



MEMORANDUM

To: Amelia Beltran, P.E., Kimley-Horn and Associates, Inc.

From: Ryan Chiene and Tanay Pradhan, Kimley-Horn and Associates, Inc.

Date: August 11, 2022

Subject: Costa Mesa Raising Cane's RC0862 - Air Quality Analysis

This memorandum has been prepared to evaluate the potential air quality impacts associated with construction and operations of the Costa Mesa Raising Cane's RC0862 Project (project), located in the City of Costa Mesa, California.

PROJECT LOCATION AND DESCRIPTION

The project site is located at 1595 West Newport Boulevard west of the Newport Boulevard and 16th Street intersection in the City of Costa Mesa, California (City). The site is surrounded by commercial uses to the north, east and south, and a residential community to the west. The site is currently occupied by an existing furniture store and a surface parking lot. Raising Cane's proposes to demolish the existing store and develop a 2,913 -square-foot fast-food restaurant with two drive-through lanes.

AIR QUALITY IMPACTS

South Coast Air Quality Management District Thresholds

The South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook provides significance thresholds for volatile organic compounds (VOC) (also referred to as reactive organic gases [ROG]), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter 10 microns or less in diameter (PM₁₀), and particulate matter 2.5 microns or less in diameter (PM_{2.5}). The thresholds apply to both project construction and operation within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in [Table 1: South Coast Air Quality Management District Significance Thresholds](#), a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 1: South Coast Air Quality Management District Significance Thresholds		
Pollutant	Mass Daily Thresholds (pounds per day)	
	Construction	Operations
Nitrogen Oxides (NO _x)	100	55
Volatile Organic Compounds (VOC) ¹	75	55
Particulate Matter up to 10 Microns (PM ₁₀)	150	150
Particulate Matter up to 2.5 Microns (PM _{2.5})	55	55
Sulphur Oxides (SO _x)	150	150
Carbon Monoxide (CO)	550	550
Notes:		
1. VOCs and reactive organic gases (ROGs) are subsets of organic gases that are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. Although they represent slightly different subsets of organic gases, they are used interchangeably for the purposes of this analysis.		
Source: South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, April 2019. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf		

Construction Emissions

Construction results in the temporary generation of emissions resulting from demolition, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

As noted above, the project site is located within a commercial area and would demolish the existing restaurant building and construct a 2,913 square-foot Raising Cane’s drive-through restaurant. Construction is estimated to last approximately 11 months. As the site is already disturbed, demolition, earthwork and grading would be required. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur.

Construction-generated emissions associated the proposed project were calculated using the California Air Resources Board (CARB)-approved California Emissions Estimator Model version 2020.4.0 (CalEEMod) program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A: Air Quality Emissions Data for more information regarding the construction assumptions used in this analysis. Predicted maximum daily construction-generated emissions for the proposed project are summarized in in Table 2: Construction-Related Emissions.

As indicated in Table 2, pollutant emissions during project construction would not exceed the SCAQMD thresholds and impacts would be less than significant.

Table 2: Construction-Related Emissions						
Construction Year	Maximum Pounds Per Day ¹					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO _x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Coarse Particulate Matter (PM ₁₀)
Summer Emissions²						
2023	0.68	6.20	7.81	0.01	0.35	0.70
2024	1.29	9.98	9.38	0.02	1.50	2.79
Winter Emissions²						
2023	0.68	6.20	7.79	0.01	0.35	0.70
2024	1.30	9.99	9.35	0.02	1.50	2.79
SCAQMD Threshold	75	100	550	150	55	150
<i>Exceed SCAQMD Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Notes:						
1. SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. No mitigation was applied to construction equipment.						
2. Emission Rates differ from summer to winter due to the formulation of fuel in California for winter and summer blends						
Source: CalEEMod version 2020.4.0. Refer to Appendix A: Air Quality Emissions Data .						

Operational Emissions

Operational emissions are typically associated with area, energy, and mobile source emissions. Area sources include the use of landscape maintenance equipment, consumer products (such as household cleaners), and architectural coatings; energy source emissions would be generated from electricity and natural gas (non-hearth) usage; and mobile source emissions are generated from vehicle operations associated with the operation of the proposed project. Based on the Project Trip Generation Study prepared by Kimley-Horn (2022), the proposed project would generate approximately 1,162 daily vehicle trips. [Table 3: Operational Emissions](#) summarizes the operational emissions attributable to the proposed project.

Table 3: Operational Emissions						
Source	Maximum Pounds Per Day					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO _x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Coarse Particulate Matter (PM ₁₀)
Summer Emissions¹						
Area Source Emissions	0.07	0.00	0.00	0.00	0.00	0.00
Energy Emissions	0.02	0.20	0.17	0.00	0.02	0.02
Mobile Emissions	2.03	1.42	13.39	0.02	0.71	2.60
Total Emissions	2.12	1.62	13.56	0.02	0.73	2.62
SCAQMD Threshold	55	55	550	150	150	55

Table 3: Operational Emissions						
Source	Maximum Pounds Per Day					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO _x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Coarse Particulate Matter (PM ₁₀)
<i>Exceeds Threshold?</i>	No	No	No	No	No	No
Winter Emissions¹						
Area Source Emissions	0.07	0.00	0.00	0.00	0.00	0.00
Energy Emissions	0.02	0.20	0.17	0.00	0.02	0.02
Mobile Emissions	2.00	1.53	13.91	0.02	0.71	2.60
Total Emissions	2.09	1.73	14.08.	0.02	0.73	2.62
SCAQMD Threshold	55	55	550	150	150	55
<i>Exceeds Threshold?</i>	No	No	No	No	No	No
Notes:						
1. Emissions rates differ from summer to winter due to the formulation of fuel in California for winter and summer blends.						
Source: CalEEMod version 2020.4.0. Refer to Appendix A: Air Quality Emissions Data .						

As shown in [Table 3](#), the project’s emissions would not exceed SCAQMD thresholds. Therefore, regional operations emissions would result in a less than significant long-term regional air quality impact.

Localized Impacts

Localized Construction Significance Analysis

The nearest sensitive receptors to the project site are the multi-family residences located approximately 90 feet (27.5 meters) to the west of the project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing Localized Significance Thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, [Table 4: Equipment-Specific Grading Rates](#) is used to determine the maximum daily disturbed acreage for comparison to LSTs. For this project, the appropriate source receptor area (SRA) for the localized significance thresholds is the North Orange Coastal County (SRA 18) area since this area includes the project site. LSTs apply to NO_x, CO, PM₁₀, and PM_{2.5}. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size. Based on the daily equipment modeled in CalEEMod, project construction is anticipated to disturb approximately 1.5 acres in a single day. Therefore, the LSTs for 1 acre were conservatively used for this analysis.

Table 4: Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Graders	1	0.5	8	0.5
	Dozers	1	0.5	8	0.5
	Scrapers	0	1.0	8	0
	Tractors/Loaders/Backhoes	1	0.5	8	0.5
Total Acres Graded per Day					1.5

Source: CalEEMod version 2020.4.0. Refer to **Air Quality Emissions Data** for model outputs.

The SCAQMD’s methodology states that “off-site mobile emissions from the project should not be included in the emissions compared to LSTs.” Therefore, for the construction LST analysis, only emissions included in the CalEEMod “on-site” emissions outputs were considered. As noted above, the nearest sensitive receptors to the project site are the multi-family residences located approximately 90 feet (27.5 meters) northwest of the project site. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, as recommended by the SCAQMD, LSTs for receptors located at 25 meters were conservatively utilized in this analysis. Table 5: Localized Significance of Construction Emissions, presents the results of localized emissions during project construction.

Table 5: Localized Significance of Construction Emissions

Construction Activity	Maximum Pounds Per Day			
	Nitrogen Oxide (NO _x)	Carbon Monoxide (CO)	Fine Particulate Matter (PM _{2.5})	Coarse Particulate Matter (PM ₁₀)
Demolition	5.78	7.39	0.31	0.54
Site Preparation	6.19	3.92	0.23	0.45
Grading	9.73	5.55	1.47	2.67
Building Construction	5.97	7.07	0.26	0.28
Paving	5.23	7.03	0.23	0.24
Architectural Coating	1.22	1.81	0.06	0.06
<i>SCAQMD Localized Screening Threshold (1 acre at 25 meters)</i>	92	647	3	4
Exceed SCAQMD Threshold?	No	No	No	No

Source: CalEEMod version 2020.4.0. Refer to **Air Quality Emissions Data** for model outputs.

Table 5 shows that the emissions of these pollutants on the peak day of project construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the project would result in a less than significant impact concerning LSTs during construction activities.

Localized Operational Significance Analysis

LSTs for receptors located at 25 meters for SRA 18 were utilized in this analysis. As the project site is approximately 1 acre, the 1-acre LST threshold was used. The on-site operational emissions are compared to the LST thresholds in Table 6: Localized Significance of Operational Emissions. Table 6 shows that the maximum daily emissions of on-site pollutants during project operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the project would result in a less than significant impact concerning LSTs during operational activities.

