Appendix 6.6-1: Energy Assessment

Kimley»Horn

MEMORANDUM

To: Rita Garcia, Kimley-Horn and Associates

From: Danielle Millar, Kimley-Horn and Associates

Date: February 15, 2024

Subject: 1610 West Artesia Boulevard Project – Energy Assessment

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1.0 Purpose

The purpose of this technical memorandum is to evaluate potential short- and long-term energy consumption of the 1610 West Artesia Boulevard Project (Project) and determine the Project's potential direct and indirect environmental impacts. Such impacts include the depletion of nonrenewable resources and emissions of pollutants during both construction and long-term operational phases.

Technical data from the *1610 Artesia Boulevard Project Air Quality Technical Report* (AQ Report) (CAJA Environmental Services, November 2023) and the *1610 Artesia Boulevard Project Greenhouse Gas Technical Report* (GHG Report) (CAJA Environmental Services, February 2024) are included in Appendix A: Modeling Data.

2.0 Project Location

The approximately 3.43-acre Project site is located in the County of Los Angeles (County), in the City of Gardena (City), California, at 1610 West Artesia Boulevard. The Project site is comprised of one parcel (APN 6106-013-049) along West Artesia Boulevard generally situated between South Normandie Avenue and South Western Avenue. The Project site is located in an urbanized area with surrounding industrial, commercial, and residential land uses.

3.0 Project Description

The Project proposes a multi-family residential development with 300 apartment units (283 market rate units and 17 affordable units) in a six-story, podium apartment building. Various apartment types (i.e., studios, and one- and two-bedroom units ranging from 515 square feet to 1,280 square feet) are proposed on levels two to six, with various amenities (i.e., two pools, clubhouse, courtyard, fitness center, spa, golf lounge, and business center) on the podium level and a lounge and deck on the roof. Additionally, 507 onsite parking spaces in an on-grade parking garage with one subterranean level are proposed. The building's proposed height is 84.5 feet. Additionally, the Project proposes approximately 49,701 SF of open space, including approximately 19,597 SF of private open space and approximately 30,104 SF of common open space.

The Project proposes to demolish the existing onsite land uses (i.e., two, one-story commercial and industrial buildings totaling approximately 39,510 square feet (SF), an associated surface parking lot, and landscaping) and replace these with the proposed residential development.

Construction

Project construction is proposed to occur over approximately 27 months beginning Summer 2024 and ending Fall 2026. Approximately 60,000 cubic yards (cy) of export is anticipated.

4.0 Environmental Setting

California's Energy Use and Supply

Californians consumed 287,826 gigawatt hours (GWh) of electricity in 2022, which is the most recent year for which data is available.[1] Of this total, Los Angeles County consumed 68,485 GWh.[2] In 2022, the California electricity mix included natural gas (47.46 percent), coal (0.13 percent), large hydroelectric plants (7.19 percent), nuclear (8.67 percent), oil (0.03 percent), petroleum coke/waste heat (0.15 percent) and unspecified sources of power (N/A). The remaining 36.37 percent was supplied from renewable resources, such as wind, solar, geothermal, biomass, and small hydroelectric facilities.[3] In 2019, the state consumed 2,584,530 million cubic feet of natural gas.

Energy consumption is typically quantified using the British Thermal Unit (BTU). Total energy consumption in California was 7,387.9 trillion BTUs in 2021 (the most recent year for which this specific data is available).[4] Of California's total energy consumption, the breakdown by sector is 41.2 percent transportation, 23.6 percent industrial, 17.1 percent commercial, and 18.2 percent residential.[5] Electricity and natural gas in California are generally consumed by stationary users such as residences, commercial, and industrial facilities, whereas petroleum is generally consumed by transportation-related uses.

Electricity and Natural Gas Services

Southern California Edison (SCE) provides electrical services to the City through State-regulated public utility contracts. Over the past 15 years, electricity generation in California has undergone a transition. Historically, California has relied heavily on oil- and gas-fired plants to generate electricity. Spurred by regulatory measures and tax incentives, California's electrical system has become more reliant on renewable energy sources; including cogeneration, wind energy, solar energy, geothermal energy, biomass conversion, transformation plants, and small hydroelectric plants. Unlike petroleum

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1 California Energy Commission, *Electricity Consumption by County*, http://www.ecdms.energy.ca.gov/, accessed December 2023.

2 Ibid.

3 California Energy Commission, 2022 Total System Electric Generation, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2022-total-system-electric-generation, accessed January 2024.

4 U.S. Energy Information Administration, *Table F35: Total Energy Consumption, Price, and Expenditure Estimates, 2021,* https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_te.html&sid=CA, accessed December 2023.

5 U.S. Energy Information Administration, *California State Profile and Energy Estimates*, *California Energy Consumption by End-Use Sector, 2021*, https://www.eia.gov/state/?sid=CA#tabs-2, accessed December 2023.

production, electricity generation is not usually tied to the fuel source's location and can be delivered great distances via the electrical grid.

The generating capacity of a unit of electricity is expressed in megawatts (MW). Net generation refers to the gross amount of energy produced by a unit minus the amount of energy the unit consumes. Generation is typically measured in megawatt-hours (MWh), kilowatt-hours (kWh), or GWh.

Table 1: Electricity Consumption in Los Angeles County 2012-2022 shows the County's electricity consumption between 2012 and 2022. As indicated in Table 1, the County's electricity consumption generally decreased between 2012 and 2020, but steadily increased between 2020 and 2022.

Table 1: Electricity Consumption Los Angeles 2012-2022

Year	Electricity Consumption (in millions of kilowatt hours)
2012	69,168
2013	68,280
2014	69,860
2015	69,461
2016	69,365
2017	68,591
2018	67,834
2019	66,742
2020	65,566
2021	66,003
2022	68,485

Source: California Energy Commission, *Electricity Consumption by County*, http://www.ecdms.energy.ca.gov/, accessed December 2023.

