



*KPC EHS Consultants, LLC*

## Technical Memorandum

Kevin P. Carr, MS.

**Date:** October 26, 2023 Revised June 12, 2024

**Re:** EPC 23-29 Hickory Street Residential Project – Air Quality and GHG Technical Memorandum

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### Purpose

The purpose of this memorandum is to document the results of the air quality (AQ) and greenhouse gas (GHG) emissions assessment as it relates to the potential environmental impacts associated with the construction and operation of the proposed Multi-Family Residential Project on approximately 0.69 acres.

### 1.0 Project Location & Description

#### 1.1 Project Location:

The proposed project site is located in the City of Escondido, San Diego County, California on the northeast intersection of South Hickory Street and East 3<sup>rd</sup> Avenue at 240 South Hickory Street also referred to as APN 229-492-14-00.

#### 1.2 Description:

The Applicant is proposing the renovation of an existing 16,885 square foot medical office building into 20 residential units with both interior and exterior improvements including installations of kitchens and bathrooms in each unit, shared laundry facility, tenant storage space, the creation of an outdoor community area, and upgrades to the existing parking lot and landscaping on approximately 0.69 acres.

### 2.0 Air Quality & Greenhouse Gas (GHG) Assessment

#### 2.1 Determination of Significance:

The criteria used to determine the significance related to potential Project related air quality and greenhouse gas emission impacts is based on the California Environmental Quality Act (CEQA) Environmental Checklist, Appendix G Thresholds:

##### 2.1.1 Air Quality / GHG Impacts:

Would the Project: Conflict with or obstruct implementation of the applicable air quality plan?

Would the Project: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Would the Project: Expose sensitive receptors to substantial pollutant concentrations?

Would the Project: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Would the Project: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Would the Project: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**2.1.2 Air Quality Thresholds:**

The San Diego Air Pollution Control District (SDAPCD) was established in 1955 with the purpose of reducing air pollution within San Diego County. As one of the 35 independent air pollution control districts or air quality management districts designated by the state legislature to facilitate compliance with the federal Clean Air Act and to implement the state air quality program. Toward that end, SDAPCD develops regulations designed to achieve these public health standards by reducing emissions from business and industry. The Project site is located within the San Diego Air Basin (SDAB) which is under the jurisdiction of the SDAPCD, which recommends using the County of San Diego thresholds of significance as contained in the Guidelines for Determining Significance, Air Quality.<sup>1</sup> Table 2.1-1 describes the regional significance thresholds established by the to meet national and state air quality standards. The City in the Municipal Code Chapter 33 Article 47 Environmental Quality establishes the SDAPCD air quality thresholds for PM10, PM2.5, NOx, SOx, CO, and additionally establishes South Coast Air Quality Management District's (SCAQMD) thresholds for construction and operational Volatile Organic Compounds (VOCs).

**Table 2.1-1: San Diego Air Pollution Control District Significance Thresholds**

Pollutant	Emissions (Construction & Operational) (pounds/day) <sup>(</sup>	Emissions (Construction & Operational) (tons/year)
NOx	250	40
VOC (ROG)	75* 55**	13.7
PM10	100	15
PM2.5	55	10
SOx	250	40
CO	550	100

Source: County of San Diego Guidelines for Determining Significance – Air Quality (Department of Planning and Land Use, Department of Public Works, 2007), City of Escondido Municipal Code,

\* Threshold for Construction per the SCAQMD CEQA Air Quality Handbook.

\*\* Threshold for Operational per the SCAQMD CEQA Air Quality Handbook

<sup>1</sup> San Diego County Guidelines for Determining Significance, Air Quality retrieved from <https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/AQ-Guidelines.pdf>

### **2.1.3 GHG Thresholds:**

The City of Escondido adopted a Climate Action Plan (CAP) on March 10, 2021, and the strategies and measures that the City will undertake to achieve its proportional share of State GHG emissions reduction targets. The City's CAP is a qualified GHG emissions reduction plan in accordance with State CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of a CAP. Projects that are consistent with the General Plan and implement applicable CAP GHG reduction measures may incorporate by reference the CAP's cumulative GHG analysis. Conversely, projects that are consistent with the General Plan, but do not implement CAP GHG reduction measures, as well as General Plan Amendments and Annexations that increase emissions beyond CAP projections — will require a project-level GHG analysis.

As part of the CAP a Checklist was developed with the purpose to implement GHG reduction measures from the CAP and determine if development would demonstrate consistency with the CAP's assumptions for implementation. Projects that are consistent with the CAP, as determined through the use of this Checklist, may rely on the CAP for the cumulative impact analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions, incorporation of the measures in this Checklist to the extent applicable, and demonstration of consistency with a VMT threshold currently in development by the City. Cumulative GHG impacts could be significant for any project that is not consistent with the CAP.

## **3.0 Environmental Impacts:**

### **3.1 Construction Emissions:**

Construction emissions for the Project were estimated by using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.20, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operations emissions. CalEEMod is authorized for use to assess project emissions by the SDAPCD. Construction emissions are summarized in Table 3.1-1.

Construction emissions were based on CalEEMod Land Uses for a Residential Project consisting of renovation of an existing medical office building into 20 dwelling units on 0.69 acres. Construction was estimated over 6 months for a 121-day construction schedule, with default values used for the schedule. Default values were used for each construction phase including site demolition, site preparation, building construction, paving, and architectural coating as well as defaults for off-road construction equipment. Peak emissions represent the highest value from the summer and winter modeling. SDAPCD screening thresholds were used for determining the project's impacts. All construction emissions are below the SDAPCD thresholds.

**Table 3.1-1 - Summary of Peak Construction Emissions (No Mitigation)**

Year/Season	Emissions (lbs/day)					
	ROG	NOX	CO	SOX	PM10	PM2.5
Construction 2024 (Winter)	22.5	5.72	7.72	0.01	0.39	0.27
Construction 2024 (Summer)	0.62	5.73	7.64	0.01	0.81	0.29
<b>Maximum Daily Emissions</b>	<b>22.5</b>	<b>5.73</b>	<b>7.72</b>	<b>0.01</b>	<b>0.81</b>	<b>0.29</b>
<b>SDAPCD Screening Threshold</b>	<b>75</b>	<b>250</b>	<b>550</b>	<b>250</b>	<b>100</b>	<b>55</b>
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod 2022.1.1.20 Datasheets. (Appendix A).

### 3.2 Operational Emissions:

Operational emissions for the Project were estimated by using the California Emissions Estimator Model (CalEEMod) which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operations emissions. CalEEMod is authorized for use to assess project emissions by the SDAPCD. Operations emissions include stationary (residence emissions), mobile (transportation emissions), and area (on-going architectural coatings, consumer product use, landscaping maintenance emissions), default values were used. SDAPCD screening thresholds were used for determining the project’s impacts. Operation emissions are summarized in Table 2.3-1 for Summer Emissions and Table 2.3-2 for Winter Emissions. All operations emissions are below the SDAPCD thresholds.

