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June 19, 2023

Capalina SMA Manager, LLC  
Attn: Jon Rilling, Manager  
179 Calle Magdalena #201  
Encinitas, CA 92024

**RE: Capalina Apartments Residential Development (GPA22-0003, R22-0003, SDP22-0007) Energy Usage Letter – San Marcos CA**

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

*Would the project:*

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

## ***Project Description***

The project proposes up to 119 multi-family residential units within two four-story buildings situated on approximately 2.51 gross acres. The project would also include 4,000 Square Foot (SF) of retail use. Additionally, the Project proposes as many as 147 outdoor parking spaces of which 8 will be equipped with Electric Vehicle (EV) chargers and 15 will be EV capable. The project seeks a General Plan Amendment (GPA) and rezone or the property from Mixed Use (MU-3) to Mixed Use (MU-2). Construction would be expected to last less than one year and full operations are expected in 2025.

The General Plan Land Use designation for the site is Mixed Use 3 (MU3), which is a mixed-use non-residential designation with a maximum floor area ratio (FAR) of 1.50. A constructable concept plan for the existing site was prepared calling for the construction of a multi-story office building consisting of 90,000 square feet (SF) of office use, 10,000 SF of retail use and 400

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parking spaces. Parking would require both a parking garage and ground level parking locations outside for this scenario to work. The total area including the parking would have a total gross floor area of 158,000 SF and would have a Floor Area Ratio (FAR) of 1.5.

Construction of the proposed project and the MU3 General Plan zoning designation (GP Buildout Scenario) would be expected to occur over a 10 to 11-month fast paced duration and are assumed to be the same for each scenario which is conservative. Grading for the project will consist of approximately 4,030 cubic yards (CY) of cut material and 12,270 CY of fill material requiring an import of approximately 8,240 CY of fill material. The GP Buildout scenario is anticipated to be the same.

### ***Construction***

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

Project construction dates were estimated using CalEEMod and follow assumptions identified in both the Project Air Quality and Greenhouse Gas (GHG) analysis. Based on this, an estimated construction kickoff starting in 2024 and completing the project roughly one year later. Based on the equipment, quantity, work time, Horsepower (HP), the project would require a total of 477,570 hp-h (See Table 1 Below). Based on this, the project would consume roughly 28,944 gallons of diesel for construction. The Project would require essentially the same energy during construction as the GP Buildout scenario. It should be noted that fuel consumption would go up if diesel construction equipment is poorly maintained. Based on this, the project shall properly maintain all equipment per manufacture recommendations. The model is provided as ***Attachments A*** to this report.

**Table 2: Proposed Construction Phase and Duration**

Equipment Identification	Duration (Days)	Hours per day	HP	Load Factor	Quantity	Horsepower Hours
<b>Site Preparation</b>	3					
Graders		8	187	0.41	1	1,840.08
Scrapers		8	367	0.48	1	4,227.84
Tractors/Loaders/Backhoes		7	97	0.37	1	753.69
<b>Grading</b>	6					
Graders		8	187	0.41	1	3,680.16
Rubber Tired Dozers		8	247	0.4	1	4,742.40
Tractors/Loaders/Backhoes		7	97	0.37	1	1,507.38
<b>Building Construction</b>	220					
Cranes		8	231	0.29	1	117,902.40
Forklifts		7	89	0.2	2	54,824.00
Generator Sets		8	84	0.74	1	109,401.60
Tractors/Loaders/Backhoes		6	97	0.37	1	47,374.80
Welders		8	46	0.45	3	109,296.00
<b>Paving</b>	10					
Pavers		8	130	0.42	1	4,368.00
Paving Equipment		8	132	0.36	1	3,801.60
Rollers		8	80	0.38	2	4,864.00
<b>Architectural Coating</b>	40					
Air Compressors		6	78	0.48	1	8,985.60
Total Horsepower Hours						477,569.55
Total Diesel Fuel (Gal) @ 16.5 hp-h/gal						28,944
This equipment list is based upon equipment inventory and estimates within CalEEMod 2020.4.0.						

Construction energy from workers, vendors and haulage are based on the estimated vehicle miles traveled (VMT) for the total construction duration which is 438,141.2 miles for the Project which is calculated from the CalEEMod output file provided in **Attachment A** to this report. In California, the average fuel economy for on-road vehicles is 24.1 miles per gal or 0.0415 gal/mile (CARB, 2022). Thus, vehicular trips would consume roughly 18,183 gallons during construction.

On-road vehicles are regulated by state and federal regulations and vehicular fleet efficiencies are getting better each year. Additionally, all construction equipment shall be maintained as needed per manufacturers’ recommendations. Since the projected energy usage of the Project and the GP Buildout scenario would be essentially the same, the project would not significantly alter the energy consumption with respect to construction when compared to the GP Buildout scenario but would not necessarily increase energy demand with respect to the proposed GP Buildout scenario either.

The proposed equipment would be required to construct the proposed Project and is consistent with what would be likely required within the GP Buildout scenario. The equipment will be maintained and operated in accordance with the equipment manufacturer recommendations. Given this, since the proposed Project wouldn’t increase energy requirements at the time of

construction when compared to the GP Buildout scenario and since the construction equipment would not be in excess of what would be required to complete the project, the construction activities would not be *wasteful, inefficient, or unnecessary as related to the required consumption of energy resources during project construction*. Therefore, a less than significant energy impact would be expected during the construction activities of the Project.

## ***Operations***

### *Energy – Utility Demand*

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

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

Furthermore, the City has updated their Climate Action Plan (CAP) and now requires projects exceeding 500 metric tons carbon dioxide equivalent (MTCO<sub>2</sub>e) per year to complete the CAP Consistency Review Checklist (Ascent, 2020). The CAP checklist provides a number of requirements designed to reduce greenhouse gas (GHG) of which the primary method is to reduce the usage of non-renewable energy.

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

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

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

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

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

The natural gas and electrical energy usage utilized by Project could be compared to the GP Buildout scenario which is presented in Table 3 below. Based on the results, the Project is estimated to consume 950,170 kBTU less natural gas annually and 1,324,523 kWh less electrical energy annually when compared to the GP Buildout Scenario. Under that analysis, reductions from Title 24 of the California Building Code (2019) were accounted for which would improve the efficiency of the project in terms of energy consumption though reductions from the City's CAP were not considered. Title 24 (2022) has not been included into CalEEMod 2020.4.0 but would essentially with some benefit reduce energy consumption for both scenarios. Based on this, energy use associated with Project operations would not result in wasteful, inefficient, or an unnecessary use of energy. The CalEEMod estimation tool output for the Project and the GP Buildout scenario are provided as **Attachments A** and **-B** to this letter.

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

Energy Source	Project	GP Buildout Scenario	Project Reductions compared to GP Buildout Scenario
Natural Gas Usage (kBTU/Year)	874,730	1,824,900	-950,170
Electrical Usage (kWH)	527,277	1,851,800	-1,324,523

Energy – Vehicular Usage

The Project traffic engineer estimated that the Project would generate 874 daily trips (CR Associates, 2023). The Traffic study did not estimate how many trips the GP Buildout Scenario would generate though using the same methodology relying on SANDAG’s (Not So) Brief Guide of Vehicular Traffic Generation Rate for the San Diego Region (SANDAG, 2002), the GP Buildout scenario would generate 2,200 trips. Based on this, the Project would generate,1,326 fewer trips than the MU3 Buildout Scenario. This reduction would be a 60% reduction in trips and would also correlate to roughly the same reduction in fuel requirements for trips generated onsite. The operational modeling of both the Project and the GP Buildout scenario are also shown in **Attachments A** and **-B**, respectively.