Table 6: Localized Significance of Operational Emissions				
Activity	Maximum Pounds Per Day			
	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM₁₀)	Fine Particulate Matter (PM_{2.5})
On-Site (Area and Energy Sources)	1.73	14.08	2.61	0.72
<i>SCAQMD Localized Screening Threshold (1 acre at 25 meters)</i>	<i>92</i>	<i>647</i>	<i>4</i>	<i>1</i>
Exceed SCAQMD Threshold?	No	No	No	No

Source: CalEEMod version 2020.4.0. Refer to **Air Quality Emissions Data** for model outputs.

Carbon Monoxide Hotspots

An analysis of CO “hot spots” is needed to determine whether the change in the level of service of an intersection resulting from the project would have the potential to cause exceedances of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS). CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, cleaner fuels, and improved control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The 2003 Air Quality Management Plan (2013 AQMP) is the most recent version that addresses CO concentrations. As part of the SCAQMD *CO Hotspot Analysis*, the Wilshire Boulevard/Veteran Avenue intersection, one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35 ppm Federal standard. The proposed project considered herein would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD’s *CO Hotspot Analysis*. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection even as it accommodates 100,000 vehicles daily, it can be reasonably inferred that CO hotspots would not be experienced at any vicinity intersections

resulting from a project of this size (generating approximately 1,162 daily vehicle trips for an approximately 2,913 square-foot restaurant). Therefore, impacts would be less than significant.

Air Quality Plan Consistency

As part of its enforcement responsibilities, the Environmental Protection Agency (EPA) requires each state with nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain the federal standards. The State Implementation Plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act (CCAA) requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The project site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the Federal Clean Air Act (FCAA), to reduce emissions of criteria pollutants for which the SCAB is in nonattainment. To reduce such emissions, the SCAQMD drafted the 2016 Air Quality Management Plan (2016 AQMP). The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the Southern California Association of Governments (SCAG), and the EPA. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The project is subject to the SCAQMD's AQMP.

The criteria for determining consistency with the AQMP are defined by the following indicators:

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP or increments based on the years of the project build-out phase.

The violations to which Consistency Criterion No. 1 refers are CAAQS and NAAQS. As shown in Table 2 and Table 3, the project would not exceed the SCAQMD's short-term construction or long-term operational thresholds. The SCAQMD developed the construction and operational thresholds to determine if individual projects would cause, contribute, or increase the severity of criteria air pollutant exceedances of the CAAQS and NAAQS. As the project would not exceed the SCAQMD's thresholds, it would therefore not violate any air quality standards. Thus, no impact is expected, and the project would be consistent with the first criterion.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The proposed project is consistent with the existing commercial zoning designation for the site, and thus would not exceed the population or job growth projections used by the SCAQMD to develop the AQMP. Thus, no impact would occur, as the project is also consistent with the second criterion.

Odors

Individual responses to odors are highly variable and can result in various effects, including psychological (i.e., irritation, anger, or anxiety) and physiological (i.e., circulatory and respiratory effects, nausea, vomiting, and headache). Generally, the impact of an odor results from a variety of interacting factors such as frequency, duration, offensiveness, location, and sensory perception. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Construction

Odors would be potentially generated from vehicles and construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Additionally, construction equipment would be dispersed throughout the project site and equipment use would often be sporadic and non-continuous. Therefore, impacts associated with odors during construction would be less than significant.

Operations

CARB's Air Quality and Land Use Handbook (April 2005) identifies the sources of the most common odor complaints received by local air districts. Typical sources include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The project does not contain any of the land uses identified as typically associated with emissions of

objectionable odors. It should be mentioned that the drive-thru operations would contribute to idling tailpipe odor. However, similar to construction tailpipe emissions, the odor would disperse rapidly and would not release at a magnitude that would substantially affect the surrounding area. As such, Project impacts would be less than significant.

CONCLUSION

As discussed above, the construction and operational air emissions from the proposed project would be well below all applicable thresholds and would not conflict with the SCAQMD AQMP or create objectionable odors. Therefore, emissions from the proposed project would also not exceed thresholds and would not result in significant air quality impacts.

Appendix A

Air Quality Emissions Data

Costa Mesa Raising Cane's - Orange County, Summer

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

**Costa Mesa Raising Cane's
Orange County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	34.00	Space	0.58	13,600.00	0
Fast Food Restaurant with Drive Thru	2.91	1000sqft	0.07	2,913.00	0
City Park	0.35	Acre	0.35	15,246.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Parking lot = Impervious Surface
 city Park = Landscaping
 Construction Phase - Schedule for Construction (anticipated)
 Demolition -
 Grading -
 Vehicle Trips - Calculated Trip Rate
 Construction Off-road Equipment Mitigation - Per SCAQMD rules and regulations
 Water Mitigation -
 Waste Mitigation - Per AB939

Costa Mesa Raising Cane's - Orange County, Summer

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

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	66.00
tblConstructionPhase	NumDays	1.00	45.00
tblConstructionPhase	NumDays	2.00	65.00
tblConstructionPhase	NumDays	100.00	44.00
tblConstructionPhase	NumDays	5.00	62.00
tblConstructionPhase	NumDays	5.00	18.00
tblGrading	MaterialExported	0.00	1,038.00
tblLandUse	LotAcreage	0.31	0.58
tblVehicleTrips	ST_TR	616.12	399.31
tblVehicleTrips	SU_TR	472.58	399.31
tblVehicleTrips	WD_TR	470.95	399.31

2.0 Emissions Summary

Costa Mesa Raising Cane's - Orange County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2023	0.6804	6.1977	7.8146	0.0145	0.7746	0.2849	1.0595	0.1361	0.2724	0.4085	0.0000	1,426.1426	1,426.1426	0.3059	0.0311	1,441.1514
2024	1.2948	9.9793	9.3838	0.0160	5.4381	0.4021	5.8402	2.6021	0.3700	2.9721	0.0000	1,566.1865	1,566.1865	0.4560	0.0218	1,584.0790
Maximum	1.2948	9.9793	9.3838	0.0160	5.4381	0.4021	5.8402	2.6021	0.3700	2.9721	0.0000	1,566.1865	1,566.1865	0.4560	0.0311	1,584.0790

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	lb/day										lb/day					
2023	0.6804	6.1977	7.8146	0.0145	0.4154	0.2849	0.7002	0.0809	0.2724	0.3533	0.0000	1,426.1426	1,426.1426	0.3059	0.0311	1,441.1514
2024	1.2948	9.9793	9.3838	0.0160	2.3897	0.4021	2.7918	1.1299	0.3700	1.4999	0.0000	1,566.1865	1,566.1865	0.4560	0.0218	1,584.0790
Maximum	1.2948	9.9793	9.3838	0.0160	2.3897	0.4021	2.7918	1.1299	0.3700	1.4999	0.0000	1,566.1865	1,566.1865	0.4560	0.0311	1,584.0790

Costa Mesa Raising Cane's - Orange County, Summer

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	0.00	0.00	0.00	0.00	54.85	0.00	49.39	55.78	0.00	45.18	0.00	0.00	0.00	0.00	0.00	0.00

Costa Mesa Raising Cane's - Orange County, Summer

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

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	lb/day										lb/day					
Area	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Energy	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
Mobile	2.0319	1.4209	13.3920	0.0246	2.5794	0.0188	2.5982	0.6875	0.0174	0.7050		2,551.2816	2,551.2816	0.2207	0.1363	2,597.4246
Total	2.1243	1.6232	13.5658	0.0258	2.5794	0.0342	2.6135	0.6875	0.0328	0.7203		2,794.0289	2,794.0289	0.2254	0.1408	2,841.6148

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	lb/day										lb/day					
Area	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Energy	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
Mobile	2.0319	1.4209	13.3920	0.0246	2.5794	0.0188	2.5982	0.6875	0.0174	0.7050		2,551.2816	2,551.2816	0.2207	0.1363	2,597.4246
Total	2.1243	1.6232	13.5658	0.0258	2.5794	0.0342	2.6135	0.6875	0.0328	0.7203		2,794.0289	2,794.0289	0.2254	0.1408	2,841.6148

Costa Mesa Raising Cane's - Orange County, Summer

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/19/2023	12/19/2023	5	66	
2	Site Preparation	Site Preparation	12/20/2023	2/20/2024	5	45	
3	Grading	Grading	2/21/2024	5/21/2024	5	65	
4	Building Construction	Building Construction	5/22/2024	7/22/2024	5	44	
5	Architectural Coating	Architectural Coating	5/22/2024	8/15/2024	5	62	
6	Paving	Paving	7/23/2024	8/15/2024	5	18	

Acres of Grading (Site Preparation Phase): 22.5

Acres of Grading (Grading Phase): 48.75

Acres of Paving: 0.58

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,290; Non-Residential Outdoor: 1,097; Striped Parking Area: 816 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Costa Mesa Raising Cane's - Orange County, Summer

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

Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Demolition	4	10.00	0.00	187.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	130.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	7.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Costa Mesa Raising Cane's - Orange County, Summer