The Southern California Gas Company (SoCalGas) provides natural gas services to the City. Natural gas is a hydrocarbon fuel found in reservoirs beneath the Earth's surface and is composed primarily of methane (CH_4). It is used for space and water heating, process heating and electricity generation, and as transportation fuel. Use of natural gas to generate electricity is expected to increase in coming years because it is a relatively clean alternative to other fossil fuels (e.g., oil and coal). In California and throughout the western United States, many new electrical generation plants fired by natural gas are being brought online. Thus, there is great interest in importing liquefied natural gas from other parts of the world. California's natural gas-fired electric generation decreased by approximately 3 percent in 2022, accounting for 47.46 percent of in-state generation.[6]

Natural gas (methane) is measured in volume (cubic meters or cubic feet) at the resource well. One cubic foot of natural gas is the volume of gas contained in 1 cubic foot, at standard temperature and pressure. One therm of natural gas equals 100 cubic feet of natural gas (CCF).

[6] California Energy Commission, *2022 Total System Electric Generation*, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2022-total-system-electric-generation, accessed January 2024.

Table 2: Natural Gas Consumption in Los Angeles County 2012-2022 shows the County's natural gas consumption between 2012 and 2022. As indicated in **Table 2**, the County's natural gas consumption generally decreased between 2012 and 2015 but has fluctuated since 2016, peaking in 2019.

Table 2: Natural Gas Consumption in Los Angeles County 2012-2022

Year	Natural Gas Consumption (in millions of therms)
2012	2,985
2013	3,065
2014	2,794
2015	2,761
2016	2,878
2017	2,956
2018	2,922
2019	3,048
2020	2,937
2021	2,883
2022	2,820

Source: California Energy Commission, *Natural Gas Consumption by County*, http://www. ecdms.energy.ca.gov/, accessed December 2023.

The City's ongoing development review process includes a review and comment opportunity for privately owned utility companies and to provide input on all development proposals. The input facilitates a detailed review of projects by service purveyors to assess the potential demands for utility services on a project-by-project basis. The ability of utility providers to provide services concurrently with each project is evaluated during the development review process. Utility companies are bound by contract to update energy systems to meet any additional demand.

Transportation Fuel

California's transportation sector uses roughly 41 percent of the energy consumed in the State. In 2023, Californians consumed approximately 14.3 billion gallons of gasoline and 3.2 billion gallons of diesel fuel.[7] In 2022, taxable gasoline sales (including aviation gasoline) in California accounted for 13,919,678,835 gallons of gasoline.[8]

Table 3: Automotive Fuel Consumption in Los Angeles County 2012-2022 shows the County's automotive fuel consumption between 2012 and 2022. As shown in Table 3, the County's on-road automotive fuel consumption increased annually between 2012 and 2016 but decreased between 2016 and 2022 with a slight increase in 2021. As also shown in Table 3, the County's heavy-duty vehicle/diesel fuel consumption generally increased annually between 2012 and 2017 but decreased between 2018 and 2020 with annual increases in 2021 and 2022.

[7] California Air Resources Board, EMFAC2021.

[8] California Department of Tax and Fee Administration, *January 2022 – Motor Vehicle Fuel 10 Year Reports*, https://www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed December 2023.

Table 3: Automotive Fuel Consumption in Los Angeles County 2012-2022		
Year	**On-Road Automotive Fuel Consumption (gallons)**	**Heavy-Duty Vehicle/Equipment Diesel Fuel Consumption (gallons)**
2012	3,714,743,617	430,477,995
2013	3,720,160,331	453,247,552
2014	3,754,124,477	457,345,104
2015	3,864,098,889	462,749,587
2016	3,990,292,164	489,895,770
2017	3,961,448,725	506,904,226
2018	3,914,668,171	494,484,395
2019	3,844,847,561	492,605,543
2020	3,381,588,164	491,579,947
2021	3,816,162,983	507,214,212
2022	3,774,778,086	516,229,424
Source: California Air Resources Board, EMFAC2021.		

5.0 Regulatory Setting

The following is a description of Federal, State, and local environmental laws and policies related to energy consumption that are relevant to the proposed Project.

5.1 State of California

Energy Conservation

In 1975, largely in response to the oil crisis of the 1970s, the California State Legislature adopted Assembly Bill 1575 (AB 1575), which created the California Energy Commission (CEC). The CEC's statutory mission is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require Environmental Impact Reports (EIRs) to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project.

Thereafter, the State Resources Agency created Appendix F, *Energy Conservation*, in the California Environmental Quality Act Guidelines (CEQA Guidelines). CEQA Guidelines Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. In addition, the California Natural Resources Agency finalized updates to the CEQA Guidelines in December 2018. New CEQA Guidelines Section 15126.2(b) treats "wasteful, inefficient, or unnecessary" energy consumption as a significant environmental impact. As a result, energy thresholds have been incorporated into State CEQA Guidelines Appendix G. This technical memorandum has been prepared to assess energy impacts in accordance with State CEQA Guidelines Appendix G.

California Code of Regulations (California Building Standards Code) Title 24

California Code of Regulations Title 24, also known as the California Building Standards Code, includes regulations for how buildings are designed and constructed. Title 24 is comprised of 12 "Parts." The Title 24 Parts relevant to energy (i.e., Parts 6 and 11) are described below.

Title 24 Part 6 - California Energy Code. The California Energy Code contains energy conservation standards applicable to all residential and non-residential buildings throughout California. Title 24 requires the design of building shells and building components to conserve energy. The California Energy Resources Conservation and Development Commission (now the California Energy Commission [CEC]) adopted energy conservation standards for new residential and nonresidential buildings in June 1977 and updates the standards every three years to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the CEC adopted the 2016 Building Energy Efficiency Standards, which took effect on January 1, 2017. On May 9, 2018, the CEC adopted the 2019 Building Energy Efficiency Standards, which took effect on January 1, 2020. On August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards, which took effect on January 1, 2023.

The 2016 Standards improved upon the 2013 Standards for new construction of and additions and alterations to residential and nonresidential buildings. Under the 2016 Standards, residential buildings are 28 percent more energy efficient and nonresidential buildings are 5 percent more energy efficient than under the 2013 Standards. Buildings that are constructed in accordance with the 2013 Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the prior 2008 Standards as a result of better windows, insulation, lighting, ventilation systems, and other features.

The 2019 Standards improved upon the 2016 Standards. Under the 2019 Standards, residential buildings are about 7 percent more energy efficient, and when the required rooftop solar is factored in for low-rise residential construction, residential buildings that meet the 2019 Standards use approximately 53 percent less energy than those built to meet the 2016 Standards.

The 2022 Standards improved upon the 2019 Standards. The 2022 Standards for newly constructed residential and commercial buildings encourage electric heat pump technology for space and water heating, electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options, expand solar PV system and battery storage standards, and strengthen ventilation standards to improve indoor air quality.