Given this, the Project would have a reduced energy usage related to vehicles and a less than significant impact on Energy as compared to GP Buildout scenario. Energy efficiency for vehicles is mandated by State specific policies geared to reduce GHG emissions using zero-emission vehicles. These policies are:

Executive Order (EO) B-16-12

In March 2012 EO B-16-12 directs state entities under the Governor’s direction and control to support and facilitate development and distribution of ZEVs. This EO also sets a long-term target of reaching 1.5 million zero-emission vehicles on California’s roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

California Senate Bill 350

In 2015, SB 350 – the Clean Energy and Pollution Reduction Act – was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the

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transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code Section 740.12).

## **Conclusion**

Based on this analysis, the long-term energy demand during operations of the project would not result in a wasteful or inefficient use of energy. As RPS increases and as electric vehicle operations become more standardized, energy consumptions and efficiency will decrease. Given this, a less than significant impact under CEQA with respect to Energy Waste is expected and the project would not result in a wasteful or inefficient use of energy. Furthermore, the project would not conflict with or obstruct the State's or Local plans for renewable energy or energy efficiency.

Sincerely,

**Ldn Consulting, Inc.**

Jeremy Loudon, Principal

**Attachment A:** CalEEMod analysis tool (Proposed Project)

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

## **References:**

Ascent. (2020). CAP Consistency Guidance Memo.

California Title 24, Part 11. (2022). Retrieved from  
<https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes>

CARB. (2022). *California Greenhouse Gas Emissions for 2000 to 2020*. Retrieved from  
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CR Associates. (2023). *Capalina Development Transportation Analysis*.

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VirginiaTech. (2010). *Predicting Tractor Diesel Fuel Consumption*. Retrieved from  
<https://pdfs.semanticscholar.org/2631/d1ae4f63bcf1b067e69804f904968f318571.pdf>

**ATTACHMENT A:**  
CalEEMod analysis tool (Proposed Project)



Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Capalina 119 Unit Multi-Family Operational Year 2030**

**San Diego County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	147.00	Space	1.32	58,800.00	0
Apartment Mid Rise	119.00	Dwelling Unit	1.10	119,000.00	340
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2030
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	322.38	<b>CH4 Intensity (lb/MWhr)</b>	0.02	<b>N2O Intensity (lb/MWhr)</b>	0.002

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - RPS 2030
- Land Use - 2.51 acres
- Construction Phase - CS
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Trips and VMT -
- Grading - 8240CY of import
- Architectural Coating - Rule 67 Paint
- Vehicle Trips - Per Traffic Study

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No Hearth

Area Coating - Rule 67 Paint

Energy Use -

Construction Off-road Equipment Mitigation - T4

Area Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	40.00
tblFireplaces	NumberGas	65.45	0.00
tblFireplaces	NumberNoFireplace	11.90	119.00
tblFireplaces	NumberWood	41.65	0.00
tblGrading	MaterialImported	0.00	8,240.00
tblLandUse	LotAcreage	3.13	1.10
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.02
tblProjectCharacteristics	CO2IntensityFactor	539.98	322.38
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	7.30	5.40
tblVehicleTrips	CNW_TL	7.30	5.40
tblVehicleTrips	CW_TL	9.50	5.40
tblVehicleTrips	HO_TL	7.50	5.40

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tblVehicleTrips	HS_TL	7.30	5.40
tblVehicleTrips	HW_TL	10.80	5.40
tblVehicleTrips	ST_TR	4.91	6.00
tblVehicleTrips	ST_TR	42.04	40.00
tblVehicleTrips	SU_TR	4.09	6.00
tblVehicleTrips	SU_TR	20.43	40.00
tblVehicleTrips	WD_TR	5.44	6.00
tblVehicleTrips	WD_TR	44.32	40.00
tblWoodstoves	NumberCatalytic	5.95	0.00
tblWoodstoves	NumberNoncatalytic	5.95	0.00

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1434	1.1334	1.2648	3.0600e-003	0.1085	0.0423	0.1508	0.0334	0.0404	0.0737	0.0000	270.3878	270.3878	0.0345	0.0109	274.4862
2025	0.8493	0.5605	0.7309	1.5800e-003	0.0444	0.0210	0.0654	0.0119	0.0200	0.0320	0.0000	137.7124	137.7124	0.0183	3.2300e-003	139.1298
<b>Maximum</b>	<b>0.8493</b>	<b>1.1334</b>	<b>1.2648</b>	<b>3.0600e-003</b>	<b>0.1085</b>	<b>0.0423</b>	<b>0.1508</b>	<b>0.0334</b>	<b>0.0404</b>	<b>0.0737</b>	<b>0.0000</b>	<b>270.3878</b>	<b>270.3878</b>	<b>0.0345</b>	<b>0.0109</b>	<b>274.4862</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0482	0.4373	1.3346	3.0600e-003	0.1085	4.0200e-003	0.1125	0.0334	3.9500e-003	0.0373	0.0000	270.3877	270.3877	0.0345	0.0109	274.4860
2025	0.7997	0.2013	0.7746	1.5800e-003	0.0444	1.9700e-003	0.0464	0.0119	1.9500e-003	0.0139	0.0000	137.7123	137.7123	0.0183	3.2300e-003	139.1297
<b>Maximum</b>	<b>0.7997</b>	<b>0.4373</b>	<b>1.3346</b>	<b>3.0600e-003</b>	<b>0.1085</b>	<b>4.0200e-003</b>	<b>0.1125</b>	<b>0.0334</b>	<b>3.9500e-003</b>	<b>0.0373</b>	<b>0.0000</b>	<b>270.3877</b>	<b>270.3877</b>	<b>0.0345</b>	<b>0.0109</b>	<b>274.4860</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	14.58	62.30	-5.69	0.00	0.00	90.53	26.49	0.00	90.24	51.58	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
5	6-1-2024	8-31-2024	0.5819	0.2314
6	9-1-2024	11-30-2024	0.5182	0.1860
7	12-1-2024	2-28-2025	0.6267	0.2985
8	3-1-2025	5-31-2025	0.9566	0.7655
		Highest	0.9566	0.7655

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5878	0.0102	0.8826	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3800e-003	0.0000	1.4806
Energy	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	123.6593	123.6593	5.6700e-003	1.3300e-003	124.1984
Mobile	0.2713	0.2437	2.2501	4.2700e-003	0.5311	3.1000e-003	0.5342	0.1417	2.8900e-003	0.1446	0.0000	417.9629	417.9629	0.0330	0.0204	424.8748
Waste						0.0000	0.0000		0.0000	0.0000	11.9643	0.0000	11.9643	0.7071	0.0000	29.6410
Water						0.0000	0.0000		0.0000	0.0000	2.5538	23.5629	26.1167	0.2638	6.3400e-003	34.5999
<b>Total</b>	<b>0.8639</b>	<b>0.2942</b>	<b>3.1500</b>	<b>4.5800e-003</b>	<b>0.5311</b>	<b>0.0113</b>	<b>0.5424</b>	<b>0.1417</b>	<b>0.0111</b>	<b>0.1528</b>	<b>14.5181</b>	<b>566.6311</b>	<b>581.1492</b>	<b>1.0108</b>	<b>0.0281</b>	<b>614.7946</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5878	0.0102	0.8826	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3800e-003	0.0000	1.4806
Energy	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	123.6593	123.6593	5.6700e-003	1.3300e-003	124.1984
Mobile	0.2713	0.2437	2.2501	4.2700e-003	0.5311	3.1000e-003	0.5342	0.1417	2.8900e-003	0.1446	0.0000	417.9629	417.9629	0.0330	0.0204	424.8748
Waste						0.0000	0.0000		0.0000	0.0000	11.9643	0.0000	11.9643	0.7071	0.0000	29.6410
Water						0.0000	0.0000		0.0000	0.0000	2.5538	23.5629	26.1167	0.2638	6.3400e-003	34.5999
<b>Total</b>	<b>0.8639</b>	<b>0.2942</b>	<b>3.1500</b>	<b>4.5800e-003</b>	<b>0.5311</b>	<b>0.0113</b>	<b>0.5424</b>	<b>0.1417</b>	<b>0.0111</b>	<b>0.1528</b>	<b>14.5181</b>	<b>566.6311</b>	<b>581.1492</b>	<b>1.0108</b>	<b>0.0281</b>	<b>614.7946</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2024	6/5/2024	5	3	
2	Grading	Grading	6/6/2024	6/13/2024	5	6	
3	Building Construction	Building Construction	6/14/2024	4/17/2025	5	220	