#### 3.2.1 AREA SOURCE EMISSIONS

##### Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using CalEEMod.

##### Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on assumptions provided in CalEEMod. In the case of the commercial uses proposed by the Project, no substantive on-site use of consumer products is anticipated.

### Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

#### **3.2.2 ENERGY SOURCE EMISSIONS**

### Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the air basin, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using CalEEMod.

#### **3.2.3 MOBILE SOURCE EMISSIONS**

### Vehicles

Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. CalEEMod Version 2022.1.1.20 default values were used for the projects trip characteristics for operational truck and passenger vehicle totals.

### Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using CalEEMod.

**Table 3.2-1 - Summary of Peak Operational Summer Emissions**

Source	Emissions (lbs/day)					
	VOC/ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Source	10.9	0.75	19.8	0.05	2.50	2.45
Energy Source	0.04	0.31	0.13	<0.005	0.03	0.03
Mobile Source	1.39	1.19	10.7	0.03	2.16	0.56
<b>Total Maximum Daily Emissions</b>	<b>12.3</b>	<b>2.25</b>	<b>30.6</b>	<b>0.08</b>	<b>4.69</b>	<b>3.04</b>
<b>SDAPCD Screening Threshold</b>	<b>55</b>	<b>250</b>	<b>550</b>	<b>250</b>	<b>100</b>	<b>55</b>
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod 2022.1.1.20 Datasheets. (Appendix A).

**Table 3.2-2 - Summary of Peak Operational Winter Emissions**

Source	Emissions (lbs/day)					
	VOC/ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Source	10.7	0.73	17.8	0.05	2.50	2.45
Energy Source	0.02	0.31	0.13	<0.005	0.03	0.03
Mobile Source	1.29	1.27	9.11	0.02	2.16	0.56
<b>Total Maximum Daily Emissions</b>	<b>12.0</b>	<b>2.31</b>	<b>27.0</b>	<b>0.07</b>	<b>4.69</b>	<b>3.04</b>
<b>SDAPCD Screening Threshold</b>	<b>55</b>	<b>250</b>	<b>550</b>	<b>250</b>	<b>100</b>	<b>55</b>
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod 2022.1.1.20 Datasheets. (Appendix A).

### 3.3 Greenhouse Gas Emissions (GHG):

The Climate Action Plan Consistency Review Checklist (Checklist) was completed for the proposed Project and is included as Appendix C. Under Step 1: Land Use Consistency Question #2 if the project is not consistent with the General Plan land use designation and includes a General Plan Amendment GHG emissions estimates must be provided for the existing land use and the proposed land use. GHG emissions for the existing land use and the proposed Project land use were estimated by using the California Emissions Estimator Model (CalEEMod) which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operations emissions. Operational GHG emissions for each scenario are presented below in Table 3.3-1 (Existing Land Use) detailed in Appendix B and table 3.3-2 (Proposed Project Land Use) detailed in Appendix A.

The estimated GHG emissions from the existing land use are 645 MTCO<sub>2</sub>e/Year, whereas the proposed project GHG emissions would be 169 MTCO<sub>2</sub>e/Year, or 476 MTCO<sub>2</sub>e/Year less representing a 74% reduction in GHG emissions from the current land use designation.

**Table 3.3-1 – Existing Land Use Operational Greenhouse Gas Emissions**

Source	GHG Emissions MT/yr			
	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub> e
Area	< 0.005	29.5	0.02	30.4
Energy	0.01	102	0.01	103
Mobile Sources	< 0.005	442	0.02	449
Solid Waste	0.000	16.3	1.63	56.9
Water/Wastewater	< 0.005	8.65	0.07	6.49
Refrigerant				0.07
<b>TOTAL</b>			<i>Metric Tons / Year</i>	<b>645</b>
<b>Escondido Threshold</b>			<sup>2</sup>	<b>500</b>
<b>Exceed Threshold?</b>				<b>YES</b>

Source: CalEEMod 2022.1.1.20 Datasheets. (Appendix B).

<sup>2</sup> CalEEMod GHG Emissions for GHG CO<sub>2</sub>e is calculated in Metric Tons (MT) per year.

**Table 3.3-2 – Proposed Project Land Use Operational Greenhouse Gas Emissions**

Source	GHG Emissions MT/yr			
	N2O	CO2	CH4	CO2e
Area	< 0.005	29.5	0.02	30.44
Energy	< 0.005	28.7	< 0.005	28.8
Mobile Sources	< 0.005	102	0.01	103
Solid Waste	0.000	1.32	0.13	4.63
Water/Wastewater	< 0.005	1.47	0.02	2.20
Refrigerant				0.02
<b>TOTAL</b>			<i>Metric Tons / Year</i>	<b>169</b>
<b>Escondido Threshold</b>			<sup>3</sup>	<b>500</b>
<b>Exceed Threshold?</b>				<b>NO</b>

Source: CalEEMod 2022.1.1.20 Datasheets. (Appendix A).

### 3.4 Objectionable Odors:

Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project does not propose any of the above-described uses. Potential odor sources associated with the Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's long-term operational uses.

The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. Additionally, the Project is required to comply with the provisions of SDAPCD Rule 51, "Nuisance" which was established to reduce odorous emissions into the atmosphere. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

### 3.5 Sensitive Receptors:

Some people, such as individuals with respiratory illnesses or impaired lung function because of other illnesses, persons over 65 years of age, and children under 14, are particularly sensitive to certain pollutants. Facilities and structures where these sensitive people live or spend considerable amounts of time are known as sensitive receptors. For the purposes of this analysis, a sensitive receptor includes the following land uses (sensitive sites) where sensitive receptors are typically located:

- Schools, playgrounds, and childcare centers
- Long-term health care facilities

<sup>3</sup> CalEEMod GHG Emissions for GHG CO2e is calculated in Metric Tons (MT) per year.

- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences

Sensitive receptor locations are generally identified as facilities where it is possible that an individual could remain for 24 hours. Commercial and industrial facilities are not included in the definition of sensitive receptor because employees typically are present for shorter periods of time, such as eight hours.

The closest sensitive receptors to the Project site are include residential to the north, south, east, and west as indicated in Table 3.5-1

**Table 3.5-1 – Sensitive Receptor Locations**

Receptor	Distance from Project Site Boundary (feet)	Distance from Project Construction Center (feet)
Multi-Family Residential (west)	120	240
Multi-Family Residential (adjacent property boundary east)	10	95
Residential (north)	30	120
Residential (south)	75	170

Source: Google Earth Pro, October 23, 2023

The properties adjacent to along the eastern Project site boundary the east are multi-family residential, to the north an alley way followed by single family residential, to the west South Hickory Street followed by multi-family residential and to the south the site is bounded by East 3<sup>rd</sup> Avenue followed by single family residential. The Project would be compatible with surrounding land uses and would not adversely impact sensitive receptors during operations.