Title 24 - Part 11 - California Green Building Standards (CALGreen Code). The CALGreen Code is intended to improve public health, safety, and public welfare through sustainable construction practices. The CALGreen Code is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary measures (CALGreen Tier 1 and Tier 2) that local governments may adopt which encourage or require additional measures in the five green building

topical areas. The State adopted the most recent update to the CALGreen Code in 2022 and it took effect January 1, 2023.

California Public Utilities Commission Energy Efficiency Strategic Plan

The California Public Utilities Commission (CPUC) prepared an Energy Efficiency Strategic Plan in 2011 with the goal of promoting energy efficiency and a reduction in greenhouse gases. Assembly Bill 1109, adopted in 2007, also serves as a framework for lighting efficiency. This bill requires the State Energy Resources Conservation and Development Commission to adopt minimum energy efficiency standards as a means to reduce average Statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018. According to the Energy Efficiency Strategic Plan, lighting comprises approximately one-fourth of California's electricity use while non-residential sector exterior lighting (parking lot, area, walkway, and security lighting) usage comprises 1.4 percent of California's total electricity use, much of which occurs during limited occupancy periods.

Renewable Portfolio Standard

In 2002, California established its Renewable Portfolio Standard program with the goal of increasing the annual percentage of renewable energy in the state's electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (Public Utilities Code Section 399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the California Air Resources Board (CARB) under its AB 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, CARB adopted its Renewable Electricity Standard regulations, which require all of the State's load-serving entities to meet this target. In October 2015, then-Governor Brown signed into legislation Senate Bill 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, SB 100 revised the program's goal to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Under SB 100, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

5.2 City of Gardena

City of Gardena General Plan

The Gardena 2006 General Plan (General Plan) Community Resource Element provides a Conservation Plan with the following goals and policies for treatment of energy resources:

- CN Goal 4: Conserve energy resources through the use of technology and conservation methods

- Policy CN 4.1: Encourage innovative building designs that conserve and minimize energy consumption.
- Policy CN 4.2: Require compliance with Title 24 regulations to conserve energy.

City of Gardena Climate Action Plan

The City adopted the City of Gardena Climate Action Plan (Gardena CAP) in December 2017 as a joint effort between Gardena and the South Bay Cities Council of Governments. The CAP is a guide to reduce greenhouse gas (GHG) emissions based on the AB 32 Scoping Plan by identifying goals and strategies at the local level to help the State meet long-term GHG emission reduction goals. These strategies are separated into five main categories including Land Use and Transportation, Energy Efficiency, Energy Generation, Solid Waste, and Urban Greening. The goals and strategies applicable to the Project are listed below:

- **Goal LUT: B – Encourage Ride Sharing**
  - Sub-strategy LUT: B1.2 Facilitate ride-hailing and ride-sharing.
- **Goal LUT: D – Adopt Active Transportation Initiatives**
  - Sub-strategy LUT: D2.2 Require new developments to provide pedestrian, bicycle, and transit amenities.
  - Sub-strategy LUT: D2.3 Require commercial and multi-family residential projects to provide permanent bicycle parking facilities.
- **Goal LUT: E – Parking Strategies**
  - Sub-strategy LUT: E2.2 Encourage developers of new development to unbundle parking and eliminate the assignment of specific stalls.
- **Goal LUT: G – Land Use Strategies**
  - Sub-strategy LUT: G1.1 Encourage higher density through general plan appropriately in targeted areas.
  - Sub-strategy LUT: G1.2 Encourage higher density through zoning code appropriately in targeted areas.
  - Sub-strategy LUT: G1.3 Increase housing density near transit.
- **Goal EE: E – Increase Energy Efficiency Through Water Efficiency**
  - Sub-strategy EE: E1.2 Require low-irrigation landscaping.

6.0 Significance Criteria, Thresholds, and Methodology

In accordance with the State CEQA Guidelines, the effects of a project are evaluated to determine whether they would result in a significant adverse impact on the environment. This memorandum will focus on these effects and offer mitigation measures to reduce or avoid any significant impacts that

are identified. The criteria used to determine the significance of impacts may vary depending on the nature of the project. According to State CEQA Guidelines Appendix G, the proposed Project would have a significant energy-related impact, if it would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation; and/or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

The impact analysis focuses on the three sources of energy consumption that are relevant to the proposed Project: electricity, natural gas, and fuel (i.e., for Project construction and operations). The Project's electricity, natural gas, and fuel consumption was determined from the California Emissions Estimator Model (CalEEMod) used for the AQ and GHG Reports; refer to Appendix A.

7.0 Impacts and Mitigation Measures

Threshold 7.1 Would the project result in wasteful, inefficient, or unnecessary consumption of energy resources?

Table 4: Project and Countywide Energy Consumption summarizes the Project's estimated energy (i.e., electricity, natural gas, and fuel) consumption. The Project's energy consumption summarized in Table 4 is conservative given it does not take credit for the energy consumption associated with the existing onsite commercial and industrial uses, which would be removed.

Table 4: Project and Countywide Energy Consumption

Energy Type	Project Annual Energy Consumption	Los Angeles County Annual Energy Consumption	Percent Increase Countywide[1]
Operational Electricity and Natural Gas Consumption			
Electricity	1,871,223 kWh	68,484,956,280 kWh[2, 3]	0.0027%
Natural Gas	50,273 therms	2,820,285,935 therms[2, 4]	0.0018%
Fuel Consumption			
Construction			
Diesel	163,663 gallons[5, 6]	529,170,458 gallons[7, 8]	0.0309%
Gasoline	98,669 gallons[5, 6]	3,631,291,883 gallons[7, 8]	0.0027%
Operational[8]			
Diesel	14,255 gallons	535,038,344 gallons[8, 9]	0.0027%
Gasoline	179,205 gallons	3,446,400,365 gallons[8, 9]	0.0052%

Notes:
1. The Project increases in energy consumption is compared to the County's total energy consumption.
2. County energy consumption in 2022.
3. California Energy Commission, Electricity Consumption by County, http://www.ecdms.energy.ca.gov/, accessed December 2023.
4. California Energy Commission, Natural Gas Consumption by County, http://www. ecdms.energy.ca.gov/, accessed December 2023.
5. Based on equipment and load factors from California Emissions Estimator Model (CalEEMod version 2022.1.1).
6. Based on Project's construction equipment list timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips.
7. Projected County construction fuel consumption in 2024.
8. California Air Resources Board, EMFAC2021.
9. Projected County operational fuel consumption in 2026.