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

4	Paving	Paving	2/21/2025	3/6/2025	5	10
5	Architectural Coating	Architectural Coating	2/21/2025	4/17/2025	5	40

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 6**

**Acres of Paving: 1.32**

**Residential Indoor: 240,975; Residential Outdoor: 80,325; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000; Striped Parking Area: 3,528 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**



Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,030.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	112.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

**3.2 Site Preparation - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8600e-003	0.0197	0.0144	4.0000e-005		7.5000e-004	7.5000e-004		6.9000e-004	6.9000e-004	0.0000	3.2300	3.2300	1.0400e-003	0.0000	3.2561
<b>Total</b>	<b>1.8600e-003</b>	<b>0.0197</b>	<b>0.0144</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>7.5000e-004</b>	<b>3.1400e-003</b>	<b>2.6000e-004</b>	<b>6.9000e-004</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>3.2300</b>	<b>3.2300</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.2561</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0752	0.0752	0.0000	0.0000	0.0758
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0752</b>	<b>0.0752</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0758</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	1.9600e-003	0.0178	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2300	3.2300	1.0400e-003	0.0000	3.2561
<b>Total</b>	<b>4.5000e-004</b>	<b>1.9600e-003</b>	<b>0.0178</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>6.0000e-005</b>	<b>2.4500e-003</b>	<b>2.6000e-004</b>	<b>6.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>3.2300</b>	<b>3.2300</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.2561</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0752	0.0752	0.0000	0.0000	0.0758
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0752</b>	<b>0.0752</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0758</b>

**3.3 Grading - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0218	0.0000	0.0218	0.0104	0.0000	0.0104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-003	0.0415	0.0261	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
<b>Total</b>	<b>3.9000e-003</b>	<b>0.0415</b>	<b>0.0261</b>	<b>6.0000e-005</b>	<b>0.0218</b>	<b>1.7200e-003</b>	<b>0.0236</b>	<b>0.0104</b>	<b>1.5800e-003</b>	<b>0.0119</b>	<b>0.0000</b>	<b>5.4311</b>	<b>5.4311</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4750</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0693	0.0189	3.0000e-004	8.8200e-003	5.8000e-004	9.4000e-003	2.4200e-003	5.5000e-004	2.9700e-003	0.0000	30.3636	30.3636	1.6000e-003	4.8300e-003	31.8437
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1879	0.1879	1.0000e-005	0.0000	0.1895
<b>Total</b>	<b>1.2000e-003</b>	<b>0.0693</b>	<b>0.0195</b>	<b>3.0000e-004</b>	<b>9.0600e-003</b>	<b>5.8000e-004</b>	<b>9.6400e-003</b>	<b>2.4800e-003</b>	<b>5.5000e-004</b>	<b>3.0400e-003</b>	<b>0.0000</b>	<b>30.5515</b>	<b>30.5515</b>	<b>1.6100e-003</b>	<b>4.8300e-003</b>	<b>32.0333</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0218	0.0000	0.0218	0.0104	0.0000	0.0104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-004	3.2800e-003	0.0327	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
<b>Total</b>	<b>7.6000e-004</b>	<b>3.2800e-003</b>	<b>0.0327</b>	<b>6.0000e-005</b>	<b>0.0218</b>	<b>1.0000e-004</b>	<b>0.0219</b>	<b>0.0104</b>	<b>1.0000e-004</b>	<b>0.0105</b>	<b>0.0000</b>	<b>5.4311</b>	<b>5.4311</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4750</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0693	0.0189	3.0000e-004	8.8200e-003	5.8000e-004	9.4000e-003	2.4200e-003	5.5000e-004	2.9700e-003	0.0000	30.3636	30.3636	1.6000e-003	4.8300e-003	31.8437
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1879	0.1879	1.0000e-005	0.0000	0.1895
<b>Total</b>	<b>1.2000e-003</b>	<b>0.0693</b>	<b>0.0195</b>	<b>3.0000e-004</b>	<b>9.0600e-003</b>	<b>5.8000e-004</b>	<b>9.6400e-003</b>	<b>2.4800e-003</b>	<b>5.5000e-004</b>	<b>3.0400e-003</b>	<b>0.0000</b>	<b>30.5515</b>	<b>30.5515</b>	<b>1.6100e-003</b>	<b>4.8300e-003</b>	<b>32.0333</b>

**3.4 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1142	0.9169	1.0082	1.7900e-003		0.0385	0.0385		0.0368	0.0368	0.0000	148.5155	148.5155	0.0277	0.0000	149.2070
<b>Total</b>	<b>0.1142</b>	<b>0.9169</b>	<b>1.0082</b>	<b>1.7900e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0368</b>	<b>0.0368</b>	<b>0.0000</b>	<b>148.5155</b>	<b>148.5155</b>	<b>0.0277</b>	<b>0.0000</b>	<b>149.2070</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0725	0.0252	3.3000e-004	0.0109	4.3000e-004	0.0114	3.1500e-003	4.1000e-004	3.5700e-003	0.0000	32.4222	32.4222	1.0200e-003	4.7000e-003	33.8476
Worker	0.0204	0.0135	0.1713	5.4000e-004	0.0642	3.4000e-004	0.0646	0.0171	3.1000e-004	0.0174	0.0000	50.1624	50.1624	1.3700e-003	1.3200e-003	50.5914
<b>Total</b>	<b>0.0222</b>	<b>0.0860</b>	<b>0.1964</b>	<b>8.7000e-004</b>	<b>0.0751</b>	<b>7.7000e-004</b>	<b>0.0759</b>	<b>0.0202</b>	<b>7.2000e-004</b>	<b>0.0210</b>	<b>0.0000</b>	<b>82.5846</b>	<b>82.5846</b>	<b>2.3900e-003</b>	<b>6.0200e-003</b>	<b>84.4390</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0236	0.2767	1.0679	1.7900e-003		2.5200e-003	2.5200e-003		2.5200e-003	2.5200e-003	0.0000	148.5153	148.5153	0.0277	0.0000	149.2068
<b>Total</b>	<b>0.0236</b>	<b>0.2767</b>	<b>1.0679</b>	<b>1.7900e-003</b>		<b>2.5200e-003</b>	<b>2.5200e-003</b>		<b>2.5200e-003</b>	<b>2.5200e-003</b>	<b>0.0000</b>	<b>148.5153</b>	<b>148.5153</b>	<b>0.0277</b>	<b>0.0000</b>	<b>149.2068</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0725	0.0252	3.3000e-004	0.0109	4.3000e-004	0.0114	3.1500e-003	4.1000e-004	3.5700e-003	0.0000	32.4222	32.4222	1.0200e-003	4.7000e-003	33.8476
Worker	0.0204	0.0135	0.1713	5.4000e-004	0.0642	3.4000e-004	0.0646	0.0171	3.1000e-004	0.0174	0.0000	50.1624	50.1624	1.3700e-003	1.3200e-003	50.5914
<b>Total</b>	<b>0.0222</b>	<b>0.0860</b>	<b>0.1964</b>	<b>8.7000e-004</b>	<b>0.0751</b>	<b>7.7000e-004</b>	<b>0.0759</b>	<b>0.0202</b>	<b>7.2000e-004</b>	<b>0.0210</b>	<b>0.0000</b>	<b>82.5846</b>	<b>82.5846</b>	<b>2.3900e-003</b>	<b>6.0200e-003</b>	<b>84.4390</b>

