
Demolition	Crushing/Proc. Equipment	Diesel	Average	1.00	10.0	200	0.60
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	10.0	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	0.00	10.0	84.0	0.37
Site Preparation	Crawler Tractors	Diesel	Average	4.00	10.0	87.0	0.43

Grading	Graders	Diesel	Average	1.00	10.0	148	0.41
Grading	Excavators	Diesel	Average	2.00	10.0	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	0.00	10.0	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	10.0	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	10.0	367	0.40
Grading	Crawler Tractors	Diesel	Average	2.00	10.0	87.0	0.43
Building Construction	Forklifts	Diesel	Average	3.00	10.0	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	10.0	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	10.0	367	0.29
Building Construction	Welders	Diesel	Average	1.00	10.0	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	10.0	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	10.0	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	10.0	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	10.0	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	10.0	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
Demolition	—	—	—	—
Demolition	Worker	17.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	8.67	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2

Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	9.17	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	126	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	49.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	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	25.1	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	448,482	149,494	10,350

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	2,600	—
Site Preparation	—	—	43.8	0.00	—
Grading	2,200	—	150	0.00	—
Paving	0.00	0.00	0.00	0.00	3.96

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Manufacturing	0.00	0%
Parking Lot	3.42	100%
Other Asphalt Surfaces	0.54	100%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005
2027	0.00	346	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	211	211	211	76,974	2,135	2,135	2,135	779,323
Manufacturing	469	469	469	171,075	4,745	4,745	4,745	1,732,062
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	164	164	164	60,022	5,029	5,029	5,029	1,835,754

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	448,482	149,494	10,350

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	889,213	346	0.0330	0.0040	3,662,236
Manufacturing	1,045,608	346	0.0330	0.0040	4,665,412
Parking Lot	130,502	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	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	43,934,725	1,078,925
Manufacturing	25,206,250	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	179	—
Manufacturing	135	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	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
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088	0.30	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	CNG	Average	30.0	10.0	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
Fire Pump	Diesel	1.00	1.00	50.0	238	0.73

5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	13.1	annual days of extreme heat
Extreme Precipitation	4.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	53.7
AQ-PM	82.8
AQ-DPM	73.9
Drinking Water	54.8
Lead Risk Housing	80.7

Pesticides	19.7
Toxic Releases	99.4
Traffic	36.7
Effect Indicators	—
CleanUp Sites	99.4
Groundwater	69.8
Haz Waste Facilities/Generators	99.2
Impaired Water Bodies	0.00
Solid Waste	92.9
Sensitive Population	—
Asthma	29.8
Cardio-vascular	33.7
Low Birth Weights	12.4
Socioeconomic Factor Indicators	—
Education	90.2
Housing	68.1
Linguistic	79.0
Poverty	77.3
Unemployment	47.0

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	21.77595278
Employed	57.44899269
Median HI	51.13563454
Education	—

Bachelor's or higher	35.41639933
High school enrollment	25.49724111
Preschool enrollment	91.3383806
Transportation	—
Auto Access	76.73553189
Active commuting	75.70896959
Social	—
2-parent households	64.16014372
Voting	14.57718465
Neighborhood	—
Alcohol availability	21.66046452
Park access	33.44026691
Retail density	93.55832157
Supermarket access	69.35711536
Tree canopy	10.31695111
Housing	—
Homeownership	28.53843193
Housing habitability	23.18747594
Low-inc homeowner severe housing cost burden	95.8937508
Low-inc renter severe housing cost burden	42.83331195
Uncrowded housing	1.552675478
Health Outcomes	—
Insured adults	6.505838573
Arthritis	75.7
Asthma ER Admissions	72.6
High Blood Pressure	75.3
Cancer (excluding skin)	80.0
Asthma	27.9

Coronary Heart Disease	63.8
Chronic Obstructive Pulmonary Disease	33.2
Diagnosed Diabetes	47.0
Life Expectancy at Birth	27.4
Cognitively Disabled	58.3
Physically Disabled	94.1
Heart Attack ER Admissions	70.7
Mental Health Not Good	21.9
Chronic Kidney Disease	64.9
Obesity	37.0
Pedestrian Injuries	59.3
Physical Health Not Good	27.6
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	21.6
Current Smoker	18.3
No Leisure Time for Physical Activity	22.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	7.8
Elderly	96.9
English Speaking	14.4
Foreign-born	71.1
Outdoor Workers	10.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	4.8
Traffic Density	41.8

Traffic Access	56.5
Other Indices	—
Hardship	88.2
Other Decision Support	—
2016 Voting	48.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	76.0
Healthy Places Index Score for Project Location (b)	44.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	Adjusted lot acreage to match site plan provided by client. Warehousing land use incorporates warehousing (171,188 SF) and office space uses (18,800 SF) .