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

3.2 Demolition - 2023

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	lb/day										lb/day					
Fugitive Dust					0.6134	0.0000	0.6134	0.0929	0.0000	0.0929			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.6134	0.2821	0.8956	0.0929	0.2698	0.3627		1,148.4055	1,148.4055	0.2089		1,153.6290

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	lb/day										lb/day					
Hauling	5.9000e-003	0.3377	0.1158	1.5900e-003	0.0494	2.1700e-003	0.0516	0.0135	2.0800e-003	0.0156		181.2060	181.2060	0.0183	0.0291	190.3253
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
Worker	0.0282	0.0180	0.3062	9.4000e-004	0.1118	5.7000e-004	0.1124	0.0296	5.3000e-004	0.0302		96.5311	96.5311	2.1000e-003	2.0600e-003	97.1972
Total	0.0341	0.3557	0.4220	2.5300e-003	0.1612	2.7400e-003	0.1639	0.0432	2.6100e-003	0.0458		277.7371	277.7371	0.0204	0.0311	287.5225

Costa Mesa Raising Cane's - Orange County, Summer

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

3.2 Demolition - 2023

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	lb/day										lb/day					
Fugitive Dust					0.2622	0.0000	0.2622	0.0397	0.0000	0.0397			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.2622	0.2821	0.5444	0.0397	0.2698	0.3095	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290

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	lb/day										lb/day					
Hauling	5.9000e-003	0.3377	0.1158	1.5900e-003	0.0472	2.1700e-003	0.0493	0.0130	2.0800e-003	0.0151		181.2060	181.2060	0.0183	0.0291	190.3253
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
Worker	0.0282	0.0180	0.3062	9.4000e-004	0.1060	5.7000e-004	0.1065	0.0282	5.3000e-004	0.0287		96.5311	96.5311	2.1000e-003	2.0600e-003	97.1972
Total	0.0341	0.3557	0.4220	2.5300e-003	0.1531	2.7400e-003	0.1559	0.0412	2.6100e-003	0.0438		277.7371	277.7371	0.0204	0.0311	287.5225

Costa Mesa Raising Cane's - Orange County, Summer

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

3.3 Site Preparation - 2023

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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657		942.4317	942.4317	0.3048		950.0517

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	lb/day										lb/day					
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
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
Worker	0.0141	9.0100e-003	0.1531	4.7000e-004	0.0559	2.9000e-004	0.0562	0.0148	2.6000e-004	0.0151		48.2655	48.2655	1.0500e-003	1.0300e-003	48.5986
Total	0.0141	9.0100e-003	0.1531	4.7000e-004	0.0559	2.9000e-004	0.0562	0.0148	2.6000e-004	0.0151		48.2655	48.2655	1.0500e-003	1.0300e-003	48.5986

Costa Mesa Raising Cane's - Orange County, Summer

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

3.3 Site Preparation - 2023

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	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.2267	0.2266	0.4533	0.0245	0.2084	0.2329	0.0000	942.4317	942.4317	0.3048		950.0517

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	lb/day										lb/day					
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
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
Worker	0.0141	9.0100e-003	0.1531	4.7000e-004	0.0530	2.9000e-004	0.0533	0.0141	2.6000e-004	0.0144		48.2655	48.2655	1.0500e-003	1.0300e-003	48.5986
Total	0.0141	9.0100e-003	0.1531	4.7000e-004	0.0530	2.9000e-004	0.0533	0.0141	2.6000e-004	0.0144		48.2655	48.2655	1.0500e-003	1.0300e-003	48.5986

Costa Mesa Raising Cane's - Orange County, Summer

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

3.3 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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.4985	5.6040	3.8921	9.7300e-003		0.2012	0.2012		0.1851	0.1851		942.2742	942.2742	0.3048		949.8930
Total	0.4985	5.6040	3.8921	9.7300e-003	0.5303	0.2012	0.7315	0.0573	0.1851	0.2424		942.2742	942.2742	0.3048		949.8930

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	lb/day										lb/day					
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
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
Worker	0.0132	8.1000e-003	0.1427	4.6000e-004	0.0559	2.7000e-004	0.0562	0.0148	2.5000e-004	0.0151		47.1044	47.1044	9.5000e-004	9.6000e-004	47.4152
Total	0.0132	8.1000e-003	0.1427	4.6000e-004	0.0559	2.7000e-004	0.0562	0.0148	2.5000e-004	0.0151		47.1044	47.1044	9.5000e-004	9.6000e-004	47.4152

Costa Mesa Raising Cane's - Orange County, Summer

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

3.3 Site Preparation - 2024

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	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.4985	5.6040	3.8921	9.7300e-003		0.2012	0.2012		0.1851	0.1851	0.0000	942.2742	942.2742	0.3048		949.8930
Total	0.4985	5.6040	3.8921	9.7300e-003	0.2267	0.2012	0.4279	0.0245	0.1851	0.2096	0.0000	942.2742	942.2742	0.3048		949.8930

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	lb/day										lb/day					
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
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
Worker	0.0132	8.1000e-003	0.1427	4.6000e-004	0.0530	2.7000e-004	0.0532	0.0141	2.5000e-004	0.0144		47.1044	47.1044	9.5000e-004	9.6000e-004	47.4152
Total	0.0132	8.1000e-003	0.1427	4.6000e-004	0.0530	2.7000e-004	0.0532	0.0141	2.5000e-004	0.0144		47.1044	47.1044	9.5000e-004	9.6000e-004	47.4152

Costa Mesa Raising Cane's - Orange County, Summer

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

3.4 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	lb/day										lb/day					
Fugitive Dust					5.3138	0.0000	5.3138	2.5688	0.0000	2.5688			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	0.9132	9.7297	5.5468	0.0141	5.3138	0.4001	5.7139	2.5688	0.3681	2.9369		1,364.662 3	1,364.662 3	0.4414		1,375.696 2

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	lb/day										lb/day					
Hauling	4.1200e-003	0.2366	0.0835	1.1000e-003	0.0349	1.6000e-003	0.0365	9.5500e-003	1.5300e-003	0.0111		126.1572	126.1572	0.0131	0.0203	132.5185
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
Worker	0.0212	0.0130	0.2283	7.3000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.0000e-004	0.0241		75.3671	75.3671	1.5200e-003	1.5400e-003	75.8643
Total	0.0253	0.2496	0.3118	1.8300e-003	0.1243	2.0400e-003	0.1263	0.0333	1.9300e-003	0.0352		201.5243	201.5243	0.0146	0.0218	208.3827

Costa Mesa Raising Cane's - Orange County, Summer

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

3.4 Grading - 2024

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	lb/day										lb/day					
Fugitive Dust					2.2716	0.0000	2.2716	1.0982	0.0000	1.0982			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	0.9132	9.7297	5.5468	0.0141	2.2716	0.4001	2.6717	1.0982	0.3681	1.4663	0.0000	1,364.662 3	1,364.662 3	0.4414		1,375.696 2

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	lb/day										lb/day					
Hauling	4.1200e-003	0.2366	0.0835	1.1000e-003	0.0333	1.6000e-003	0.0349	9.1600e-003	1.5300e-003	0.0107		126.1572	126.1572	0.0131	0.0203	132.5185
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
Worker	0.0212	0.0130	0.2283	7.3000e-004	0.0848	4.4000e-004	0.0852	0.0226	4.0000e-004	0.0230		75.3671	75.3671	1.5200e-003	1.5400e-003	75.8643
Total	0.0253	0.2496	0.3118	1.8300e-003	0.1181	2.0400e-003	0.1201	0.0317	1.9300e-003	0.0337		201.5243	201.5243	0.0146	0.0218	208.3827

Costa Mesa Raising Cane's - Orange County, Summer

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

3.5 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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177

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	lb/day										lb/day					
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
Vendor	2.9800e-003	0.1048	0.0433	5.3000e-004	0.0192	5.6000e-004	0.0198	5.5200e-003	5.4000e-004	6.0600e-003		58.3159	58.3159	3.5600e-003	8.4000e-003	60.9090
Worker	0.0185	0.0113	0.1998	6.4000e-004	0.0782	3.8000e-004	0.0786	0.0208	3.5000e-004	0.0211		65.9462	65.9462	1.3300e-003	1.3500e-003	66.3812
Total	0.0215	0.1162	0.2431	1.1700e-003	0.0974	9.4000e-004	0.0984	0.0263	8.9000e-004	0.0272		124.2621	124.2621	4.8900e-003	9.7500e-003	127.2902

Costa Mesa Raising Cane's - Orange County, Summer

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

3.5 Building Construction - 2024

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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177

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	lb/day										lb/day					
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
Vendor	2.9800e-003	0.1048	0.0433	5.3000e-004	0.0184	5.6000e-004	0.0189	5.3200e-003	5.4000e-004	5.8600e-003		58.3159	58.3159	3.5600e-003	8.4000e-003	60.9090
Worker	0.0185	0.0113	0.1998	6.4000e-004	0.0742	3.8000e-004	0.0745	0.0198	3.5000e-004	0.0201		65.9462	65.9462	1.3300e-003	1.3500e-003	66.3812
Total	0.0215	0.1162	0.2431	1.1700e-003	0.0925	9.4000e-004	0.0935	0.0251	8.9000e-004	0.0260		124.2621	124.2621	4.8900e-003	9.7500e-003	127.2902