Refer to Appendix A: Energy Data for assumptions.

Construction-Related Energy Consumption

During construction, the Project would consume energy in two general forms: (1) the fuel consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during grading, paving, and building construction. Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. Some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and California Air Resources Board engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business.

As indicated in Table 4, the Project's construction-related off-road diesel fuel consumption is estimated to total approximately 163,663 gallons, which would constitute an increase of approximately 0.0309 percent of the County's typical annual consumption. The Project's construction-related on-road gasoline fuel consumption is estimated to total approximately 98,669 gallons, which would constitute an approximate 0.0027 percent increase of the County's typical annual consumption. Therefore, the Project's construction-related fuel consumption would result in a nominal increase in fuel use in the County. Further, the energy use associated with water use during construction would result in 9,703 kW. As such, Project construction activities would have a minimal effect on the local and regional energy supplies. It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, the Project's construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other development projects similar in nature to the Project. A less than significant impact would occur in this regard.

Operational Energy Consumption

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

During Project operations, automotive fuel would be consumed from vehicle trips to and from the Project site. As indicated in Table 4, the Project's operational on-road diesel fuel consumption is estimated to total approximately 14,255 gallons, which would constitute an approximate 0.0027 percent increase of the County's typical annual consumption. The Project's operational on-road gasoline fuel consumption is estimated to total approximately 179,205 gallons, which would constitute an approximate 0.0052 percent increase of the County's typical annual consumption. The Project would not result in any unusual characteristics that would result in excessive long-term operational fuel consumption. Fuel consumption associated with vehicle trips generated by the Project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

Building Energy Demand

As shown in Table 4, the Project's annual electricity consumption is estimated to total 1,871,223 kWh, which would constitute an approximate 0.0027 percent increase over the County's typical annual electricity consumption. The Project's annual natural gas consumption is estimated to total approximately 50,273 therms, which would constitute an approximate 0.0018 percent increase of the County's typical annual consumption. The Project would be required to comply with all Federal, State, and local requirements for energy efficiency, including the Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Compliance with Title 24 standards would significantly reduce energy consumption. As such, the Project would not result in the inefficient, wasteful, or unnecessary consumption of building energy. Further, the electricity provider, SCE, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 36 percent of total procurement by 2020 and to 60 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures projects will not result in the waste of the finite energy resources.

Conclusion

As shown in Table 4, the increase in electricity, natural gas, and fuel consumption over existing conditions would be minimal. For the reasons described above, the Project would not place a substantial demand on regional energy supply or require significant additional capacity, or

significantly increase peak and base period electricity demand. Thus, the Project would not cause a wasteful, inefficient, and unnecessary consumption of energy during Project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation.

Threshold 7.2 Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Title 24 Part 6 contains energy efficiency standards for residential and non-residential buildings based on a state mandate to reduce California's energy demand. Specifically, Title 24 Part 6 addresses a number of energy efficiency measures that impact energy used for lighting, water heating, heating, and air conditioning, including the energy impact of the building envelope (e.g., windows, doors, skylights, wall/floor/ceiling assemblies, attics, and roofs).

Title 24 Part 6 specifically establishes energy efficiency standards for residential and nonresidential buildings constructed in the State of California in order to reduce energy demand and consumption. The Project would comply with Title 24, Part 6 per state regulations. In accordance with Title 24 Part 6, the Project would have: (a) sensor-based lighting controls— for fixtures located near windows, the lighting would be adjusted by taking advantage of available natural light; and (b) efficient process equipment—improved technology offers significant savings through more efficient processing equipment.

Title 24 Part 11 contains voluntary and mandatory energy measures that are applicable to the Project under the California Green Building Standards Code. As discussed above, the Project would result in an increased demand for electricity, natural gas, and petroleum. In accordance with Title 24 Part 11 mandatory compliance, the Applicant would have (a) 50% of its construction and demolition waste diverted from landfills; (b) mandatory inspections of energy systems to ensure optimal working efficiency; (c) low pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring and particle boards; and (d) a 20% reduction in indoor water use. Compliance with all of these mandatory standards would decrease the consumption of electricity, natural gas, and petroleum.

The Gardena CAP establishes a series of energy efficiency related measures intended to reduce GHG emissions based on the AB 32 Scoping Plan. The Project would be consistent with applicable Gardena CAP measures, including measures related to energy efficiency, land use and transportation, and urban greening.

The Project would not conflict with any of the federal, state, or local plans for renewable energy and energy efficiency. Because the Project would comply with Title 24 Parts 6 and 11 and with Gardena CAP measures, no conflict with existing energy standards and regulations would occur. Therefore, Project impacts associated with renewable energy or energy efficiency plans would be less than significant.

8.0 References

CAJA Environmental Services, *1610 Artesia Boulevard Project Air Quality Technical Report*, November 2023.

CAJA Environmental Services, *1610 Artesia Boulevard Project Greenhouse Gas Technical Report*, November 2023.

California Air Resources Board, EMFAC2021.

California Energy Commission, *Electricity Consumption by County*, http://www.ecdms.energy.ca.gov/, accessed December 2023.

California Energy Commission, *Natural Gas Consumption by County*, http://www.ecdms.energy.ca.gov/, accessed December 2023.

California Energy Commission, *2021 Total System Electric Generation*, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation, accessed December 2023.

California Department of Tax and Fee Administration, *January 2022 – Motor Vehicle Fuel 10 Year Reports*, https://www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed December 2023.

California Public Utilities Commission, Energy Efficiency Strategic Plan, 2011.

City of Gardena, *Gardena Climate Action Plan*, 2017.

Southern California Edison, *The Clean Power and Electrification Pathway*, https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20187/g17-pathway-to-2030-white-paper.pdf, accessed December 2023.

U.S. Energy Information Administration, *Table F35: Total Energy Consumption, Price, and Expenditure Estimates, 2021,* https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_te.html&sid=CA, accessed December 2023.

U.S. Energy Information Administration, *California State Profile and Energy Estimates*, *California Energy Consumption by End-Use Sector, 2021*, https://www.eia.gov/state/?sid=CA#tabs-2, accessed December 2023.