Whenever a project would require use of chemical compounds that have been identified as Toxic Air Contaminates (TACs) by the SDAPCD; placed on CARB’s air toxics list pursuant to Assembly Bill 1807 (AB 1807), Air Contaminant Identification and Control Act (1983); or placed on the EPA’s National Emissions Standards for Hazardous Air Pollutants, a health risk assessment (HRA) is required by the SCAQMD. Residential, commercial, and office uses do not use substantial quantities of TACs.

Guidance for conducting a Health risk Assessments (HRA), typically includes the following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated:

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;

- A dry cleaner using perchloroethylene within 500 feet; and,
- A gasoline dispensing facility within 300 feet.

The Project is a residential development and does not produce toxic air emissions such as those generated by industrial manufacturing uses or uses that generate heavy-duty diesel truck emissions.

### **3.7 CO “Hotspot” Analysis:**

As discussed below, the Project would not result in potentially adverse CO concentrations or “hotspots.” Further, detailed modeling of Project-specific carbon monoxide (CO) “hot spots” is not needed to reach this conclusion.

The SDAB is designated attainment under the CAAQS and NAAQS for CO. An adverse CO hotspot would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. Due to changing regulations vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in Basin have steadily declined.

The South Coast Air Quality Management District (SCAQMD), as part of their 2003 AQMP, conducted a study and modeled for CO Hotspot Analysis at multiple congested intersections in their South Coast Air Basin, including the intersection of Wilshire Boulevard and Veteran Avenue, considered one of the most congested intersections in Southern California with an ADT of approximately 100,000 vehicles. The CO concentrations modeled by the SCAQMD’s analysis identified all traffic induced CO levels below Federal and State thresholds. The SCAQMD’s study is considered an expert analysis of CO Hotspots and is being used throughout Southern California in assessing the potential for vehicular emissions to result in CO hotspots as it provides conclusive data that intersections with less than 100,000 ADT do not create significant impacts from CO hotspots.

As the CO hotspots were not modeled at an intersection that accommodates over 100,000 vehicles per day, it can be reasonably deduced that CO hotspots would not be experienced at any intersections in the vicinity of the proposed project as none of the intersections approach the level of 100,000 ADT.

Given the extremely low level of CO concentrations in the project area and no project-traffic related impacts at any intersections, project-related vehicle emissions are not expected to result in the CO concentrations exceeding the State or federal CO standards.

### **3.8 Cumulative Impacts:**

The project area is designated as a non-attainment area for ozone (O<sub>3</sub>) for the Federal Standards and a non-attainment area for O<sub>3</sub>, PM<sub>2.5</sub> and PM<sub>10</sub>. The Project would comply with the mandatory requirements of SDAPCD's Rule 55 (fugitive dust control), Rule 67.0.1 (Architectural Coatings) during construction, as well as all other adopted emissions control measures. The project also is required to comply with California Code of Regulations Title 13, Division 3, and specifically its Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In- Use Heavy-Duty Diesel-Fueled Vehicles" and its Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling." Per SDAPCD rules and mandates, and California Code of Regulation requirements, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements are imposed on all projects in the SDAB.

In determining whether the project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors), the non-attainment pollutants of concern for this impact are ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>. In developing the thresholds of significance for air pollutants disclosed above the SDAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

As shown in Tables 3.1-1, 3.2-1, 3.2-2, 3.3-1, and 3.3-2 above, the project does not exceed the identified significance thresholds, as such, emissions would not be cumulatively considerable.

### **3.9 Conformity and Consistency:**

The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for the development and implementation of air management plans for attainment and maintenance of the ambient air quality standards in the SDAB.

**3.9.1 Conformity with Air Quality Management Plans:** The Project is located within the SDAB and under the jurisdiction of the SDAPCD. Under the Federal Clean Air Act, the SDAPCD has adopted a variety of attainment plans (i.e., "Region Air Quality Strategy (RAQs" and State Improvement Plans (SIPs) ) for a variety of non-attainment pollutants. A complete list of the various RAQs is available from the SDAPCD on their website at:

<https://www.sdapcd.org/content/sdapcd/planning.html>

The SDAPCD is responsible for maintaining and ensuring compliance with the RAQs. Conformity for the Project was determined based on the following criteria:

- A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project may also be non-conforming

if it increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

- A project is conforming if it complies with all applicable SDAPCD rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan).

**3.9.2 Consistency with Emission Thresholds:** As shown in Tables 3.1-1, 3.2-1, 3.2-2, 3.3-1, and 3.3-2 the Project would not exceed SDAPCD significance thresholds for any criteria pollutant during construction or during long-term operation. Accordingly, the Project's air quality emissions are less than significant.

**3.9.3 Consistency with Control Measures:** The construction contractors are required to comply with rules, regulations, and control measures including but not limited to controlling Nuisance (Rule 51), Fugitive Dust (Rule 55), and Architectural Coating (Rule 67.0.1).

**3.9.4 Consistency with Growth Forecasts:** The Project site's land use is designated as Office (O), with a zoning of Hospital Professional (H-P). The proposed Project is seeing a General Plan Amendment for the land use designation to Urban V (U5) and a change of zone to Planned Development-Residential (PD-R). Therefore, the current proposed residential land use designation and zoning was not used by the SDAPCD and SANDAG to generate the growth forecasts and would be greater than the growth assumptions used in the RAQs and SIPs.

Based on the California Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021-2023*, the City's population as of January 1, 2023, is 149,799 with a ratio of persons per household of 3.01.<sup>4</sup> Based on the number of dwelling units times 3.01 persons per dwelling unit, the proposed Project would increase the City's population by approximately 60 persons assuming all residents came from outside the City. (3.01 persons/du with 20 units). An increase of 60 in relation to the current population of 149,799 represents an increase of 0.04 % and would not induce substantial population growth.

Additionally, SANDAG's forecasted population estimates for the City show the population in 2025 with a growth to 163,593<sup>5</sup> the buildout year of the proposed Project which is an increase of approximately 13,794 over the current population. The addition of approximately 60 new residents as a result of the proposed Project would be accommodated by the projected growth used to prepare the 2022 RAQS. Because the

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<sup>4</sup> <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/>

<sup>5</sup> SANDAG Series 14: 2050 Regional Growth Forecast retrieved from: <https://www.sandag.org/data-and-research/socioeconomics/estimates-and-forecasts>

growth forecasts and development assumptions upon which the SIP and RAQS are based would not be exceeded and therefore would not result in greater emissions than anticipated in the SIP and RAQS, the proposed Project would not conflict with or obstruct implementation of the applicable air quality plans, and impacts would be less than significant.

#### **4.0 Conclusion**

Based on the assessment in Section 3.0 all estimated Project emissions for construction and operations are below the SDAPCD screening threshold levels and in conformance with the City of Escondido's CAP and as such impacts to the environment for Air Quality and Greenhouse Gases are less than significant. Additionally, the proposed Project will not conflict with or obstruct any air quality or GHG plans.