Costa Mesa Raising Cane's - Orange County, Summer

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

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	0.3890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	0.5697	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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	lb/day										lb/day					
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
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
Worker	2.6500e-003	1.6200e-003	0.0285	9.0000e-005	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.4209	9.4209	1.9000e-004	1.9000e-004	9.4830
Total	2.6500e-003	1.6200e-003	0.0285	9.0000e-005	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.4209	9.4209	1.9000e-004	1.9000e-004	9.4830

Costa Mesa Raising Cane's - Orange County, Summer

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

3.6 Architectural Coating - 2024

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	lb/day										lb/day					
Archit. Coating	0.3890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	0.5697	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

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	lb/day										lb/day					
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
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
Worker	2.6500e-003	1.6200e-003	0.0285	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8200e-003	5.0000e-005	2.8700e-003		9.4209	9.4209	1.9000e-004	1.9000e-004	9.4830
Total	2.6500e-003	1.6200e-003	0.0285	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8200e-003	5.0000e-005	2.8700e-003		9.4209	9.4209	1.9000e-004	1.9000e-004	9.4830

Costa Mesa Raising Cane's - Orange County, Summer

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

3.7 Paving - 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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0844					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6748	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858

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	lb/day										lb/day					
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
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
Worker	0.0477	0.0292	0.5137	1.6400e-003	0.2012	9.8000e-004	0.2022	0.0534	9.0000e-004	0.0543		169.5759	169.5759	3.4200e-003	3.4700e-003	170.6946
Total	0.0477	0.0292	0.5137	1.6400e-003	0.2012	9.8000e-004	0.2022	0.0534	9.0000e-004	0.0543		169.5759	169.5759	3.4200e-003	3.4700e-003	170.6946

Costa Mesa Raising Cane's - Orange County, Summer

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

3.7 Paving - 2024

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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0844					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6748	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858

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	lb/day										lb/day					
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
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
Worker	0.0477	0.0292	0.5137	1.6400e-003	0.1907	9.8000e-004	0.1917	0.0508	9.0000e-004	0.0517		169.5759	169.5759	3.4200e-003	3.4700e-003	170.6946
Total	0.0477	0.0292	0.5137	1.6400e-003	0.1907	9.8000e-004	0.1917	0.0508	9.0000e-004	0.0517		169.5759	169.5759	3.4200e-003	3.4700e-003	170.6946

Costa Mesa Raising Cane's - Orange County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	2.0319	1.4209	13.3920	0.0246	2.5794	0.0188	2.5982	0.6875	0.0174	0.7050		2,551.2816	2,551.2816	0.2207	0.1363	2,597.4246
Unmitigated	2.0319	1.4209	13.3920	0.0246	2.5794	0.0188	2.5982	0.6875	0.0174	0.7050		2,551.2816	2,551.2816	0.2207	0.1363	2,597.4246

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,163.19	1,163.19	1163.19	1,224,127	1,224,127
Parking Lot	0.00	0.00	0.00		
Total	1,163.19	1,163.19	1,163.19	1,224,127	1,224,127

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Costa Mesa Raising Cane's - Orange County, Summer

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
Fast Food Restaurant with Drive Thru	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Parking Lot	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869

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	lb/day										lb/day					
NaturalGas Mitigated	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
NaturalGas Unmitigated	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815

Costa Mesa Raising Cane's - Orange County, Summer

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2063.28	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
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
Total		0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815

Mitigated

	Natural Gas 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	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.06328	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
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
Total		0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815

6.0 Area Detail

Costa Mesa Raising Cane's - Orange County, Summer

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

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Unmitigated	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-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	lb/day										lb/day					
Architectural Coating	6.6100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Total	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003

Costa Mesa Raising Cane's - Orange County, Summer

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	lb/day										lb/day					
Architectural Coating	6.6100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Total	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Costa Mesa Raising Cane's - Orange County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Equipment Type	Number
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11.0 Vegetation

Costa Mesa Raising Cane's - Orange County, Winter

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

**Costa Mesa Raising Cane's
Orange County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	34.00	Space	0.58	13,600.00	0
Fast Food Restaurant with Drive Thru	2.91	1000sqft	0.07	2,913.00	0
City Park	0.35	Acre	0.35	15,246.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Parking lot = Impervious Surface
 city Park = Landscaping
 Construction Phase - Schedule for Construction (anticipated)
 Demolition -
 Grading -
 Vehicle Trips - Calculated Trip Rate
 Construction Off-road Equipment Mitigation - Per SCAQMD rules and regulations
 Water Mitigation -
 Waste Mitigation - Per AB939

Costa Mesa Raising Cane's - Orange County, Winter

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

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	66.00
tblConstructionPhase	NumDays	1.00	45.00
tblConstructionPhase	NumDays	2.00	65.00
tblConstructionPhase	NumDays	100.00	44.00
tblConstructionPhase	NumDays	5.00	62.00
tblConstructionPhase	NumDays	5.00	18.00
tblGrading	MaterialExported	0.00	1,038.00
tblLandUse	LotAcreage	0.31	0.58
tblVehicleTrips	ST_TR	616.12	399.31
tblVehicleTrips	SU_TR	472.58	399.31
tblVehicleTrips	WD_TR	470.95	399.31

2.0 Emissions Summary

Costa Mesa Raising Cane's - Orange County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2023	0.6827	6.1986	7.7949	0.0145	0.7746	0.2849	1.0595	0.1361	0.2724	0.4085	0.0000	1,421.6910	1,421.6910	0.3059	0.0313	1,436.7478
2024	1.2997	9.9907	9.3472	0.0159	5.4381	0.4021	5.8402	2.6021	0.3700	2.9721	0.0000	1,562.7049	1,562.7049	0.4560	0.0219	1,580.6328
Maximum	1.2997	9.9907	9.3472	0.0159	5.4381	0.4021	5.8402	2.6021	0.3700	2.9721	0.0000	1,562.7049	1,562.7049	0.4560	0.0313	1,580.6328

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	lb/day										lb/day					
2023	0.6827	6.1986	7.7949	0.0145	0.4154	0.2849	0.7002	0.0809	0.2724	0.3533	0.0000	1,421.6910	1,421.6910	0.3059	0.0313	1,436.7478
2024	1.2997	9.9907	9.3472	0.0159	2.3897	0.4021	2.7918	1.1299	0.3700	1.4999	0.0000	1,562.7049	1,562.7049	0.4560	0.0219	1,580.6328
Maximum	1.2997	9.9907	9.3472	0.0159	2.3897	0.4021	2.7918	1.1299	0.3700	1.4999	0.0000	1,562.7049	1,562.7049	0.4560	0.0313	1,580.6328

Costa Mesa Raising Cane's - Orange County, Winter

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	0.00	0.00	0.00	0.00	54.85	0.00	49.39	55.78	0.00	45.18	0.00	0.00	0.00	0.00	0.00	0.00

Costa Mesa Raising Cane's - Orange County, Winter

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

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	lb/day										lb/day					
Area	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Energy	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
Mobile	1.9975	1.5269	13.9075	0.0237	2.5794	0.0188	2.5982	0.6875	0.0175	0.7050		2,459.3582	2,459.3582	0.2351	0.1428	2,507.7789
Total	2.0900	1.7292	14.0812	0.0250	2.5794	0.0342	2.6136	0.6875	0.0328	0.7204		2,702.1054	2,702.1054	0.2397	0.1472	2,751.9691

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	lb/day										lb/day					
Area	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Energy	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
Mobile	1.9975	1.5269	13.9075	0.0237	2.5794	0.0188	2.5982	0.6875	0.0175	0.7050		2,459.3582	2,459.3582	0.2351	0.1428	2,507.7789
Total	2.0900	1.7292	14.0812	0.0250	2.5794	0.0342	2.6136	0.6875	0.0328	0.7204		2,702.1054	2,702.1054	0.2397	0.1472	2,751.9691

Costa Mesa Raising Cane's - Orange County, Winter

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/19/2023	12/19/2023	5	66	
2	Site Preparation	Site Preparation	12/20/2023	2/20/2024	5	45	
3	Grading	Grading	2/21/2024	5/21/2024	5	65	
4	Building Construction	Building Construction	5/22/2024	7/22/2024	5	44	
5	Architectural Coating	Architectural Coating	5/22/2024	8/15/2024	5	62	
6	Paving	Paving	7/23/2024	8/15/2024	5	18	

Acres of Grading (Site Preparation Phase): 22.5

Acres of Grading (Grading Phase): 48.75

Acres of Paving: 0.58

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,290; Non-Residential Outdoor: 1,097; Striped Parking Area: 816 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Costa Mesa Raising Cane's - Orange County, Winter