**3.4 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0574	0.4629	0.5393	9.6000e-004		0.0181	0.0181		0.0173	0.0173	0.0000	79.9781	79.9781	0.0147	0.0000	80.3448
<b>Total</b>	<b>0.0574</b>	<b>0.4629</b>	<b>0.5393</b>	<b>9.6000e-004</b>		<b>0.0181</b>	<b>0.0181</b>		<b>0.0173</b>	<b>0.0173</b>	<b>0.0000</b>	<b>79.9781</b>	<b>79.9781</b>	<b>0.0147</b>	<b>0.0000</b>	<b>80.3448</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e-004	0.0387	0.0133	1.7000e-004	5.8800e-003	2.3000e-004	6.1100e-003	1.7000e-003	2.2000e-004	1.9200e-003	0.0000	17.1253	17.1253	5.6000e-004	2.4800e-003	17.8784
Worker	0.0103	6.5800e-003	0.0866	2.8000e-004	0.0346	1.7000e-004	0.0348	9.1900e-003	1.6000e-004	9.3500e-003	0.0000	26.3508	26.3508	6.7000e-004	6.7000e-004	26.5671
<b>Total</b>	<b>0.0113</b>	<b>0.0452</b>	<b>0.0999</b>	<b>4.5000e-004</b>	<b>0.0405</b>	<b>4.0000e-004</b>	<b>0.0409</b>	<b>0.0109</b>	<b>3.8000e-004</b>	<b>0.0113</b>	<b>0.0000</b>	<b>43.4761</b>	<b>43.4761</b>	<b>1.2300e-003</b>	<b>3.1500e-003</b>	<b>44.4455</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0127	0.1490	0.5750	9.6000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	79.9780	79.9780	0.0147	0.0000	80.3447
<b>Total</b>	<b>0.0127</b>	<b>0.1490</b>	<b>0.5750</b>	<b>9.6000e-004</b>		<b>1.3500e-003</b>	<b>1.3500e-003</b>		<b>1.3500e-003</b>	<b>1.3500e-003</b>	<b>0.0000</b>	<b>79.9780</b>	<b>79.9780</b>	<b>0.0147</b>	<b>0.0000</b>	<b>80.3447</b>



Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7000e-004	0.0387	0.0133	1.7000e-004	5.8800e-003	2.3000e-004	6.1100e-003	1.7000e-003	2.2000e-004	1.9200e-003	0.0000	17.1253	17.1253	5.6000e-004	2.4800e-003	17.8784
Worker	0.0103	6.5800e-003	0.0866	2.8000e-004	0.0346	1.7000e-004	0.0348	9.1900e-003	1.6000e-004	9.3500e-003	0.0000	26.3508	26.3508	6.7000e-004	6.7000e-004	26.5671
<b>Total</b>	<b>0.0113</b>	<b>0.0452</b>	<b>0.0999</b>	<b>4.5000e-004</b>	<b>0.0405</b>	<b>4.0000e-004</b>	<b>0.0409</b>	<b>0.0109</b>	<b>3.8000e-004</b>	<b>0.0113</b>	<b>0.0000</b>	<b>43.4761</b>	<b>43.4761</b>	<b>1.2300e-003</b>	<b>3.1500e-003</b>	<b>44.4455</b>

**3.5 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.9700e-003	0.0287	0.0457	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	6.1572	6.1572	1.9900e-003	0.0000	6.2070
Paving	1.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.7000e-003</b>	<b>0.0287</b>	<b>0.0457</b>	<b>7.0000e-005</b>		<b>1.4100e-003</b>	<b>1.4100e-003</b>		<b>1.3000e-003</b>	<b>1.3000e-003</b>	<b>0.0000</b>	<b>6.1572</b>	<b>6.1572</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.2070</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	8.0000e-005	1.0000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3056	0.3056	1.0000e-005	1.0000e-005	0.3081
<b>Total</b>	<b>1.2000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3056</b>	<b>0.3056</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3081</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-004	3.7400e-003	0.0532	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	6.1572	6.1572	1.9900e-003	0.0000	6.2070
Paving	1.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.5900e-003</b>	<b>3.7400e-003</b>	<b>0.0532</b>	<b>7.0000e-005</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>6.1572</b>	<b>6.1572</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.2070</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	8.0000e-005	1.0000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3056	0.3056	1.0000e-005	1.0000e-005	0.3081
<b>Total</b>	<b>1.2000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3056</b>	<b>0.3056</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3081</b>

**3.6 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7713					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4200e-003	0.0229	0.0362	6.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
<b>Total</b>	<b>0.7748</b>	<b>0.0229</b>	<b>0.0362</b>	<b>6.0000e-005</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>5.1065</b>	<b>5.1065</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>5.1135</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	6.7000e-004	8.8400e-003	3.0000e-005	3.5300e-003	2.0000e-005	3.5500e-003	9.4000e-004	2.0000e-005	9.5000e-004	0.0000	2.6889	2.6889	7.0000e-005	7.0000e-005	2.7109
<b>Total</b>	<b>1.0500e-003</b>	<b>6.7000e-004</b>	<b>8.8400e-003</b>	<b>3.0000e-005</b>	<b>3.5300e-003</b>	<b>2.0000e-005</b>	<b>3.5500e-003</b>	<b>9.4000e-004</b>	<b>2.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>2.6889</b>	<b>2.6889</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>2.7109</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7713					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	2.5800e-003	0.0367	6.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
<b>Total</b>	<b>0.7719</b>	<b>2.5800e-003</b>	<b>0.0367</b>	<b>6.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>5.1065</b>	<b>5.1065</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>5.1135</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	6.7000e-004	8.8400e-003	3.0000e-005	3.5300e-003	2.0000e-005	3.5500e-003	9.4000e-004	2.0000e-005	9.5000e-004	0.0000	2.6889	2.6889	7.0000e-005	7.0000e-005	2.7109
<b>Total</b>	<b>1.0500e-003</b>	<b>6.7000e-004</b>	<b>8.8400e-003</b>	<b>3.0000e-005</b>	<b>3.5300e-003</b>	<b>2.0000e-005</b>	<b>3.5500e-003</b>	<b>9.4000e-004</b>	<b>2.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>2.6889</b>	<b>2.6889</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>2.7109</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2713	0.2437	2.2501	4.2700e-003	0.5311	3.1000e-003	0.5342	0.1417	2.8900e-003	0.1446	0.0000	417.9629	417.9629	0.0330	0.0204	424.8748
Unmitigated	0.2713	0.2437	2.2501	4.2700e-003	0.5311	3.1000e-003	0.5342	0.1417	2.8900e-003	0.1446	0.0000	417.9629	417.9629	0.0330	0.0204	424.8748

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	714.00	714.00	714.00	1,246,331	1,246,331
Parking Lot	0.00	0.00	0.00		
Strip Mall	160.00	160.00	160.00	173,846	173,846
Total	874.00	874.00	874.00	1,420,178	1,420,178

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.40	5.40	5.40	41.60	18.80	39.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	5.40	5.40	5.40	16.60	64.40	19.00	45	40	15

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.575453	0.061728	0.171227	0.112384	0.022882	0.006522	0.009800	0.006298	0.000679	0.000623	0.027611	0.000857	0.003936
Parking Lot	0.575453	0.061728	0.171227	0.112384	0.022882	0.006522	0.009800	0.006298	0.000679	0.000623	0.027611	0.000857	0.003936