*KPC EHS Consultants, LLC*

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# Hickory Street Residential Custom Report

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#### 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

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Hickory Street Residential
Construction Start Date	1/2/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	26.6
Location	240 S Hickory St, Escondido, CA 92025, USA
County	San Diego
City	Escondido
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6285
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
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
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Apartments Mid Rise	20.0	Dwelling Unit	0.21	16,885	3,000	—	56.0	—
Parking Lot	54.0	Space	0.49	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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.74	22.5	5.72	7.72	0.01	0.26	0.15	0.39	0.24	0.03	0.27	—	1,499	1,499	0.06	0.02	0.70	1,508
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.74	0.62	5.73	7.64	0.01	0.26	0.57	0.81	0.24	0.07	0.29	—	1,491	1,491	0.06	0.02	0.02	1,499
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.23	0.51	1.79	2.38	< 0.005	0.08	0.04	0.12	0.07	0.01	0.08	—	453	453	0.02	0.01	0.09	455
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.09	0.33	0.43	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.02	—	75.0	75.0	< 0.005	< 0.005	0.02	75.4
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—

Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	13.7	40.0	100	40.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—
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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.74	22.5	5.72	7.72	0.01	0.26	0.15	0.39	0.24	0.03	0.27	—	1,499	1,499	0.06	0.02	0.70	1,508
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.74	0.62	5.73	7.64	0.01	0.26	0.57	0.81	0.24	0.07	0.29	—	1,491	1,491	0.06	0.02	0.02	1,499
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.23	0.51	1.79	2.38	< 0.005	0.08	0.04	0.12	0.07	0.01	0.08	—	453	453	0.02	0.01	0.09	455
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.04	0.09	0.33	0.43	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.02	—	75.0	75.0	< 0.005	< 0.005	0.02	75.4

### 2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	31.7	31.5	0.93	41.8	0.08	5.21	0.56	5.77	5.19	0.14	5.33	565	1,086	1,651	1.50	0.07	2.56	1,712
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	31.6	31.4	0.95	40.6	0.07	5.21	0.56	5.77	5.19	0.14	5.33	565	1,054	1,618	1.50	0.07	0.18	1,678
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.49	7.72	0.47	11.7	0.02	1.18	0.52	1.70	1.17	0.13	1.30	134	848	982	1.10	0.04	1.12	1,023
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.37	1.41	0.09	2.14	< 0.005	0.21	0.10	0.31	0.21	0.02	0.24	22.2	140	163	0.18	0.01	0.19	169
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	13.7	40.0	100	40.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

## 2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.48	0.44	0.29	2.92	0.01	0.01	0.56	0.56	< 0.005	0.14	0.15	—	671	671	0.03	0.03	2.44	682
Area	31.2	31.1	0.61	38.9	0.07	5.21	—	5.21	5.18	—	5.18	555	235	790	0.51	0.04	—	815
Energy	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Water	—	—	—	—	—	—	—	—	—	—	—	1.35	7.51	8.85	0.14	< 0.005	—	13.3
Waste	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Total	31.7	31.5	0.93	41.8	0.08	5.21	0.56	5.77	5.19	0.14	5.33	565	1,086	1,651	1.50	0.07	2.56	1,712
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.47	0.43	0.32	2.79	0.01	0.01	0.56	0.56	< 0.005	0.14	0.15	—	641	641	0.04	0.03	0.06	651
Area	31.1	31.0	0.60	37.8	0.07	5.21	—	5.21	5.18	—	5.18	555	232	787	0.51	0.04	—	812
Energy	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Water	—	—	—	—	—	—	—	—	—	—	—	1.35	7.51	8.85	0.14	< 0.005	—	13.3
Waste	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Total	31.6	31.4	0.95	40.6	0.07	5.21	0.56	5.77	5.19	0.14	5.33	565	1,054	1,618	1.50	0.07	0.18	1,678
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.44	0.40	0.30	2.64	0.01	0.01	0.52	0.53	< 0.005	0.13	0.14	—	614	614	0.03	0.03	1.00	624

Area	7.04	7.32	0.14	9.05	0.02	1.17	—	1.17	1.16	—	1.16	125	53.5	178	0.12	0.01	—	184
Energy	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Water	—	—	—	—	—	—	—	—	—	—	—	1.35	7.51	8.85	0.14	< 0.005	—	13.3
Waste	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
Total	7.49	7.72	0.47	11.7	0.02	1.18	0.52	1.70	1.17	0.13	1.30	134	848	982	1.10	0.04	1.12	1,023
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.08	0.07	0.05	0.48	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.02	—	102	102	0.01	< 0.005	0.17	103
Area	1.29	1.34	0.03	1.65	< 0.005	0.21	—	0.21	0.21	—	0.21	20.7	8.86	29.5	0.02	< 0.005	—	30.4
Energy	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.7	28.7	< 0.005	< 0.005	—	28.8
Water	—	—	—	—	—	—	—	—	—	—	—	0.22	1.24	1.47	0.02	< 0.005	—	2.20
Waste	—	—	—	—	—	—	—	—	—	—	—	1.32	0.00	1.32	0.13	0.00	—	4.63
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	1.37	1.41	0.09	2.14	< 0.005	0.21	0.10	0.31	0.21	0.02	0.24	22.2	140	163	0.18	0.01	0.19	169

### 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	0.51	4.69	5.79	0.01	0.19	—	0.19	0.17	—	0.17	—	852	852	0.03	0.01	—	855

Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.16	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.87	3.87	< 0.005	< 0.005	—	3.88
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.43	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	91.3	91.3	< 0.005	< 0.005	0.01	92.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.42	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.3. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	4.60	5.56	0.01	0.24	—	0.24	0.22	—	0.22	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.35	2.35	< 0.005	< 0.005	—	2.36
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	—	0.39
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	45.7	45.7	< 0.005	< 0.005	0.01	46.3	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.5. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.53	1.91	< 0.005	0.07	—	0.07	0.06	—	0.06	—	357	357	0.01	< 0.005	—	359
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.28	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.2	59.2	< 0.005	< 0.005	—	59.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.71	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	139	139	0.01	0.01	0.56	142
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	54.5	54.5	< 0.005	0.01	0.14	56.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.62	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	133
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	54.5	54.5	< 0.005	0.01	< 0.005	56.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	36.4	36.4	< 0.005	< 0.005	0.07	36.9
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.02	15.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.02	6.02	< 0.005	< 0.005	0.01	6.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.47	2.47	< 0.005	< 0.005	< 0.005	2.58
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2024) - Unmitigated