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

Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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
Demolition	4	10.00	0.00	187.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	130.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	7.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Costa Mesa Raising Cane's - Orange County, Winter

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

3.2 Demolition - 2023

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	lb/day										lb/day					
Fugitive Dust					0.6134	0.0000	0.6134	0.0929	0.0000	0.0929			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.6134	0.2821	0.8956	0.0929	0.2698	0.3627		1,148.4055	1,148.4055	0.2089		1,153.6290

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	lb/day										lb/day					
Hauling	5.5600e-003	0.3520	0.1170	1.5900e-003	0.0494	2.1800e-003	0.0516	0.0135	2.0900e-003	0.0156		181.3698	181.3698	0.0183	0.0291	190.4965
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
Worker	0.0308	0.0198	0.2853	9.0000e-004	0.1118	5.7000e-004	0.1124	0.0296	5.3000e-004	0.0302		91.9157	91.9157	2.1500e-003	2.1900e-003	92.6223
Total	0.0364	0.3718	0.4023	2.4900e-003	0.1612	2.7500e-003	0.1639	0.0432	2.6200e-003	0.0458		273.2854	273.2854	0.0204	0.0313	283.1188

Costa Mesa Raising Cane's - Orange County, Winter

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

3.2 Demolition - 2023

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	lb/day										lb/day					
Fugitive Dust					0.2622	0.0000	0.2622	0.0397	0.0000	0.0397			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.2622	0.2821	0.5444	0.0397	0.2698	0.3095	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290

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	lb/day										lb/day					
Hauling	5.5600e-003	0.3520	0.1170	1.5900e-003	0.0472	2.1800e-003	0.0493	0.0130	2.0900e-003	0.0151		181.3698	181.3698	0.0183	0.0291	190.4965
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
Worker	0.0308	0.0198	0.2853	9.0000e-004	0.1060	5.7000e-004	0.1065	0.0282	5.3000e-004	0.0287		91.9157	91.9157	2.1500e-003	2.1900e-003	92.6223
Total	0.0364	0.3718	0.4023	2.4900e-003	0.1531	2.7500e-003	0.1559	0.0412	2.6200e-003	0.0438		273.2854	273.2854	0.0204	0.0313	283.1188

Costa Mesa Raising Cane's - Orange County, Winter

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

3.3 Site Preparation - 2023

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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657		942.4317	942.4317	0.3048		950.0517

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	lb/day										lb/day					
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
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
Worker	0.0154	9.9000e-003	0.1426	4.5000e-004	0.0559	2.9000e-004	0.0562	0.0148	2.6000e-004	0.0151		45.9578	45.9578	1.0700e-003	1.1000e-003	46.3111
Total	0.0154	9.9000e-003	0.1426	4.5000e-004	0.0559	2.9000e-004	0.0562	0.0148	2.6000e-004	0.0151		45.9578	45.9578	1.0700e-003	1.1000e-003	46.3111

Costa Mesa Raising Cane's - Orange County, Winter

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

3.3 Site Preparation - 2023

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	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.2267	0.2266	0.4533	0.0245	0.2084	0.2329	0.0000	942.4317	942.4317	0.3048		950.0517

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	lb/day										lb/day					
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
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
Worker	0.0154	9.9000e-003	0.1426	4.5000e-004	0.0530	2.9000e-004	0.0533	0.0141	2.6000e-004	0.0144		45.9578	45.9578	1.0700e-003	1.1000e-003	46.3111
Total	0.0154	9.9000e-003	0.1426	4.5000e-004	0.0530	2.9000e-004	0.0533	0.0141	2.6000e-004	0.0144		45.9578	45.9578	1.0700e-003	1.1000e-003	46.3111

Costa Mesa Raising Cane's - Orange County, Winter

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

3.3 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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.4985	5.6040	3.8921	9.7300e-003		0.2012	0.2012		0.1851	0.1851		942.2742	942.2742	0.3048		949.8930
Total	0.4985	5.6040	3.8921	9.7300e-003	0.5303	0.2012	0.7315	0.0573	0.1851	0.2424		942.2742	942.2742	0.3048		949.8930

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	lb/day										lb/day					
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
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
Worker	0.0145	8.8900e-003	0.1331	4.3000e-004	0.0559	2.7000e-004	0.0562	0.0148	2.5000e-004	0.0151		44.8558	44.8558	9.7000e-004	1.0200e-003	45.1854
Total	0.0145	8.8900e-003	0.1331	4.3000e-004	0.0559	2.7000e-004	0.0562	0.0148	2.5000e-004	0.0151		44.8558	44.8558	9.7000e-004	1.0200e-003	45.1854

Costa Mesa Raising Cane's - Orange County, Winter

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

3.3 Site Preparation - 2024

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	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.4985	5.6040	3.8921	9.7300e-003		0.2012	0.2012		0.1851	0.1851	0.0000	942.2742	942.2742	0.3048		949.8930
Total	0.4985	5.6040	3.8921	9.7300e-003	0.2267	0.2012	0.4279	0.0245	0.1851	0.2096	0.0000	942.2742	942.2742	0.3048		949.8930

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	lb/day										lb/day					
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
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
Worker	0.0145	8.8900e-003	0.1331	4.3000e-004	0.0530	2.7000e-004	0.0532	0.0141	2.5000e-004	0.0144		44.8558	44.8558	9.7000e-004	1.0200e-003	45.1854
Total	0.0145	8.8900e-003	0.1331	4.3000e-004	0.0530	2.7000e-004	0.0532	0.0141	2.5000e-004	0.0144		44.8558	44.8558	9.7000e-004	1.0200e-003	45.1854

Costa Mesa Raising Cane's - Orange County, Winter

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

3.4 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	lb/day										lb/day					
Fugitive Dust					5.3138	0.0000	5.3138	2.5688	0.0000	2.5688			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	0.9132	9.7297	5.5468	0.0141	5.3138	0.4001	5.7139	2.5688	0.3681	2.9369		1,364.662 3	1,364.662 3	0.4414		1,375.696 2

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	lb/day										lb/day					
Hauling	3.8800e-003	0.2467	0.0844	1.1100e-003	0.0349	1.6000e-003	0.0365	9.5500e-003	1.5400e-003	0.0111		126.2734	126.2734	0.0131	0.0203	132.6399
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
Worker	0.0232	0.0142	0.2129	7.0000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.0000e-004	0.0241		71.7692	71.7692	1.5600e-003	1.6400e-003	72.2966
Total	0.0271	0.2609	0.2973	1.8100e-003	0.1243	2.0400e-003	0.1263	0.0333	1.9400e-003	0.0352		198.0426	198.0426	0.0146	0.0219	204.9365

Costa Mesa Raising Cane's - Orange County, Winter

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

3.4 Grading - 2024

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	lb/day										lb/day					
Fugitive Dust					2.2716	0.0000	2.2716	1.0982	0.0000	1.0982			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	0.9132	9.7297	5.5468	0.0141	2.2716	0.4001	2.6717	1.0982	0.3681	1.4663	0.0000	1,364.662 3	1,364.662 3	0.4414		1,375.696 2

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	lb/day										lb/day					
Hauling	3.8800e-003	0.2467	0.0844	1.1100e-003	0.0333	1.6000e-003	0.0349	9.1600e-003	1.5400e-003	0.0107		126.2734	126.2734	0.0131	0.0203	132.6399
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
Worker	0.0232	0.0142	0.2129	7.0000e-004	0.0848	4.4000e-004	0.0852	0.0226	4.0000e-004	0.0230		71.7692	71.7692	1.5600e-003	1.6400e-003	72.2966
Total	0.0271	0.2609	0.2973	1.8100e-003	0.1181	2.0400e-003	0.1201	0.0317	1.9400e-003	0.0337		198.0426	198.0426	0.0146	0.0219	204.9365

Costa Mesa Raising Cane's - Orange County, Winter

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

3.5 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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177

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	lb/day										lb/day					
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
Vendor	2.8800e-003	0.1095	0.0446	5.3000e-004	0.0192	5.7000e-004	0.0198	5.5200e-003	5.4000e-004	6.0600e-003		58.4038	58.4038	3.5500e-003	8.4200e-003	61.0023
Worker	0.0203	0.0125	0.1863	6.1000e-004	0.0782	3.8000e-004	0.0786	0.0208	3.5000e-004	0.0211		62.7981	62.7981	1.3600e-003	1.4300e-003	63.2596
Total	0.0232	0.1220	0.2310	1.1400e-003	0.0974	9.5000e-004	0.0984	0.0263	8.9000e-004	0.0272		121.2019	121.2019	4.9100e-003	9.8500e-003	124.2618

Costa Mesa Raising Cane's - Orange County, Winter

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

3.5 Building Construction - 2024

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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177