Appendix A

Energy Data

Construction Fuel Consumption

On-Site Diesel[1] (off-road construction Equipment)	$MTCO_2e$	Gallons of Fuel[4]	County Fuel in 2024 (Start of Construction)	Percent
Demolition	67	6,601		
Site Preparation/Grading/Trenching	104	10,284		
Building Construction	474	46,650		
Paving	26	2,601		
Architectural Coating	8	772		
Total	679	66,908	529,170,458	0.0126%

Off-Site Diesel[1] (on-road construction trips)				
Demolition	42	4,158		
Site Preparation/Grading/Trenching	505	49,789		
Building Construction	435	42,808		
Paving	0	0		
Architectural Coating	0	0		
Total	982	96,755	529,170,458	0.0183%

Off-Site Gasoline[2]				
Demolition	4	457		
Site Preparation/Grading/Trenching	8	896		
Building Construction	805	91,373		
Paving	5	585		
Architectural Coating	47	5,358		
Total	869	98,669	3,631,291,883	0.0027%

Total Diesel Fuel		163,663	529,170,458	0.0309%
Total Gasoline Fuel		98,669	3,631,291,883	0.0027%
Total Construction Fuel	2,530	262,332		

Construction Phase[3]	Demolition			Site Preparation			Grading/Trenching		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2024	67	42	4	12	7	1	82	498	6
2025	0	0	0	0	0	0	4	0	1
2026	0	0	0	0	0	0	6	0	1
Total	**67**	**42**	**4**	**12**	**7**	**1**	**92**	**498**	**7**

Construction Phase[3]	Building Construction			Paving			Architectural Coating		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gasoline (Worker)
2024	48	45	83	0	0	0	0	0	0
2025	285	262	486	0	0	0	0	0	0
2026	141	128	236	26	0	5	8	0	47
Total	**474**	**435**	**805**	**26**	**0**	**5**	**8**	**0**	**47**

Notes:

[1] Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

[2] Fuel used for worker trips assumed to be gasoline.

[3] $MTCO_2e$ rates from CalEEMod (3.0 Construction Emissions Details).

[4] For CO2e emissions, see Chapter 13 (page 94); Conversion Ratios: Climate Registry, General Reporting Protocol, 2016.

Construction Water Energy

Daily Soil Disturbance[1]	3.5	acres
Days of Soil Disturbance[2]	173	days
Water Concentration[3]	3,020	gallons/acre
Water Energy Intensity[4]	5,306	kWh/MG
Total Construction Water	1.83	million gallons
Construction Water Energy	9,703	kWh
	0.0097	GWh
Los Angeles County Annual Electricity	68,485	GWh
Percentage Increase	0.00001%	

Notes:

[1] Total daily acres disturbed from offroad equipment per CalEEMod (3.0 Construction Emissions Detail) and maximum SCAQMD LST values for soil-disturbing equipment.

[2] Number of days of construction with soil-disturbing equipment per CalEEMod (5.1 Construction Schedule).

[3] Water application rate per Air and Waste Management Association's Air Pollution Engineering Manual.

[4] Water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32.

UNMITIGATED							
Vehicle Type	**Percent**	**Annual VMT[1]**	**MPG[2]**	**Annual Fuel (Gallons)**	**Fuel Type**	**LA County Gallons[3]**	**RS Percent**
Passenger Cars	0.93	3,870,829	21.6	179,205	Gas	3,446,400,365	0.0052%
Light/Medium Trucks	0.06	244,423	17.2	14,211	Diesel	535,038,344	0.0027%
Heavy Trucks/Other	0.0001	271	6.1	44	Diesel	535,038,344	0.0000%
Trucks Total		244,694		14,255		535,038,344	0.0027%
Total		4,142,385					

	LDA	**LDT1**	**LDT2**	**MCY**	**MDV**	**LHD1**	**LHD2**	**MHD**	**OBUS**	**UBUS**	**SBUS**	**MH**	**HHD**
Fleet Mix[4]	48.1134	3.5735	24.6419	2.3386	14.7770	2.9724	0.8216	1.6143	0.0573	0.0344	0.0931	0.3075	0.6550
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Notes:

[1] Total annual operational VMT based on annual VMT from CalEEMod (5.9 Operational Mobile Sources).

[2] Average fuel economy derived from Department of Transportation.

[3] Total annual county fuel per EMFAC 2021 model of projected operational fuel usage.

[4] Fleet mix based on land use.

Operational Water Energy

UNMITIGATED		
Unmitigated Indoor	11.4	million gallons
Indoor Energy Intensity Factor[1]	6,807	kWh/MG
Unmitigated Outdoor	0.03	million gallons
Outdoor Energy Intensity Factor[2]	5,306	kWh/MG
Operational Water Energy	77,922	kWh
Operational Water Energy	0.0779	GWh
Los Angeles County Annual Electricity	68,485	GWh
Percentage Increase	0.0001%	

Land Use[3]	Unmitigated (gal/year)	
	Indoor	Outdoor
Apartments Mid Rise	11,182,140	34,282
Enclosed Parking with Elevator	0	0
Recreational Swimming Pool	238,465	0
Total Operational Water (MG/year)	**11**	**0.03**

Notes:

[1] Indoor water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32. Factor includes supply, treatment, distribution, and wastewater.

[2] Outdoor water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32. Factor includes supply, treatment, and distribution.

[3] Operational water use values per CalEEMod (5.12 Operational Water and Wastewater Consumption).

Elecricity/Natural Gas Energy

UNMITIGATED			
	Unmitigated Project Annual Energy	Los Angeles County Annual Energy[3]	Percentage Increase
Electricity (kWh/yr)	1,871,223	68,484,956,280	0.0027%
Electricity (GWh/yr)	1.8712	68,485	0.0027%
Natural Gas (kBTU/yr)	5,027,255	282,028,593,500	0.0018%
Natural Gas (therms/yr)	50,273	2,820,285,935	0.0018%

Land Use	Electricity[1] (kWh/yr)		Natural Gas[2] (kBTU/yr)	
	Unmitigated	Mitigated	Unmitigated	Mitigated
Apartments Mid Rise	1,099,750	0	3,332,053	0
Enclosed Parking with Elevator	768,187	0	0	0
Recreational Swimming Pool	3,286	0	1,695,202	0
Total Energy	**1,871,223**	**0**	**5,027,255**	**0**

Notes:

[1] Electricity use per CalEEMod (5.11 Operational Energy Consumption).