Construction: Off-Road Equipment	Assumed all construction will be utilized 10 hours per work day as provided by client. Replaced Tractors/Loaders/Backhoes with Crawler Tractors in the Site Preparation and Grading Phases.
Operations: Vehicle Data	Adjusted trip rate to match ITE 11th edition trip rate for Warehousing and Manufacturing trips. Truck trips were applied to the User Defined Industrial land use, with 2 axle trucks applied to Non Res H-W (length and percentage), 3 axle trucks applied to Non Res W-O, and 4+ axle trucks applied to Non Res O-O.
Construction: Construction Phases	Adjusted construction schedule per schedule provided by the client, increased Demo phase from 20 days to 75 days. Architectural coating phase was extended from 20 days to 40 days to account for size of building facade. Construction Days/week was increased from 5 days to 6 days as provided by client.
Operations: Fleet Mix	Vehicle splits were normalized using CalEEMod defaults and the Project's operational trip generation, User Defined Industrial was utilized to analyze 100% of trucks (HHDT, MHDT, LHDT1, LHDT2), unrefrigerated warehouse and manufacturing defaults were normalized using the CalEEMod defaults to analyze 100% passenger vehicles only (LDA, LDT1, LDT2, MCY, MDV).
Operations: Off-Road Equipment	Added 30 CNG forklifts based on the SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results of 1 forklift per 10,000.
Construction: Off-Road Equipment EF	Crushing/processing equipment emission factors were acquired from CARB Off-Road emission factor model.

ATTACHMENT C: EXISTING CALEEMOD OUTPUT SHEETS

24-092 2411 Glassell Street Existing Detailed Report

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4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-092 2411 Glassell Street Existing
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	21.2
Location	33.82847944008719, -117.85153138386951
County	Orange
City	Orange
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6813
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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
Office Park	191	1000sqft	2.37	191,127	0.00	—	—	—
Parking Lot	675	Space	6.07	0.00	0.00	—	—	—

Other Asphalt Surfaces	3.65	Acre	3.65	0.00	0.00	—	—	—
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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.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	13.7	9.46	69.4	0.17	15.2	4.13	22,405
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	12.2	9.81	56.8	0.16	15.2	4.12	21,729
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	10.6	5.78	47.9	0.12	11.2	2.99	17,595
Annual (Max)	—	—	—	—	—	—	—
Unmit.	1.93	1.05	8.73	0.02	2.05	0.55	2,913
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	10,000
Unmit.	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	6.41	4.81	57.0	0.15	14.9	3.85	15,907
Area	6.01	0.07	8.31	< 0.005	0.01	0.01	34.3
Energy	0.07	1.30	1.09	0.01	0.10	0.10	5,027
Water	—	—	—	—	—	—	500
Waste	—	—	—	—	—	—	335
Refrig.	—	—	—	—	—	—	0.46
Stationary	1.17	3.27	2.99	0.01	0.17	0.17	601
Total	13.7	9.46	69.4	0.17	15.2	4.13	22,405
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	6.36	5.23	52.7	0.15	14.9	3.85	15,265
Area	4.64	—	—	—	—	—	—
Energy	0.07	1.30	1.09	0.01	0.10	0.10	5,027
Water	—	—	—	—	—	—	500
Waste	—	—	—	—	—	—	335
Refrig.	—	—	—	—	—	—	0.46
Stationary	1.17	3.27	2.99	0.01	0.17	0.17	601
Total	12.2	9.81	56.8	0.16	15.2	4.12	21,729
Average Daily	—	—	—	—	—	—	—
Mobile	4.75	3.98	40.7	0.11	11.1	2.86	11,627
Area	5.58	0.05	5.69	< 0.005	0.01	0.01	23.5
Energy	0.07	1.30	1.09	0.01	0.10	0.10	5,027
Water	—	—	—	—	—	—	500
Waste	—	—	—	—	—	—	335
Refrig.	—	—	—	—	—	—	0.46