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	lb/day										lb/day					
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
Vendor	2.8800e-003	0.1095	0.0446	5.3000e-004	0.0184	5.7000e-004	0.0189	5.3200e-003	5.4000e-004	5.8600e-003		58.4038	58.4038	3.5500e-003	8.4200e-003	61.0023
Worker	0.0203	0.0125	0.1863	6.1000e-004	0.0742	3.8000e-004	0.0745	0.0198	3.5000e-004	0.0201		62.7981	62.7981	1.3600e-003	1.4300e-003	63.2596
Total	0.0232	0.1220	0.2310	1.1400e-003	0.0925	9.5000e-004	0.0935	0.0251	8.9000e-004	0.0260		121.2019	121.2019	4.9100e-003	9.8500e-003	124.2618

Costa Mesa Raising Cane's - Orange County, Winter

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

3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	0.3890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	0.5697	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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	lb/day										lb/day					
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
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
Worker	2.9000e-003	1.7800e-003	0.0266	9.0000e-005	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		8.9712	8.9712	1.9000e-004	2.0000e-004	9.0371
Total	2.9000e-003	1.7800e-003	0.0266	9.0000e-005	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		8.9712	8.9712	1.9000e-004	2.0000e-004	9.0371

Costa Mesa Raising Cane's - Orange County, Winter

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

3.6 Architectural Coating - 2024

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	lb/day										lb/day					
Archit. Coating	0.3890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	0.5697	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

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	lb/day										lb/day					
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
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
Worker	2.9000e-003	1.7800e-003	0.0266	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8200e-003	5.0000e-005	2.8700e-003		8.9712	8.9712	1.9000e-004	2.0000e-004	9.0371
Total	2.9000e-003	1.7800e-003	0.0266	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8200e-003	5.0000e-005	2.8700e-003		8.9712	8.9712	1.9000e-004	2.0000e-004	9.0371

Costa Mesa Raising Cane's - Orange County, Winter

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

3.7 Paving - 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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0844					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6748	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858

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	lb/day										lb/day					
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
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
Worker	0.0523	0.0320	0.4791	1.5700e-003	0.2012	9.8000e-004	0.2022	0.0534	9.0000e-004	0.0543		161.4808	161.4808	3.5100e-003	3.6900e-003	162.6674
Total	0.0523	0.0320	0.4791	1.5700e-003	0.2012	9.8000e-004	0.2022	0.0534	9.0000e-004	0.0543		161.4808	161.4808	3.5100e-003	3.6900e-003	162.6674

Costa Mesa Raising Cane's - Orange County, Winter

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

3.7 Paving - 2024

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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0844					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6748	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858

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	lb/day										lb/day					
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
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
Worker	0.0523	0.0320	0.4791	1.5700e-003	0.1907	9.8000e-004	0.1917	0.0508	9.0000e-004	0.0517		161.4808	161.4808	3.5100e-003	3.6900e-003	162.6674
Total	0.0523	0.0320	0.4791	1.5700e-003	0.1907	9.8000e-004	0.1917	0.0508	9.0000e-004	0.0517		161.4808	161.4808	3.5100e-003	3.6900e-003	162.6674

Costa Mesa Raising Cane's - Orange County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	1.9975	1.5269	13.9075	0.0237	2.5794	0.0188	2.5982	0.6875	0.0175	0.7050		2,459.3582	2,459.3582	0.2351	0.1428	2,507.7789
Unmitigated	1.9975	1.5269	13.9075	0.0237	2.5794	0.0188	2.5982	0.6875	0.0175	0.7050		2,459.3582	2,459.3582	0.2351	0.1428	2,507.7789

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,163.19	1,163.19	1163.19	1,224,127	1,224,127
Parking Lot	0.00	0.00	0.00		
Total	1,163.19	1,163.19	1,163.19	1,224,127	1,224,127

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Costa Mesa Raising Cane's - Orange County, Winter

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
Fast Food Restaurant with Drive Thru	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Parking Lot	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	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
	lb/day										lb/day					
NaturalGas Mitigated	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
NaturalGas Unmitigated	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815

Costa Mesa Raising Cane's - Orange County, Winter

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2063.28	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
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
Total		0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815

Mitigated

	Natural Gas 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	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.06328	0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815
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
Total		0.0223	0.2023	0.1699	1.2100e-003		0.0154	0.0154		0.0154	0.0154		242.7391	242.7391	4.6500e-003	4.4500e-003	244.1815

Costa Mesa Raising Cane's - Orange County, Winter

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

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Unmitigated	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-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	lb/day										lb/day					
Architectural Coating	6.6100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Total	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003

Costa Mesa Raising Cane's - Orange County, Winter

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	lb/day										lb/day					
Architectural Coating	6.6100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003
Total	0.0702	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1600e-003	8.1600e-003	2.0000e-005		8.6900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Costa Mesa Raising Cane's - Orange County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Equipment Type	Number
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11.0 Vegetation

Costa Mesa Raising Cane's - Orange County, Annual

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

**Costa Mesa Raising Cane's
Orange County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	34.00	Space	0.58	13,600.00	0
Fast Food Restaurant with Drive Thru	2.91	1000sqft	0.07	2,913.00	0
City Park	0.35	Acre	0.35	15,246.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking lot = Impervious Surface

city Park = Landscaping

Construction Phase - Schedule for Construction (anticipated)

Demolition -

Grading -

Vehicle Trips - Calculated Trip Rate

Construction Off-road Equipment Mitigation - Per SCAQMD rules and regulations

Water Mitigation -

Waste Mitigation - Per AB939

Costa Mesa Raising Cane's - Orange County, Annual

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

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	66.00
tblConstructionPhase	NumDays	1.00	45.00
tblConstructionPhase	NumDays	2.00	65.00
tblConstructionPhase	NumDays	100.00	44.00
tblConstructionPhase	NumDays	5.00	62.00
tblConstructionPhase	NumDays	5.00	18.00
tblGrading	MaterialExported	0.00	1,038.00
tblLandUse	LotAcreage	0.31	0.58
tblVehicleTrips	ST_TR	616.12	399.31
tblVehicleTrips	SU_TR	472.58	399.31
tblVehicleTrips	WD_TR	470.95	399.31

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					
2023	0.0247	0.2279	0.2737	5.2000e-004	0.0376	0.0103	0.0479	5.8100e-003	9.8200e-003	0.0156	0.0000	46.1846	46.1846	7.9800e-003	9.4000e-004	46.6645
2024	0.0778	0.6479	0.5499	1.1900e-003	0.1938	0.0271	0.2210	0.0872	0.0251	0.1124	0.0000	105.1336	105.1336	0.0288	9.0000e-004	106.1197
Maximum	0.0778	0.6479	0.5499	1.1900e-003	0.1938	0.0271	0.2210	0.0872	0.0251	0.1124	0.0000	105.1336	105.1336	0.0288	9.4000e-004	106.1197

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					
2023	0.0247	0.2279	0.2737	5.2000e-004	0.0189	0.0103	0.0292	3.2500e-003	9.8200e-003	0.0131	0.0000	46.1846	46.1846	7.9800e-003	9.4000e-004	46.6644
2024	0.0778	0.6479	0.5499	1.1900e-003	0.0877	0.0271	0.1148	0.0386	0.0251	0.0637	0.0000	105.1335	105.1335	0.0288	9.0000e-004	106.1195
Maximum	0.0778	0.6479	0.5499	1.1900e-003	0.0877	0.0271	0.1148	0.0386	0.0251	0.0637	0.0000	105.1335	105.1335	0.0288	9.4000e-004	106.1195

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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	0.00	0.00	0.00	0.00	53.94	0.00	46.43	55.03	0.00	40.00	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	9-19-2023	12-18-2023	0.2220	0.2220
2	12-19-2023	3-18-2024	0.2483	0.2483
3	3-19-2024	6-18-2024	0.3346	0.3346
4	6-19-2024	9-18-2024	0.1698	0.1698
		Highest	0.3346	0.3346

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	0.0128	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004
Energy	4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	59.3977	59.3977	2.3900e-003	9.3000e-004	59.7357
Mobile	0.3514	0.2791	2.5214	4.3600e-003	0.4611	3.4200e-003	0.4646	0.1231	3.1700e-003	0.1263	0.0000	409.6781	409.6781	0.0384	0.0235	417.6457
Waste						0.0000	0.0000		0.0000	0.0000	5.1215	0.0000	5.1215	0.3027	0.0000	12.6882
Water						0.0000	0.0000		0.0000	0.0000	0.2109	1.6186	1.8295	0.0218	5.3000e-004	2.5318
Total	0.3682	0.3160	2.5529	4.5800e-003	0.4611	6.2300e-003	0.4674	0.1231	5.9800e-003	0.1291	5.3324	470.6954	476.0278	0.3652	0.0250	492.6023

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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	0.0128	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004
Energy	4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	59.3977	59.3977	2.3900e-003	9.3000e-004	59.7357
Mobile	0.3514	0.2791	2.5214	4.3600e-003	0.4611	3.4200e-003	0.4646	0.1231	3.1700e-003	0.1263	0.0000	409.6781	409.6781	0.0384	0.0235	417.6457
Waste						0.0000	0.0000		0.0000	0.0000	2.5607	0.0000	2.5607	0.1513	0.0000	6.3441
Water						0.0000	0.0000		0.0000	0.0000	0.1687	1.3065	1.4752	0.0174	4.2000e-004	2.0371
Total	0.3682	0.3160	2.5529	4.5800e-003	0.4611	6.2300e-003	0.4674	0.1231	5.9800e-003	0.1291	2.7294	470.3833	473.1127	0.2095	0.0249	485.7635