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Strip Mall	0.575453	0.061728	0.171227	0.112384	0.022882	0.006522	0.009800	0.006298	0.000679	0.000623	0.027611	0.000857	0.003936
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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76.9804	76.9804	4.7800e-003	4.8000e-004	77.2421
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76.9804	76.9804	4.7800e-003	4.8000e-004	77.2421
NaturalGas Mitigated	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6789	46.6789	8.9000e-004	8.6000e-004	46.9563
NaturalGas Unmitigated	4.7200e-003	0.0403	0.0173	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6789	46.6789	8.9000e-004	8.6000e-004	46.9563

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	865850	4.6700e-003	0.0399	0.0170	2.5000e-004		3.2300e-003	3.2300e-003		3.2300e-003	3.2300e-003	0.0000	46.2051	46.2051	8.9000e-004	8.5000e-004	46.4796
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8880	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4739	0.4739	1.0000e-005	1.0000e-005	0.4767
<b>Total</b>		<b>4.7200e-003</b>	<b>0.0403</b>	<b>0.0174</b>	<b>2.5000e-004</b>		<b>3.2600e-003</b>	<b>3.2600e-003</b>		<b>3.2600e-003</b>	<b>3.2600e-003</b>	<b>0.0000</b>	<b>46.6789</b>	<b>46.6789</b>	<b>9.0000e-004</b>	<b>8.6000e-004</b>	<b>46.9563</b>



Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	865850	4.6700e-003	0.0399	0.0170	2.5000e-004		3.2300e-003	3.2300e-003		3.2300e-003	3.2300e-003	0.0000	46.2051	46.2051	8.9000e-004	8.5000e-004	46.4796
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8880	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4739	0.4739	1.0000e-005	1.0000e-005	0.4767
<b>Total</b>		<b>4.7200e-003</b>	<b>0.0403</b>	<b>0.0174</b>	<b>2.5000e-004</b>		<b>3.2600e-003</b>	<b>3.2600e-003</b>		<b>3.2600e-003</b>	<b>3.2600e-003</b>	<b>0.0000</b>	<b>46.6789</b>	<b>46.6789</b>	<b>9.0000e-004</b>	<b>8.6000e-004</b>	<b>46.9563</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	456977	66.8233	4.1500e-003	4.1000e-004	67.0505
Parking Lot	20580	3.0094	1.9000e-004	2.0000e-005	3.0196
Strip Mall	48880	7.1477	4.4000e-004	4.0000e-005	7.1720
<b>Total</b>		<b>76.9804</b>	<b>4.7800e-003</b>	<b>4.7000e-004</b>	<b>77.2421</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	456977	66.8233	4.1500e-003	4.1000e-004	67.0505
Parking Lot	20580	3.0094	1.9000e-004	2.0000e-005	3.0196
Strip Mall	48880	7.1477	4.4000e-004	4.0000e-005	7.1720
<b>Total</b>		<b>76.9804</b>	<b>4.7800e-003</b>	<b>4.7000e-004</b>	<b>77.2421</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5878	0.0102	0.8826	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3800e-003	0.0000	1.4806
Unmitigated	0.5878	0.0102	0.8826	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3800e-003	0.0000	1.4806

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0771					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0265	0.0102	0.8826	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3800e-003	0.0000	1.4806
<b>Total</b>	<b>0.5878</b>	<b>0.0102</b>	<b>0.8826</b>	<b>5.0000e-005</b>		<b>4.9000e-003</b>	<b>4.9000e-003</b>		<b>4.9000e-003</b>	<b>4.9000e-003</b>	<b>0.0000</b>	<b>1.4460</b>	<b>1.4460</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>1.4806</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0771					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0265	0.0102	0.8826	5.0000e-005		4.9000e-003	4.9000e-003		4.9000e-003	4.9000e-003	0.0000	1.4460	1.4460	1.3800e-003	0.0000	1.4806
<b>Total</b>	<b>0.5878</b>	<b>0.0102</b>	<b>0.8826</b>	<b>5.0000e-005</b>		<b>4.9000e-003</b>	<b>4.9000e-003</b>		<b>4.9000e-003</b>	<b>4.9000e-003</b>	<b>0.0000</b>	<b>1.4460</b>	<b>1.4460</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>1.4806</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.1167	0.2638	6.3400e-003	34.5999
Unmitigated	26.1167	0.2638	6.3400e-003	34.5999

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.75333 / 4.88797	25.1635	0.2541	6.1100e-003	33.3345
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.29629 / 0.181597	0.9532	9.7100e-003	2.3000e-004	1.2654
<b>Total</b>		<b>26.1167</b>	<b>0.2638</b>	<b>6.3400e-003</b>	<b>34.5999</b>

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.75333 / 4.88797	25.1635	0.2541	6.1100e-003	33.3345
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.29629 / 0.181597	0.9532	9.7100e-003	2.3000e-004	1.2654
<b>Total</b>		<b>26.1167</b>	<b>0.2638</b>	<b>6.3400e-003</b>	<b>34.5999</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.9643	0.7071	0.0000	29.6410
Unmitigated	11.9643	0.7071	0.0000	29.6410

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	54.74	11.1117	0.6567	0.0000	27.5288
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	4.2	0.8526	0.0504	0.0000	2.1122
<b>Total</b>		<b>11.9643</b>	<b>0.7071</b>	<b>0.0000</b>	<b>29.6410</b>



Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	54.74	11.1117	0.6567	0.0000	27.5288
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	4.2	0.8526	0.0504	0.0000	2.1122
<b>Total</b>		<b>11.9643</b>	<b>0.7071</b>	<b>0.0000</b>	<b>29.6410</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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Capalina 119 Unit Multi-Family Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**11.0 Vegetation**

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**ATTACHMENT B:**

CalEEMod analysis tool (Proposed GP Buildout Scenario)

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030**

**San Diego County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	90.00	1000sqft	0.77	90,000.00	0
Enclosed Parking with Elevator	250.00	Space	0.16	100,000.00	0
Parking Lot	150.00	Space	1.35	60,000.00	0
Strip Mall	10.00	1000sqft	0.23	10,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2030
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	322.38	<b>CH4 Intensity (lb/MWhr)</b>	0.02	<b>N2O Intensity (lb/MWhr)</b>	0.002

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - RPS 2030
- Land Use - 2.51 acre
- Construction Phase - Construction Schedule
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Trips and VMT -
- Architectural Coating - Rule 67 Paint

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Vehicle Trips - Per Traffic Study

Area Coating - Rule 67 Paint

Construction Off-road Equipment Mitigation - t4

Area Mitigation - per Design Feature

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	40.00
tblLandUse	LotAcreage	2.07	0.77
tblLandUse	LotAcreage	2.25	0.16
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.02
tblProjectCharacteristics	CO2IntensityFactor	539.98	322.38
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblVehicleTrips	CC_TL	7.30	5.40
tblVehicleTrips	CC_TL	7.30	5.40
tblVehicleTrips	CNW_TL	7.30	5.40
tblVehicleTrips	CNW_TL	7.30	5.40
tblVehicleTrips	CW_TL	9.50	5.40
tblVehicleTrips	CW_TL	9.50	5.40
tblVehicleTrips	ST_TR	2.21	20.00
tblVehicleTrips	ST_TR	42.04	40.00
tblVehicleTrips	SU_TR	0.70	20.00
tblVehicleTrips	SU_TR	20.43	40.00
tblVehicleTrips	WD_TR	9.74	20.00
tblVehicleTrips	WD_TR	44.32	40.00