Stationary	0.16	0.45	0.41	< 0.005	0.02	0.02	82.4
Total	10.6	5.78	47.9	0.12	11.2	2.99	17,595
Annual	—	—	—	—	—	—	—
Mobile	0.87	0.73	7.42	0.02	2.02	0.52	1,925
Area	1.02	0.01	1.04	< 0.005	< 0.005	< 0.005	3.89
Energy	0.01	0.24	0.20	< 0.005	0.02	0.02	832
Water	—	—	—	—	—	—	82.8
Waste	—	—	—	—	—	—	55.5
Refrig.	—	—	—	—	—	—	0.08
Stationary	0.03	0.08	0.07	< 0.005	< 0.005	< 0.005	13.6
Total	1.93	1.05	8.73	0.02	2.05	0.55	2,913

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Office Park	6.41	4.81	57.0	0.15	14.9	3.85	15,907
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.41	4.81	57.0	0.15	14.9	3.85	15,907
Daily, Winter (Max)	—	—	—	—	—	—	—
Office Park	6.36	5.23	52.7	0.15	14.9	3.85	15,265
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.36	5.23	52.7	0.15	14.9	3.85	15,265
Annual	—	—	—	—	—	—	—
Office Park	0.87	0.73	7.42	0.02	2.02	0.52	1,925
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.87	0.73	7.42	0.02	2.02	0.52	1,925

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	3,249
Parking Lot	—	—	—	—	—	—	221
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	3,470
Daily, Winter (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	3,249
Parking Lot	—	—	—	—	—	—	221
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	3,470
Annual	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	538
Parking Lot	—	—	—	—	—	—	36.6

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	575

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Office Park	0.07	1.30	1.09	0.01	0.10	0.10	1,557
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	1.30	1.09	0.01	0.10	0.10	1,557
Daily, Winter (Max)	—	—	—	—	—	—	—
Office Park	0.07	1.30	1.09	0.01	0.10	0.10	1,557
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	1.30	1.09	0.01	0.10	0.10	1,557
Annual	—	—	—	—	—	—	—
Office Park	0.01	0.24	0.20	< 0.005	0.02	0.02	258
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.24	0.20	< 0.005	0.02	0.02	258

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	4.12	—	—	—	—	—	—
Architectural Coatings	0.52	—	—	—	—	—	—
Landscape Equipment	1.37	0.07	8.31	< 0.005	0.01	0.01	34.3
Total	6.01	0.07	8.31	< 0.005	0.01	0.01	34.3
Daily, Winter (Max)	—	—	—	—	—	—	—
Consumer Products	4.12	—	—	—	—	—	—
Architectural Coatings	0.52	—	—	—	—	—	—
Total	4.64	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.75	—	—	—	—	—	—
Architectural Coatings	0.09	—	—	—	—	—	—
Landscape Equipment	0.17	0.01	1.04	< 0.005	< 0.005	< 0.005	3.89
Total	1.02	0.01	1.04	< 0.005	< 0.005	< 0.005	3.89

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	500
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	500
Daily, Winter (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	500

Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	500
Annual	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	82.8
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	82.8

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	335
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	335
Daily, Winter (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	335
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	335
Annual	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	55.5

Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	55.5

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	0.46
Total	—	—	—	—	—	—	0.46
Daily, Winter (Max)	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	0.46
Total	—	—	—	—	—	—	0.46
Annual	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	0.08
Total	—	—	—	—	—	—	0.08

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Emergency Generator	1.17	3.27	2.99	0.01	0.17	0.17	601
Total	1.17	3.27	2.99	0.01	0.17	0.17	601
Daily, Winter (Max)	—	—	—	—	—	—	—
Emergency Generator	1.17	3.27	2.99	0.01	0.17	0.17	601
Total	1.17	3.27	2.99	0.01	0.17	0.17	601
Annual	—	—	—	—	—	—	—
Emergency Generator	0.03	0.08	0.07	< 0.005	< 0.005	< 0.005	13.6
Total	0.03	0.08	0.07	< 0.005	< 0.005	< 0.005	13.6