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

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

Off-Road Equipment	0.63	0.53	4.52	5.32	0.01	0.21	—	0.21	0.19	—	0.19	—	823	823	0.03	0.01	—	826
Paving	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.87
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.86	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	169	169	0.01	0.01	0.68	172
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Architectural Coating (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	22.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30	
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	27.9	27.9	< 0.005	< 0.005	0.11	28.3	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.37	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.48	0.44	0.29	2.92	0.01	0.01	0.56	0.56	< 0.005	0.14	0.15	—	671	671	0.03	0.03	2.44	682
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.48	0.44	0.29	2.92	0.01	0.01	0.56	0.56	< 0.005	0.14	0.15	—	671	671	0.03	0.03	2.44	682
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.47	0.43	0.32	2.79	0.01	0.01	0.56	0.56	< 0.005	0.14	0.15	—	641	641	0.04	0.03	0.06	651
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.47	0.43	0.32	2.79	0.01	0.01	0.56	0.56	< 0.005	0.14	0.15	—	641	641	0.04	0.03	0.06	651
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.08	0.07	0.05	0.48	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.02	—	102	102	0.01	< 0.005	0.17	103
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.08	0.07	0.05	0.48	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.02	—	102	102	0.01	< 0.005	0.17	103
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## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4	< 0.005	< 0.005	—	27.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	128	128	0.01	< 0.005	—	128
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4	< 0.005	< 0.005	—	27.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	128	128	0.01	< 0.005	—	128
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6	< 0.005	< 0.005	—	16.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54	< 0.005	< 0.005	—	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	21.1	21.1	< 0.005	< 0.005	—	21.2

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.4	45.4	< 0.005	< 0.005	—	45.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.4	45.4	< 0.005	< 0.005	—	45.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.4	45.4	< 0.005	< 0.005	—	45.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.4	45.4	< 0.005	< 0.005	—	45.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.51	7.51	< 0.005	< 0.005	—	7.53
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.51	7.51	< 0.005	< 0.005	—	7.53

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	31.1	30.6	0.60	37.8	0.07	5.21	—	5.21	5.18	—	5.18	555	232	787	0.51	0.04	—	812
Consumer Products	—	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11	0.10	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.03	3.03	< 0.005	< 0.005	—	3.04
Total	31.2	31.1	0.61	38.9	0.07	5.21	—	5.21	5.18	—	5.18	555	235	790	0.51	0.04	—	815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	31.1	30.6	0.60	37.8	0.07	5.21	—	5.21	5.18	—	5.18	555	232	787	0.51	0.04	—	812
Consumer Products	—	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	31.1	31.0	0.60	37.8	0.07	5.21	—	5.21	5.18	—	5.18	555	232	787	0.51	0.04	—	812
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.28	1.25	0.02	1.55	< 0.005	0.21	—	0.21	0.21	—	0.21	20.7	8.61	29.3	0.02	< 0.005	—	30.2

Consumer Products	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.25	0.25	< 0.005	< 0.005	—	0.25
<b>Total</b>	<b>1.29</b>	<b>1.34</b>	<b>0.03</b>	<b>1.65</b>	<b>&lt; 0.005</b>	<b>0.21</b>	<b>—</b>	<b>0.21</b>	<b>0.21</b>	<b>—</b>	<b>0.21</b>	<b>20.7</b>	<b>8.86</b>	<b>29.5</b>	<b>0.02</b>	<b>&lt; 0.005</b>	<b>—</b>	<b>30.4</b>

### 4.4. Water Emissions by Land Use

#### 4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.35	7.51	8.85	0.14	< 0.005	—	13.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
<b>Total</b>	<b>—</b>	<b>1.35</b>	<b>7.51</b>	<b>8.85</b>	<b>0.14</b>	<b>&lt; 0.005</b>	<b>—</b>	<b>13.3</b>										
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.35	7.51	8.85	0.14	< 0.005	—	13.3

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.35	7.51	8.85	0.14	< 0.005	—	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.22	1.24	1.47	0.02	< 0.005	—	2.20
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.22	1.24	1.47	0.02	< 0.005	—	2.20

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0	
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00	
Total	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0	

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.00	0.00	8.00	0.80	0.00	—	28.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.32	0.00	1.32	0.13	0.00	—	4.63
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.32	0.00	1.32	0.13	0.00	—	4.63

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02

### 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)

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

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2024	1/16/2024	5.00	10.0	—
Site Preparation	Site Preparation	1/17/2024	1/18/2024	5.00	1.00	—
Building Construction	Building Construction	1/22/2024	6/10/2024	5.00	100	—
Paving	Paving	6/11/2024	6/18/2024	5.00	5.00	—

Architectural Coating	Architectural Coating	6/19/2024	6/26/2024	5.00	5.00	—
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### 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	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

### 5.3. Construction Vehicles

#### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	14.4	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	2.14	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	2.88	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	34,192	11,397	0.00	0.00	1,270

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	0.50	0.00	—
Paving	0.00	0.00	0.00	0.00	0.49

### 5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Parking Lot	0.49	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	540	0.03	< 0.005

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	109	98.2	81.8	37,751	790	713	594	274,013
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	7
Gas Fireplaces	11
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	2
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
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)
34192.125	11,397	0.00	0.00	1,270

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	67,817	540	0.0330	0.0040	141,569
Parking Lot	18,545	540	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	702,662	54,795
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	14.8	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

8. User Changes to Default Data

Screen	Justification
Land Use	Lot average adjusted as site is approx. 0.69 acres. Building area SF adjusted to current estimated existing building size.
Construction: Construction Phases	No grading as site is existing medical office building with parking lot being renovated to MFR.

## APPENDIX B

# Hickory Street Residential Custom Report

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- 1. Basic Project Information
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5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Hickory Street Residential
Construction Start Date	1/2/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	26.6
Location	240 S Hickory St, Escondido, CA 92025, USA
County	San Diego
City	Escondido
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6285
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
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
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Medical Office Building	16.9	1000sqft	0.39	16,885	3,000	—	56.0	—
Parking Lot	59.0	Space	0.53	0.00	0.00	—	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	33.8	33.5	2.32	54.6	0.11	5.25	3.05	8.30	5.22	0.77	5.99	658	4,546	5,204	11.0	0.20	13.8	5,552
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	33.7	33.3	2.47	53.1	0.10	5.25	3.05	8.30	5.22	0.77	5.99	658	4,380	5,038	11.0	0.21	0.78	5,376
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.96	9.07	1.57	20.4	0.04	1.20	2.27	3.47	1.20	0.57	1.77	227	3,362	3,589	10.5	0.14	4.79	3,899
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.63	1.65	0.29	3.72	0.01	0.22	0.41	0.63	0.22	0.10	0.32	37.6	557	594	1.75	0.02	0.79	645
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—

Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	13.7	40.0	100	40.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

### 2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.58	2.39	1.57	15.9	0.04	0.03	3.05	3.08	0.03	0.77	0.80	—	3,672	3,672	0.19	0.15	13.4	3,734
Area	31.2	31.1	0.60	38.5	0.07	5.21	—	5.21	5.18	—	5.18	555	235	790	0.51	0.04	—	815
Energy	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	618	618	0.04	< 0.005	—	620
Water	—	—	—	—	—	—	—	—	—	—	—	4.06	21.7	25.7	0.42	0.01	—	39.2
Waste	—	—	—	—	—	—	—	—	—	—	—	98.3	0.00	98.3	9.82	0.00	—	344
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	33.8	33.5	2.32	54.6	0.11	5.25	3.05	8.30	5.22	0.77	5.99	658	4,546	5,204	11.0	0.20	13.8	5,552
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.53	2.33	1.73	15.2	0.03	0.03	3.05	3.08	0.03	0.77	0.80	—	3,509	3,509	0.20	0.16	0.35	3,561