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1415	1.1256	1.2479	2.9800e-003	0.1012	0.0420	0.1432	0.0316	0.0402	0.0718	0.0000	262.3950	262.3950	0.0336	9.9600e-003	266.2029
2025	0.5633	0.5933	0.7316	1.6900e-003	0.0452	0.0211	0.0663	0.0123	0.0202	0.0325	0.0000	149.3009	149.3009	0.0187	5.3000e-003	151.3461
<b>Maximum</b>	<b>0.5633</b>	<b>1.1256</b>	<b>1.2479</b>	<b>2.9800e-003</b>	<b>0.1012</b>	<b>0.0420</b>	<b>0.1432</b>	<b>0.0316</b>	<b>0.0402</b>	<b>0.0718</b>	<b>0.0000</b>	<b>262.3950</b>	<b>262.3950</b>	<b>0.0336</b>	<b>9.9600e-003</b>	<b>266.2029</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0464	0.4295	1.3177	2.9800e-003	0.1012	3.7800e-003	0.1049	0.0316	3.7300e-003	0.0353	0.0000	262.3949	262.3949	0.0336	9.9600e-003	266.2027
2025	0.5137	0.2341	0.7753	1.6900e-003	0.0452	2.1500e-003	0.0473	0.0123	2.1200e-003	0.0144	0.0000	149.3008	149.3008	0.0187	5.3000e-003	151.3460
<b>Maximum</b>	<b>0.5137</b>	<b>0.4295</b>	<b>1.3177</b>	<b>2.9800e-003</b>	<b>0.1012</b>	<b>3.7800e-003</b>	<b>0.1049</b>	<b>0.0316</b>	<b>3.7300e-003</b>	<b>0.0353</b>	<b>0.0000</b>	<b>262.3949</b>	<b>262.3949</b>	<b>0.0336</b>	<b>9.9600e-003</b>	<b>266.2027</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	20.54	61.39	-5.73	0.00	0.00	90.61	27.32	0.00	90.31	52.31	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2024	8-31-2024	0.5404	0.1899
2	9-1-2024	11-30-2024	0.5455	0.2133
3	12-1-2024	2-28-2025	0.6131	0.2850
4	3-1-2025	5-31-2025	0.7260	0.5349
		Highest	0.7260	0.5349

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4499	4.0000e-005	4.5700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.9300e-003	8.9300e-003	2.0000e-005	0.0000	9.5100e-003
Energy	9.8400e-003	0.0895	0.0751	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	368.1707	368.1707	0.0187	3.4700e-003	369.6700
Mobile	0.6634	0.5846	5.3967	0.0101	1.2453	7.3500e-003	1.2526	0.3323	6.8500e-003	0.3392	0.0000	983.0128	983.0128	0.0794	0.0491	999.6138
Waste						0.0000	0.0000		0.0000	0.0000	19.1218	0.0000	19.1218	1.1301	0.0000	47.3733
Water						0.0000	0.0000		0.0000	0.0000	5.3098	48.5329	53.8427	0.5484	0.0132	71.4793
<b>Total</b>	<b>1.1232</b>	<b>0.6741</b>	<b>5.4764</b>	<b>0.0106</b>	<b>1.2453</b>	<b>0.0142</b>	<b>1.2594</b>	<b>0.3323</b>	<b>0.0137</b>	<b>0.3460</b>	<b>24.4316</b>	<b>1,399.7253</b>	<b>1,424.1568</b>	<b>1.7765</b>	<b>0.0657</b>	<b>1,488.1459</b>



Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4499	4.0000e-005	4.5700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.9300e-003	8.9300e-003	2.0000e-005	0.0000	9.5100e-003
Energy	9.8400e-003	0.0895	0.0751	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	368.1707	368.1707	0.0187	3.4700e-003	369.6700
Mobile	0.6634	0.5846	5.3967	0.0101	1.2453	7.3500e-003	1.2526	0.3323	6.8500e-003	0.3392	0.0000	983.0128	983.0128	0.0794	0.0491	999.6138
Waste						0.0000	0.0000		0.0000	0.0000	19.1218	0.0000	19.1218	1.1301	0.0000	47.3733
Water						0.0000	0.0000		0.0000	0.0000	5.3098	48.5329	53.8427	0.5484	0.0132	71.4793
<b>Total</b>	<b>1.1232</b>	<b>0.6741</b>	<b>5.4764</b>	<b>0.0106</b>	<b>1.2453</b>	<b>0.0142</b>	<b>1.2594</b>	<b>0.3323</b>	<b>0.0137</b>	<b>0.3460</b>	<b>24.4316</b>	<b>1,399.7253</b>	<b>1,424.1568</b>	<b>1.7765</b>	<b>0.0657</b>	<b>1,488.1459</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2024	6/5/2024	5	3	
2	Grading	Grading	6/6/2024	6/13/2024	5	6	
3	Building Construction	Building Construction	6/14/2024	4/17/2025	5	220	

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

4	Paving	Paving	2/21/2025	3/6/2025	5	10
5	Architectural Coating	Architectural Coating	2/21/2025	4/17/2025	5	40

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 6**

**Acres of Paving: 1.51**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 9,600 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	99.00	43.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

**3.2 Site Preparation - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8600e-003	0.0197	0.0144	4.0000e-005		7.5000e-004	7.5000e-004		6.9000e-004	6.9000e-004	0.0000	3.2300	3.2300	1.0400e-003	0.0000	3.2561
<b>Total</b>	<b>1.8600e-003</b>	<b>0.0197</b>	<b>0.0144</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>7.5000e-004</b>	<b>3.1400e-003</b>	<b>2.6000e-004</b>	<b>6.9000e-004</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>3.2300</b>	<b>3.2300</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.2561</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0752	0.0752	0.0000	0.0000	0.0758
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0752</b>	<b>0.0752</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0758</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	1.9600e-003	0.0178	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2300	3.2300	1.0400e-003	0.0000	3.2561
<b>Total</b>	<b>4.5000e-004</b>	<b>1.9600e-003</b>	<b>0.0178</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>6.0000e-005</b>	<b>2.4500e-003</b>	<b>2.6000e-004</b>	<b>6.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>3.2300</b>	<b>3.2300</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.2561</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Site Preparation - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0752	0.0752	0.0000	0.0000	0.0758
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0752</b>	<b>0.0752</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0758</b>

**3.3 Grading - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-003	0.0415	0.0261	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
<b>Total</b>	<b>3.9000e-003</b>	<b>0.0415</b>	<b>0.0261</b>	<b>6.0000e-005</b>	<b>0.0213</b>	<b>1.7200e-003</b>	<b>0.0230</b>	<b>0.0103</b>	<b>1.5800e-003</b>	<b>0.0119</b>	<b>0.0000</b>	<b>5.4311</b>	<b>5.4311</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4750</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1879	0.1879	1.0000e-005	0.0000	0.1895
<b>Total</b>	<b>8.0000e-005</b>	<b>5.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.1879</b>	<b>0.1879</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1895</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-004	3.2800e-003	0.0327	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
<b>Total</b>	<b>7.6000e-004</b>	<b>3.2800e-003</b>	<b>0.0327</b>	<b>6.0000e-005</b>	<b>0.0213</b>	<b>1.0000e-004</b>	<b>0.0214</b>	<b>0.0103</b>	<b>1.0000e-004</b>	<b>0.0104</b>	<b>0.0000</b>	<b>5.4311</b>	<b>5.4311</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4750</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Grading - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1879	0.1879	1.0000e-005	0.0000	0.1895
<b>Total</b>	<b>8.0000e-005</b>	<b>5.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.1879</b>	<b>0.1879</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1895</b>