[2] Natural Gas use per CalEEMod (5.11 Operational Energy Consumption).

[3] County total energy values from California Energy Commission energy reports available through ecdms.energy.ca.gov. (year 2022)

1610 Artesia Boulevard (Future) Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	1610 Artesia Boulevard (Future)
Construction Start Date	1/2/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	17.4
Location	1610 Artesia Blvd, Gardena, CA 90248, USA
County	Los Angeles-South Coast
City	Gardena
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4626
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

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

Apartments Mid Rise	300	Dwelling Unit	3.43	263,300	2,000	—	875	—
Enclosed Parking with Elevator	528	Space	0.00	208,100	0.00	—	—	—
Recreational Swimming Pool	4.03	1000sqft	0.00	4,032	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.	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	—	20,295	20,295	0.97	2.78	40.7	21,188
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	—	20,287	20,287	0.97	2.78	1.06	21,140
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	—	6,155	6,155	0.27	0.57	6.57	6,266
Annual (Max)	—	—	—	—	—	—	—
Unmit.	—	1,019	1,019	0.04	0.09	1.09	1,037

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2024	—	20,295	20,295	0.97	2.78	40.7	21,188

2025	—	8,737	8,737	0.36	0.46	21.2	8,904
2026	—	11,196	11,196	0.46	0.51	23.3	11,383
Daily - Winter (Max)	—	—	—	—	—	—	—
2024	—	20,287	20,287	0.97	2.78	1.06	21,140
2025	—	8,758	8,758	0.38	0.47	0.55	8,908
2026	—	9,558	9,558	0.41	0.49	0.58	9,716
Average Daily	—	—	—	—	—	—	—
2024	—	5,217	5,217	0.24	0.57	4.45	5,398
2025	—	6,155	6,155	0.27	0.33	6.57	6,266
2026	—	3,556	3,556	0.15	0.18	3.49	3,616
Annual	—	—	—	—	—	—	—
2024	—	864	864	0.04	0.09	0.74	894
2025	—	1,019	1,019	0.04	0.05	1.09	1,037
2026	—	589	589	0.03	0.03	0.58	599

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.	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	152	12,710	12,863	16.0	0.44	32.8	13,427
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	152	12,245	12,397	16.0	0.46	2.71	12,937
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	152	12,186	12,338	16.0	0.45	14.9	12,887
Annual (Max)	—	—	—	—	—	—	—
Unmit.	25.2	2,017	2,043	2.65	0.07	2.47	2,134

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	—	9,168	9,168	0.44	0.36	30.9	9,317
Area	0.00	82.7	82.7	< 0.005	< 0.005	—	83.0
Energy	—	3,386	3,386	0.31	0.02	—	3,401
Water	21.9	73.9	95.8	2.25	0.05	—	168
Waste	130	0.00	130	13.0	0.00	—	456
Refrig.	—	—	—	—	—	1.91	1.91
Total	152	12,710	12,863	16.0	0.44	32.8	13,427
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	—	8,785	8,785	0.46	0.38	0.80	8,911
Area	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	—	3,386	3,386	0.31	0.02	—	3,401
Water	21.9	73.9	95.8	2.25	0.05	—	168
Waste	130	0.00	130	13.0	0.00	—	456
Refrig.	—	—	—	—	—	1.91	1.91
Total	152	12,245	12,397	16.0	0.46	2.71	12,937
Average Daily	—	—	—	—	—	—	—
Mobile	—	8,669	8,669	0.45	0.37	13.0	8,804
Area	0.00	56.7	56.7	< 0.005	< 0.005	—	56.9
Energy	—	3,386	3,386	0.31	0.02	—	3,401
Water	21.9	73.9	95.8	2.25	0.05	—	168
Waste	130	0.00	130	13.0	0.00	—	456
Refrig.	—	—	—	—	—	1.91	1.91
Total	152	12,186	12,338	16.0	0.45	14.9	12,887

Annual	—	—	—	—	—	—	—
Mobile	—	1,435	1,435	0.07	0.06	2.15	1,458
Area	0.00	9.38	9.38	< 0.005	< 0.005	—	9.41
Energy	—	561	561	0.05	< 0.005	—	563
Water	3.62	12.2	15.9	0.37	0.01	—	27.8
Waste	21.6	0.00	21.6	2.15	0.00	—	75.4
Refrig.	—	—	—	—	—	0.32	0.32
Total	25.2	2,017	2,043	2.65	0.07	2.47	2,134

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	404	404	0.02	< 0.005	—	405
Demolition	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	66.8	66.8	< 0.005	< 0.005	—	67.0
Demolition	—	—	—	—	—	—	—

Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	—	212	212	0.01	0.01	0.84	215
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	2,061	2,061	0.10	0.33	4.80	2,167
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	—	24.0	24.0	< 0.005	< 0.005	0.04	24.3
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	243	243	0.01	0.04	0.24	255
Annual	—	—	—	—	—	—	—
Worker	—	3.97	3.97	< 0.005	< 0.005	0.01	4.03
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	40.2	40.2	< 0.005	0.01	0.04	42.2

3.3. Site Preparation (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	—	72.5	72.5	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	—	247	247	0.01	0.01	0.97	251
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	3,092	3,092	0.15	0.50	7.19	3,251
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	—	3.26	3.26	< 0.005	< 0.005	0.01	3.30
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	42.4	42.4	< 0.005	0.01	0.04	44.5
Annual	—	—	—	—	—	—	—
Worker	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.55
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	7.01	7.01	< 0.005	< 0.005	0.01	7.36

3.5. Grading (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	494	494	0.02	< 0.005	—	496
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	81.9	81.9	< 0.005	< 0.005	—	82.1
Dust From Material Movement	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	—	212	212	0.01	0.01	0.84	215
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	17,125	17,125	0.85	2.75	39.8	18,004
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	201	201	0.01	0.01	0.02	203
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	17,128	17,128	0.85	2.75	1.03	17,968

Average Daily	—	—	—	—	—	—	—
Worker	—	34.0	34.0	< 0.005	< 0.005	0.06	34.5
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	2,862	2,862	0.14	0.46	2.88	3,005
Annual	—	—	—	—	—	—	—
Worker	—	5.64	5.64	< 0.005	< 0.005	0.01	5.71
Vendor	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	—	474	474	0.02	0.08	0.48	498