Area	31.1	31.0	0.60	37.8	0.07	5.21	—	5.21	5.18	—	5.18	555	232	787	0.51	0.04	—	812
Energy	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	618	618	0.04	< 0.005	—	620
Water	—	—	—	—	—	—	—	—	—	—	—	4.06	21.7	25.7	0.42	0.01	—	39.2
Waste	—	—	—	—	—	—	—	—	—	—	—	98.3	0.00	98.3	9.82	0.00	—	344
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	33.7	33.3	2.47	53.1	0.10	5.25	3.05	8.30	5.22	0.77	5.99	658	4,380	5,038	11.0	0.21	0.78	5,376
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.89	1.74	1.29	11.4	0.03	0.02	2.27	2.29	0.02	0.57	0.60	—	2,669	2,669	0.15	0.12	4.36	2,712
Area	7.05	7.32	0.14	8.85	0.02	1.17	—	1.17	1.16	—	1.16	125	53.5	178	0.12	0.01	—	184
Energy	0.02	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	618	618	0.04	< 0.005	—	620
Water	—	—	—	—	—	—	—	—	—	—	—	4.06	21.7	25.7	0.42	0.01	—	39.2
Waste	—	—	—	—	—	—	—	—	—	—	—	98.3	0.00	98.3	9.82	0.00	—	344
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	8.96	9.07	1.57	20.4	0.04	1.20	2.27	3.47	1.20	0.57	1.77	227	3,362	3,589	10.5	0.14	4.79	3,899
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.34	0.32	0.24	2.09	< 0.005	< 0.005	0.41	0.42	< 0.005	0.10	0.11	—	442	442	0.02	0.02	0.72	449
Area	1.29	1.34	0.03	1.62	< 0.005	0.21	—	0.21	0.21	—	0.21	20.7	8.86	29.5	0.02	< 0.005	—	30.4
Energy	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	0.01	< 0.005	—	103
Water	—	—	—	—	—	—	—	—	—	—	—	0.67	3.59	4.26	0.07	< 0.005	—	6.49
Waste	—	—	—	—	—	—	—	—	—	—	—	16.3	0.00	16.3	1.63	0.00	—	56.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	1.63	1.65	0.29	3.72	0.01	0.22	0.41	0.63	0.22	0.10	0.32	37.6	557	594	1.75	0.02	0.79	645

## 5. Activity Data

### 5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Medical Office Building	588	145	24.0	161,991	4,322	1,064	176	1,191,451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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)
Medical Office Building	280,199	540	0.0330	0.0040	540,709
Parking Lot	20,262	540	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)
Medical Office Building	2,118,739	44,832
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	182	—
Parking Lot	0.00	—

### 5.14. Operational Refrigeration and Air Conditioning Equipment

#### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Medical Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Medical Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

## 8. User Changes to Default Data

Screen	Justification
Land Use	Lot average adjusted as site is approx. 0.69 acres. Building area SF adjusted to current estimated existing building size.
Construction: Construction Phases	No grading as site is existing medical office building with parking lot being renovated to MFR.

## APPENDIX C



# Climate Action Plan Consistency Review Checklist

Project # \_\_\_\_\_

## Introduction

The City of Escondido (“City”) adopted an updated Climate Action Plan (“CAP”) on March 10, 2021 by Resolution No. 2021-37. The CAP outlines strategies and measures that the City will undertake to achieve its proportional share of State greenhouse gas (“GHG”) emissions reduction targets. The CAP’s strategies and measures are designed to reduce GHG emissions for build-out under the General Plan. The CAP does so by (1) calculating a baseline GHG emissions level as of 2012; and (2) estimating future GHG emissions under a business as usual standard; and (3) implementing state mandated GHG reduction targets. Measures to reduce GHG emissions for projects with land use consistent with the City’s General Plan are found in the CAP.

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The purpose of the CAP Consistency Checklist (“Checklist”) is to provide a streamlined review process for proposed development projects that trigger environmental review pursuant to the California Environmental Quality Act (“CEQA”).

The City’s CAP is a qualified GHG emissions reduction plan in accordance with State CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project’s incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of a CAP. Projects that are consistent with the General Plan and implement applicable CAP GHG reduction measures may incorporate by reference the CAP’s cumulative GHG analysis. Conversely, projects that are consistent with the General Plan, but do not implement CAP GHG reduction measures, as well as General Plan Amendments and Annexations that increase emissions beyond CAP projections — will require a project-level GHG analysis.

The purpose of this Checklist is to implement GHG reduction measures from the CAP and determine if development would demonstrate consistency with the CAP’s assumptions for implementation. Projects that are consistent with the CAP, as determined through the use of this Checklist, may rely on the CAP for the cumulative impact analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions, incorporation of the measures in this Checklist to the extent applicable, and demonstration of consistency with a VMT threshold currently in development by the City. Cumulative GHG impacts could be significant for any project that is not consistent with the CAP.

This Checklist may be updated periodically to incorporate new GHG reduction techniques, include reference to or requirements of new ordinances adopted by the City, or to comply with later amendments to the CAP or local, State, or federal law. Comprehensive updates to this Checklist will be coordinated with each CAP update. Administrative updates to the Checklist may occur regularly, as necessary for the

purpose of keeping the Checklist up-to-date and implementable. Updates to the CAP Checklist associated with an update to the City's CAP would require City Council approval and shall comply with CEQA.

## Applicability and Procedures

This Checklist is required only for discretionary projects<sup>1</sup> that are subject to and not exempt from CEQA. Projects that are exempt from CEQA are deemed to be consistent with the City's CAP, and no further review is necessary, with the exception of a Class 32 "In-Fill Development Projects" categorical exemption (State CEQA Guidelines Section 15332), for which projects are required to demonstrate consistency with the CAP through this Checklist.

General procedures for Checklist compliance and review are described below. Specific guidance is also provided under each of the questions under Steps 1 and 2 of the Checklist.

- The City's Community Development Department reviews development applications relative to environmental review requirements under Article 47 of the Escondido Zoning Code. These environmental quality regulations implement CEQA and State CEQA Guidelines by applying the provisions and procedures contained in CEQA to development projects proposed within the City.
- The project proponent or applicant must demonstrate if the project request is CAP compliant to the satisfaction of the Director of Community Development. In doing so, the project proponent or applicant must provide written documentation to demonstrate the applicability of the Checklist; and provide substantial evidence that demonstrates how the proposed project would implement each applicable Checklist requirement described herein.
- If a question in the Checklist is deemed not applicable (N/A) to a project, written documentation and substantial evidence supporting that conclusion shall be provided to the satisfaction of the Director of Community Development.
- Development projects requiring discretionary review that cannot demonstrate consistency with the CAP using this Checklist shall prepare a separate, project-level GHG analysis as part of the CEQA document prepared for the project and may be required to prepare an Environment Impact Report ("EIR").
- The specific applicable requirements outlined in the Checklist shall be required as conditions of project approval for CAP compliant projects with streamlined GHG emissions assessments.