**3.4 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1142	0.9169	1.0082	1.7900e-003		0.0385	0.0385		0.0368	0.0368	0.0000	148.5155	148.5155	0.0277	0.0000	149.2070
<b>Total</b>	<b>0.1142</b>	<b>0.9169</b>	<b>1.0082</b>	<b>1.7900e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0368</b>	<b>0.0368</b>	<b>0.0000</b>	<b>148.5155</b>	<b>148.5155</b>	<b>0.0277</b>	<b>0.0000</b>	<b>149.2070</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4700e-003	0.1356	0.0470	6.2000e-004	0.0204	8.1000e-004	0.0212	5.8900e-003	7.7000e-004	6.6700e-003	0.0000	60.6155	60.6155	1.9100e-003	8.7800e-003	63.2802
Worker	0.0180	0.0119	0.1514	4.7000e-004	0.0568	3.0000e-004	0.0571	0.0151	2.7000e-004	0.0154	0.0000	44.3400	44.3400	1.2100e-003	1.1700e-003	44.7192
<b>Total</b>	<b>0.0215</b>	<b>0.1475</b>	<b>0.1984</b>	<b>1.0900e-003</b>	<b>0.0772</b>	<b>1.1100e-003</b>	<b>0.0783</b>	<b>0.0210</b>	<b>1.0400e-003</b>	<b>0.0220</b>	<b>0.0000</b>	<b>104.9554</b>	<b>104.9554</b>	<b>3.1200e-003</b>	<b>9.9500e-003</b>	<b>107.9994</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0236	0.2767	1.0679	1.7900e-003		2.5200e-003	2.5200e-003		2.5200e-003	2.5200e-003	0.0000	148.5153	148.5153	0.0277	0.0000	149.2068
<b>Total</b>	<b>0.0236</b>	<b>0.2767</b>	<b>1.0679</b>	<b>1.7900e-003</b>		<b>2.5200e-003</b>	<b>2.5200e-003</b>		<b>2.5200e-003</b>	<b>2.5200e-003</b>	<b>0.0000</b>	<b>148.5153</b>	<b>148.5153</b>	<b>0.0277</b>	<b>0.0000</b>	<b>149.2068</b>



Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4700e-003	0.1356	0.0470	6.2000e-004	0.0204	8.1000e-004	0.0212	5.8900e-003	7.7000e-004	6.6700e-003	0.0000	60.6155	60.6155	1.9100e-003	8.7800e-003	63.2802
Worker	0.0180	0.0119	0.1514	4.7000e-004	0.0568	3.0000e-004	0.0571	0.0151	2.7000e-004	0.0154	0.0000	44.3400	44.3400	1.2100e-003	1.1700e-003	44.7192
<b>Total</b>	<b>0.0215</b>	<b>0.1475</b>	<b>0.1984</b>	<b>1.0900e-003</b>	<b>0.0772</b>	<b>1.1100e-003</b>	<b>0.0783</b>	<b>0.0210</b>	<b>1.0400e-003</b>	<b>0.0220</b>	<b>0.0000</b>	<b>104.9554</b>	<b>104.9554</b>	<b>3.1200e-003</b>	<b>9.9500e-003</b>	<b>107.9994</b>

**3.4 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0574	0.4629	0.5393	9.6000e-004		0.0181	0.0181		0.0173	0.0173	0.0000	79.9781	79.9781	0.0147	0.0000	80.3448
<b>Total</b>	<b>0.0574</b>	<b>0.4629</b>	<b>0.5393</b>	<b>9.6000e-004</b>		<b>0.0181</b>	<b>0.0181</b>		<b>0.0173</b>	<b>0.0173</b>	<b>0.0000</b>	<b>79.9781</b>	<b>79.9781</b>	<b>0.0147</b>	<b>0.0000</b>	<b>80.3448</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8100e-003	0.0723	0.0249	3.3000e-004	0.0110	4.3000e-004	0.0114	3.1700e-003	4.2000e-004	3.5900e-003	0.0000	32.0169	32.0169	1.0500e-003	4.6400e-003	33.4248
Worker	9.1400e-003	5.8100e-003	0.0766	2.5000e-004	0.0306	1.5000e-004	0.0307	8.1200e-003	1.4000e-004	8.2600e-003	0.0000	23.2922	23.2922	6.0000e-004	5.9000e-004	23.4835
<b>Total</b>	<b>0.0110</b>	<b>0.0781</b>	<b>0.1015</b>	<b>5.8000e-004</b>	<b>0.0416</b>	<b>5.8000e-004</b>	<b>0.0422</b>	<b>0.0113</b>	<b>5.6000e-004</b>	<b>0.0119</b>	<b>0.0000</b>	<b>55.3092</b>	<b>55.3092</b>	<b>1.6500e-003</b>	<b>5.2300e-003</b>	<b>56.9083</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0127	0.1490	0.5750	9.6000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	79.9780	79.9780	0.0147	0.0000	80.3447
<b>Total</b>	<b>0.0127</b>	<b>0.1490</b>	<b>0.5750</b>	<b>9.6000e-004</b>		<b>1.3500e-003</b>	<b>1.3500e-003</b>		<b>1.3500e-003</b>	<b>1.3500e-003</b>	<b>0.0000</b>	<b>79.9780</b>	<b>79.9780</b>	<b>0.0147</b>	<b>0.0000</b>	<b>80.3447</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Building Construction - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8100e-003	0.0723	0.0249	3.3000e-004	0.0110	4.3000e-004	0.0114	3.1700e-003	4.2000e-004	3.5900e-003	0.0000	32.0169	32.0169	1.0500e-003	4.6400e-003	33.4248
Worker	9.1400e-003	5.8100e-003	0.0766	2.5000e-004	0.0306	1.5000e-004	0.0307	8.1200e-003	1.4000e-004	8.2600e-003	0.0000	23.2922	23.2922	6.0000e-004	5.9000e-004	23.4835
<b>Total</b>	<b>0.0110</b>	<b>0.0781</b>	<b>0.1015</b>	<b>5.8000e-004</b>	<b>0.0416</b>	<b>5.8000e-004</b>	<b>0.0422</b>	<b>0.0113</b>	<b>5.6000e-004</b>	<b>0.0119</b>	<b>0.0000</b>	<b>55.3092</b>	<b>55.3092</b>	<b>1.6500e-003</b>	<b>5.2300e-003</b>	<b>56.9083</b>

**3.5 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.9700e-003	0.0287	0.0457	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	6.1572	6.1572	1.9900e-003	0.0000	6.2070
Paving	1.7700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0287</b>	<b>0.0457</b>	<b>7.0000e-005</b>		<b>1.4100e-003</b>	<b>1.4100e-003</b>		<b>1.3000e-003</b>	<b>1.3000e-003</b>	<b>0.0000</b>	<b>6.1572</b>	<b>6.1572</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.2070</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	8.0000e-005	1.0000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3056	0.3056	1.0000e-005	1.0000e-005	0.3081
<b>Total</b>	<b>1.2000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3056</b>	<b>0.3056</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3081</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-004	3.7400e-003	0.0532	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	6.1572	6.1572	1.9900e-003	0.0000	6.2070
Paving	1.7700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.6300e-003</b>	<b>3.7400e-003</b>	<b>0.0532</b>	<b>7.0000e-005</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>6.1572</b>	<b>6.1572</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.2070</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Paving - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	8.0000e-005	1.0000e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3056	0.3056	1.0000e-005	1.0000e-005	0.3081
<b>Total</b>	<b>1.2000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3056</b>	<b>0.3056</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3081</b>