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.81	0.07	0.61	42.63	0.44	1.39

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/19/2023	12/19/2023	5	66	
2	Site Preparation	Site Preparation	12/20/2023	2/20/2024	5	45	
3	Grading	Grading	2/21/2024	5/21/2024	5	65	

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

4	Building Construction	Building Construction	5/22/2024	7/22/2024	5	44
5	Architectural Coating	Architectural Coating	5/22/2024	8/15/2024	5	62
6	Paving	Paving	7/23/2024	8/15/2024	5	18

Acres of Grading (Site Preparation Phase): 22.5

Acres of Grading (Grading Phase): 48.75

Acres of Paving: 0.58

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,290; Non-Residential Outdoor: 1,097; Striped Parking Area: 816 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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

Trips and VMT

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
Demolition	4	10.00	0.00	187.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	130.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	7.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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

3.2 Demolition - 2023

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					0.0202	0.0000	0.0202	3.0700e-003	0.0000	3.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.1907	0.2440	4.0000e-004		9.3100e-003	9.3100e-003		8.9000e-003	8.9000e-003	0.0000	34.3799	34.3799	6.2500e-003	0.0000	34.5363
Total	0.0213	0.1907	0.2440	4.0000e-004	0.0202	9.3100e-003	0.0296	3.0700e-003	8.9000e-003	0.0120	0.0000	34.3799	34.3799	6.2500e-003	0.0000	34.5363

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	1.9000e-004	0.0117	3.8400e-003	5.0000e-005	1.6100e-003	7.0000e-005	1.6800e-003	4.4000e-004	7.0000e-005	5.1000e-004	0.0000	5.4268	5.4268	5.5000e-004	8.7000e-004	5.7000
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	9.3000e-004	6.7000e-004	9.6300e-003	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7890	2.7890	6.0000e-005	7.0000e-005	2.8104
Total	1.1200e-003	0.0124	0.0135	8.0000e-005	5.2300e-003	9.0000e-005	5.3200e-003	1.4000e-003	9.0000e-005	1.4900e-003	0.0000	8.2158	8.2158	6.1000e-004	9.4000e-004	8.5104

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

3.2 Demolition - 2023

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					8.6500e-003	0.0000	8.6500e-003	1.3100e-003	0.0000	1.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.1907	0.2440	4.0000e-004		9.3100e-003	9.3100e-003		8.9000e-003	8.9000e-003	0.0000	34.3799	34.3799	6.2500e-003	0.0000	34.5363
Total	0.0213	0.1907	0.2440	4.0000e-004	8.6500e-003	9.3100e-003	0.0180	1.3100e-003	8.9000e-003	0.0102	0.0000	34.3799	34.3799	6.2500e-003	0.0000	34.5363

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	1.9000e-004	0.0117	3.8400e-003	5.0000e-005	1.5300e-003	7.0000e-005	1.6000e-003	4.2000e-004	7.0000e-005	4.9000e-004	0.0000	5.4268	5.4268	5.5000e-004	8.7000e-004	5.7000
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	9.3000e-004	6.7000e-004	9.6300e-003	3.0000e-005	3.4300e-003	2.0000e-005	3.4500e-003	9.2000e-004	2.0000e-005	9.3000e-004	0.0000	2.7890	2.7890	6.0000e-005	7.0000e-005	2.8104
Total	1.1200e-003	0.0124	0.0135	8.0000e-005	4.9600e-003	9.0000e-005	5.0500e-003	1.3400e-003	9.0000e-005	1.4200e-003	0.0000	8.2158	8.2158	6.1000e-004	9.4000e-004	8.5104

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

3.3 Site Preparation - 2023

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					0.0119	0.0000	0.0119	1.2900e-003	0.0000	1.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1400e-003	0.0248	0.0157	4.0000e-005		9.1000e-004	9.1000e-004		8.3000e-004	8.3000e-004	0.0000	3.4198	3.4198	1.1100e-003	0.0000	3.4475
Total	2.1400e-003	0.0248	0.0157	4.0000e-005	0.0119	9.1000e-004	0.0128	1.2900e-003	8.3000e-004	2.1200e-003	0.0000	3.4198	3.4198	1.1100e-003	0.0000	3.4475

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	6.0000e-005	4.0000e-005	5.8000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1690	0.1690	0.0000	0.0000	0.1703
Total	6.0000e-005	4.0000e-005	5.8000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1690	0.1690	0.0000	0.0000	0.1703

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

3.3 Site Preparation - 2023

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					5.1000e-003	0.0000	5.1000e-003	5.5000e-004	0.0000	5.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1400e-003	0.0248	0.0157	4.0000e-005		9.1000e-004	9.1000e-004		8.3000e-004	8.3000e-004	0.0000	3.4198	3.4198	1.1100e-003	0.0000	3.4475
Total	2.1400e-003	0.0248	0.0157	4.0000e-005	5.1000e-003	9.1000e-004	6.0100e-003	5.5000e-004	8.3000e-004	1.3800e-003	0.0000	3.4198	3.4198	1.1100e-003	0.0000	3.4475

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	6.0000e-005	4.0000e-005	5.8000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1690	0.1690	0.0000	0.0000	0.1703
Total	6.0000e-005	4.0000e-005	5.8000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1690	0.1690	0.0000	0.0000	0.1703

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

3.3 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					0.0119	0.0000	0.0119	1.2900e-003	0.0000	1.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2200e-003	0.1037	0.0720	1.8000e-004		3.7200e-003	3.7200e-003		3.4200e-003	3.4200e-003	0.0000	15.8141	15.8141	5.1100e-003	0.0000	15.9420
Total	9.2200e-003	0.1037	0.0720	1.8000e-004	0.0119	3.7200e-003	0.0157	1.2900e-003	3.4200e-003	4.7100e-003	0.0000	15.8141	15.8141	5.1100e-003	0.0000	15.9420

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	2.5000e-004	1.7000e-004	2.5200e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0200e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.7630	0.7630	2.0000e-005	2.0000e-005	0.7686
Total	2.5000e-004	1.7000e-004	2.5200e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0200e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.7630	0.7630	2.0000e-005	2.0000e-005	0.7686

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

3.3 Site Preparation - 2024

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					5.1000e-003	0.0000	5.1000e-003	5.5000e-004	0.0000	5.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2200e-003	0.1037	0.0720	1.8000e-004		3.7200e-003	3.7200e-003		3.4200e-003	3.4200e-003	0.0000	15.8141	15.8141	5.1100e-003	0.0000	15.9420
Total	9.2200e-003	0.1037	0.0720	1.8000e-004	5.1000e-003	3.7200e-003	8.8200e-003	5.5000e-004	3.4200e-003	3.9700e-003	0.0000	15.8141	15.8141	5.1100e-003	0.0000	15.9420

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	2.5000e-004	1.7000e-004	2.5200e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7630	0.7630	2.0000e-005	2.0000e-005	0.7686
Total	2.5000e-004	1.7000e-004	2.5200e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7630	0.7630	2.0000e-005	2.0000e-005	0.7686

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3.4 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					0.1727	0.0000	0.1727	0.0835	0.0000	0.0835	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0297	0.3162	0.1803	4.6000e-004		0.0130	0.0130		0.0120	0.0120	0.0000	40.2350	40.2350	0.0130	0.0000	40.5604
Total	0.0297	0.3162	0.1803	4.6000e-004	0.1727	0.0130	0.1857	0.0835	0.0120	0.0955	0.0000	40.2350	40.2350	0.0130	0.0000	40.5604

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	1.3000e-004	8.0900e-003	2.7300e-003	4.0000e-005	1.1200e-003	5.0000e-005	1.1700e-003	3.1000e-004	5.0000e-005	3.6000e-004	0.0000	3.7210	3.7210	3.9000e-004	6.0000e-004	3.9086
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	6.9000e-004	4.7000e-004	7.0800e-003	2.0000e-005	2.8500e-003	1.0000e-005	2.8700e-003	7.6000e-004	1.0000e-005	7.7000e-004	0.0000	2.1446	2.1446	5.0000e-005	5.0000e-005	2.1604
Total	8.2000e-004	8.5600e-003	9.8100e-003	6.0000e-005	3.9700e-003	6.0000e-005	4.0400e-003	1.0700e-003	6.0000e-005	1.1300e-003	0.0000	5.8656	5.8656	4.4000e-004	6.5000e-004	6.0690

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

3.4 Grading - 2024

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					0.0738	0.0000	0.0738	0.0357	0.0000	0.0357	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0297	0.3162	0.1803	4.6000e-004		0.0130	0.0130		0.0120	0.0120	0.0000	40.2350	40.2350	0.0130	0.0000	40.5603
Total	0.0297	0.3162	0.1803	4.6000e-004	0.0738	0.0130	0.0868	0.0357	0.0120	0.0477	0.0000	40.2350	40.2350	0.0130	0.0000	40.5603