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

Total	—	—	—	—	—	—	—
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4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Office Park	2,072	422	134	569,153	20,976	4,277	1,355	5,762,416
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	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	286,691	95,564	25,417

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)
Office Park	3,405,938	346	0.0330	0.0040	4,844,394

Parking Lot	231,813	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	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)
Office Park	33,969,718	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Office Park	178	—
Parking Lot	0.00	—
Other Asphalt Surfaces	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
Office Park	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Office Park	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
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	3.00	1.00	50.0	238	0.73

5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	13.1	annual days of extreme heat
Extreme Precipitation	4.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	53.7
AQ-PM	82.8
AQ-DPM	73.9
Drinking Water	54.8
Lead Risk Housing	80.7
Pesticides	19.7
Toxic Releases	99.4
Traffic	36.7
Effect Indicators	—
CleanUp Sites	99.4
Groundwater	69.8
Haz Waste Facilities/Generators	99.2
Impaired Water Bodies	0.00
Solid Waste	92.9
Sensitive Population	—
Asthma	29.8
Cardio-vascular	33.7
Low Birth Weights	12.4
Socioeconomic Factor Indicators	—
Education	90.2
Housing	68.1
Linguistic	79.0

Poverty	77.3
Unemployment	47.0

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	21.77595278
Employed	57.44899269
Median HI	51.13563454
Education	—
Bachelor's or higher	35.41639933
High school enrollment	25.49724111
Preschool enrollment	91.3383806
Transportation	—
Auto Access	76.73553189
Active commuting	75.70896959
Social	—
2-parent households	64.16014372
Voting	14.57718465
Neighborhood	—
Alcohol availability	21.66046452
Park access	33.44026691
Retail density	93.55832157
Supermarket access	69.35711536
Tree canopy	10.31695111
Housing	—
Homeownership	28.53843193

Housing habitability	23.18747594
Low-inc homeowner severe housing cost burden	95.8937508
Low-inc renter severe housing cost burden	42.83331195
Uncrowded housing	1.552675478
Health Outcomes	—
Insured adults	6.505838573
Arthritis	75.7
Asthma ER Admissions	72.6
High Blood Pressure	75.3
Cancer (excluding skin)	80.0
Asthma	27.9
Coronary Heart Disease	63.8
Chronic Obstructive Pulmonary Disease	33.2
Diagnosed Diabetes	47.0
Life Expectancy at Birth	27.4
Cognitively Disabled	58.3
Physically Disabled	94.1
Heart Attack ER Admissions	70.7
Mental Health Not Good	21.9
Chronic Kidney Disease	64.9
Obesity	37.0
Pedestrian Injuries	59.3
Physical Health Not Good	27.6
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	21.6
Current Smoker	18.3
No Leisure Time for Physical Activity	22.8

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	7.8
Elderly	96.9
English Speaking	14.4
Foreign-born	71.1
Outdoor Workers	10.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	4.8
Traffic Density	41.8
Traffic Access	56.5
Other Indices	—
Hardship	88.2
Other Decision Support	—
2016 Voting	48.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	76.0
Healthy Places Index Score for Project Location (b)	44.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	Adjusted lot acreage to match site plan provided by client.
Operations: Vehicle Data	Adjusted trip rate to match ITE 11th Edition weekday, Saturday, and Sunday trip rates for 710-General Office Building.

ATTACHMENT D: FUEL CALCULATIONS

Model Output: Off-Road Web Query (v1.1.0) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