**3.6 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4858					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4200e-003	0.0229	0.0362	6.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
<b>Total</b>	<b>0.4892</b>	<b>0.0229</b>	<b>0.0362</b>	<b>6.0000e-005</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>5.1065</b>	<b>5.1065</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>5.1135</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	6.1000e-004	8.0300e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2200e-003	8.5000e-004	1.0000e-005	8.7000e-004	0.0000	2.4444	2.4444	6.0000e-005	6.0000e-005	2.4645
<b>Total</b>	<b>9.6000e-004</b>	<b>6.1000e-004</b>	<b>8.0300e-003</b>	<b>3.0000e-005</b>	<b>3.2100e-003</b>	<b>2.0000e-005</b>	<b>3.2200e-003</b>	<b>8.5000e-004</b>	<b>1.0000e-005</b>	<b>8.7000e-004</b>	<b>0.0000</b>	<b>2.4444</b>	<b>2.4444</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>2.4645</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4858					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	2.5800e-003	0.0367	6.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
<b>Total</b>	<b>0.4863</b>	<b>2.5800e-003</b>	<b>0.0367</b>	<b>6.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>5.1065</b>	<b>5.1065</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>5.1135</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Architectural Coating - 2025**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	6.1000e-004	8.0300e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2200e-003	8.5000e-004	1.0000e-005	8.7000e-004	0.0000	2.4444	2.4444	6.0000e-005	6.0000e-005	2.4645
<b>Total</b>	<b>9.6000e-004</b>	<b>6.1000e-004</b>	<b>8.0300e-003</b>	<b>3.0000e-005</b>	<b>3.2100e-003</b>	<b>2.0000e-005</b>	<b>3.2200e-003</b>	<b>8.5000e-004</b>	<b>1.0000e-005</b>	<b>8.7000e-004</b>	<b>0.0000</b>	<b>2.4444</b>	<b>2.4444</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>2.4645</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6634	0.5846	5.3967	0.0101	1.2453	7.3500e-003	1.2526	0.3323	6.8500e-003	0.3392	0.0000	983.0128	983.0128	0.0794	0.0491	999.6138
Unmitigated	0.6634	0.5846	5.3967	0.0101	1.2453	7.3500e-003	1.2526	0.3323	6.8500e-003	0.3392	0.0000	983.0128	983.0128	0.0794	0.0491	999.6138

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,800.00	1,800.00	1800.00	2,895,001	2,895,001
Parking Lot	0.00	0.00	0.00		
Strip Mall	400.00	400.00	400.00	434,616	434,616
<b>Total</b>	<b>2,200.00</b>	<b>2,200.00</b>	<b>2,200.00</b>	<b>3,329,617</b>	<b>3,329,617</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	5.40	5.40	5.40	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	5.40	5.40	5.40	16.60	64.40	19.00	45	40	15

**4.4 Fleet Mix**



Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.575453	0.061728	0.171227	0.112384	0.022882	0.006522	0.009800	0.006298	0.000679	0.000623	0.027611	0.000857	0.003936
General Office Building	0.575453	0.061728	0.171227	0.112384	0.022882	0.006522	0.009800	0.006298	0.000679	0.000623	0.027611	0.000857	0.003936
Parking Lot	0.575453	0.061728	0.171227	0.112384	0.022882	0.006522	0.009800	0.006298	0.000679	0.000623	0.027611	0.000857	0.003936
Strip Mall	0.575453	0.061728	0.171227	0.112384	0.022882	0.006522	0.009800	0.006298	0.000679	0.000623	0.027611	0.000857	0.003936

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	270.7871	270.7871	0.0168	1.6800e-003	271.7077
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	270.7871	270.7871	0.0168	1.6800e-003	271.7077
NaturalGas Mitigated	9.8400e-003	0.0895	0.0751	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	97.3836	97.3836	1.8700e-003	1.7900e-003	97.9623
NaturalGas Unmitigated	9.8400e-003	0.0895	0.0751	5.4000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	97.3836	97.3836	1.8700e-003	1.7900e-003	97.9623

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.8027e+006	9.7200e-003	0.0884	0.0742	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	96.1989	96.1989	1.8400e-003	1.7600e-003	96.7706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	22200	1.2000e-004	1.0900e-003	9.1000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1847	1.1847	2.0000e-005	2.0000e-005	1.1917
<b>Total</b>		<b>9.8400e-003</b>	<b>0.0895</b>	<b>0.0751</b>	<b>5.4000e-004</b>		<b>6.8000e-003</b>	<b>6.8000e-003</b>		<b>6.8000e-003</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>97.3836</b>	<b>97.3836</b>	<b>1.8600e-003</b>	<b>1.7800e-003</b>	<b>97.9623</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.8027e+006	9.7200e-003	0.0884	0.0742	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	96.1989	96.1989	1.8400e-003	1.7600e-003	96.7706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	22200	1.2000e-004	1.0900e-003	9.1000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1847	1.1847	2.0000e-005	2.0000e-005	1.1917
<b>Total</b>		<b>9.8400e-003</b>	<b>0.0895</b>	<b>0.0751</b>	<b>5.4000e-004</b>		<b>6.8000e-003</b>	<b>6.8000e-003</b>		<b>6.8000e-003</b>	<b>6.8000e-003</b>	<b>0.0000</b>	<b>97.3836</b>	<b>97.3836</b>	<b>1.8600e-003</b>	<b>1.7800e-003</b>	<b>97.9623</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	544000	79.5486	4.9400e-003	4.9000e-004	79.8191
General Office Building	1.1646e+006	170.2984	0.0106	1.0600e-003	170.8774
Parking Lot	21000	3.0708	1.9000e-004	2.0000e-005	3.0813
Strip Mall	122200	17.8692	1.1100e-003	1.1000e-004	17.9300
<b>Total</b>		<b>270.7871</b>	<b>0.0168</b>	<b>1.6800e-003</b>	<b>271.7077</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	544000	79.5486	4.9400e-003	4.9000e-004	79.8191
General Office Building	1.1646e+006	170.2984	0.0106	1.0600e-003	170.8774
Parking Lot	21000	3.0708	1.9000e-004	2.0000e-005	3.0813
Strip Mall	122200	17.8692	1.1100e-003	1.1000e-004	17.9300
<b>Total</b>		<b>270.7871</b>	<b>0.0168</b>	<b>1.6800e-003</b>	<b>271.7077</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4499	4.0000e-005	4.5700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.9300e-003	8.9300e-003	2.0000e-005	0.0000	9.5100e-003
Unmitigated	0.4499	4.0000e-005	4.5700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.9300e-003	8.9300e-003	2.0000e-005	0.0000	9.5100e-003

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0486					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.9300e-003	8.9300e-003	2.0000e-005	0.0000	9.5100e-003
<b>Total</b>	<b>0.4499</b>	<b>4.0000e-005</b>	<b>4.5700e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>8.9300e-003</b>	<b>8.9300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>9.5100e-003</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0486					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4009					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.9300e-003	8.9300e-003	2.0000e-005	0.0000	9.5100e-003
<b>Total</b>	<b>0.4499</b>	<b>4.0000e-005</b>	<b>4.5700e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>8.9300e-003</b>	<b>8.9300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>9.5100e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	53.8427	0.5484	0.0132	71.4793
Unmitigated	53.8427	0.5484	0.0132	71.4793

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	15.996 / 9.80402	51.4597	0.5241	0.0126	68.3158
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.740725 / 0.453993	2.3829	0.0243	5.8000e-004	3.1635
<b>Total</b>		<b>53.8427</b>	<b>0.5484</b>	<b>0.0132</b>	<b>71.4793</b>



Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	15.996 / 9.80402	51.4597	0.5241	0.0126	68.3158
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.740725 / 0.453993	2.3829	0.0243	5.8000e-004	3.1635
<b>Total</b>		<b>53.8427</b>	<b>0.5484</b>	<b>0.0132</b>	<b>71.4793</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.1218	1.1301	0.0000	47.3733
Unmitigated	19.1218	1.1301	0.0000	47.3733

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	83.7	16.9903	1.0041	0.0000	42.0929
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
<b>Total</b>		<b>19.1218</b>	<b>1.1301</b>	<b>0.0000</b>	<b>47.3733</b>

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	83.7	16.9903	1.0041	0.0000	42.0929
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
<b>Total</b>		<b>19.1218</b>	<b>1.1301</b>	<b>0.0000</b>	<b>47.3733</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Capalina 90KSF Office 10 KSF Retail GP Buildout Operational Year 2030 - San Diego County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	Number
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**11.0 Vegetation**

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