3.7. Building Construction (2024) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	286	286	0.01	< 0.005	—	287
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	47.4	47.4	< 0.005	< 0.005	—	47.5
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	4,083	4,083	0.18	0.15	0.44	4,133

Vendor	—	2,157	2,157	0.09	0.30	0.15	2,248
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	—	495	495	0.02	0.02	0.88	501
Vendor	—	257	257	0.01	0.04	0.30	269
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	—	81.9	81.9	< 0.005	< 0.005	0.14	83.0
Vendor	—	42.6	42.6	< 0.005	0.01	0.05	44.5
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	1,713	1,713	0.07	0.01	—	1,719
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	284	284	0.01	< 0.005	—	285
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	—	4,218	4,218	0.18	0.14	15.4	4,281
Vendor	—	2,121	2,121	0.09	0.30	5.80	2,217
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	3,999	3,999	0.18	0.15	0.40	4,049
Vendor	—	2,121	2,121	0.09	0.30	0.15	2,212
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	—	2,898	2,898	0.13	0.10	4.77	2,937
Vendor	—	1,515	1,515	0.06	0.21	1.80	1,582
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	—	480	480	0.02	0.02	0.79	486
Vendor	—	251	251	0.01	0.04	0.30	262
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	849	849	0.03	0.01	—	852
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	141	141	0.01	< 0.005	—	141
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	—	4,134	4,134	0.17	0.14	14.0	4,195
Vendor	—	2,084	2,084	0.09	0.30	5.63	2,180
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	3,919	3,919	0.18	0.14	0.36	3,967
Vendor	—	2,085	2,085	0.09	0.30	0.15	2,176
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	—	1,409	1,409	0.06	0.05	2.14	1,428
Vendor	—	738	738	0.03	0.11	0.86	771
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	—	233	233	0.01	0.01	0.35	236
Vendor	—	122	122	0.01	0.02	0.14	128
Hauling	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2026) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	1,350	1,350	0.05	0.01	—	1,355
Paving	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	159	159	0.01	< 0.005	—	160
Paving	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Paving	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	—	271	271	0.01	0.01	0.92	275
Vendor	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	—	30.7	30.7	< 0.005	< 0.005	0.05	31.1
Vendor	—	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
Annual	—	—	—	—	—	—	—
Worker	—	5.08	5.08	< 0.005	< 0.005	0.01	5.15

Vendor	—	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

3.15. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	47.2	47.2	< 0.005	< 0.005	—	47.3
Architectural Coatings	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	7.81	7.81	< 0.005	< 0.005	—	7.84
Architectural Coatings	—	—	—	—	—	—	—
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	—	827	827	0.03	0.03	2.80	839
Vendor	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	784	784	0.04	0.03	0.07	793
Vendor	—	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
Average Daily	—	—	—	—	—	—	—
Worker	—	281	281	0.01	0.01	0.43	285
Vendor	—	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
Annual	—	—	—	—	—	—	—
Worker	—	46.5	46.5	< 0.005	< 0.005	0.07	47.2
Vendor	—	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

3.17. Trenching (2025) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	207	207	0.01	< 0.005	—	208
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	24.8	24.8	< 0.005	< 0.005	—	24.8
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	4.10	4.10	< 0.005	< 0.005	—	4.11

Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	32.8	32.8	< 0.005	< 0.005	< 0.005	33.2
Vendor	—	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
Average Daily	—	—	—	—	—	—	—
Worker	—	3.97	3.97	< 0.005	< 0.005	0.01	4.02
Vendor	—	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
Annual	—	—	—	—	—	—	—
Worker	—	0.66	0.66	< 0.005	< 0.005	< 0.005	0.67
Vendor	—	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

3.19. Trenching (2026) - Unmitigated

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

Location	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	—	207	207	0.01	< 0.005	—	208
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	—	36.5	36.5	< 0.005	< 0.005	—	36.7
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Off-Road Equipment	—	6.05	6.05	< 0.005	< 0.005	—	6.07
Onsite truck	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	—	32.1	32.1	< 0.005	< 0.005	< 0.005	32.5
Vendor	—	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
Average Daily	—	—	—	—	—	—	—
Worker	—	5.74	5.74	< 0.005	< 0.005	0.01	5.82
Vendor	—	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
Annual	—	—	—	—	—	—	—
Worker	—	0.95	0.95	< 0.005	< 0.005	< 0.005	0.96
Vendor	—	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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	1,043	1,043	0.10	0.01	—	1,049
Enclosed Parking with Elevator	—	729	729	0.07	0.01	—	733
Recreational Swimming Pool	—	3.12	3.12	< 0.005	< 0.005	—	3.13
Total	—	1,775	1,775	0.17	0.02	—	1,785
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	1,043	1,043	0.10	0.01	—	1,049
Enclosed Parking with Elevator	—	729	729	0.07	0.01	—	733
Recreational Swimming Pool	—	3.12	3.12	< 0.005	< 0.005	—	3.13
Total	—	1,775	1,775	0.17	0.02	—	1,785
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	—	173	173	0.02	< 0.005	—	174
Enclosed Parking with Elevator	—	121	121	0.01	< 0.005	—	121
Recreational Swimming Pool	—	0.52	0.52	< 0.005	< 0.005	—	0.52
Total	—	294	294	0.03	< 0.005	—	296

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	1,068	1,068	0.09	< 0.005	—	1,071
Enclosed Parking with Elevator	—	0.00	0.00	0.00	0.00	—	0.00

Recreational Swimming Pool	—	543	543	0.05	< 0.005	—	545
Total	—	1,611	1,611	0.14	< 0.005	—	1,616
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	1,068	1,068	0.09	< 0.005	—	1,071
Enclosed Parking with Elevator	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	543	543	0.05	< 0.005	—	545
Total	—	1,611	1,611	0.14	< 0.005	—	1,616
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	—	177	177	0.02	< 0.005	—	177
Enclosed Parking with Elevator	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	89.9	89.9	0.01	< 0.005	—	90.2
Total	—	267	267	0.02	< 0.005	—	267

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	82.7	82.7	< 0.005	< 0.005	—	83.0
Total	0.00	82.7	82.7	< 0.005	< 0.005	—	83.0

Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Total	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	9.38	9.38	< 0.005	< 0.005	—	9.41
Total	0.00	9.38	9.38	< 0.005	< 0.005	—	9.41