Calendar Year: 2025

<- Construction Start Year

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: Off-Road Web Query Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	VehClass	MdlYr	HP_Bin	Fuel	gallons/year Fuel Consumption	hp-hr/years Horsepower Hours	Fuel Rate
Orange (SC)		2025 Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	276006.4278	5206453.899	0.053012364
Orange (SC)		2025 Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	776069.4615	15371284.39	0.050488264
Orange (SC)		2025 Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	42008.10355	829518.1094	0.050641575
Orange (SC)		2025 Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	2472268.776	48272271.9	0.051215091
Orange (SC)		2025 Construction and Mining - Graders	Aggregate	Aggregate	Diesel	361787.1055	7019636.826	0.051539291
Orange (SC)		2025 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	4784.250000	114186.600000	0.041898524
Orange (SC)		2025 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	159155.3041	3089402.246	0.051516537
Orange (SC)		2025 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	176539.5842	3450374.845	0.051165335
Orange (SC)		2025 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	420758.3256	8000475.438	0.052591665
Orange (SC)		2025 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	90349.33257	1903903.598	0.047454783
Orange (SC)		2025 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	931851.2355	19376972.52	0.048090652
Orange (SC)		2025 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	2418321.222	45524953.55	0.053120784
Orange (SC)		2025 Industrial - Forklifts	Aggregate	Aggregate	Diesel	1266313.687	23778771.34	0.053253958
Orange (SC)		2025 Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	98023.00478	3334519.55	0.02939644
Orange (SC)		2025 Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	413654.2521	5987087.7	0.069091063
Orange (SC)		2025 Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	CNG	40124.45	534290.65	0.075098544
Orange (SC)		2025 Light Commercial - Misc - Pumps	Aggregate	Aggregate	Diesel	230746.7662	3504547.5	0.0658421
Orange (SC)		2025 Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	494376.1267	16349430.4	0.030238125

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

Calendar Year: 2027

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVM Calendar Year

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate
Orange (SC)		2025 MHDT	Aggregate	Aggregate	Diesel	1160618.703	129.2771257	8.98
Orange (SC)		2025 HHDT	Aggregate	Aggregate	Diesel	1281007.926	211.237609	6.06
Orange (SC)		2025 LHDT1	Aggregate	Aggregate	Diesel	951494.9678	45.63388289	20.85
Orange (SC)		2025 LHDT2	Aggregate	Aggregate	Diesel	407866.7845	23.15667142	17.61
							Average MGP From Vehicle Splits	7.478261378

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

Calendar Year: 2027

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate
Orange (SC)		2025 LDA	Aggregate	Aggregate	Gasoline	41885606.83	1364.761186	30.69
Orange (SC)		2025 LDT1	Aggregate	Aggregate	Gasoline	3443415.123	134.366068	25.63
Orange (SC)		2025 LDT2	Aggregate	Aggregate	Gasoline	21568112.97	860.9716631	25.05
Orange (SC)		2025 MCY	Aggregate	Aggregate	Gasoline	325908.2941	7.696840101	42.34
Orange (SC)		2025 MDV	Aggregate	Aggregate	Gasoline	12660247.41	622.3110176	20.34
Orange (SC)		2025 LHDT1	Aggregate	Aggregate	Gasoline	1660486.368	115.6151536	14.36
Orange (SC)		2025 LHDT2	Aggregate	Aggregate	Gasoline	250352.8675	19.99612697	12.52
							Average MGP From Vehicle Splits	29.08

ATTACHMENT E: ROCK CRUSHING CALCULATIONS

Model Output: Off-Road Web Query (v1.1.0) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

Calendar Year: 2025

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

goal g/bhp-hr

Region	Calendar Y	Vehicle Category	Model Year	Horsepow	Fuel	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	Fuel Cons	Total_Acti	Total_Pop	Horsepower_Hours_hhpy
Orange (SC)	2025	Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	0.000354445	0.000421818	0.00370346	0.00196026	1.292748977	7.65902E-05	7.0463E-05	1.2246E-05	42008.1	9151.199	15.53035	829518.1094
Orange (SC)	2025	Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	13.39800549	15.9447338	139.990772	74.09783408	48865.91133	2.895108759	2.663500058	0.462897303				
						grams/hour											
						tons/day											
						g/day											
						g/day	321.5521317	382.6736112	3359.778528	1778.348018	1172781.872	69.48261021	63.9240014	11.10953526			
						g/day											
						g/bhp-hr	0.143449998	0.170717353	1.49885563	0.793351977	523.1983884	0.030997401	0.028517609	0.004956157			
						g/bhp-hr	0.143449998	0.170717353	1.49885563	0.793351977	523.1983884	0.030997401	0.028517609	0.004956157			

tons to grams
x 907200

bhp to hp
x 0.98632

days to hours
x 24

hp-hr/year bhp-hr/ye. bhp-hr/day
829518.1 818170.3 2241.562

load factor
0.6