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<sup>1</sup> In this context, a project is any action that meets the definition of a "Project" in Section 15378 of the State CEQA Guidelines.

## Application Information

### Contact Information

Project No. and Name: Hickory Street Residential Project

Property Address and APN: 240 S Hickory Street; APN 229-492-14-00

Applicant Name and Co.: Escondido Investments, LLC; Bhavesh "Bobby" Patel

Contact Phone: Bhavesh "Bobby" Patel Contact Email: 619-293-3349

Was a consultant retained to complete this checklist?  Yes  No  
 If Yes, complete the following:

Consultant Name: Sally Schifman Contact Phone: 760-929-2288

Company Name: HWL Planning and Engineering Contact Email: sschifman@hwl-pe.com

### Project Information

1. What is the size of the project site (acres)? 0.696 acres; +/- 30,356 SF

2. Identify all applicable proposed land uses:
- Residential (indicate # of single-family dwelling units): \_\_\_\_\_
  - Residential (indicate # of multi-family dwelling units): 20 units
  - Commercial (indicate total square footage): \_\_\_\_\_
  - Industrial (indicate total square footage): \_\_\_\_\_
  - Other (describe use and indicate size): \_\_\_\_\_

3. Provide a description of the project proposed. This description should match the basic project description used for the CEQA document. The description may be attached to the Checklist if there are space constraints.

Escondido Investments LLC (Applicant) is requesting the City of Escondido process a General Plan Amendment and Zone Amendment to allow the conversion of an existing medical office building to a 20-unit one- and two-bedroom multi-family residential development in accordance with Article 19, Planned Development Zone of the EMC. The Hickory Street Residential Project would include interior and exterior site improvements including the delineation of living and bedroom space in each unit, installation of kitchens and bathrooms in each unit, shared laundry facility, tenant storage space, creation of outdoor community area, and upgrades to the parking lot and landscaping.

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## Step 1: Land Use Consistency

The first step in this section evaluates a project's GHG emissions consistent with the City's *Guidance to Demonstrating Consistency with the City of Escondido Climate Action Plan for Discretionary Projects Subject to CEQA* (Guidance Document). A summary of the process for determining the required level of analysis for these projects is provided in Figure 1, "Require Level of Analysis Flowchart," provided in the Guidance Document.

The CAP contains in-City GHG projections for 2020, 2030, and 2035. Measures to reduce GHG emissions for projects with land use consistent with the General Plan are found in the CAP. If any one of these calculations is erroneous, the CAP fails to accomplish this purpose. Therefore, the first step of this checklist is to determine if the project's anticipated growth would have been included in the CAP's business-as-usual land use and activity projections. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP. Projects that are consistent with the General Plan may incorporate by reference the CAP's cumulative GHG analysis.

For projects that are determined to be consistent with CAP projections, the next step is to identify if the project would be estimated to emit fewer than 500 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>) annually. If found to emit fewer than 500 MTCO<sub>2e</sub>, a project would not contribute considerably to cumulative climate change impacts as stated in the City's Guidance Document. Therefore, these projects would be considered consistent with the CAP.

Additionally, at the time of this CAP Checklist preparation, the City is in the process of developing screening thresholds for vehicle miles traveled (VMT) consistent with State legislation. . Thus, projects that would be below both the GHG and VMT screening level thresholds would not be anticipated to result in cumulative GHG impacts and conflict with the City's ability to achieve its GHG reduction targets.

## Step 1: Land Use Consistency

Checklist Item <small>(Check the appropriate box and provide an explanation and supporting documentation for your answer)</small>	Yes	No
<p>1. Is the proposed project consistent with the City’s existing General Plan land use designation?</p> <p>If <b>“Yes”</b>, proceed to Question 3 of Step 1.</p> <p>If <b>“No”</b>, proceed to Question 2 of Step 1.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>2. If the proposed project is not consistent with the existing General Plan land use designation, does the project include a General Plan Amendment that would generate GHG emissions equal to or less than estimated emissions generated under the existing designation?</p> <p>If <b>“Yes”</b>, provide estimated project emissions under both existing and proposed designation(s) for comparison and proceed to Question 3 of Step 1.</p> <p>If <b>“No”</b>, the project’s GHG impact is potentially significant, and a GHG analysis must be prepared in accordance with the City’s Guidance Document and applicable CEQA Guidelines. The project would not be eligible for GHG streamlining provisions of the CAP. The project must incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless a measure is determined to be infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete a project specific GHG analysis, and Step 2 of the Checklist.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>3. The size and type of projects listed below would emit fewer than 500 MTCO<sub>2e</sub> per year. Based on this threshold, does the proposed project exceed these characteristics?</p> <ul style="list-style-type: none"> <li>▪ <u>Single-Family Housing</u><sup>2</sup>: 36 dwelling units</li> <li>▪ <u>Multi-Family Housing</u>: 55 dwelling units</li> <li>▪ <u>Office</u>: 43,000 square feet</li> <li>▪ <u>Commercial Space</u>: 20,000 square feet</li> <li>▪ <u>Regional Shopping Center</u>: 18,000 square feet</li> <li>▪ <u>Restaurant</u>: 6,500 square feet</li> <li>▪ <u>General Light Industrial</u>: 58,000 square feet</li> <li>▪ <u>Warehouse (Unrefrigerated)</u>: 233,000 square feet</li> <li>▪ <u>Warehouse (Refrigerated)</u>: 62,000 square feet</li> <li>▪ <u>Mixed-Use</u>: See the City’s Guidance Document<sup>3</sup> for methods to estimate mixed-use development thresholds</li> <li>▪ <u>Other</u>: For project types not listed in this section the need for GHG analysis and mitigation will be made on a project-specific basis, considering the 500 MTCO<sub>2e</sub> per year screening threshold.</li> </ul> <p>If <b>“Yes”</b>, proceed to Step 2.</p> <p>If <b>“No”</b>, in accordance with the City’s CAP screening criteria, the project’s GHG impact is less than significant and is not subject to the measures of the CAP.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<sup>2</sup> Single-Family Housing developments are defined as single-family detached homes on individual lots. All other residential use types (e.g. single-family attached, condo/townhouse, apartment) should be considered “Multi-Family Housing” for the purposes of comparing a project to the screening thresholds.