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	1.3000e-004	8.0900e-003	2.7300e-003	4.0000e-005	1.0700e-003	5.0000e-005	1.1200e-003	2.9000e-004	5.0000e-005	3.4000e-004	0.0000	3.7210	3.7210	3.9000e-004	6.0000e-004	3.9086
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	6.9000e-004	4.7000e-004	7.0800e-003	2.0000e-005	2.7100e-003	1.0000e-005	2.7200e-003	7.2000e-004	1.0000e-005	7.3000e-004	0.0000	2.1446	2.1446	5.0000e-005	5.0000e-005	2.1604
Total	8.2000e-004	8.5600e-003	9.8100e-003	6.0000e-005	3.7800e-003	6.0000e-005	3.8400e-003	1.0100e-003	6.0000e-005	1.0700e-003	0.0000	5.8656	5.8656	4.4000e-004	6.5000e-004	6.0690

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

3.5 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	0.0131	0.1314	0.1555	2.5000e-004		6.2100e-003	6.2100e-003		5.7200e-003	5.7200e-003	0.0000	22.0533	22.0533	7.1300e-003	0.0000	22.2316
Total	0.0131	0.1314	0.1555	2.5000e-004		6.2100e-003	6.2100e-003		5.7200e-003	5.7200e-003	0.0000	22.0533	22.0533	7.1300e-003	0.0000	22.2316

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	6.0000e-005	2.4200e-003	9.7000e-004	1.0000e-005	4.2000e-004	1.0000e-005	4.3000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.1646	1.1646	7.0000e-005	1.7000e-004	1.2164
Worker	4.1000e-004	2.8000e-004	4.1900e-003	1.0000e-005	1.6900e-003	1.0000e-005	1.7000e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.2703	1.2703	3.0000e-005	3.0000e-005	1.2796
Total	4.7000e-004	2.7000e-003	5.1600e-003	2.0000e-005	2.1100e-003	2.0000e-005	2.1300e-003	5.7000e-004	2.0000e-005	5.9000e-004	0.0000	2.4349	2.4349	1.0000e-004	2.0000e-004	2.4960

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

3.5 Building Construction - 2024

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	0.0131	0.1314	0.1555	2.5000e-004		6.2100e-003	6.2100e-003		5.7200e-003	5.7200e-003	0.0000	22.0533	22.0533	7.1300e-003	0.0000	22.2316
Total	0.0131	0.1314	0.1555	2.5000e-004		6.2100e-003	6.2100e-003		5.7200e-003	5.7200e-003	0.0000	22.0533	22.0533	7.1300e-003	0.0000	22.2316

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	6.0000e-005	2.4200e-003	9.7000e-004	1.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.1646	1.1646	7.0000e-005	1.7000e-004	1.2164
Worker	4.1000e-004	2.8000e-004	4.1900e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.2703	1.2703	3.0000e-005	3.0000e-005	1.2796
Total	4.7000e-004	2.7000e-003	5.1600e-003	2.0000e-005	2.0000e-003	2.0000e-005	2.0200e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	2.4349	2.4349	1.0000e-004	2.0000e-004	2.4960

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3.6 Architectural Coating - 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					
Archit. Coating	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6000e-003	0.0378	0.0561	9.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	7.9151	7.9151	4.5000e-004	0.0000	7.9262
Total	0.0177	0.0378	0.0561	9.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	7.9151	7.9151	4.5000e-004	0.0000	7.9262

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	6.0000e-005	8.4000e-004	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	1.0000e-005	0.2576
Total	8.0000e-005	6.0000e-005	8.4000e-004	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	1.0000e-005	0.2576

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3.6 Architectural Coating - 2024

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	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6000e-003	0.0378	0.0561	9.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	7.9151	7.9151	4.5000e-004	0.0000	7.9262
Total	0.0177	0.0378	0.0561	9.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	7.9151	7.9151	4.5000e-004	0.0000	7.9262

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	6.0000e-005	8.4000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	1.0000e-005	0.2576
Total	8.0000e-005	6.0000e-005	8.4000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2557	0.2557	1.0000e-005	1.0000e-005	0.2576

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3.7 Paving - 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	5.3100e-003	0.0471	0.0633	1.0000e-004		2.1900e-003	2.1900e-003		2.0400e-003	2.0400e-003	0.0000	8.4605	8.4605	2.4600e-003	0.0000	8.5222
Paving	7.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.0700e-003	0.0471	0.0633	1.0000e-004		2.1900e-003	2.1900e-003		2.0400e-003	2.0400e-003	0.0000	8.4605	8.4605	2.4600e-003	0.0000	8.5222

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	4.3000e-004	2.9000e-004	4.4100e-003	1.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.3363	1.3363	3.0000e-005	3.0000e-005	1.3461
Total	4.3000e-004	2.9000e-004	4.4100e-003	1.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.3363	1.3363	3.0000e-005	3.0000e-005	1.3461

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3.7 Paving - 2024

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	5.3100e-003	0.0471	0.0633	1.0000e-004		2.1900e-003	2.1900e-003		2.0400e-003	2.0400e-003	0.0000	8.4605	8.4605	2.4600e-003	0.0000	8.5222
Paving	7.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.0700e-003	0.0471	0.0633	1.0000e-004		2.1900e-003	2.1900e-003		2.0400e-003	2.0400e-003	0.0000	8.4605	8.4605	2.4600e-003	0.0000	8.5222

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	4.3000e-004	2.9000e-004	4.4100e-003	1.0000e-005	1.6900e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.3363	1.3363	3.0000e-005	3.0000e-005	1.3461
Total	4.3000e-004	2.9000e-004	4.4100e-003	1.0000e-005	1.6900e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.3363	1.3363	3.0000e-005	3.0000e-005	1.3461

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.3514	0.2791	2.5214	4.3600e-003	0.4611	3.4200e-003	0.4646	0.1231	3.1700e-003	0.1263	0.0000	409.6781	409.6781	0.0384	0.0235	417.6457
Unmitigated	0.3514	0.2791	2.5214	4.3600e-003	0.4611	3.4200e-003	0.4646	0.1231	3.1700e-003	0.1263	0.0000	409.6781	409.6781	0.0384	0.0235	417.6457

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,163.19	1,163.19	1163.19	1,224,127	1,224,127
Parking Lot	0.00	0.00	0.00		
Total	1,163.19	1,163.19	1,163.19	1,224,127	1,224,127

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869
Parking Lot	0.546200	0.059546	0.185910	0.127866	0.024295	0.006605	0.014499	0.004906	0.000657	0.000381	0.024552	0.000713	0.003869

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	19.2096	19.2096	1.6200e-003	2.0000e-004	19.3087
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	19.2096	19.2096	1.6200e-003	2.0000e-004	19.3087
NaturalGas Mitigated	4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	40.1882	40.1882	7.7000e-004	7.4000e-004	40.4270
NaturalGas Unmitigated	4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	40.1882	40.1882	7.7000e-004	7.4000e-004	40.4270

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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					
Fast Food Restaurant with Drive Thru	753098	4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	40.1882	40.1882	7.7000e-004	7.4000e-004	40.4270
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
Total		4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	40.1882	40.1882	7.7000e-004	7.4000e-004	40.4270

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					
Fast Food Restaurant with Drive Thru	753098	4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	40.1882	40.1882	7.7000e-004	7.4000e-004	40.4270
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
Total		4.0600e-003	0.0369	0.0310	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	40.1882	40.1882	7.7000e-004	7.4000e-004	40.4270

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	103557	18.3654	1.5500e-003	1.9000e-004	18.4601
Parking Lot	4760	0.8442	7.0000e-005	1.0000e-005	0.8485
Total		19.2096	1.6200e-003	2.0000e-004	19.3087

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	103557	18.3654	1.5500e-003	1.9000e-004	18.4601
Parking Lot	4760	0.8442	7.0000e-005	1.0000e-005	0.8485
Total		19.2096	1.6200e-003	2.0000e-004	19.3087

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6.1 Mitigation Measures Area

	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	0.0128	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004
Unmitigated	0.0128	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004

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	1.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004
Total	0.0128	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004

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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	1.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004
Total	0.0128	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.4752	0.0174	4.2000e-004	2.0371
Unmitigated	1.8295	0.0218	5.3000e-004	2.5318

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	0.664739 / 0.0424301	1.8295	0.0218	5.3000e-004	2.5318
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.8295	0.0218	5.3000e-004	2.5318

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	0.531791 / 0.0398419	1.4752	0.0174	4.2000e-004	2.0371
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.4752	0.0174	4.2000e-004	2.0371

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.5607	0.1513	0.0000	6.3441
Unmitigated	5.1215	0.3027	0.0000	12.6882

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	25.23	5.1215	0.3027	0.0000	12.6882
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		5.1215	0.3027	0.0000	12.6882

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	12.615	2.5607	0.1513	0.0000	6.3441
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		2.5607	0.1513	0.0000	6.3441

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

Equipment Type	Number
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11.0 Vegetation