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	21.4	72.4	93.8	2.20	0.05	—	165
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.46	1.54	2.00	0.05	< 0.005	—	3.51
Total	21.9	73.9	95.8	2.25	0.05	—	168
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	21.4	72.4	93.8	2.20	0.05	—	165
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00

Recreational Swimming Pool	0.46	1.54	2.00	0.05	< 0.005	—	3.51
Total	21.9	73.9	95.8	2.25	0.05	—	168
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	3.55	12.0	15.5	0.36	0.01	—	27.3
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.08	0.25	0.33	0.01	< 0.005	—	0.58
Total	3.62	12.2	15.9	0.37	0.01	—	27.8

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	118	0.00	118	11.8	0.00	—	412
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	12.4	0.00	12.4	1.24	0.00	—	43.3
Total	130	0.00	130	13.0	0.00	—	456
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	118	0.00	118	11.8	0.00	—	412
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	12.4	0.00	12.4	1.24	0.00	—	43.3
Total	130	0.00	130	13.0	0.00	—	456

Annual	—	—	—	—	—	—	—
Apartments Mid Rise	19.5	0.00	19.5	1.95	0.00	—	68.2
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	2.05	0.00	2.05	0.20	0.00	—	7.17
Total	21.6	0.00	21.6	2.15	0.00	—	75.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	1.89	1.89
Recreational Swimming Pool	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	1.91	1.91
Daily, Winter (Max)	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	1.89	1.89
Recreational Swimming Pool	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	1.91	1.91
Annual	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	0.31	0.31
Recreational Swimming Pool	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	0.32	0.32

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

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

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

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/1/2024	7/31/2024	5.00	43.0	—
Site Preparation	Site Preparation	8/1/2024	8/7/2024	5.00	5.00	—
Grading	Grading	8/8/2024	10/31/2024	5.00	61.0	—
Building Construction	Building Construction	11/1/2024	6/30/2026	5.00	433	—
Paving	Paving	5/1/2026	6/30/2026	5.00	43.0	—
Architectural Coating	Architectural Coating	1/1/2026	6/30/2026	5.00	129	—
Trenching	Trenching	11/1/2025	3/31/2026	5.00	107	—

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	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

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	15.0	18.5	LDA,LDT1,LDT2

Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	14.8	40.0	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	22.2	40.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	123	40.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	305	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	66.8	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	61.0	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
Trenching	—	—	—	—
Trenching	Worker	2.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

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	533,183	177,728	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,600	—
Site Preparation	—	556	7.50	0.00	—
Grading	—	60,000	61.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Enclosed Parking with Elevator	0.00	100%
Recreational Swimming Pool	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
2024	0.00	349	0.03	< 0.005
2025	0.00	349	0.03	< 0.005
2026	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
Total all Land Uses	1,367	1,367	1,131	486,649	11,636	11,636	9,627	4,142,385

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	300
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
533182.5	177,728	0.00	0.00	—

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)
Apartments Mid Rise	1,099,750	346	0.0330	0.0040	3,332,053
Enclosed Parking with Elevator	768,187	346	0.0330	0.0040	0.00
Recreational Swimming Pool	3,286	346	0.0330	0.0040	1,695,202

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	11,182,140	34,282
Enclosed Parking with Elevator	0.00	0.00
Recreational Swimming Pool	238,465	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	219	—
Enclosed Parking with Elevator	0.00	—
Recreational Swimming Pool	23.0	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	5.08	annual days of extreme heat
Extreme Precipitation	4.20	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

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

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	0	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	0	0	0	N/A
Wildfire	0	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	24.9
AQ-PM	81.4
AQ-DPM	78.2
Drinking Water	69.1
Lead Risk Housing	45.4
Pesticides	38.0
Toxic Releases	99.2
Traffic	68.5
Effect Indicators	—
CleanUp Sites	89.0
Groundwater	87.3

Haz Waste Facilities/Generators	67.0
Impaired Water Bodies	96.3
Solid Waste	91.0
Sensitive Population	—
Asthma	67.8
Cardio-vascular	66.2
Low Birth Weights	77.0
Socioeconomic Factor Indicators	—
Education	31.4
Housing	16.3
Linguistic	76.6
Poverty	33.2
Unemployment	2.73

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	74.48992686
Employed	96.16322341
Median HI	44.11651482
Education	—
Bachelor's or higher	57.65430515
High school enrollment	100
Preschool enrollment	51.48209932
Transportation	—
Auto Access	65.16104196

Active commuting	20.26177339
Social	—
2-parent households	79.14795329
Voting	26.57513153
Neighborhood	—
Alcohol availability	33.14513025
Park access	45.65635827
Retail density	75.59348133
Supermarket access	71.26908764
Tree canopy	22.73835493
Housing	—
Homeownership	72.97574747
Housing habitability	93.10920056
Low-inc homeowner severe housing cost burden	82.1891441
Low-inc renter severe housing cost burden	91.4282048
Uncrowded housing	62.10701912
Health Outcomes	—
Insured adults	45.18157321
Arthritis	0.0
Asthma ER Admissions	22.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	84.1

Cognitively Disabled	95.5
Physically Disabled	41.1
Heart Attack ER Admissions	23.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	67.2
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	62.5
Elderly	6.3
English Speaking	13.2
Foreign-born	90.3
Outdoor Workers	64.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	9.7
Traffic Density	57.1
Traffic Access	56.5
Other Indices	—
Hardship	41.8

Other Decision Support	—
2016 Voting	15.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	83.0
Healthy Places Index Score for Project Location (b)	67.0
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	Based on SCAG's average 2016 persons-per-household rate for the City of 2.91 persons per household, the Project would add a net residential population of approximately 875 people to the Project Site based on the 300 dwelling units proposed. Pool area based on 1,200 sf and 1,920 sf pool vaults on Level 1 and 912 sf pool RR on Level 2.
Construction: Construction Phases	Developer information
Construction: Off-Road Equipment	—

Construction: Trips and VMT	10 CY capacity haul truck; 40 miles to Brea landfill
Operations: Hearths	Project plans
Operations: Energy Use	Assumes 2 pools at 847,601kBTu/year each per EnergyStar Portfolio Manager Technical Reference; Swimming Pools and the ENERGY STAR Score in the United States and Canada; Figure 3; https://www.energystar.gov/sites/default/files/tools/Swimming_Pool_August_2018_508.pdf. Assumes "All Other Property Types" with Recreational size.