<sup>3</sup> *Guidance for Demonstrating Consistency with the City of Escondido Climate Action Plan for discretionary Projects Subject to CEQA*, available at

[https://www.escondido.org/Data/Sites/1/media/PDFs/Planning/ClimateActionPlan/Final/Escondido\\_ThresholdsMemoFinal3.10.2021.pdf](https://www.escondido.org/Data/Sites/1/media/PDFs/Planning/ClimateActionPlan/Final/Escondido_ThresholdsMemoFinal3.10.2021.pdf)

## Step 2: CAP Measures Consistency

The second step of CAP consistency review is to evaluate a project’s consistency with the applicable strategies and measures of the CAP. Each Checklist item is associated with specific GHG reduction measures in the City’s CAP.

Step 2: CAP Measures Consistency			
Checklist Item (Check the appropriate box and provide an explanation for your answer. Please use additional sheets if necessary)	Yes	No	N/A
<b>Parking and Transportation Demand Management</b>			
<p><b>1. Electric Vehicle Charging Stations (Measures T-1.3 &amp; T-1.4)</b></p> <p><u>All Projects:</u> Will the project install electric vehicle charging stations (EVCSs) consistent with the following requirements:</p> <ul style="list-style-type: none"> <li>Comply with the most recently updated version of the California Building Energy Efficiency Standards (Title 24, Part 6)?</li> <li>For multi-family residential and commercial (i.e. office and retail commercial) projects, will the project install electric vehicle charging stations at a minimum of 10 percent of the total parking spaces provided?</li> <li>For single-family residential projects, will the project install at least one EVCS in each new single-family home?</li> </ul> <p>Check “N/A” only if the project is not proposing any parking; or if the project does not propose any construction activities.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Please substantiate how the project satisfies question 1:</p> <hr/> <hr/>			
<p><b>2. Pedestrian Infrastructure (Measure T-3.2)</b></p> <p><u>All Projects:</u> If the following conditions are met, would the project pay its fair-share contribution or fully install pedestrian infrastructure improvements?</p> <ul style="list-style-type: none"> <li>The project frontage is located along a roadway for which pedestrian improvements are identified in the City’s Street Design Manual, Pedestrian Master Plan, Trail Master Plan, or Safe Routes to School and Transit Plans;</li> <li>The proposed project would include site design amenities with pedestrian access points from the existing, identified roadway; and,</li> <li>The identified pedestrian improvements have not yet been installed. Or if they have been installed, the infrastructure is being redesigned, upgraded, and/or maintained to promote universal access.</li> </ul> <p>Check “N/A” only if the project does not propose any construction activities.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please substantiate how the project satisfies question 2:

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**3. Transportation Demand Management and Transit (Measures T-3.4 and T-3.6)**

Single-Family Projects: N/A

Multi-Family Residential Projects: If the project is located in the Downtown Specific Plan area and is proposing a reduction in over 15 percent of the required amount of on-site vehicular parking, would the project implement the following policies or programs?

- The project would provide six-month transit passes to new residents;
- The project establishes strong connections in site design to promote convenient access and transit orientation; and,
- The project would monitor transit use by new residents for the first six months of project operations.

Non-Residential Projects: If the project is located within the Downtown Specific Plan, South Centre City Specific Plan, or East Valley Parkway Specific Plan, will the project implement Transportation Demand Management (TDM) program that includes, at a minimum:

- “End-of-trip” facilities for bicycle commuters (e.g. bicycle parking spaces, showers, lockers);
- Discounted monthly North County Transit District (NCTD) passes or transit subsidies;
- Informational material (provided to each employee or tenant) for carpool and vanpool ride-matching services; and
- Parking cash-out policies.

Check “N/A” only if the project is a single-family residential project; if the project is multi-family or non-residential but not located within the aforementioned specific plans; or if the project does not propose any construction activities..

	<input type="checkbox"/>	<input type="checkbox"/>
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Please substantiate how the project satisfies question 3:

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<p><b>4. Bicycle Infrastructure (Measure T-3.5)</b></p> <p><u>All Projects:</u> If the following conditions are met, would the project pay its fair-share contribution to bicycle infrastructure improvements?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Intersection or roadway improvements are proposed as part of the project; and</li> <li><input type="checkbox"/> The City’s Bicycle Master Plan for identifies bicycle infrastructure improvements at any intersection(s) or roadway segment(s) that would be impacted as part of the project.</li> </ul> <p>Check “N/A” if the intersection or roadway improvements required are fully in place to the satisfaction of the Director of Community Development; or if the project does not propose any construction activities.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please substantiate how the project satisfies question 4:

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**Building Energy Use and Efficiency**

<p><b>5. Alternatively Fueled Water Heaters (Measures E-4.1 and E-4.2)</b></p> <p><u>Residential Projects:</u> If the project is a new single-family or multi-family residential development, will the project install electric heat pump water heaters?</p> <p><u>Non-Residential Projects:</u> If the project is non-residential, will the project install electric heat pump water heaters?</p> <p>Check “N/A” only if the project is non-residential and has an alteration and addition with a permit value of \$200,000 or less; or if the project does not propose any construction activities.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please substantiate how the project satisfies question 5:

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<p><b>6. Electric Cooking Appliances (Measure E-4.2)</b></p> <p><u>Single-Family Residential Projects:</u> N/A</p> <p><u>Multi-Family Residential Projects:</u> If the project is a new multi-family residential development, will the project install only electric cooking appliances?</p> <p><u>Non-Residential Projects:</u> N/A</p> <p>Check "N/A" only if the project is a single-family residential or non-residential project, or if the project does not propose any construction activities.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please substantiate how the project satisfies question 6:

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<p><b>7. Zero Net Energy (Measure E-5.2)</b></p> <p><u>Residential Projects:</u> N/A</p> <p><u>Commercial Projects:</u> If the project is a new commercial retail or office development, would the project achieve zero net energy (i.e. the total amount of energy used on-site is equal to the amount of renewable energy created on-site) and comply with the most recently updated California Building Energy Efficiency Standards (Title 24, Part 6)?</p> <p>Check "N/A" only if the project is a residential or project, or if the project does not propose any construction activities.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please substantiate how the project satisfies question 7:

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**Landscaping and Land Conservation**

**8. Landscape Water Consumption (Measure W-6.2)**

Single-Family Residential Projects: If the project is proposing a single-family or townhome model home development, would the project:

- Fully equip all model homes with greywater systems and rain barrels (or other rainwater capture systems); and,
- Offer greywater systems and rain barrels (or other rainwater capture systems) as an add-on option for new homes.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Non-Residential Projects: N/A

Check "N/A" if the project is not a single-family or townhome model home development; or if the project does not propose any construction activities.

Please substantiate how the project satisfies question 8:

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**9. Tree Planting (Measure C-9.1)**

All Projects: Would the project plant trees consistent with the following requirements?

- Would the project plant a minimum of one tree for every four new parking spaces and/or demonstrate 50% canopy coverage in parking areas?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Residential Projects: In addition to the planting requirements above for all projects, would the project be consistent with the following requirement?

- Would the project plant a minimum of one tree per dwelling unit or pay an in-lieu fee?

Check "N/A" only if the project is not proposing any landscaping; or if the City's landscape ordinance would not apply to the project.

Please substantiate how the project satisfies question 9:

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